

Digital Wireless Key Telephone System Programming Manual

MODEL: GDK-20W

REVISION HISTORY

ISSUE	DATE	DESCRIPTION
ISSUE 1.0	1999. 08	Initial Release
ISSUE 1.1	1999.10	Revised Admin Programming.
ISSUE 1.2	2000.12	1. Nation Specific Document for UK is modified. BASIC III-Plus version S/W is released and some new features are implemented.
ISSUE 2.0	2001.03	1. The BASIC III features are included in the Feature Description & Admin Programming parts. Separated section of BASIC III Features is removed. 2. The BASIC III features are as follows; - In Circular/Terminal hunt group, an incoming call will continued to be routed until every station in the group has been tried. - When a Circular/Terminal/UCD group member presses DND button while ringing, the ring at the station stops and the next available member starts ringing. - When a CO line call is transferred to hunt group, the transferred CO line call will follow the hunt process. - Intercom call and CO line transfer to ring group are available. - DID Day/Night Destination - DID/DISA CO line calls and internal calls, made to the busy station in call forward to DVIB, is routed to DVIB. - LCR feature is also applied after seizing CO line by pressing CO key or LOOP key. - DKTU user can have multiple LOOP keys. - Night DVU (Main Menu 5 – Terminal Menu 7) - Music on Camp-on (Main Menu 5 – Terminal Menu 8)
ISSUE 2.1	2001.06	1. Revised "Numbering Plan" 2. Revised "Call Forward" - Incoming CO Line Off-Net, Off-Net
ISSUE 2.2	2001.11	Added GDC-340H wireless terminal
ISSUE 3.0	2002. 05	1. Features are added in software version 3.0 Admin password, Auto-delete of DVIB message, Day/Night mode change (Automatic), Dial by name, Delayed DISA, Direct call pick-up, DVU announcement with station off-net call forward, DVU announcement with ring group, Hunt group overflow, SMDR records save, Station name display, To leave DVIB message by [CALLBK] key during ICM call, Auto Call Number Redial, Call Park, CCR for DID or DISA, CLI name display/print, CO line Queuing, Station Language change, DID(MSN) day/night destination, Keypad facility service, Trunk to Trunk(CO to CO) transfer, DVU management and Normal ring to DVIB

ISSUE	DATE	DESCRIPTION
ISSUE 3.0	2002.05	2. Admin programs for software version 3.0 are added. - Added Admin Program in Station Base Program(Main Menu 2) CLI Name Display, Keypad Facility - Changed Admin Program in Station Base Program(Main Menu 2) Language Code - Added Admin Program in CO Line Base Program(Main Menu 3) CPT Tone Detect - Added Admin Programs in System Base Program(Main Menu 5) SMDR Save, Record in Detail, CCR Table, Admin Password, DVU setting, Weekly Time Table, ACNR Tone Cadence - Added Admin Program in System Timers Program(Main Menu 6) Call Park Recall Timer, Normal Ring to DVIB Timer, CCR Inter Digit Timer, DISA Delay Timer, ACNR Pause Timer, ACNR Delay Timer, ACNR Tone Detect Timer, ACNR` No Answer Timer, ACNR Retry Counter, ACNR Retry No Tone - Added Admin Program in HUNT Group/Voice Mail Program(Main Menu 11) - Overflow Destination, Overflow Timer are added for Cir/Term, UCD, VM and Ring Group. Ring Announcement Timer is added in Ring Group

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1. INTRODUCTION

1.1 SYSTEM CAPACITIES

ITEM	FP II	GDK-20W	REMARK
Max No of Stations	67	34	
Max No of CO lines	34	8	
Max DSS/DLS Console per station	2	0	
No of CO line Groups	9	4	
No of Attendants	5	1	
No of Internal Page Zones	5	2	
No of System Speed Dial Bins	200	79	
No of Station Speed Dial Bins Per Station	20	20	
No of SMDR Records	100 (Option 1900)	500	Above version 3.0
No of External Relays	2	2	
No of Power Failure Circuit	2	0	
Number of Automatic Fax Transfer	-	1	
Number of DVIB	2	1	
Number of Channel / DVIB	8	2	
Max Record Time	System : 3 Minutes User : 17 Minutes 30 Seconds	68 Minutes (Basic)	Additional 70-minute record time is available with the optional board installed. Total number of messages is 400 with the option.
Number of User Voice Messages	250 ea.	200 ea. (Basic)	
Default Voice Data	Prompts	Prompts	
Battery Backup Voice Messages	System Announcements	All the messages	All the messages are saved with the backup switch on. When backup switch is set off, only system greetings and prompts are saved. Recorded user messages are deleted after reset.
Number of Station Group	8	4	
Max Number of Member in Group	32 Stations	10 Stations	

1.2 NUMBERING PLAN^{*1}

FEATURES	CODES	REMARKS
Station Intercom Number	100 - 133	Programmable 100 - 499
CO Line Access ,Group	81-84	
CO Line Access ,Individual	881-888	
Retrieve a Held CO Line - Individual	8#1 - 8#8	SLT
Retrieve a Held CO Line	8##	SLT
Attendant	0	
CO Line Access, First Accessible Group	9	
Call Waiting (Camp-on)	*	ICM Busy Tone, B
Page, All Call	#0	B ^{2,3}
Page, Internal Zone	#1 - #2	B
External Page	#3	
Page, Meet Me	#6, [HOLD/SAVE]	B (#6)
SLT, Last Number Redial (LNR)	52	SLT
SLT, DND	53	SLT, WHTU
SLT, Call Forward	54	SLT, WHTU
SLT, Speed Dial, Program	55	SLT
SLT, Speed Dial, Access	58	SLT
Alarm Reset	65	B
Pick-Up	66	B
UNA	69	B
2/8 Btn, Message Wait / Call Back - Request	[PGM]+56	2/8 Button
2/8 Btn, Message Wait - Answer	57	2/8 Button
SLT, CO Flash	Hook Flash + 51	SLT
SLT, Call Waiting (Camp-on)	Hook Flash + *	SLT, ICM Busy Tone
SLT, Message Wait / Call Back	Hook Flash + 56	SLT
SLT, CO Hold	Hook Flash + 59	SLT
Attendant, Clock Set	[PGM]+#1	Attendant
Admin Program Start	[PGM]+*#	100
Attendant, Date Format Change	[PGM]+*5	Attendant
Attendant, Time Format Change	[PGM]+*6	Attendant
Attendant, WHTU ^{*4} Subscribe/ De-subscribe	[PGM]+##	Attendant
Version Display	[PGM]+40	
Wake-Up Program	[PGM]+41	Station, Attendant
Wake-Up Cancel	[PGM]+42	Station, Attendant
ICM Signal Mode - HF/TN/PV	[PGM]+49 + 1/2/3	Keyset only
Differential Ring	[PGM]+50 + 1/2/3/4	Keyset only
COLR/CLIP Key	[PGM]+58	Note 5)
BGM	[PGM]+73	B
Loop Key	[PGM]+84	B Only
Call Wait Key	[PGM]+85	B Only
SPEED Key	[PGM]+90	B Only, 2/8 Button Only
CONF Key	[PGM]+91	B Only, 2/8 Button Only
CALL BK Key	[PGM]+92	B Only, 2/8 Button Only
DND Key	[PGM]+93	B Only, 2/8 Button Only
MUTE Key	[PGM]+95	B Only, 2/8 Button Only
REDIAL Key	[PGM]+97	B Only, 2/8 Button Only
Last Number Redial (LNR)	[SPEED]+*, [REDIAL]	
Door Open	#*1-2	

FEATURES	CODES	REMARKS
Call Park	601-606	
Direct Call Pick Up	7	B
Station Language Code Change	[PGM]+51	B
Speaker/Headset Button	[PGM]+57	B only
SMDR PRINT	[PGM]+*81	Attendant
SMDR DELETE	[PGM]+*82	Attendant
ABORT PRINTING	[PGM]+*83	Attendant
DVIB- Date & Time Order	[PGM] + *71	Attendant
DVIB- Retrieval Order	[PGM] + *72	Attendant
DVIB- Check Time Status	[PGM] + *73	Attendant
DVIB- Check Number Status	[PGM] + *74	Attendant
DVIB- Delete Station Message	[PGM] + *76	Attendant
DVIB – Recording System Announcements	[TRANS/PGM]+#4	Attendant
DVIB – Recording User Greeting (With DVIB Station Forward Timer)	[MON]+[DND/FOR]+7+#	Note 1)
DVIB – Recording User Greeting (With fixed 4 seconds timer)	-	Note 1)
Call Forward to DVIB Port (With DVIB Station Forward Timer)	[MON]+[DND/FOR]+7	Note 2)
Call Forward to DVIB Port (With fixed 4 seconds timer)	-	Note 2)
DVIB – Delete User Greeting	[MON]+[DND/FOR]+7+*	Note 3)
Call Forward – Cancel	[MON]+[DND/FOR]+#	Note 4)
To Set Current Time - 1 Hour early	[TRANS/PGM]+*1	Attendant
To Set Current Time - 1 Hour late	[TRANS/PGM]+*2	Attendant
Station Pilot Number	61-64	
VM MSG Wait Enable	*8	
VM MSG Wait Disable	*9	
ISDN Supplementary HOLD	[TRANS/PGM]+*75#	Button Only
ISDN Supplementary CONF	[TRANS/PGM]+*77#	Button Only
Two Way Recording	[TRANS/PGM]+#4	Button Only

*1: Numbering Plan can be changed according to nation.

*2: B - Button program is available.

*3: If a flexible button is programmed as a certain function with the same function already programmed in another flexible button, then the old one is cleared.

*4: WHTU: Wireless Handset Telephone Unit.

Note 1) Call Forward to DVIB is activated after recording User Greeting. When user dials forward type “7” and if there is recorded User Greeting already, then user may not record User Greeting again and recorded User Greeting is used.

Note 2) User Greeting should be recorded before Call Forward to DVIB port. When user hangs up after the forward type “7” and if there is no recorded User Greeting, then forward is not activated.

Note 3) If a station is forwarded to DVIB port, Call Forward is canceled after deleting User Greeting.

Note 4) Only Call Forward to DVIB port is canceled and recorded User Greeting is not deleted. User can delete User Greeting by [MON]+[DND/FOR]+7+*.

Note 5) “COLR/CLIR” has a double function. It is used to restrict both for the CLI for outgoing call and Connected Line number for incoming call.

1.3 BASIC AND EXTENDED NUMBERING PLANS

FEATURES	BASIC	EXTENSION	REMARKS
Station Intercom Number	10-49 or 100 - 499	10-99 or 100-999	2 or 3 digit station numbers by Admin
CO Line Access ,Group	81-84	*81-*84	
CO Line Access, Loop	85	*85	
CO Line Access ,Individual	881-888	*881-*888	
Retrieve a Held CO Line - Individual	8#1 - 8#8	*8#1 - *8#8	SLT
Retrieve a Held CO Line	8##	*8##	SLT
Attendant	0	0	
CO Line Access, First Accessible Group	9	*9	
Call Waiting (Camp-on)	*	*	ICM Busy Tone, B
Page, All Call	#0	#0	B ^{*1}
Page, Internal Zone	#1 - #2	#1 - #2	B
External Page	#3	#3	
Page, Meet Me	#6, [HOLD/SAVE]	#6, [HOLD/SAVE]	B (#6)
SLT, Last Number Redial (LNR)	52	*52	SLT
SLT/WHTU, DND	53	*53	SLT/WHTU ^{*2}
SLT/WHTU, Call Forward	54	*54	SLT/WHTU
SLT, Speed Dial, Program	55	*55	SLT
SLT, Speed Dial, Access	58	*58	SLT
Alarm Reset	65	*65	B
Pick-Up	66	*66	B
UNA	69	*69	B
2/8 Btn, Message Wait / Call Back - Request	[PGM] + 56	[PGM] + #56	2/8 Button
2/8 Btn, Message Wait - Answer	57	*57	2/8 Button
SLT, CO Flash	Hook Flash + 51	Hook Flash + #51	SLT
SLT, Call Waiting (Camp-on)	Hook Flash + *	Hook Flash + *	SLT, ICM Busy Tone
SLT, Message Wait / Call Back	Hook Flash + 56	Hook Flash + #56	SLT
SLT, CO Hold	Hook Flash + 59	Hook Flash + #59	SLT
Station Pilot Number	61-64	*61 - *64	
Door Open	#*1-2	#*1 - #*2	

*1: B - Button program is available.

*2: WHTU - Wireless Handset Telephone Unit

Remark) Extension Numbering Plan will be selected by Admin Program.

1.4 LCD MONTHS

NATION	1	2	3	4	5	6	7	8	9	10	11	12
English	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Italian	GEN	FEB	MAR	APR	MAG	GIU	LUG	AGO	SET	OTT	NOV	DIC
Finnish	01	02	03	04	05	06	07	08	09	10	11	12
Danish	JAN	FEB	MAR	APR	MAJ	JUN	JUL	AUG	SEP	OKT	NOV	DEC
Dutch	JAN	FEB	MRT	APR	MEI	JUN	JUL	AUG	SEP	OKT	NOV	DEC
Swedish	JAN	FEB	MAR	APR	MAJ	JUN	JUL	AUG	SEP	OKT	NOV	DEC
Norwegian	JAN	FEB	MAR	APR	MAI	JUN	JUL	AUG	SEP	OKT	NOV	DES
German	01	02	03	04	05	06	07	08	09	10	11	12
Spanish	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC

* Finnish example of date:

- 30-07-98 (In case of DDMMYY order, System Base Program(Main Menu5) - LCD Display Mode (Sub Menu4)

1.5 AUDIBLE SIGNALS

TONE / RING	CADENCE	
Alarm Ring, Continuous		0.2 sec ON / 0.2 sec OFF Repeat
Alarm Ring, Single		1 sec ON
All Call Page Tone		1 sec ON
Busy Tone	Australia	0.35 sec ON / 0.35 sec OFF Repeat
	Finland EU	0.3 sec ON / 0.3 sec OFF Repeat
	Spain	0.2 sec ON / 0.2 sec OFF Repeat
	Sweden Denmark	0.25 sec ON / 0.25 sec OFF Repeat
	Others	0.5 sec ON / 0.5 sec OFF Repeat
CO Ring Back Tone	New Zealand	1 sec ON / 3 sec OFF Repeat
	Others	1 sec ON / 2 sec OFF Repeat
CO Ring	Finland Italy	1 sec ON / 4 sec OFF Repeat
	Others	0.4 sec ON / 0.4 sec OFF / 0.4 sec ON / 2 sec OFF Repeat
LCR Dummy CO Dial Tone		Continuous
Confirm Tone		1.2 sec ON
DND Tone		0.2 sec ON / 0.2 sec OFF / 0.2 sec ON / 0.2 sec OFF / 0.2 sec ON / 0.5 sec OFF Repeat
Dial Tone	Finland	0.2 sec ON / 0.3 sec OFF / 0.2 sec ON / 0.3 sec OFF / 0.2 sec ON / 0.8 sec OFF Repeat
	EU	0.2 sec ON / 0.3 sec OFF / 0.7 sec ON / 0.8 sec Off Repeat
	Others	Continuous
Error Tone	Australia	2.5 sec ON / 0.5 sec OFF Repeat
	Finland Italy	0.2 sec ON / 0.2 sec OFF Repeat
	Spain	0.6 sec ON / 1 sec OFF Repeat
	Sweden	0.25 sec ON / 0.75 sec OFF Repeat
	Others	0.25 sec ON / 0.25 sec OFF Repeat
		0.2 sec ON / 0.2 sec OFF 3 Times
HFTB Warning Tone		0.2 sec ON / 0.2 sec OFF 3 Times
	Finland	0.6 sec ON / 0.2 sec OFF / 0.6 sec ON / 4 sec OFF Repeat
	Italy	0.6 sec ON / 0.2 sec OFF / 0.2 sec ON / 4 sec OFF Repeat
Intercom Ring	Others	0.8 sec ON / 2.4 sec OFF Repeat
		0.5 sec ON / 0.5 sec OFF 3 Times
		0.4 sec ON / 0.2 sec OFF / 0.4 sec ON / 2 sec OFF Repeat
Reminder Tone		0.5 sec ON / 0.5 sec OFF 3 Times
Ring Back Tone	Australia New Zealand	0.4 sec ON / 0.2 sec OFF / 0.4 sec ON / 2 sec OFF Repeat
	Denmark Finland EU Italy Netherlands Norway	1 sec ON / 4 sec OFF Repeat
	Spain	1.5 sec ON / 3 sec OFF Repeat
	Sweden	1 sec ON / 5 sec OFF Repeat
	Others	1 sec ON / 2 sec OFF Repeat

- SLT

SLT RING	CADENCE	
SLT CO Ring	Finland Italy	1 sec ON / 4 sec OFF Repeat
	New Zealand	0.4 sec ON / 0.2 sec OFF / 0.4 sec ON / 2 sec OFF Repeat
	Spain	1 sec ON / 3 sec OFF Repeat
	Others	0.4 sec ON / 0.2 sec OFF / 0.4 sec ON / 4 sec OFF Repeat
SLT Intercom Ring	Finland	0.4 sec ON / 0.2 sec OFF / 0.4 sec ON / 4 sec OFF Repeat
	Italy	0.6 sec ON / 0.2 sec OFF / 0.2 sec ON / 4 sec OFF Repeat
	New Zealand	1 sec ON / 2 sec OFF Repeat
	Spain	0.4 sec ON / 0.2 sec OFF / 0.4 sec ON / 3 sec OFF Repeat
	Others	1 sec ON / 4 sec OFF Repeat

1. 6 FREQUENCIES AND TONES

NO	tone / ring	DEFAULT		FINLAND		ITALY		NETHERLANDS		NEW ZEALAND		SWEDEN		UK	
1	DIFFERENTIAL RING - 1 REMINDER TONE (4) CO RING (19) INTERCOM RING (20) ALARM RING (21) CALL WAIT BURST RING (22) QUEUE RING (23) SINGLE ALARM RING (24)	1000Hz	1020Hz									480Hz	-		
2	DIAL TONE (11) DIAL WARNING TONE (12)	425Hz	-			425Hz	350Hz			400Hz	-			350Hz	440Hz
3	CO RING BACK TONE (17)	425Hz	-							400Hz	-			440Hz	480Hz
4	RING BACK TONE (5)	425Hz	-							400Hz	440Hz			440Hz	480Hz
5	BUSY TONE (1)	425Hz	-							400Hz	-			480Hz	620Hz
6	ERROR TONE (2) DND TONE (3) CONF TIMEOUT TONE (13) DISSUATION TONE (16)	620Hz	-			425Hz	-			400Hz	-				
7	Reserved	425Hz	-											1400Hz	-
8	COL HOLD TONE (15)	425Hz	-					1000Hz	-						
9	ALL CALL PAGE TONE (6) ICM PAGE TONE (7) HFTB WARNING TONE (8) OHVA TONE (14)	950Hz	-	425Hz	-	425Hz	-								
10	CONFIRMATION TONE (9) SINGLE ERROR TONE (10) ADMIN ERROR TONE (18)	1400Hz	-			425Hz	-								
11	LCR Dummy CO Dial Tone	425Hz	350Hz	425Hz	-	350Hz	440Hz					425Hz	-		
12	Reserved (DUAL HOWLING TONE)	1260Hz	1633Hz			425Hz	-								
13	DIFFERENTIAL RING - 2	890Hz	910Hz									400Hz	-		
14	DIFFERENTIAL RING - 3	1260Hz	1280Hz									620Hz	-		
15	DIFFERENTIAL RING - 4	800Hz	820Hz									770Hz	-		
16	Reserved	480Hz	-												
17	Reserved	400Hz	-												
18	Reserved	620Hz	-												
19	Reserved	770Hz	-												

NO	TONE / RING	DEFAULT		SPAIN		EU		KOREA		CIS					
1	DIFFERENTIAL RING - 1 REMINDER TONE (4) CO RING (19) INTERCOM RING (20) ALARM RING (21) CALL WAIT BURST RING (22) QUEUE RING (23) SINGLE ALARM RING (24)	1000Hz	1020Hz												
2	DIAL TONE (11) DIAL WARNING TONE (12)	425Hz	-												
3	RING BACK TONE (5) COL RING BACK TONE (17)	425Hz	-												
4	BUSY TONE (1)	425Hz	-												
5	ERROR TONE (2) DND TONE (3) CONF TIMEOUT TONE (13) DISSUATION TONE (16)	620Hz	-	425Hz	-										
6	Reserved	425Hz	-												
7	COL HOLD TONE (15)	425Hz	-												
8	ALL CALL PAGE TONE (6) ICM PAGE TONE (7) HFTB WARNING TONE (8) OHVA TONE (14)	950Hz	-												
9	CONFIRMATION TONE (9) SINGLE ERROR TONE (10) ADMIN ERROR TONE (18)	1400Hz	-												
10	LCR Dummy CO Dial Tone	425Hz	350Hz												
11	Reserved (DUAL HOWLING TONE)	1260Hz	1633Hz												
12	DIFFERENTIAL RING - 2	890Hz	910Hz												
13	DIFFERENTIAL RING - 3	1260Hz	1280Hz												
14	DIFFERENTIAL RING - 4	800Hz	820Hz												
15	Reserved	480Hz	-												
16	Reserved	400Hz	-												
17	Reserved	620Hz	-												
18	Reserved	770Hz	-												

1.7 GDK-20W CONFIGURATION

Basic STA	Basic Base Station	WTIB SLOT Base Station	CO SLOT1	CO SLOT2	TOTAL
4 key + 2 slt (4 port with 2B)	1 Base Station (4 Simultaneous Wireless Calls)	2 Base Station (8 Simultaneous Wireless Calls)	LCOB /LCOB2/STIB/STIB2 LCOB : 2LCO LCOB2 :4LCO STIB : 1T0 STIB2 : 1T0 + 1T0/1S0		STA : 100-103 (DKTU) 104-105(SLT) STA : 106-109(LKD 2B DKTU In primary 100-103) WHTU :110-129 CO : CO1 – CO8 or CO : CO1-CO4 and 4 S0 Station (130-133)

1.8 GDK-20W STATION CONFIGURATION WITH LKD 2B

BASIC	DEFAULT STA NUMBER
4 LKD 2B + 2 slt	100 -105 : 4 LKD 2B Primary devices and 2 slts 106 -109 : Secondary devices of 100-103 (LKD 2B DKTU) 110 -129 : Wireless Telephones 130 -133 : 4 S0 stations in two STIB2 SLOTS

- 1) LKD 2B occupies 4 station numbers, one for the Primary device and the other for the Secondary device. ***It can be connected to Basic 4 DKT ports.***
- 2) If LKD 2B is connected to any 4 DKT port in MBU, it occupies only 1 station number, for the Primary device. It means that the station can not have any Secondary device even if there is DTIU or SLIU for the Secondary device in it.
- 3) LKD 2B without either DTIU or SLIU(Basic LKD 2B) occupies 1 station number, for the Primary device.
- 4) Note: DTIU, SLIU are the sub boards in LKD 2B for the Secondary device DKTU or SLT.

1.9 MAXIMUM NUMBER OF STATIONS IN GDK-20W : 34 PORTS

NUMBER OF PORTS	DEFAULT STATION NUMBER	DESCRIPTION
6	100-105	4 Basic DKT ports and 2 Basic slt ports
4	106-109	4 Secondary devices for 4 basic DKT ports
20	110-129	Registrable Max. Wireless Telephones (Max. Simultaneous Wireless Call : 12)
4	130-133	4 S0 stations in STIB second S0 (When STIB2 is installed in SLOT2 and 3)

1.10 MAXIMUM NUMBER OF CO LINES IN GDK-20W : 8 PORTS

NUMBER OF PORTS	DEFAULT CO NUMBER	DESCRIPTION
8	CO 1-8	STIB2 or LCOB2 in SLOT 2 and 3 (4 BRI in STIB 2T0 or 4 LCO in LCOB2)

1.11 MAXIMUM NUMBER OF PORTS (STATION / CO) IN GDK-20W : 38 PORTS

NUMBER OF PORTS	DEFAULT NUMBER	DESCRIPTION
6	100-105	4 Basic DKT ports and 2 Basic slt ports.
4	106-109	for 4 basic DKT ports
20	110 -129	20 Wireless Terminals
8	CO 1-8	8 BRI or 8 LCO
	CO 1-4 or 130-133	4 BRI / 4 S0 stations in STIB2 on SLOT2 and 3

1.12 WIRELESS CELL / TERMINAL CONFIGURATION

Number of Cell (Base station)	Recommended Number of Registered Wireless Terminals	Number of maximum Simultaneous Wireless Conversation
1	20	4
2		8
3		12

1.13 GAIN CONTROL (SYSTEM BASE (MAIN MENU 5) - SUB MENU 14)

- Digital Keyset RX Gain

Country	DKTU	SLT	CO	DCO	DTMF	Tone	DVU	Int Music	Ext Music	WHTU
Australia	22	19	14	30	8	32	20	22	22	22
Belgium	33	27	21	21	8	33	20	33	33	33
Denmark	17	13	16	26	8	33	32	26	26	17
Finland	25	27	30	29	8	32	32	29	29	25
Germany	25	35	29	29	8	15	32	26	26	25
Italy	17	13	16	26	8	33	20	26	26	17
Netherlands	32	24	10	21	8	33	32	33	33	32
New Zealand	10	12	16	32	8	32	20	32	32	10
Norway	30	24	38	32	8	33	32	26	26	30
Spain	26	28	28	33	8	32	32	29	29	26
Sweden	26	21	31	26	8	33	32	25	25	26
UK	25	35	29	15	8	15	32	26	26	25
EU	25	24	29	32	8	32	32	29	29	25
CIS	25	24	29	32	8	32	32	29	29	25
Others	21	36	33	33	8	32	32	29	29	21

- SLT Rx Gain

Country	DKTU	SLT	CO	DCO	DTMF	Tone	DVU	Int Music	Ext Music	WHTU
Australia	36	32	32	32	4	46	32	36	36	36
Belgium	27	21	26	26	4	36	32	29	29	27
Denmark	27	32	32	32	4	30	32	37	37	27
Finland	26	16	32	23	4	32	32	29	29	26
Germany	36	38	32	23	4	27	32	29	29	36
Italy	27	32	32	32	4	30	32	37	37	27
Netherlands	39	32	32	26	4	38	32	32	32	39
New Zealand	28	32	32	29	4	50	32	50	50	28
Norway	15	32	36	32	4	45	32	18	18	15
Spain	26	32	32	24	4	32	32	32	32	26
Sweden	28	32	32	28	4	39	32	31	31	28
UK	36	32	32	23	4	27	32	29	29	36
EU	32	32	32	32	4	32	32	32	32	32
CIS	32	32	32	32	4	53	32	32	32	32
Others	10	30	21	24	4	32	32	20	20	10

- CO Line Rx Gain

Country	DKTU	SLT	CO	DCO	DTMF	Tone	DVU	Int Music	Ext Music	WHTU
Australia	34	32	24	32	31	35	32	32	32	34
Belgium	21	29	26	26	38	36	32	37	37	21
Denmark	34	32	16	20	32	39	32	32	32	34
Finland	23	32	28	32	32	32	32	32	32	23
Germany	35	31	32	32	19	29	32	29	29	35
Italy	34	32	26	30	38	39	32	32	32	34
Netherlands	28	32	24	26	31	43	32	32	32	28
New Zealand	33	32	24	31	27	33	32	50	50	33
Norway	38	32	24	32	38	37	32	27	27	38
Spain	30	28	28	24	36	32	32	32	32	30
Sweden	31	32	32	32	34	41	32	27	27	31
UK	35	32	32	32	23	10	32	29	29	35
EU	35	32	24	32	30	32	32	32	32	35
CIS	35	32	24	32	43	32	32	32	32	35
Others	19	36	24	24	28	32	32	32	32	19

* **Note** : In Italy, all tones provided during conversation should be decreased by 5db.

- DCO Gain Table

Country	DKTU	SLT	CO	DCO	DTMF	Tone	DVU	Int Music	Ext Music	WHTU
Australia	31	32	26	32	28	32	32	32	32	31
Belgium	21	29	26	32	38	36	32	37	37	21
Denmark	32	32	20	32	32	37	32	38	38	32
Finland	35	32	32	32	25	37	32	29	29	35
Germany	35	32	32	32	25	37	32	29	29	35
Italy	32	32	28	32	32	37	32	38	38	32
Netherlands	21	29	26	32	26	36	32	37	37	21
New Zealand	32	27	26	32	28	32	32	50	50	32
Norway	36	32	26	32	32	37	32	27	27	36
Spain	26	37	30	32	32	32	32	32	32	26
Sweden	30	37	32	32	32	40	32	26	26	30
UK	30	32	32	29	25	37	32	29	29	30
EU	32	32	26	32	25	32	32	32	32	32
CIS	32	32	26	32	25	32	32	32	32	32
Others	26	37	24	32	32	32	32	32	32	26

- DVU Rx Gain

Country	DKTU	SLT	CO	DCO	External Music	WHTU
Australia	26	32	32	32	32	32
Belgium	26	32	32	32	32	32
Denmark	26	32	32	32	32	32
Finland	26	32	32	32	32	32
Germany	26	32	32	32	32	32
Italy	26	32	32	32	32	32
Netherlands	26	32	32	32	32	32
New Zealand	26	32	32	32	32	32
Norway	26	32	32	32	32	32
Spain	26	32	32	32	32	32
Sweden	26	32	32	32	32	32
UK	26	32	32	32	32	32
EU	26	32	32	32	32	32
CIS	26	32	32	32	32	26
Others	26	32	32	32	32	32

- DTMF RECEIVER Rx Gain

Country	SLT	CO	DCO
Australia	32	16	32
Belgium	24	24	24
Denmark	35	24	34
Finland	26	24	32
Germany	32	32	32
Italy	35	24	34
Netherlands	21	11	24
New Zealand	34	16	32
Norway	32	32	32
Spain	20	24	24
Sweden	36	34	18
UK	32	32	32
EU	20	24	24
CIS	20	24	24
Others	37	24	24

- Wireless Handy Terminal Unit

Country	DKTU	SLT	CO	DCO	DTMF	Tone	DVU	Int Music	Ext Music	WHTU
Australia	22	19	14	30	8	32	20	22	22	22
Belgium	33	27	21	21	8	33	20	33	33	33
Denmark	17	13	16	26	8	33	32	26	26	17
Finland	25	27	30	29	8	32	32	29	29	25
Germany	25	35	29	29	8	15	32	26	26	25
Italy	17	13	16	26	8	33	20	26	26	17
Netherlands	32	24	10	21	8	33	32	33	33	32
New Zealand	10	12	16	32	8	32	20	32	32	10
Norway	30	24	38	32	8	33	32	26	26	30
Spain	26	28	28	33	8	32	32	29	29	26
Sweden	26	21	31	26	8	33	32	25	25	26
UK	25	35	29	15	8	15	32	26	26	25
EU	25	24	29	32	8	32	32	29	29	25
CIS	25	24	29	32	8	32	32	29	29	25
Others	21	36	33	33	8	32	32	29	29	21

- Conversion detected pulse to digit

Country \ # of Pulse	1	2	3	4	5	6	7	8	9	10
New Zealand	9	8	7	6	5	4	3	2	1	0
Sweden	0	1	2	3	4	5	6	7	8	9
Others	1	2	3	4	5	6	7	8	9	0

- Conversion dialed digit to pulse

Country \ Digit	1	2	3	4	5	6	7	8	9	0
New Zealand	9	8	7	6	5	4	3	2	1	10
Sweden	2	3	4	5	6	7	8	9	10	1
Others	1	2	3	4	5	6	7	8	9	10

2. SYSTEM FEATURES

1. Admin Password

Description

Admin Password can be assigned to enter Admin Programming mode for only Administrator who knows the Admin Password.

Operation

☐ **In Keypad Admin(In Station 100)**

If admin password is programmed.

1. Press the **[TRNS/PGM]** button and dial Code * #.
2. Dial 4 Digits(Admin Password).
3. When admin password is matched, the confirmation tone is heard.
Or Otherwise, the ERROR tone is heard.

If admin password isn't programmed.

1. Press the **[TRNS/PGM]** button and dial Code * #.(The system doesn't request admin password input)

☐ **Pc Admin (In GDK Admin)**

(Remote/Local Admin Programming and Other GDK-Admin Service)

If admin password is programmed.

1. Select the specific admin service.
2. The user will see the GDK Admin Password window.
3. Then, dial the Admin Password(4 Digits)
4. Press the OK button.
5. If the admin password is matched, the user can access the specific admin service. If not, the user can't access the next step.

If admin password isn't programmed.

1. Just, press the OK button without entering the admin password in step 3.
2. The user can access the specific admin service.

☐ **Remote Flash Upload (In GDK Admin)**

If admin password is programmed.

1. Select "Flash upload" menu and fill out the "User Information" window.
2. Press the NEXT button and fill out the "Remote SW Upgrade" window.
3. Press the START button.
4. The user will see the GDK Admin Password window.
5. Then, dial the Admin Password(4 Digits).
6. Press the OK button.
7. If the admin password is matched, the program will start the flash upload. If not, the Remote Flash Upload program will not start and the ISDN line will be disconnected immediately.

If admin password isn't programmed.

1. Press the OK button without entering the admin password in 4 step.
2. The program will start the flash upload.

Conditions

1. For Local Flash Upload, the system doesn't compare admin password. So, the user can perform flash upload without entering the admin password regardless of the programmed admin password.
2. Admin password is supported from PC Admin version A.0Cd (2000 Sep 18).

Admin Programming

1. Admin Password
(System Base Program(Main Menu 5)-Sub-Menu 19)

2. ALARM SIGNAL REPEATING

Description

The system can be programmed to recognize the status of an external contact (normally open or closed) from a relay. When activated, the system will signal programmed stations with a single tone repeated at 1 minute intervals, or a continuous tone. This capability is commonly employed to provide remote alarm signals. When used as an Alarm, the assigned stations receive the programmed signal. To stop the signal, the Alarm must be deactivated (reset) from a station assigned to receive the alarm signal.

Operation

At detection of the Alarm contact, the system responds by sending the appropriate alarm signal to assigned stations.

- ✧ To terminate the alarm signal while idle;
Dial 65, confirmation tone is heard and the alarm signal is terminated at all assigned stations. If the Alarm condition is cleared, the system will rearm the alarm.
- ✧ To rearm alarm;
Clear the alarm condition and reset (terminate) the alarm signal. The preceding steps can be done in any order to rearm.

Conditions

1. The alarm contacts must be "dry" (no voltage/current source connected).
2. A Single Line Telephone and Wireless Terminal doesn't receive signal for the Alarm.
3. The alarm signal will terminate when reset by any keyset assigned to receive the alarm signal, and will rearm when both the alarm condition is cleared and reset by a keyset. The two actions may occur in any order.
4. A flex button can be programmed for Alarm Reset.

Programming

- ✧ Alarm/ ICM Box Signal
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu8)
- ✧ Alarm Enable
(System Base Program(main menu5) - Alarm Attributes(Sub Menu10) - Terminal menu1)
- ✧ Alarm Contact Type
(System Base Program(main menu5) - Alarm Attributes(Sub Menu10) - Terminal menu2)
- ✧ Alarm Signal Mode
(System Base Program(main menu5) - Alarm Attributes(Sub Menu10) - Terminal menu3)

Hardware

An external contact must be connected to the Alarm input on the MBU. This contact must be "dry", no voltage/current source connected.

3. AUDIO BEARER CAPABILITY 3.1KHz

Description

This feature enables SLT user to make a call with 3.1KHz Audio Bearer Capability instead of Speech Bearer Capability when Bearer Capability 3.1KHz is enabled.

Operation

When a SLT makes an internal call to S-port,

When the system sends SETUP message to S port, 3.1KHz Audio Bearer Capability is used instead of Speech Bearer Capability.

When a SLT makes an outgoing call with T-port (ISDN BRI line),

When the system sends SETUP message to T-port, 3.1KHz Audio Bearer Capability is used instead of Speech Bearer Capability.

Admin Programming

■ Audio Bearer Capability 3.1KHz

(Station Base Program (Main Menu 2) – Station Attribute (Sub Menu 1) – Terminal Menu 3)

4. Auto-Delete of DVIB Messages

Description

The DVIB messages in the all stations may be deleted automatically after assigned term with admin programming. The retrieved and saved messages by pressing **[HOLD/SAVE]** key will be deleted after assigned term. Non-saved messages by pressing **[HOLD/SAVE]** will not be deleted automatically. But attendant can also delete non-retrieved messages. (Attendant DVIB Management, Delete operation of a certain station's all messages) This function works at 12:05:05 AM in a day.

Operation

The retrieved and saved messages in all stations will be automatically deleted after assigned days as programmed.

While Auto-delete status (at DKTU),

While the messages are deleted automatically, the LCD is displayed as follows. (The count of day is decreased for messages and when it comes to zero the messages of all stations will be deleted)

After the messages are deleted, the number of deleted message is displayed on the LCD.

Conditions

1. The messages in all stations will be deleted. But non-retrieved or non-saved message will not be deleted.
2. The messages will be checked at 12:05:05 AM (night) and be deleted in a day.
3. When all DVIB ports are busy, auto-delete is not operated and waits until a DVIB port becomes available.
4. The available range is 000~300 days. (When it is set to 000, this feature will not be operated. The station user should delete the messages by **[CONF]** key.)
5. This feature will not be operated in SLT. (Since, the retrieved message is deleted automatically after on-hook in SLT.)
6. After auto-delete feature is operated, the result will be displayed on the LCD of the station (XXX MESSAGES DELETED) and off-hook to recover the LCD state.

7. When the number of days for Auto-Delete is changed, all the saved and retrieved messages will be counted again with this new value.
8. If the user make off-hook while auto-delete status, the auto-delete operation is stopped and user may make other operation in the keyset. The non-deleted messages will be deleted in the next day.
9. If the station is in use (including ringing state) in the auto-delete time, it will be retried after the station becomes idle.
10. This feature will be operated regardless of DVIB Access mode.

Admin Programming

Auto Delete of Retrieved and Saved Messages

(System Base Program (Main Menu 5) – DVU Setting (Sub Menu 20) – Terminal Menu 3)

Hardware **DVIB**

5. Automatic Fax Transfer

Description

The system can determine if an incoming call from the preprogrammed LCO line is for FAX (facsimile) or for speech terminal by detecting the tone of the call (1100Hz, 0.5s ON/3s OFF repeated). When the system detects a FAX tone from the incoming line within predetermined time, the system transfers the call to the station that is a Fax machine. If the FAX tone is not detected within predetermined time, system gives rings to stations that are programmed to ring.

Operation

Conditions

1. Only one LCO line can be programmed as a FAX CO line. If the FAX CO line is not programmed, Automatic Fax Transfer will not be activated.
2. Station 104(first SLT port) is used as the FAX Station of GDK-20W. So, FAX machine should be connected to the port for station 104 to use this feature.
3. If the FAX tone is not detected within the FAX tone detection time, the system will give rings to the stations that are programmed to ring.
4. If the FAX CO line is not answered within the FAX CO call time, the line will be released.
5. Outside caller connected to the FAX CO line can hear the ring back tone while system is detecting a FAX tone.
6. In order to transfer calls only from FAX to the FAX station of GDK-20W, do not assign CO ring to the FAX station 104.
7. If a CO line is programmed for DISA and for Automatic FAX Transfer as well, incoming calls from that CO line are served as DISA calls. So, if a user wants to call the FAX station, just call station 104 by exploiting DISA call. So, If a user wants to call the FAX station, just call station 102 by exploiting DISA call.
8. When the FAX machine goes to idle after a FAX call, the associated CO line is released.
9. If the FAX CO line is disconnected ("disconnect clear") during a FAX call, CO line is released and FAX machine becomes idle.

Programming

1. Auto FAX Transfer CO
(System Base Program (Main Menu 5) – Sub Menu 15)
2. FAX Tone Detect Timer
(System Timers (Main Menu 6) - System Timer 1 (Sub Menu 1) - Terminal Menu 22)
3. FAX CO Call Timer
(System Timers (Main Menu 6) - System Timer 1 (Sub Menu 1) - Terminal Menu 23)

Hardware

1. MFB is needed.

6. AUTOMATIC PRIVACY

Description

As a default, the system provides privacy on all communications. If desired, the customer may disable the Privacy feature, which will allow Attendant station to join the existing CO Line conversations without invitation.

Operation

- ✧ If Privacy is **enabled**, from Attendant, or other stations;
Press a busy (LED lit steady) CO Line button, the station receives busy tone.
- ✧ If Privacy is **disabled**, from Attendant;
Press a busy (LED lit steady) CO Line button, the Attendant station is connected to the conversation.

Conditions

1. With Automatic Privacy disabled, privacy is still assured of all intercom, conference, CO to CO, ISDN CO, Off-Net Forward calls.
2. Attendant station must have a direct CO line appearance for this feature to operate.

Programming

- ✧ Privacy
(System Base Program(main menu5) - System Attributes(Sub Menu1) - Terminal menu2)

Hardware None.

7. BACKGROUND MUSIC (BGM)

Description

A Keyset can receive audio, generally music, from an internal or external source while idle. Music from the source is received over the keyset speaker and will be shut-off during ring, pages or when the station is off-hook.

Operation

- ✧ To activate or deactivate Background Music to a Keyset;
 1. Press the **[TRNAS/PGM]** button.
 2. Dial 73, background music is activated and music from first source is received.
 3. Press the **[TRNAS/PGM]** button.
 4. Dial 73, music from 2nd source is received, if selected.
Otherwise background music is deactivated.
- ✧ To deactivate when 2nd source is selected,
 1. Press the **[TRNAS/PGM]** button.
 2. Dial 73. Background music is deactivated.

Conditions

1. This code can be assigned to a Flex button.
2. When the station lifts handset or presses the **[MON]** button, or dials a digit, the music is discontinued.
3. The speaker volume is adjustable at the station by using the **[UP/DOWN]** key in the Digital Keyset.
4. The connection for BGM are made with jack connector on the MBU.
5. Music is continued one second after going to idle status.
6. This feature is available in Keyset.

Programming

- ✧ **System Base Program(main menu5) - BGM Type(Sub Menu12)**

Hardware

When an external music source is assigned, the source must be connected to the input terminal on the PMU.

8. BATTERY BACK-UP, MEMORY

Description

The system database memory is protected from power loss by a long life (minimum 5 years) lithium dry cell battery. Should local power fail, the battery will maintain the system memory and proper operation of the system clock.

Operation Operation of this feature is automatic when installed.

Programming

Hardware

The plus battery terminal must be properly connected to the MBU and Switch position 1 on the MBU must be in the on position to properly protect the system memory from a power outage.

9. BUSY LAMP FIELD (BLF)

Description

When the user assigns a Flexible button on the Keypad as a Direct Station Selection button (DSS), the LED associated with the button also provides an indication of the status of the assigned station. Such status indicators are known as a Busy Lamp Field that is; a group of lamps which indicate the busy status of stations.

Operation Operation of this feature is automatic when programmed by the user.

Condition

Programming

Hardware None.

10. CONFERENCE

10.1 CONFERENCE - ADD-ON

Description

A station user can establish a call with one station and one CO Line.

Operation

✧ To establish a conference;

1. With the first call established, press the **[CONF]** button, the existing call is on hold and intercom dial-tone is received.
2. Place call to internal party.
3. When answered, press the **[CONF]** button.
4. When all parties have been called, press the **[CONF]** button again, all parties can converse.

Conditions

1. The **[CONF]** button will remain lit on the initiating station throughout the duration of the conference.
2. There is no limit on the number of 3-way conference.
3. If a conferee hangs up in a 3-way conference, the conference is dropped and the other two parties are connected as normal 2-way conversation.
4. If a conference master hangs up after pressing **[CONF]** during conference, the **[CONF]** LED will flash at 120 ipm. If a master presses the flashing **[CONF]** button in idle status, the conference is dropped. To reenter the conference, lifts handset or presses the **[MON]** button and presses the flashing **[CONF]** button.
5. If the master receives error or busy tone from an internal party while setting up the conference, he can receive ICM dial tone again by pressing the **[CONF]** button.
6. The conference master, while setting up an internal conference, can not Camp-on to a station, when he has dialed and received ICM busy tone.
7. If a conference master hangs up during conference setup, the **[CONF]** LED continue to flash, and the master can retrieve the waiting member by off-hook and pressing **[CONF]** button.
8. To establish a conference, the originator must have a **[CONF]** button.
9. A Wireless Terminal can not be a conference master.

Programming

Hardware None.

10.2 CONFERENCE - MULTI-LINE

Description

The system will allow maximum 2 Co Lines with one internal telephone. The internal station can exit the conference and leave the conference unsupervised.

Operation

To set up a multi line conference:

- 1) Station (A) which engaged in talking to a CO Line or internal station presses the **[CONF]** button. The **[CONF]** button will light and Party (B) hears MOH. ICM dial tone is received by Station (A).
- 2) Station (A) dials the another external party to be included in the conference (Party (C)).
- 3) When Party (C) answers, Station (A) presses the **[CONF]** button twice and all parties are connected.

Conditions

1. The **[CONF]** button will remain lit on the initiating station throughout the duration of the conference unless unsupervised conference is established. In this case, the **[CONF]** button will flash at 120 ipm.
2. A multi-line conference is limited to 2 CO lines. If the user attempts to increase the conference beyond that limit he will receive error tone.
3. Station (A) may exit the conference by pressing the **[CONF]** button. (Unsupervised conference mode). If a master presses the flashing **[CONF]** button in idle status, the conference is dropped. To reenter the conference, lifts handset or presses the **[MON]** button and presses the flashing **[CONF]** button.
4. Station (A) can disconnect the conference by going idle status.
5. To establish a conference the originator must have a **[CONF]** button.
6. If a conference master hangs up during conference setup, the **[CONF]** LED continue to flash, and the master can retrieve the waiting member by off-hook and pressing **[CONF]** button.
7. A Wireless Terminal can not be a conference master.

Programming

- Unsupervised Conference Timer
(System Timers(main menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu14)
- Multi-Line Conference
(System Base Program(main menu5) - System Attributes(Sub Menu1) - Terminal menu4)

Related Features

Hardware None.

10.3 CONFERENCE - UNSUPERVISED

Description

The system will allow maximum 2 CO lines in an unsupervised conference. The internal station will exit a conference and leave the conference unsupervised.

Operation

Station (A) leaves the multi-line conference unsupervised by pressing the **[CONF]** button and going idle status. The **[CONF]** LED flashes at 120 ipm rate. If Station (A) goes idle status without pressing the **[CONF]** button, the conferees are dropped and the conference is canceled.

To reenter the conference:

- 1) Station (A) lifts the handset and presses the **[CONF]** button. The all parties receive a warning tone.

Conditions

1. To set up a conference the telephone must have a **[CONF]** button.
2. The unsupervised conference timer will be reset if the internal party reenters the conference.
3. An unsupervised conference is governed by the conference timer.

Programming

- Multi-Line Conference
(System Base Program(main menu5) - System Attributes(Sub Menu1) - Terminal menu4)
- Unsupervised Conference Timer
(System Timers(main menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu14)

Related Features

Hardware None.

11. Day/Night Mode Change -Automatic

Description

The system can be placed in Day/ Night mode operation automatically, if weekly time table is programmed and auto Day/Night mode is chosen by the attendant station. Attendant stations can change the specific ring service mode by pressing **[DND]** button. According to pressing **[DND]** button, the ring mode will be changed day/night/auto sequentially. In this mode, ring mode follows the weekly time table that can be set in admin(System base program(Main menu5) - Weekly time table(Sub menu 21) - Day / Night time program(Terminal menu 1-7))

The default value of weekly time table is

Day	Day Start Time	Night Start Time
Mon	09:00	18:00
Tue	09:00	18:00
Wen	09:00	18:00
Thu	09:00	18:00
Fri	09:00	18:00
Sat	--:--	00:00
Sun	--:--	00:00

Each table's default setting is the same as above value.

Operation

To change Day/Night/Auto Ring Mode

1. To enter night mode, press the **[DND/FOR]** button once at attendant in day mode. The **[DND/FOR]** LED lights steady-

on.

2. To enter auto ring mode, press the **[DND/FOR]** button once at attendant in night mode. The **[DND/FOR]** LED flash 480 IPM in auto ring mode.

To change day mode, press the **[DND/FOR]** button once at attendant in auto mode. The **[DND/FOR]** LED lights off.

Conditions

1. Only attendant can access the ring mode changing.
2. In auto ring mode, day/night ring is serviced according to the weekly time table.
3. Only ring assigned stations can receive the incoming ring in a any ring mode.
4. If both day and night start time are not programmed in weekly time table, auto ring mode can't be entered.
5. The day start time can't be same to the night start time.
6. By default, the night ring is serviced all day on Saturday and Sunday in Auto ring mode.

Admin Programming

1. Station Class of Service
(**Station Base Program(main menu2) - Sub Menu3**)
2. CO Line Ring Assignment
(**CO Line Base Program(main menu3) - Sub Menu7**)
3. External Night Ring
(**System Base Program(main menu5) - System Attribute(Sub Menu1) - Terminal menu3**)
4. Attendant Assignment
(**System Base Program(main menu5) - Sub Menu2**)
5. Weekly time table program for Auto Day/Night
(**System Base Program(main menu5) – Weekly time table(Sub Menu21) – Day/Night time(Terminal 1-7))**)

12. DATA LINE SECURITY & BEARER CAPABILITY 3.1 KHz

Description

This feature provides a busy station protection from override and camp-on, which could cause errors in data being transmitted. The same Admin programming field, Data Line Security previously controlled data line security and 3.1KHz audio bearer capability. In BASIC III version: 2.x or B.x, new Admin field for 3.1KHz audio bearer capability is added for the users to be able to program each feature as desired.

Operation

A station assigned Data Line Security can not be intruded by an attendant or camped-on during conversation. Stations or an attendant attempting to camp-on or intrude will receive error tone.

Conditions

1. Rings on station with Data Line Security can not be picked up.
2. Rings on station with Data Line Security via DID(MSN)/DISA are not re-routed to attendant station.
3. During SLT port with Data Line Security is connected to CO line, the outside party releases first, (DISCONNECT message or Loop Disconnect detection signal), SLT port will hear silence. This feature is able an answering device to release as soon as CO party hang-up.

Programming

- Data Line Security
(**Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu10)**)

- Bearer Capability 3.1KHz

(Station Base Program (Main Menu 2) – Station Attributes (Sub Menu 1) – Terminal Menu 14)

* Note : In Norwegian version, Terminal Menu is 14 for Bearer Capability 3.1 KHz

Related Features

Hardware None

13. Dial By Name – Speed Dial and ICM Call

Description

The system will allow station users to dial extension numbers by entering a name that has been programmed for the station (intercom). Also each station may be assigned with a name up to 7 characters and speed dial (system and station) number may be assigned with a name of up to 16 characters. When the names are programmed in the digital display keyset, the user may select a station or speed dial number by the name. The user selects from one of three directories (intercom, user speed dial or system speed dial) and enters alpha-numeric data with 2 dial pad keystrokes per character. The system finds and displays the first matched name based on the characters entered. The user may at any point scroll using [▲]/[▼] buttons through the names in the directory and select a name to call. If user wants to display the matched phone number to the selected name, press [FLASH] button.

Operation

To store a Speed Dial number with name.

1. Press [TRNAS/PGM] button in a keyset. (at the attendant station for System Speed Dial)
2. Press [SPEED] button.
3. Dial the station/system speed bin.
4. If desired, press the CO line or group button.
5. Dial the desired phone number (up to 24 digits).
6. Press [HOLD/SAVE] button.
7. Enter the name by dialing 2-digit for each character. (up to 16 characters, Refer to the English Character Set.)
8. Press [HOLD/SAVE] button.

To access Dial By Name (User Speed bin/System Speed bin).

1. Press the [SPEED] button.
2. Press the [SPEED] button again.
3. Dial **I(1)/U(2)/S(3)** (I (Intercom), U (User Speed bin), S (System Speed bin)) and stored names in memory are displayed in alphabetical order.

To search names in LCD by entering character:

1. LCD displays two names.
(User Speed bin or System speed bin)
2. Enter alpha-numeric data with 2 dial pad keystrokes per character, then LCD displays names which are started with the user input in alphabetical order. (cursor points to the first line in LCD.) (Ex. When you dial '45')
3. Entering another alpha-numeric data, then LCD displays names started with the updated user input (first two characters) in alphabetical order. (cursor points to the first line in LCD). It is continued until user stops entering the alpha-numeric data. (Ex. When you dial '97')
4. The matched name is displayed.

To search names in LCD by scrolling:

1. LCD displays names.
2. Press **[DOWN]** key with cursor on the first line, then cursor points to the second line in LCD.
3. Press **[UP]** key with cursor on the second line, then cursor points to the first line in LCD.
4. Press **[DOWN]** key with cursor on the second line, next two lists outside LCD are displayed.

To show the dial number related to the name for the speed bin:

1. Cursor points a name displayed in LCD.
2. Press **[FLASH]** button, and the dial number related to the name is displayed.
3. Press **[FLASH]** button once more, the name related to the dial number is displayed. (toggle)

To dial each station or speed dial number:

1. Cursor points a name.
(But, you may dial number(digit 2) to select second speed number.)
2. Press **[HOLD/SAVE]** button, then the stored number is dialed.

Conditions

1. Available characters as a name are A--Z, space, period, colon and comma.
2. LCD displays 2 names for DKTU.
3. If user dials a group (I/S/U) which has no entry, error tone is heard.
4. You should enter System Speed dial in only Attendant station. (If you try to enter System Speed Dial in the other station, error tone will be heard.)
5. If a station without LCD tries to activate this feature, error tone is heard.
6. In SLT and no LCD DKTU, only station name can be entered.
7. When there is no matched name for the user input while searching a name, error tone is heard.
8. The Speed Dial which has only phone number without name will not be listed by the Dial by Name.
9. Pressing **[CALLBK]** button, the last letter of user input is deleted and previous matched name is displayed. If you press just 1 digit to enter a character, only the digit will be deleted. (There is no change in the LCD.) And, if pressing **[CALLBK]** button without entering any letter, system takes no action.
10. If the user input letters are all erased with **[CALLBK]** button, the LCD will display the first name in alphabetical order. (The cursor will also indicate the first name.)
11. Scrolling and entering characters may be used simultaneously to search a name.
12. When Dial By Name cooperates with LNR, LCD displays the dial number, not the name.
13. Pressing **[▼]** key while entering a phone number, the last digit will be erased. If you press just 1 digit to enter a character, only the digit will be deleted. (There is no change in the LCD.)
14. Pressing **[▼]** key while entering station name, the last character will be erased
15. While entering a name, you may press '4, 5, 6' or '7, 8, 9' as a second digit instead of '1, 2, 3'. Ex) To enter 'J', you may press '5 1', '5 4' or '5 7'.
16. Entering a character to search a name and then pressing **[▼]** key, the cursor will indicate the first letter.
17. Dial by Name data (System/Station) will be printed with Database Print feature (Main Menu 12).
18. Trying to access Speed Dial in a station which is not allowed to access it (Main Menu 2– Sub Menu 1 – Terminal Menu 2), error tone will be heard.
19. Pressing **[▲]/[▼]** key after entering a speed bin number, the previous stored phone numbers are displayed with the speed bin number. (It will be searched station speed base or system speed base.)
20. For entering alpha-numeric data, see the English Character Set.

Admin Programming

Speed Dial Access

(Station Base Program(Main Menu 2) – Station Attributes Program(Sub Menu 1) – Terminal Menu 2)

Relate Features

1. Station Speed Dial
2. System Speed Dial

. - 13	A - 21	D - 31
Q - 11	B - 22	E - 32
Z - 12	C - 23	F - 33
1 - 10	2 - 20	3 - 30
G - 41	J - 51	M - 61
H - 42	K - 52	N - 62
I - 43	L - 53	O - 63
4 - 40	5 - 50	6 - 60
P - 71	T - 81	W - 91
R - 72	U - 82	X - 92
S - 73	V - 83	Y - 93
Q - 7*	8 - 80	Z - 9#
7 - 70		9 - 90
*1 - Blank		
*2 - :	0-00	#
*3 - ,		

< English Character Set >

14. DIFFERENTIAL RING (DIGITAL KEYSSET ONLY)

Description

The user of a proprietary digital keyset can program the frequency of the ring signal sent to the speaker of the keyset. Four frequency settings are available to allow users to distinguish which telephone in a given area is ringing. The setting will affect all ringing signals sent to the speaker of the keyset while idle, including intercom signals. The ring cadence is not changed by this setting.

Operation

To set the ring type from digital keyset only

TRANS/PGM + 50 + Ring_Type (1-4) + **HOLD/SAVE**

Conditions

1. Each time the user dials a digit 1 to 4, the speaker will receive the appropriate ring signal. Pressing **[HOLD/SAVE]** button stores the last selected ring frequency.
2. This setting affects ICM ring and CO ring.

Programming

Related Features

Hardware None.

15. Delayed DISA

Description

When the CO line is DISA type, the system can respond immediately or after the DISA Delay timer expire for incoming CO call according to DISA Delay timer setting. So, if the timer is not 0, the incoming DISA CO call is first routed to ring assigned stations or group and the caller can hear the DISA system announcement in case the programmed timer expires. If not, the incoming DISA CO call is route to DVU and the caller will hear the DISA system announcement without delay.

This is an enhancement of the existing feature "DISA".

Operation

To enable this feature

1. The CO line should be set as DISA type
2. The DISA Delay timer should be programmed as the specific time.

To disable this feature(DISA without delay):

1. The CO line should be set as DISA type
2. The DISA Delay timer is set to 0 second.

If this feature is enabled:

1. When the CO line is DISA type and the CO call comes, all ring assigned station will be received the CO ring.
2. The caller will hear DISA system announcement after DISA Delay Timer. And the stations will stop ringing.

If this feature isn't enabled(Normal DISA):

1. The CO line is DISA type and the DISA CO call comes.
2. The caller will hear DISA system announcement without the specific delay.

Conditions

1. If the DISA Delay timer set 0, the system will behavior as the normal DISA.
2. When there is no available DVIB port, ring assigned stations will be continuously received the CO ring after DISA Delay Timer expires. When there is an available DVIB port, ring assigned stations will stop ringing and the caller will hear the DISA system announcement
3. Before DISA Delay Timer expires, the incoming call is routed to ring assigned station or group. So Hunt group has the precedence for ring assignment
4. If DISA Delay timer expires during group announcement, group announcement will be end and system announcement will be presented.
- 5.

Admin Programming

1. DISA Type
(CO Line Base Program (Main Menu 3) – DISA Type(Sub Menu 4))
2. DISA Delay Timer
(System Timer (Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 7)

16. Direct Call Pick Up

Description

An ICM and CO calls can be picked up by another station.

Operation

To assign Direct Pick-up button to flexible button

[TRNAS/PGM] + {FLEX} + 7 + [HOLD]

To pick up the call of other station(From DKTU)

1. A user hears a tone ringing ICM/CO ringing of other station.
2. Lift handset or press **[MON]** button.
3. Dial **Code 7** and the station number or press **{Pick-up}** button and the station number to be answered.
4. The user picks up the call.

To pick up the call of other station(From SLT)

1. A user hears a tone ringing ICM/CO ringing of other station.
2. Lift handset .
3. Dial **Code 7** and the station number and the station number to be answered.
4. The user picks up the call.
- 5.

Conditions

1. When picking up a transferred CO line or incoming CO line, the line is automatically connected.
2. The user must have the {CO} button or {LOOP} button to pick up a CO line.
3. About the multiple call on a station, the pick up will be performed according to PLA(transferred line, recall, incoming CO, ICM Ring in order)
4. If more than one call which have the same priority is ringing at the telephone, the oldest call is pick up
5. Queue callback cannot be picked up via directed call pick-up, a station attempting this will receive error tone.
6. The call from ICM Box can be picked up.
7. About the call back ring, the direct pick-up doesn't work. In this case, error tone & no pick-up call LCD message will be displayed.
8. When ICM Answer Mode of the station is "HF" or "PV" mode, the call to the station cannot be picked up.

17. Door Open

Description

At most 2 relays can be used for Door Open.

Operation

- ☐ **To open the door by using relay 1;**
Dial #*1.
- ☐ **To open the door by using relay 2;**
Dial #*2.

Conditions

Programming

1. External Control Contact
(System Base Program (Main Menu 5) - Sub Menu 11)
2. Door Open Timer
(System Timers (Main Menu 6) - System Timer 1 (Sub Menu 1) - Terminal Menu 17)

Hardware

1. MFB is needed.
- 2.
- 3.

18. DVIB

18.1 DVIB – System Greetings and Prompts

Description

Attendant station in the system can record the voice announcements like system greetings and prompts. System greetings and DVIB MOH should be recorded before use. System prompts in user's language are contained as default in DVIB. But users can also modify those messages.

Prompts for date and time are contained in DVIB to be used for date and time stamping. With the help of these prompts, users can understand when the voice message has arrived. Prompts for date and time are also built-in and recorded in user's language.

Operation

- ☐ **To record system announcements from Attendant;**
 - 1) Press **[TRNAS/PGM]** and dial **Code # 4**.
 - 2) Dial announcement type.
 - 3) Dial announcement number. If there is already a recorded announcement in the number dialed, the recorded announcement will be played. (If user doesn't dial any digit in 3 seconds after the end of recorded announcement play, user can select announcement type again for GDK-20W goes to the above step 2) automatically.)
 - 4) Dial source number for recording. Dial 1 when the external MOH will be used as a source for recording, or dial 2 when DKTU will be used. If you selected external MOH, you will hear the sound of external MOH so that it is possible to start recording the announcement at the time that you want.

5) Dial # to start recording. Start the announcement after you hear confirmation tone.

6) At the end of the announcement, dial **[HOLD/SAVE]** to finish recording.

□ To delete system announcements from Attendant;

1) Press **[TRNAS/PGM]** and dial **Code # 4**.

2) Dial announcement type.

3) Dial announcement number. Only when there is a recorded announcement in the number dialed, the recorded announcement is played.

4) Dial * during the play to delete the announcement.

System Greetings and DVIB MOH : Announcement type 1

Number	Announcement Name	Description
1	Day Time System Greeting	When DISA call comes during day mode.
2	Night Time System Greeting	When DISA call comes during night mode.
3	Circular and Terminal Hunt Group Greeting	When Ring Timer for the group expires.
4	UCD Group First Announcement	When a call is in the waiting queue for UCD First Announcement time.
5	UCD Group Second Announcement	When a call is in the waiting queue for UCD Second Announcement time after UCD Group First Announcement.
6	Ring Group Announcement	When Ring Timer for the group expires
7	DVIB MOH	MOH in DVIB.
8	SLT MW Indication Announcement	If SLT has message wait, this announcement is heard when off hook.
9	Off-net Announcement	Forward
10	Group Announcement	Overflow

System Prompts : Announcement type 2

Number	Announcement Name	Description
1	Time Out Prompt	When DISA caller does not dial any digit in IDP time. (Not Used now)
2	Retry Prompt	To prompt DISA caller to dial again.
3	Busy Prompt	When called station is busy.
4	DND Prompt	When called station is in DND.
5	Invalid Prompt	When DID/DISA call is invalid.
6	No Answer Prompt	When a call is not answered within No Answer Time.
7	Transfer To Attendant Prompt	When DID/DISA call is forwarded to attendant station.
8	Authorization Code Prompt	To prompt DISA caller to dial Authorization Code.
9	Record Start Prompt	To prompt the caller to leave voice message.

Conditions

1. System Greetings and Prompts can be recorded only at the attendant in the system.
2. There is no time limit when attendant records system greetings and prompts.
3. If the DVIB is not installed, it is not possible to record system announcements. Error tone will be heard when recording is tried.
4. If there is a recorded announcement already, the recorded announcement will be played after user dialed the announcement number.
5. When the attendant station records or deletes any of the System Greetings and Prompts, all the DVIB ports should be idle. Otherwise, busy tone will be heard.
6. When the call is being transferred to attendant station, Transfer to Attendant Prompt is announced to the caller, and Ring Back Tone will be heard after the announcement.
7. If there are no recorded greetings or announcements, the corresponding tones will be heard.

8. External caller hears Ring Back Tone for a few seconds until the System Greeting announcement is started.
9. At most 400 voice messages are available with the optional memory installed on DVIB. Among these, there are only 20 messages that are used for system's purpose. They are, for example, System Greetings, Announcements for station group, DVIB MOH, and etc. Only 6 of them are being used now and the remaining 14 are reserved for future.
10. When DVIB MOH is used as the source of system MOH, 1 port of DVIB should be always reserved for MOH feature even when MOH is not used.
11. If DVIB is not installed in the system or there is no channel available in DVIB, error tone is heard when MOH type 3, DVU, is selected in Admin programming.
- 12.

Programming

1. DVU Access
(Station Base Program (Main Menu 2) – Station Attributes (Sub Menu 1) - Terminal Menu 11)
2. DVU User Record Timer
(System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) - Terminal Menu 24)
3. Valid User Message Timer
(System Timer (Main Menu 6) – System Timer 2 (Sub Menu 2) - Terminal Menu 2)
4. DID/DISA Forward To DVIB for Busy Case
5. (System Base Program (Main Menu 5) – DID/DISA Destination (Sub Menu 17) – Terminal Menu 1)
6. DID/DISA Forward To DVIB for No Answer Case
7. (System Base Program (Main Menu 5) – DID/DISA Destination (Sub Menu 17) – Terminal Menu 2)
8. DID/DISA Forward To DVIB for Attendant No Answer Case
9. (System Base Program (Main Menu 5) – DID/DISA Destination (Sub Menu 17) – Terminal Menu 3)

Hardware

1. DVIB is needed.
- 2.
- 3.

18.2 DVIB – Voice Announcement with DID/DISA Line

Description

Recorded system greetings and prompts can be used for voice-guided DID/DISA.

Operation

DID (MSN) Line			
Case	Admin Field	Value	Action and Announcements Provided
Busy/DND	DID/DISA Forward To DVIB for Busy Case (5-17-1)	No	Refer to "DID/DISA Busy Destination (5-6-1)" below.
		Yes	Busy/DND Prompt + Record Start Prompt + Beep Tone Recorded message is saved for the station in busy/DND.
	DID/DISA Busy Destination (5-6-1) with DID/DISA Forward To DVIB for Busy Case (5-17-1) NO	Tone	Incoming call is released immediately.
		ATTD	Ring is distributed to all the stations that are assigned CO ringing. If there is no station assigned ringing, the call goes to attendant station after Busy/DND Prompt is announced.
No Answer	DID/DISA Forward To DVIB for No Answer Case (5-17-2)	No	Call goes to attendant station. No Answer Prompt + Transfer To Attendant Prompt + RBT
		Yes	No Answer Prompt + Record Start Prompt + Beep Tone Recorded message is saved for this station.
No Answer at Attendant	DID/DISA Forward To DVIB for Attendant No Answer	Yes	No Answer Prompt + Record Start Prompt + Beep Tone Recorded message is saved for attendant station.

	Case (5-17-3)	No	Continuous ringing at attendant station.
Invalid	DID/DISA Error Destination (5-6-2)	Tone	Incoming call is released immediately.
		ATTD	Ring is distributed to all the stations that are assigned CO ringing. If there is no station assigned ringing, the call goes to attendant station after invalid prompt is announced.
DISA Line			
Case	Admin Field	Value	Action and Provided Announcements
Incoming Call	DISA Line Use (3-4)	Yes	GDK-20W answers this incoming call. System Greeting (Day or Night)
Inter Digit Timeout	DID/DISA Error Destination (5-6-2)	Tone	Incoming call is released immediately.
		ATTD	Call goes to attendant station. Transfer To Attendant Prompt + RBT
Busy/DND	DID/DISA Forward To DVIB for Busy Case (5-17-1)	No	Caller can try again. Busy/DND Prompt + Retry Prompt + System Greeting
		Yes	Busy/DND Prompt + Record Start Prompt + Beep Tone Recorded message is saved for this station in busy/DND.
Invalid	-	-	Caller can retry again. Invalid Prompt + Retry Prompt + System Greeting
No Answer	DID/DISA Forward To DVIB for No Answer Case (5-17-2)	No	Call goes to attendant station. No Answer Prompt + Transfer To Attendant Prompt + RBT
		Yes	No Answer Prompt + Record Start Prompt + Beep Tone Recorded message is saved for this station.
After all busy retries	DID/DISA Busy Destination (5-6-1)	Tone	DISA Line is released automatically.
		ATTD	Call goes to attendant station. Busy Prompt + Transfer To Attendant Prompt + RBT
After all error retries	DID/DISA Error Destination (5-6-2)	Tone	DISA Line is released automatically.
		ATTD	Call goes to attendant station. Invalid Prompt + Transfer To Attendant Prompt + RBT
No Answer at Attendant	DID/DISA Forward To DVIB for Attendant No Answer Case (5-17-3)	Yes	No Answer Prompt + Record Start Prompt + Beep Tone Recorded message is saved for attendant station.
		No	Continuous ringing at attendant station.
CO Access Code	DISA Account Code (3-1-5)	No	DISA Caller is connected to a new outside line.
		Yes	Authorization Code Prompt + DT

*1) DT means Dial Tone. *2) RBT means Ring Back Tone.

Conditions

1. This feature "DVIB – Voice Announcement with DID/DISA Line" is enabled by Admin field DVU Annc (3-1-7) YES. If DVU Annc is set to NO, no announcement is provided (DID/DISA feature works as if no DVIB with GDK-20W.).
2. Transfer to Attendant Prompt is provided when the call is being transferred to the attendant station.
3. When there is no recorded announcement, the corresponding tone is provided.
4. External caller hears Ring Back Tone for a few seconds until the System Greeting announcement is started.
5. If DISA call comes in and all the ports of DVIB are used at that time, the call cannot be answered until any of DVIB ports becomes idle and the caller hears Ring Back Tone.
6. ISDN terminal (S port) can not receive DVIB voice message.
7. Station with Data Line Security YES can not receive DVIB voice message even though DID/DISA Forward To DVIB for Busy Case and No Answer Case are YES.
8. When the call is routed to Ring Group, any DVIB message can not be saved for that group.

Programming

1. DISA Account
2. (CO Base Program (Main Menu 3) – CO Attributes (Sub Menu 1) - Terminal Menu 5)
3. DVU Announcement

4. (CO Base Program (Main Menu 3) – CO Attributes (Sub Menu 1) - Terminal Menu 7)
5. DID Line Use
6. (CO Base Program (Main Menu 3) – ISDN CO Attributes (Sub Menu 2) - Terminal Menu 4)
7. DISA Type
8. (CO Base Program (Main Menu 3) – Sub Menu 4)
9. DISA Retry Counter
10. (System Base Program (Main Menu 5) – Sub Menu 7)
11. DID/DISA Busy Destination
12. (System Base Program (Main Menu 5) – DID/DISA Destination (Sub Menu 6) – Terminal Menu 1)
13. DID/DISA Error Destination
14. (System Base Program (Main Menu 5) – DID/DISA Destination (Sub Menu 6) – Terminal Menu 2)
15. DID/DISA Forward To DVIB for Busy Case
 16. (System Base Program (Main Menu 5) – DID/DISA Destination (Sub Menu 17) – Terminal Menu 1)
17. DID/DISA Forward To DVIB for No Answer Case
 18. (System Base Program (Main Menu 5) – DID/DISA Destination (Sub Menu 17) – Terminal Menu 2)
19. DID/DISA Forward To DVIB for Attendant No Answer Case
 20. (System Base Program (Main Menu 5) – DID/DISA Destination (Sub Menu 17) – Terminal Menu 3)
21. DID/DISA No Answer Timer
 22. (System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 13)
23. DVU User Record Timer
 24. (System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 24)
25. Valid User Message Timer
 26. (System Timer (Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 2)

Hardware

1. DVIB is needed.
- 2.

18.3 DVIB – User Greeting & Voice Message Wait

Description

If the access to the DVIB port is allowed, a user can record User Greeting and then his/her calls will be forwarded to DVIB port after DVIB Station Forward Answer time (programmable). And caller can leave voice message wait at this station after user greeting. Recording time of each voice message is bounded by the DVIB User Record Time, which is 20 seconds by default (programmable).

Operation

DKTU Users;

☐ **To record user greeting from a Station;**

Off Hook + [DND/FOR] + Code 7 + Code # + Voice + On Hook

User greeting is stored permanently, and Call Forward to the DVIB is activated.

☐ **To delete user greeting from a Station;**

Off Hook + [DND/FOR] + Code 7 + Code * + On Hook

User greeting is deleted, and Call Forward to the DVIB is cleared.

☐ **To deactivate Call Forward to DVIB from a Station;**

On Hook + **[DND/FOR]**

Off Hook + **[DND/FOR]** + **Code #** + On Hook

Call Forward to DVIB is deactivated. But user greeting is not deleted. To delete user greeting, use the procedure described above.

☐ **To activate Call Forward to DVIB from a Station;**

Off Hook + [DND/FOR] + Code 7 + On Hook

Recorded user greeting is used. If there is a recorded user greeting, it is heard.

☐ **To leave voice message wait;**

Talk with normal voice sound after both User Greeting and Beep tone.

☐ **To hear voice message wait;**

Press [CALLBK] button. Time & Date prompt for the recorded message is provided and then voice message is played.

☐ **To hear current voice message wait again;**

Press [CALLBK] button. Time & Date prompt for the current message is provided and then voice message is played again.

☐ **To hear the next voice message after deleting the current voice message;**

Press [CONF] button. The current voice message is deleted and the next message is played.

☐ **To hear the next voice message after saving the current voice message;**

Press [HOLD/SAVE] button. The current voice message is saved and the next message is played.

SLT Users:

☐ **To record user greeting from an SLT;**

Off Hook + 5 4 + Code 7 + Code # + Voice + On Hook

User greeting is stored permanently, and Call Forward to the DVIB is activated.

☐ **To delete user greeting from an SLT;**

Off Hook + 5 4 + Code 7 + Code * + On Hook

User greeting is deleted, and Call Forward to the DVIB is cleared.

☐ **To deactivate Call Forward to DVIB from an SLT;**

Off Hook + 5 4 + Code # + On Hook

Call Forward to DVIB is deactivated. But user greeting is not deleted. To delete user greeting, use the procedure described above.

☐ **To activate Call Forward to DVIB from an SLT;**

Off Hook + 5 4 + Code 7 + On Hook

Recorded user greeting is used. If there is a recorded user greeting, it is heard.

☐ **To leave voice message wait;**

Talk with normal voice sound after both User Greeting and Beep tone.

☐ **To hear voice message wait;**

Dial 5 7. Time & Date prompt for the recorded message is provided and then voice message is played.

☐ **To delete the voice message;**

Go on hook after or while the voice message is played. If users hang up while Time & Date prompt is heard, voice message is not deleted.

Wireless Terminal users:

☐ **To record user greeting from a Wireless terminal ;**

[ON/OFF (↶)] + 5 4 + Code 7 + Code # + Voice + [FUNCTION (↷)]

User greeting is stored permanently, and Call Forward to the DVIB is activated.

☐ **To delete user greeting from a Wireless terminal ;**

[ON/OFF (↶)] + 5 4 + Code 7 + Code * + [ON/OFF (↶)]

User greeting is deleted, and Call Forward to the DVIB is cleared.

☐ **To deactivate Call Forward to DVIB from a Wireless terminal ;**

[ON/OFF (↩)] + 5 4 + Code #

Call Forward to DVIB is deactivated. But user greeting is not deleted. To delete user greeting, use the procedure described above.

☐ **To activate Call Forward to DVIB from a Wireless terminal;**

[ON/OFF (↩)] + 5 4 + Code 7

Recorded user greeting is used. If there is a recorded user greeting, it is heard.

☐ **To leave voice message wait;**

Talk with normal voice sound after both User Greeting and Beep tone.

☐ **To hear voice message wait;**

Press **[CALL BACK (●)]** button while hearing intercom dial tone. Time & Date prompt for the recorded message is provided and then voice message is played.

☐ **To hear current voice message wait again;**

Press **[CALL BACK (●)]** button. Time & Date prompt for the current message is provided and then voice message is played again.

☐ **To hear the next voice message after deleting the current voice message;**

Press **[FLASH (R)]** button. The current voice message is deleted and the next message is played.

☐ **To hear the next voice message after saving the current voice message;**

Press **[HOLD (⌂)]** button. The current voice message is saved and the next message is played.

Conditions

1. To record user greeting, the station must have the access right to DVIB. Otherwise, error tone is heard.
2. ISDN terminal (S port) can not record his user greeting and can not receive DVIB message.
3. SLT and LKD-2NS user can record his greeting by **Code 5 4 7 #** if DVIB Access YES. And he can retrieve recorded DVIB message by **Code 5 7**. When user retrieve his message, this message is deleted automatically when he hang up for SLT and LKD-2NS does not have **[CONF]** for delete function. But if LKD-2NS has programmed {CONF} key, then recorded message is deleted when user presses {CONF} after hearing message.
4. There is no time limit when user records his greeting.
5. There are time limits when a station or a CO party leaves a voice message to a station. These time limits are controlled by Valid User Message Timer (System Timer (Main menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 2) and DVU User Record Timer (System Timer(Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 24). The first one is minimum time and the second one is maximum time. The message that is shorter than minimum time is not saved. And when the maximum time has passed, confirmation tone is heard and the message is saved for destination station.
6. If a user presses **[CALLBK]** key to hear voice messages and there is another message wait that contains only station number without voice message, then the message only with station number will be answered first. (Order when answer: Message wait with station number -> DVU message wait -> CLI message wait -> VM Group message wait)
7. When user hears left DVU message, message time and date prompt are heard before recorded message is played.
8. When a call, internal or DID/DISA, comes to a station where user greeting is recorded, user greeting is announced after DVIB Station Forward Answer time expires. In case of DID/DISA call, the DID/DISA No Answer Timer is not started.
9. If a station that has user greeting is in P or H mode, the answering modes are ignored and the station works as if it is in T mode.
10. If **[CALLBK]** is pressed at the calling station before user greeting is played, the message wait only with station number is saved to the called station.

11. Record Start Prompt (Prompt 9) and then Beep tone are provided after user greeting. Caller can record voice message after Beep tone.
12. If the caller hang up within Valid User Message Time after Beep tone, then voice message wait is not saved.
13. If a station with user greeting is in use, the calling station of an incoming call can not hear the user greeting. However, the calling station can still leave a Call Back request by pressing **[CALLBK]** button.
14. If all the ports of DVIB are in use when the user greeting of a station needs to be provided, Ring Back tone is provided. And system starts DVIB Station Forward Answer timer to retry to answer.
15. Code [DND/FOR]+7 can be programmed to a flexible button. For 2/8 button keyset, Code 5 4 + 7 can be programmed to a flexible button.
16. While user greeting is announced for an intercom incoming call, called station continues ringing for a user to answer the call.
17. When DID/DISA call comes to a station in forward type 7, the outside caller hear recorded user greeting after DVIB Station Forward Answer time regardless of DVU Annc setting (3-1-7)
18. A callback can be initiated when station in call forward, DVIB.
19. When a voice message is left to an idle wireless terminal that has no message wait, the message wait is not indicated immediately, but system periodically polls the appropriate information to each terminal. Until system polling is made, message wait is not indicated to the wireless terminal. However, if the terminal is made off-hook, message wait information is displayed on the LCD of terminal. And message icon () is displayed on the upper right corner of the LCD after on-hook. Thereby, terminal users can know if there is a message left.
20. Forward to DVIB feature is not available when the DVIB memory is full. So, the caller only hears ring-back tone if the called station in forward to DVIB is idle and DVIB memory is full. In Basic III versions (2.x or B.x), the call is routed to DVIB when the DVIB-forwarded station is busy. However, if the DVIB memory is full at that time, the caller hears busy tone.
21. Forward to DVIB feature is not available when the total number of DVIB messages in the system becomes the maximum permitted. (Basic is 200, 400 with option board) So, the caller only hears ring-back tone if the called station in forward to DVIB is idle and the number of messages reached the maximum. In Basic III versions (2.x or B.x), the call is routed to DVIB when the DVIB-forwarded station is busy. However, if the number of messages in the system is the maximum at that time, the caller hears busy tone.
22. When all the DVIB ports are busy, the caller (internal or external) hears Ring Back Tone until any of the DVIB ports becomes idle.
23. It is impossible to make unscreened transfer to a busy station in call forward to DVIB mode. As soon as the handset is placed on-hook to try unscreened transfer, the station is recalled the CO ring immediately.

Programming

1. DVIB Access
(Station Base Program (Main Menu 2) – Station Attributes (Sub Menu 1) - Terminal Menu 11)
2. DVIB User Record Timer
(System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 24)
3. DVIB Station Forward Answer Timer
(System Timer (Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 1)
4. DVIB Valid User Message Timer
(System Timer (Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 2)

Hardware

1. DVIB is needed.
- 2.
- 3.

18.4 DVIB – Voice Announcement with Station Group

Description

System announcement is available for Station Hunt Group. To know the different kinds of announcements used for station hunt group, refer to DVIB – System Greetings and prompts. For details about station group, refer to Hunt Group – Circular, Terminal, UCD and Ring.

Operation

Conditions

1. If all the members of UCD group are busy, the calling party is inserted to the waiting queue, and ring back tone is heard.
2. When CO call comes to Circ, Term, UCD, hunt announcements will be provided when DVU Annc (3-1-7) is YES.

Programming

1. Station Group Program (Main Menu 11)
2. DVU Announcement
3. (CO Base Program (Main Menu 3) – CO Attributes (Sub Menu 1) - Terminal Menu 7)

Hardware

1. DVIB is needed.
- 2.

18.5 DVIB - DVU Announcement with Station Off-Net Call Forward

Description

When the external and internal call is ringing to the station which is programmed to station off-net call forward, the system can provide the DVU announcement about off-net call forward to the caller.

Operation

To record the Off-net Call Forward Announcement

(Refer to “DVIB – System Greetings and Prompts” feature)

1. With pressing announcement type, Dial '1'.
(Announcement Type1 : System Greeting and DVIB MOH)
2. Dial announcement number '9'.

About DVU Announcement In Station Off-net Call Forward

1. When the station in off-net call forward is called by internal or external user, the internal or external user can hear the Off-net Call Forward Announcement.
2. The system dial outside party number automatically.

Conditions

If the Off-net Call Forward Announcement is not recorded or there is no available DVIB port, the system can not provide the DVU announcement and off-net call forward is operated immediately.

The Off-net Call Forward Announcement is fixed for station off-net call forward.

To play the Off-net Call Forward Announcement, the system must have the DVIB.

If a station connected CO party presses the **[TRNS/PGM]** Key and calls the station in off-net call forward, the station user will hear the Off-net Call Forward Announcement and the CO party will hear the MOH. If the station user goes on-hook while hearing the announcement, the user will immediately receive the co recall ring for transferred CO party.

Programming

Hardware

1. DVIB is needed.

18.6 DVIB – MOH

Description

Attendant can record DVIB MOH announcement. And this announcement can be used as system MOH source.

Operation

- ☐ **To use recorded DVIB-MOH as system MOH source;**

Set MOH Type (Main Menu 5-Sub menu 13) as DVIB-MOH (3).

When you set MOH Type 3 (DVIB-MOH), there should be an available DVIB port (channel) and there should be recorded DVIB-MOH announcement. Type 3 can not be set.

When MOH type 3 is set, then one DVIB port channel is reserved for MOH and DVIB-MOH announcement is played.

DVIB-MOH is used with CO Hold, Wakeup, and Conference.

- ☐ **To hear DVIB-MOH on CO party;**

Press **[HOLD]** key during CO conversation, then outside party will hear DVIB-MOH announcement. DVIB-MOH has been played since MOH type is set as DVIB-MOH, outside party may not hear DVIB-MOH announcement from the beginning.

- ☐ **To hear DVIB-MOH when user answers Wakeup ring;**

[TRNAS/PGM] + Code 4 1 + Wakeup time (4 digits) +

When user answers Wakeup ring, then user hear DVIB-MOH announcement. DVIB-MOH has been played since MOH type is set as DVIB-MOH, outside party may not hear DVIB-MOH announcement from the beginning.

- ☐ **To hear DVIB-MOH during setup a Conference call;**

When a conference call is established, if one party is waiting while conference mater makes an other call for conference, MOH is provided.

Conditions

1. DVIB –MOH announcement is recorded before user sets MOH Type 3.
2. At least one channel is available for MOH when user sets MOH Type 3.
3. When DVIB-MOH is used, one DVIB port is used for MOH, attendant can not record or delete system announcement and prompts
- 4.

Programming

1. MOH Type (Main Menu 5 – Sub Menu 13)

Hardware

1. DVIB is needed.
- 2.
- 3.

19. DVU Announcement with Ring Group

Description

Ring Group supports DVU announcement. If the call is not answered until ring group announce timer, the caller will hear ring group announcement.

System Greetings and DVIB MOH : Announcement type 1

Number	Announcement Name	Description
1	Day Time System Greeting	When DISA call comes during day mode.
2	Night Time System Greeting	When DISA call comes during night mode.
3	Circular and Terminal Hunt Group Greeting	When Ring Timer for the group expires.
4	UCD Group First Announcement	When a call is in the waiting queue for UCD First Announcement time.
5	UCD Group Second Announcement	When a call is in the waiting queue for UCD Second Announcement time after UCD Group First Announcement.
6	Ring Hunt Group Greeting	When Ring Timer for the group expires.
7	DVIB MOH	MOH in DVIB.
8	SLT MW Indication Announcement	If SLT has message wait, this announcement is heard when off hook.
8	SLT MW Indication Announcement	If SLT has message wait, this announcement is heard when off hook.
9	Off-net Call forward Announcement	When the ring is transferred to off-net.
10	Group Overflow Announcement	When the overflow destination is DVU and the overflow timer is expired

Operation

For the Ring Group Announcement

(Refer to “DVIB – System Greetings and Prompts” feature)

1. With pressing announcement type, Dial ‘1’ (Announcement Type1 : System Greeting and DVIB MOH)
2. Dial announcement number ‘6’.

If the timer is set to 0, For DVU Announcement Of Ring Group

1. If the user calls the ring group, the caller hears the ring group announcement.
2. After the announcement, the caller will hear the RBT.

If not, For DVU Announcement Of Ring Group

1. All members of ring group are received the ring group ring.
2. The call will continuously ring until ring group announce timer.
3. Then, the caller will hear the ring group announcement.
4. After the announcement, the caller will hear the RBT.

Conditions

1. When a call is received in a ring group, the call will be in the ring process before receiving the announcement for Ring Group Announcement time. If no Ring Group announcement is record, the timer is ignored. If there is no available DVIB port, the caller will heard the RBT until available port is existed. If the timer is set to 0, the call will receive the announcement prior to the ring process.
2. To play the ring group announcement, the system must have the DVIB.

Admin Programming

1. Ring Group Ring Timer
(Hunt Group/VM Program(Main Menu 11) – Hunt Group Program (Sub Menu 1) - Terminal Menu 3)

Hardware

- DVIB is needed.

20. HEADSET COMPATIBILITY

Description

An industry standard headset may be connected to a keyset in place of the handset. The station is programmed for headset operation in place of speaker phone operation. This allows the headset to be used to make or answer calls.

Operation

- ✧ To activate a headset call from a Keyset;
Press the **[MON]** button, the **[MON]** LED lights steady.
- ✧ To terminate a headset call from a Keyset;
Press the **[MON]** button, the **[MON]** LED extinguishes.

Conditions

1. In the headset mode, the hook switch status is also monitored.
2. The station will still receive paging over the speaker of the keyset.
3. Paging is heard from the speaker even at the station in headset mode.
4. Wireless Terminal (LG GAP Phone) does not support this feature.

Programming

- ✧ Speaker phone/Headset
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu6)

Hardware None.

21. Hunt Group Overflow

Description

The call to a station in the hunt group (Cir/Ter/UCD/Ring) will continue to route until answered or each station in the group has been tried. If Overflow Destination is set, the call will be routed to the Overflow Destination when Overflow timer is expired.

Operation

When a CO Normal/DID/DISA ring or an intercom call is received,

If the call is not answered in overflow time, the call is cancelled and re-routed to overflow destination as follows according to overflow destination. (LCD display is for a station in intercom)

1. Station number: The call is routed to the station after Overflow Timer is expired.
2. Station group: The call is routed to the station group.
3. DVU number: Hunt overflow announcement is heard and the call is disconnected.
4. System speed bin: Overflow announcement is heard and the call is forwarded to off-net

Conditions

1. When overflow timer value is zero, this function does not work or is disabled.
2. If any overflow destination is not assigned, the call is dropped when the Overflow timer is expired.
3. The queued call may be taken out of group and directed to an overflow destination.
4. Calls to an overflow destination of station works the same as intercomm or CO line calls to the station.
5. Calls to an overflow destination of group works the same as intercomm or CO line calls to the group.
6. If overflow destination is set as non-programmed station group, the call is dropped.
7. When an overflow destination is DVU number, a call will be dropped if DVU announcement doesn't exist.
8. When an overflow destination is DVU number, if all DVU ports are busy the DVU announcement will be played as soon as any DVU port is available.
9. When an overflow destination is system speed bin, it should have an outgoing CO button for a station to call.
10. In a group of Cir/Ter type, if the last station ringing presses **[DND]** button then the call is directed to the group again and the overflow timer is reset.
11. In a group of UCD type, if ringing station presses **[DND]** button then the call is directed to the group again and the overflow timer is reset.

Admin Programming

1. Overflow Destination Type(STA #/STA Group #/Speed Dial Number/ DVU #)
(Station Group Program (Main Menu 11) – Hunt Group Program (Sub Menu 1) – Hunt Group Attribute (Terminal Menu 3))
2. Overflow Timer (000~600 sec, Default: 180)
(Station Group Program (Main Menu 11) – Hunt Group Program (Sub Menu 1) – Hunt Group Attribute (Terminal Menu 3))

22. Hunt Group – Circular, Terminal, UCD and Ring

Description

The stations in the system can be grouped into up to 4 hunt station groups. Each hunt group can have at most 10 stations. A hunt group is assigned a pilot number (Station Group Number) so that the calls to the pilot number will hunt for an idle station in the hunt group. When an intercom or transferred CO line is directed to a pilot hunt station group, the system will search for an idle station, one after another. Four hunting processes are available: Circular, Terminal and UCD (Uniform Call Distribution), Ring. Upon finding an idle station within the group, system will make the idle station ring.

In Circular Hunt, calls to a group will go to the next of the station that received an intercom call last. If unanswered, the call is directed to the next station in the group. The call will continue to be routed until every station in the group has been tried. The call will remain at the last tried station.

In Terminal Hunt, calls to a group will go to the first station in the group. If unanswered, the call proceeds to the next station in the group. The call will continue to be routed to the next station until reaching the last in the group where the call will remain.

In UCD Hunt, calls to a group will go to the station that has been idle for the longest time. If all the stations in the group are busy when a call to the group is received, the call may continue to wait (queue) for an available station in the group.

In Ring Hunt, calls to a group from CO line will go to all the stations that are not in use. If all the stations in the group are busy, the call may continue to wait (queue) for an available station in the group.

Operation

- ☐ **To make an internal call to Group;**
Dial group pilot number **61 – 64** instead of station number.
- ☐ **To make an incoming CO call through DID/DISA to Group;**
Dial group pilot number **61 – 64** instead of station number.
- ☐ **To register Call Forward, Unconditional to Group;**
Off Hook + DND/FOR + Code 1 + **61 – 64**
- ☐ **To register Call Forward, Busy to Group;**
Off Hook + DND/FOR + Code 2 + **61 – 64**
- ☐ **To register Call Forward, No Answer to Group;**
Off Hook + DND/FOR + Code 3 + **61 – 64**
- ☐ **To register Call Forward, Busy/No Answer to Group;**
Off Hook + DND/FOR + Code 4 + **61 – 64**
- ☐ **When a Circular/Terminal group member presses [DND/FOR] button during ringing;**
The ring stops and the member pressing **[DND/FOR]** button is in DND mode.
Then the ring is rerouted to the next idle station in the same hunt group as if Hunt No Answer Timer expires. If the ringing member is the last ringing station in Circular/Terminal group, then the ring is rerouted as if other ring comes into the same group. So, hunt process also starts again. If there is no available member, then ring is queued until a member becomes idle.
- ☐ **When a UCD group member presses [DND/FOR] button during ringing;**
The ring stops and the member pressing **[DND/FOR]** button is in DND mode. Then the ring is rerouted as if other ring comes into the same group. If there is no available member, then ring is queued until a member becomes idle.
- ☐ **When a ring group member presses [DND/FOR] button during ringing;**
The ring stops and the member pressing **[DND/FOR]** button is in DND mode. Other ringing members continue ringing. If there is no other member ringing, the ring will start ringing again when a member is available.
- ☐ **When a CO call is transferred to hunt group (Unscreened Transfer);**
Transferred CO call rings the station which receives intercom call for transferring the call with hunt-process by the hunt type as Circular, Terminal, UCD, or Ring. So, the CO line party can hear associated hunt announcement also. (Hunt Announcement for Circular/Terminal group, the 1st and the 2nd Announcement for UCD group).

Conditions

1. GDK-20W does not have wrap up time, and supervisor for UCD group, which is different from other GDK series.
2. 4 Station groups and 10 members in each group are available.
3. A station can be a member of only one station group.
4. A station in DND is temporarily removed from the hunt group.
5. A station in Call Forward mode is temporarily removed from the hunt group. A direct call to that station will be forwarded.
6. A hunt pilot number can not be a member of another hunt group.
7. Circular and Terminal Hunt Group have an announcement, Circular and Terminal Hunt Group Greeting. This announcement is provided after Ring Timer is expired.
8. UCD Hunt Group has two announcements, UCD Group First and Second Announcement. These announcements are provided if all the stations of a group are busy when a call comes in. UCD Group First Announcement is provided after First Announcement Time expires and UCD Group Second Announcement is provided after Second Announcement Time. UCD Group Second Announcement is repeated until the call is answered or is released every UCD Group Announcement Repeat Time. But if the First Announcement Timer is set to 0, the full UCD Group First Announcement is provided before the call starts to hunt.
9. If DVIB is not installed, then announcement is not provided.
10. When CO ring is assigned only one station in system, and the station is in call forward mode to group, Circular, Terminal, UCD or Ring, then incoming CO ring is routed to group.

11. When CO call is transferred to a station and the station is in call forward mode to group, Circular, Terminal or UCD, then transfer call is routed to group.
12. WHTU (Wireless Handset Telephone Unit) can be a member of any station group.
13. For Circular/Terminal Hunt Group when Hunt Ring Timer expires, Hunt Announcement is provided. But the CO/internal call will continue to be routed until every station in the group has been tried regardless of Hunt Ring Time out. The call will remain at the last tried station.
14. The station should have right to use DND feature. If the station does not have DND attribute YES, then **[DND/FOR]** button is ignored when pressing **[DND/FOR]** button during ringing.
15. When a member of hunt group receives ring signal as a station (Not as a member by dialing the station number of group member), then **[DND/FOR]** button is operated as normal DND feature (not as station group DND). The ring stops but the ring is not rerouted to other members.
16. When pressing **[DND/FOR]** button in a member station during ringing and if there is no available member at that time, then the call is queued. And when a member becomes available, then it rings again in the station.
17. Because there is no **[DND]** button or programmed flex button in SLT, so SLT member can not use group DND feature (Pressing **[DND]** button during group ringing to re-route ring to other member). And VM group member can not use group DND feature also.
18. In the case of 2/8 button keyset, the user can use group DND feature using programming the flex button as **[DND]**.
19. When a user tries to transfer CO call to the group (Circular, Terminal, UCD and Ring group) when all the members are in use or all the members are not available for this call, then transferred CO call is queued until there is an available member.
20. When a Ring Group member becomes available and if there is an intercom call or CO call for the Ring Group, it rings again in the station.
21. 21. When all the Ring group members are busy (or ringing), intercom call or CO call is queued. When a member becomes available, then the first queued call rings in the station.
- 22.

Programming

1. Group Type Assignment
(Station Group Program(Main Menu 11) – Hunt Group Program(Sub Menu 1) –Terminal Menu 1)
2. Group Member Assignment
(Station Group Program(Main Menu 11) – Hunt Group Program(Sub Menu 1) –Terminal Menu 2)
3. Hunt Group Attributes
(Station Group Program(Main Menu 11) – Hunt Group Program(Sub Menu 1) –Terminal Menu 3)

Hardware

1. DVIB is needed.

Test of Circular, Terminal, UCD and Ring group

TYPE OF CALL	CIRC			TERM		
	Ring*	Msg 1	Queue*	Ring*	Msg 1	Queue*
Internal call	OK	OK	OK	OK	OK	OK
CO Ring directly on a Group	OK	OK/None*	OK	OK	OK/None	OK
DID/MSN call to Station that is forwarded to a Group	OK	OK/None	OK	OK	OK/None	OK
MSN call directly to a Group	OK	OK/None	OK	OK	OK/None	OK
DID/DISA Busy No Answer	-	-	-	-	-	-
Preset Forward	-	-	-	-	-	-

* **Ring**: Is the call ringing and hunting. **Queue**: Can the group queue calls.

TYPE OF CALL	UCD					RING	
	Ring*	Msg 1	Msg 2	Repeat	Queue*	Ring*	Queue*
Internal call	OK	OK	OK	OK	OK	-	-
CO Ring directly on a Group	OK	OK/None*	OK/None	OK/None	OK	OK	OK
DID/MSN call to Station that is forwarded to a Group	OK	OK/None	OK/None	OK/None	OK	-	*1
MSN call directly to a Group	OK	OK/None	OK/None	OK/None	OK	OK	*1
DID/DISA Busy No Answer	-	-	-	-	-	-	-
Preset Forward	-	-	-	-	-	-	-

- OK/None: The first one is for DVU Annc (3-1-7) YES, the second one for DVU Annc NO.
- Even if DVU Annc YES, if announcement is not recorded, then no announcement is provided.
- *1: Call is routed to DID/DISA Busy Destination.

23. IDLE LINE SELECTION (WARM LINE Only)

Description

This Feature lets a station perform a pre-assigned feature as soon as going off-hook as if a station selects that feature. Idle Line Selection can be programmed as one of the following

1. To seize a CO Line,
2. To seize a CO Group,
3. To call an another station,
4. To activate a feature on a flex button as if pressed.

On the other hand, Idle Line Selection for a station which is assigned to warm line, is activated when takes no action for Warm Line Timer after going off-hook. (Warm Line)

Operation

Lift handset or press **[MON]** button and takes no action, then Idle Line Select Feature is activated as programmed.

Conditions

1. Any flexible button may be assigned as the Idle line selection. When lifting handset or pressing the **[MON]** button, the system will act as if the user presses the programmed button.
2. If the user selects an another feature prior to going off-hook, Idle Line Selection is not activated.
3. SLT also allows Idle Line Selection except Flex Button Feature.
4. User takes no action after lifting handset or pressing the **[MON]** button and warm line timer is expired, then idle line selection is activated.
5. If Warm Line Timer is greater than Dial tone Timer(10 seconds), Idle Line selection for warm line cannot activated.

Programming

- ✧ Warm Line Timer
(System Timer(main menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu19)
- ✧ Warm Line Selection
(Station Base Program(main menu2) - Sub Menu7)
- ✧ Auto Speaker Selection
(Station Base Program(main menu2) - Attributes (Sub Menu1) - Terminal Menu7)

Related Features

Hardware None.

24. INTERCOM (ICM) BOX

Description

A convenient ICM Box can be connected to the system. The ICM Box can receive page announcements, intercom calls and can signal stations as assigned in the system.

Operation

- ✧ To call an ICM Box;
 1. Lift the Handset or press the **[MON]** button.
 2. Dial ICM Box intercom number or press the DSS Flexible button for the ICM Box.
 3. After warning tone announce call.
- ✧ To place a call from an ICM Box;
Press **[CALL]** button, assigned stations ring.
- ✧ To answer an ICM Box call, lift handset or press **[MON]** button.
- ✧ To place ICM Box in DND mode;
Press **[DND]** button.

Conditions

1. An ICM Box can be part of a zone page group.
2. If an ICM Box originated call is not answered within programmed period, call is terminated and the associated {DSS} LED at all key station will extinguish and the **[CALL]** LED on ICM box will extinguish.
3. The call can be terminated by pressing the ICM Box **[CALL]** button while the **[CALL]** LED lights steady. Upon disconnection, the **[CALL]** LED will extinguish.
4. DND is programmable as allow or disallow for each ICM Box in station basis Admin Programming.
5. The alert tone is presented to stations assigned in station base Admin Programming. This Admin programming is also used for Alarm signal.
6. An ICM box cannot be part of a conference.
7. An ICM Box can not receive Incoming CO, Transferred CO line call.
8. An ICM Box can not receive Call Back, Message Wait and Call Wait.
9. A Call forward to an ICM Box is not available. Call forward is not allowed both by Admin programming and by Call Forward, Station.
10. A Wireless Terminal can not receive a call from the ICM Box.

Programming

- ✧ ICM Box Signal (Alarm Signal)
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu8)

Hardware None.

25. LOUD BELL CONTROL (LBC)

Description

The LBC contacts are activated when the assigned station receives ringing from an incoming CO Line (if assigned ring), transferred CO Line, or intercom call. In GDK-20W the system is equipped two external control contacts.

The LBC can be programmed to operate as an external night ring contact as well as a LBC contact. In this case, in the Night mode, LBC will follow UNA assignments. An external ringing device must be attached to the contacts.

Operation Operation of this feature is automatic when programmed.

Programming

- ✧ UNA
(CO Line Base Program(main menu3) - CO Line Attributes(Sub Menu1) - Terminal menu3)
- ✧ CO Line Ring
(CO Line Base Program(main menu3) - Sub Menu7)
- ✧ External Night Ring
(System Base Program(main menu5) - System Attributes(Sub Menu1) - Terminal menu3)
- ✧ External Control Contacts
(System Base Program(main menu5) - Sub Menu11)

Hardware

An external ringing device must be attached to the contacts.

26. PAGE

26.1. INTERNAL ZONE

Description

Any station can make voice paging announcements to any of the 2 internal zones.

Operation

A station lifts handset and dials the code for the desired zone. Upon entering the page zone a warning tone is provided over the stations and ICM boxes. The originating station receives paging confirmation tone. At the end of the tone, the originator speaks in a normal voice and the voice announcement is transmitted to the telephones and ICM boxes. When announcement is completed, originator hangs up.

Conditions

1. When dialing the Internal Zone code and the page zone is in use, the originator receives busy tone.
2. A keyset can not access paging while on-hook status. If a user pages without lifting the handset, -programmed activity will be initiated and display will show **"LIFT HANDSET TO PAGE"**.
3. Stations in DND or busy will not receive a page announcement.
4. Stations not assigned a zone will not receive any page announcement.
5. Pages can be answered by dialing the "Meet Me", **Code #6** or flashing **[HOLD/SAVE]** button.
6. The dialing codes for the Internal Page zones are **Code #1 - #2**.
7. Dial **Code #4** to make internal all call page.

8. The Internal zone page can be flexibly assigned to Flex buttons.
9. Access to paging is allowed or denied in station basis via Admin Programming.

Programming

- ✧ Page Access
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu3)
- ✧ Page Zone
(Station Base Program(main menu2) - Sub Menu8)

Related Features

Hardware None.

26.2. PAGE - ALL CALL

Description

A station, which is permitted access to Page facilities, can connect and transmit voice announcements to zones simultaneously. Stations must be assigned to an internal zone to receive the page. A page warning tone will be provided to the page zone prior to the audio connection. The user is allowed to continue the page for a specified period after which the user is disconnected and the page zone returned to idle.

Operation

- ✧ To make an All Call page;
 1. Lift the Handset.
 2. Dial the All Call code (#0).
 3. If assigned, after the page warning tone, make announcement.
 4. Replace handset.

Conditions

1. When dialing **Code #0** and any internal zones are in use, the user will receive ICM busy tone.
2. A keyset can not access paging while on-hook status. If a user pages without lifting the handset, programmed activity will be initiated and display will show "**LIFT HANDSET TO PAGE**".
3. Stations in DND or busy will not receive a page announcement.
4. Stations or ICM boxes not included in an internal page zone will not receive an all call page.
5. Pages can be answered by dialing the "Meet Me", **Code #6** or flashing **[HOLD/SAVE]** button.
6. Paging reception for stations is programmable in zone basis via station base Admin Programming.
7. This code can be flexibly assigned to a Flex button.

Programming

- ✧ Page Access
(**Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu3)**)

Hardware None.

26.3. PAGE - MEET ME

Description

A user may respond to a page from any station and connect to the paging party for a private conversation.

Operation

- ✧ To respond to a Meet-Me page;
 1. Dial Meet Me code (#6) or press flashing **[HOLD/SAVE]** button.
 2. Connection with paging party is establish and zone returns to idle.

Conditions

1. During a page, paged person goes to the first available station and dials the **Code #6** or press the flashing **[HOLD/SAVE]** button.
2. A station may answer a Meet Me Page from any station regardless of paging assignment.
3. This code can be flexibly assigned to a Flex button.
4. Page can be responded from any station in the system regardless of page group assignment and page accessibility.

Programming

Hardware None.

26.4. PAGE ACCESS RESTRICTION

Description

Stations can be programmed such that they are denied access to page zones. When so programmed, the station can not connect to or make a page announcement.

Operation Operation of this feature is automatic when programmed.

Conditions

1. When a station programmed for paging access restriction can still answer a meet me page request.
2. An error tone is presented to the user if the station is restricted from page access.

Programming

- ✧ Page Access
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu3)

Hardware None.

26.5 External Paging

Description

A station, which is permitted the access to Paging, can transmit paging announcements to the External Page port of the system. A page warning tone will be sent to the page port before the audio connection.

Operation

- ✧ To make an External page:
 1. Lift the Handset.
 2. Dial the External Page **Code # 3**.
 3. After the page warning tone, make an announcement.
 4. Replace handset.

Conditions

1. If a user dials **Code # 3** while external page is in use, the user will receive busy tone.
2. External paging is included in All Call Page (**Code # 0**), which means that it is impossible to do External paging during the All Call Page.
3. A keyset can not gain access to paging in on-hook status. If a user pages without lifting the handset, "**LIFT HANDSET TO PAGE**" is shown.
4. Pages can be answered by "Meet Me" feature, dialing **Code # 6** or pressing the flashing **[HOLD/SAVE]** button.
5. This code can be assigned to a Flex button.
6. Assignment of External Page Port and External Contact should be programmed in Admin programming.

Programming

- ✧ Page Access
(Station Base Program (Main Menu 2) – Station Attributes (Sub Menu 1) – Terminal Menu 3)
- ✧ External Control Contact
(System Base Program (Main Menu 5) – Sub Menu 11)
- ✧ External Page Port
(System Base Program (Main Menu 5) – Sub Menu 16)

Hardware

1. To use this feature, external equipment must be installed on the programmed SLT port (External Page Port).

27. PICK-UP

Description

Tone ringing Intercom calls, incoming CO Lines, recalling CO Lines and transferred CO Lines can be answered by a station other than the ringing station.

Operation

- ✧ To answer a call ringing at a station in your system;
 1. Lift the Handset.
 2. Dial Pick-Up code (66).

Conditions

1. If an announced transfer is picked-up, the CO Line will be connected to the pickup station.
2. An H or P terminated ICM call cannot be picked up.

3. Ringing station will be picked up first. When there is no ringing station then Muted Ring will be picked up second.
4. The user must have a {LOOP} button or the {CO} button to pick up a CO line.
5. If more than one call is ringing at the phone and call pick up is done, the pick up will be performed using the preferred line answer order : 1) ICM ring, 2) transferred ling, 3) recall, 4) incoming CO.
6. If more than one call which have the same priority is ringing at the telephone, the oldest call is pick up.
7. When picking up a transferred CO line or incoming CO line, recall, intercom call the line is automatically connected.
8. This code can be flexibly assigned to a Flex button.

Programming

Hardware None.

28. STATION MESSAGE DETAIL RECORDING (SMDR)

Description

Station Message Detail Recording (SMDR) will provide details on both incoming and outgoing calls. Based on programming, the system will output incoming and/or outgoing, Local and/or Long Distance only calls will be output.

The format of the individual call records is illustrated below:

```

NO   STA CO TIME   START      DIALED      ACG CNT   COST      ACT CODE
NNNN AAA BB DD:DD:DD FF/FF/FF EE:EE HCCCCCCCCCCCCCCCCCCCCC II  KKKKK SSSSSSSSS VVVVVVVVVVVV

```

NNNN = 4 digit sequence number (range 0001-9999).

AAA = 2~3 digit station call originator field

BB = 2 digit CO line accessed field

DD:DD:DD = A 8 digit call duration field (HH:MM:SS).

FF/FF/FF = An 8 digit month, day, and year of call origination (MM/DD/YY).

EE:EE = A 5 digit time of day call origination (HH:MM).

H = A call type indicator I = incoming, O = outgoing, T = transferred, t = Incoming transfer.

CCC...CCC = Dial digit field (24 digit).

II = 2 digit Account Group field. (Not Implemented Yet)

KKKKK = 5 digit Metering count field. (Not Implemented Yet)

SSSSSSSSS = 9 Digit call cost field. (Not Implemented Yet)

VVVVVVVVVVV = 12 Digit account code field. (Not Implemented Yet)

Operation Operation of this feature is automatic when programmed and printer attached.

Conditions

1. If a call is ended by a power failure, then no SMDR record will be produced for the call.
2. For ISDN line outgoing call, call duration for SMDR is counted when CONNECT message from network. So when user hangs up before remote party does not answer, then call duration 0 (00:00:00) is printed even though LCD call duration shows some time.

Programming

- ✧ SMDR Start Timer
(System Timers (main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu 20)
- ✧ SMDR enable
(System Base Program(main menu5) - SMDR Attributes(Sub Menu8) - Terminal menu1)
- ✧ SMDR for All Call
(System Base Program(main menu5) - SMDR Attributes(Sub Menu8) - Terminal menu2)

- ✧ Print Incoming Call Records
(System Base Program(main menu5) - SMDR Attributes(Sub Menu8) - Terminal menu3)
- ✧ RS-232C baud Rate
(System Base Program(main menu5) - SMDR Attributes(Sub Menu8) - Terminal menu4)
- ✧ SMDR Save
(System Base Program(main menu5) - SMDR Attributes(Sub Menu8) - Terminal menu5)
- ✧ Record in detail
(System Base Program(main menu5) - SMDR Attributes(Sub Menu8) - Terminal menu6)

Hardware

An ASCII compatible serial printer with proper data communication and an RS-232C connector must be connected to the RS-232C port.

29. SMDR Records Save

Description

The system will save the SMDR information by admin program setting. So, the attendant will can print the saved SMDR Records and delete the saved SMDR Records.

Operation

The SMDR Save can be set by admin program

- **SMDR PRINT**
 - [TRNAS/PGM] + [*] + [8] + [1]
- **SMDR DELETE**
 - [TRNAS/PGM] + [*] + [8] + [2]
- **ABORT PRINTING**
 - [TRNAS/PGM] + [*] + [8] + [3]

To assign the programmed key for {SMDR Print}

1. Press the [TRNAS/PGM] button.
2. Press specific flexible Button to be programmed as {SMDR Print Code} button.
3. Press the [TRNAS/PGM] + *81.
4. Press the [HOLD/SAVE] button.
5. If flexible button of {SMDR Print Code} is selected again, programmed feature will be display on LCD.

To assign the programmed key for {SMDR Delete}

1. Do the same process as the above.
2. Press the [TRNAS/PGM] + *82 and press the [HOLD/SAVE] button.
3. If flexible button of {SMDR Delete Code} is selected again, programmed feature will be display on LCD.

To assign the programmed key for {Abort Printing}

1. Do the same process as the above.
2. Press the [TRNAS/PGM] + *83 and press the [HOLD/SAVE] button.
3. If flexible button of {Abort Printing Code} is selected again, programmed feature will be display on LCD.

To print the saved SMDR Records(In the Attendant)

1. Press the **[TRNAS/PGM]** button.
2. Dial ***81**. (Confirm tone is heard)
3. Enter the station range (e.g. 100 115)
4. Press the **[HOLD/SAVE]** button. Then, the saved SMDR Record will be printed through RS-232C port

To delete the saved SMDR Records(In the Attendant)

1. Press the **[TRNAS/PGM]** button.
2. Dial ***82** (Confirm tone is heard).
3. Enter the station range (e.g. 110 115).
4. Press the **[HOLD/SAVE]** button. Then, the saved SMDR Record will be deleted and the message "SMDR Record STA: 110-115 Delete OK..." will be printed through RS-232C port.

To abort the saved SMDR Records Print(In the Attendant)

1. Press the **[TRNAS/PGM]** button.
2. Dial ***83** (Confirm tone is heard).
3. Press **[HOLD/SAVE]** button.
4. Then, the saved SMDR Record print will stop.

Conditions

1. This feature can be enabled after setting SMDR print attribute of admin program as YES.
 - The maximum of SMDR is 500. So, later SMDR records will not be saved.
 - At the stage of station range, dialing function code but station number will cause error tone.
 - At the stage of station range, if start station number is larger than end station number, error tone will be heard.
 - At the stage of station range, it is applied to only one station by pressing start station number and end station number as the same value or pressing * after start station number.
 - CO to CO calls such as DISA CO access will not be saved.
- You can't delete SMDR records while it is
- printed. Then error tone will be heard.
 - Another printing requests while printing SMDR will be queued.
 - If flexible station number assignment is done while saved SMDR is printed, then printing job will be aborted.
 - This feature is only used by Attendant. If stations dial this function code, error tone will be heard.
 - If a station number is changed, thereafter the SMDR records corresponding to the station will be printed
 - Trying to save another SMDR records when SMDR is full will produce this message through RS-232C port.
 - "[Error] SMDR Record buffer is full."
 - When the amount of remained SMDR buffer comes to 200,100,50,30,20,10 this message will be appeared.
 - "[Warning] Low number of free SMDR record buffer!(XXX)"
 - "Please delete some SMDR record"

Programming

- ✧ SMDR Print
(System Base Program (Main Menu 5) – SMDR Attributes (Sub Menu 8) - Terminal Menu 1)
- ✧ SMDR Save
(System Base Program (Main Menu 5) – SMDR Attributes (Sub Menu 8) - Terminal Menu 5)
- ✧ Record in Details
(System Base Program (Main Menu 5) – SMDR Attributes (Sub Menu 8) - Terminal Menu 6)

30. Station Name Display

Description

You can program your name and people using display phones will see you name instead of your station number.

Operation

To store station name in a display keyset .

1. Press **[TRNAS/PGM]** button at a display keyset.
2. Press **[SPEED]** button.
3. Dial 0 0.
4. Enter your name. (Up to 7 characters)
(Refer to English Character Set.)
5. Press **[HOLD/SAVE]** button.

To access ICM with Dial by Name.

1. Press the **[SPEED]** button.
2. Press the **[SPEED]** button again.
3. Dial **1** and stored station names in memory are displayed in alphabetical order.

Conditions

1. Available characters as a name are A-Z, space, period, colon and comma.
2. For entering alpha-numeric data, see the English Character Set.
3. You can enter the station name in SLT by program code 5 5.
4. While calling other station or transferring a call, the stored station name will be displayed on the LCD of the other party instead of your station number.
5. Pressing **[▼]** key while entering station name, the last character will be erased.
6. While entering a name, you may press '4, 5, 6' or '7, 8, 9' as a second digit instead of '1, 2, 3'.
Ex) To enter 'J', you may press '5 1' , '5 4' or '5 7'.
7. When user review programmed DSS button, if the station for this DSS has programmed name, then programmed name is shown instead of station number.
8. Station name is removed when user initializes station database by using admin (Main menu 1 – Sub menu 1).

31. SPEAKER PHONE

Description

Keysets are equipped with circuitry enabling the telephone to be used without lifting the handset, hands-free in two-way conversations.

Operation

- ✧ To activate a speaker phone call from the Keyset;
Press the **[MON]** button, the **[MON]** LED lights steady.
- ✧ To terminate a speaker phone call from a Keyset;

Press the **[MON]** button, the **[MON]** LED extinguishes.

Conditions

A Wireless Terminal does not support this feature.

Programming

- ✧ Speaker phone/Headset
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu6)

Hardware

Keysets equipped with the speaker phone circuitry include; all 24 and 36 button KD series keysets. All other keysets are not equipped to provide full speaker phone operation and can only monitor (listen to) a connected party with the handset is on-hook.

32. Station Language Change

Description

The administrator can select the two or one language for station display language in admin program.

This feature enables the user to change the language of station only by dialing station language code(**[TRNS/PGM]**+51).

The each station user can change the language by pressing the programmed button or dial station language code. This code key will be used as a toggle type for two language.

Operation

To assign the programmed key for {Station Language Change } by station

1. Press **[TRNS/PGM]** key
2. Select specific flexible Button to be programmed as **{Station Language Change}** key. Then, LCD will display current feature status of pressed flex key and current date\time.
3. Press **[TRNS/PGM]** key + [5] + [1].
4. Press **[HOLD/SAVE]** button for updating database permanently. If this feature is programmed successfully, the LCD will display guard message for next flexible button programming
5. If flexible Button for {Station Language Change} key is selected again, "STA LANG CHANGE" will display on LCD.

To change the language of stations (In the Attendant)

1. Press the LED of **{Station Language Change}** button
Or
Press the **[TRNS/PGM]** key and dial code 51.
2. Dial the range of station.
3. Dial the language of stations
4. Press **[HOLD/SAVE]** button for updating database permanently. If this feature is programmed successfully , the language of stations will be changed as defined value.

To change the language of station (*Other Station*)

1. Press the LED of {**Station Language Change**} button
Or
Press the **[TRNS/PGM]** key and dial code 51.
2. Press **[HOLD/SAVE]** button for updating database permanently. If this feature is programmed successfully, the language of stations will be changed as defined value.

Conditions

1. This feature code can be programmed to flexible button program.
2. The pre-programmed {**Station Language Change**} key will be used as a toggle key.
3. Only if English can be selected as the language of station in admin program, this feature will not work.

Admin Programming

- Language Code
(Station Base Program (Main Menu 2) – Language Code (Sub Menu 9))

33. Two Way Recording

Description

This feature allows a user to record the conversation while he or she is talking with the CO party, which will be saved in its own mailbox.

Operation

If a user presses the **[RECORD]** button during conversation with a CO party, then the conversation will be recorded at the user's mailbox. If the user presses the **[RECORD]** button again or just hangs up, then the recording will be finished and the user receives a message from DVIB.

- ☐ **To start recording the conversation;**
1) Press **[RECORD]** button
- ☐ **To end recording the conversation;**
1) Press **[RECORD]** button again, or replace the handset.

Conditions

1. Keyset user should have a flexible button programmed for this feature, which is called **[RECORD]** button.
Button Program: **[TRNAS/PGM]** + flex button + **[TRNAS/PGM]** + #4 + **[HOLD/SAVE]**
2. This feature is not available on SLT and Wireless Terminal.
3. While the conversation is being recorded, the **[RECORD]** button will flash at 240 IPM. And after it is finished, the **[RECORD]** button will be extinguished.
4. This feature is not available on SLT.
5. Recording operation is finished when station goes on-hook, or **[RECORD]** button is pressed again.
And if **[FLASH]**, **[TRANS]**, **[HOLD]**, or **[CONF]** button is pressed, or CO party hangs up during the recording, recording procedure is also finished.
6. This feature is not available during an ICM call.

Programming

- ✧ Two Way Recording
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu12)

Hardware

DVIB is needed.

34. WAKE-UP ALARM

Description

The station or attendant can register a "wake-up" or alarm time in the system. When the time is reached, the system will signal the station with an audible and visual signal.

Operation

- ✧ To register a Wake-Up time from the attendant station;
 1. Press the **[TRNAS/PGM]** button.
 2. Dial 4 1.
 3. Dial station range to be alerted, if a single station is to receive alerting, enter an * in place of the second station.
 4. Dial 4 digit hour and minute for alerting.
 5. Dial '#' for wake-up alarm until cancellation, if not wake-up alarm is canceled automatically, after the first wake-up alarm ringing.
 6. Press the **[HOLD/SAVE]** button.
- ✧ To cancel a Wake-Up time from the attendant station;
 1. Press the **[TRNAS/PGM]** button.
 2. Dial 4 2.
 3. Dial station range to be alerted, if a single station is to receive alerting, enter an * in place of the second station.
 4. Press the **[HOLD/SAVE]** button.
- ✧ To register a Wake-Up time from a station;
 1. Press the **[TRNAS/PGM]** button.
 2. Dial 4 1 .
 3. Dial 4 digit hour and minute for alerting.
 4. Dial '#' for wake-up alarm until cancellation, if not wake-up alarm is canceled automatically, after the first wake-up alarm ringing.
 5. Press the **[HOLD/SAVE]** button.
- ✧ To cancel a Wake-Up time from a station;
 1. Press the **[TRNAS/PGM]** button.
 2. Dial 4 2.
 3. Press the **[HOLD/SAVE]** button.

Conditions

1. On wake up signaling, if user lifts handset, the user receives MOH.
2. Ring signal : 30 Secs. On & 90 Secs. Off (3 times). After that, the ring signal will be transferred to Attendant station. LCD at Attendant displays the designated station.
3. Time (hh:mm) must be entered Military Format.
4. During wake-up ring, when user goes to off hook, the wake-up will be answered. MOH will be heard and the RS-232C message will be printed. If user goes to off hook during wake-ring pause time (90 seconds), only the RS-232C message will be printed as answered.

Programming

- ✧ Wake-up Fail Ring Timer
(System Timer Program(main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu21)

Hardware None.

35. Voice Mail Group

Description

The system can accommodate maximum 4 Voice Mail groups, each containing up to 6 stations. These stations must be SLT stations. This feature provides an interface to connect external VM/AA units to the system. This interface is done using in-band DTMF digits to signal to/from the VM unit. Voice Mail allows unanswered calls to be handled. Auto Attendant allows callers to reach destinations without any operator. Stations assigned into a VM group provide a Hunt operation. If one station in the group is busy, a call will be automatically sent to the next station in the group. The hunting type is circular.

Each VM group can have a Leave and Retrieve Index table associated with it. This table allows programmable DTMF sequences to be setup to integrate the phone system with a VM unit. Each index table can contain up to 12 DTMF digits including special characters.

The system will light and extinguish Message/VM lights. The system will also be able to display the number of message on the LCD of telephones connected to the system.

Operation

1. Station A is forwarded to a VM group. The forward type can be Unconditional, Busy, No-Answer, or Busy/No-Answer.
2. A call rings station A and forwards to the VM unit according to the forwarding type.
3. The call rings the VM port. When the VM port answers, the following digit sequence is sent to the VM port:

LEAVE TABLE PREFIX + Station Number + LEAVE TABLE SUFFIX

The caller continues to hear ring back tone until all the digits are sent to the VM unit. After all the digits are sent, the caller is connected to the VM unit.

4. VM port will send information for the number of messages, for example *8 + station number + number of messages.
5. Recorded message is saved for Station A and **[CALLBK]** LED on Station A starts to flash. Station A can hear voice message by pressing **[CALLBK]** or dial the VM pilot number.
6. When there is any message after retrieve the message, VM port will send the information to clear the message wait indication. For example, *9 + station number.

Conditions

1. When internal station dials individual VM port number instead of group number, then in-band stream for VM is not sent.
2. An incoming CO ring (i.e. a ring assignment) does follow forward to VM group.
3. When CO ring is assigned only one station in system, and the station is in call forward mode to group, Circular, Terminal, UCD or Ring, then incoming CO ring is routed to group.
4. When CO call is transferred to a station and the station is in call forward mode to group, Circular, Terminal or UCD, then transfer call is routed to group.

Programming

- ✧ Group Type Assignment
(Station Group Program(Main Menu 11) – Hunt Group Program(Sub Menu 1) – Terminal Menu 1)
- ✧ Group Member Assignment
 1. (Station Group Program(Main Menu 11) – Hunt Group Program(Sub Menu 1) – Terminal Menu 2)
- ✧ VM Group Attributes
(Station Group Program(Main Menu 11) – Hunt Group Program(Sub Menu 1) – Terminal Menu 3)
- ✧ VM Dialing Table
(Station Group Program (Main Menu 11) – VM Dialing Table (Sub Menu 2))

Hardware

3. INTERCOM FEATURES

1. AUTO RELEASE OF [MON] BUTTON

Description

After activating certain features; Call Forward, etc., if the Keyset is in the Monitor or Speaker-phone mode, the Keyset will automatically return to idle and the LED of the **[MON]** button will extinguish.

Operation Operation of this feature is automatic.

Conditions

1. If the user enters the wrong data and error tone is received, the Station will not go idle until the programming is correct and confirmation tone is received.
2. This feature applied all of the feature in program mode. This feature also applied to Call Back, Call Forward.

Programming

Hardware None.

2. AUTOMATIC SPEAKER ACTIVATION

Description

A station can, without lifting handset or pressing the **[MON]** button, place an intercom call with a DSS Flexible button, place a CO Line call with speed dial, or gain access to a CO Line by pressing the associated button. Selection places the telephone in the on-hook dialing mode activating the speaker phone or monitor mode based on the station type and the station programming.

Operation

- ✧ To use Automatic Speaker Activation for an outside call;
 - (1) Select a CO Line.
 - (2) Dial desired number.
 - (3) Lift the Handset to converse privately.
- ✧ To use Automatic Speaker Activation for an internal call;
 - (1) Press desired DSS button.
 - (2) Lift the Handset to converse privately.
- ✧ To use Automatic Speaker Activation for a Speed Dial;
Press the desired Speed Dial Flexible button, or
 - (1) Press **[SPEED]** button.
 - (2) Dial the desired Speed Dial bin.
 - (3) Lift the Handset to converse privately.

Condition

Programming

- ✧ Automatic Speaker Selection
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal Menu7)

Hardware None.

3. CALL ANNOUNCE w/HF ANSWER BACK

Description

Each keyset equipped with speaker phone can adjust the intercom signaling mode so as to receive call announcements and be able to respond to the announcements hands-free by simply answering back in a normal speaking voice.

Operation

- ✧ To assign Call Announce w/HF Answer Back;
 - (1) Press the **[TRNAS/PGM]** button.
 - (2) Dial 49, confirmation tone is received.
 - (3) Dial signaling mode code 1 for HF Answer Back.
 - (4) Press the **[HOLD/SAVE]** button, confirmation tone is received.

Condition

Programming

Hardware None.

4. CALL ANNOUNCE w/PRIVACY

Description

Each keyset equipped with a speaker phone can adjust the intercom signaling mode so as to receive a voice announcement with the microphone muted for privacy.

Operation

- ✧ To assign Call Announce w/Privacy;
 - (1) Press the **[TRNAS/PGM]** button.
 - (2) Dial 49, confirmation tone is received.
 - (3) Dial signaling mode code 3 for Privacy.
 - (4) Press the **[HOLD/SAVE]** button, confirmation tone is received

Condition

Programming

Hardware None.

5. CALL FORWARD

5.1. CALL FORWARD, UNCONDITIONAL

Description

A user may direct the system to immediately re-route (forward) all calls except recalls to another station.

Operation

- ✧ To activate Unconditional Call Forward
 - (1) Lift the Handset or press the **[MON]** button.
 - (2) Press the **[DND/FWD]** button.
 - (3) Dial Call Forward Code 1.

- (4) Dial station number to receive the calls.
- (5) Replace the Handset, go on-hook.

- ✧ To deactivate Unconditional Call Forward from idle;
Press the **[DND/FWD]** button.

- ✧ To deactivate Unconditional Call Forward from off-hook;
 - (1) Press the **[DND/FWD]** button.
 - (2) Dial #.

Conditions

1. Call Forward will remain engaged until manually released by the station.
2. Calls can not be forwarded to a station in the DND mode. An error tone will be received when this is attempted. It can be forwarded to a busy station.
3. Call Back requests, Message Waiting request and DND are canceled when a station is placed in the forward mode.
4. A forwarded call will signal to the forwarded station in the Tone mode, regardless of the intercom signaling switch mode selection.
5. A station in the forward mode can make outgoing calls (internal or external).
6. A station denied the use of call forwarding will receive an error tone when pressing the **[DND/FWD]** button.
7. A forwarded CO line call can be transferred back to the original forwarding station, effectively overriding the forward. A forwarded station receiving the call forward can call the original forwarding station.
8. A callback cannot be initiated when station is in call forward.
9. If a CO line rings into a station with manual call forward the line will sequence to the last station of the chain. If the last station is in DND mode or does not have a direct appearance for {CO} or {LOOP} button the call reverts back to the previous station.
10. If a CO line rings into a station with both manual and preset call forwarding, manual call forwarding takes precedence.
11. An unlimited number of stations can be setup in a manual call forward chain. However, a station cannot forward to a station that is already a member of his chain.
12. If the last member of the manual call forward chain is in DND mode, the caller will hear DND tone for ICM call.
13. Forwarded data should be battery back-up, protected.
14. Call Forward type can be flexibly assigned to a flex button.

Programming

- ✧ Call Forward
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal Menu4)

Hardware None.

5.2. CALL FORWARD, BUSY/NO ANSWER

Description

A user can direct the system to re-route (forward) calls to a station when the user's station is busy and/or does not answer in a predefined "No Answer" time. Incoming CO Line, transferred CO Line and ringing Intercom calls are forwarded by this feature.

Operation

- ✧ To activate Call Forward Busy/No Answer;
 - (1) Lift the Handset or press the **[MON]** button.
 - (2) Press the **[DND/FWD]** button.
 - (3) Dial Call Fwd Code: (2 - busy only , 3 - no answer only , 4 - busy/no answer)
 - (4) Dial station number to receive the calls.
 - (5) Replace the Handset, go on-hook.

- ✧ To deactivate Call Forward Busy/No Answer from idle;
Press the **[DND/FWD]** button.

- ✧ To deactivate Call Forward Busy/No Answer from off-hook;
 - (1) Press the **[DND/FWD]** button.
 - (2) Dial #.

Conditions

1. The number of rings before the call is forwarded is determined by the Call Fwd/No Answer timer.
2. The **Codes 2, 3, 4** are as follows,

DND/FWD

 + **Code 2** + Station

DND/FWD

 + **Code 3** + Station

DND/FWD

 + **Code 4** + Station
3. Stations Call Forwarded/No Answer will forward incoming CO calls according to the No Answer Ring Timer.
4. A callback can be initiated when station is in call forward, busy/no answer.
5. Call Forward type can be flexibly assigned to a flex button.

Programming

- ✧ Call Forward
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal Menu4)
- ✧ Call FWD No Answer Timer
(System Timers(main menu6) – System Timer 1 (Sub Menu 1) – Terminal Menu12)

Hardware None.

5.3. CALL FORWARD, OFF-NET

Description

Stations will be allowed to forward ICM and transferred CO line calls using an outgoing CO line.

Operation

- ✧ To activate a Station Off-Net Call Forward condition;
 - (1) The handset is lifted (or **[MON]** button pressed) and dial tone is received.
 - (2) Press the **[DND/FWD]** button and then dial **Code 5** (off-net).
 - (3) Press {CO} button if needed, and dial Speed bin No.
 - (4) Replace the handset. Go on-hook.
 - (5) When the forward is accepted, confirmation tone is received and **[DND/FWD]** LED flashes at 30 ipm. Station goes to idle status automatically.
- ✧ To remove a Station Off-Net Call Forward condition;
 - (1) In idle status, press the **[DND/FWD]** button,
or in off-hook status, press **[DND/FWD]** button and dial **Code #**.
 - (2) **[DND/FWD]** LED is extinguished. Station goes to idle status automatically.

Conditions

1. Call Forward will remain engaged until manually released by the station.
2. Forwarding is unconditional and occurs immediately when a station calls an off-net forwarded station.
3. The call to a station is not answered until the outgoing CO line has been seized and the digits have been out pulsed. The calling station will receive ICM Ring back tone until answered. Upon answer, the station will receive whatever CO progress tones apply, i.e. Ring back, Busy, Error, announcement, etc.
4. If Station Call Forwarding is denied, off-net forwarding is denied also.
5. If a speed bin is programmed under a flex button, the user may go off hook, depress the **[DND/FWD]** button and dial Code 5 then press the flex button.
6. Toll restriction will be based upon the COS of forwarding station.
7. The calling station and Off-net forwarding station must have an appearance ({CO}, {LOOP}) for the outgoing Off-Net line. The call will not be forwarded if a {CO} or {LOOP} button is not programmed.
8. SMDR printout will reflect transferred and outgoing calls like the DISA call record.

9. A speed dial no. with a flash in it, when used for Off-Net Call Forwarding will dial all digits before the flash command but will not perform the flash or dial digits after the flash has occurred.
10. Forwarded data should be battery back-up and protected.
11. A callback can be initiated when station is in call forward, off-net
12. Call Forward type can be flexibly assigned to a flex button.
13. When user makes CO to CO call by transferring CO to the station in off-net forward mode, this CO to CO call is controlled by the Unsupervised Conference Timer if all the CO lines are analog lines. So this CO to CO call is automatically disconnected after the Unsupervised Conference Timer has expired. But if CO to CO call includes at least one ISDN CO line, this call is not controlled by the Unsupervised Conference Timer. So this call is disconnected when ISDN CO line hangs up.

Programming

- ✧ Call Forward
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal Menu4)

Hardware None.

5.4 Call Forward, Incoming CO Line Off-Net

Description

The system attendant can direct the system to re-route (forward) incoming CO Line calls to a directory (telephone) number outside the system. When a call is received, the system will access an outgoing CO Line and dial the telephone number entered by the attendant. Note that the system will automatically disconnect the call after the Conference timer has expired.

Operation

- ☐ **To activate CO Line Off-Net Call Forward from the attendant;**
 - 1) Lift handset or press **[MON]** button.
 - 2) Press **[DND/FOR]** button.
 - 3) Dial Call Forward **Code 6**.
 - 4) Dial CO Line/Group Access Code (9, 81-84, 881-888 or 8* for all CO lines).
 - 5) Dial the Speed Dial bin number with the desired telephone number.
 - 6) Replace the handset to go on hook.

- ☐ **To deactivate CO Line Off-Net Call Forward from the attendant;**
 - 1) Lift handset or press **[MON]** button.
 - 2) Press **[DND/FOR]** button.
 - 3) Dial **Code #**.

Conditions

1. CO to CO call by this feature, Incoming CO line Off-Net Call Forward, is controlled by the Unsupervised Conference Timer if all the CO lines are analog lines. So the call is automatically disconnected after the Unsupervised Conference Timer has expired. But if CO to CO call includes at least one ISDN CO line, the call is not controlled by the Unsupervised Conference Timer. So the call is disconnected when ISDN CO line hangs up.
2. This feature is activated when a CO call comes in from DISA line, and outside caller dials the attendant. If the attendant is set to forward calls to off-net, the incoming CO call is re-routed to outside line.
3. When the attendant is in off-net forward mode, it cannot leave a message wait to a station.

Programming

- ✧ Call Forward Access
(Station Base Program (Main Menu 2) – Sub Menu 1 – Terminal Menu 4)

- ✧ Unsupervised Conference Timer
(System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 14)

Hardware None.

6. CALL WAITING (CAMP-ON)

Description

Call Waiting is employed to signal a busy station user of a call waiting in queue. The busy station (off-hook or on speaker phone) is notified of the call waiting by a camp-on tone and flashing LED on the **[HOLD/SAVE]** button.

Operation

- ✧ To activate Call Waiting when receiving intercom busy tone;
Dial *, the last station digit, press the busy DSS Flexible button, or Call Wait Flexible button. Then the waiting station will hear ring back tone or music. It can be programmable to listen to music instead of ring back tone in the waiting station (System Program (Main Menu 5) – System Attributes (Sub Menu 1) – Terminal Menu 8).
- ✧ To answer a Call Waiting;
Press the **[HOLD/SAVE]** button, the active CO Line is placed on Exclusive hold and the call waiting connected.
If the station is SLT, the user press HF{Hook Flash} before pressing * or the last station digit.

Conditions

1. This feature can be flexibly assigned to a flex button. (**[TRNAS/PGM]** + 85)
2. Camp-on can not be applied to a station in a conference or paging.
3. Station (A) is camped-on to Station (B) and Station (A) hangs up, then camp-on is canceled.
4. Camp-on tone should be heard at Station (B) whenever Station (A) presses Camp-on Code.
5. If Station (A), which has a transfer holding Co Line and camps-on to Station (B), goes on hook, then the Co Line is transferred to Station (B), the Co line status changes to exclusive hold.
6. In a Wireless Terminal, the CO call in exclusive hold can be answered by pressing **[HOLD (📞)]** button after a Wireless Terminal goes to off-hook from idle state.
(If a Wireless Terminal has a held CO line by itself, the holding status is displayed on the LCD when a Wireless Terminal goes to off-hook from idle state.)
1. Music source can be programmed in Admin programming. (MOH (Music-On-Hold) type: Main Menu 5 – Sub Menu 13).
2. With this feature disabled, a station hears ring-back tone while it is making camp-on to another station.
3. If station connected CO party transfers CO call to the busy station (unscreened transfer) and makes camp-on, the transferring station will hear music instead of ring-back tone. If the station goes on-hook, the transferred CO party will hear music continuously until transfer recall timer is expired.

Programming

Hardware None.

7. DAY/NIGHT CLASS-OF-SERVICE

Description

This feature permits station dialing to be limited based on the Station Class of Service assignments. Separate COS assignments are programmed to each station for day and night operation. Dialing restrictions applied are the result of the interaction of COS assignments as shown below.

COS 1 : No Restriction.

COS 2 : Allow / Deny Table A.

COS 3 : Allow / Deny Table B.

COS 4 : Allow / Deny Table A and B.

COS 5 : Not Allow first digit 0. Canned Toll Table Allow / Deny.

COS 6 : Max 8 digits, Not allow first digit 0. Canned Toll Table Allow / Deny.

COS 7 : Internal Call Only.

Operation Operation of this feature is automatic when programmed.

Programming

- ✧ Station Class-Of-Service
(Station Base Program(main menu2) – Sub Menu3)
- ✧ PABX Access Codes
(System Base Program(main menu5) – Sub Menu5)
- ✧ Toll Tables
(Toll Table(main menu7))

Hardware

When the system is installed behind a PABX and PABX Trunk Access Codes are assigned, restrictions are applied only after a PABX Access code is dialed as the first digit(s).

8. DO-NOT-DISTURB (DND)

Description

A station can be programmed to allow the user to activate Do-Not-Disturb, DND. While in DND, the station will not receive ring for CO Lines, transferred calls, intercom calls and will not receive paging announcements. Only the attendant can contact the DND station.

Operation

- ✧ To activate Do-Not-Disturb, press the **[DND]** button.
- ✧ To deactivate Do-Not-Disturb, press the **[DND]** button.

Conditions

1. A station not allowed to access DND will receive an error tone when the **[DND/FWD]** button is pressed.
2. Pressing the **[DND/FWD]** button while the telephone is ringing eliminates the ringing when DND is allowed.
3. Pressing the **[DND/FWD]** button while Call Forward is activated, cancels Call Forward.
4. An ICM calling station will receive DND tone when dialing a station in DND.
5. DND allowance is programmable for ICM Box.
6. Attendant can override the stations in DND by using camp-on. Attendant does not have DND service.
7. Station **(A)** is Preset Forwarded to Station **(B)**. If Station **(B)** is in DND, then the incoming call will bypass Station **(B)** and forward to the next station in the Preset Forward chain. If Station **(B)** is the last station in the chain, then the incoming call will ring at Station **(A)** until answered.
8. Recalling, Wake up ring, Alarm ring can override DND.
9. A station in DND is out-of-service for calls to a station, and will be bypassed by calls forwarded to the station.

Programming

- ✧ DND
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal Menu1)

Hardware None.

9. ICM DIAL-TONE REORDER, ICM FLASH

Description

While on an intercom call with another station or during a page, a station may terminate the call and receive new Intercom dial-tone using the **[FLASH]** button.

Operation

- ✧ To request new Intercom dial-tone while on an intercom call;
Press **[FLASH]** button.

Conditions

1. Station (A) on a ICM call with Station (B), Station (A) presses **[FLASH]** button, receives ICM Dial tone, Station (B) will receive error tone in off-hook status or will go to idle status in on-hook status.
2. Station (A) on a page announcement, Station (A) presses **[FLASH]** button, receives ICM Dial tone and the page announcement is terminated.
3. When Station (A) is holding a CO line to transfer and is talking with Station (B), if Station (A) presses **[FLASH]** button, then held CO line is transferred to Station (B).

Programming

Hardware None.

10. ICM SIGNAL MODE SELECTION

Description

Each Keyset can set the signaling mode for incoming intercom calls. Keysets equipped with the Speaker Phone can select from the 3 signaling modes below;

- ✧ HF - Call announce with Hand-Free answer-back
- ✧ TN - Tone ringing
- ✧ PV - Call announce with privacy

Stations which are not speaker phone equipped keysets can select between call announce with privacy or tone ringing.

Operation

- ✧ To assign the signaling mode;
 - (1) Press the **[TRNAS/PGM]** button.
 - (2) Dial 49, confirmation tone is received.
 - (3) Dial signaling mode code (1 = HF / 2 = TN / 3 = PV)
 - (4) Press the **[HOLD/SAVE]** button, confirmation tone is received.

Conditions

1. To answer an ICM call in tone mode, a user should lift handset or press **[MON]** button.
2. Message Waiting/Callback/Calls Forward will ring in the tone mode, regardless of ICM Signaling Mode.
3. When an ICM call is received, the keysets will be signaled in accordance with ICM Signaling Mode.
4. At Digital Keyset, ICM Answer Mode is 'T' Position by default, and ICM Answer Mode should be protected.

Programming

Hardware None.

11. INTERCOM CALL

Description

The system incorporates a non-blocking internal communications network (intercom) which can be accessed by all stations connected to the system. A station is allowed to call another station in the system or to access page zones by dialing the applicable number from the numbering plan.

Operation

- ✧ To place an intercom call;
 - (1) Lift the Handset or press the **[MON]** button.
 - (2) Dial the desired station intercom number. If the called station is in the Intercom ring mode, ring back tone is received. If the called station is in the Privacy or HF Answer back mode, Intercom call announce tone is received and the calling party can announce the call.

Conditions

1. ICM Dial tone will time out if action is not taken within Dial Tone Timeout Timer. Error tone is received after time out.
2. The time between digits cannot exceed Inter-Digit Timer, or error tone is presented.
3. ICM Dial tone is removed after dialing the first digit.
4. If dialed station is busy, then calling station hears ICM Busy tone.
5. If one of the two stations on an ICM call hangs up, the other station if on-hook status, will go to idle, if off-hook status the station will receive ICM Error tone.
6. To adjust Voice Gain, use **[UP/DOWN]** Keys.

Programming

- ✧ Inter-digit Time
(System Timers(main menu6) – System Timer 1 (Sub Menu 1) – Terminal Menu18)

Hardware None.

12. MESSAGE WAIT/CALL-BACK

Description

A station can activate call back or message waiting when calling a station which is busy, does not answer, or is DND. A station may receive a message wait or call back from up to 5 other stations in the system. The station receiving the message can call the parties who left the message wait.

Operation

- ✧ To leave a message wait to an idle station that does not answer;
Press the **[CALLBK]** button, receives confirmation tone and hang up. The **[CALLBK]** LED at the receiving station will flash at 30 ipm.
- ✧ To leave a message wait to a station in DND;
Press the **[CALLBK]** button. The **[CALLBK]** LED at the receiving station will flash at 30 ipm.
- ✧ To answer a message wait;
Press the flashing **[CALLBK]** button. The station leaving the message will receive intercom ring.
- ✧ To leave a call back to a busy station;
Press the **[CALLBK]** button, receives confirmation tone and hangs up.

When the receiving station returns to idle, the initiating station rings and the **[CALLBK]** LED will flash. When the initiating station answers, the receiving station is signaled and the call back request is removed.

If the initiating station is busy or does not answer in 30 seconds, a message wait will be left at that Station. If the station's message queue is full, the call back request will be canceled.

Conditions

1. The call back will always ring in the tone mode regardless of the intercom signaling mode switch.
2. A station can leave only one of callback or message. A new request overrides a previous one.
3. The **[CALLBK]** LED will continue to flash until all the call back requests have been serviced.
4. A station attempting to leave a message at a station which has 5 messages already left and one of those is not equal to an attempting station, will receive ICM busy tone.
5. A station receiving message waiting can be given a message waiting reminder tone of 0.5 second duration at a prescribed interval. The interval of the message waiting reminder tone is system programmable from 00 to 60 minutes. When a reminder tone is not desired, 00 is entered.
6. The reminder tone will continue until all messages have been retrieved.
7. Station that forwards his station to another station cannot leave a message wait. (In the case of unconditional forward)
8. Station that forwards his station to another station with unconditional mode cannot leave a call back. With other forward types except unconditional type, he can request call back.
9. Call back to a station in a conference or paging is allowed.
10. A station may call back to station(s) that left messages in any desired order by calling station which he wants to converse.
11. With 2/8 Button Keyset, user can request Message Wait/Call Back by pressing **[TRNAS/PGM]** key and dialing **Code 56**. And user can answer the Message Wait Request by dialing **Code 57**.

Programming

- ✧ MSG Wait Reminder Timer
(System Timers(main menu6) – System Timer 1 (Sub Menu 1) – Terminal Menu15)

Hardware None.

13. MESSAGE WAIT REMINDER SIGNAL

Description

A station with a message waiting can receive a periodic audible reminder of the message waiting. This signal is sent to Keysets only while idle and is presented over the speaker.

Operation Operation of this feature is automatic when programmed.

Condition

Programming

- ✧ Message Wait Reminder Timer
(System Timers (main menu6) – System Timer 1 (Sub Menu 1) – Terminal Menu15)

Hardware None.

14. MICROPHONE MUTE

Description

The transmit audio from a Keyset can be blocked by the user so that voice at the keyset is not sent to the connected part thus providing privacy for local discussions.

Operation

- ✧ To remove (mute) the transmit audio from a Keyset;
Press the **[MUTE]** button, the **[MUTE]** LED illuminates. The connected party does not hear the muted station.
- ✧ To restore transmission from the Keyset;
Press the illuminated **[MUTE]** button. The **[MUTE]** LED is extinguished and transmission is restored.

Condition

Programming

Hardware None.

15. ON-HOOK DIALING

Description

A station can place calls without lifting the handset by activating the speaker phone or monitor mode. If the speaker phone is disabled or the keyset is not speaker phone equipped, the user must lift handset to converse.

Operation

- ✧ To use on-hook dialing for an outside call;
 - (1) Press the **[MON]** button.
 - (2) Select a CO Line.
 - (3) Dial desired number.
 - (4) Lift the Handset to converse privately.
- ✧ To use on-hook dialing for an internal call;
 - (1) Press the **[MON]** button.
 - (2) Dial desired number.
 - (3) Lift the Handset to converse privately.

Conditions

1. The system will allow dialing a number in the numbering plan without pressing **[MON]** button first.
2. To terminate an unanswered call, press the illuminated **[MON]** button. Then call is terminated, and **[MON]** LED is extinguished.
3. When auto speaker disabled, user should lift handset or press **[MON]** button to activate system feature.
4. When using a keyset with a speakerphone, the microphone is active unless the **[MUTE]** button is pressed.

Programming

- ✧ Speaker phone/Headset
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal Menu6)
- ✧ Auto Speaker Selection
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal Menu7)

Hardware None.

16. To Leave DVIB Message by [CALLBK] key during ICM Call

Description

User can leave voice message wait to a station, which has access to DVIB during ICM call instead of station number message wait. User can leave DVIB Message when calling a station which is busy, does not answer, or is DND. The station receiving DVIB message can retrieve saved DVIB message.

Operation

Keyset User

To leave a message wait to an idle station that does not answer

1. Make an ICM call to a station, which is idle. Ring Back Tone is heard.
2. Press **[CALLBK]** key.
User can record his voice message after Record Start Prompt and Beep tone.
3. To finish record, press **[HOLD]** or hang up.
4. When user hangs up before valid record time, then record is cancelled and station number message wait is saved.

To leave a message wait to a station in DND:

1. Make an ICM call to a station, which is in DND. DND Tone is heard.
2. Press **[CALLBK]** key.
User can record his voice message after Record Start Prompt and Beep tone.
3. To finish record, press **[HOLD]** key or hang up.
4. When user hangs up before valid record time, then record is cancelled and station number message wait is saved.

To leave a message wait to a station in busy:

1. Make an ICM call to a station, which is in busy. Busy Tone is heard.
2. Press **[CALLBK]** key.
User can record his voice message after Record Start Prompt and Beep tone.
3. To finish record, press **[HOLD]** key or hang up.
4. When user hangs up before valid record time, then record is cancelled and call back is activated when station 101 goes to idle.

SLT User

To leave a message wait to an idle station that does not answer

1. Make an ICM call to a station, which is idle. Ring Back Tone is heard.
2. Make Hook flash and dial 56.
User can record his voice message after Record Start *Prompt and Beep tone*.
3. To finish record, hang up.
4. When user hangs up before valid record time, then record is cancelled and station number message wait is saved.

To leave a message wait to a station in DND:

1. Make an ICM call to a station, which is idle. DND Tone is heard.
2. Make Hook flash and dial 56.
User can record his voice message after Record Start *Prompt and Beep tone*.
3. To finish record, hang up.
4. When user hangs up before valid record time, then record is cancelled and station number message wait is saved.

To leave a message wait to a station in busy:

1. Make an ICM call to a station, which is idle. Busy Tone is heard.
2. Make Hook flash and dial 56.
User can record his voice message after Record Start *Prompt and Beep tone*.
3. To finish record, hang up.
4. When user hangs up before valid record time, then record is cancelled and call back is activated when Station 101 goes to

To retrieve saved voice message:

1. When there is saved voice message,
2. Press **[CALLBK]** key. Saved voice message will be heard.

Wireless Terminal User

To leave a message wait to an idle station that does not answer

1. Make an ICM call to a station, which is idle. Ring Back Tone is heard.
2. Press **[CALL BACK(●)]** key.
User can record his voice message after Record Start Prompt and Beep tone.
3. To finish record, hang up.
4. When user hangs up before valid record time, then record is cancelled and station number message wait is saved.

To leave a message wait to a station in DND:

1. Make an ICM call to a station, which is in DND. DND Tone is heard.
2. Press **[CALL BACK(●)]** key.
User can record his voice message after Record Start Prompt and Beep tone.
3. To finish record, hang up.
4. When user hangs up before valid record time, then record is cancelled and station number message wait is saved.

To leave a message wait to a station in busy:

1. Make an ICM call to a station, which is in busy. Busy Tone is heard.
2. Press **[CALL BACK(●)]** key.
User can record his voice message after Record Start Prompt and Beep tone.
3. To finish record, hang up.
4. When user hangs up before valid record time, then record is cancelled and call back is activated when Station 101 goes to Idle.

Conditions

1. If there is no available DVIB port when user presses **[CALLBK]** key, then confirm tone is heard and station number message wait is saved.
2. If there is no available recording time or DVIB message number, then confirm tone is heard and station number message wait is saved.
3. If called station does not have DVIB Access, then confirm tone is heard and station number message wait is saved.

Programming

- ✧ DVIB Access
(Station Base Program (Main Menu 2)-Station Attribute (Sub Menu 1)-Terminal Menu 11)

Hardware

1. DVIB Access

4. CO LINE FEATURES

1. Auto Call Number Redial (ACNR)

Description

This feature allows a station user to press **[REDIAL]** button and put him into an Auto Redial mode to automatically redial a busy number or no answer number.

Operation

To use ACNR in LCO Line

1. The LCOB board with CPT should be installed.
2. The CPT TN Detect should be set 'YES'.

To activate ACNR

1. A station user places a CO call and receives busy or no answer, then the user presses the **[REDIAL]** button and goes on hook.
2. The station is then placed in Auto Redial mode and ACNR Pause Timer is invoked. Then, the **[REDIAL]** button of the station start flashing until ACNR feature is canceled.
- 3.

To deactivate ACNR

1. Press flashing **[REDIAL]** button to deactivate ACNR in the idle state.
2. Or, lift the handset or press the **[MUTE]** button during the station seizing CO line is performing auto redial.
3. ACNR is deactivated automatically when ACNR retry counter expires.

When the ACNR feature is performed

1. When the ACNR Pause Timer expires, the ACNR will be performed. Then, the station is considered on-hook dialing mode and the CO line is seized and the last dialed number is automatically dialed.
2. During dialing, **[MUTE]** button and **[MON]** is lit. Upon completion of dialing, the (automatic redial) tone detector will be attached to that line to detect progress tone only from LCO.
3. When the called party answers, calling party must lift the handset or press the **[MUTE]** button to make a communication with called party. Then, this feature will be canceled and normal CO line calling sequence will be processed.

For ACNR No Answer Case

1. When the system detects the Dial Tone/RBT tone from LCO line or is received the connect message from ISDN line after ACNR call, the ACNR No Answer Timer is assigned.
2. Though the called party answers, the ACNR No Answer Timer isn't released.
3. Only when the calling party lift the handset or press the **[MUTE]** button to make a communication, the ACNR No Answer Timer will be released and the communication will be made.
4. If the called party doesn't answer during ACNR No Answer Timer, the ACNR feature will be canceled and the CO line will be automatically released and the calling station will go on-hook

For ACNR Busy Case

1. The system detects the busy tone from LCO line or is received the **[CAUSE Busy]** message from ISDN line.
2. The ACNR Retry Counter is decreased and the calling station will go on-hook. If the ACNR retry counter expires, the feature will be canceled. Otherwise, the ACNR Pause Timer will be assigned for next ACNR call

Conditions

Four timers and Two retry counter can be programmed.

ACNR Pause Timer	When expired, ACNR is activated.
ACNR Delay Timer	When ACNR Pause Timer expires and there is no available CO line in the group, this timer is invoked. When ACNR Delay Timer expires, Invoke ACNR Delay Timer again if there is no available CO line. ACNR is activated, otherwise.
ACNR Tone Detect Timer	This timer is invoked upon completion of dialing and system considers the CO party as busy in the case that CPTU cannot detect the valid tone type until this timer expires.
ACNR Tone Detect Timer	This timer is invoked upon completion of dialing and system considers the CO party as busy in the case that CPTU cannot detect the valid tone type until this timer expires.
ACNR No Answer Timer	This timer is invoked after system detects ring back tone or voice from CO party. After this timer expires, ACNR feature is canceled.
ACNR Retry Counter	This counter is decreased every time station retries ACNR. ACNR is canceled if this counter is set to 0.
ACNR No Tone Retry Counter	When a tone detect timer expired or not tone is detected, retry tone detect until this counter is expire. If this counter is expired, the system assumes busy tone is detected.

- User using keyset without **[REDIAL]** button such as 2/8 btn keyset, must program **[REDIAL]** button.
[TRNS/PGM] + {Flex} + [TRNS/PGM] + 97 + [HOLD/SAVE]
- In ACNR mode, when predefined CO line is busy, available CO line in the same group will be seized.
- The number of ACNR Retry Counter is decreased only when CO line is seized and number is dialed.
- A station user must have a **{CO}** button or **{LOOP}** button.
- When ACNR Pause Timer expires, if the station is in busy state, ACNR Delay Timer is invoked.
- During ACNR, **[MUTE]** button goes on automatically to disable Tx.

Programming

- ✧ CPT TN Detect
(CO Base Program(Main Menu 3) – CO Line Attribute(Sub Menu 1) – Terminal Menu 8)
- ✧ ACNR Pause Timer
(System Timer Program(Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 8)
- ✧ ACNR Delay Timer
(System Timer Program(Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 9)
- ✧ ACNR Tone Detect Timer
(System Timer Program(Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 10)
- ✧ ACNR No answer Timer
(System Timer Program(Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 11)
- ✧ ACNR Retry Counter
(System Timer Program(Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 12)
- ✧ ACNR Retry No Tone
(System Timer Program(Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 13)

Hardware

LCOBE with CPTU(2 Port) – Spain Only
LCOBA with CPTU(2 Port) – New Board
LCOB4 with CPTU (4 Port) - New Board

2. AUTOMATIC HOLD**Description**

This feature enables the station user to place calls on hold when selecting one line from another. (i.e. Station **(A)** on CO 1, CO 2 incoming ring, Station **(A)** depresses CO 2 and CO 1 automatically goes on Hold.)

Operation

While on a CO line, the station user seizes another CO line by depressing the {CO} button. The first CO line goes on Hold automatically.

Conditions

1. The CO lines that are put on Hold by this feature will follow the Hold Preference.
2. There is no limit to the amount of lines that can be put on Hold by this feature.
3. A Wireless Terminal does not support this feature.

Programming

- ✧ Hold Preference
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu1)
- ✧ Automatic Hold
(Station Base Program(Main Menu2) - Station Attribute(Sub Menu1) - Terminal Menu9)

Related Features

Hardware None.

3. AUTOMATIC PAUSE INSERTION**Description**

The system will automatically insert a timed pause in a Speed Dial or Redial number, if a Flash or PABX access code is included in the number.(Analog CO Line only)

Operation Operation of this feature is automatic.

Conditions

1. The automatically inserted pause does not count as a digit stored in speed dial numbers.
2. Pause Timer is determined by CO parameter programming.
3. The "P" for Pause will be displayed onto LCD in case of a programmed pause command only.

Programming

- ✧ Pause Timer
(System Timers(Main Menu6) – System Timer 1 (Sub menu 1) – Terminal Menu8)

Hardware None.

4. Call Park

Description

A CO line connected to a station can be placed into a parking location and can be retrieved by the originating or any other station if the corresponding park code (601~606) is dialed.

Operation

To park a CO line call from DKTU

1. Press **[TRNAS/PGM]** during the conversation with the outside party.
2. Dial park code (601 ~ 606) or press the flexible button programmed as a "Park code".
3. Confirmation tone is heard if the call is parked successfully.
Otherwise ICM busy tone is heard.

When the call is parked, the corresponding "Park code" flexible buttons in all stations flash at a rate of 120 IPM while the call is parked in a location.

Or,

1. Press the flexible button programmed as a "Park code" during the conversation with the outside party.
2. Confirmation tone is heard if the call is parked successfully.

When the call is parked, the corresponding "Park code" flexible buttons in all stations flash at a rate of 120 IPM while the call is parked in a location.

To park a CO line call from SLT

1. Make a hook flash and dial park code (601-606).
2. Confirmation tone is heard if the call is parked successfully. Otherwise ICM busy tone is heard.
3. The corresponding "Park code" flexible buttons in other stations flash at a rate of 120 IPM while the call is parked in a location.

To retrieve a parked CO line call from an idle DKTU

1. Lift handset or press **[MON]** button.
2. Dial the appropriate park code (601 ~ 606) or press the appropriate flashing flexible button programmed as a "Park code".

To retrieve a parked CO line call from a DKTU engaged in the conversation with outside party

1. Press the appropriate flashing flexible button programmed as a "Park code" during the conversation with the outside party.
2. The previous call is put on hold or released according to the Admin setting (Station Base Program (Main Menu 2) - Station Attributes (Sub Menu 1) - Automatic Hold (Terminal Menu 9)). And parked line is connected.

To retrieve a parked CO line call from SLT

1. Lift handset.
2. Dial the appropriate park code (601 ~ 606).

When the parked call is not retrieved until the Call Park Recall timer expires

1. The parked call can be retrieved only until the Call Park Recall timer expires.
2. If the Call Park Recall timer expires without being retrieved, the parked call is excluded from the parking location and recalled to the station that originally parked the call.
3. The originator of the call park feature rings until the I-Hold Recall timer expires.
4. If the I-Hold Recall timer expires with being unanswered, the attendant is also recalled. At this time, two stations, the attendant and the originator, are recalled.
5. The recall is maintained until the Attendant Recall timer expires.
6. If the Attendant Recall timer expires, the call is released immediately.

Conditions

1. Intercom calls cannot be placed into parking locations.
2. The station must have a {CO} button or a {LOOP} button to retrieve a parked call.
3. The park codes (601~606) can be programmed to a flexible button.
4. The "Park code" programmed flexible button flashes at a rate of 120 IPM while a call is parked in the corresponding parking location.
5. The associated LED of the parked CO line is steadily turned on while the corresponding call is parked. And the call can not be retrieved by directly pressing the CO line button since it is not flashing.
6. When a user tries to park outside call to a location that is already occupied, ICM busy tone is heard.
7. Parked calls can be retrieved only until the Call Park Recall timer expires after being parked.
8. Station cannot initiate call park feature if it has intruded the corresponding CO call.

Programming

- ✧ Call Park Recall Timer
(System Timer (Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 4)
- ✧ I-Hold Recall Timer
(System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 4)
- ✧ Attendant Recall Timer
(System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 5)

5. CALL FORWARD - Preset**Description**

The system database can be configured so that incoming CO Lines, which are programmed to ring to station, can be forwarded to an assigned station if the call is not answered in a predetermined time, Preset Forward Timer.

Operation Operation of this feature is automatic when programmed.

Conditions

1. A busy station, programmed in the database to receive CO ring, will receive muted ringing on an incoming CO call and the CO line is forwarded to the predetermined station.
2. Preset Call Forward is chainable only to other predetermined preset forward stations specified in the database up to a chain of 5 stations. If a CO line forwarded by Preset Call Forward encounters a station in DND or manual forward, then the incoming CO line will by pass that station and forward to the next in the chain. If that station is the last in the chain then the call will not forward any further and will continue to ring at that station until answered or termination.
3. Chainable Preset Call Forwarding will force the incoming CO line to ring at each station pre-assigned in the database for the Call Forward Ring Time specified in the database before forwarding.
4. When a CO line is forwarded via Preset Call Forward, the station programmed to ring will stop ringing, however, will continue to flash incoming on the CO line until the call is answered or terminated.
5. The preset forward line will only forward to a programmed station that has a {CO} or {LOOP} button for that line. If no direct appearance button or {LOOP} button, that station is bypassed.
6. Preset Call Forward can be chained up to 5 stations.

Programming

- ✧ Preset Forward
(Station Base Program(Main Menu2) - Sub Menu5)
- ✧ Preset Forward Timer
(System Timers(Main Menu6) – System Timer 1 (Sub Menu 1) - Terminal Menu11)

Hardware None.

6. CCR (Custom Call Routing) for DID or DISA

Description

Custom call routing (CCR) is an optional feature which permits the system to route calls based on caller's input (just one digit), rather than having the call routed to an operator.

System Greetings and DVIB MOH : Announcement type 1

Number	Announcement Name
11	CCR First Announcement
12	CCR Second Announcement
13	CCR Third Announcement
14	CCR Fourth Announcement
15	CCR Fifth Announcement
16	CCR Sixth Announcement
17	CCR Seventh Announcement
18	CCR Eighth Announcement
19	CCR Ninth Announcement

Operation

To activate CCR

1. When a call is answered by a system programmed with CCR, the caller is presented with a DVU announcement, which give a choice of destinations.
2. According to the guide message, the caller uses dial pad of a DTMF telephone to select one of the destinations.
3. Based on caller input, the call can be routed to a telephone system (extension, Hunt group, speed dial, page or system greeting).

Conditions

1. If a caller dials full destination number, the call will be routed to the destination according to GDK numbering plan.
2. If a caller dials only one digit and some period expires, GDK system will compare the digit with CCR table. If the digit is matched with CCR table, the call will route to a destination (extension, hunt group, a system greeting, Speed). Otherwise the call will be routed to DID/DISA error destination (ADMIN 5-6-2).
3. CCR feature is supported only for DID or DISA.
4. If the caller presented with a system announcement then the caller can retry 3 times for CCR.
5. If the caller dial '#' during CCR, the first DVIB announcement will be played again.
6. If the caller dial '*' before next DVIB announcement, the current DVIB announcement will be repeated again.
7. DVIB system announcement from 11 to 19 can be used for CCR.
8. Call routing will be decided according to current DVIB system announcement. So maximum depth is 9.
9. The external user can dial during the DVIB announcement or inter digit time (5 second) after the announcement.
10. If the caller does not dial any digit within inter digit time (5 second) after the DVIB announcement, the call will be routed to DID/DISA error destination.

11. The incoming CCR call will be served or disconnected after the programmed DVIB announcement according to CCR table program.
12. If the call is routed by "system speed dial" in CCR table, the call will be charged to the programmed station (it is same as Station off-net call forward)
13. If the call is routed by "system speed dial" then the call will be charged to the CO line (It is same as incoming off-net call forward)
14. When destination is programmed 'PAGE' in CCR Table and the DISA caller dials the digit, the call will be paged stations and any station can not Meet me. After some period, station will be idle automatically and LCO line will be disconnected.
15. Page from CO line can't be answered by pressing the **[HOLD/SAVE]** button or the code of meet-me answer. If station try to answer a meet me page request from CO, error tone & LCD message will be occurred.
16. DID line, You can assign DVU as the destination of MSN Table. When DID caller dials MSN Tell number which destination is DVU, Day or Night Greeting is presented according to system mode. The specific CCR Announcement can not be assigned as destination in MSN Table.

Programming

- ✧ MSN Table
(ISDN Program (Main Menu 4)-Sub Menu 10)
- ✧ CCR Table
(System Base Program (Main Menu 5)-Sub Menu 18)
- ✧ DISA Retry Count
(System Base Program (Main Menu 5)-Sub Menu7)
- ✧ DID/DISA Busy Destination
(System Base Program (Main Menu 5)-DID/DISA Destination (Sub Menu 6)-Terminal Menu1)
- ✧ DID/DISA Error Destination
(System Base Program (Main Menu 5)-DID/DISA Destination (Sub Menu 6)-Terminal Menu2)
- ✧ Inter Digit Timer
(System Timer (Main Menu 6)-System Timer 1 (Sub Menu1)-Terminal Menu 18)
- ✧ CCR Inter Digit Timer
(System Timer (Main Menu 6)-System Timer 2 (Sub Menu2)-Terminal Menu 6)

7. CLI Name Display/Print

Description

For ISDN line, when incoming calls comes, GDK system checks whether the received CLI is matched with the speed dial data or not. If received CLI number is matched to telephone number for a certain speed bin, and that speed bin has name, and then programmed speed bin name is displayed.

When incoming ISDN Call is answered, the CLI information is printed through RS-232C port.

Three types of CLI information printed through RS-232C port are listed below.

Type 1-◆ XX : DDDDDDDDDDD-This is printed when normal rings come or DID/DISA incoming calls come.

Type2-♠ XX : DDDDDDDDDDD:NNNNNNN(YY) -> SSSIf-This is printed when

1)DID destination station is determined

2)DISA caller dials station number

Type3-♠ ♠ XX: DDDDDDDDDDD:NNNNNNN(YY) -> SSSIf-This is printed when a station answers incoming calls.

Field(s)	Meaning(s)
If	Line Feed (0x0A)
◆	Control Character (0x07)
♠(^F)	Control Character (0x06)
Blank	ASCII space
XX	CO Line Number
DDD..DD	CLI(Calling Line Identification)
NNN..NN	Name of speed bin that is matched with CLI (ex> LGE SW TEAM)
YY	Speed bin number that is matched with CLI (ex> 30)
SSS	Ringing extension number, Answer extension number

Operation

To display CLI Name

- Both CLIP and CLI Name Display should be programmed as Yes.

To print out incoming call's CLI

1. Print Incoming call (Main menu 5-8-3) should be programmed as Yes.

When incoming calls come with CLI(at DKTU)

1. If CLI number is matched with a speed dial bin and the speed dial bin has a name, the name will be shown. But if it is not matched or saved without name, then only CLI number will appears.
2. When incoming calls are answered the lower right part of LCD, time indication part is replaced by 00:00:00 indicating connection time.

To see the CLI Name when user retrieves CLI Message Wait(at DKTU)

1. CLI message wait will be shown on LCD.
2. Press [**CALLBK**] key.
3. Then message contents (name or number, date and time) will be shown on LCD. Date will be displayed with MM/DD format. Time is displayed with the 24-hour format.
If retrieved CLI number is matched with a speed dial bin and the speed dial bin has a name, the name will be shown. But if it is not matched or saved without name, then only CLI number will appears.
4. To see the number of shown name, press [**CALLBK**] key again.
5. When retrieved CLI number is not matched or saved without name, only CLI number is shown. And it is not toggled by [**CALLBK**] button.
6. If you want to return a retrieved CLI, press [**HOLD**] button.

Conditions

1. The CLI number and CLI name is toggled by pressing [**CALLBK**] key during retrieving CLI message wait. The system checks station speed bins first and then checks system speed bins. So, if the same CLI number exists in both station
2. speed bin and system speed bin, then name of station speed bin will be displayed as CLI name.
3. If other station picks up a incoming call, then displayed CLI name is from the station which is picking up.
Of course, the CLI names of directed(called) station and picking-up station can be different for a incoming call.

Programming

- ✧ CLIP
(Station Base Program(Main Menu 2) – ISDN Station Attribute (Sub Menu 2) – Terminal Menu 6)
- ✧ CLI Name Display
(Station Base Program(Main Menu 2) – ISDN Station Attribute (Sub Menu 2) – Terminal Menu 8)
- ✧ Print Incoming call
(System Base Program(Main Menu 5) –SMDR Attribute(Sub Menu 8) –Terminal Menu 3)

8. CO LINE ACCESS

Description

As with all stations in the system, single-line telephone stations are allowed or denied access to the CO line by groups. Additionally, for the convenience of SLT users, the user may indicate which individual CO Line is desired through dial codes.

Operation

- ✧ To access a CO line using dial codes;
 - (1) Lift the Handset and receive Intercom dial-tone.
 - (2) Dial the CO access code:
 - any CO Line in the first accessible group : 9,
 - for the individual CO Group : 81 - 84
 - for the individual CO Line : 881 - 888.
- ✧ To terminate the outgoing call;
Replace the Handset.

Conditions

1. A telephone user denied access to a CO Line, receives error tone when code is dialed or CO line button is pressed.
2. Telephones denied access can receive a transfer from another station. But cannot flash.
3. A telephone denied access to a line, but assigned to have that CO Line ring will receive ringing, {CO} LED illumination, and can answer the line, the telephone user can transfer the line, but cannot flash.
4. If a user accesses a CO line by using dial access at a station without {CO} button or a {LOOP} button, error tone will be presented. If it has a {LOOP} button, the CO line will be placed on the {LOOP} button.
5. CO lines on hold cannot be accessed by using these dialing codes(88* or 8*). But, CO lines on hold be accessed by dialing 8#1 ~8#8 or 8### code.
6. Before inter-digit timer is expired, the telephone who seizes a CO line for outgoing is muted. In order to say, he can not transmit his voice or DTMF tone to a CO line. At this time, system sends a DTMF tone if that line is programmed to DTMF mode.

Programming

- ✧ CO Group Access
(Station Base Program(Main Menu2) - Sub Menu4)
- ✧ CO Line Group Assign
(CO Line Base Program(Main Menu3) - Sub Menu3)

Hardware None.

9. CO LINE TRANSFER

Description

Keyset users may transfer calls on CO Lines to other stations in the system. If the receiving station does not answer the call in the Transfer Hold Recall Time, the transferring station will receive recall. If the call remains unanswered, the attendant will also receive a recall for the Attendant Recall Time after which the CO Line will be disconnected and returned to idle.

Operation

- ✧ To perform an unannounced CO line transfer;
 - (1) Press the **[TRNAS/PGM]** button, Intercom dial-tone is received, the CO line is placed on Exclusive Hold, and the Recall Timer is activated.
 - (2) Dial the station intercom number to receive the transfer.
 - (3) Replace the handset, go on-hook.
- ✧ To perform an announced CO line transfer;
 - (1) Press the **[TRNAS/PGM]** button, Intercom dial-tone is received, the CO line is placed on Exclusive Hold, and the Recall Timer is activated.
 - (2) Dial the station intercom number to receive the transfer.
 - (3) When the station answers announce transfer.
 - (4) Replace the handset, go on-hook.

Conditions

1. During the camp-on sequence, if Station **(B)** pressed the **[HOLD/SAVE]** button, Station **(B)** would be connected to Station **(A)** and the outside line would go on hold.
2. Only the secretary assigned station can transfer a CO Line or camp-on to an executive station that is in DND mode. (Not Implemented Yet)
3. If the transfer recall timer expires when Station **(A)** transfers a CO Line to Station **(B)**, the recall will ring both Station **(A)** and **(B)**.
4. If a station transfers a call which is on his {LOOP} button button, his {LOOP} LED will flash at the I-Hold rate. If the call is picked up by another station his {LOOP} LED will be extinguished.
5. Transfer of outgoing CO line is not allowed when no dialing is performed to prevent a user from seizing higher COS line than his.

Programming

- ✧ Transfer Recall Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu3)
- ✧ I Recall Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu4)
- ✧ Attendant Recall Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu5)

Hardware None.

10. CO LINE GROUPS

Description

The system database provides grouping of similar types of CO Lines. The groups are used for common access pools and stations are assigned access to the groups. CO Lines are selected from the group based on the assigned method, round robin or last line, in order to minimize call collision (glare).

Operation Operation of this feature is automatic as programmed.

Conditions

1. The system has 4 groups available, with all 4 groups available with a predefined dial code. These groups are CO line groups 1 through 4.
2. Group 1 through 4 lines can be accessed by dialing the **Code 8** and the CO line group number.

Programming

- ✧ CO Group Access
(Station Base Program(Main Menu2) - Sub Menu4)
- ✧ CO Line Group Assignment
(CO Line Base Program(Main Menu3) - Sub Menu3)

Hardware None.

11. CO LINE RELEASE GUARD TIME

Description

When a station releases from a CO Line, the CO Line is held busy to all stations to allow the Central Office equipment time to return the CO Line to an idle condition. During the guard time, the system sends an idle condition to the CO and busy status is provided to system users.

Operation Operation of this feature is automatic as programmed.

Programming

- ✧ CO Line Release Guard Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu9)

Hardware None.

12. CO Line Queuing

Description

The CO Line Queuing allows stations when CO lines are busy to be placed on a list, awaiting that CO line (line base) or a CO line in the same group (group base) to become available. When a CO line becomes available, the system calls the waiting station, on a first in, first out basis.

Operation

To request to be placed in queue for a busy CO line(From DKTU)

1. Press busy **{CO}** or **{CO GRP}** button,
Or
Dial Co Access code (9, 8x, 88x).
The busy tone is heard.(ex. Dial 881)
2. Press the **[CALLBK]** key, then confirmation tone is heard then hangs up. The **[CALLBK]** LED lights steady.

To request to be placed in queue for a busy CO line(From SLT)

1. Dial Co Access code(9, 8x, 88x).
2. The busy tone for busy CO line is heard.
3. Make a hook flash and dial Callback Code 56.
4. Then, The confirmation tone is heard.

To cancel the feature from queued station.(From DKTU)

1. Press **[CALLBK]** key, the **[CALLBK]** LED extinguished.

To cancel the feature from queued station (From SLT)

1. Lift the handset.
2. The reminder tone for co queuing is heard.
3. Dial Callback Code 56.
- 4.

Conditions

1. A CO line can have any number of queues requested at one time.
2. A station permits only one CO line queuing request at one time. If a station attempt another coline queuing, only the later queued request is available.
3. When a busy CO line is available, it selects the oldest station in queue, and signals it. The signaled station will have the available **{CO}** or **{LOOP}** button, **{CO}** or **{LOOP}** LED flashes at 80 ipm queue callback. The audible ringing will be a distinctive signal. The CO line, while signaling the queued station, will remain steady on all other station, and that line is considered as busy when any attempt is done except a queued station.
4. The queued CO line will ring on the station regardless of the station signal mode.
5. If the waiting station is busy, and the queued CO line is available, that station is placed at the bottom of the queued list. The available CO line will then be directed to the next station that is idle.
6. If the waiting station is idle, and the queued CO line signals the station for 15 seconds, the queue is canceled and the next station in the queue is signaled.
7. In case of line base requesting, the queued line will be presented when idle.
8. In case of group base requesting, any line in a queued group can be presented when idle.
9. When the waiting station is received the callback ring from queued CO line and then the incoming call exists through the CO line, the callback ring will be canceled and the station will receive the incoming CO ring.
10. When the user dials code '9' and request the co queuing, the request will be regarded as group base queuing request.

13. DID (MSN) DAY/NIGHT DESTINATION

Description

MSN table has two destinations (station number and/or station group) for system day mode and night mode respectively. When DID call is received with MSN number, it rings at the destination (station or station group) according to the current system mode (Day or Night mode).

Operation Operation of this feature is automatic when programmed.

Conditions

1. The CO line should be programmed as DID Line.
2. If the called party number is not matched with MSN table then GDK-16 will treat the call like as DID.
3. If the called CO line number is not programmed then search all tables.
4. If there is matched CO line number in MSN address table, the system searches only matched entry of the table.
5. If there is no answer from the station that receives the DID ring, the call is transferred to attendant station regardless of current system mode(Day/Night Mode).
6. If the station that receives the DID ring is busy, the call is transferred according to the pre-defined DID/DISA Busy Case Destination (System Base Program(Main Menu5) - Sub Menu6- Terminal Menu1).
7. If the user dialed the invalid DID number, the call is transferred according to the pre-defined DID/DISA Error Case Destination (System Base Program(Main Menu5) - Sub Menu6 – Terminal Menu2).
- 8.

Programming

- ✧ DID Use
(CO Base Program (Main Menu 3) – ISDN Attribute (Sub Menu 2) - Terminal Menu 4)
- ✧ MSN Table
(ISDN Program (Main Menu 4) – Sub Menu 10)
- ✧ DID/DISA No Answer Timer
(System Timers (Main Menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu 13)
- ✧ DID/DISA Busy/Error Case Destination
 1. (System Base Program (Main Menu5) - Sub Menu6).

Hardware

2. None.

Note

- To use this feature, software must be applicable for BASIC III version: 2.x or B.x.

14. DIRECT INWARD SYSTEM ACCESS (DISA)

Description

DISA allows users to access the system's resources by calling specified CO Lines connected to the system. Upon answering the outside call, the system will provide the user intercom dial tone and the user may then access the desired resource using dial codes. Programming allows the assignment for night and day mode operation and required use of authorization codes limiting CO Line access by DISA callers.

Operation

DISA is typically configured by assigning a special non-published Central Office line number to the programmed DISA line which provides automatic answer immediately upon ring detection.

When the correct authorization code is dialed, the system provides ICM Dial tone to the outside party, thus providing access to the system resources. Dialing an ICM number will result in CO line ring and LED flash of the DISA line to that station. The station then answers the ringing DISA line and is connected to the DISA caller. Dialing authorization code and a CO access code will access a CO line connected to the system and provide dial tone of that line to the DISA party who may then dial out of the system on that line.

Conditions

1. Each DISA line will be assigned in programming as a full time DISA line or as night time operation only. Night time only DISA will function as normal lines on the system in the day mode of the operation.
2. If the CO line is busy when a DISA caller tries to access it, busy tone is received for 5 seconds before ICM Dial tone is again presented to the DISA caller to try another call.
3. Once the DISA caller is connected to another CO line, loop current detection circuitry is connected to the outgoing CO line to automatically release CO lines.
4. Once the DISA caller is connected to another CO line, disconnect timer is invoked. When this timer expires the call is automatically disconnected. This timer applies even though the CO line has loop detect capability. The unsupervised conference timer is used for the disconnect timer.
5. If a DISA line is programmed not to require an Authorization code, the system will immediately provide ICM Dial tone after answering the incoming call.
6. When a programmed DISA line has been accessed by an incoming DISA caller, the associated LED for the line will show steady (busy) on all keysets except the attendants station which will flash at a 240 ipm flutter to indicate a DISA call has accessed that line.
7. A DISA line caller can only access a station if that station has the CO line appearance button.
8. If a DISA line is programmed to require an Authorization code, and the DISA caller enters an invalid code, the DISA caller will be disconnected.
9. Pulse type CO line is not available for DISA.
10. If there is no answer from the station that receives incoming DISA CO ring, the call is transferred to attendant station.

Programming

- ✧ DISA Mode (CO Line Base Program(Main Menu3) - Sub Menu4)
- ✧ DID/DISA Destination (System Base Program(Main Menu5) - Sub Menu6)
- ✧ DISA Retry Counter (System Base Program(Main Menu5) - Sub Menu7)
- ✧ DID/DISA No Answer Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu13)
- ✧ Authorization Code Table (Authorization Code Table(Main Menu8))

Hardware None.

15. FLASH, CO LINE DIAL-TONE REORDER

Description

While on a CO Line, a user can request new dial-tone to place a new call or, when behind a PABX, activate a PABX feature. The system allows each CO Line to be assigned the type of Flash (open loop or ground flash) and a Flash duration.

Operation

- ✧ To generate a Flash while on a CO Line from a Keyset;
Press the **[FLASH]** button.
- ✧ To generate a Flash while on a CO Line from a SLT;
 - (1) Press and release the hook-switch.
 - (2) Dial 51.

Programming

- ✧ Flash Type
(CO Line Base Program(Main Menu3) - CO Line Attributes(Sub Menu1) - Terminal Menu4)
- ✧ CO Flash Timer (CO Line Base Program(Main Menu3) - Sub Menu5)
- ✧ Hook Switch Flash Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu16)

Hardware None.

16. FLEXIBLE CO LINE ACCESS

Description

Stations are permitted access to outgoing CO Lines based on CO Line Group Access programming. Keysets may use Flexible buttons assigned to access a CO Line. If allowed, stations without individual CO Line appearances can access individual CO Lines using dial codes.

Operation

- ✧ To access a CO Line from a Keyset;
 - (1) Lift the Handset or press the **[MON]** button.
 - (2) Press the desired CO Line, or Loop button.
 - (3) or Dial the CO Line or Group code.
- ✧ To access a CO Line from a Single Line telephone;
 - (1) Lift the Handset.
 - (2) Dial the CO Line or Group code.

Programming

- ✧ CO Line Group Access
(Station Base Program(Main Menu2) - Sub Menu4)
- ✧ CO Line Group Assignments
(CO Line Base Program(Main Menu3) - Sub Menu3)

Hardware

A Keyset must have an idle appearance (CO Line or Loop button) to access an outgoing CO Line. Also, the Keyset must have an idle appearance to access an incoming CO Line call.

17. FLEXIBLE CO LINE RING ASSIGNMENTS

Description

Each station in the system can be programmed to provide an audible signal when the system detects an incoming call on assigned CO Lines. Separate ring assignments are made for day and night mode operation.

Operation Operation of this feature is automatic when programmed.

Conditions

1. The keyset which has {LOOP} button will receive Incoming CO ring as well as Transferred CO ring.

Programming

- ✧ CO Line Ring Assignments
(CO Line Base Program(Main Menu3) - Sub Menu7 - Terminal menu1)

Hardware None.

18. FLEXIBLE CO LINE RING DETECTION

Description

The customer database can be set to allow the system to detect unusual ring cadences from a CO Line. Two timers; Ring Detect and Ring Stop allow for flexible ring detection on an incoming CO Line call.

Operation Operation of this feature is automatic as programmed.

Programming

- ✧ Ring Detection Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu6)
- ✧ Ring Stop Detection Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu7)

Hardware None.

19. HOLD - EXCLUSIVE w/RECALL

Description

CO Lines can be placed in a waiting state such that other stations in the system will be unable to access the CO Line. Only the station placing the CO Line on Exclusive Hold can access the held CO Line.

When placed on Exclusive Hold, the Exclusive Hold Recall Timer is initiated. If the CO Line is on hold after expiration of the timer, the station that placed the call on hold will receive a recall. The station will receive the recall for the I-Hold Recall duration after which, the attendant will also receive a recall signal. If the call remains unanswered for the Attendant Recall Time, the CO Line will be returned to an idle state and recalls terminated.

Operation

- ✧ To place a CO Line on Exclusive Hold from a Keyset;
Press the **[HOLD/SAVE]** button (only when Hold Preference is set as Exclusive Hold).
- ✧ To place a CO Line on Exclusive Hold from an SLT;
Make Hook-flash and dial **5 9**. (only when Hold Preference is set as Exclusive Hold).

- ✧ To access a CO Line on Exclusive Hold from the holding Keyset;
 - (1) Lift the Handset or press the **[MON]** button.
 - (2) Press the CO Line button.
 - (3) or Dial 8 # and the CO Line number.
- ✧ To access a CO Line on Exclusive Hold from the holding SLT;
 - (1) Lift the Handset.
 - (2) Dial 8 # #
 - (3) or Dial 8# and the CO Line number.

Programming

- ✧ Hold Preference
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu1)
- ✧ Exclusive Hold Recall Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu1)
- ✧ I-Hold Recall Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu4)
- ✧ Attendant Recall Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu5)

Hardware None.

20. HOLD - SYSTEM w/RECALL

Description

CO Lines can be placed in a waiting state such that other stations in the system can access the CO Line. The station attempting to access the held CO Line must be assigned access to the CO Line.

When placed on System Hold, the System Hold Recall Timer is initiated. If the CO Line is on hold after expiration of the timer, the station that placed the call on hold will receive a recall. The station will receive the recall for the I-Hold recall duration after which the attendant will also receive a recall signal. If the call remains unanswered for the Attendant Recall Time, the CO Line will be returned to an idle state and recalls terminated.

Operation

- ✧ To place a CO Line on System Hold from a Keyset;
Press the **[HOLD/SAVE]** button (only when Hold Preference is set as System Hold).
- ✧ To place a CO Line on System Hold from an SLT;
Make Hook-flash and dial **5 9**. (only when Hold Preference is set as System Hold).
- ✧ To access a CO Line on System Hold from a Keyset;
 - (1) Lift the Handset or press the **[MON]** button.
 - (2) Press the CO Line button.
 - (3) or Dial 8 # and the CO Line number.
- ✧ To access a CO Line on System Hold from a SLT;
 - (1) Lift the Handset.
 - (2) Dial 8 ##
 - (3) or Dial 8 # and the CO Line number.

Condition

System Hold is not available in a Wireless Terminal.

Programming

- ✧ Hold Preference
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu1)
- ✧ System Hold Recall Timer

(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu2)

- ✧ I-Hold Recall Timer

(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu4)

- ✧ Attendant Recall Timer

(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu5)

Hardware None.

21. HOLD PREFERENCE

Description

A user can place a CO Line call in a waiting state so that others may or may not access the held CO Line, System and Exclusive Hold respectively.

Operation Operation of this feature is automatic as programmed.

Programming

- ✧ Hold Preference

(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu1)

Hardware None.

22. INCOMING CO RING ASSIGNMENT TO HUNT GROUP

Description

Incoming CO ring, DID(MSN)/DISA can be assigned to Station Group so that incoming CO call will hunt for an idle station in the group according to Hunt Type (Circular, Terminal, UCD and Ring).

Operation

Conditions

1. Hunt group has the precedence for ring assignment. So, if the CO ring is assigned to a hunt group and any internal station that is not a member of that group, then ring is distributed only to hunt group.
2. The system does not give ring to the station in DND, or Call Forward.
3. The call will continue to route until each station in the group has been tried. The call will remain at the last station of the group.
4. All the stations in the Hunt Group are busy, busy tone provided to the CO line.
5. If all the stations in the Hunt Group are busy, the call is queued and CO party hears ring-back tone. As soon as any station in the group becomes idle, it receives the ring from the queued line. This does not apply to Ring Group and DID(MSN)/DISA ring. If all the stations in Ring Group are busy, the DID(MSN)/DISA call is not queued, but is routed in the same way as it is routed when outside caller dialed a busy station (DID/DISA Busy Destination (Main menu 5 – sub menu 6 – terminal menu 1)).

Programming

- ✧ CO Line Ring Assignment

(CO Base Program (Main Menu 3) – Sub Menu 7 - Terminal Menu2)

- ✧ Group Type Assignment

(Station Group Program(Main Menu 11) – Hunt Group Program(Sub Menu 1) –Terminal Menu 1)

- ✧ Group Member Assignment

(Station Group Program(Main Menu 11) – Hunt Group Program(Sub Menu 1) –Terminal Menu 2)

Hardware None.

23. LCR (Least Cost Routing)

Description

Least Cost Routing(LCR) is a system programmable feature that automatically selects the least expensive route available at the current time of the day and an outgoing CO call is made. This programming eliminates the necessity for the user to dial the access code of the least expensive carrier. If a user dials a number which is the same as leading code programmed and is not in exception table, the programmed CO group is selected and the dialed number is changed (deletion, addition or alternation) before the number is dialed out.

Operation

These Examples shows operation steps.

Example 1)

If dialed digit is '**123456789**' and it is not in Exception Table, search the LDT(Leading Digit Table). Assume that code '12345' is in bin 03 of LDT and the index of DMT(Digit Modification Table) for the current day zone and time zone is '24', In DMT, if removal position of index 24 is 2 and the number of removal digit is 2 then '**123456789**' is to be '**1456789**'. If added digit is '0P567890123456' and added position is 2 then the added digits will be inserted in the 2nd position of changed code '**145**'. So the sent digit will be '10P567890123456**456789**'.

Example 2)

If dialed digit is '**80235**' and it is not in Exception Table, search the LDT(Leading Digit Table). Assume that code '80' is in bin number 02 of LDT(Leading Digit Table) and the index of DMT(Digit Modification Table) for the current day zone and time zone is '05', In DMT, if removal position of index 05 is 1 and the number of removal digit is 2 then '**80235**' is to be '**235**'. If added digit is '0P12345678901234' and added position is 1 then the added digits will be inserted in the 1st position of changed code. (in this case, the changed code is NULL) So the sent digit will be '0P12345678901234**235**'.

Conditions

1. LCR is only applied to the following cases
 - ✧ If it's a dialing after seizure of CO line, it should seize CO line only by dialing common CO group Access Code ('9'/'0')
 - ✧ Dialing without seizure of CO line.
 - ✧ Speed Dial
 - ✧ Off-net Call Forward
 - ✧ Redial (if the previous call is LCR applied.)
2. Dialing after seizure of CO line directly (CO group access like 81, CO line access like 881, CO button access) overrides LCR table, that is, the digits dialed by a subscriber will be bypassed to CO line without any modification.
3. Displayed (LCD) digits must be dialed digits, not sent digits.
4. There must be a way to enter pause(P). 'P' will be presented by [CALLBK] key.
5. LCR always has the high precedence over the flexible numbering table
6. The simulated CO dial-tone will be provided.
7. The conflict between each LEAD_TBL is allowed (0 vs 02,....)
8. Actual CO line is given after analyzing LCR. If there is no idle CO line in the group, get the alternative DMT Index and follow it.
9. Toll-restriction will be checked after finishing LCR analysis (after seizure of CO line)

10. Billing code on a basis of extension: [FLASH] in DMT table will be used to indicate “Billing code” (When repeating a digit stream to PX, this [FLASH] will be replaced by the extension number used for an outgoing call)
11. Size of LCR elements
 - ✧ Day Zone of week routing (3 zones : Programmable)
 - ✧ Time Zone for each Day Zone (3 zones : Programmable)
 - ✧ Number of Dialed code bins : 100 bins
 - ✧ Number of Modification code bins: 100 bins
 - ✧ Maximum number of “Dialed digits” : 12 digits
 - ✧ Maximum number of “Added digits” : 25 digits
 - ✧ Alternative DMT Index (None) : 1ea
12. When LCR Access (Main Menu 10 – Sub Menu 1) is programmed as ALWAYS, if user dials after direct CO key or LOOP key, then system searches LDT table entries with LCR type (in LDT table) BOTH and COL.
13. When user presses **[REDIAL]** key, then system searches all LDT table entries (BOTH, COL and INT).
14. Selected by CO key or LOOP key is used instead of programmed CO Group in DMT table.
15. After DKTU user presses **[TRNAS/PGM]** key during CO conversation, LCR works as when off hook state. And after SLT user presses Hook Switch briefly (HF) during CO conversation, LCR works as when off hook state.

Programming

- ✧ LCR (LCR Program(Main Menu10))

Hardware

24. LCR with DISA CO Access

Description

LCR feature is available when outside caller uses other CO line to make another call if LCR is enabled.

Operation

- ☐ **To use LCR with DISA CO Access from outside;**
 - 1) Make a call to DISA line.
 - 2) Dial CO line access **Code 9**.
 - 3) Dial Authorization code if needed.
 - 4) Dial the programmed number in LDT table, then modified number is sent to CO line instead of dialed number.

Conditions

Programming

- ✧ DISA Account
(CO Base Program (Main Menu 3) – CO Attributes (Sub Menu 1) – Terminal Menu 5)
- ✧ DISA Type
(CO Base Program (Main Menu 3) – Sub Menu 4)
- ✧ Authorization Code Table
(Authorization Code Table (Main Menu 8))
- ✧ LCR
(LCR Program (Main Menu 10))

Hardware None.

25. MULTIPLE LOOP KEYS

Description

DKTU User can have multiple LOOP keys.

Operation

- ☐ **To make a LOOP key at DKTU station;**

Press **[TRNAS/PGM]** key and press a flexible button to program. And, press **[TRNAS/PGM]** key and dial 8 6 for LOOP key. Press **[HOLD]** button to save.
- ☐ **To make an outgoing call;**

Press one of the pre-programmed LOOP keys. Then the first available LOOP key LED turns on and user can make an outgoing call.
- ☐ **To hold the call;**

Press **[HOLD]** during CO conversation. Then the LOOP key LED starts flashing and outside party hears MOH.
- ☐ **To seize an held call;**

Press flashing LOOP keys. Then the LOOP key LED turns on and user can converse outside party again.
- ☐ **When an held line is seized by other user;**

Then the LOOP key LED turns off and this LOOP key become available and can be used for other call.
- ☐ **When an incoming CO ring to DKTU via LOOP key;**

The first available LOOP key LED will start flashing.

Conditions

1. When user presses one of the programmed LOOP key (LED Off) to make an outgoing call, an available (idle) CO is selected among the first available CO group for that station. If there is no available CO line in that group, system will search the next available CO group if Override 1st CO Group is programmed as YES.
 2. When user presses LOOP key (LED Off), if there is no available (idle) CO line, then busy tone is heard.
 3. When user presses LOOP key (LED Off) to make a new outgoing call, if there is a direct CO key for the selected line, then the direct CO key is used first.
 4. When user presses one of the programmed LOOP key to make a new outgoing call, if there is no direct CO key for that line, then the first available (idle) LOOP key is used first.
 5. When there is an incoming CO ring, if there are more than two available LOOP keys, then the first LOOP key is used first.
 6. One LOOP key is used for one CO at a time.
 7. LOOP key LED is recovered if it has been flashing as direct CO key LED is recovered when station goes to idle state after station flexible button programming.
 8. LOOP key can be made via station flexible button programming and admin programming. And LOOP key via both station flexible button programming and admin programming can be changeable for other function via station flexible button programming.
 9. For SLT and ISDN station user, they can have direct CO keys for all CO lines in default. So, direct CO keys are recommended rather than LOOP keys.
- 10.2 Button DKTU has two LOOP keys in default as follows;

11.

BTN	2 Button
1	{LOOP}
2	{LOOP}

1.

Programming

- ✧ CO Group Access
(Station Base Program (Main Menu 2) - Sub Menu 4)
- ✧ Flexible Button Assignment
(Station Base Program (Main Menu 2) - Sub Menu 6)
- ✧ Override 1st CO Group
(System Base Program (Main Menu 5) – System Attributes (Sub Menu 1) - Terminal Menu 6)

Hardware

1. None.

Note

- To use this feature, software must be applicable for BASIC III version: 2.x or B.x.

26. MUSIC ON HOLD (MOH)

Description

When a CO Line call is placed in a holding state; system, exclusive, transfer, conference, etc, the CO Line will be connected to the assigned music channel. In this way, the CO party can determine that the connection is still established.

Operation Operation of this feature is automatic when programmed.

Programming

- ◇ MOH Type (System Base Program(Main Menu5) - Sub Menu13)

Hardware None.

27. NIGHT DVU

Description

DISA CO lines can be programmed as they are disconnected in night mode after night greeting is played to the CO party.

Operation

Operation of this feature is automatic.

Conditions

- 1.This feature is activated only in night mode.
- 2.This feature applies only to the DISA CO lines.
- 3.To activate this feature, DISA type (Main Menu 3- Sub Menu 4) must be programmed as Night or Full and DVU announcement (Main Menu 3 – Sub Menu 1 – Terminal Menu 7) must be set as Yes.
- 4.If all the DVIB ports are busy, then external CO party hears ring-back tone. When one of DVIB ports becomes idle, external party hears Night greeting and after that CO line is disconnected
- 5.When this feature is activated, night greeting is heard to the CO party before the line is disconnected.

Programming

- ◇ Night DVU
 1. (System Program (Main Menu 5) – System Attributes (Sub Menu 1) – Night DVU (Terminal Menu 7))
- ◇ DISA Type
 1. (CO Base Program (Main Menu 3) – DISA Type (Sub Menu 4))
- ◇ DVU Announcement
 1. (CO Base Program (Main Menu 3) – CO Attributes (Sub Menu 1) – DVU ANNC (Terminal Menu 7)
 - 2.

Hardware

3. 1. DVIB is needed.

Note

- To use this feature, software must be applicable for BASIC III version: 2.x or B.x.

28. OFF-HOOK SIGNALING, CO CALLS

Description

A busy station will receive audible ring signals for incoming CO Line calls when CO ring is assigned to the station. These off-hook signals can be programmed as a muted ring or as a single burst of normal ring. Both signals are provided over the speaker of the keyset while using the handset. While using the speaker phone, a camp-on tone is provided over the speaker.

Operation Operation of this feature is automatic when programmed.

Conditions

1. Off Hook Ring is not adjustable with Ring Volume switch.
2. Activating the DND feature will turn off Off-Hook ringing.
3. When a CO ringing line is released or seized by other station, ringing at the station is stopped.
4. If the station goes to idle status, normal ring is presented.
5. Ring LED on LKD keyset will be flashing when Off-Hook Signaling (Muted Ring).

Programming

- ✧ CO Line Ring Assignments (CO Line Base Program(Main Menu3) - Sub Menu7)

Hardware None.

29. PREFERRED LINE ANSWER (PLA)

Description

A station can be programmed in the system database so that, by lifting the handset or pressing the [MON] button, an incoming call is automatically answered and connected to the station.

Operation Operation of this feature is automatic when programmed.

Programming

- ✧ Preferred Line Answer
(Station Base Program(Main Menu2) - Station Attributes(Sub Menu1) - Terminal menu5)

Hardware None.

30. PULSE/TONE CO LINE SIGNALING

Description

Each CO Line is programmed to provide the appropriate signaling to the Central Office. A CO Line can be programmed to send DTMF signals or pulses at 10 pps with a break/make ratio of 60/40 or 66/33. Digits dialed by the

user are converted to the proper signal for the CO Line and sent over the CO Line.

Operation Operation of this feature is automatic as programmed.

Conditions

1. When CO line signal type is Pulse, speed dialing with “F”(Flash) is not available.

Programming

- ✧ CO Line Signal Type
(CO Line Base Program(Main Menu3) - CO Line Attribute(Sub Menu1) - Terminal Menu2)
- ✧ Pulse Dial Speed/Ratio (System Base Program(Main Menu5) - Sub Menu9)

Hardware None.

31. SPEED DIAL

31.1. SPECIAL SPEED DIAL COMMANDS

Description

Speed Dial numbers can be programmed to include special commands in addition to dialed digits. These commands include;

- ✧ Flash, open loop,
- ✧ Pause,
- ✧ Blank Display.

When a special command is entered into a speed dial number, it takes the place of a digit, reducing by one the remaining space in the speed dial number.

Operation

- ✧ To enter a special command while programming a Speed Dial number;
Press or dial as below:
- ✧ For a Flash, press the **[FLASH]** button,
- ✧ For a Pause, press the **[CALL BK]** button,
- ✧ To Blank the Display, dial ****** at first position of speed bin.
Continue as shown under Speed Dial.

Conditions

1. In Speed Dial Number, the pause command (it displays as “P” in LCD) acts differently according to Analog/ISDN CO lines respectively. If the pre-programmed CO line is analog CO line or CO line is selected among analog CO lines, the system will send the following digits after pause command after Pause Time (Main menu 6-Sub menu 1-Terminal menu 8). If the pre-programmed CO line is ISDN CO line or CO line is selected among ISDN CO lines, the system will send the following digits after pause command as DTMF tone (Not INFO message) after receiving CONNECT message from the network. If the system doesn't receive CONNECT message from the network, the following digits after pause command will not be sent to the network.

Programming

- ✧ Speed Dial Access
(Station Base Program(Main Menu2) - Station Attribute(Sub Menu1) - Terminal Menu2)
- ✧ CO Line Signal Type
(CO Line Base Program(Main Menu3) - CO Line Attribute(Sub Menu1) - Terminal Menu2)
- ✧ Flash Type
(CO Line Base Program(Main Menu3) - CO Line Attribute(Sub Menu1) - Terminal Menu4)

- ✧ CO Flash Timer
(CO Line Base Program(Main Menu3) - Sub Menu5)
- ✧ Override 1st CO Group
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu6)
- ✧ Pulse Dial Speed/Ratio
(System Base Program(Main Menu5) - Sub Menu9)
- ✧ Pause Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) - Terminal Menu8)

Hardware None.

31.2. SPEED DIAL - LAST NUMBER REDIAL (LNR)

Description

The last number dialed is stored (up to 24 digits) in the station's Last Number Redial buffer. The user may request the system redial the last number without the need to redial the entire number.

Operation

- ✧ To use Last Number Redial from a Keyset;
 - (1) Lift the Handset or press the **[MON]** button.
 - (2) Press the **[REDIAL]** button.
 - (3) or Press the **[SPEED]** button and dial *.

Conditions

1. When last number redial is activated, the user will hear the number being transmitted to the central office.
2. If the previously used CO line is busy, another line within the group will be seized.
3. If there is no {CO} button, the call will be presented on the {LOOP} button.
4. LNR is protected from power failures.
5. A pre-selected CO line overrides any programmed line.

Programming

Hardware None.

31.3. SPEED DIAL - STATION

Description

Each station in the system has the capability of programming up to 20 individual speed dial numbers unique to it's telephone with each bin containing up to 24 digits. The numbers are entered and stored by the user and can be recalled by the user at any time.

Operation

- ✧ To place a call using Station Speed Dial from a Keyset;
 - (1) Lift the Handset or press the **[MON]** button.
 - (2) Press the **[SPEED]** button.
 - (3) Dial the Station Speed Dial bin (01 - 20).
- ✧ To store Station Speed Dial numbers from a Keyset;
 - (1) Press the **[TRNAS/PGM]** button.
 - (2) Press the **[SPEED]** button.
 - (3) Dial the Station Speed Dial bin (01 - 20).
 - (4) If desired, press the CO Line button.
 - (5) Dial the desired telephone number (max 24 digits).

- (6) Press the **[HOLD/SAVE]** button. (In Digital Keypad, press **[HOLD/SAVE]** button twice. See also Dial By Name Feature, Not Implemented Yet)

Conditions

1. A station speed dial bin can contain 24 digits including pause (**[CALLBK]** button), pulse to DTMF switchover ("**"), flash command (**[FLASH]** button), display security ("**" as first digit).
2. A CO Line can be programmed for use with an individual speed number.
3. The system will attempt to dial out on the specified line, if it is busy it will choose another line within the same group.
4. If all lines within a group are busy, busy tone will be received when accessing the station speed number.
5. If no Co line is programmed, the 1st group access allowed is used to select lines.
6. Station speed numbers are protected by battery backup memory.
7. The Co line is presented to a direct appearance on the telephone. If there is no direct appearance, the line is presented to the {LOOP} button.
8. Timing between sending digits must be a minimum of 80ms.
9. A pre-selected CO line overrides any programmed line.
10. When a station which does not have Speed Dial Privilege tries to access speed bin, error tone is heard.

Programming

- ✧ Speed Dial Access
(Station Base Program(Main Menu2) - Station Attributes(Sub Menu1) - Terminal Menu2)
- ✧ Override 1st CO Group
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu6)

Hardware None.

31.4. SPEED DIAL - SYSTEM

Description

Within the system memory, space is allocated to store up to 79 telephone numbers with up to 24 digits each. These numbers are available for easy access by all stations allowed in system database. The system can be programmed to apply the Station COS for assigned stations using specified System Speed Dial numbers.

Operation

- ✧ To place a call using System Speed Dial from a Keypad;
 - (1) Lift the Handset or press the **[MON]** button.
 - (2) Press the **[SPEED]** button.
 - (3) Dial the System Speed Dial bin (21-99).
- ✧ To store System Speed Dial numbers from a Keypad;
 - (1) Press the **[TRNAS/PGM]** button.
 - (2) Press the **[SPEED]** button.
 - (3) Dial the System Speed Dial bin (21 - 99).
 - (4) If desired, press the CO Line button.
 - (5) Dial the desired telephone number (max 24 digits).
 - (6) Press the **[HOLD/SAVE]** button.

Conditions

1. If restricted from access to system speed dial, error tone will be received when the speed bin number is dialed.
2. If all CO Lines in the group are busy, busy tone will be received when the bin number is dialed.
3. There can be 24 digits in a system speed bin including pause (**[CALLBK]** button), pulse to DTMF switch over

- ("**"), flash commands (**[FLASH]** button), and no display ("**" as first digit).
4. If dialing an empty system speed bin, error tone will be received.
 5. The last 39 bins (bin # 61-99) system speed bins will not be monitored by toll restriction except for station w/COS 5,6. When using LNR, this telephone number will not be monitored also.
 6. System speed numbers are protected by battery backup memory.
 7. The line is presented to an individual button assigned to the telephone. If there is no {CO} button or {LOOP} button, error tone will be received.
 8. The duration of DTMF tone must be a minimum of 80ms.
 9. A preselected CO line overrides a programmed line for speed dialing.
 10. The system speed bin are entered at Attendant.
 11. A CO Line can be programmed to be selected with a particular dialed speed dial bin by pressing that {CO} button during programming.
 12. System speed dial numbers are programmed similarly to station speed dial numbers except the speed bin number. (see station speed dial programming for details).

Programming

- ✧ Speed Dial Access
(Station Base Program(Main Menu2) - Station Attributes(Sub Menu1) - Terminal Menu2)
- ✧ Override 1st CO Group
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu6)

Hardware None.

32. Trunk to Trunk(CO to CO) Transfer

Description

Station may transfer a CO line call to the other CO line. If the external party on ISDN does not answer the transferred call in the transfer recall time, the transferring station will receive recall ring. If the call remains unanswered, the attendant will also receive recall ring for the Attendant Recall time after which the CO line will be disconnected and return to idle.

Operation

To perform an unscreened CO line transfer; (with DKTU)

1. Press **[TRNAS/PGM]** button, intercom dial tone is received, the first CO line is placed on exclusive hold, and the recall timer is activated.
2. Seize a CO line and dial external party number to receive the transfer.
3. Replace the handset, go on-hook.

To perform a screened CO line transfer;(with DKTU)

1. Press **[TRNAS/PGM]** button, intercom dial tone is received, the CO line is placed on exclusive hold, and the recall timer is activated.
2. Seize a CO line and dial external party number to receive the transfer.
3. When the external party answers announce transfer.
4. Replace the handset, go on-hook.

Conditions

1. If transferred CO line does not have answer information (for analog line), system can not check the transfer state

(answer or not answer) and do not present recall to transferring station.

- During call transfer to external number (screened transfer), if you press the original incoming CO flex button, the outgoing call is disconnected and the original incoming call is connected.
- If both transferred line and outgoing line is Analog CO line, the outsider party will be connected during unsupervised Conference Timer.
- A station presses the other CO key or dials Co Access code for outgoing co call and dial the digit for transfer destination. At this time, if the station user doesn't dial any digit and goes on-hook, the other CO will be immediately released and the station user will receive the CO recall ring for transferred CO party

Programming

- ✧ Transfer Recall Timer
(System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 3)
- ✧ Hold Recall Timer
(System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 4)
- ✧ Attendant Recall Timer
(System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 5)

33. UNIVERSAL NIGHT ANSWER (UNA)

Description

When CO lines are programmed for UNA and the system is placed into the night mode, users can answer incoming CO Line calls employing dial codes.

Operation

- ✧ In the Night mode with a CO Line ringing the Night Bell,
 - (1) Lift the Handset or press the **[MON]** button, receive Intercom dial-tone.
 - (2) Dial the UNA Code 6 9, the oldest ringing CO Line will be connected. If no CO Lines are ringing, error tone is heard.

Conditions

1. Code **6 9** can be programmed in a flexible button.

Programming

- ✧ UNA operation
(CO Line Base Program(Main Menu3) - CO Line Attributes(Sub Menu1) -Terminal Menu3)
- ✧ CO Line Ring Assignment
(CO Line Base Program(Main Menu3) - Sub Menu7)
- ✧ External Night Ring
(System Base Program(Main Menu5) - System Attributes(Sub Menu1) -Terminal Menu3)

Hardware None.

5. ATTENDANT FEATURES

1. ATTENDANT ASSIGNMENT

Description

Any station in the system can be programmed as an attendant. However, only one attendant can exist in the system at any moment. As a default, the Attendant is set as station 100.

Operation Operation of this feature is automatic when programmed.

Conditions

1. A Wireless Terminal cannot be an attendant station.

Programming

- ✧ Attendant Assignment (System Base Program(main menu5) - Sub Menu2)

Hardware

2. ATTENDANT CLOCK SET

Description

The attendant can set the system date and time.

Operation

- ✧ To set system clock from the attendant;
 - (1) Press the **[TRNAS/PGM]** button.
 - (2) Dial # 1.
 - (3) Dial 6 digit date (2-digits each for month/day/year).
If only time needs to be changed, do not dial current date and go to step (4).
 - (4) Press the **[HOLD/SAVE]** button.
 - (5) Dial 4 digit time (military format).
In case only date needs to be changed, do not dial current time and go to next step.
 - (6) Press the **[HOLD/SAVE]** button.

Conditions

1. Date Format is Month/Day/Year (MMDDYY), and Time format is Hour/Minute (HHMM) in military form. Whenever System Clock sets, second set to 0.
2. When the feature is dialed, Confirmation tone is heard.
3. When the correct date and time is entered, a confirmation tone is heard and station goes to idle status automatically.
4. The clock set can be changed by Admin. programming, also.

Programming

- ✧ Setting System DATE/TIME (System Base Program (main menu5) - Sub Menu3)

Hardware

3. ATTENDANT RECALL

Description

Unanswered or abandoned CO Line calls will recall the holding station. If the recall is unanswered, the call will also be directed to the appropriate attendant station. The attendant will receive the recall signal for a period equal to the Attendant Recall Timer after which the system will return the CO Line to idle.

Operation Operation of this feature is automatic when programmed.

Conditions

1. Recall to the attendant appear on the direct {CO} button. If there is no {CO} button, the call is presented to the {LOOP} button.
2. Exclusive hold changes to system hold when recall is activated to the attendant.
3. The I-Hold Recall Timer is programmable and No Recall is available if this timer is set to 0.

Programming

- ✧ Attendant Recall Timer
(System Timers(main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu5)
- ✧ Attendant Assignment (System Base Program(main menu5) - Sub Menu2)

Hardware

4. DATE/TIME DISPLAY FORMAT CONTROL

Description

The System Attendant can change the LCD Time and Date Display Format so that the time is displayed as a 12 or 24 hour clock and the date is displayed as day/month/year or month/day/year.

Operation

- ✧ To change date display format from the System attendant;
(1) Press the **[TRNAS/PGM]** button.
(2) Dial * 5, the format will toggle between day/month/year and month/day/year.
- ✧ To change time display format from the System attendant;
(1) Press the **[TRNAS/PGM]** button.
(2) Dial * 6, the format will toggle between 12 and 24 hour.

Conditions

1. Two LCD Date Formats are Day/Month/Year (DDMMYY) or Month/Day/Year (MMDDYY) Mode.
2. Two LCD Time Formats are Ordinary (12 hour) / Military (24 hour) Mode.

Programming

- ✧ LCD Display Mode (System Base Program(main menu5) - Sub Menu4)

Hardware

5. DAY/NIGHT MODE SERVICE (MANUAL)

Description

The system can be placed in Day or Night mode operation manually by the attendant, if programmed by the attendant station. Ring and COS assignments will follow the Day/Night mode operation.

Operation

- ✧ To activate Day/Night mode manually from an attendant;
Press the **[DND]** button.

Conditions

1. Stations assigned as night ringing station ring when station is in night mode.
2. Stations assigned as day ringing stations do not ring when station is in night mode.

Programming

- ✧ Station Class of Service (Station Base Program(main menu2) - Sub Menu3)
- ✧ CO Line Ring Assignment (CO Line Base Program(main menu3) - Sub Menu7)
- ✧ External Night Ring
(System Base Program(main menu5) - System Attribute(Sub Menu1) - Terminal menu3)
- ✧ Attendant Assignment (System Base Program(main menu5) - Sub Menu2)

Hardware

6. DVU Management (Only Attendant)

Description

This feature enables attendant to control date & time prompt order or the message retrieve order of the stored message and also the storage area of DVIB

Date & time prompt order is changeable so that the date & time prompt is played as date and time or time and date order when a DVIB message is retrieved with the recorded date & time prompt. DVIB message retrieve order is settable so that station users are able to retrieve latest message(LIFO) or oldest message first(FIFO) when multiple messages are stored in their stations.

Attendant station user can check the status of the DVIB by confirming available recording time or available number of messages and he also has the ability to delete all messages stored in the selected station range.

Operation

- **DVIB(DATE & TIME ORDER)**
 - **[TRNAS/PGM] key + [*] + [7] + [1]**
- **DVIB(RETRIEVAL ORDER)**
 - **[TRNAS/PGM] key + [*] + [7] + [2]**

- **DVIB(CHECK TIME STATUS)**
 - [TRNAS/PGM] key + [*] + [7] + [3]
- **DVIB(CHECK NUMBER STATUS)**
 - [TRNAS/PGM] key + [*] + [7] + [4]
- **DVIB(DELETE STATION MESSAGE)**
 - [TRNAS/PGM] key + [*] + [7] + [6]

To assign the programmed key for DVIB Management by Attendant station.

1. Press [TRNS/PGM] key
2. Select specific flexible Button to be programmed as **DVIB Management**. Then, LCD will display current feature status of pressed flex key.(ex. Empty)
3. Press DVIB Management Code
 - To assign the programmed key for DVIB(Date & Time Order)
([TRNAS/PGM] key + [*] + [7] + [1])
 - To assign the programmed key for DVIB(Retrieval Order)
([TRNAS/PGM] key + [*] + [7] + [2])
 - To assign the programmed key for DVIB(Check Time Status)
([TRNAS/PGM] key + [*] + [7] + [3])
 - To assign the programmed key for DVIB(Check Number Status)
([TRNAS/PGM] key + [*] + [7] + [4])
 - To assign the programmed key for DVIB(Delete Station Message)
([TRNAS/PGM] key + [*] + [7] + [6])
4. Press [HOLD/SAVE] button for updating database permanently. If this feature is programmed successfully, the LCD will display guard message for next flexible button programming.
5. If flexible Button of **DVIB Management** is selected again, programmed feature will be display on LCD.

To change the Date & Time order:

1. Press the programmed key for DVIB(Date & Time Order)
or [TRNAS/PGM] key + [*] + [7] + [1].
The current Date & Time order will be displayed on the LCD. It shows the current setting as admin program.
2. Dial digit '0'(DATE/TIME) or '1'(TIME/DATE) to change the Date & Time order. The changed Date & Time order will be displayed on the LCD.
3. Press [HOLD/SAVE] and the changed Date & Time order will be stored.
4. If Attendant station goes on-hook LCD will return to idle.

To change the DVIB message retrieve order:

1. Press the programmed key for { DVIB Management } and Dial code '2',
or [TRNAS/PGM] key + [*] + [7] + [2].
The current Retrieval Order will be displayed on the LCD. It shows the current setting as admin program.
2. Dial digit '0'(FIFO) or '1'(LIFO) to change the Retrieval order.
The changed Retrieval Order will be displayed on the LCD.
3. Press [HOLD/SAVE] and the changed Retrieval Order will be stored.
4. If Attendant station goes on-hook LCD will return to idle.

To confirm the available recording time:

1. Press the programmed key for { DVIB Management} and dial code '3',
or [TRNAS/PGM] key + [*] + [7] + [3].
2. If Attendant station goes on-hook LCD will return to idle.

To confirm the available number of messages:

1. Press the programmed key for { DVIB Management } and dial code '4', or [TRNAS/PGM] key + [*] + [7] + [4]. The following LCD will be displayed.
2. If Attendant station goes on-hook button the LCD will return to idle.

To delete all messages in a certain station:In Attendant station

1. Press the programmed key for { DVIB Management } and dial code '6', or [TRNAS/PGM] key + [*] + [7] + [6].
2. The following LCD will be displayed.
3. Next Attendant station selects the station range.
Press [HOLD/SAVE] button.
4. When deleting is completed the following LCD will be displayed.
5. LCD will return idle attendant station goes on-hook.

In Station

1. While deleting is in progress.
2. When all message in the station is deleted.(XXX shows the number of deleted messages.)
3. LCD will return to idle when user goes on-hook.

Conditions

1. DVIB management feature is only available in Attendant station. If another station user attempts to use this feature error tone will be heard.
2. DVIB must be installed to operate this feature.
3. Date & Time order and Retrieval order is also changeable with Admin Programming.
4. Only retrieval order of non-saved messages will be changed. (The retrieval order of saved messages is not changed)
5. To delete messages stored in a certain station there must be an idle DVIB port.
6. Only messages of stations that are in idle status can begin to delete their messages. And if a station which is in the deleting procedure goes off-hook message delete procedure will stop and only the number of deleted messages until then will be displayed with LCD "XXX MESSAGES DELETED".
- 7.

Programming

- ✧ DVU Access
(Station Base Program (Main Menu 2) – Station Attributes (Sub Menu 1) - Terminal Menu 11)
- ✧ Date & Time Prompt Order Change
(System Base Program (Main Menu 5) – DVU Setting (Sub Menu 20) - Terminal Menu 1)
- ✧ Message Retrieve Order Change
(System Base Program (Main Menu 5) – DVU Setting (Sub Menu 20) - Terminal Menu 2)

Hardware

DVIB is needed.

7. Normal Ring to DVIB (Only by Attendant)

Description

When the CO line is normal CO type (No DISA/DID) and attendant station is set to "Forward to DVIB", normal CO line call is routed to DVIB so that the outside caller can leave a voice message in case the predefined Timer expires.

This feature is enabled when attendant station is in "Forward to DVIB".

This is an enhancement of the existing feature "DVIB - User Greeting & Voice Message Wait" that forwards a call in case where the calling party can leave a message in case of DID/DISA line or intercom call.

Operation

To enable "Normal Ring to DVIB" feature:

1. Attendant programs forward type as "Forward to DVIB" by **[DND/FWD]+7** code.

Or,

Attendant presses pre-programmed flexible button for "Forward to DVIB"

To disable "Normal Ring to DVIB" feature:

1. Attendant disables "Forward to DVIB" mode by pressing **[DND/FWD]** button.

Or,

Attendant disables "Forward to DVIB" mode by pressing **[MON] + [DND/FWD] + #**.

If this feature is enabled:

1. When Normal CO ring comes, all ring assigned station will ring during "Normal Ring to DVIB Timer" and the call will be routed to DVIB and the calling party can leave a message at attendant station. And the stations will stop ringing.
2. When there are left messages, it will be displayed in attendant station. Attendant can hear these messages by pressing **[CALLBK]** button.

Please, refer to the section "DVIB - User Greeting & Voice Message Wait" for detailed explanation.

Conditions

The same conditions as those of the feature "DVIB - User Greeting & Voice Message Wait" are applied.

Please, refer to the section "DVIB - User Greeting & Voice Message Wait" for detailed explanation.

1. This feature is enabled when attendant station is in "Forward to DVIB" mode.
2. It is only applied for normal CO line call.
3. When DVU memory is full or DVU number is full, the call will not be routed to DVIB and continuously ring in the assigned stations.
4. When there is no available DVIB port, the call will be queued to the station after "Normal Ring DVIB Timer" expires. And the call will not be forwarded to DVIB until there is an available DVIB port.
5. Exception: When a station in forward type 7 is the only ring assigned station for that incoming Co line (CO Ring Assignment to Station), then outside caller hears recorded user greeting for that station after DVIB Station Forward Answer time. So, the caller can leave his voice message to the ringing station. In this case, Normal Ring to DVIB timer is not started.

Programming

- ✧ Normal Ring to DVIB Timer
(Station Base Program (Main Menu 6) – Station Attribute (Sub Menu 2) – Terminal Menu 5)
- ✧ DVIB Access
(Station Base Program (Main Menu 2) – Station Attribute (Sub Menu 1) – Terminal Menu 11)
- ✧ DVIB User Record Timer
(System Timer (Main Menu 6) – System Timer 1 (Sub Menu 1) – Terminal Menu 24)
- ✧ DVIB Valid User Message Timer
(System Timer (Main Menu 6) – System Timer 2 (Sub Menu 2) – Terminal Menu 2)

8. TO SET CURRENT TIME 1 HOUR EARLY/LATE

Description

Attendant station can set the current time 1 hour early or late by **[TRNAS/PGM] + Code * 1** or **Code * 2**. This feature will be used when the current time is changed for Day Time Saving.

Operation

- ☐ To set current time 1 hour early at attendant;
Press **[TRNAS/PGM] + Code * 1**.
- ☐ To set current time 1 hour late at attendant;
Press **[TRNAS/PGM] + Code * 2**.

Conditions

1. Code **[TRNAS/PGM] + * 1** and **[TRNAS/PGM] + * 2** can be programmed to a flexible button.
2. Current date is not subject to change, when Code **[TRNAS/PGM] + * 1** or **2** are dialed.

Programming

1. System Date/Time
(System Program (Main Menu 5) – Sub Menu 3)

Hardware None.

9. WAKEUP FAIL RING TIME OUT

Description

This feature allows system to erase wake-up fail ring on attendant station automatically after a defined time. This time(Wake up fail ring time) can be programmed by Admin program.

Operation

This feature is automatically activated by system.

Conditions

1. If system ATD dial to wake-up fail station to erase wake-up fail ring, then the fail ring disappears with confirmation tone, but when erase wake-up fail ring timer expires, system ATD does not hear confirmation tone. Just the fail ring disappears.
2. After the erase wake up fail ring timer expires, the wake up fail station will be printed through RS-232C.Format)
3. 100 07/12/97 Erase Time)16:24 AUTO ERASED FAIL RING FOR THE STATION !!
4. System attendant is also programmed to register wake-up time. But although the extension is fail to wake-up, the extension does not ring wake-up fail ring
5. If the timer is 0, then this feature doesn't work.
6. If the timer is 99, then the fail ring does not exist on Attendant.

Programming

- ✧ Wake Up Fail Ring Timer
(System Timers (Main Menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu21)

Related Features

1. Wake-Up Alarm.

Hardware None

6. SINGLE LINE TELEPHONE FEATURES

1. BROKERS CALL & CONFERENCE (SLT)

Description

This feature allows a station user, engaged in an internal or external call, to hold that call and originate another call (internal/external). Once the second call is established, the originating station may alternate between calls carrying on a private conversation with either party.

Operation

- 1) A station (**A**) engaged in a call flashes the hook switch. This places the other party (**B**) on hold and gives Station (**A**) dial tone. The holding party (**B**), receives music on hold (if equipped).
- 2) Station (**A**) dials a new station number (**C**) and is connected. When connected, (**A**) has a private conversation with (**C**).
- 3) To converse with the holding station (**B**), the hook switch is flashed and Station (**A**) is connected in a private conversation to (**B**) while the other party (**C**) is placed on hold.
- 4) Station (**A**) can alternate between the stations (**B** and **C**) by flashing the hook switch.

Conditions

1. If either party (**B**) or (**C**) disconnects, then flashing the hook switch will result in dial tone to station (**A**).
2. If station (**A**) hangs up while talking to one station, the talking party is disconnected. And the other holding party is disconnected as well (internal station), or remains to be held (external station).
3. If station (**A**) flashes two consecutive hook switches within 2 seconds, station (**A**), (**B**), and (**C**) will be in conference.

Programming None.

Related Features

Hardware None.

2. CALL FORWARD (SLT)

Description

This feature allows single line telephones to direct intercom calls and transferred CO lines to be forwarded to another station.

Operation

- ✧ To activate the call forward condition on a single line:
 - 1) Lift handset and dial the **Code 54**
 - 2) Dial call forward type (1:unconditional, 2:busy, 3:no answer, 4:busy/no answer, 5:off-net),
 - 3) Dial the station number where the call is to be forwarded and replace the handset.
- ✧ To deactivate the call forward condition.
 - 1) Lift handset and dial the **Code 54**.
 - 2) Dial # and replace the handset.

Conditions

1. Call Forward will remain engaged until manually released.
2. A call cannot be forwarded to a telephone in DND.

3. The telephone will give a Call Forward warning tone when the handset is lifted to indicate the telephone is in the Call Forward mode.
4. A station denied the use of FWD in programming will receive error tone when the **Code 54** is dialed.
5. A call forwarding station cannot initiate a message wait.

Programming

- ✧ Call Forward Access
(Station Base Program (main menu2) - Station Attributes(Sub Menu1) - Terminal menu4)

Related Features

Hardware None.

3. CALL PICK-UP (SLT)

Description

Tone ringing intercom calls and CO lines transferred to unattended key or SLT station may be retrieved by other SLT station.

Operation

- ✧ To pickup call:
 - 1) An unattended keyset or SLT receives ringing signal.
 - 2) Any other SLT in GDK-20W may intercept the call by going off-hook and dialing the **Pick-up code 66**.
 - 3) The calling party will automatically be connected to the pick-up station, and the called station will cease all audible and visual signals.

Conditions

Programming None.

Related Features

Hardware None.

4. CALL WAITING (SLT)

Description

Call Waiting is used to notify a busy station that another station is waiting for him. The busy station is notified of the call by a camp-on tone.

Operation

- ✧ With Station **(A)** = SLT , Station **(B)** = Key station or SLT
 - 1) Station **(A)** dials the station **(B)** number in conversation.
 - 2) Station **(A)** receives ICM busy tone.
 - 3) Station **(A)** makes hook flash and dials '*' to camp-on.
 - 4) Station **(A)** receives ICM ring back tone. Station **(B)** will receive a camp-on tone via the handset or through the speaker.

Conditions

1. Single line telephone can receive a call waiting and answer it by making Hook Flash and dialing **Code 59**.

Programming None.

Related Features

Hardware None.

5. CO FLASH (SLT)

Description

While on a CO Line, a user can request new dial-tone to place a new call or, when behind a PABX, activate a PABX feature. The system allows each CO Line to be assigned the type of Flash (open loop or ground flash) and a Flash duration.

Operation

- ✧ To generate a Flash while on a CO Line from a SLT;
 - 1) Press and release the hook-switch.
 - 2) Dial 51.

Programming

- ✧ Flash Type
(CO Line Base Program(main menu3) - CO Line Attributes(Sub Menu1) - Terminal menu4)
- ✧ CO Flash Timer (CO Line Base Program(main menu3) - Sub Menu5)

Hardware None.

6. CO LINE ACCESS (SLT)

Description

Single-line telephones are allowed or denied access to the CO lines.

Operation

- ✧ To access a CO line:
 - 1) Lift Handset. (Intercom dial tone is heard.)
 - 2) Dial the CO access code 9, 81 through 84 for access of CO Line Groups 1 through 4, respectively. (If there is an idle CO line, CO dial tone will be heard and dialing may continue. If all CO lines are busy, the caller receives intercom busy tone.)
- ✧ To terminate the outgoing call:
 - 1) Replace the Handset.

Individual CO lines can be accessed by dialing **Code 88** and the line number 1 through 6 if it can be allowed CO Individual access.

Conditions

1. A Single-line telephone may place outgoing calls on Co Line Groups 1 through 4, depending upon the CO Line Group privileges assigned to that telephone. Toll restriction is applied by station COS.

Programming

- ✧ CO Group Access
(Station Base Program(main menu2) - CO Group Access(Sub Menu4))

Related Features

Hardware None.

7. CO LINE TRANSFER (SLT)

Description

CO Lines may be transferred by single-line telephones.

Operation

- ✧ To perform an unannounced CO line transfer:
 - 1) While connected to a Co line, briefly press and release (Flash) the telephone hook witch at Station (A). (Intercom dial tone is received. The CO line is placed on Exclusive Hold, Transfer Recall Timer is activated)
 - 2) Dial the intercom number of idle Station (B). (Intercom ring back tone is heard. Station (B) received intercom ringing)
 - 3) Station (A) goes On-Hook status. Station (B) receives CO ringing Transfer recall timer starts.
 - 4) Station (B) answers the transferred CO line by lifting the handset. (Station (A) will be recalled if the CO line is not answered within a programmed period of time. If Station (A) is busy or doesn't answer within the programmed time period, the transferred CO line will recall the attendant)
- ✧ To perform an announced CO line transfer to an idle station:
 - 1)While connected to a CO line, flash the hook witch. (ICM dial tone is received. The CO line is placed on Exclusive-Hold. Transfer recall timer is activated.)
 - 2) Dial the intercom number of idle Station (B). (Intercom ring back tone is heard.)
 - 3) Station (A) informs Station (B) of a transferred call.
 - 4) Station (A) hangs up. Station (B) is connected to the transferred CO line.

Conditions

1. When the user is in the supervised transfer mode and he wishes to converse with both the new station party and the CO line he can activate broker-calls using hook-flash.
2. A single-line telephone cannot transfer a call to another busy single-line telephone; however, a single-line telephone can transfer a call to a busy key station. When he receives busy tone, he can be connected to a CO Line using hook-flash.
3. If the station initiating the transfer hangs up before completing the dialing of a station number, the line will immediately recall the station.
4. If a SLT station tries to transfer a call to a key station in HF or PV mode, and the key station doesn't answer, the SLT may retrieve the call by utilizing a hook flash 1 times

Programming

- ✧ Transfer Recall Timer
(Station Timers (main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu3)
- ✧ I-Hold Recall Timer
(Station Timers (main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu4)
- ✧ Attendant Recall Timer
(Station Timers (main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu5)
- ✧ Hook Switch Flash Timer
(Station Timers (main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu16)

Hardware None.

8. DIRECT CO LINE RINGING (SLT)

Description

Single line telephones can be arranged as direct ringing CO lines.

Operation

A SLT designated as a direct ringing line will ring when the CO line rings in. The SLT rings in the CO line distinctive mode. When the SLT answers, they are directly connected to the CO line.

Conditions

1. Ringing can be assigned for day or night.
2. A ringing SLT is considered as busy.

Programming

- ✧ CO Line Ring Assignment
(CO Line Base Program(main menu3) - CO Line Ring Assignment(Sub Menu7) - Terminal Menu1)

Related Features

Hardware None.

9. DO NOT DISTURB (SLT)

Description

A telephone user, allowed DND, can place his telephone in DND.

Operation

- ✧ To activate DND:
 - 1) Lift handset, and dial the **Code 53**, receive confirmation tone and hang up.
- ✧ To remove DND:
 - 1) Lift handset, dial the **Code 53** (receive confirmation tone), and hang up.

Conditions

1. If not allowed to set the station into DND, then an error tone is presented when attempting to invoke DND.
2. When in DND, the station will receive a DND warning tone when lifting handset.
3. Attendant can override the DND in the telephone by initiating Camp-on.

Programming

- ✧ DND Access
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu1)

Related Features

Hardware None.

10. ICM RINGDOWN (Hot/Warm Line)

Description

Station can be programmed so that when lifting handset, Idle line selection can be activated (Hot Line), or when lifting handset and user takes no further action for warm line timer, then idle line selection is activated (Warm Line). Hot/warm line can be programmed as access to CO line, access to CO group, or station number.

Operation

When a user takes no further action for warm line timer after lifting handset Idle Line Selection Feature is activated as programmed

Conditions

1. If Warm Line Timer is greater than Dial tone Timer, Idle Line selection for warm line cannot be activated.
2. SLT can not use Flex button type Warm Line.

Programming

- ✧ Warm Line Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu19)
- ✧ Warm Line Selection
(Station Base Program(Main Menu2) - Sub Menu7)

Related Features

Hardware None.

11. INTERCOM CALLING (SLT)

Description

A non-blocking ICM call is available to all station in the system. The ICM allows a station to call other stations in the system or to access page zones by dialing an applicable number in the numbering-plan.

Operation

✧ To make an ICM call :

- 1) Lift Handset. (ICM dial tone is heard.)
- 2) Dial station number. (Ring back tone is heard.)
- 3) Call party answers. (Voice connection established.)
- 4) Go to idle status. (Voice connection is released.)

✧ To receive an ICM call :

- 1) Telephone rings - distinctive ICM ring and pause, etc. (Telephone must be equipped with standard ringer.)
- 2) Lift Handset.
- 3) Ringing stops (Parties may converse.)

Conditions

Programming

- ✧ Inter Digit Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu18)

Related Features

Hardware None.

12. LAST NUMBER REDIAL (SLT)

Description

The last number dialed is stored (up to 24 digits) in the station's Last Number Redial buffer. The user may request the system redial the last number without the need to redial the entire number.

Operation

- ✧ To use Last Number Redial;
- 1) Lift the Handset (or press **[MON]** button on SLT).
 - 2) Dial **52**.
- ✧ To use Last Number Redial by **[REDIAL]** button on SLT;
- 1) Lift the Handset (or press **[MON]** button on SLT).
 - 2) Press **[REDIAL]** button on SLT.

Conditions

1. When last number redial is activated, the user will hear the number being transmitted to the central office.
2. If the previously used CO line is busy, another line within the group will be seized.
3. LNR is protected from power failures.

Programming

- ✧ CO Line Choice
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu5)

Hardware None.

13. MESSAGE WAIT/CALL BACK (SLT)

Description

A station can activate call back or message waiting when calling a station which is busy, does not answer, or is DND. A station may receive message wait from up to 5 other stations or call back from up to 1 other station in the system. The station who have the message can call the parties who left the message wait.

Operation

- ✧ To leave a message wait to an idle station that does not answer;
Make a hook lash and dial **56**.
- ✧ To leave a message wait to a station in DND;
Make a hook flash and dial **56**.
- ✧ To leave a call back to a busy station;
Make a hook flash and dial **56**.

When the receiving station returns to idle, the initiating station rings. When the initiating station answers the receiving station is signaled and the call back request is removed. If the initiating station is busy or does not answer in 30 seconds, a message wait will be left at that Station.

Conditions

1. A station can leave only one of callback or message. A new request overrides a previous one.
2. Station which forwards his calls to another station cannot leave a message wait. If a station leaves a message to the station in forward status, the message is left at the forwarding station.
3. Call back to a station in a conference or paging is allowed.

Programming

- ✧ MSG Wait Reminder Timer
(System Timers(main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu15)

Hardware None.

14. PAGING ACCESS (SLT)

Description

From a Single-Line Telephone, all Internal Paging Zones may be accessed by dialing specific code.
(See Page section)

Operation

1. Lift handset and dial the page code(#0 - #3).

Conditions

1. Stations denied access to paging will receive error tone when the Page Access is dialed.
2. Stations dialing the Page Access when any page port is busy will hear ICM busy tone.
3. DTMF signals from telephones can be transmitted through the paging port after access.
4. A page announcement can be answered with a "Meet Me" by dialing the **Code #6**.

Programming

- ✧ Page Access
(Station Base Program(main menu2) - Station Attribute(Sub Menu1) - Terminal menu3)
- ✧ Page Zone
(Station Base Program(main menu2) - Sub Menu8)

Related Features

Hardware None.

15. STATION SPEED DIAL (SLT)

Description

Each telephone has the capability of programming up to 20 individual speed dial numbers unique to its telephone. These numbers are entered and stored by the user and can be recalled by the user at any time.

Operation

- ✧ To store station speed dial numbers:
 - 1) Dial the SLT speed dial programming **Code 55**,
 - 2) Dial the bin number (01-20) reserved for personal speed dial numbers.
 - 3) Dial the number and flashes the hook switch (confirmation tone is received).
- ✧ To dial the station speed dial number:
 - 1) Dial the SLT speed dial access **Code 58**,
 - 2) Dial the bin for the speed dial number. The last choice / round-robin choice CO line in the CO group will be selected and the number is dialed.

Conditions (See Station Speed Dial)

Programming

- ✧ Speed Dial Access
(Station Base Program(main menu2) - Station Attribute(Sub Menu1) - Terminal menu2)
- ✧ CO Line Choice
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu5)
- ✧ Override 1st CO Group
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu6)

Related Features

Hardware None.

16. SYSTEM SPEED DIAL (SLT)**Description**

A group of numbers can be stored within the system for access by allowed stations.

Operation

- ✧ To access a system speed dial number by a SLT:
 - 1) Go off hook, receive intercom dial tone,
 - 2) Dial the speed dial access **Code 58** followed by the speed dial bin number (21 thru 99). The system chooses the CO line based on last line in first group access allowed and dials the number.

Conditions (See System Speed Dial)

Programming

- ✧ Speed Dial Access
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu2)

Related Features

Hardware None.

7. ISDN FEATURES

1. The Basic Features of ISDN Device (S-Interface)

1. ISDN Devices

- 1) There are many ISDN Devices. (ex. ISDN Phone, Video-Phone, G4 Fax, PC-Card, etc.) GDK-20W supports all ISDN Devices which is compatible with Euro-ISDN (ETSI ISDN Specification) till now on.
- 2) ISDN Devices can call another station on the GDK-20W and access ISDN CO Lines.
- 3) Current LCD Display on ISDN Device is its own Device Feature, not GDK-20W System's Feature.

2. Supplementary Service for ISDN Device

- 1) In GDK-20W, ISDN Station can access the following features,
 - A. ISDN Sub Addressing
 - B. MSN
 - C. Intercom Call
 - D. CO Line Access
 - E. CO Line Hold.
 - F. CO Line Transfer.
 - G. Etc.

2) ISDN Sub Addressing.

Sub Addressing can be programmed by Station Base Program(Main Menu2) - ISDN Station Attribute(Sub Menu2) - Sub Address(Terminal Menu1), its range is YES/NO(Default: NO).

If ISDN Station is allowed sub addressing by admin. program, in any station user who wants to call to ISDN station has to dial the station No and sub address for that ISDN station.

For using ISDN Station's Sub Address, there is further program on the ISDN Devices. Please consult your ISDN Devices manual for programming ISDN Device's Sub Address.

Sub Address is useful to the following Features for decoding the single ISDN Device from ISDN Devices on the same S-Interface (bus),

- (1) Intercom Call to ISDN Station
- (2) DID Call to ISDN Station
- (3) DISA Call to ISDN Station

On the other features, Sub Addressing does not effect ISDN Station's behavior.

3) ISDN MSN Addressing.

MSN Addressing can be programmed by Station Base Program (Main Menu2) - ISDN Station Attribute(Sub Menu2) - MSN (Terminal Menu3), its range is YES/NO(Default: NO).

If ISDN station is allowed MSN addressing by admin. program, in any station user who wants to call to ISDN station has to dial the station No and MSN address for that ISDN station.

For using ISDN Station's MSN Address, there is further program on the ISDN Devices. Please consult your ISDN Devices manual for programming ISDN Device's MSN Address.

MSN Address is useful to the following Features for decoding the single ISDN Device from ISDN Devices on the same S-Interface (bus),

- (1) Intercom Call to ISDN Station
- (2) DID Call to ISDN Station
- (3) DISA Call to ISDN Station

On the other features, MSN Addressing does not effect ISDN Station's behavior.

4) ISDN Intercom Call.

Any station can call ISDN Devices by dialing station no. S-Interface has two stations no. So, user can call ISDN Devices by dialing one of two pre-assigned stations no. There is no difference between calling ISDN Devices with the two stations no which is assigned the same S-Interface.

If ISDN Device is set to Sub Addressable ISDN, it needs further one digit for calling that ISDN Device.

5) ISDN CO Line Access.

CO Line Access of ISDN Device is the same as that of Single Line Telephone (SLT)

6) CO Line Hold.

In GDK-20W, system does not use DTMF Receiver for recognizing user's dialing digit. So if user want to use Hold/Transfer Feature on ISDN Device, ISDN Device has the capability of sending Keypad Facility Information on the Information Message.

If possible, holding CO Line Call, send "*" (Keypad Facility), then connected CO Line Call is held and user can hear Intercom Dial Tone.

Retrieving Held CO Line, send "*" (Keypad Facility), then the held CO Line Call is retrieved.
Please consult your ISDN Device's Manual for sending "Keypad Facility" after connection.

7) CO Line Transfer.

In GDK-20W, system does not use DTMF Receiver for recognizing user's dialing digit. So if user want to use Hold/Transfer Feature on ISDN Device, ISDN Device has the capability of sending Keypad Facility Information on the Information Message.

If possible, holding CO Line Call, send "*" (Keypad Facility) and dial the station No to transfer the call, then connected CO Line Call is held and user can hear Intercom Dial Tone.

Retrieving Held CO Line, send "*" (Keypad Facility), then the unanswered CO Line Transfer Call is retrieved.
Please consult your ISDN Device's Manual for sending "Keypad Facility" after connection.

8) Etc.

ISDN station accesses the above features. Other features are not supported currently.

ISDN station cannot accept additional ring when it is used whether the ring is external or internal.

It is recommended to use ISDN S port with DATA terminal instead of pure voice terminal.

When GDK-20W system uses Extension numbering plan, when ISDN station dial CO access code (e.g., *881) and telephone number, he can not make a call because of all digit are reported with Keypad facility.

2. The Features of ISDN CO Line (T-Interface)

1. Normal CO Line Features

Normal CO Line Features of STIB/BRI is the same as Analog CO Line. Normal CO Line Features are described GDK-20W Manual. Consult your GDK-20W for normal CO Line Features.

2. MSN

GDK-20W will receive some called party number from PX via DID line, then looks up the MSN address TABLE, ISDN Program (Main Menu 4) - MSN Table (Sub Menu 9) to provide ring signal to an ISDN internal port.

GDK-20W will send the information including the called party number to the ISDN station that is ringing.

- (1) Maximum table entry : 24.
- (2) The CO line should be programmed as DID Line, CO Base Program (Main Menu 3) – ISDN Attribute(Sub Menu 2) - DID Use(Terminal Menu 4).
- (3) If the called party number is not matched with MSN table then GDK-20W will treat the call like as DID.
- (4) If the called CO line number is not programmed then search all tables.
- (5) If there is matched CO line number in MSN address table then search only matched entry of the table.
- (6) Maximum 8 device can be connected to a S0 port.
- (7) MSN Table. ISDN Program (Main Menu 4) - MSN Table (Sub Menu 9)

Item	CO Line Number	Telephone Number	Station Number	MSN Number
Flex	1	4	2	3
Range	1-8	Max 20 Digits	2 or 3 Digit Station Number	1-8
Default	None	None	None	None

3. D.I.D. (Direct Inward Dialing)

The system operates DID CO, if ISDN CO assigns DID CO through CO Base Program (Main Menu3) – ISDN Attribute (Sub Menu2) – DID Use (Terminal Menu 4). If you want to call to a ISDN station which assigns sub-addressing of DID or DISA, you should dial station numbers and sub-address or MSN number (1-8).

If your PX send full called party number(area code + prefix number of DID, real DID number(for station number)) and then please set CO Base Program (Main Menu3) - ISDN CO Attribute (Sub Menu2) - DID_RN(Terminal Menu2) to length of (area code + prefix did number)).

4. CLIP (Calling Line Identification Presentation)

When a call exists through DISA or DID, Calling line identification(CLI) of the incoming call will be displayed on the internal called station's keyset if PX provide CLI information.

- Calling line identification (CLI) or name which is matched with the speed dial list is displayed to original called party extension.
- First, The system search station speed dial buffer to find out the programmed name, and if there is not matched then search system speed dial buffer.(Not implemented Yet)
- CLI information will be printed in SMDR record through RS-232 port.

5. COLP (Connected Line Identification Presentation)

Each station user can send CLI information to called party through ISDN line if PX service this supplementary service.

There are 8 type of calling party number, But at this moment GDK only support four kinds of type.
(UNKNOWN / NATIONAL TYPE / INTERNATIONAL / SUBSCRIBER)

- COLP field determines what is used to generate my CLI information in setup message, it indicate entry of CO Base Program (Main Menu3) - ISDN Line Attribute(Sub Menu2) - OLP(00)(Terminal Menu1).
- When a internal user seize a ISDN(DID) line which is programmed for COLP, GDK system will make calling party number using ISDN COLP TABLE and extension number in setup message.
- UNKNOWN TYPE :
Insert the calling station number at calling party number information field in setup message.
- NATIONAL TYPE :
 - ☐ Insert my area code if exist. ISDN Program (Main Menu4) - My Area Code (Sub Menu6)
 - ☐ Insert prefix of COLP number. ISDN Program(Main Menu4) - COLP Table(Sub Menu8)
 - ☐ Insert the calling station number.

Ex) The calling station(100) seize a ISDN line 01 which is programmed as COLP(01), COLP Table(Main Menu4 - Sub Menu 8) (01 : "5001", prefix of COLP number) and MY AREA CODE(0343).
CLI in setup message : "03435001100"

- INTERNATIONAL TYPE :
 - ☐ Insert my nation code if exist. ISDN Program (Main Menu4) - My Nation Code (Sub Menu7)
 - ☐ Insert my area code if exist. ISDN Program (Main Menu4) - My Area Code (Sub Menu6)
 - ☐ Insert prefix of COLP number. ISDN Program(Main Menu4) - COLP Table(Sub Menu8)
 - ☐ Insert the calling station number.

Ex) The calling station(100) seize a ISDN line 01 which is programmed as COLP(01), COLP Table(Main Menu4 - Sub Menu 8) (01 : "5001", prefix of COLP number) ,MY AREA CODE(0343) and MY Nation Code(82).
CLI in setup message : "8203435001100"

- SUBSCRIBER TYPE :
 - ☐ Insert prefix of COLP number. ISDN Program(Main Menu4) - COLP Table(Sub Menu8)
 - ☐ Insert the calling station number.

Ex) The calling station(100) seize a ISDN line 01 which is programmed as COLP(01), COLP Table(Main Menu4 - Sub Menu 8) (01 : "5001", prefix of COLP number), MY AREA CODE(0343) and MY Nation Code(82).
CLI in setup message : "5001100"

6. MULTIPOINT WORKING

- The GDK-20W and other devices can be connected to the same CO NT S-bus side.
- Incoming calls to the other ISDN devices with different MSN numbers are treated as an error case in GDK-20W. If Error Destination (5-6-2) is Tone, then DISCONNECT message is sent to the network. And, if Error Destination is ATD, then CALL PROCEEDING and ALERTING messages are sent to the network.
- For outgoing call, GDK-20W requests a B-channel as channel base (in case of basic BRI port, B1 for CO 1, B2 for CO 2). And before GDK-20W tries to request B-channel, it does not know if the B-channel is used by other ISDN device or not.

3. ISDN – Call Hold / Retrieve

Description

This feature allows the user to make another call without using other channel. When the HOLD supplementary service is invoked, communication on a B-channel is interrupted and the B-channel is released. The network reserves the B-channel used by the user for subsequent reuse. With this feature, ISDN-Broker Call and Call Waiting are available.

Operation

- ☐ **To hold the current call;**
 - (1) Press the **[FLASH]** key during conversation.
 - (2) Press the **[HOLD]** key. Or
 - (3) Press programmed **{SUPP HOLD}** button.
- ☐ **To make a new call by using the same channel;**
 - (1) Press the **[FLASH]** key.
 - (2) Press the **{CO}** key. Or
 - (3) Dial CO Access **Code 9**.
- ☐ **To retrieve the held call during conversation;**
 - (1) Press the **[HOLD]** key. Then current call goes on hold and the held call is retrieved.
- ☐ **To retrieve the held call after hanging up the current conversation;**
 - (1) Press the **{CO}** key that is flashing with 480 IPM.

Conditions

1. **Both Keypad protocol and functional protocol are implemented.**
2. **[FLASH]** and **[HOLD]** keys or pre-programmed **{SUPP HOLD}** are needed for this feature. **{SUPP HOLD}** key can be made by **Code [TRNAS/PGM] *75#**.
3. ISDN Call Hold feature is available during conversation.
4. The line, which is associated with this ISDN supplementary service, can not be transferred to other stations or can not be retrieved from other stations. And the held channel can be retrieved only by the station which held the channel before.
5. When a call is on hold, the associated LED for the line will flash at 480 IPM in the station that uses the line. And all the LED's will be ON (busy) in the other stations.
6. When a call is on hold and the user make a new call, the associated LED for the line at the station will be ON.

Programming

- ✧ ISDN Service Type
(ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 1)
- ✧ ISDN Hold Code
(ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 2)
- ✧ ISDN Retrieve Code
(ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 3)

4. ISDN – Broker Call

Description

This feature allows a station user engaged in one ISDN CO line to hold that call and can originate another call by using the same channel. Once the second call is established, the originating station may alternate between calls carrying on a private conversation with either party.

Operation

- ☐ **To hold the current call;**
 - (1) Press the **[FLASH]** key during conversation.
 - (2) Press the **[HOLD]** key. Or
 - (3) Press programmed **{SUPP HOLD}** button.
- ☐ **To make a new call with the same channel;**
 - (1) Press the **[FLASH]** key.
 - (2) Press the **{CO}** key. Or
 - (3) Dial CO Access **Code 9**.
- ☐ **To exchange the party during one conversation;**
 - (1) Press the **[HOLD]** key. Then, the current call goes on hold and the held call is retrieved.

Conditions

1. **Both Keypad protocol and functional protocol are implemented.**
2. **[FLASH]** and **[HOLD]** keys or pre-programmed **{SUPP HOLD}** are needed for this feature. **{SUPP HOLD}** key can be made by **Code [TRNAS/PGM] *75#**.
3. ISDN-Broker Call is available during conversation.
4. The ISDN CO line, which is associated with this ISDN-Broker call, can not be transferred to the other station. And the held channel can be retrieved only by the station which held the channel.
5. ISDN-Broker Call is associated with ISDN-3 Party Conference and Call Waiting.

Programming

- ✧ ISDN Service Type
(ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 1)
- ✧ ISDN Hold Code
(ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 2)
- ✧ ISDN Retrieve Code
(ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 3)

Hardware

5. ISDN – 3 Party Conference

Description

This feature allows the user to make 3 party conversation with one ISDN CO channel.

Operation

- ☐ **To make a 3 party conversation;**
Press **[FLASH] + [CONF]** or **{SUPP CONF}** when a call is in Supplementary Hold and a call in conversation.
- ☐ **To hold a party during 3 party conversation;**
Press **[FLASH] + [HOLD]** or **{SUPP HOLD}** during 3 party conversation.

Conditions

1. Only Keypad protocol is implemented.
2. **[FLASH]**, **[HOLD]** and **[CONF]** or **{SUPP HOLD}**, **{SUPP CONF}** keys are needed for this feature. **{SUPP CONF}** key can be made by Code **[TRNAS/PGM] *77#**.
3. The other stations or CO lines in the system can not be a member.

Programming

- ✧ ISDN Service Type
(ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 1)
- ✧ ISDN Hold Code
(ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 2)
- ✧ ISDN Retrieve Code
(ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 3)
- ✧ ISDN 3 Party Conference Code
 1. (ISDN Program(Main Menu 4) – ISDN Supplementary Service(Sub Menu 13) - Terminal Menu 4)

Hardware None.

6. ISDN – CLI with No Answer (CLI Message Wait)

Description

When a call exists through DISA or DID, calling line identification (CLI) of the incoming call will be displayed on the LCD of the station. And if the DID or DISA external party hangs up before an Attendant or called extension answer, the CLI provided by digital network will be stored in the CO message wait queue of the original called extension.

Operation

- ☐ **To activate CLI Message Wait;**
CLIP and CLIS should be programmed as Yes.
LCD Format:
- ☐ **To retrieve CLI Message;**
Press **[CALLBK]** button. Then message contents will be shown on LCD.

MSG: 101 CLI3

03434507902

ON 17/11 AT 01:51

- ☐ **To delete the current CLI Message and see the next one;**
Press **[CONF]** button. Then the extension user can see the next CLI message and current CLI message will be deleted.
- ☐ **To make a call back;**
Press **[HOLD]** button. Then system seizes an available CO line in a first accessible CO group and dials it like speed dialing.
- ☐ **To see the next or previous CLI message;**
Press **[UP/DOWN]** button

Conditions

1. The total number of CLI message wait is 200. (on System base)
2. Station without LCD display (for example, SLT and LKD 2 Btn keyset) can not receive CLI message wait even though CLIP is set to YES.
3. The contents of message consist of date, time and calling party number.
4. This feature is available only with MEMU.
5. CLI messages are saved against power failure.
6. When the call is routed to Ring Group, CLI Message Wait is not saved for none of Ring Group members.
7. Zero insertion field determines whether '0' is inserted in CLI (incoming call) or not.
8. System does not insert '0' in CLI message when the incoming CLI message includes leading '0' even if zero insertion field is Yes.
9. My area code field is used to delete area code in CLI (incoming call) if matched.
10. If Zero insertion is true, then set MY AREA CODE without leading "0" digit like "343".
11. If there is no buffer, following warning message will be printed out through RS-232C.
A. "WARNING: CLI MESSAGE WAITING BUFFER FULL"
12. If calling party number type of SETUP message is International type, the system puts International access code to the front of calling party number if there is programmed International access code, and shows this International code also with calling party number on LCD.
13. CLI information will be displayed on LCD as followings. Refer to the table for various examples.

1. Admin Setting				1. CLI	
2. Incoming Zero Insertion	2. Area Code	1. National Code	1. International Access Code	1. Received Call type and CLI number in SETUP message	1. On LCD
3. No	3. 03 43	2. 82	2. 00	2. National and 0343507901	2. 507951
4. No	4. 34 3	3. 82	3. 00	3. National and 0343507951	3. 507951
5. No	5. 03 45	4. 82	4. 00	4. National and 0343507951	4. 0343507951
6. Yes	6. 03 43	5. 82	5. 00	5. National and 343507901	5. 507951
7. Yes	7. 03 43	6. 82	6. 00	6. Subscriber 0343507951 and	6. 0343507951
8. Yes	8. 03 43	7. 82	7. 00	7. International 4928887777 and	7. 004928887777

Programming

- ✧ CLIP
(Station Base Program(Main Menu 2) – ISDN Station Attributes(Sub Menu 2) - Terminal Menu 6)
- ✧ CLIS

(Station Base Program(Main Menu 2) – ISDN Station Attributes(Sub Menu 2) - Terminal Menu 7)

- ✧ Incoming Zero Insertion
(ISDN Program (Main Menu 4) – Sub Menu 3)
- ✧ My Area Code
(ISDN Program (Main Menu 4) – Sub Menu 6)
- ✧ My Nation Code
(ISDN Program (Main Menu 4) – Sub Menu 7)
- ✧ International Access Code
(ISDN Program (Main Menu 4) – Sub Menu 8)

Hardware

7. ISDN Loop Back ON/OFF

Description

ISDN Loop-Back feature is controlled both by hardware (switch SW1-2 on GDK-20W MBU) and software (Admin programming). The switch SW1-2 must be turned on in order to enable Loop-Back function. Otherwise, it is impossible to use Loop-Back feature. In addition, Loop Back feature should be enabled in Admin programming. If this feature is not enabled both by hardware and software, Loop-Back is ignored and normal operation is assumed. This prevents users from enabling Loop-Back feature by setting the switch SW1-2 ON by mistake while setting SW1-1 (For database protection).

Operation

Conditions

1. When user programs Loop Back as Yes, and sets SW7-2 at position On, then all S0 and T0 port (maximum 3 ports) are in loop back mode.
2. When user programs Loop Back as Yes, and sets SW7-2 at position On, then data from outside system are loop back, so data from outside can not be sent into system.
3. This feature is only for ISDN type approval. So, during normal use, do not program Loop Back as Yes, nor set SW7-2 at position On.

Programming

- ✧ ISDN Loop Back On/Off
(ISDN Program (Main Menu 4) – Sub Menu 14)

Hardware

1. Switch SW1-2 on GDK-20W MBU

8. ISDN - Transparency

Description

All the messages from line are transmitted to S port transparently.

Operation

Conditions

Programming

Hardware None

9. Zero Insertion in the CLIP presentation on LCD

Description

With incoming zero insertion Yes, incoming CLI information will be shown with leading "0".

Operation

Conditions

Programming

- ✧ CLIP
(Station Base Program(Main Menu 2) – ISDN Station Attributes(Sub Menu 2) – Terminal Menu 6)
- ✧ Incoming Zero Insertion
(ISDN Program (Main Menu 4) - Sub Menu 3)

Hardware

8. SUBSCRIPTION / DE-SUBSCRIPTION (WIRELESS TERMINAL)

1. SYSTEM ID

Description

System ID is given to the GDK-20W system attached the wireless terminal(GAP) for identification. System ID, which is PARK(Potable Access Rights Key), is written on MBU.

Authentication Code is entered at only attendant station, before you begin to subscribe wireless terminal (GAP) to GDK-20W system. You should get AC code PARK from a system manager. In addition to the above, you should get station number of the wireless terminal to be subscribed from a system manager.

Operation

✧ In case of confirming system ID

1) At attendant station

[TRNAS/PGM] + ## * Flex. Button 4

- ☐ If you press the **[TRNAS/PGM]** button, **[TRNAS/PGM]** LED will flash(60 IPM Flash) and **[ON/OFF]** LED will be turned on.. Then you can enter then user program mode.
- ☐ Dial '##'
- ☐ Press Flexible Button 4
- ☐ Current PARK value will be displayed in LCD.

✧ In case of changing system ID

1) At attendant station

[TRNAS/PGM] + ## + Flex. Button 6 + System ID(PARK) + **[HOLD/SAVE]**

CAUTION: Normally you should not change the system ID. If you should change it, please contact LG or local dealer in your country.

- ☐ If you press the **[TRNAS/PGM]** button, **[TRNAS/PGM]** LED will flash (60 IPM Flash) and **[ON/OFF]** LED will be turned on.. Then you can enter then user program mode
- ☐ Dial '##'
- ☐ Press Flexible Button 6
- ☐ Enter the system ID(PARK code)
- ☐ After entering the PARK code, press **[HOLD/SAVE]** button. Then you can hear confirm tone.

The key sequence of the PARK : LLP_____PC

LL : Two digits decimal representation of PARK length (Bit count)

P_____P : 11 octal digits representation of PARK

C : Check digit (It is calculated as the sum of each digit in the input stream multiplied by its position in the input stream , modulo 11; if the result if 10, this is represented by the “*”).

Conditions

- 1) You must program for system ID when you install the system.
- 2) If you program system ID, all data that were related to wireless features will be erased.
- 3) The initial PARK value is 00000000000000. So the value will be display in LCD at first

2. Authentication Code

Description

Authentication Code is entered at only attendant station, before you begin to subscribe wireless terminal (GAP) to GDK-20W system.

Operation

✧ In case of confirming AC code

- 1) At attendant station

[TRANS/PGM] + ## + Flex. Button 3

- ☐ If you press the **[TRANS/PGM]** button, **[TRANS/PGM]** LED will flash(60 IPM Flash) and **[ON/OFF]** LED will be turned on.. Then you can enter then user program mode.
- ☐ Dial '##'
- ☐ Press Flexible Button 3
- ☐ Current AC code will be displayed in LCD

✧ In case of changing AC code

- 1) At attendant station

[TRANS/PGM] + ## + Flex. Button 3 + AC Code(Max 8 Digits) **+ [HOLD/SAVE]**

The key sequence of the AC code : D_____D

D_____0 : Up to 8 digits decimal representation.

- ☐ If you press the **[TRANS/PGM]** button, **[TRANS/PGM]** LED will flash(60 IPM Flash) and **[ON/OFF]** LED will be turned on.. Then you can enter then user program mode.
- ☐ Dial '##'
- ☐ Press Flexible Button 3
- ☐ Enter the AC code
- ☐ If you press the **[HOLD/PGM]** button, you will be heard confirm tone.

Condition

- 1) AC code is must be programmed for user subscription.
- 2) AC code must be programmed one time after system was installed. If you change AC code under system operation, it may not operate properly.
(Ex : Subscribed terminal may not receive the incoming call or not make an outgoing call)
- 3) If PARK code are changed, you must enter the AC code again.
- 4) The initial AC code is 000000.
- 5) AC code change will not affect the system operation except subscribing new wireless terminal.

Programming

Hardware

3. User Subscription

Description

This procedure is for subscribing the wireless terminal to GDK-20W system.

Operation

1) Attendant station

[TRNAS/PGM] + ## + Flex. Button 1 + Station Number + Phone Type + **[HOLD/SAVE]**

- ☐ If you press the **[TRNAS/PGM]** button, **[TRNAS/PGM]** LED will flash(60 IPM Flash) and **[ON/OFF]** LED will be turned on.. Then you can enter then user program mode.
- ☐ Dial '##'
- ☐ Press Flexible Button 1
- ☐ Enter the station number.
- ☐ Enter the phone type (LG-GAP for GDK system or standard GAP for any other system). In case of LG-GAP terminal, press [1] button. Otherwise press [2] button.
- ☐ Press **[HOLD/SAVE]** button and confirmation tone is heard.
- ☐ If succeeded, the attendant station will display " SUBSCRIBED: SUCCESS" on the LCD display.
- ☐ **If failed(either at attendant or at Wireless Terminal), repeat 3) ~ 6) steps of the attendant.**

2) At the wireless terminal

[Function] + 0 + PARK code + Redial + AC code + [Redial] + FTID + **[Function]**

- ☐ Press **[Function(→)]** button
- ☐ Press 0
- ☐ Enter system ID(PARK)
- ☐ Press **[Redial (●)]** button
- ☐ Enter AC code
- ☐ Press **[Redial (●)]** button.
- ☐ '1','2','3','4' or '_' are displayed on the LCD. A number means FT number that it is not occupied yet. The under-bar means the wireless terminal is already subscribed to the system. Therefore, the number of '_' means the number of subscribed system. If 4 under-bar are displayed on the LCD, that means no subscription is allowed any more. Enter FT number by pressing numeric key if any number exists. After selecting, it is possible to re-select FT number by pressing **[Flash(R)]** button to cancel selection.
- ☐ Press **[Function(→)]** button
- ☐ Success or failure of the subscription is notified with confirmation tone to the attendant and the wireless terminal.
- ☐ If succeeded, the wireless terminal goes to an idle state and its station number is displayed.
- ☐ **If failed, repeat 3) ~ 6) steps of the attendant and 1) ~ 8) steps of wireless terminal.**

The key sequence of the PARK : LLP_____PC

LL : Two digits decimal representation of PARK length (Bit count)

P_____P : 11 octal digits representation of PARK

C : Check digit (It is calculated as the sum of each digit in the input stream multiplied by its Position in the input stream , modulo 11; if the result if 10, this is represented by the "**".)

The key sequence of the AC code : D____D

D____D : AC value : Up to 8 digits decimal representation.

FTID : 1 ~ 4

Condition

- 1) Wireless terminal must be subscribed to system for normal service.
- 2) Only attendant can subscribe the wireless terminals(GAP).
- 3) Attendant can subscribe another wireless terminal after one subscribing procedure.
- 4) If attendant want to subscribe wireless terminal that was subscribed already, it will be heard error tone.

Program

Hardware

4. User Desubscription

Description

This procedure makes a wireless terminal loose access right to the GDK-20W system. To de-subscribe the wireless terminal, it should be in an idle state.

Operation

- 1) Attendant station

[TRANS/PGM] + ## + Flex. Button 2 + Station Number + **[HOLD/SAVE]**

- ☐ If you press the **[TRANS/PGM]** button, **[TRANS/PGM]** LED will flash(60 IPM Flash) and **[ON/OFF]** LED will be turned on.. Then you can enter then user program mode.
- ☐ Dial "##"
- ☐ Press Flexible Button 2
- ☐ Enter the station number.
- ☐ Press **[HOLD/SAVE]** button and confirmation tone is heard.
- ☐ Success or failure of the subscription is notified with confirmation tone to the attendant and the wireless terminal.
- ☐ If succeeded in de-subscription, the below LCD message will be displayed. Power-off the wireless terminal

Condition

- 1) Only attendant can de-subscribe wireless terminal.
- 2) Attendant can de-subscribe wireless terminals those were subscribed already.(If attendant try to de-subscribe un-subscribed wireless terminal, it will be heard error tone.
- 3) Attendant can de-subscribe another wireless terminal after one de-subscribing procedure.
- 4) Attendant can do de-subscribing procedure only when wireless terminal's power is off and idle state.

Notes

If you want to do de-subscribe procedure at wireless terminal and attendant station each other, Follow the procedure that described below.

1) At attendant station

- ✧ To erase all data those were subscribed.

[TRNAS/PGM] + ## + Flex. Button 7 + Password(147*) **+ [HOLD/SAVE]**

- ☐ Press the **[TRNAS/PGM]** button, **[TRNAS/PGM]** LED will flash(60 IPM Flash) and **[ON/OFF]** LED will be turned on. Then you can enter then user program mode.
- ☐ Press **##**
- ☐ Press flexible button 7
- ☐ Press password .
- ☐ Press **[Hold/Save]**, you will be heard confirmation tone.

- ✧ To erase a special wireless terminal

[TRANS/PGM] + ## + Flex. Button 8 + Station Number **+ [HOLD/SAVE]**

- ☐ Press the **[TRNAS/PGM]** button, **[TRNAS/PGM]** LED will flash(60 IPM Flash) and **[ON/OFF]** LED will be turned on. Then you can enter then user program mode.
- ☐ Press **##** .
- ☐ Press flexible 8
- ☐ Dial station number that you want to de-subscribe.
- ☐ Press **[HOLD/SAVE]**, you will be heard confirmation tone.

Condition

- 1) Wireless terminal must be subscribed to system for normal service.
- 2) Only attendant can subscribe the wireless terminals.
- 3) Attendant can subscribe another wireless terminal after one subscribing procedure.
- 4) If attendant want to subscribe wireless terminal that was subscribed already, it will be heard error tone.

Program**Hardware**

5. Handover

Description

This feature is switching an physical channel to another physical channel without disconnecting voice channel.

Operation

Refer to wireless terminal user guide.

6. Out of Range Indication

Description

This feature indicate user location information to user when user location is change due to movement.

Operation

Refer to wireless terminal user guide.

Condition

- 1) If user goes out of cell's coverage, it will be heard beep sound 3 times and "OUT RANGE" will be displayed.

7. Low Battery

Description

This feature indicates information for battery amount.

Operation

Refer to wireless terminal user guide.

Condition

- 1) When the battery are empty, user will hear beep sound every 20sec and "LOW BATT." will be displayed.

9. Wireless Terminal Features

1. CALL FORWARD (WIRELESS TERMINAL)

Description

This feature allows single line telephones to direct intercom calls and transferred CO lines to be forwarded to another station.

Operation

✧ To activate the call forward condition on Wireless Terminal:

- 1) Press **[ON/OFF (📞)]** button and dial the **Code 54**
- 2) Dial call forward type (1:unconditional, 2:busy, 3:no answer, 4:busy/no answer, 5:off-net),
- 3) Dial the station number where the call is to be forwarded.

✧ To deactivate the call forward condition.

- 1) Press **[ON/OFF (📞)]** button and dial the **Code 54**.
- 2) Dial # .

Conditions

1. Call Forward will remain engaged until manually released.
2. A call cannot be forwarded to a telephone in DND.
3. The telephone will give a Call Forward warning tone when the **[ON/OFF (📞)]** button is pressed to indicate the telephone is in the Call Forward mode.
4. A station denied the use of FWD in programming will receive error tone when the **Code 54** is dialed.
5. A call forwarding station cannot initiate a message wait.

Programming

- ✧ Call Forward Access
(Station Base Program (main menu2) - Station Attributes(Sub Menu1) - Terminal menu4)

2. CALL PICK-UP (WIRELESS TERMINAL)

Description

Tone ringing intercom calls and CO lines transferred to unattended station may be retrieved.

Operation

✧ To pickup call:

- 1) An unattended station receives ringing signal.
- 2) Any other Wireless Terminal in GDK-20W may intercept the call by pressing **[ON/OFF (📞)]** button and dialing the **Pick-up code 66**.
- 3) The calling party will automatically be connected to the pick-up station, and the called station will cease all audible and visual signals.

Programming

3. CALL WAITING (WIRELESS TERMINAL)

Description

Call Waiting is used to notify a busy station that another station is waiting for him. The busy station is notified of the call by a camp-on tone.

Operation

- ✧ With Station (A) = Wireless Terminal , Station (B) = Key station or SLT
 - 1) Station (A) dials the station (B) number in conversation.
 - 2) Station (A) receives ICM busy tone.
 - 3) Station (A) dials '*' to camp-on.
 - 4) Station (A) receives ICM ring back tone. Station (B) will receive a camp-on tone via the handset or through the speaker.

Conditions

1. A Wireless Terminal can receive a call waiting and answer it by pressing [HOLD (📞)] button.

Programming

4. CO FLASH (WIRELESS TERMINAL)

Description

While on a CO Line, a user can request new dial-tone to place a new call or, when behind a PABX, activate a PABX feature. The system allows each CO Line to be assigned a Flash duration.

Operation

- ✧ To generate a Flash while on a CO Line from a Wireless Terminal;
 - 1) Press [FLASH (R)] button

Programming

- ✧ Flash Type
(CO Line Base Program(main menu3) - CO Line Attributes(Sub Menu1) - Terminal menu4)
- ✧ CO Flash Timer (CO Line Base Program(main menu3) - Sub Menu5)

Hardware

5. CO LINE ACCESS (WIRELESS TERMINAL)

Description

A Wireless Terminal are allowed or denied access to the CO lines.

Operation

- ✧ To access a CO line:
 - 1) Press [ON/OFF (📞)] button.
 - 2) Dial the CO access code 9, 81 through 84 for access of CO Line Groups 1 through 4, respectively. (If there is an idle CO line, CO dial tone will be heard and dialing may continue. If all CO lines are busy, the caller receives intercom busy tone.)

✧ *To terminate the outgoing call:*

- 1) Press **[ON/OFF (📞)]** button

Individual CO lines can be accessed by dialing **Code 88** and the line number 1 through 6 if it can be allowed CO Individual access.

Conditions

1. A Wireless Terminal may place outgoing calls on Co Line Groups 1 through 4, depending upon the CO Line Group privileges assigned to that telephone. Toll restriction is applied by station COS.

Programming

✧ CO Group Access

(Station Base Program(main menu2) - CO Group Access(Sub Menu4))

Hardware**6. CO LINE TRANSFER (WIRELESS TERMINAL)**

Description

CO Lines may be transferred by a Wireless Terminal.

Operation✧ *To perform an unannounced CO line transfer:*

- 1) While connected to a Co line, press **[TRANSFER (I)]** button at Station (A). (Intercom dial tone is received. The CO line is placed on Exclusive Hold, Transfer Recall Timer is activated)
- 2) Dial the intercom number of idle Station (B). (Intercom ringback tone is heard. Station (B) received intercom ringing)
- 3) Station (A) goes On-Hook status. Station (B) receives CO ringing Transfer recall timer starts.
- 4) Station (B) answers the transferred CO line by lifting the handset. (Station (A) will be recalled if the CO line is not answered within a programmed period of time. If Station (A) is busy or doesn't answer within the programmed time period, the transferred CO line will recall the attendant)

✧ *To perform an announced CO line transfer to an idle station:*

- 1) While connected to a CO line, press **[TRANSFER (I)]** button. (ICM dial tone is received. The CO line is placed on Exclusive-Hold. Transfer recall timer is activated.)
- 2) Dial the intercom number of idle Station (B). (Intercom ring back tone is heard.)
- 3) Station (A) informs Station (B) of a transferred call.
- 4) Station (A) hangs up. Station (B) is connected to the transferred CO line.

Conditions

1. A Wireless terminal cannot transfer a call to another busy single-line telephone; however, a Wireless Terminal can transfer a call to a busy key station. When he receives busy tone, he can be connected to a CO Line using **[TRANSFER(I)]** button.
2. If the station initiating the transfer hangs up before completing the dialing of a station number, the line will immediately recall the station.
3. If a Wireless Terminal tries to transfer a call to a key station in HF or PV mode, and the key station doesn't answer, the Wireless Terminal may retrieve the call by pressing **[TRANSFER (I)]** button.

Programming

✧ Transfer Recall Timer

(Station Timers (main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu3)

✧ I-Hold Recall Timer

(Station Timers (main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu4)

- ✧ Attendant Recall Timer
(Station Timers (main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu5)
- ✧ Hook Switch Flash Timer
(Station Timers (main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu16)

Hardware

7. DIRECT CO LINE RINGING (WIRELESS TERMINAL)

Description

A Wireless Terminal can be arranged as direct ringing CO lines.

Operation

A Wireless Terminal designated as a direct ringing line will ring when the CO line rings in. The Wireless Terminal rings in the CO line distinctive mode. When the Wireless Terminal answers by pressing **[ON/OFF (☎)]** button, they are directly connected to the CO line.

Conditions

1. Ringing can be assigned for day or night.
2. A ringing Wireless Terminal is considered as busy.

Programming

- ✧ CO Line Ring Assignment
(CO Line Base Program(main menu3) - CO Line Ring Assignment(Sub Menu7) - Terminal menu 1)

8 DO NOT DISTURB (WIRELESS TERMINAL)

Description

A telephone user, allowed DND, can place his telephone in DND.

Operation

- ✧ To activate DND:
 - 1) Press , **[ON/OFF (☎)]** button and dial the **Code 53**, receive confirmation tone.
- ✧ To remove DND:
 - 1) Press , **[ON/OFF (☎)]** button and dial the **Code 53**, receive confirmation tone.

Conditions

1. If not allowed to set the station into DND, then an error tone is presented when attempting to invoke DND.
2. When in DND, the station will receive a DND warning tone when lifting handset.
3. Attendant can override the DND in the telephone by initiating Camp-on.

Programming

- ✧ DND Access
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu1)

Hardware**9. ICM RINGDOWN (Hot/Warm Line)**

Description

Station can be programmed so that when pressing **[ON/OFF (☞)]** button, Idle line selection can be activated (Hot Line), or when pressing **[ON/OFF (☞)]** button and user takes no further action for warm line timer, then idle line selection is activated (Warm Line). Hot/warm line can be programmed as access to CO line, access to CO group, or station number.

Operation

When a user takes no further action for warm line timer after pressing **[ON/OFF (☞)]** button, Idle Line Selection Feature is activated as programmed

Conditions

1. If Warm Line Timer is greater than Dial tone Timer, Idle Line selection for warm line cannot be activated.
2. A Wireless Terminal can not use Flex button type Warm Line.

Programming

- ✧ Warm Line Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu19)
- ✧ Warm Line Selection
(Station Base Program(Main Menu2) - Sub Menu7)

Hardware

10. INTERCOM CALLING (WIRELESS TERMINAL)

Description

The ICM allows a station to call other stations in the system or to access page zones by dialing an applicable number in the numbering-plan.

Operation

✧ To make an ICM call :

- 1) Press **[ON/OFF (📞)]** button.(ICM dial tone is heard.)
- 2) Dial station number. (Ringback tone is heard.)
- 3) Call party answers. (Voice connection established.)
- 4) Go to idle status. (Voice connection is released.)

✧ To receive an ICM call :

- 1) Telephone rings - distinctive ICM ring.
- 2) Press **[ON/OFF (📞)]** button
- 3) Ringing stops (Parties may converse.)

Programming

- ✧ Inter Digit Timer
(System Timers(Main Menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu18)

11. LAST NUMBER REDIAL (WIRELESS TERMINAL)

Description

The last number dialed is stored (up to 24 digits) in the station's Last Number Redial buffer. The user may request the system redial the last number without the need to redial the entire number.

Operation

- ✧ To use Last Number Redial;
- 1) Press **[ON/OFF(📞)]** button.
 - 2) Press **[REDIAL(📞)]**button.
- ✧ To use Last Number Redial on a Wireless Terminal;
- 1) Press **[REDIAL(📞)]**button.
 - 2) Press **[ON/OFF(📞)]** button.

Conditions

1. When last number redial in system is activated, the user will hear the number being transmitted to the central office.
2. If the previously used CO line is busy, another line within the group will be seized.
3. LNR is protected from power failures.

Programming

- ✧ CO Line Choice
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu5)

Hardware

12. MESSAGE WAIT/CALL BACK (WIRELESS TERMINAL)

Description

A station can activate call back or message waiting when calling a station which is busy, does not answer, or is DND. A station may receive message wait from up to 5 other stations or call back from up to 1 other station in the system. The station who have the message can call the parties who left the message wait.

Operation

- ✧ To leave a message wait to an idle station that does not answer;
Press [**CALL BACK**()] button.
- ✧ To leave a message wait to a station in DND;
Press [**CALL BACK**()] button.
- ✧ To leave a call back to a busy station;
Press [**CALL BACK**()] button.

When the receiving station returns to idle, the initiating station rings. When the initiating station answers the receiving station is signaled and the call back request is removed. If the initiating station is busy or does not answer in 30 seconds, a message wait will be left at that Station.

Conditions

1. A station can leave only one of callback or message. A new request overrides a previous one.
2. Station which forwards his calls to another station cannot leave a message wait. If a station leaves a message to the station in forward status, the message is left at the forwarding station.
3. Call back to a station in a conference or paging is allowed.

Programming

- ✧ MSG Wait Reminder Timer
(System Timers(main menu6) - System Timer 1 (Sub Menu 1) – Terminal Menu15)

Hardware None.

13. PAGING ACCESS (WIRELESS TERMINAL)

Description

A Wireless Terminal may access all Page zones by dialing Page access code.

Operation

1. Press [**ON/OFF** ()] button.
2. Dial Page access code(**#0-#3**).

Conditions

1. Stations denied access to paging will receive error tone when the Page Access is dialed.
2. Stations dialing the Page Access when any page port is busy will hear ICM busy tone.
3. DTMF signals from telephones can be transmitted through the paging port after access.
4. A page announcement can be answered with a "Meet Me" by dialing the **Code #6**.

Programming

- ✧ Page Access
(Station Base Program(main menu2) - Station Attribute(Sub Menu1) - Terminal menu3)
- ✧ Page Zone
(Station Base Program(main menu2) - Sub Menu8)

Hardware

14. STATION SPEED DIAL (WIRELESS TERMINAL)

Description

Each telephone has the capability of programming up to 20 individual speed dial numbers unique to its telephone. These numbers are entered and stored by the user and can be recalled by the user at any time.

Operation

- ✧ To store station speed dial numbers:
 - 1) Press [ON/OFF (↶)] button.
 - 2) Press [FUNCTION (→)] button.
 - 3) Press [SPEED (→•)] button.
 - 4) Dial the bin number (01-20) reserved for personal speed dial numbers.
 - 5) Dial the telephone number.
 - 6) Press [FUNCTION (→)] button to save.
- ✧ To dial the station speed dial number:

Press [ON/OFF (↶)] button.

Press [SPEED (→•)] button.

Dial the bin for the speed dial number. The last choice / round-robin choice CO line in the CO group will be selected and the number is dialed.

Conditions

Programming

- ✧ Speed Dial Access
(Station Base Program(main menu2) - Station Attribute(Sub Menu1) - Terminal menu2)
- ✧ CO Line Choice
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu5)
- ✧ Override 1st CO Group
(System Base Program(Main Menu5) - System Attribute(Sub Menu1) - Terminal Menu6)

Hardware

15. SYSTEM SPEED DIAL (WIRELESS TERMINAL)

Description

A group of numbers can be stored within the system for access by allowed stations.

Operation

✧ To access a system speed dial number :

- 1) Press [ON/OFF (↶)] button.
- 2) Press [SPEED (→●)] button.
- 3) Dial the speed bin number (21 thru 99). The system chooses the CO line based on last line in first group access allowed and dials the number.

Conditions (See. System Speed Dial)

Programming

- ✧ Speed Dial Access
(Station Base Program(main menu2) - Station Attributes(Sub Menu1) - Terminal menu2)

Related Features

Hardware None.

16. STATION NUMBER RECOVERY(WIRELESS TERMINAL)

Description

This feature is used to recovery station number changed by Admin program.

Operation

✧ To recover station number display on a Wireless terminal(LG-GAP) LCD:

- 1) Press [ON/OFF (↶)] button.
- 2) Press [FUNCTION (↷)] button.
- 3) Dial the station number recovery code 25.

Programming

- ✧ Flexible Numbering Plan
(Flexible Numbering Plan (main menu9)

10. PC RELATED FEATURES

1. PC Admin – Local

Description

With GDK-20W PC Admin software, user can program the system database via RS-232C interface in PC.

Operation

1. Connect GDK-20W and PC with RS-232C line.
2. Run GDK-Admin program in PC.
3. Adjust Communication Port Setting in PC. (Refer to GDK-Admin User's Manual)
The baud rate of PC and GDK-20W must be the same.
4. Select "Port Open" menu in PC, and "Port Open" menu changes to "Port Close" menu. Then port setup is completed.
5. Menu item you can use in PC-admin is "Admin", "Sys Speed" or "Keyset Adm" in **Pgm** menu bar.
6. If you want to upload or download the Admin-database, you can use "Upload" or "Download" in **Transfer** menu bar. "Upload" means send Admin-DB from PC to GDK-20W. "Download" is the reverse.
7. When you upload the Admin-database, you should reset the system for proper operation with changed admin values.

Conditions

1. After the user entered Admin-mode via Key-phone, the PC-Admin isn't available. And the reverse case is the same.
2. Local PC admin does not affect any other operations of GDK-20W as the keyset admin doesn't.

Programming

- ✧ SMDR Baud Rate
(System Program (Main Menu 5) – SMDR Attribute (Sub Menu 8) - Terminal Menu 4)

Hardware

1. MFB is needed.
- 2.

2. PC Admin – Remote

Description

With GDK-20W PC Admin software, user can program the system database via ISDN BRI Line interface at the remote PC with ISDN Card supporting CAPI 2.0 or later and HDLC as a B channel protocol.

Operation

1. Connect ISDN telephone line to PC ISDN-card.
2. And connect the ISDN T-interface line to BRI-port of GDK-20W.
3. Run GDK-Admin program in PC.
4. Adjust Communication Port Setting in PC. Port Type must be ISDN.
5. Dial to GDK-20W in site by using "Dial Phone" or "PhoneBook Dial" in **CommPort** menu. When line type is DID type, call station number 100. After ISDN line is connected, "Port Open" in **CommPort** menu changes to "Port Close" automatically.
6. After the successful connection, you can use the Admin features of GDK-20W PC admin software. Menu item you can use in PC-admin is "Admin", "Sys Speed" or "Keyset Adm" in **Pgm** menu bar. All Admin features are the same as Local PC Admin.
7. If you want to upload or download the Admin-database, you can use "Upload" or "Download" in

Transfer menu bar. “Upload” means send Admin-DB from PC to GDK-20W. “Download” is the reverse.

8. When you upload the Admin-database, you should reset the system for proper operation with changed admin values.
9. Refer to the GDK-Admin User’s Manual.

Conditions

1. ISDN card installed inside the PC must support CAPI 2.0 which is the standard interface spec. to use ISDN channel in PC. In addition, it must support HDLC as a B channel protocol. And “*CAPI2032.DLL*” should be found in the “*System*” directory of “*Windows*”, which means that CAPI driver for *Windows 95* is properly installed.
2. GDK-20W PC Admin software for PC is needed for this feature.
3. After the user entered Admin-mode via Key-phone, the PC-Admin isn’t available. And the reverse case is the same.
4. This feature does not affect any other operations of GDK-20W as the keyset admin doesn’t.
5. Remote access is available only for BRI
6. If the line is of type DID, call any station or station group except ISDN station(S port). GDK-20W accepts the call only in this case. In other cases, the line connection will be rejected by GDK-20W.
7. When the line is released during this feature, just dial the phone number again. If the line was properly disconnected, the line will be connected immediately. Users need not exit from software in order to dial again.
8. For PC application, there is another document for this feature. This document will be released when ready.
9. ***After using PC admin software for remote administration, you should reset the system to use the base station on the MBU. During the remote PC admin processing, the system can’t use the base station on MBU.***
- 10.

Programming

Hardware

1. Standard ISDN Card supporting CAPI version 2.0 or later and HDLC as a B channel protocol is needed at the remote PC.
- 2.

3. Software Upgrade – Local

Description

GDK-20W MBU software can be updated through RS-232C interface in PC.

Operation

1. Connect the RS-232C cable between GDK-20W and PC.
2. Run GDK-20W PC Admin software.
3. Configure the COM port from the “*Settings*” of “*COM port*” menu. Set the port type as “*Direct*”. The serial baud rate of GDK-20W and PC must be the same.
4. Select “*Flash Upload*” menu.
5. Select 2 binary files you want to send.
6. Follow the instructions of upgrade program.
7. For more information, refer to the GDK-Admin User’s Manual.

Conditions

1. When program upgrade is in progress, all function of GDK-20W except for upgrade doesn't work.
2. If S/W upgrade is being done successfully, 3rd and 4th LED of GDK-20W will toggle continuously. 3rd LED from the top indicates data transmission and 4th LED from the top indicates data reception.
3. When program upgrade procedure ends in failure or is halted, the user can retry to upgrade by doing the entire procedure all again.
4. If the ROM files you want to send are invalid, program upgrade will not be started.
5. If there is any station that is not idle or there is any DVIB port that is not idle, system rejects this feature so that software upgrade is not started. So, MOH (Main menu 5 – sub menu 13) must not be set as DVIB (digit 3). Therefore, system accepts this feature only when all stations are idle and all DVIB ports are idle.

Programming

1. SMDR Baud Rate
(System Program (Main Menu 5) – SMDR Attribute (Sub Menu 8) - Terminal Menu 4)

Hardware

1. MFB is needed.
- 2.

4. Software Upgrade – Remote

Description

GDK-20W MBU software can be updated through ISDN BRI Line interface at the Remote PC.

Operation

1. Connect ISDN telephone line to PC ISDN-card.
2. And connect the ISDN T-interface line to BRI-port of GDK-20W.
3. Run GDK-Admin program in PC.
4. Adjust Communication Port Setting in PC. Port Type must be ISDN. (Refer to GDK-Admin User's Manual)
5. Select "Flash Upload" of **Transfer** menu bar.
6. Enter GDK-20W ISDN line telephone number and 2 binary file name to download.
7. Press "Next" button.
8. If next window appears, press "Start Upgrade" button. You can see the S/W upgrade process.
9. For more information, refer to the GDK-Admin User's Manual.

Conditions

1. ISDN card installed inside the PC must support CAPI 2.0 which is the standard interface spec. in order to use ISDN channel in PC. In addition, it must support HDLC as a B channel protocol. And "CAPI2032.DLL" should be found in the "System" directory of "Windows", which means that CAPI driver for Windows 95 is properly installed.
2. GDK-20W PC Admin software for PC is needed for this feature.
3. Remote access is available only for BRI.
4. If the line is of type DID, users have to make a call to any station or station group except ISDN station(S port). GDK-20W accepts the call only in this case. In other cases, the line connection will be rejected by GDK-20W.
5. When the line is released during this feature, just dial the phone number again. If the line was

properly disconnected, the line will be connected immediately. Users need not exit from software in order to dial again.

6. When S/W upgrade is in progress, all functions of GDK-20W except for upgrade don't work.
7. If S/W upgrade is being done successfully, 3rd and 4th LED of GDK-20W will toggle continuously. 3rd LED from the top indicates data transmission and 4th LED from the top indicates data reception.
8. When program upgrade is finished because of failure or is halted, the user can retry to upgrade by doing the entire procedure all again.
9. If the ROM files you want to send are invalid, program upgrade process will not be started.
10. If there is any station that is not idle or there is any DVIB port that is not idle, system rejects this feature so that software upgrade is not started. So, MOH (Main menu 5 – sub menu 13) must not be set as DVIB (digit 3). Therefore, system accepts this feature only when all stations are idle and all DVIB ports are idle.
- 11.

Programming

Hardware

1. Standard ISDN Card supporting CAPI version 2.0 or later and HDLC as a B channel protocol is needed in the remote PC.

11. ADMIN PROGRAMMING

11.1 GENERAL

11.1.1 INTRODUCTION

The GDK-20W Key Telephone System can be programmed to meet each customer's individual need. All programming is done at station 100 (DKT 1) using KD-24D, KD-36D or LKD-30D digital key telephone.

Upon entering the program mode, the key telephone at station 100 cannot operate as a normal telephone but as a programming instrument with all of the buttons redefined. The keys of the dial pad are used to enter the various data fields and to enter numerical information. The 24 buttons located at the top of the phone (Flex Buttons) are used to indicate the specific data field and to enter information. Sometimes **[SPEED]** button is used to delete the data.

See **TABLE 11.1.6.1 - 11.1.6.10** for default data. If this pre-programming suits the customer, additional Admin program is not necessary. To change admin data, the user enter the admin. programming mode and select program code. During Admin programming, other keysets in the system operate normally.

When Admin programming, LCD and LED's indicate current programmed data and status. If the programmer enters correct data, then LCD and LED's show the entered data and the data is stored in the temporary buffer area. Real system databases is not changed and has no effect on telephone operation unless permanent updating procedure is executed. Pressing **[HOLD/SAVE]** button, all data in the temporary buffer (same as LCD and LED's show their status) is saved into permanent memory. Tones are provided to let the programmer know whether data entry is correct (confirmation tone) or not (error tone).

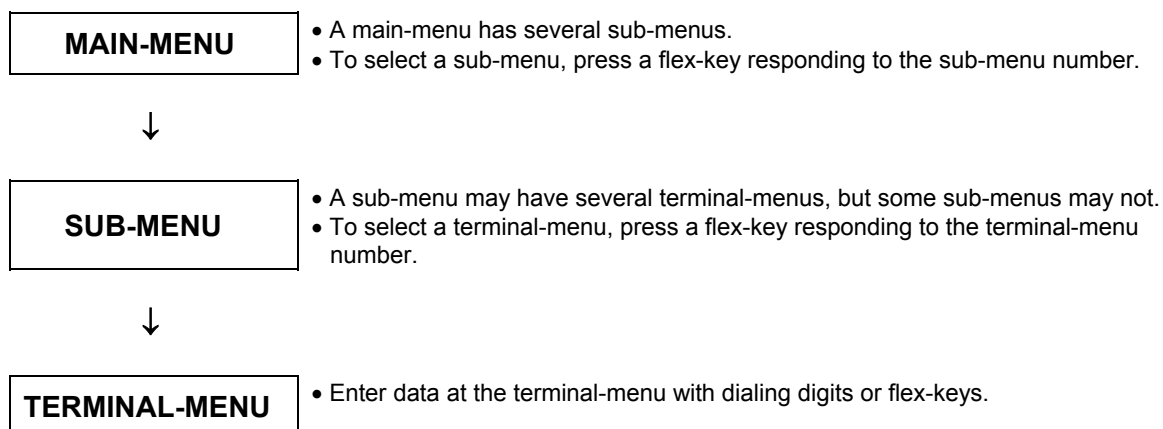
11.1.2 TO ENTER THE PROGRAMMING MODE

- (1) Lift handset or press the **[MON]** button on the admin station, and hear ICM dial tone (optional).
- (2) Press **[TRANS/PGM]** button and dials ***#** (confirmation tone heard).
- (3) Enter Admin. Password if the password has been set. This procedure places the station into the Admin. programming mode (confirmation tone heard). And LCD will displays the first step of Admin. programming.(below LCD)

ADMIN PROGRAM START
PRESS FLEX KEY(1-12)

11.1.3 HOW TO PROGRAM

- (1) There are 12 main-menus in the Admin. Programming mode.
- (2) Each main program has several sub-menus and each sub-menu can have several terminal menus(sub-menus of a menus of a sub-menu), but some sub-menus don't have any terminal-menus(It means that sub-menus are terminal-menus in this case). Refer the followings.



11.1.3.1 Example of Admin. Program

PROCEDURE

- | | |
|--|---|
| ADMIN PROGRAM START
PRESS FLEX KEY(1-12) | (1) When the user enter Admin. mode, LCD displays the first message.
(2) Press a flex-key to select a main-menu among 12 main-menus.
(3) (If the user program does not include LCR-package, the user cannot enter main-menu 10) |
| STA PGM
ENTER STA RANGE | (4) The user selected the 2nd main-menu, "STATION BASE PROGRAM", by pressing the 2nd flex-key in step 1.
(5) Dial station range. (The second station number must be more than or equal to the first station number) |
| STA PGM,100-100
PRESS FLEX KEY(1-8) | (6) And then, press a flex key(1-8) or ▲/▼
① Flex key(1-8) : Select a sub-menu of STA BASE PROGRAM.
② ▲ : Move to the next main-menu, CO LINE BASE PROGRAM.
▼ : Move to the previous main-menu, INITIALIZATION. |
| STA PGM,100-115,ATTRIBUT
PRESS FLEX KEY(1-10) | (7) If the user press a flex key 1, the LCD displays as the left side. |
| STA PGM,100-115, DND
YES | (8) If the user press a flex key 1, the LCD displays as the left side.
And then press a flex key 1 to change the current value. Press [HOLD/SAVE] to update the database permanently.
- ▲/▼ : Go to the other same level menu.
- [TRANS/PGM] : Go to the Admin. start menu.
- [REDIAL] : Go to the 1 level upper menu. |

11.1.4 BUTTON DEFINITION

Buttons are used for the following purposes in the Admin. program mode.

- (1) **[HOLD/SAVE]** : Update the system database permanently.
- (2) **[TRANS/PGM]** : Move to the start of admin program menu.
- (3) **[REDIAL]** : Move to the 1 level upper level menu.
(SUB-MENU → MAIN-MENU or TERMINAL-MENU → SUB-MENU)
- (4) ▲ : Move to the next menu in the same level.(Round-robin)
(Ex : DND(1st terminal-menu of STATION ATTRIBUTE) → SPEED DIAL ACCESS(2nd terminal-menu of STATION ATTRIBUTE)
▼ : Move to the previous menu in the same level.(Round-robin)
(Ex 1 : INITIALIZATION(1st main-menu) → PRINT DATABASE(last main-menu)
Ex 2 : STATION CLASS OF SERVICE(3rd sub-menu of 2nd main-menu) → ISDN STATION ATTRIBUTE(2nd sub-menu of 2nd main-menu))
- (5) **[SPEED]** : Clear database of the current terminal menu.
- (6) FLEX-KEY : 1. Used for selecting a menu (main/sub/terminal) responding to the number.
2. Also used as toggle key for entering data, if entered value has only 2 case number
(i.e: Yes/No, Enable/Disable)
- (7) DIGIT : Used for entering data by dialing.

11.1.5 ADMIN PROGRAMMING INDEX

FLEX KEY	MAIN MENU	FLEX KEY	SUB MENU
1	INITIALIZATION (DB INIT)	1	Station Database Initialization
		2	CO Line Database Initialization
		3	ISDN Tables Database Initialization
		4	System Feature Database Initialization
		5	System Timer Database Initialization
		6	Toll Table Database Initialization
		7	Authorization Code Table Database Initialization
		8	Flexible Station Number Initialization
		9	Flexible Button Program Initialization
		10	LCR Database Initialization
		11	Hunt Group/Voice Mail Table initialization
		12	All Database Initialization
2	STATION BASE PROGRAM (STA PGM)	1	Station Attribute
		2	ISDN Station Attribute
		3	Station Class-Of-Service
		4	CO Line Group Access
		5	Preset Call Forward
		6	Flex Buttons Assignment
		7	Warm Line Selection
		8	Page Zone
		9	Language Code
3	CO LINE BASE PROGRAM (CO PGM)	1	CO Line Attribute
		2	ISDN CO Line Attribute
		3	Group Assignment
		4	DISA Type
		5	CO Flash Timer
		6	CO Loop Supervision Timer
		7	CO Line Ring Assignment
4	ISDN PROGRAM (ISDN PGM)	1	TEI Type
		2	Calling Sub-Address
		3	Incoming Zero Insertion
		4	Outgoing Zero Insertion
		5	Outgoing Check Digit
		6	My Area Code
		7	My Nation Code
		8	Internal Code
		9	COLP Table (Entry no:01-10)
		10	MSN Table (Entry no:01-24)
		11	DID Digit Conversion Table
		12	Transfer Code
		13	Supplementary service
		14	Loop back
5	SYSTEM BASE PROGRAM (SYS PGM)	1	System Attribute
		2	Attendant Assignment
		3	Setting System Date/Time
		4	LCD Date/Time Display Mode
		5	PBX Access Code
		6	DID/DISA Destination
		7	DISA Retry Counter
		8	SMDR Attributes
		9	Pulse Dial / Speed Ratio
		10	Alarm Attributes
		11	External Control Contact
		12	BGM(Back Ground Music) Type
		13	MOH(Music On Hold) Type
		14	System Gain Control
		15	Fax Transfer CO line
		16	External Page Port
		17	DISA/DID Forward to DVU
		18	CCR Table
		19	Admin Password
		20	DVU Setting
		21	Weekly Time Table
		22	ACNR Tone Cadence

FLEX KEY	MAIN MENU	FLEX KEY	SUB MENU
6	SYSTEM TIMERS (SYS TMR)	1	System Timer 1 1 Exclusive Hold Recall Timers 2 System Hold Recall Timer 3 Transfer Hold Recall Timer 4 I-Recall Timer 5 Attendant Recall Timer 6 CO Ring Detect Timer 7 CO Ring Stop Detect Timer 8 Pause Timer 9 CO Release Guard Timer 10 CO Dial Delay Timer 11 Preset Forward Timer 12 Call Forward Busy/No Answer Timer 13 DID/DISA No Answer Timer 14 Unsupervised Conference Timer 15 MSG Wait Reminder Tone Timer 16 Hook Switch Flash Timer 17 Door Open Timer(Enhanced) 18 Inter Digit Timer 19 Warm Line Timer 20 SMDR Timer 21 Wake-up Fail Ring Timer 22 FAX Tone Detect Timer 23 FAX CO Call Timer 24 DVU User Record Time
		2	System Timer 2 1 DVU Forward Answer Timer 2 Valid User Message Timer 3 Hunt Disconnect Timer 4 Call Park Recall Timer 5 Normal Ring To DVIB Timer 6 CCR Inter Digit Timer 7 DISA Delay Timer 8 ACNR Pause Timer 9 ACNR Delay Timer 10 ACNR Tone Detect Timer 11 ACNR No Answer Timer 12 ACNR Retry Counter 13 ACNR Retry No Tone
7	TOLL TABLE	1 2 3 4 5	Toll Exception Table – Allow A (Entry no:01-20) Toll Exception Table – Deny A (Entry no:01-10) Toll Exception Table – Allow B (Entry no:01-20) Toll Exception Table – Deny B (Entry no:01-10) 1. Canned Toll Table –Allow (Entry no:01-10) 2. Canned Toll Table –Deny (Entry no:01-10)
8	AUTHORIZATION CODE TABLE (AUTHOR CODE TABLE)	-	Authorization Code Table (Entry no:01-30)
9	FLEXIBLE NUMBERING PLAN	1	Numbering Plan Type(Extension / Basic)
		2	Station Number Digit Size (3 / 2)
		3	Flexible Station Number Assignment
		1	Flexible number for port 1 – 24 (flex 1-24)
		2	Flexible number for port25 – 34 (flex 1-10)
10	LCR PROGRAM	1	LCR Access Mode
		2	Day Zone
		3	Time Zone of Day Zone
		4	LDT Table
		5	DMT Table

FLEX KEY	MAIN MENU	FLEX KEY	SUB MENU
11	STATION GROUP PROGRAM	1	HUNT Group Program (1 - 4)
			1 Group Type(Cir/Term/UCD/VM /Ring/None)
			2 Group Member
			3 Attribute of Hunt Group type
			Cir/Term 1 No Answer Timer
			2 Ring Timer
			UCD 1 First Announcement Timer
			2 Second Announcement Timer
			3 Announcement Timer
			VM 1 Ring Timer
			2 Put Mail Index
			3 Get Mail Index
		2	VM Dialing Table
			1 Put Mail
			2 Get Mail
			3 Busy
			4 No Answer
			5 Error
			6 DND
			7 Disconnect
12	PRINT DATABASE	1	Station Database Print
		2	CO Line Database Print
		3	ISDN Database Print
		4	System Feature Database Print
		5	System Timer Database Print
		6	Toll Table Print
		7	Authorization Code Table Print
		8	Flexible Station Number Print
		9	LCR Database Print
		10	Hunt Group / Voice Mail Table Print
		11	All Database Print

11.1.6 DEFAULT VALUES

TABLE 11.1.6.1 STATION BASE PROGRAM (MAIN MENU 2)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	Station Attributes	1	DND (Do-Not-Disturb)	YES / NO	YES	
		2	Speed Dial Access	YES / NO	YES	
		3	Page Access	YES / NO	YES	
		4	Call Forward Access	YES / NO	YES	
		5	PLA (Preferred Line Answer)	YES / NO	YES	
		6	Speaker-Phone/Headset	SP / HEAD	Speaker-Phone	
		7	Auto Speaker Selection	YES / NO	YES	
		8	ICM Box Signaling	YES / NO	YES	
		9	Automatic Hold	YES/NO	Station1:YES Station2-34:NO	
		10	Data Line Security	YES/NO	NO	
		11	DVU Access	YES/NO	YES	
		12	Two way recording	YES/NO	NO	
		13	DID Ring	YES/NO	NO	DID Ring field (Main menu 2 – Sub menu 1 – Terminal menu 13) is used to determine the destination of an incoming DID call. If this field is set as “Yes”, the original destination of DID call receives the ring. But, if it is set as “No”, the original destination is ignored and the ring is distributed according to the ring assignment

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
----	----------	----------	---------------	-------	---------	--------

1	Station Attributes	14	Bearer Capability 3.1KHz	YES/NO	NO	
2	ISDN Station Attributes	1	Sub Address	YES/NO	NO	If this field is set to YES, then GDK Sends the called extension number in called party sub address information of setup message to ISDN extension.
		2	Long/Short	Long/Short	Short	
		3	MSN	YES/NO	NO	If this field is set to YES, then GDK sends the called extension number in called party number information of setup message to ISDN extension.
		4	COLR	YES/NO	NO	
		5	COLP	YES/NO	YES	
		6	CLIP	YES/NO	NO	
		7	CLIS	YES/NO	NO	
		8	CLI NAME Display	YES/NO	NO	If this field is ON, the system checks whether the received CLI is matched with the speed dial data or not. If they are matched, the speed dial name is displayed.
		9	KEYPAD FACILITY	KEYPAD /DTMF	DTMF	This field determines that ISDN station sends digit in DTMF or keypad facility after connected.
3	Station COS	-	Day COS/Night COS	11 - 77	11	2 Digit 1 st Digit-Day COS 2 nd Digit-Night COS
4	Station CO Group Access	1- 4	CO Line Group	1-4	1-4	1 st Flex : CO GRP 1 : 4 th Flex : CO GRP 4
5	Preset Call Forward	-		Station No (2Digit or 3Digit)	Not Assigned	The ISDN station or ICM box cannot be assigned as preset call forward station.
6	Flex Buttons Assignment			1-6		Type
				1-8 - STA No. SPD Bin No.(01-99)		1: User Button 2: CO x 3: Reserved 4: LOOP 5: STA xxx 6: SPD xx
7	Warm Line Selection	-		1-4	Not Assigned	1:Flex Button ¹⁾ 2:CO Line 3:CO Group 4:Station
8	Page Zone	-		1-2	1	1:Page Zone 1 2:Page Zone 2
9	Language Code	-		1-2	Each Nation's Language	

1) Under following conditions, flex button cannot be assigned as warm line.

- If any station among entered range is SLT or 2B-SLT, you cannot save input value.
- If you entered the bigger flex button number than stations have, you cannot save input value.

TABLE 11.1.6.2 CO LINE BASE PROGRAM (MAIN MENU 3)

NO	SUB MENU	FLEX KEY	TERMINAL MENU		RANGE	DEFAULT	REMARK
1	CO Line Attributes	1	CO Line Type		PBX / CO	CO	
		2	CO Line Signal Type		DTMF / Pulse	DTMF	
		3	Universal Night Answer (UNA)		Yes / No	NO	
		4	Flash Type		Ground / Loop	Loop	Only "loop" type is supported.
		5	DISA Account		Yes/No	No	
		6	Loop Supervision		Yes/No	No	
		7	DID/DISA Voice Announcement		Yes/No	YES	
		8	CPT Tone Detect		YES/NO	NO	
2	ISDN CO Line Attributes	1	COLP		00-10	00	00:Not Assigned 01-10:indicate an entry of Outgoing COLP table
		2	DID_RN		00-99	00	00:Do not ignore 01-99:indicate an ignored called party number (DID_RN : DID Remove number from called party information)
		3	Type of Calling Number		0-8	2	0:Unknown number 1:International type 2:National number 3:Not used 4:Subscriber number 5:Not used 6:Not used 7:Not used 8:No send COLP
		4	DID Line Use		Yes/No	No	Do not set this field to YES in LCO.
3	CO Line Group Assign	-			1 - 4	1	
4	DISA Type	-			U/Day/Night /Both	U	0/1/2/3
5	CO Flash Timer	-	Ring to Hunt group 1		000 - 300	008	10 msec base
6	CO Loop Supervision Timer	-			0 - 20	0	100 msec base
7	CO Line Ring Assignment	1	Ring to station		No/Day/Night /Both	Station 1:All ring Station2-34:No ring	Flex key : Round-robin
		2	1	Ring to Hunt group 1		No ring	
			2	Ring to Hunt group 2			
			3	Ring to Hunt group 3			
			4	Ring to Hunt group 4			

TABLE 11.1.6.3 ISDN PROGRAM (MAIN MENU 4)

FLEX KEY	SUB MENU	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	TEI Type	-	Auto/Fixed	Auto (4 Ports)	After you change TEI, press RESET button on MBU to operate with the new TEI type.
2	Calling Sub-Address	-	Yes/No	No	If this field is set to YES, then GDK sends the calling extension number in calling party sub address information of setup message.
3	Incoming Zero Insertion	-	Yes/No	No	
4	Outgoing Zero Insertion	-	Yes/No	Yes	
5	Outgoing Check Digit	-	0 – 9	0	
6	My Area Code	-	-	Not Assigned	
7	My Nation Code	-	-	Not Assigned	
8	International Code	-	4 Digits	Not Assigned	
9	COLP Table	-	Entry No (01-10)	Not Assigned	Max : 10 digit
10	MSN Table	-	STA No. / 61~64	Not Assigned	Flex key 1: CO line no. (1-8) Flex key 2: Day destination Station no. (2 digit/3 digit) or, Station Group no. (61-64) Flex key 3: Day MSN no. (1-8) Flex key 4: Night destination Station no. (2 digit/ 3 digit) or, Station Group no. (61-64) Flex key 5: Night MSN no. (1-8) Flex key 6: Telephone no. (max:20 digit)
11	DID Digits Conversion	1. DID Received Digit from PX	2 - 4	3	
		2. DID First Two Digits Conversion	DID Received Digit No	***	0 - 9 # : Ignore Digit * : using received digit
		3. DID Second Digit Conversion	10 Digits	1234567890	
12	Transfer Code	-	2 Digits	*#	
13	Supplementary Service	1.Service Type			
		1) Hold/Retrieve	Keypad/ Functional	Keypad	
		2) 3-Party Conference	Keypad/ Functional	Keypad	
		2.Hold Code	10 Digits	Not Assigned	
		3.Retrieve Code	10 Digits	Not Assigned	
		4.3-Party Conference Code	10 Digits	Not Assigned	
14	Loopback	-	Yes / No	No	

TABLE 11.1.6.4 SYSTEM BASE PROGRAM (MAIN MENU 5)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	System Attributes	1	Hold Preference	SYS/EXC	SYS	
		2	Privacy	YES/NO	YES	
		3	External Night Ring	YES/NO	NO	
		4	Multi-line Conference	YES/NO	NO	
		5	CO Line Choice	Last Choice / Round-robin	Last Choice	
		6	Override 1 st CO Group	YES/NO	NO	
		7	Night DVU	YES/NO	NO	
		8	Music on Camp-on	YES/NO	NO	
2	Attendant Assignment	-		STA No (2Digit or 3Digit)	100 (1 st Station)	ICM box cannot be assigned as attendant station.
3	Set System Date/Time	-				
4	LCD Display Mode	-		1-4	3 (12-DD/MM/YY)	1:24- DD/MM/YY 2:24- MM/DD/YY 3:12- DD/MM/YY 4:12- MM/DD/YY
5	PBX Access Code	-		MAX 2 Digits	Not Assigned	Max : 4 PBX Access Code
6	DID/DISA Destination	1	Busy Destination	Tone/ATD	Tone	
		2	Error Destination	Tone/ATD	Tone	
7	DISA Retry Counter		DISA Retry Counter	1-9	3	
8	SMDR Attributes	1	SMDR Print Enable	YES/NO	NO	1:300Bps 2:600Bps 3:1200Bps 4:2400Bps 5:4800Bps 6:9600Bps 7:19200Bps 8:38400Bps
		2	SMDR Recording Call Type	All Call/Long Distance	All Call	
		3	Print Incoming Call	YES/NO	NO	
		4	SMDR Print Baud Rate (RS-232C)	1-8	6	
9	Dial Speed Ratio	-		60/40 or 66/33	66/33 (10 PPS Only)	
10	Alarm Attributes	1	Alarm Enable	YES/NO	NO	
		2	Alarm Contact Type	Close/Open	Close	
		3	Alarm Signal Mode	Repeat/Once	Repeat	
11	External Control Contact	1	First Contact	1-2 (Loud Bell /Door)	None	
		2	Second Contact		None	
12	BGM Type	-	-	1-3	1	1:Inetnal 2:External 3:Both
13	MOH Type	-	-	1-3	1	1:Inetnal 2:External 3:DVIB
14	System Gain Control	1	Digital Keyset Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10. WHTU

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
14	System Gain Control	2	SLT Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10.WHTU
		3	CO Line Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10.WHTU
		4	Digital CO Line Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10.WHTU
		5	DVU Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.MUSIC2
		6	DTMF Rx Gain	00-60		6. WHTU
						1.SLT
						2.CO
		7	WTU Rx Gain	00-60		3.DCO
						1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10.WHTU
15	Fax Transfer CO Line	-	-	1-8	None	
16	External Page Port	-	-	Station No	None	Only SLT port
17	DISA/DID Forward to DVU	1	Busy	Yes / No	No	
		2	No Answer	Yes / No	No	
		3	Fwd to DVU : Attendant No Answer	YES/NO	NO	

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
18	CCR Table	1	Day/Night CCR Table		1-2	Input Type 1. Station 2. Hunt Group 3. DVU 4. DVU DROP 5. System Speed 6. Internal Page 7. External Page 8. All Call Page
		2	Other CCR Table		1-9	
19	Admin Password	-	-	Not Assigned	4 Digits	Admin Password can be assigned to enter Admin Programming mode for only Administrator who knows the Admin Password.
20	DVU Setting	1	DATE/TIME Prompt Order	DATE/TIME	DATE/TIME TIME/DATE	The system attendant can change the date & time prompt order so that the date & time is played as date & time or time & date order when a DVIB message is retrieved with the recorded date & time.
		2	DVU Message Retrieve Order	FIFO	FIFO/LIFO	DVIB message retrieve order is settable so that station users are able to retrieve latest message or oldest message first when multiple messages are stored in their stations.
		3	Auto Delete of Retrieved Saved Messages	Not Assigned	000-300 days	The recorded DVIB messages in the all stations may be deleted after assigned term with admin programming. The retrieved and saved messages will be deleted after assigned term. When it is set to 000, the DVIB message will not be deleted automatically.
21	Weekly Time Table	-	-	-	1-7	Day of Week 1. Day Start Time : 0000-2359 (Default: 0900) 2. Night Start Time: 0000-2359 (Default:1800)
22	ACNR Tone Cadence	1	Ring-Back Tone	ON:050 OFF:100	000-255 (20 msec)	
		2	Busy Tone	ON:025 OFF:025	000-255 (20 msec)	
		3	Error Tone	ON:012 OFF:012	000-255 (20 msec)	
		4	Second Dial Tone	ON:070 OFF:000	000-255 (20 msec)	

TABLE 11.1.6.5 SYSTEM TIMER PROGRAM (MAIN MENU 6)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	System Timer 1	1	Exclusive Hold Recall Timer	000 - 300	060	1 sec base
		2	System Hold Recall Timer	000 - 300	030	1 sec base
		3	Transfer Recall Timer	000 - 300	030	1 sec base
		4	I-Hold Recall Timer	000 - 300	030	1 sec base
		5	Attendant Recall Timer	00 - 60	01	1 min base
		6	CO Ring Detect Timer	1 - 9	2	100 msec base
		7	CO Ring Stop Detect Timer	01-15	06	1 sec base
		8	Pause Timer	1 - 9	1	1 sec base
		9	CO Release Guard Timer	01 - 15	01	1 sec base
		10	CO Dial Delay Timer	00 - 99	05	100 msec base
		11	Preset Call Forward Timer	00 - 99	10	1 sec base
		12	Call Forward Busy/No Answer Timer	00 - 99	10	1 sec base
		13	DID/DISA No Answer Timer	00 - 99	20	1 sec base
		14	Unsupervised Conference Timer	00 - 99	10	1 min base
		15	Message Reminder Tone Timer	00 - 60	00	1 min base
		16	Hook Switch Flash Timer	001 - 250	050	10 msec base This is maximum Hook Flash time.
		17	Door Open Timer	05 - 99	20	100 msec base
		18	Inter-Digit Timer	01 - 20	05	1 sec base
		19	Warm Line Timer	01 - 20	05	1 sec base
		20	SMDR Start Timer	000 - 250	000	1 sec base
		21	Wake-up Fail Ring Timer	00 - 99	20	1 sec base
		22	FAX Tone Detect Timer	01-10	05	1 sec base
		23	FAX CO Call Timer	1 - 5	1	1 min base
		24	DVU User Record Timer	010 - 255	020	1 sec base
2	System Timer 2	1	DVU Forward Answer Timer	04 - 40	04	1 sec base
		2	Valid User Message Timer	00 - 10	04	1 sec base
		3	Hunt Disconnect Timer	01 - 10	03	1 min base
		4	Call Park Recall Timer	0-600 (3 Digits)	120 (sec)	Determines the amount of time before a call placed in a call park location will recall the station placing the park.
		5	Normal Ring To DVIB Timer	0-300 (3 Digits)	4 (sec)	When Normal CO ring comes, all ring assigned station will ring during "Normal Ring to DVIB Timer" and the call will be routed to DVIB.
		6	CCR Inter Digit Timer	000 - 300 (3 Digits)	030	This field is used for the CCR inter-digit timer in the DISA/DID CO line. (100ms base).
		7	DISA Delay Timer	00-99 (3 Digits)	00	When this timer is expired, DISA is activated (1 sec base)
		8	ACNR Pause Timer	005 - 300 (3 Digits)	030	When expired, ACNR is activated. (1 sec base)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
		9	ACNR Delay Timer	000 – 300 (3 Digits)	030	When ACNR Pause Timer expires and there is no available CO Line in the group, this timer is invoked.
		10	ACNR Tone Detect Timer	000 –300 (3 Digits)	030	This timer is invoked upon completion of dialing and system considers the CO party as busy in the case that CPTU cannot detect the valid tone type until this timer expires. (1 sec base)
		11	ACNR No Answer Timer	10 – 50 (2 Digits)	30	This Timer is invoked after system detects CO ring back tone or voice from CO party. After this timer, system retries ACNR. (1 sec base)
		12	ACNR Retry Counter	1 – 30 (1 Digit)	03	This is decreased every time station retries ACNR, ACNR is canceled if set to 0.
		13	ACNR Retry No Tone	1 – 9 (5sec)	1	1 means 5 seconds, GDK-16 will wait this value to decide NO TONE. 3 means 15 seconds. (Only for CIS)

TABLE 11.1.6.6 TOLL TABLE (MAIN MENU 7)

FLEX KEY	SUB MENU	TERMINAL MENU	DEFAULT	REMARK
1	Allowed Table A	Entry No(01 – 20)	Not Assigned	Max : 8 digit
2	Denied Table A	Entry No(01 – 10)		Max : 8 digit
3	Allowed Table B	Entry No(01 – 20)		Max : 8 digit
4	Denied Table B	Entry No(01 – 10)		Max : 8 digit
5	Canned Toll Table : Allow	Entry No(01 – 10)		Max : 8 digit
	Canned Toll Table : Deny	Entry No(01 – 10)		Max : 8 digit

TABLE 11.1.6.7 AUTHORIZATION CODE TABLE (MAIN MENU 8)

SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
Authorization Code Table	-	Entry No (01-30)	5 Digit	Not Assigned	

TABLE 11.1.6.8 FLEXIBLE STATION NUMBERING (MAIN MENU 9)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	NUMBERING PLAN TYPE	-	-	Extension / Basic	Basic	
2	STA NUMBER DIGIT SIZE	-	-	3 / 2	3	
3	FLEXIBLE STATION NUMBER	1	Flex number for Port1-24	FLEX KEY 1-24	100-123	Each flex key denotes corresponding station.
		2	Flex number for Port24 -34	FLEX KEY 1-10	124-133	

TABLE 11.1.6.9 LCR PROGRAM (MAIN MENU 10)

FLEX KEY	SUB MENU	Range	Default	Remark
1	LCR Access	3-way toggle - DISABLE - OVERRIDE - ALWAYS	Disable	
2	Day Zone	F1 : Zone 1. Day : 1 - 7	1-7	Each day belongs to only one day zone.
		F2 : Zone 2. Day : 1 - 7	-	
		F3 : Zone 3. Day : 1 - 7	-	
3	Time Zone	F1 : Zone 1. Time : 00 – 24	00-24	Each hour belongs to only one time zone.
		F2 : Zone 2. Time : 00 – 24	-	
		F3 : Zone 3. Time : 00 – 24	-	
4	LDT (Leading Digit Table)	00 – 99 (total:100)	None	F1: LCR type, BOTH / INT / COL. F2: CD 12 digits F3: DMT index. 6 digits. Total three DMT indices for each time zone1/2/3 • F1 – Day zone 1 index to the DMT. • F2 – Day zone 2 index to the DMT. • F3 – Day zone 3 index to the DMT.
5	DMT (Digit Modification Table)	00 – 99 (total:100)	None	F1: A (Added digit stream). 25digits. F2: RP (Removal Position). 2digits. F3: RN (Removal Number of digits of CODE in each table) 2 digits F4: AP (Add Position). 2digits. F5: CG (CO group). 1digit. F6: ALT (Alternative DMT index). 2digits.

TABLE 11.1.6.10 STATION GROUP PROGRAM (MAIN MENU 11)

NO	SUB MENU	FLEX KEY	TERMINAL MENU		RANGE	DEFAULT	REMARK
1	Hunt Group Program	1	Type		Cir/Term/Ucd/VM /Ring/None	None	Deletion by [SPD] key.
		2	Group Member		Station No.	None	Max 10 station. Deletion by [SPD] key.
		3	Attribute		-	None	
			Cirm/ Term	1.No Answer Timer	0-99	15	1 second
				2.Ring Timer	0-99	60	1 second
				3.Overflow Destination	STA#,HUNT#, DVU, SYS SPD#		Destination Type 1. STA 2. HUNT 3. DVU 4. SYS SPD
				4.Overflow Timer	4.Overflow Timer	180	1 second
			UCD	1.First Announcement Timer	0-99	15	1 second
				2.Second Announcement Timer	0-99	15	1 second
				3.Announcement Repeat Timer	0-99	15	1 second
				4.Overflow Destination	STA#,HUNT#, DVU, SYS SPD#		Destination Type 1. STA 2. HUNT 3. DVU 4. SYS SPD
				5.Overflow Timer	000-600	180	1 second
			VM	1.Ring Timer	0-99	99	1 second
				2.Put Mail Index	1-4	1	
				3.Get Mail Index	1-4	2	
				4. Overflow Destination	STA#,HUNT#, DVU, SYS SPD#		Destination Type 1.STA, 2.HUNT 3.DVU, 4. SYS SPD
				5.Overflow Timer	000-600	180	1 second
	Ring	1. Ring Announce Timer	0-99	99	1 second		
		2. Overflow Destination	STA#,HUNT#, DVU, SYS SPD#		Destination Type 1. STA, 2.HUNT 3.DVU, 4.SYS SPD		
		3. Overflow Timer	000-600	180	1 second		
2	VM Dialing Table	1	Put Mail		1-2	Prefix : P# Suffix : -	Flex 1 for Prefix, 2 for Suffix. Max 12 digits. Deletion by [SPD] key.
		2	Get Mail		1-2	Prefix: P## Suffix : -	
		3	Busy		1-2	Prefix: P#*3P Suffix : -	
		4	No Answer		1-2	Prefix: P#*4P Suffix : -	
		5	Error		1-2	Prefix: P#*5P Suffix : -	
		6	DND		1-2	Prefix: P#*6P Suffix : -	
		7	Disconnect		-	*****	

11.2 PROGRAMMING

11.2.1 DATABASE INITIALIZATION

The System has been pre-programmed with certain features that are called default data (Table 11.2.1 - 11.2.10). These features are loaded into memory when the system is initialized. The system should always be initialized when installed or at any time the database has been corrupted. To initialize the system to default values, proceed as follows.

PROCEDURE

DB INIT
PRESS FLEX KEY (1-12)

- (1) Press a flex key(1-12) or [▲]/[▼].
 - Press one of flex key(1-12) as described at Table A2.0.1
 - [▲] : Change to the next main menu, STATION BASE PROGRAM.
 - [▼] : Change to the previous main menu, PRINT DATABASE.
- (2) Press [HOLD/SAVE] or [▲]/[▼]. When pressing [HOLD/SAVE] button, the selected database is initialized with default data.
 - [▲] : Change to the next sub menu, CO LINE DATABASE INITIALIZATION.
 - [▼] : Change to the previous sub menu, ALL DATABASE INITIALIZATION.

DB INIT,STATION
PRESS [HOLD/SAVE] KEY

MAIN MENU	FLEX KEY	SUB MENU	REMARK
DATABASE INITIALIZATION	1	Station Database Initialization	Exist only when LCR feature is included.
	2	CO Line Database Initialization	
	3	ISDN Database Initialization	
	4	System Feature Database Initialization	
	5	System Timer Database Initialization	
	6	Toll Table Database Initialization	
	7	Authorization Code Table Initialization	
	8	Flexible Station Number Initialization	
	9	Flexible Button Program Initialization	
	10	LCR Database Initialization	
	11	Station Group/VM Table Initialization	
	12	All Database Initialization	

TABLE 11.2.1 Button Configuration of Initialization (MAIN MENU 1)

11.2.2 STATION BASE PROGRAM (MAIN-MENU2)

The user can enter STATION BASE PROGRAM, one of main menus, by pressing 2nd FLEX BTN or [▼]/[▲] at the beginning of the ADMIN. PROGRAM.

(1). STATION ATTRIBUTES (SUB-MENU1)

PROCEDURE

ADMIN PROGRAM START PRESS FLEX KEY(1-12)	(1)	Select a main-menu 2 by pressing 2 nd flex key.
STA PGM ENTER STA RANGE	(2)	Enter 6 digits for station range (Ex:100-133). Or enter 4 digits if station number is 2digit. The second station number must be more than or equal to the first station number
STA PGM,100-133 PRESS FLEX KEY(1-8)	(3)	Press a flex key 1. The user can press a flex key (1-8) or [▲]/[▼].
STA PGM,100-133,ATTRIBUT PRESS FLEX KEY(1-11)	(4)	Press a flex key 1. The user can press a flex key(1-11) or [▲]/[▼]. • Press one of flex key(1-11) to enter a sub-program of STATION ATTRIBUTES.(next LCD) • [▲] : Change to the next sub-menu, ISDN STATION ATTRIBUTES. • [▼] : Change to the previous main menu, PAGE ZONE.
STA PGM,100-133 DND YES	(5)	To change the value, press the 1 st flex key as Table11.2.2. The 1 st flex key acts as toggle setting.
STA PGM,100-133 DND YES	(6)	Press [HOLD/SAVE] or [▲]/[▼]. • [HOLD/SAVE] : Confirm and update the DND status of the station in the range, then LCD displays the current DND status. • [▲]/[▼] : Change the current menu to the next/previous terminal menu. • [TRANS/PGM] : Go to the start of the Admin. program. • [REDIAL] : Go to the 1 level upper menu.

■ LCD Display of Terminal Menu in STATION ATTRIBUTES

LCD Display	FLEX KEY
STA PGM,100-133 DND YES	1. Do Not Disturb (DND)
STA PGM,100-133 SPEED YES	2. Speed Dial Access
STA PGM,100-133 PAGE YES	3. Page Access
STA PGM,100-133 FWD YES	4. Call Forward Access
STA PGM,100-133 PLA YES	5. Preferred Line Answer (PLA)
STA PGM,100-133 SPEAKER YES	6. Speaker-Phone/Headset
STA PGM,100-133 AUTO SP YES	7. Auto Speaker Selection
STA PGM,100-133 ICM BOX YES	8. ICM Box Signaling
STA PGM,100-133 A HOLD NO	9. Automatic Hold
STA PGM,100-112 D_SEC NO	10. Data Line Security
STA PGM, 100-112 DVU ACCS YES	11. DVU Access
STA PGM, 100-112 TWO WAY NO	12. Two-way Recording
STA ATTR, 100-112 DID RIN NO	13. DID Ring
STA PGM, 100-112 3.1HKZ NO	14. Bearer Capability 3.1KHz

SUB MENU	FLEX KEY	TERMINAL MENU	DEFAULT (LED)	REMARK
STATION ATTRIBUTE	1	DND	YES (ON)	Enables DND to be activated by the station.
	2	Speed Dial Access	YES (ON)	Allows access to system speed dial by the station.
	3	Page Access	YES (ON)	Allows access to paging by the station.
	4	Call Forward	YES (ON)	Enables Call Forward to be activated by the station.
	5	PLA	YES (ON)	The allowance to answer calls by simply lifting handset or pressing [MON] button with the answering priority.
	6	Speaker Phone	YES (ON)	Operate with Speakerphone.
	7	Auto Speaker Selection	YES (ON)	Allows accessing a CO line or place a DSS call by pressing appropriate {CO} or {DSS} button without lifting handset or pressing the [MON] button.
	8	ICM Box Signaling	YES (ON)	Allows receiving ICM box signal.
	9	Automatic Hold	Station1:YES Station2-16:NO	While on a CO line, the station user seizes another CO line by depressing the {CO} button. The first CO line goes on Hold automatically.
	10	Data Line Security	NO (OFF)	The Allowance to protect from override and camp-on, when busy state.
	11	DVU Access	YES(ON)	Enables a station to forward calls to DVIB
	12	Two Way Recording	NO(OFF)	Enables a station to use two way recording feature
	13	DID ring	NO (OFF)	Enables a station to use DID ring feature
	14	Bearer Capability		YES (Only for Station 12,13 with Italy version)

TABLE 11.2.2 STATION ATTRIBUTES (SUB-MENU 1 of STATION BASE PROGRAM)

(2). STATION ISDN ATTRIBUTES (SUB-MENU 2)

PROCEDURE

STA PGM,100-133
PRESS FLEX KEY(1-8)

(1) To select STATION ISDN ATTRIBUTE, press a flex key 2.

STA PGM,100-133,ISDN STA
PRESS FLEX KEY(1-7)

(2) To select SUB ADDR menu, press flex key 1.

STA ISDN,SUB ADDR
NO

(3) LCD will show the current status. To program SUB ADDRESS, press the 1st flex key for toggle setting.
(YES(LED On), NO(LED Off))

STA ISDN,SUB ADDR
YES

(4) LCD will show again the changed status. Press [HOLD/SAVE] button for updating database permanently.
 • [▲] : Move to the next terminal menu, LONG/SHORT.
 • [▼] : Move to the previous terminal menu, CLIP.

FLEX KEY	FIELD	DEFAULT	REMARK
1	Sub Address	NO	This field determines that ISDN station will use Sub Address or not. ON:YES, OFF:NO
2	Long/Short	SHORT	This field determines that ISDN station acts in Short passive mode or not.. ON:LONG, OFF:SHORT
3	MSN	NO	This field determines that ISDN station will use MSN or not. ON:YES, OFF:NO
4	COLR	NO	Restricts sending Connected Line Number to PX
5	COLP	NO	Allows printing Connected Line Number
6	CLIP	NO	This field determines whether the caller's ID is printed or not in PRIB/BRIB/STIB(T-mode).
7	CLIS	NO	This field determines whether the call's ID is saved or not when user does not answer
8	CLI NAME Display	NO	This field determines that CLI name will be displayed or not . ON:YES, OFF:NO
9	KEYPAD FACILITY	DTMF	This field determines that ISDN station sends digit in DTMF or keypad facility after connected.

Table 11.2.3 ISDN STATION ATTRIBUTES (SUB-MENU 2 of STATION BASE PROGRAM)

(3). STATION COS (SUB-MENU 3)

Default gives all stations COS 1 for day and night operation. Each station must be assigned a class of service which governs that station's toll restriction for the day and night operation. (Table 11.2.4)

PROCEDURE

- | | |
|---|--|
| STA PGM,100-133
PRESS FLEX KEY(1-8) | (1) Select COS menu by pressing a flex key 3. |
| STA PGM,100-133, COS
11 DIAL 2 DIGITS(D+N) | (2) Dial 2 digit(11-77) for Day/Night COS. LCD displays the current COS.
<ul style="list-style-type: none"> • [▲] : Move to the next terminal menu, CO LINE GROUP ACCESS. • [▼] : Move to the previous terminal menu, ISDN STATION ATTRIBUTE. |
| STA PGM,100-133, COS
22 DIAL 2 DIGITS(D+N) | (3) Press [HOLD/SAVE] or [▲]/[▼].
[HOLD/SAVE] updates database permanently. LCD displays the current COS. |

CLASS	REMARK
STA COS 1	No restrictions are placed at the station for dialing.
STA COS 2	The assignments in the Exception Table A are monitored for allow and deny numbers.
STA COS 3	The assignments in the Exception Table B are monitored for allow and deny numbers.
STA COS 4	The assignments in the Exception Table A & B are monitored for allow and deny numbers.
STA COS 5	The leading digits can not be a Long Distance code.
STA COS 6	The leading digits can not be a Long Distance code. Only 8 digits maximum can be dialed.
STA COS 7	Not use a CO Line, Only allowed to make an intercom call and to receive any calls.

TABLE 11.2.4 Station Class-Of-Service (Sub-Menu 3 of STATION BASE PROGRAM)

(4). CO LINE GROUP ACCESS (SUB-MENU 4)

If you want to change CO line group access of some stations, do this programming. Default gives to access CO Line Group 1-4 for all stations.

PROCEDURE

- | | |
|--|--|
| STA PGM,100-133
PRESS FLEX KEY(1-8) | (1) Select CO LINE GROUP ACCESS menu by pressing a flex key 4. |
| STA,100-133,CO GROUP ACC
12_4 FLEX KEY(1-4) | (2) Press flex keys(1-4) for toggle setting. LED's of flex key(1-4) displays the current status of the first station in the range. |
| STA,100-133,CO GROUP ACC
1234 FLEX KEY(1-4) | (3) Press [HOLD/SAVE] button for updating database permanently. |

BTN	TERMINAL MENU	REMARK
1-4	-	ACCESS AUTHORITY of CO GROUP 1-4 (YES:LED-ON, NO:LED-OFF)

TABLE 11.2.5 Button Configuration For CO Group Access (Sub-Menu 4 of STATION BASE PROGRAM)

BTN	2 Button	8 Button	12 Button	24 Button	30 Button	44 Button
1	{CO 1}	{CO 1}	{CO 1}	{CO 1}	{CO 1}	{CO 1}
2	{LOOP}	{CO 2}	{CO 2}	{CO 2}	{CO 2}	{CO 2}
3		{CO 3}	{CO 3}	{CO 3}	{CO 3}	{CO 3}
4		{LOOP}	{CO 4}	{CO 4}	{CO 4}	{CO 4}
5		{STA 100}	{STA 100}	{STA 100}	{STA 100}	{STA 100}
6		{STA 101}	{STA 101}	{STA 101}	{STA 101}	{STA 101}
7		{STA 102}	{STA 102}	{STA 102}	{STA 102}	{STA 102}
8		{STA 103}	{STA 103}	{STA 103}	{STA 103}	{STA 103}
9			{STA 104}	{STA 104}	{STA 104}	{STA 104}
10			{STA 105}	{STA 105}	{STA 105}	{STA 105}
11			{STA 106}	{STA 106}	{STA 106}	{STA 106}
12			{STA 107}	{STA 107}	{STA 107}	{STA 107}
13				{STA 108}	{STA 108}	{STA 108}
14				{STA 109}	{STA 109}	{STA 109}
15				{STA 110}	{STA 110}	{STA 110}
16				{STA 111}	{STA 111}	{STA 111}
17				{STA 112}	{STA 112}	{STA 112}
18				{STA 113}	{STA 113}	{STA 113}
19				{STA 114}	{STA 114}	{STA 114}
20				{STA 115}	{STA 115}	{STA 115}
21				Empty	Empty	Empty
22				Empty	Empty	Empty
23				Empty	Empty	Empty
24				Empty	Empty	Empty
25 - 44	-	-	-	-	Empty	Empty

TABLE 11.2.7 Initial Button Configurations (Sub-Menu 6 of STATION BASE PROGRAM)

FLEX KEY	TYPE	DATA
1-24	1 : User Button	-
	2 : CO	CO Line 1-8
	3 : CO GROUP	CO Group 1-4 (Not available yet)
	4 : LOOP	-
	5 : STA xxx	Station No(2digits or 3digits)
	6 : SPD xx	Speed Bin 01-99

TABLE 11.2.8 Button Configuration For Flexible Button Assignments
(Sub-Menu 6 of STATION BASE PROGRAM)

(7). WARM LINE SELECTION (SUB-MENU 7)

Idle Line Selection for a station is which is assigned to warm line, is activated when user takes no action for Warm Line Timer after lifting handset or pressing [MON] button. Warm line is programmable at Sub-menu 7 of STATION BASE PROGRAM. All stations are not assigned any Idle Line Selection by default.

PROCEDURE

-
- | | |
|--|--|
| STA PGM,100-133
PRESS FLEX KEY(1-8) | (1) Select WARM LINE SELECTION menu by pressing a flex key 7. |
| STA PGM,100-133, WARM LIN
CO1 DIAL TYPE(1-4) | (2) LCD will show the current status. Dial type and number serially. (Refer Table 11.2.9) The changed status will be displayed on the LCD.
<ul style="list-style-type: none"> • Press [SPEED] button to delete Warm Line Selection. • SLT can't program Warm Line Selection. |
| STA PGM,100-133, WARM LIN
COGRP3 DIAL TYPE(1-4) | (3) Press [HOLD/SAVE] button for updating database permanently. |
-

DIGIT	ITEM	RANGE	REMARK
1	Flex Button	01-44	To activate a feature on a flex button as if pressed.
2	CO Line	1-8	To seize a CO Line.
3	CO Group	1-4	To seize a CO Line Group.
4	Station	STA NUM	To call an another station.

TABLE 11.2.9 Button Configuration for Warm Line Selection (Sub-menu 7 of STATION BASE PROGRAM)

(8). PAGE ZONE (SUB-MENU 8)

Each station is assigned to paging zones. A station can be in any or no zone at all. International all call is defined as the sum of all zones. If station is not in any internal zone, it will not receive any page announcement. In GDK20W, system supports 2 internal paging zones. Default assigns all stations to internal page zone 1.

PROCEDURE

-
- | | |
|--|---|
| STA PGM,100-133
PRESS FLEX KEY(1-8) | (1) Select PAGE ZONE menu by pressing a flex key 8. |
| STA PGM,100-133,PAGE ZON
1_ PRESS FLEX KEY(1-2) | (2) LCD will show the current status. Press flex key(1-2) to change page zone. The flex key acts in toggle. |
| STA PGM,100-133,PAGE ZON
12 PRESS FLEX KEY(1-2) | (3) Press [HOLD/SAVE] button for updating database permanently. |
-

(9). LANGUAGE CODE (SUB-MENU 9)

User can select a language for LCD display of keyset.

Normal LCD display during call process follows this language setting. But Admin LCD display is exceptional. It is only displayed in English.

PROCEDURE

STA PGM,100-112	1)	Select LANGUAGE CODE menu by pressing a flex key 9.
PRESS FLEX KEY(1-9)		
STA PGM,LANGUAGE CODE	2)	LCD will show the current status. Dial digit(1-2) to change language code.
ENGLISH DIAL DIGIT:1-2		
STA PGM,LANGUAGE CODE	3)	Press [HOLD/SAVE] button for updating database permanently.
NORWAY DIAL DIGIT:1-2		

11.2.3 CO LINE PROGRAMMING (MAIN-MENU 3)

When programming, LCD and LED's indicate current programmed data and programming status. If the programmer enters correct data, then LCD and LED's show the entered data and the data is stored in the temporary buffer area. To save data permanently, press the **[HOLD/SAVE]** button, *then all data in the temporary buffer (same as LCD and LED's show their status) are stored into system memory.*

(1). CO LINE ATTRIBUTE (SUB-MENU 1)

PROCEDURE

CO PGM ENTER CO RANGE (1-8)	(1) Enter CO line range (Ex.1-4)
CO PGM,1-4 PRESS FLEX KEY (1-7)	(2) Press a flex button 1 to enter CO LINE ATTRIBUTE menu. • [▲] : Move to the next main-menu , ISDN PROGRAM. • [▼] : Move to the previous main-menu, STATION BASE PROGRAM.
CO PGM,1-4, ATTRIBUTE PRESS FLEX KEY (1-7)	(3) Press a flex button 1 to enter LINE TYPE of CO LINE ATTRIBUTE menu.
CO ATTR,1-4 LINE TYPE CO	(4) To change CO LINE TYPE, press flex key 1 for toggle setting. LCD displays the current status.
CO ATTR,1-4 LINE TYPE PBX	(5) Press [HOLD/SAVE] button for updating database permanently.

■ LCD Display of Terminal Menu in CO LINE ATTRIBUTE

LCD Display	FLEX KEY
CO ATTR,1-8 LINE TYPE CO	1. CO Line Type
CO ATTR,1-8 SIGNAL TYPE DTMF	2. Signal Type
CO ATTR,1-8 UNA NO	3. Universal Night Answer(UNA)
CO ATTR,1-8 FLASH TYPE LOOP	4. CO Flash Type
CO ATTR,1-8 DISA ACCOUNT NO	5. DISA Account
CO ATTR,1-8 LOOP SUPERVS NO	6. Loop Supervision
CO ATTR,1-6 DVU ANNC NO	7. DVU Announcement
CO ATTR,1-8 CPT TN DETEC NO	8. CPT Tone Detect

FLEX KEY	TERMINAL MENU	RANGE	DEFAULT (LED)	REMARK
1	CO Line Type	PBX/CO	CO(OFF)	When marked PBX, a 1 or 2 digit dial code may be entered after which toll restriction is applied.
2	CO Dial Type	DTMF/Pulse	DTMF(ON)	Each CO line can be programmed to be either DTMF(tone) or dial pulse.
3	UNA	YES/NO	NO(OFF)	The allowance of Universal Night Answer service.
4	CO Flash Type	Ground/Loop	LOOP(OFF)	Flash types of CO Line are Loop Flash (timed-break) and Ground Flash. Only "loop" type is supported.
5	DISA Account	YES/NO	NO(OFF)	When accessed another CO line in the system by DISA line, you should enter authorization code if this flag is set.
6	Loop Supervision	YES/NO	NO(OFF)	
7	DID/DISA Announcement	YES/NO	YES(ON)	This field determines whether DVU announcement for DID/DISA and Hunt group announcement are provided or not to CO line.
8	CPT Tone Detect	YES/NO	NO(OFF)	

TABLE 11.2.10 Button Configuration for CO LINE Attribute (Sub-Menu 1 of CO LINE BASE PROGRAM)

(2). ISDN CO LINE ATTRIBUTE (SUB-MENU 2)

PROCEDURE

CO PGM ENTER CO RANGE(1-8)	(1) Enter CO line Range (ex. 1-4)
CO PGM,1-4 PRESS FLEX KEY (1-7)	(2) Press flex button 2, to select CO LINE ISDN ATTRIBUTE.
CO PGM,1-4,ISDN ATTRIBUT PRESS FLEX KEY(1-4)	(3) Press flex button 1, to select ISDN COLP menu of ISDN ATTRIBUTE.
CO PGM,ISDN ATTR,COLP 0 DIAL COLP NO(0-10)	(4) LCD will show the current status. Dial COLP number, then entered data will be displayed on LCD.
CO PGM,ISDN ATTR,COLP 3 DIAL COLP NO(0-10)	(5) Press [HOLD/SAVE] button for updating database permanently.

FLEX KEY	ITEM	RANGE	DEFAULT	REMARK
1	COLP ¹⁾	00-10	00	00 : Not assign. 01-10 : Indicate a entry of Outgoing COLP table (ADM 4-8).
2	DID_RN	00-99	00	00 : Do not ignore, 01-99 : Indicate a ignored called party number. (DID_RN: DID Remove number from called party information)
3	TYPE OF CALLING NUMBER	0-8	2	0 : Unknown number 1 : International type 2 : National number 3 : Not used 4 : Subscriber number type 5 : Not used 6 : Not used 7 : Not used 8 : No send COLP
4	DID Use	YES/NO	NO	Note: If LCO line is set as DID, it is not guaranteed that incoming LCO call will be correctly handled by the system. It is strongly recommended that LCO should not be set as DID

TABLE 11.2.11 ISDN CO Line Attribute (Sub-menu 2 of CO LINE BASE PROGRAM)

1) COLP : **C**onnected Line identification **P**resentation

(3). CO Line Group Assignment (SUB-MENU 3)

CO groups should be assigned according to CO Type, etc. **Default gives CO Group 1 for all stations.**
There can be 4 CO groups.

PROCEDURE

CO PGM ENTER CO RANGE(1-8)	(1) Enter CO line range (Ex.1-4)
CO PGM,1-4 PRESS FLEX KEY(1-7)	(2) Press flex button 3 to enter CO LINE GROUP ASSIGNMENT menu of CO LINE BASE PROGRAM.
CO PGM,1-4, GROUP ASSIGN GRP1 DIAL GRP NO(1-4)	(3) To program, dial a digit appropriating to CO group number.
CO PGM,1-4, GROUP ASSIGN GRP2 DIAL GRP NO(1-4)	(4) Press [HOLD/SAVE] button for updating database permanently.

(4). DISA TYPE (SUB-MENU 4)

PROCEDURE

CO PGM ENTER CO RANGE(1-8)	(1) Enter CO line range (Ex.1-4)
CO PGM,1-4 PRESS FLEX KEY(1-7)	(2) Press a flex button 4 to enter DISA TYPE menu of CO LINE BASE PROGRAM.
CO PGM,1-4, DISA TYPE NO DIAL TYPE(0-3)	(3) To program, Dial a digit (0-3). 0: No DISA, 1: Day DISA 2: Night DISA, 3: Day/Night DISA
CO PGM,1-4, DISA TYPE DAY DIAL TYPE(0-3)	(4) Press [HOLD/SAVE] button for updating database permanently

SUB MENU	DEFAULT	REMARK
DISA TYPE	NO DISA	Each CO line in the system can be programmed as DISA (Direct Inward System Access) line and DISA types are like this. - 0(No DISA:U) / 1(Day Only:D) / 2(Night Only:N) / 3(Day-Night Both:B)

TABLE 11.2.12 CO DISA TYPE (Sub-Menu 4 of CO LINE BASE PROGRAM)

(5). CO FLASH TIMER (SUB-MENU 5)

User can initiate an open loop or ground flash across a CO line for receiving CO dial tone or transferring a PABX. In this case, flash maintains for CO Flash Timer. **Default of CO Flash Timer is 50.**

PROCEDURE

CO PGM, ENTER CO RANGE(1-8)	(1) Enter CO line range (Ex.1-4)
CO PGM, 1-4 PRESS FLEX KEY(1-7)	(2) Press flex button 5 to enter CO FLASH TIMER menu of CO LINE BASE PROGRAM. LCD shows the current flash timer.
CO PGM,1-4, FLASH TIME 010*10ms DIAL TIME:0-300	(3) Enter CO Flash Timer value (000-300), then entered data will be displayed on LCD.
CO PGM,1-4, FLASH TIME 300*10ms DIAL TIME:0-300	(4) Press [HOLD/SAVE] button for updating database permanently.

(6). CO LOOP SUPERVISION TIMER (SUB-MENU 6)

The system can recognize the status of a CO line (normally open or closed) by loop supervision timer.

Default of CO Loop Supervision Timer is 0.

PROCEDURE

CO PGM, ENTER CO RANGE(1-8)

(1) Enter CO line range (Ex.1-4)

CO PGM, 1-4 PRESS FLEX KEY(1-7)

(2) Press flex button 6 to enter CO LOOP SUPERVISION TIMER menu.
LCD shows the current timer value.

CO PGM,1-4, LOOP SUPR TMR 00*100ms DIAL TIME(0-20)

(3) Enter Loop Supervision Timer value (00-20), then entered data will be displayed on LCD.

CO PGM,1-4, LOOP SUPR TMR 20*100ms DIAL TIME(0-20)

(4) Press **[HOLD/SAVE]** button for updating database permanently.

(7). CO RING ASSIGNMENT (SUB-MENU 7)

The system can assign the status of CO rings.

PROCEDURE

Ring Assign to Station

CO PGM ENTER CO RANGE(1-8)	(1) Enter CO line range (Ex.1-4)
CO PGM,1-4 PRESS FLEX KEY(1-7)	(2) Press flex button 7 to enter CO RING ASSIGNMENT menu of CO LINE BASE PROGRAM .
CO PGM,1-4, RING ASSIGN PRESS FLEX KEY(1-2)	(3) Press flex button 1 to assign to station and enter station range.
COPGM,1-4,STA RING ASSIGN ENTER STA RANGE	(4) If you pressed flex button1, enter station range to assign ring from the dial fad (ex 101105) and press [HOLD/SAVE] button.
CO, 1-4->STA, 100-105 RING FLEX KEY(1)	(5) Press flex button 1 to change ring assignment of the stations. The flex button acts in 4-way toggle. (No ring, Day ring, Night ring, All ring)
CO, 1-4->STA, 100-105 RING DAY FLEX KEY(1)	(6) Press [HOLD/SAVE] button for updating database permanently.

Ring Assignment to Hunt Group

CO PGM ENTER CO RANGE(1-8)	(1) Enter CO line range (Ex.1-4)
CO PGM,1-4 PRESS FLEX KEY(1-7)	(2) Press flex button 7 to enter CO RING ASSIGNMENT menu of CO LINE BASE PROGRAM .
CO PGM,1-4, RING ASSIGN PRESS FLEX KEY(1-2)	(3) Press flex button 2 to assign ring to Hunt Group.
CO , 1-4, HUNT GRP RING FLEX KEY(1-4)	(4) Select Hunt Group by pressing flex1-4.
CO, 1-4, HUNT GRP RING 61:NO FLEX KEY (1-4)	(5) Then LCD will display current ring assignment of Hunt Group. If you want to change the CO ring assignment, press the flex button 1. The flex button acts in 4-way toggle. (No ring, Day ring, Night ring, All ring)
CO, 1-4, HUNT GRP RING 61: DAY FLEX KEY (1-4)	(6) Press [HOLD/SAVE] button for updating database permanently.

FLEX KEY	TERMINAL MENU		DEFAULT	REMARK
1	Ring assignment to Station		Station 1: ALL RING Station 2 – 34 : NO RING	To change ring assignment, press appropriate flex button. The flex button acts in 4-way toggle. (No ring, Day ring, Night ring, All ring) 0 : NO RING 1 : DAY RING 2 : NIGHT RING 3 : ALL RING
2	1	Hunt Group 1	NO RING	
	2	Hunt Group 2		
	3	Hunt Group 3		
	4	Hunt Group 4		

TABLE 11.2.13 CO LINE RING ASSIGNMENT (Sub-Menu 7 of CO LINE BASE PROGRAM)

11.2.4 ISDN PROGRAM (MAIN-MENU 4)

FLEX KEY	SUB MENU	TERMINAL MENU		RANGE	DEFAULT	REMARK
1	TEI Type	-		AUTO/FIXED	AUTO	After you change TEI, press RESET button on MBU to operate with the new TEI type.
2	CALLING SUB-ADDRESS	-		YES/NO	NO	If this field is set ON, then GDK send the calling extension number in calling party sub address information of setup message.
3	INCOMING ZERO INSERTION	-		YES/NO	NO	
4	OUTGOING ZERO INSERTION	-		YES/NO	YES	
5	OUTGOING CHECK DIGIT	-		0 – 9	0	
6	MY AREA CODE	-		MAX 5 Digits	Not Assigned	To delete MY AREA CODE, press [SPEED] key.
7	MY NATION CODE	-		MAX 5 Digits	Not Assigned	To delete MY NATION CODE, press [SPEED] key.
8	International CODE	-		4Digits	Not Assigned	
9	COLP TABLE	-		01 – 10 (Entry)	Not Assigned	Max : 10 Digits
10	MSN TABLE	-		01 – 24 (Entry)	Not Assigned	Flex key 1: CO line no (1-8) Flex key 2: Day Destination Station/Group/DVU Note 1) Flex key 3: Day Destination MSN no (1-8) Flex key 4: Night Destination Station/Group/DVU Note 1) Flex key 5: Night Destination MSN no (1-8) Flex key 6: Telephone no (max:20digit)
11	DID DIGIT CONVERSION	1. DID Received Digit from PX		2 - 4	3	
		2. DID First Two Digits Conversion		DID Received Digit No	***	0 - 9 # : Ignore Digit * : using received digit
		3. DID Second Digit Conversion		10 Digits	1234567890	
12	ISDN TRANSFER CODE	-		2 Digits	*#	Note 1)
13	ISDN Supplementary Service	1. Service Type	1. Hold/ Retrieve	Keypad / Functional	Keypad	
			2. 3-Party Conf.	Keypad / Functional	Keypad	
		2. Hold Code		10 Digits	None	
		3. Retrieve Code		10 Digits	None	
		4. 3 Party Conference Code		10 Digits	None	
14	LOOP BACK	-		YES/NO	NO	Note 2)

TABLE 11.2.14 ISDN Program (Main Menu 4)

Note 1) Above version 3.0, **MSN destination** can be either **a station, a station group or DVU**.

Note 2) The switch SW7-2 must be turned on to enable Loop-Back feature. Otherwise, it is no use setting Loop-Back ON in Admin.

(1). TEI TYPE (SUB-MENU 1)

PROCEDURE

- | | |
|--|--|
| ISDN PROGRAM
PRESS FLEX KEY (1-10) | (1) Press flex key 1 to select TEI Type menu of ISDN PROGRAM. |
| ISDN PGM, TEI TYPE
AAAA PRESS FLEX KEY(1-4) | (2) LCD will show the current status. To program TEI Type, press the flex key 1-4 for toggle setting. Each flex key means each ISDN port.
- FIXED (LED On), AUTO (LED Off) |
| ISDN PGM, TEI TYPE
AFAA PRESS FLEX KEY(1-4) | (3) LCD will show again the changed status.
Press [HOLD/SAVE] button for updating database permanently. <ul style="list-style-type: none"> • [▲] : Move to the next sub-menu , CALLING SUB-ADDRESS. • [▼] : Move to the previous sub-menu, DID DIGIT CONVERSION. |

NOTE: After you change TEI type, press RESET button on MBU to operate with the new TEI type

(2). ISDN COLP TABLE (SUB-MENU 9)

If COLR is not activated, the GDK will send COLP information to PX when a called party the incoming call according to the type of calling party number.

PROCEDURE

- | | |
|--|---|
| ISDN PGM, COLP TABLE
DIAL ENTRY NO(01-10) | (1) Dial entry number(01-10) to program a table. |
| ISDN PGM, COLP TABLE
01:1234E DIAL NO | (2) Dial COLP number (max:10digit). <ul style="list-style-type: none"> • To delete installed COLP number, press [SPEED] button without entering any data. |
| ISDN PGM, COLP TABLE
01:1234E DIAL NO | (3) Press [HOLD/SAVE] button for updating database permanently. |

(3). ISDN MSN TABLE (SUB-MENU 10)

By default, ISDN MSN Tables are not assigned at all.

PROCEDURE

ISDN PGM, MSN TABLE	(1) Dial 2 digit entry number.
DIAL ENTRY NO(01-24)	
MSN 1:C1 D-112 0 N-111 3 TEL:543665E	(2) Press one of the flex key(1-4) to select entered data type. • Flex key 1: CO line number (1-8) • Flex key 2: Day Destination Station number(2digit or 3digit)/ Group no(61-64)/DVU • Flex key 3: Day Destination MSN no (1-8) • Flex key 4: Night Destination Station number(2digit or 3digit)/ Group no(61-64)/DVU • Flex key 5: Night Destination MSN no (1-8) • Flex key 6: Telephone number (max: 20digit)
MSN TBL 1	(3) If you press flex key 1 in step 2, you select CO line number. Dial CO line number (1-8).
CO1 DIAL CO NO(1-8)	
MSN TBL 1: DAY STA112	• If you press flex key 2 in step 2, you select Day Destination Station number. Dial Station number (2digit or 3digit)/ Group no(61-64), or Dial '#' to select the 'DVU'
DIAL STA/GRP/DVU	
MSN TBL 1: DAY MSN1	• If you press flex key 3 in step 2, you select Day Destination MSN number. Dial MSN number (1-8).
DIAL MSN NO(1-8)	
MSN TBL 1: NIGHT STA112	• If you press flex key 4 in step 2, you select Night Destination Station number. Dial Station number (2digit or 3digit)/ Group no(61- 64), or Dial '#' to select the 'DVU'
DIAL STA/GRP/DVU	
MSN TBL 1: NIGHT MSN1	• If you press flex key 5 in step 2, you select Night Destination MSN number. Dial MSN number (1-8).
DIAL MSN NO(1-8)	
MSN TBL 1:TEL NO(20DGT)	• If you press flex key 6 in step 2, you select telephone number. Dial telephone number (max:20digit).
5675543665E	
MSN TBL 1	(4) To delete installed number, press [SPEED] button without entering any data.
CO1 DIAL CO NO(1-8)	
MSN 1:C1 D-112 0 N-111 3 TEL:543665E	(5) Press [HOLD/SAVE] button for updating database permanently.

(4). DID DIGITS CONVERSION (SUB-MENU 11)

With Direct Inward Dialing (DID) a user dials through a public telephone network. To complete the connection, the DID trunk receives two, three or four digits from the central office, and routes the call to the proper corresponding station. The DID dialed digits may be modified by stripping up to two leading digits, by substitution of two leading digits (after stripping).

If station number size is changed, the 3 terminal menu setting of DID DIGITS CONVERSION is re-initialized according to the station number size automatically.

PROCEDURE

- | | |
|---|--|
| ISDN PGM, DID DIGIT TABLE
PRESS FLEX KEY (1-3) | (1) To program DID DIGITS CONVERSION TABLE, press one of the flex buttons(1-3) as Table 11.2.15. LCD shows current status of DID Digit Conversion. |
| DID TBL: RECEIVE DIGIT
3 DIAL NO (2-4) | (3) • To assign Received digit number from PBX, enter digit number data, then entered data will be displayed on LCD. |
| DID TBL: CONVERT DIGITS
#** DIAL DIGITS | than • To assign Converted DID digits, press digits(combination of 0-9, *, #), entered digits will be displayed on LCD. The number of digits to be dialed depends on the receive digit number. |
| 1234567890 :2nd DGT CONV
1234567890 DIAL 10DIGIT | • To assign DID 2nd digit conversion table, enter 10 digits.
(Ex : 1 2 2 4 5 6 7 8 9 0). |
| 1234567890 :2nd DGT CONV
1224567890 DIAL 10DIGIT | (3) Press [HOLD/SAVE] button for updating database permanently. |

FLEX KEY	TERMINAL MENU	DEFAULT	RANGE	REMARK
1	DID Received Digit No From PX	3	2 - 4	
2	DID Digit Conversion	***	d, *, #	d : digit (0 - 9) # : ignore digits * : any kind of digit
3	DID 2nd Digit Conversion	(1 2 3 4 5 6 7 8 9 0)		10 Digits

TABLE 11.2.15 Button Configuration For DID Digit Conversion (Sub-Menu 10 of ISDN PROGRAM)

(5). ISDN TRANSFER CODE (SUB-MENU 12)

Max digit no of ISDN Transfer Code is 2. **By default, ISDN Transfer Code is assigned as *#.**

PROCEDURE

- | | |
|--|--|
| ISDN PROGRAM
PRESS FLEX KEY(1-14) | (1) Press flex button 12 of the 1-14. |
| ISDN TRANSFER CODE(STA)
*#, DIAL CODE(2DIGIT) | (2) Current assigned ISDN Transfer Code is displayed on LCD.
• Dial 2 digits for ISDN Transfer Code to assign.
• Press [SPEED] button to delete ISDN Transfer Code. |
| ISDN TRANSFER CODE(STA)
*#, DIAL CODE(2DIGIT) | (3) Press [HOLD/SAVE] button for updating database permanently. |

(6). ISDN SUPPLEMENTARY SERVICE (SUB-MENU 13)

1) ISDN SUPPLEMENTARY SERVICE TYPE

User can assign supplementary service type for 2 cases. One is Hold/Retrieve, the other is 3-party conference. By default, 2 case service types are all keypad.

PROCEDURE

- | | |
|---|---|
| ISDN PROGRAM
PRESS FLEX KEY(1-14) | (1) Press flex button 13 of the 1-14. |
| ISDN PGM, SUPPLEMENTARY
PRESS FLEX KEY(1-4) | (2) Press flex button 1 to select ISDN Supplementary Service. |
| ISDN SUPPLEMENT SVC TYPE
PRESS FLEX KEY(1-2) | (3) User has to select which case service type he wants to assign. |
| ISDN SVC TYPE:HOLD/RETRV
KEY_PAD | (4) Current assigned Service Type is displayed on LCD.
● Press flex key to change. |
| ISDN SVC TYPE:HOLD/RETRV
FUNCTION | (5) Press [HOLD/SAVE] button for updating database permanently. |

FLEX KEY	TERMINAL MENU	RANGE	DEFAULT (LED)	REMARK
1	Hold/Retrieve SVC Type	Functional/Keypad	Keypad(On)	
2	3-Party Conference SVC Type	Functional/Keypad	Keypad(On)	

TABLE 11.2.16 Button Configuration for ISDN Supplementary SVC Type (Sub-Menu 13 of ISDN PROGRAM)

2) ISDN 3-Party Conference Code

Max digit no of ISDN Hold Code is 10. **By default, ISDN Hold Code is not assigned at all.**
The same is for ISDN Retrieve Code, ISDN 3-Party Conference Code.

PROCEDURE

- | | |
|--|--|
| ISDN PROGRAM
PRESS FLEX KEY(1-14) | (1) Press flex button 13 of the 1-14. |
| ISDN PGM, SUPPLEMENTARY
PRESS FLEX KEY(1-4) | (2) Press flex button 2 to select ISDN Hold Code. |
| ISDN HOLD CODE-MAX:10DGT
9988 | (3) Current assigned ISDN Hold Code is displayed on LCD.
● Dial digits to enter new ISDN Hold Code. |
| ISDN HOLD CODE-MAX:10DGT
5577 | (4) Press [HOLD/SAVE] button for updating database permanently. |

FLEX KEY	TERMINAL MENU	RANGE	DEFAULT (LED)	REMARK
2	ISDN Hold Code	Max 10 Digits	Not Assigned	
3	ISDN Retrieve Code	Max 10 Digits	Not Assigned	
4	ISDN 3-Party Conference Code	Max 10 Digits	Not Assigned	

TABLE 11.2.17 Button Configuration for ISDN Supplementary Code (Sub-Menu 13 of ISDN PROGRAM)

(7). LOOP BACK (SUB-MENU 14)

Loop Back is used only for test. **Default value of Loop Back is No.**

PROCEDURE

- | | |
|--------------------------------------|--|
| ISDN PROGRAM
PRESS FLEX KEY(1-14) | (1) Press flex button 14 of the 1-14. |
| ISDN PGM, LOOP BACK
NO | (2) Current assigned Loop Back is displayed on LCD.
• Press flex key to change. |
| ISDN PGM, LOOP BACK
YES | (3) Press [HOLD/SAVE] button for updating database permanently. |

11.2.5 SYSTEM BASE PROGRAMMING (MAIN-MENU 5)

To change system parameters, select the main-menu5 by pressing the 5th flex-key. When programming, LCD and LED's indicate current programmed data and programming status. If the programmer enters correct data, then LCD and LED's show the entered data and the data is stored in the temporary buffer area. **After pressing the [HOLD/SAVE] button, all data in the temporary buffer (same as LCD/LED's show their status) are copied into permanent system memory.**

- | | |
|---|---|
| ADMIN PROGRAM START
PRESS FLEX KEY(1-12) | (1) If you select SYSTEM BASE PROGRAM , following message will be displayed on LCD. |
| SYS PGM
PRESS FLEX KEY(1-17) | (2) Press one of the FLEX key (1-17) which you want. Each flex key number means sub menu number. If you press [▲] or [▼] button, same level menu message will be displayed on LCD one after another. |

■ LCD Display of Sub Menu in **SYSTEM BASE PROGRAM**

LCD Display	FLEX KEY
SYS PGM, ATTRIBUTE PRESS FLEX KEY (1-6)	1. System Attribute
SYS PGM, ATTENDANT ASSIGN 100 DIAL STA NO	2. Attendant Assignment
SYS PGM, SET DATE/TIME 98/04/22 13:21 (10DIGIT)	3. Setting System DATE / TIME
SYS PGM, LCD DISPLAY MODE 12/DDMMYY DIAL MODE(1-4)	4. LCD DATA/TIME Display Mode
SYS PGM, PBX CODE PRESS FLEX KEY (1-4)	5. PBX Access Code
SYS PGM, DID/DISA DEST PRESS FLEX KEY(1-2)	6. DID/DISA Destination
SYS PGM, DISA RETRY COUNT 3 DIAL DIGIT(1-9)	7. DISA Retry Counter
SYS PGM, SMDR ATTRIBUTE PRESS FLEXKEY(1-4)	8. SMDR Attribute
SYS PGM, CO SPEED RATIO 66/33	9. Pulse Dial / Speed Ratio
SYS PGM, ALARM ATTRIBUTE PRESS FLEX KEY (1-3)	10. Alarm Attribute
SYS PGM, EXT CONTACT PRESS FLEX KEY (1-2)	11. External Control Contact
SYS PGM, BGM TYPE INTERNAL DIAL DIGIT(1-3)	12. BGM(Background Music) Type
SYS PGM, MOH TYPE INTERNAL DIAL DIGIT(1-2)	13. MOH(Music-On-Hold) Type
SYS PGM, SYSTEM GAIN PRESS RX-DEV TYPE:FLX1-7	14. System Gain
SYS PGM, FAX TRANS CO LINE 0 DIAL DIGIT(1-8)	15. FAX Transfer CO Line
SYS PGM, EXT PAGE STATION DIAL STA NO	16. External Page Station
SYS, DID/DISA FWD TO DVU PRESS FLEX KEY(1-3)	17. DID/DISA Forward to DVU
SYS PGM, CCR TABLE PRESS FLEX KEY(1-2)	18. CCR Table
SYS PGM, ADMIN PASSWORD DIAL DIGIT(MAX:4)	19. Admin Password
SYS PGM, DVU SETTING PRESS FLEX KEY(1-3)	20. DVU Setting
SYS PGM, WEEKLY TIME TBL DIAL ENTRY NO(1-7)	21. Weekly Time Table
SYS PGM, ACNR TONE CADENC PRESS FLEX KEY(1-4)	22. ACNR Tone Candence

(1). SYSTEM ATTRIBUTE (SUB-MENU 1)

PROCEDURE

SYS PGM,ATTRIBUTE
PRESS FLEX KEY (1-6)

- (1) Press one of the flex buttons(1-6) to select a sub menu of SYSTEM ATTRIBUTE.

SYS ATTR, HOLD TYPE
SYSTEM

- (2) When you press flex button 1 in SYSTEM ATTRIBUTE menu, the current status will be displayed on the LCD. To program, use the 1st flex key for toggle setting (Refer to Table A6.1.1). The changed status will be displayed on the LCD. (**SYSTEM (LED On)** , **EXCLUSIVE (LED Off)**).

- If you want to go to another menu in SYSTEM ATTRIBUTE, press [▲] or [▼] Button.

SYS ATTR,HOLD TYPE
EXCLUSIVE

- (3) Press [HOLD/SAVE] button for updating database permanently.

■ LCD Display of Terminal Menu in **SYSTEM ATTRIBUTES**

LCD Display	FLEX KEY
SYS ATTR, HOLD TYPE SYSTEM	1. HOLD Preference
SYS ATTR, AUTO PRIVACY YES	2. Auto Privacy
SYS ATTR, EXT NIGHT RING NO	3. External Night Ring
SYS ATTR, MULTI-LINE CONF YES	4. Multi-Line Conference
SYS ATTR, CO LINE CHOICE LAST	5. CO Line Choice
SYS ATTR, OVR 1 ST CO GRP NO	6. Override 1 st CO Group
SYS ATTR, NIGHT DVU NO	7. Night DVU
SYS ATTR, MUSIC ON CAMPON NO	8. Music on Camp-on

FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	Hold Preference	System/ Exclusive	SYSTEM (ON)	If system hold is preferred, depress [HOLD/SAVE] button and twice for exclusive hold.
2	Auto Privacy	YES / NO	YES(ON)	The system can be programmed to override CO line call to gain access to the conversation. If privacy is disabled, a station privileged to override in PGM 11 joins an existing call in progress.
3	External Night Ring	YES/NO	NO(OFF)	When CO lines are marked UNA, ring will be sent to LBC1 when an incoming call occurs on those lines during night service.
4	Multi-Line Conference	YES/NO	NO(OFF)	The system allows a conference with multiple CO lines.
5	CO Line Choice	Last Choice / Round-robin	Last Choice (ON)	The method of a CO line seizing on a CO line group access.
6	Override 1 st CO Group	YES/NO	NO(OFF)	
7	Night DVU	YES/NO	NO(OFF)	If Night DVU is enabled, DISA CO line are disconnected in night mode after night greeting is played to the CO party.
8	Music On Camp On	YES/NO	NO(OFF)	A station can hear music instead of ring-back tone when it makes camp-on to another station.

TABLE 11.2.18 Button Configuration For System Attribute (Sub-Menu 1 of SYSTEM BASE PROGRAM)

(2). ATTENDANT STATION (SUB-MENU 2)

Only one station can be assigned as an attendant. **As a default, the first station(Ex:STN 100) is assigned as a attendant.**

PROCEDURE

-
- | |
|---|
| SYS PGM,ATTENDENT ASSIGN
100 DIAL STA NO |
|---|
- (1) To assign attendant.
- Enter station number, then assigned attendant station number will be displayed on LCD.
 - The attendant number cannot be deleted.

- | |
|---|
| SYS PGM,ATTENDENT ASSIGN
102 DIAL STA NO |
|---|
- (2) Press **[HOLD/SAVE]** button for updating database permanently.
-

(3). SET SYSTEM DATE/TIME (SUB-MENU 3)

Date format is Year/Month/Date (YYMMDD), and Time format is Hour/Minute (HHMM) in military form. Whenever System Clock sets, second set to 0.

PROCEDURE

-
- | |
|--|
| SYS PGM, SET DATE/TIME
98/04/22 13:21 (10DIGIT) |
|--|
- (1) To set system clock, enter Date(YYMMDD) and Time(HHMM) serially.

- | |
|--|
| SYS PGM, SET DATE/TIME
98/04/23 18:45 (10DIGIT) |
|--|
- (2) Press **[HOLD/SAVE]** button for updating database permanently.
-

(4). LCD DISPLAY MODE (SUB-MENU 4)

Two LCD Date Formats are Day/Month/Year (DDMMYY) or Month/Day/Year (MMDDYY) Mode. Two LCD Time Formats are Ordinary (12 hour) / Military (24 hour) Mode. **By default LCD Date Format is DDMMYY and LCD Time Format is Ordinary (12 hour).**

PROCEDURE

SYS PGM, LCD DISPLAY MODE
12,DDMMYY , DIAL MODE(1-4) (1) Current LCD DISPLAY MODE is displayed on LCD. To change LCD Time Format and LCD Date Format, dial digit. To program, refer to Table 11.2.19.

SYS PGM, LCD DISPLAY MODE
12,MMDDYY , DIAL MODE(1-4) (2) Press **[HOLD/SAVE]** button for updating database permanently.

NO	DISPLAY	REMARK
1	24 HOUR - DD/MM/YY	
2	24 HOUR - MM/DD/YY	
3	12 HOUR - DD/MM/YY	DEFAULT
4	12 HOUR - MM/DD/YY	

TABLE 11.2.19 Button Configuration for LCD DISPLAY MODE (Sub-Menu 4 of SYSTEM BASE PROGRAM)

(5). PBX ACCESS CODES (SUB-MENU 5)

Maximum 4 PBX Access Codes are assignable. PBX Access Code is 1 or 2 digits number. **By default, PBX Access Codes are not assigned at all.**

PROCEDURE

SYS PGM,PBX CODE
PRESS FLX KEY (1-4) (1) Press one of the flex buttons 1-4.
(Ex: Flex button 1 – 1st PBX Code :).

SYS PGM,PBX CODE 1
9 (9) (2) Current assigned PBX code is displayed on LCD.
● Dial 2 digits(or 1 digit) for PBX Access code to assign.
● Press **[SPEED]** button to delete PBX Access Code.

SYS PGM,PBX CODE 1
8 (8) (3) Press **[HOLD/SAVE]** button for updating database permanently.

(6). DID/DISA DESTINATION (SUB-MENU 6)

A station can be arranged to forward a DID call to the attendant if the station is busy. Vacant or invalid calls are sent to the Main Attendant, or busy tone is presented by Admin. setting. **By default, Tone is assigned to DID/DISA Destination.**

PROCEDURE

- | | | |
|--|-----|--|
| SYS PGM, DID/DISA DEST
PRESS FLEX KEY (1-2) | (1) | Press one of the flex buttons(1-2). To assign DID/DISA Busy destination, press flex button 1. Then selected flex button LED will be lit. |
| DID/DISA DEST:BUSY CASE
TONE | (2) | To change Busy destination, press flex button 1. Flex button 1 operates in toggle. Refer to TABLE 11.2.20. |
| DID/DISA DEST:BUSY CASE
ATTENDANT | (3) | Press [HOLD/SAVE] button for updating database permanently. |

FLEX KEY	TERMINAL MENU	DEFAULT	RANGE
1	DID/DISA Busy Destination	Tone	Tone / Attendant
2	DID/DISA Error Destination	Tone	Tone / Attendant

TABLE 11.2.20 Button Configuration for DID/DISA Destination (Sub-Menu 6 of SYSTEM BASE PROGRAM)

(7). DISA RETRY COUNTER (SUB-MENU 7)

When the DISA user fails to call a station or access CO line, then DISA user can retry the other call within this retry counter. If DISA user cannot access appropriately within this counter, system disconnects the DISA line automatically. **The Default of DISA Retry Counter is 3.**

PROCEDURE

- | | | |
|--|-----|--|
| SYS PGM, DISA RETRY COUNT
5 DIAL DIGIT(1-9) | (1) | Dial DISA retry counter. |
| SYS PGM, DISA RETRY COUNT
7 DIAL DIGIT(1-9) | (2) | Press [HOLD/SAVE] button for updating database permanently. |

(8). SMDR ATTRIBUTE (SUB-MENU 8)

Station Message Detail Recording (SMDR) will provide details on both incoming and outgoing calls. An assignable data base option, All Call/Long Distance Only is selected, incoming and outgoing local and long distance calls are all provided. If Long Distance Only is selected, then only outgoing calls that meet the toll check status requirements listed below are provided.

PROCEDURE

- | | | |
|---|-----|--|
| SYS PGM,SMDR ATTRIBUTE
PRESS FLEX KEY(1-6) | (1) | Press 1st flex button to select ENABLE PRINTING menu of SMDR ATTRIBUTE. To program SMDR ATTRIBUTE, refer to Table 11.2.21. |
| SMDR, ENABLE PRINTING
YES | (2) | To make a change, Press flex button 1 for toggle setting.
- YES (LED On), NO (LED Off) |
| SMDR, ENABLE PRINTING
NO | (3) | Press [HOLD/SAVE] button for updating database permanently. |

FLEX KEY	TERMINAL MENU	DEFAULT (LED)	RANGE	REMARK
1	SMDR Print Enable	NO (OFF)	YES/NO	The system can be set to real time print either all outgoing calls or only limit set by SMDR timer in SYSTEM TIMER PROGRAM (Main-Menu 6).
2	Print Type	All Call (ON)	All Call / Long Distance	The system can be set to record either all outgoing calls or only long distance calls, exceeding time limit set by SMDR timer. The long distance calls are identified by SMDR long distance code programming.
3	Print Incoming Call	NO (OFF)	YES/NO	If this option(PIC) is set to YES, all incoming calls are printed with either all outgoing calls or long distance calls. Note: SMDR output for incoming calls does not include CLI information.
4	SMDR Print Baud Rate	6	1 - 8	The baud rate for the printer can be set to 300, 600, 1200, 2400, 4800, 9600, 19200, or 38400 baud.
5	SMDR Save	NO (OFF)	YES/NO	The system can be set to record either all outgoing calls (ALL) or only limit set by SMDR timer in SYSTEM TIMER PROGRAM(Main-Menu 6)
6	Record In Detail	YES(ON)	YES/NO	If this field is set as 'NO', the customer can see not the detailed call information but information of total call(total metering count and total cost for individual station) for SMDR Save Record. Otherwise, the customer can see

TABLE 11.2.21 Button Configuration for SMDR Attributes (Sub-Menu 8 of SYSTEM BASE PROGRAM)

(9). DIAL SPEED RATIO (SUB-MENU 9)

PROCEDURE

-
- | |
|-------------------------|
| SYS PGM, CO SPEED RATIO |
| 66/33 |
- (1) To change Dial Speed Ratio, press the 1st flex button. The 1st flex key acts in toggle.
- | |
|-------------------------|
| SYS PGM, CO SPEED RATIO |
| 60/40 |
- (2) Press **[HOLD/SAVE]** button for updating database permanently.
-

SUB MENU	RANGE	DEFAULT (LED)	REMARK
PULSE DIAL SPEED RATIO	60/40% , 66/33%	66/33 % (ON)	10PPS Only

TABLE 11.2.22 Button Configuration for Dial Speed Ratio (Sub-Menu 9 of SYSTEM BASE PROGRAM)

(10). ALARM ATTRIBUTE (SUB-MENU 10)

PROCEDURE

-
- | |
|---|
| SYS PGM,ALARM ATTRIBUTE
PRESS FLEX KEY(1-3) |
|---|
- (1) Press flex button 1 to select ALARM ATTRIBUTE ENABLE menu of **ALARM ATTRIBUTE**.
- | |
|---------------------------|
| ALARM ATTR, ENABLE
YES |
|---------------------------|
- (2) To make a change, Press flex button 1 for toggle setting.
(ALARM ENABLE (LED On), ALARM DISABLE (LED Off))
● To move to another sub menu, press **[▲]** or **[▼]** button.
Note. A SLT must not be assigned to receive signals for either the alarm or Doorbell.
- | |
|--------------------------|
| ALARM ATTR, ENABLE
NO |
|--------------------------|
- (3) Press **[HOLD/SAVE]** button for updating database permanently.
-

■ LCD Display of Terminal Menu in **ALARM ATTRIBUTE**

LCD Display	FLEX KEY
ALARM ATTR, ENABLE YES	1. Alarm Enable
ALARM ATTR, CONTACT TYPE CLOSE	2. Alarm Contact Type
ALARM ATTR, SIGNAL MODE REPEAT	3. Alarm Signal Mode

FLEX KEY	TERMINAL MENU	DEFAULT (LED)	RANGE
1	Alarm Enable	No (OFF)	Yes/No
2	Alarm Contact Type	Close (ON)	Close/Open
3	Alarm Signal Mode	Repeat (ON)	Repeat/Once

TABLE 11.2.23 Button Configuration For Alarm Attribute (Sub-Menu 10 of SYSTEM BASE PROGRAM)

(11). EXTERNAL CONTROL CONTACT (SUB-MENU 11)

By default, External control contacts are not assigned at all.

System supports 2 external control contacts.

PROCEDURE

SYS PGM, EXT CONTACT PRESS FLEX KEY(1-3)	(1) Select EXTERNAL CONTROL CONTACT number with one of the FLEX buttons 1-2. (Ex: Flex button 1 – External Control Contact 1)
SYS PGM, EXT CONTACT 1 LBC101 TYPE(1-3)+STA NO	(2) If you want to set as LBC, dial 1 and station number. Or If you want to set as DOOR BELL, dial 2 only. (Station number is needed only in LBC setting) ● To delete the assignment of External Control Contact, press [SPEED] button.
SYS PGM, EXT CONTACT 1 LBC102 TYPE(1-3)+STA NO	(1) Press [HOLD/SAVE] button for updating database permanently.

FLEX KEY	TYPE	DATA
1-3	1 : LBC(Loud Bell Control)	Station No
	2 : Door Bell	-
	3 : External Page	-

TABLE 11.2.24 Button Configuration For External Control Contact (Sub-Menu 11 of SYSTEM BASE PROGRAM)

(12). BGM(Background Music) TYPE (SUB-MENU 12)

By default, BGM type is set to Internal Music. There are 3 BGM types.

PROCEDURE

SYS PGM, BGM TYPE INTERNAL DIAL DIGIT(1-3)	(1) To change the setting, dial BGM type (1-3).
SYS PGM, BGM TYPE EXTERNAL DIAL DIGIT(1-3)	(2) Press [HOLD/SAVE] button for updating database permanently.

DIGIT	BGM TYPE
1	INTERNAL MUSIC
2	EXTERNAL MUSIC
3	BOTH MUSIC

TABLE 11.2.25 Button Configuration For BGM Type (Sub-Menu 12 of SYSTEM BASE PROGRAM)

(13). MOH (Music On Hold) TYPE (SUB-MENU 13)

By default, MOH type is set to Internal Music.

There are 3 MOH types.

PROCEDURE

SYS PGM, MOH TYPE
INTERNAL DIAL DIGIT(1-3)

(1) To change the setting, dial MOH type (1-3).

SYS PGM, MOH TYPE
EXTERNAL DIAL DIGIT(1-3)

(2) Press **[HOLD/SAVE]** button for updating database permanently.

DIGIT	MOH TYPE
1	INTERNAL MUSIC
2	EXTERNAL MUSIC
3	DVU MUSIC

TABLE 11.2.26 Button Configuration For MOH Type (Sub-Menu 13 of SYSTEM BASE PROGRAM)

(14). SYSTEM GAIN CONTROL (SUB-MENU 14)

PROCEDURE

SYS PGM, SYSTEM GAIN
PRESS RX-DEV TYPE:FLX1-7

(1) Press one of the flex button(1-7) to select Rx. Device Type. Refer to TABLE 11.2.27.

SYSTEM GAIN:DKTU
PRESS TX-DEV TYPE:FLX1-10

(2) If you press flex button 1, Rx device is DKTU(Digital Keypad Telephone Unit). Then, dial 1 to select DKTU as Tx device type.

SYSTEM GAIN:DKTU<-DKTU
10 DIAL GAIN(00-60)

(3) Dial new gain(00-60).

SYSTEM GAIN:DKTU<-DKTU
15 DIAL GAIN(00-60)

(4) Press **[HOLD/SAVE]** button for updating database permanently.

NO	RX DEVICE TYPE	NO	TX DEVICE TYPE
1	DKTU (Digital Keypad Telephone Unit)	1	DKTU
		2	SLT
		3	CO
		4	DCO
		5	DTMF
		6	TONE
		7	DVU
		8	MUSIC1
		9	MUSIC2
		10	WHTU
2	SLT	1	DKTU
		2	SLT
		3	CO
		4	DCO
		5	DTMF
		6	TONE
		7	DVU
		8	MUSIC1
		9	MUSIC2
		10	WHTU

NO	RX DEVICE TYPE	NO	TX DEVICE TYPE
3	CO LINE	1	DKTU
		2	SLT
		3	CO
		4	DCO
		5	DTMF
		6	TONE
		7	DVU
		8	MUSIC1
		9	MUSIC2
		10	WHTU
4	DCO(Digital CO) LINE	1	DKTU
		2	SLT
		3	CO
		4	DCO
		5	DTMF
		6	TONE
		7	DVU
		8	MUSIC1
		9	MUSIC2
		10	WHTU
5	DVU (Digital Voice Unit)	1	DKTU
		2	SLT
		3	CO
		4	DCO
		5	MUSIC2
		6	WHTU
6	DTMF RECEIVER	1	SLT
		2	CO
		3	DCO
7	WHTU (Wireless Telephone Unit)	1	DKTU
		2	SLT
		3	CO
		4	DCO
		5	DTMF
		6	TONE
		7	DVU
		8	MUSIC1
		9	MUSIC2
		10	WHTU

TABLE 11.2.27 Button Configuration for System Gain Control (Sub-Menu 14 of SYSTEM BASE PROGRAM)

(15). FAX TRANSFER CO LINE (SUB-MENU 15)**PROCEDURE**

-
- | | |
|--|--|
| SYS PGM, FAX TRANS CO LIN
3 DIAL DIGIT(1-8) | (1) Press flex button 15 to select FAX Transfer CO Line menu. |
| SYS PGM, FAX TRANS CO LIN
4 DIAL DIGIT(1-8) | (2) Dial new CO Line(1-8). |
| SYS PGM, FAX TRANS CO LIN
4 DIAL DIGIT(1-8) | (3) Press [HOLD/SAVE] button for updating database permanently. |
-

(16). EXT PAGE STATION (SUB-MENU 16)**PROCEDURE**

-
- | | |
|--|--|
| SYS PGM, EXT PAGE STATION
104 DIAL STA NO | (1) Press flex button 16 to select External Page Station menu. |
| SYS PGM, EXT PAGE STATION
105 DIAL STA NO | (2) Dial new station no. |
| SYS PGM, EXT PAGE STATION
105 DIAL STA NO | (3) Press [HOLD/SAVE] button for updating database permanently. |
-

(17). DID/DISA FWD TO DVU (SUB-MENU 17)**PROCEDURE**

-
- | | |
|---|---|
| SYS, DID/DISA FWD TO DVU
PRESS FLEX KEY(1-3) | (1) Press one of the flex button(1-3) to select terminal menu of DID/DISA Fwd to DVU. |
| DID FWD TO DVU : BUSY CASE
YES | (2) Current assigned setting is displayed on LCD.
● Press flex button to change setting. |
| DID FWD TO DVU : BUSY CASE
YES | (3) Press [HOLD/SAVE] button for updating database permanently. |
-

FLEX KEY	TERMINAL MENU	RANGE	DEFAULT (LED)
1	Fwd to DVU : Busy Case	Yes/No	No (OFF)
2	Fwd to DVU : No Answer Case	Yes/No	No (OFF)
3	Fwd to DVU : Attendant No Answer Case	Yes/No	No (OFF)

TABLE 11.2.28 Button Configuration For DID/DISA Fwd to DVU (Sub-Menu 17 of SYSTEM BASE PROGRAM)

(18). CCR TABLE(SUB-MENU 18)**PROCEDURE**

SYS PGM, CCR TABLE PRESS FLEX KEY (1-2)	(1) To select DAY/NIGHT or OTHER CCR Table, press Flex BTN 1~2 Flex 1- DAY/NIGHT CCR Flex 2- OTHER CCR
OTHER CCR TABLE DIAL ENTRY (1-9)	(2) To select CCR Table number, dial 1~9.
CCR TABLE 1 – ANNC 11 PRESS FLEX KEY (1-10)	To select each entry number of CCR table, press Flex. BTN 1~10, then the entered data will be displayed on the LCD.
CCR TABLE 1 – ANNC 11 INDEX 1: NOT ASSIGNED	To program call routing destination, dial destination type as follow. 1 – STA 2 – HUNT 3 – DVU 4 – DVU DROP 5 – SYSTEM SPEED DIAL 6 – INTERNAL PAGE 7 – EXTERNAL PAGE 8 – ALL CALL PAGE
CCR TABLE 1 – ANNC 11 INDEX 1 : STA 100	To program station number, dial the station number. (Ex. Dial station number '100')
CCR TABLE 1 – ANNC 11 INDEX 1 : HUNT GRP 62	To program Hunt Group, dial a hunt group number. (Ex. Dial Hunt group 62.)
CCR TABLE 1 – ANNC 11 INDEX 1 : DVU 11	To program system announcement, dial a DVU system announcement number. (Ex. Dial sys announcement 11)
CCR TABLE 1 – ANNC 11 INDEX 1 : DVU DROP (#)	To program system drop the CO line after providing the announcement, dial a DVU system announcement number.
CCR TABLE 1 – ANNC 11 INDEX 1 : SYS SPD 99	To program System Speed Dial, dial a system speed bin number. (Ex. Dial Speed bin 99.)
CCR TABLE 1 – ANNC 11 INDEX 1 : INT PAGE 2	To program Internal Page , dial a Internal page number. (Ex. Dial 2.)
CCR TABLE 1 – ANNC 11 INDEX 1 : EXT PAGE 2	To program External Page , dial a External page number. (Ex. Dial 2.)
CCR TABLE 1 – ANNC 11 INDEX 1 : ALL CALL PAGE	To program All Call Page , dial a All Call Page number. (Dial 8.)
CCR TABLE 1 – ANNC 11 INDEX 1 : NOT ASSIGNED	To delete the content of entry, press the [SPEED] button.
CCR TABLE 1 – ANNC 11 INDEX 1 :	Press the [HOLD/SAVE] button for updating database permanently.

TYPE(DIGIT)	TYPE	RANGE	DEFAULT	REMARK
1	Station	STA #	-	#: Station Number
2	Hunt Group	HUNT #	-	#: Hunt number
3	DVU	11-19	-	
4	DVU DROP	Annonuce #		#: DVU number
5	System Speed	21-99	-	
6	Internal Page	1-2	-	
7	External Page	1	-	
8	All Call Page		-	

TABLE 12.2.28.1 Custom Call Routing Table

(19) Admin Password (SUB-MENU 19)

Admin Password can be assigned to enter Admin Programming mode for only Administrator who knows the Admin Password. **Admin Password is not assigned by default.**

PROCEDURE

-
- | |
|---|
| SYS PGM, ADMIN PASSWORD
.... DIAL DIGIT(MAX:4) |
|---|
- (1) After you select SYSTEM BASE PROGAM, Press flexible button 19
The current admin password is displayed on the LCD
- | |
|---|
| SYS PGM, ADMIN PASSWORD
1234 DIAL DIGIT(MAX:4) |
|---|
- (2) To assign Admin Password, enter 4 digits number. Otherwise to delete the admin password, press **[SPEED]** button. (ex 1234) Then, Press **[HOLD/SAVE]** button for updating database permanently.
And, the entered admin password will be displayed on LCD.
-

(20) DVU SETTING (SUB-MENU 20)**PROCEDURE**

-
- | |
|---|
| SYS PGM,DVU SETTING
PRESS FLEX KEY (1-3) |
|---|
- (1) Press one of the flex buttons(1-3) to select a sub menu of DVU SETTING
- | |
|---------------------------------------|
| DVU SET, DATE/TIME ORDER
DATE/TIME |
|---------------------------------------|
- (2) When you press flex button 1 in DVU SETTING, the current status will be displayed on the LCD. To program, use the 1st flex key for toggle setting (Refer to Table 3.4.1).The changed status will be displayed on the LCD.
(DATE/TIME(LED On) , TIME/DATE (LED Off)).
If you want to go to another menu in DVU SETTING, press **[▲]** or **[▼]** Button.
- | |
|---------------------------------------|
| DVU SET, DATE/TIME ORDER
DATE/TIME |
|---------------------------------------|
- (4) Press **[HOLD/SAVE]** button for updating database permanently.
-

LCD Display of Sub Menu in DVU SETTING

LCD Display	FLEX KEY
DVU SET, DATE/TIME ORDER DATE/TIME	1. DATE/TIME Prompt Order
DVU SET, DVU MSG RETRIEV FIFO	2. DVU Message Retrieve Order
DVU SET, MSG AUTO DELETE 000 DAYS DIAL DAY: 0-300	3. Auto Delete Day of Saved Messages.

(21) WEEKLY TIME TABLE (SUB-MENU 21)

PROCEDURE

SYS PGM,WEEKLY TIME TBL DIAL ENTRY NO(1-7)	1. Dial one of the entry no(1-7) to select a sub menu of Weekly Time Table.
MON TIME TBL (1DGT+4DGT) DAY:0900 NIGHT:1800	2. The dialed digit is matched the day of week.(Ex. DIAL 1: Monday).
MON TIME TBL (1DGT+4DGT) DAY:0900 NIGHT:1800	3. To select the each mode(Day or Night), dial the digit for mode selection(Day: 1, Night: 2/e.g. Dial 1) and dial 4 digits continuously(e.g. 0930 for 09:30).
MON TIME TBL (1DGT+4DGT) DAY:0900 NIGHT:1800	4. Press [HOLD/SAVE] button for updating database permanently.

NO	ITEM	REMARK
1	Monday	Refer Table 12.2.28.3
2	Tuesday	
3	Wednesday	
4	Thursday	
5	Friday	
6	Saturday	
7	Sunday	

TABLE 12.2.28.2 WEEKLY TIME TABLE

NO	ITEM	DEFAULT	REMARK
1	Day		Day ring mode start time (HH:MM)
2	Night		Night ring mode start time (HH:MM)

TABLE 12.2.28.3 WEEKLY TIME TABLE

(22) ACNR TONE CADENCE(SUB-MENU 22)**PROCEDURE**

- | | |
|---|--|
| SYS PGM,ACNR TONE CADENCE
PRESS FLEX KEY(1-4) | 1. Press one of the flex buttons(1-4) to select a sub menu of ACNR Tone Cadence |
| ACNR TONE, RBT CADENCE
ON:050 OFF:050 (20msec) | 2. If you press the flex button 1, you can program ACNR RBT cadence. |
| ACNR TONE,RBT CADENCE
ON:050 OFF:050 (20msec) | 3. To select the each mode(On or Off), dial the digit for mode selection(On: 1, Off: 2/ e.g. dial 1) and dial 3 digits continuously(e.g. 100). |
| ACNR TONE,RBT CADENCE
ON:100 OFF:050 (20msec) | 4. Press [HOLD/SAVE] button for updating database permanently. |

FLEX KEY	LCD DISPLAY
1.	ACNR TONE,RBT CADENCE ON:050 OFF:050 (20msec)
2	ACNR TONE,BUSY CADENCE ON:050 OFF:050 (20msec)
3	ACNR TONE,ERROR CADENCE ON:050 OFF:050 (20msec)
4	ACNR TONE,S-DIAL CADENCE ON:050 OFF:050 (20msec)

TABLE 12.2.28.4 ACNR TONE CADENCE**11.2.6 SYSTEM TIMER PROGRAMMING (MAIN-MENU 6)****(1). SYSTEM TIMERS****PROCEUDURE**

- | | |
|---|--|
| SYS TMR,
PRESS FLEX KEY(1-2) | (1) Press flex button to select Timer group.
- [▲] : Move to the next main-menu , TOLL TABLE PROGRAM .
(3) [▼] : Move to the previous main-menu, SYSTEM BASE PROGRAM . |
| SYS TMR 1
PRESS FLEX KEY(1-24) | (2) Press one of the flex key(1-24) to select timer. |
| TIMER 1,EXCL HOLD RECALL
300sec DIAL TIME(0-300) | (3) Current timer value is displayed on the LCD. If you want to change this value, enter new value in digit. |
| TIMER 1,EXCL HOLD RECALL
250sec DIAL TIME(0-300) | (4) Press [HOLD/SAVE] to update database permanently. LCD will displays the changed time of the timer. |

NO	SUB MENU	FLEX KEY	TERMINAL MENU	DEFAULT	RANGE	REMARK
1	System Timer 1	1	Exc. Hold Recall Timer	060 (sec)	000 – 300 (3 Digits)	Determines the amount of time before a call placed on exclusive hold will recall the station placing the hold.
		2	Sys Hold Recall Timer	030 (sec)	000 – 300 (3 Digits)	Determines the amount of time before a call placed on system hold will recall the station placing the hold.
		3	Transfer Recall Timer	030 (sec)	000 – 300 (3 Digits)	Determines the amount of time a transferred call will ring at the station receiving the transfer and how long it will recall the station transferring the call.
		4	I-Recall Timer	030 (sec)	000 – 300 (3 Digits)	Determines the amount of time before a call recalls the attendant.
		5	Attendant Recall Timer	01 (min)	00 – 60 (2 Digits)	Determines the amount of time before system disconnects the call.
		6	CO Ring Detect Timer	2 (100ms)	1 – 9 (1 Digit)	The CO Ring Detect Timer controls the time necessary to detect an outside line as ringing into the system.
		7	CO Ring Stop Detect Timer	6 (sec)	(3 1 5) (2 Digits)	This timer is to secure time interval between incoming ringing signals so that the active ringing can be lasted in the system until this timer is expired.
		8	Pause Timer	1 (sec)	1 – 9 (1 Digit)	Determines the length of the pause for use with automatically sent digits or other speed dialing.
		9	CO Release Guard Timer	01 (sec)	01 – 15 (2 Digits)	The CO Release Guard Timer controls the time necessary to guarantee idle loop state when the line is released.
		10	CO Dial Delay Timer	05 (100ms)	00 – 99 (2 Digits)	Voice connection to the outside party will be made after this timer. This can be used to prevent illegal dialing in case of slow response from the Central Office Line or PBX.
		11	Preset Forward Timer	10 (sec)	00 – 99 (2 Digits)	Determines the amount of time an outside line will ring before being forwarded to a predetermined station. This entry works with Preset Forward Assignments in station attributes. More than one station can be forwarded to the same destination.
		12	Call Forward Busy/No Answer Timer	10 (sec)	00 – 99 (2 Digits)	Determines the amount of time to forward a call after a predetermined time.
		13	DID/DISA No Answer Timer	20 (sec)	00 – 99 (2 Digits)	A DID call will be forwarded to the attendant if the station is busy or does not answer within this time.
		14	Unsupervised CONF. Timer	10 (min)	00 – 99 (2 Digits)	Determines the amount of the time an unsupervised conference can continue after the initiator of the conference has exited the conference.
		15	MSG Wait Reminder Tone Timer	00 (min)	00 – 60 (2 Digits)	Determines the amount of time between repeated reminder tones to a key telephone with a message waiting.
		16	Hook Switch Flash Timer	050 (10ms)	001 – 250 (3 Digits)	This timer determines how long the user could depress the hook switch in order for it to be considered a FLASH (Timed-Break Recall). (For SLT)
		17	Door Open Timer	20 (100ms)	05 – 99 (2 Digits)	This timer determines of the length of time that is needed to activate as a door open relay using external page relay.
		18	Inter Digit Timer	05 (sec)	01 – 20 (2 Digits)	The time between digits cannot exceed Inter-digit timer, or error tone is received.
		19	Warm Line Timer	05 (sec)	(3 2 0) (2 Digits)	User takes no action after lifting handset or pressing the [MON] button and warm line timer is expired, then idle line selection for warm line is activated.
		20	SMDR Timer	000 (sec)	000 – 250 (3 Digits)	When the SMDR is enabled, the calls to be printed is set by this SMDR timer. The calls exceeding this time limit are printed.

NO	SUB MENU	FLEX KEY	TERMINAL MENU	DEFAULT	RANGE	REMARK
1	System Timer 1	21	Wake-up Fail Ring Timer	20 (sec)	00 - 99 (2 Digits)	After a Wake-up fail ring invokes on SYSTEM ATD, the alarm ring exists during this timer. Then if this timer expires, the Alarm ring will disappear.
		22	Fax Tone Detect Timer	5 (sec)	01-10 (2 Digits)	System tries to detect the fax tone for the duration of this timer.
		23	Fax CO Call Timer	1 (min)	1-5 (1 Digit)	If a fax CO call is not answered until this timer expires, the CO line is released automatically.
		24	DVU User Record Timer	20 (sec)	010-255 (3 Digits)	The maximum duration of a message that can be recorded in DVU.
2	System Timer2	1	DVU Forward Answer Timer	4 (sec)	04-40 (2 Digits)	
		2	DVU Valid User MSG Timer	4 (sec)	00-10 (2 Digits)	
		3	Hunt Disconnect Timer	3 (min)	01-10 (2 Digits)	
		4	Call Park Recall Timer	120 (sec)	0-600 (3 Digits)	Determines the amount of time before a call placed in a call park location will recall the station placing the park.
		5	Normal Ring To DVIB Timer	4 (sec)	0-300 (3 Digits)	When Normal CO ring comes, all ring assigned station will ring during "Normal Ring to DVIB Timer" and the call will be routed to DVIB.
		6	CCR Inter Digit Timer	030	000 – 300 (3 Digits)	This field is used for the CCR inter-digit timer in the DISA/DID CO line. (100ms base).
		7	DISA Delay Timer	00	00-99 (3 Digits)	When this timer is expired, DISA is activated (1 sec base)
		8	ACNR Pause Timer	030	005 - 300 (3 Digits)	When expired, ACNR is activated. (1 sec base)
		9	ACNR Delay Timer	030	000 – 300 (3 Digits)	When ACNR Pause Timer expires and there is no available CO Line in the group, this timer is invoked. When ACNR Delay Timer expired, - Invoke ACNR Pause Timer if is no available CO line Still, ACNR is activated. (1 sec base)
		10	ACNR Tone Detect Timer	030	000 –300 (3 Digits)	This timer is invoked upon completion of dialing and system considers the CO party as busy in the case that CPTU cannot detect the valid tone type until this timer expires. (1 sec base)
		11	ACNR No Answer Timer	30	10 – 50 (2 Digits)	This Timer is invoked after system detects CO ring back tone or voice from CO party. After this timer, system retries ACNR. (1 sec base)
		12	ACNR Retry Counter	03	1 – 30 (1 Digit)	This is decreased every time station retries ACNR, ACNR is canceled if set to 0.
		13	ACNR Retry No Tone	1	1 – 9 (5sec)	1 means 5 seconds, GDK-16 will wait this value to decide NO TONE. 3 means 15 seconds. (Only for CIS)

TABLE 11.2.29 Button Configuration for System Timers (Main-Menu 6)

11.2.7 TOLL TABLE (MAIN-MENU 7)

Main menu number of TOLL TABLES is 07. Press flex key 7 in Admin. starting mode. Toll tables are used to have access to certain toll free calls as well as being denied certain calls for the stations assigned STATION COS. Exception table A & B allow the station that is programmed in STA COS 2, 3 & 4 to have access to certain toll free calls as well as being denied certain calls.

(1). TOLL TABLES

The Allow/Deny Tables are organized into 2 sets of tables to support 2 different toll plans at one installed site. Each allow table may contain up to 20 number strings and each deny table 10 number strings. All bins of allow and deny tables have no entries by default. Each number string can contain up to 8 entries including any number 0-9, *, #, "Don't care", "stop".

The following rules should be remembered when setting up the Allow/Deny Tables:

- (1) If the tables have no entries, no restriction is applied.
- (2) If entries are made in the allow table and only there, then only those numbers are allowed.
- (3) If entries are made in the deny table and only there, then only those numbers are denied.
- (4) If there are entries in both tables, the allow table is searched first and if number is found, it is allowed. If not found, the deny table is searched and if number is found, it is denied. If it is not found in either table, it is allowed.

RULE	ENTRY		CONDITIONS & RESULT	
	ALLOW	DENY	ALLOW TABLE	DENY TABLE
1	NO	NO	NO Restriction	NO Restriction
2	YES	NO	Found - allowed Not found - denied	
3	NO	YES		Found - denied Not found - allowed
4	YES	YES	Found - allowed Not found - check deny table	Found - denied Not Found - allowed

TABLE 11.2.30 Allow/Deny Rules

(Reference)

CLASS	REMARK
STA COS 1	No restrictions are placed at the station for dialing.
STA COS 2	The assignments in the Exception Table A are monitored for allow and deny numbers.
STA COS 3	The assignments in the Exception Table B are monitored for allow and deny numbers.
STA COS 4	The assignments in the Exception Table A & B are monitored for allow and deny numbers.
STA COS 5	The leading digits can not be a Long Distance code.
STA COS 6	The leading digits can not be a Long Distance code. Only 8 digits maximum can be dialed.
STA COS 7	Not use a CO Line, Only allowed to make an intercom call and to receive any calls.

TABLE 11.2.31 Station Class-Of-Service (Sub-Menu 3 of STATION BASE PROGRAM)

PROCEDURE

TOLL TABLE PRESS FLEX KEY (1-5)	(1) Press one of flex button(1-5) to program a table. Refer to TABLE 11.2.32. (Ex: FLEX BTN 1 - Allow Table A)
TOLL TABLE: ALLOW A DIAL ENTRY NO (01-20)	(2) Dial entry number. (01-20 for ALLOW TABLE / 01-10 for DENY TABLE).
TOLL TABLE: ALLOW A 01:E DIAL NO	(3) LCD displays the selected entry number and current allowed number. Enter new data and each entry can be up to 8 digits. LCD will displays the new data. • To delete current toll number, press [SPEED] button without entering any data.
TOLL TABLE: ALLOW A 01:1234E DIAL NO	(4) Press [HOLD/SAVE] button for updating database permanently.

BTN	ITEM	DEFAULT	ENTRY	REMARK
1	ALLOW A	-	01 - 20	
2	DENY A	-	01 - 10	
3	ALLOW B	-	01 - 20	
4	DENY B	-	01 - 10	
5	CANNED TOLL : ALLOW	-	01 - 10	
	CANNED TOLL : DENY	-	01 - 10	

TABLE 11.2.32 Button Configuration for Toll Tables

Valid Data	Function	LCD Display
0 - 9, *, #	Numbers	as dialed
[DND/FWD]	Don't Care	'D'
[SPEED]	Delete data	-

TABLE 11.2.33 Data Entry of Toll Table

11.2.8 AUTHORIZATION CODE TABLE (MAIN-MENU 8)

By default, System Authorization Codes are not assigned at all.

PROCEDURE

-
- | | |
|---|--------------------------------|
| AUTHOR CODE TABLE
DIAL ENTRY NO(01-30) | (1) Dial 2 digit entry number. |
|---|--------------------------------|
-
- | | |
|--------------------------------------|--|
| AUTHOR CODE TABLE
01:E DIAL DIGIT | (2) Dial 5 digit authorization code. The size of authorization code must be 5. |
|--------------------------------------|--|
-
- | | |
|---|--|
| AUTHOR CODE TABLE
01:12345E DIAL DIGIT | (3) Press [HOLD/SAVE] button for updating database permanently. |
|---|--|
-

Valid Data	Function	LCD Display
0 - 9, *, #	Numbers	as dialed
[SPEED]	Delete data	-

TABLE 11.2.34 Data Entry of Authorization Code Table

11.2.9 FLEXIBLE NUMBERING PLAN (MAIN-MENU 9)

Flexible Numbering Plan Type, Station Number Digit Size, and Flexible Station number can be programmed.

PROCEDURE

FLEXIBLE NUMBERING PLAN PRESS FLEX KEY(1-3)	(1)	Press one of flex button(1-3) to program Flexible Numbering Plan. Refer to TABLE 11.2.35
NUMBERING PLAN TYPE BASIC	(2)	If you press flex key 1, you can select Numbering Plan Type. To change the value, press the 1 st flex key. The 1 st flex key acts as toggle setting.
STA NUMBER DIGIT SIZE 3	(3)	If you press flex key 2, you can select Station Number Digit Size. To change the value, press the 1 st flex key. The 1 st flex key acts as toggle setting.
FLEXIBLE STA NUMBERING PRESS FLEX KEY(PAGE:1-2)	(4)	If you press flex key 3, you can see display to change the Station Number of station 1-24 or station 25-34.
FLEXIBLE STA NUMBERING FLX KEY + STA NO	(5)	If you press flex key 1, you can change Number of station 1-24. Press flex button(1-24) and dial 3 digit(or 2digit) station number to program station number. Then, press the [SPEED] button to delete current assigned button data.
FLEXIBLE STA NUMBERING 01:100 FLX KEY + STA NO	(6)	If you want to program other station number, press other flex button(1-24) and dial 3 digit(or 2digit) station number.
FLEXIBLE STA NUMBERING 02:101 FLX KEY + STA NO	(7)	Press [HOLD/SAVE] button for updating database permanently.

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT (LED)	REMARK
1	Numbering Plan Type	-	-	Extension / Basic	Basic (OFF)	When the user changed the setting Extension to Basic, the station number is initialized according to station number digit size. • 2 Digit Station number : 10 – 43 • 3 Digit Station number : 100 – 133 There is no initialization when the setting is changed Basic to Extension.
2	Station Number Digit Size	-	-	3 / 2	3 (ON)	When the station number digit size is changed, station number is initialized always.
3	Flexible Station Numbering	1	Flex number of station 1-24	Basic : 10–49 (2digit) 100-499 (3digit)	-	User can select any station by pressing appropriate flex key.(Ex. 2 nd flex key : 2 nd Station)
		2	Flex number of station 25-34	Extension:10-99 (2digit) 100-999 (3digit)		

TABLE 11.2.35 Button Configuration For Flexible Numbering Plan

11.2.10 LCR PROGRAM (MAIN-MENU 10)

PROCEDURE

LCR PROGRAM PRESS FLEX KEY(1-5)	(1) Press flex key 10 to enter LCR PROGRAM menu.
LCR ACCESS MODE DISABLE	(2) F1 : Change LCR access mode Press flex key 1 to select LCD access mode. To change setting, press flex key 1 for 3-way toggle setting. Whenever pressing [F1], the LCD will be changed like “DIS” ⇒ “OVR” ⇒ “ALL” (toggle) Press [HOLD/SAVE] to save the change.
DAY_ZONE, FLEX KEY(1-3) 1:M/TU/W/TH/F/SA/SU 2: 3:	(3) F2 : Set the day-of-week zone (3 zone) Press flex key 2 to select Day Zone menu. To set this day zone, press flex key appropriating to day zone number. Dial the associated day. For example, if you want to set Saturday as zone2, dial 6(Saturday). Press [HOLD/SAVE] to save the change LCD will be changed like “1:M/TU/W/TH/F/SU 2:SA 3: “
DAY_ZONE:2, DIAL DAY(1-7) 1:M/TU/W/TH/F/SA/SU 2: 3:	
TIME_ZONE OF DAY_ZONE PRESS FLEX KEY(1-3:TOD)	(4) F3 : Set the time-of-day zone (3 zone) Press flex key 3 to select Time Zone menu. To enter each time zone, press flex key. (Ex. Flex key 1 : time zone of day zone1) To enter value, dial time zone number & time range(5digit) - Time zone + [SPEED] : Delete specified time zone range. If time zone is 1, then time zone range is assigned as 00-24. Time zone 1 cannot be deleted completely.
TOD1, TIME_ZON(1DGT)+4DGT 1:00-24 2:...-.. 3:...-..	
LCR, LDT TABLE(0) DIAL ENTRY NO(00-99)	(5) F4 : Program the Leading Digit Table(LDT) Press flex key 4 to select LDT Table menu. Dial entry number (00-99) to specify LDT entry number. The number in the 1 st LCD line means filled table number. (LDT table is sorted automatically) The user can press flex key(1-3) to select sub-menu. - Flex key 1: LCR Type - Flex key 2: CD(Code) - Flex key 3: DMT Index
01 BOTH CD:..... DMT:	☐ LCR Type Press flex key 1 for 3-way toggle setting. The value will be changed like “BOTH → INT → COL*”. Press [HOLD/SAVE] to save the change.
LDT, LCR TYPE BOTH	☐ CD(Code) The max digit no of code is 12. Dial the code and press [HOLD/SAVE] to save the change.
LDT, DIAL CODE(MAX:12DGT) 1234567E	☐ DMT Index - For Day zone 1 : Dial 1 and 6digits(meaning of 6 digits : each pair(2 digits) means the index to the DMT for the each time zone 1/2/3) - For Day zone 2 : Dial 2 and 6digits - For Day zone 3 : Dial 3 and 6digits (Day zone + [SPEED] : Delete appropriate day zone DMT index) Press [HOLD/SAVE] to save the change.
LDT, DAY_ZONE(1DGT)+6DGT DMT:000000 000000 000000	*Note : 1. The modified one may be stored into a different bin, since GDK does ascending sort for the faster lookup. 2. To check another bin, then press [Up]/[Down] button. 3. About the index of DMT
LCR DMT TABLE DIAL ENTRY NO (00-99)	(6) F5 : Program Digit-Modification-Table (DMT) Select the bin number (00-99)

00 A:..... RP01 RN01 AP01 CG1 ALT..	The current state of selected bin will be displayed. The user have to press flex key(1-6) to enter sub menu. - Flex key 1: Added Digit Stream - Flex key 2: Removal Position - Flex key 3: Number of Digits to be removed - Flex key 4: Add Position - Flex key 5: CO Group - Flex key 6: Alternative DMT Index
DMT, ADDED DIGIT (25DGT) 12345678901234567890E	☐A (Added digit stream) Dial the Added Digit Stream(25digit).
DMT, REMOVE POSITION 01 DIAL DIGIT(01-12)	RP (Removal Position) Dial Remove Position(01-12)
DMT, REMOVE NO OF DGT 01 DIAL DIGIT(00-12)	RN (Removal number of digits of CODE in each table) Dial Remove No of Digit (00-12)
DMT, ADD POSITION 01 DIAL DIGIT(01-13)	AP (Add Position) Dial Add Position(01-13)
DMT, CO GROUP 1 DIAL DIGIT(1-4)	C (CO group) Dial CO group number(1-4). TO delete CO group number, press [SPEED] Key.
DMT, ALT DMT INDEX 01 DIAL DIGIT(00-99)	ALT (Alternative DMT index) Dial DMT Index(00-99)

FLEX KEY	SUB MENU	Default	Range	Remark
1	LCR Access	Disable	3-way toggle - DISABLE - OVERRIDE - ALWAYS	☐ DISABLE : Disable LCR ☐ OVERRIDE: LCR whose attribute is “COL” can be accessed only through Common CO Access Code (‘9’/’0’). ☐ ALWAYS : Dial after seizure of CO line with dialing with Common CO Access Code (‘9’/’0’) and Dial internally without seizure CO line.
2	Day Zone	Belongs to Zone 1	- Zone : 3 - Day : 1 - 7	
3	Time Zone	Belongs to Zone 1	- Zone : 3 - Time : 00 - 24	GDK accepts it as same value for 00 and 24 and changes to “00”, if input is 24 as starting value and vice versa. *note : The time not belonging to any zone will be considered as zone 1 *note : 10 - 13 means 10:00:00 - 12:59:59
4	LDT (Leading Digit Table)	None	00 – 99 (total:100)	F1: LCR type 3-way toggle (BOTH → INT → COL) F2: CD 12 digits F3: DMT index. 6 digits. (meaning of 6 digits : each pair(2 digits) means the index to the DMT for the each time zone 1/2/3) • F1 – Day zone 1 index to the DMT. • F2 – Day zone 2 index to the DMT. • F3 – Day zone 3 index to the DMT.
5	DMT (Digit Modification Table)	None	00 – 99 (total:100)	F1: A (Added digit stream). 25digits. F2: RP (Removal Position). 2digit. F3: RN (Removal Number of digits of CODE in each table) F4: AP (Add Position). 2digits. F5: C (CO group). 1digit. F6: ALT (Alternative DMT index). 2digits.

TABLE 11.2.36 Button Configuration For LCR

Flex Key	TERMINAL MENU	Default	Range	Remark
1	LCR type	BOTH	3-way toggle BOTH⇒ INT⇒ COL	INT : look up this entry only for internal dialing COL : look up this entry only after dialing “CO Access Code” BOTH : look up this entry for both INT and COL
2	CD	None	12 digits	To be compared with the dialed digits by a user.
3	DMT index	00	00-99	

TABLE 11.2.37 Button Configuration For LDT Table (Main Menu 10 – Sub Menu 4)

Flex Key	TERMINAL MENU	Default	Range	Remark
1	Added Digit stream	None	25 digits	Normal digits (0 .. 9, *, #) Special characters [CallBK] : Pause [FLASH] : Billing code (Extension number) [SPEED] : Delete Added Digit stream
2	Removal Position	01	01 – 12	Index to CD stream in Lead table to be removed
3	Number of digits to be Removed	00	00-12	Remove digits in CD stream up to this count
4	Add Position	01	01-13	Determine the position of CD stream after removal, where the A stream will be inserted.
5	CO group	01	1-4	Determines which CO group is used for LCR dialing
6	Alternative DMT Index	NONE	00-99	Determine alternative DMT index when there is no idle CO line in CO group.

TABLE 11.2.38 Button Configuration For DMT Table (Main Menu 10 – Sub Menu 5)

11.2.11 HUNT GROUP PGM/VM TABLE (MAIN-MENU 11)

11.2.11.1 HUNT GROUP PROGRAM

Stations in the system can be grouped so that incoming calls will search(hunt) for an idle station in the group. Three hunting processes can be assigned: Circular, Terminal, or UCD. Or 2 extra methods are also available : Ring, VM.

PROCEDURE

HUNT GRP PGM/VM TBL PRESS FLEX KEY(1-2)	(1) Press flex button1 to select Hunt Group Program
HUNT GROUP PROGRAM PRESS FLEX KEY 1-4:GRP NO	(2) Press one of the flex button(1-4) to select group no. Flex button 1-4 means Hunt group 61-64.
HUNT GROUP 61 PRESS FLEX KEY(1-3)	(3) Press one of the flex button(1-3) to select terminal menu of Hunt Group Program.
HUNT GROUP 61 T1YPE NONE DIAL DIGIT(1-5)	(4) LCD displays the current type. Dial digit(1-5) to select Hunt Group Type. There are 5 types.
HUNT GROUP 61 TYPE UCD DIAL DIGIT(1-5)	(5) Press [HOLD/SAVE] button for updating database permanently.

■ LCD Display of Terminal Menu in Hunt Group Program.

LCD Display	FLEX KEY
HUNT GROUP 61 TYPE TERM DIAL DIGIT(1-5)	1. Hunt Group Type
G61(MX10) 104 105	2. Hunt Group Member
CIR/TERM HUNT GRP ATTR PRESS FLEX KEY(1-2)	3. Hunt Group Attribute

FLEX KEY	TERMINAL MENU		RANGE	DEFAULT	REMARK
1	Type		Cir/Term/Ucd/VM /Ring/None	None	
2	Group Member		Station No. (Max 10 stations)	None	
3	Attribute		-	None	
	Cir/ Term	1.No Answer Timer	0-99(sec)	15	If calls sent to the called station is unavailable or unanswered in this no answer time, the call is proceeded to the next listed station in the group.
		2.Ring Timer	0-99(sec)	60	If this timer expires after a call comes in the group, the system announces the greeting if exists.
		3.Overflow Destination	Sta#./HUNT#/ DVU/ SYS SPD #		Destination Type 1.STA, 2.HUNT, 3.DVU, 4.SYS SPD
		4.Overflow Timer	000-600	180	1 second
	UCD	1.First Announcement Timer	0-99(sec)	15	If all stations in the group are busy when a call is received for the group, the call may continue to wait for an available station in the group. If queued, the call may be sent to a UCD announcement when the queue period exceeds the queue to the 1 st announcement timer. If the timer is set to 0, the call will receive the full first announcement prior to the hunting process.
		2.Second Announcement Timer	0-99(sec)	15	The second announcement can be provided if the call continues to wait beyond the queue to the 2 nd announcement timer.
		3.Announcement Repeat Timer	0-99(sec)	15	The second message can be repeated until the call is answered or is disconnected when the queue period exceeds the Announcement Repeat Timer.
		4.Overflow Destination	Sta#./HUNT#/ DVU/ SYS SPD #		Destination Type 1.STA, 2.HUNT, 3.DVU, 4.SYS SPD
		5. Overflow Timer	000-600	180	1 second
	VM	1.Ring Timer	0-99(sec)	99	If this timer expires after a call comes in the group, the system announces the greeting if exists.
		2.Put Mail Index	1-4	1	This index is one of the voice mail dialing tables.
		3.Get Mail Index	1-4	2	This index is one of the voice mail dialing tables.
		4.Overflow Destination	Sta#./HUNT#/ DVU/ SYS SPD #		Destination Type 1.STA, 2.HUNT, 3.DVU, 4.SYS SPD
		5. Overflow Timer	000-600	180	1 second
	Ring	1. Ring Announcement Timer	0-99(sec)	15	The second announcement can be provided if the call continues to wait beyond the queue to the 2 nd announcement timer.
		2.Overflow Destination	Sta#./HUNT#/ DVU/SYS SPD #		Destination Type 1. STA 2. HUNT 3. DVU 4. SYS SPD
		3.Overflow Timer	000-600	180	1 second

TABLE 11.2.39 Button Configuration For Station Group Program (Main Menu 11-Sub Menu 1)

11.2.11.2 VOICE MAIL DIALING TABLE**PROCEDURE**

-
- | | |
|---|--|
| HUNT GRP PGM/VM TBL
PRESS FLEX KEY(1-2) | (1) Press flex button 2 to select Voice Mail Dialing Table. |
| VOICE MAIL DIALING TBL
PRESS FLEX KEY(1-7) | (2) Press one of the flex button(1-7) to select table you want to change. |
| VM TABLE:PUT MAIL
PRESS FLEX KEY(1-2) | (3) Press one of the flex button(1-2) to select between prefix and suffix. |
| PUT MAIL PREFIX(MAX:12)
P# DIAL DIGIT | (4) LCD displays the current Prefix.
Dial digits to enter new prefix. |
| PUT MAIL PREFIX(MAX:12)
P#1 DIAL DIGIT | (5) Press [HOLD/SAVE] button for updating database permanently. |
-

FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	Put Mail	1-2	Prefix : P# Suffix : -	Flex 1 for Prefix, 2 for Suffix. Max 12 digits.
2	Get Mail	1-2	Prefix : P## Suffix : -	
3	Busy	1-2	Prefix : P##3P Suffix : -	
4	No Answer	1-2	Prefix : P##4P Suffix : -	
5	Error	1-2	Prefix : P##5P Suffix : -	
6	DND	1-2	Prefix : P##6P Suffix : -	
7	Disconnect	-	*****	

TABLE 11.2.40 Button Configuration For VM Table Program (Main Menu 11-Sub Menu 2)

11.2.12 DATABASE PRINT (MAIN-MENU 12)

In order to obtain a hard copy printout of the database, a printer must be connected to the RS-232C connector. If user entered Database Print menu while printing is going on, the error-tone is heard.

PROCEDURE

PRINT DATABASE
PRESS FLEX KEY (1-10)

(1) To print database, press one of flex buttons 1-10. Refer to TABLE 11.2.41.

PRINT DB: ALL DB
PRESS [HOLD/SAVE] KEY

(2) To print out the selected database, press [HOLD/SAVE] button.

FLEX KEY	SUB-MENU	DATA	REMARK
1	Station Database Print	-	All Station(1-34) DB Print
2	CO Line Database Print	-	All CO(1-8) DB Print
3	ISDN Database Print	-	
4	System Feature Database Print	-	
5	System Timer Print	-	
6	Toll Tables Print	-	
7	Authorization Code Table Print	-	
8	Flexible Station Numbering Print	-	
9	LCR Database Print	-	Printed only when LCR feature is included.
10	HUNT Group/VM Table Print	-	
11	All Database Print	-	Print Above 9 menu serially.

TABLE 11.2.41 Button Configuration for DATABASE Print (Main-Menu 12)(*Printing Example*)

[Printing Example]

This printing example is in case of GDK-20W system.

Station Database	STATION DATABASE ----- <STA 100> 1. STATION ATTRIBUTE DND SPDA PAGE FWD PLA SPK ASPK IBOX AHLD DSEC DVU_ACC 3.1KHZ N Y N N Y Y Y Y Y N N N 2. ISDN ATTRIBUTE SUB_ADDR LONG/SHORT MSN COLR COLP CLIP CLIS N N N N Y Y N 3. COS : DAY(1)/NIGHT(1) 4. CO GROUP ACCESS : 1234 5. PRESET CALL FORWARD : NOT ASSIGNED 6. FLEX BUTTON ASSIGNMENT 1 2 3 4 5 6 7 8 CO1 CO2 CO3 CO4 STA100 STA101 STA102 STA103 9 10 11 12 13 14 15 16 STA104 STA105 STA106 STA107 STA108 STA109 STA110 STA111 17 18 19 20 21 22 23 24 STA112 STA113 STA114 STA115 USER USER USER USER 7. WARM LINE : NO 8. PAGE ZONE : 1 9. LANGUAGE CODE : NORWAY → except for UK, IT and SP <STA 101> : : (Printed like above for another station to range end station)
CO Line Database	CO LINE DATABASE ----- <CO 1> 1. CO LINE ATTRIBUTE TYPE SIGNAL UNA FLASH DISA_ACT LOOP_SUPERVISN DID/DISA VOICE CO DTMF N LOOP N N N 2. ISDN CO LINE ATTRIBUTE COLP DID_RN CALL_NO_TYPE DID_USE 0 0 2 N 3. CO GROUP : 1 4. DISA TYPE : NO DISA 5. CO FLASH TIME : 10*10ms 6. CO LOOP SUPERVISION TIME : 5*100ms 7. CO RING ASSIGNMENT 100(A) 101(U) 102(U) 103(U) 104(U) 105(U) 106(U) 107(U) 108(U) 109(U) 110(U) 111(U) 112(U) 113(U) 114(U) 115(U) 61(U) 62(U) 63(U) 64(U) <CO 2> : : (Printed like above for another CO line)

ISDN Database

ISDN PROGRAM

1.TEI TYPE : PORT1(AUTO) PORT2(AUTO) PORT3(AUTO)

2.CALL SUB ADDR : N

3.INCOMING ZERO INSERTION : Y

4.OUTGOING ZERO INSERTION : N

5.OUTGOING CHECK DIGIT : 0

6.MY AREA CODE : NOT ASSIGNED

7.MY NATION CODE : NOT ASSIGNED

8.INTERNATIONAL CODE : NOT ASSIGNED

9.ISDN COLP TABLE

(ENTRY:01-10, MAX:10 DIGIT)

1:123E 2:E 3:E 4:E 5:E

6:E 7:E 8:E 9:E 10:E

10.ISDN MSN TABLE

(ENTRY:01-24, TEL_NO MAX:20 DIGIT)

ENTRY CO TEL_NO DAY(STA MSN_NO) NIGHT(STA MSN_NO)

1: 1 123456E 100 5 110 2

2: - E 0 0

3: - E 0 0

4: - E 0 0

5: - E 0 0

6: - E 0 0

7: - E 0 0

8: - E 0 0

9: - E 0 0

10: - E 0 0

11: - E 0 0

12: - E 0 0

13: - E 0 0

14: - E 0 0

15: - E 0 0

16: - E 0 0

17: - E 0 0

18: - E 0 0

19: - E 0 0

20: - E 0 0

21: - E 0 0

22: - E 0 0

23: - E 0 0

24: - E 0 0

11.DID DIGIT CONVERSION

RCV DIGIT NO : 2

DIGIT CONVERSION : **

2nd DIGIT CONVERSION : 1234567890 -> 1234567890

12.ISDN TRANSFER CODE : *#

13.ISDN SUPPLEMENTARY SVC

- ISDN SUPPLEMENTARY SVC TYPE -

HOLD/RETRV:KEY_PAD , 3PTY:KEY_PAD

- ISDN HOLD CODE : NOT ASSIGNED

- ISDN RETRIEVE CODE : NOT ASSIGNED

- ISDN 3-PARTY CONFERENCE CODE : *77#

14.LOOP BACK : NO

System Feature	SYSTEM FEATURE
	1. SYSTEM ATTRIBUTE HOLD_TYPE AUTO_PRIVACY EXT_NIGHT_RING MULTI_LINE_CONF SYSTEM Y N N CO_LINE_CHOICE OVR_1st_COGRP NIGHT_DVU MUSIC_ON_CAMPON ROUND-ROBIN Y N N 2. ATTENDANT STATION : 100 3. DATE & TIME : 98/04/21 14:35 4. LCD DISPLAY MODE : 12H DDMMYY 5. PABX ACCESS CODE : _ _ _ _ 6. DID/DISA DESTINATION BUSY CASE DESTINATION : TONE ERROR CASE DESTINATION : TONE 7. DISA RETRY COUNTER : 3 8. SMDR ATTRIBUTE ENABLE PRINTING : N PRINT TYPE : LONG DISTANCE PRINT INCOM CALL : N BAUD RATE : 9600 BPS 9. PULSE DIAL SPEED RATIO : 66/33 10. ALARM ATTRIBUTE ENABLE CONTACT_TYPE SIGNAL_MODE N CLOSE REPEAT 11. EXTERNAL CONTROL CONTACT 1:NO 2:NO 12. BGM(Background Music) TYPE : 1(INTERNAL) 13. MOH(Music On Hold) TYPE : 1(INTERNAL)

System Feature (continued)	14. SYSTEM GAIN		
	RX DEV	TX DEV	GAIN
	DKTU	DKTU	26
		SLT	33
		CO	33
		DCO	33
		DTMF	8
		TONE	32
		DVU	29
		MUSIC1	29
		MUSIC2	29
		WHTU	26
	SLT	DKTU	26
		SLT	33
		CO	33
		DCO	33
		DTMF	8
		TONE	32
		DVU	29
		MUSIC1	29
		MUSIC2	29
		WHTU	26
	CO	DKTU	26
		SLT	33
		CO	33
		DCO	33
		DTMF	8
		TONE	32
		DVU	29
		MUSIC1	29
		MUSIC2	29
		WHTU	26
	DCO	DKTU	26
		SLT	33
		CO	33
		DCO	33
		DTMF	8
		TONE	32
		DVU	29
		MUSIC1	29
		MUSIC2	29
		WHTU	26
	DVU	DKTU	32
		SLT	33
CO		33	
DCO		33	
MUSIC2		8	
WHTU		32	
DTMF RX	SLT	26	
	CO	33	
	DCO	33	
WHTU	DKTU	26	
	SLT	33	
	CO	33	
	DCO	33	
	DTMF	8	
	TONE	32	
	DVU	29	
	MUSIC1	29	
	MUSIC2	29	
WHTU	26		
15. FAX TRANSFER CO LINE :			
16.EXTERNAL PAGE PORT : NOT ASSIGNED			
17. DID/DISA FWD TO DVU			
BUSY CASE : N, NO-ANS CASE : N, ATTD NO-ANS CASE : N			

System Timer	SYTEM TIMER ----- SYSTEM TIMER 1 1. EXCLUSIVE HOLD RECALL TIMER : 60sec 2. SYSTEM HOLD RECALL TIMER : 30sec 3. TRANSFER RECALL TIMER : 30sec 4. I-RECALL TIMER : 30sec 5. ATTENDANT RECALL TIMER : 1min 6. CO RING DETECT TIMER : 2*100msec 7. CO RING STOP DETECTION TIMER : 6sec 8. PAUSE TIMER : 3sec 9. CO RELEASE GUARD TIMER : 1sec 10. CO DIAL DELAY TIMER : 5*100msec 11. PRESET CALL FORWARD TIMER : 10sec 12. CALL FORWARD BUSY/NO ANSWER TIMER : 10sec 13. DID/DISA NO ANSWER TIMER : 20sec 14. UNSUPERVISED CONF TIMER : 10min 15. MSG WAIT REMINDER TONE TIMER : 0min 16. HOOK SWITCH FLASH TIMER : 50*10msec 17. DOOR OPEN TIMER : 20*100msec 18. INTER DIGIT TIMER : 5sec 19. WARM LINE TIMER : 5sec 20. SMDR TIMER : 0sec 21. WAKE-UP FAIL RING TIMER : 20sec 22. FAX TONE DETECT TIMER : 5sec 23. FAX CO CALL TIMER : 2min 24. DVU USER RECORD TIMER : 30sec SYSTEM TIMER 2 1. DVU FORWARD ANSWER TIMER : 4sec 2. DVU VALID USER MSG TIMER : 4sec 3. HUNT DISCONNECT TIMER : 1min
Exception Tables	EXCEPTION TABLES ----- 1. ALLOW TABLE A (ENTRY:01-20, MAX:8 DIGIT) 1:E 2:E 3:E 4:E 5:E 6:E 7:E 8:E 9:E 10:E 11:E 12:E 13:E 14:E 15:E 16:E 17:E 18:E 19:E 20:E 2. DENY TABLE A (ENTRY:01-10, MAX:8 DIGIT) 1:E 2:E 3:E 4:E 5:E 6:E 7:E 8:E 9:E 10:E 3. ALLOW TABLE B (ENTRY:01-20, MAX:8 DIGIT) 1:E 2:E 3:E 4:E 5:E 6:E 7:E 8:E 9:E 10:E 11:E 12:E 13:E 14:E 15:E 16:E 17:E 18:E 19:E 20:E 4. DENY TABLE B (ENTRY:01-10, MAX:8 DIGIT) 1:E 2:E 3:E 4:E 5:E 6:E 7:E 8:E 9:E 10:E CANNED TOLL TABLES ----- 1. ALLOW TABLE (ENTRY:01-10, MAX:8 DIGIT) 1:E 2:E 3:E 4:E 5:E 6:E 7:E 8:E 9:E 10:E 2. DENY TABLE (ENTRY:01-10, MAX:8 DIGIT) 1:E 2:E 3:E 4:E 5:E 6:E 7:E 8:E 9:E 10:E

Authorization Code Table	AUTHORIZATION CODE TABLE (ENTRY:01-30, 5 DIGIT) 1:E 2:E 3:E 4:E 5:E 6:E 7:E 8:E 9:E 10:E 11:E 12:E 13:E 14:E 15:E 16:E 17:E 18:E 19:E 20:E 21:E 22:E 23:E 24:E 25:E 26:E 27:E 28:E 29:E 30:E																																																																																	
Flexible Numbering Plan	FLEXIBLE NUMBERING PLAN 1.NUMBERING PLAN TYPE : BASIC 2.STA NUMBER DIGIT SIZE : 3 3.FLEXIBLE STA NUMBERING 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 21 22 23 24 25 26 27 28 29 30 31 32 33 34 120 121 122 123 124 125 126 127 128 129 130 131 132 133																																																																																	
LCR Database	LCR DATABASE 1.LCR ACCESS MODE : DISABLE 2.DAY ZONE : 1:M/TU/W/TH/F/SA/SU 2: 3: 3.TIME ZONE FOR DAY ZONE 1 : 1:00-24 2:00-24 3:00-24 FOR DAY ZONE 2 : 1:00-24 2:00-24 3:00-24 FOR DAY ZONE 3 : 1:00-24 2:00-24 3:00-24 4.LDT TABLE <table><tr><th>ENTRY</th><th>LCR TYPE</th><th>CODE</th><th>DMT_INDEX_OF_DAY_ZONE</th></tr><tr><td>0</td><td>BOTH</td><td>123456789012E</td><td>111213 212223 313233</td></tr><tr><td>1</td><td>BOTH</td><td>E</td><td>.....</td></tr><tr><td>2</td><td>BOTH</td><td>E</td><td>.....</td></tr><tr><td>:</td><td></td><td></td><td></td></tr><tr><td>:</td><td></td><td></td><td></td></tr><tr><td>98</td><td>BOTH</td><td>E</td><td>.....</td></tr><tr><td>99</td><td>BOTH</td><td>E</td><td>.....</td></tr></table> 5.DMT TABLE <table><tr><th>ENTRY</th><th>ADDED_DIGIT</th><th>R_POS</th><th>R_NO</th><th>A_POS</th><th>CGRP</th><th>ALT_DMT</th></tr><tr><td>0</td><td>E</td><td>1</td><td>0</td><td>01</td><td>1</td><td>..</td></tr><tr><td>1</td><td>12345678901234567890E</td><td>1</td><td>0</td><td>01</td><td>1</td><td>..</td></tr><tr><td>:</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>:</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>98</td><td>3467992457E</td><td>2</td><td>0</td><td>01</td><td>1</td><td>..</td></tr><tr><td>99</td><td>E</td><td>1</td><td>0</td><td>01</td><td>1</td><td>..</td></tr></table>	ENTRY	LCR TYPE	CODE	DMT_INDEX_OF_DAY_ZONE	0	BOTH	123456789012E	111213 212223 313233	1	BOTH	E		2	BOTH	E		:				:				98	BOTH	E		99	BOTH	E		ENTRY	ADDED_DIGIT	R_POS	R_NO	A_POS	CGRP	ALT_DMT	0	E	1	0	01	1	..	1	12345678901234567890E	1	0	01	1	..	:							:							98	3467992457E	2	0	01	1	..	99	E	1	0	01	1	..
ENTRY	LCR TYPE	CODE	DMT_INDEX_OF_DAY_ZONE																																																																															
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99	E	1	0	01	1	..																																																																												

Station Group/ VM Table	HUNT GROUP PROGRAM ----- HUNT GROUP 61 1. HUNT GROUP TYPE : NONE 2. HUNT GROUP MEMBER : NOT ASSIGNED 3. HUNT GROUP ATTRIBUTE : NOT ASSIGNED HUNT GROUP 62 1. HUNT GROUP TYPE : CIR 2. HUNT GROUP MEMBER : 100 101 3. HUNT GROUP ATTRIBUTE : - CIR/TERM NO ANSWER TIMER : 5sec - CIR/TERM RING TIMER : 20sec HUNT GROUP 63 1. HUNT GROUP TYPE : NONE 2. HUNT GROUP MEMBER : NOT ASSIGNED 3. HUNT GROUP ATTRIBUTE : NOT ASSIGNED HUNT GROUP 64 1. HUNT GROUP TYPE : NONE 2. HUNT GROUP MEMBER : NOT ASSIGNED 3. HUNT GROUP ATTRIBUTE : NOT ASSIGNED VOICE MAIL DIALING TABLE ----- 1. PUT MAIL : PREFIX-P# , SUFFIX-E 2. GET MAIL : PREFIX-P##, SUFFIX-E 3. BUSY : PREFIX-P#*3P, SUFFIX-E 4. NO ANSWER : PREFIX-P#*4P, SUFFIX-E 5. ERROR : PREFIX-P#*5P, SUFFIX-E 6. DND : PREFIX-P#*6P, SUFFIX-E 7. DISCONNECT TBL : *****
All Database	<i>(Print above all)</i>

12.9 SPAIN

1. Features

NONPROGRAMMABLE DATA AND FEATURES

FEATURE	OTHERS	SPAIN
Dialed digit service after ISDN CO remote party answer	Dialed digits are saved into LNR digits and displayed on LCD.	Dialed digits are not saved into LNR digits and not displayed on LCD.
Dial Tone Detect (Manual and Speed dial)	Not available.	Dial Tone Detect.
Dial Tone Detect time	Not available.	12 Seconds When no dial tone, CO goes to idle.
Time to the first digit to PX when O/G Call (LCO)	> 3 seconds	< 3 seconds Shorter pause time than Other versions
Loop Supervision	CO to CO conversation	All the CO conversation
SMDR Print Head	NO STA CO TIME START DIALED	NO EXT LI DURAC INICIO NUMERO MARCADO/RECIBIDO
Off Hook Detection from SLT	104 msec (10.4 msec * 10)	72.8 msec (10.4 msec * 7) Spec : > 81 msec
Default ICM Answer Mode	T Mode	T Mode (Same)
CO Ring Detect Time	100msec base detection	50msec base detection
CO Open Loop Detect Time	100msec base detection	33msec base detection Minimum 33msec open loop can be detected.
DVIB Tone Detection when LCO DISA No Dial Case during Greeting announcement	Tone detection from DVIB when LCO DISA no dial case is ignored.	Tone detection from DVIB when LCO DISA no dial case makes the line idle. For to know what kinds of tone is detected by DVIB, refer to STI document titled "CPT Detection Method with GDK-16 DVIB".

HARDWARE

FEATURE	OTHERS	SPAIN
2 Port LCOB	2 Port LCOB without any option circuit.	2 Port LCOB with CPT Detection circuit.
DVIBE and DTRB	Not available	Available

□ Initial Button Configurations (Sub-Menu 6 of STATION BASE PROGRAM)

BTN	2 Button	8 Button	12 Button	24 Button	30 Button	44 Button
1	{LOOP}	{CO 1}	{CO 1}	{CO 1}	{CO 1}	{CO 1}
2	{LOOP}	{CO 2}	{CO 2}	{CO 2}	{CO 2}	{CO 2}
3		{CO 3}	{CO 3}	{CO 3}	{CO 3}	{CO 3}
4		{LOOP}	{CO 4}	{CO 4}	{CO 4}	{CO 4}
5		{STA 100}	{STA 100}	{STA 100}	{STA 100}	{STA 100}
6		{STA 101}	{STA 101}	{STA 101}	{STA 101}	{STA 101}
7		{STA 102}	{STA 102}	{STA 102}	{STA 102}	{STA 102}
8		{STA 103}	{STA 103}	{STA 103}	{STA 103}	{STA 103}
9			{STA 104}	{STA 104}	{STA 104}	{STA 104}
10			{STA 105}	{STA 105}	{STA 105}	{STA 105}
11			{STA 106}	{STA 106}	{STA 106}	{STA 106}
12			{STA 107}	{STA 107}	{STA 107}	{STA 107}
13				{STA 108}	{STA 108}	{STA 108}
14				{STA 109}	{STA 109}	{STA 109}
15				{STA 110}	{STA 110}	{STA 110}
16				{STA 111}	{STA 111}	{STA 111}
17				{STA 112}	{STA 112}	{STA 112}
18				{STA 113}	{STA 113}	{STA 113}
19				{STA 114}	{STA 114}	{STA 114}
20				{STA 115}	{STA 115}	{STA 115}
21				Empty	Empty	Empty
22				Empty	Empty	Empty
23				Empty	Empty	Empty
24				Empty	Empty	Empty
25 - 44	-	-	-	-	Empty	Empty

2. Admin Default Tables

*Note: Values, which are country specific, are represented as **bold** & *italic* characters.

TABLE 13.9.1 STATION BASE PROGRAM (MAIN MENU 2)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	STATION ATTRIBUTE	1	DND (Do-Not-Disturb)	YES/NO	YES	
		2	Speed Dial Access	YES/NO	YES	
		3	Page Access	YES/NO	YES	
		4	Call Forward Access	YES/NO	YES	
		5	PLA (Preferred Line Answer)	YES/NO	YES	
		6	Speaker-Phone/Headset	SP/HEAD	Speaker-Phone	
		7	Auto Speaker Selection	YES/NO	YES	
		8	ICM Box Signaling	YES/NO	YES	
		9	Automatic Hold	YES/NO	Station1:YES Station2-34:NO	
		10	Data Line Security	YES/NO	NO	
		11	DVU Access	YES/NO	YES	
		12	Two Way recording	YES/NO	NO	
		13	DID Ring	YES/NO	NO	Determine the destination of an incoming DID call. If this field is set as "Yes", the original destination of DID call receives the ring. But, if it is set as "No", the original destination is ignored and the ring is distributed according to the ring assignment
		14	Bearer Capability 3.1KHz	YES/NO	NO	
2	ISDN STATION ATTRIBUTE	1	Sub Address	YES/NO	NO	If this field is set to YES, then GDK sends the called extension number in called party sub address information of setup message to ISDN extension.
		2	Long/Short	Long/Short	Short	
		3	MSN	YES/NO	NO	If this field is set to YES, then GDK sends the called extension number in called party number information of setup message to ISDN extension.
		4	COLR	YES/NO	NO	
		5	COLP	YES/NO	NO	
		6	CLIP	YES/NO	NO	
		7	CLIS	YES/NO	NO	
		8	CLI NAME Display	YES/NO	NO	If this field is ON, the system checks whether the received CLI is matched with the speed dial data or not. If they are matched, the speed dial name is displayed.

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
2	ISDN STATION ATTRIBUTE	9	KEYPAD FACILITY	KEYPAD /DTMF	DTMF	This field determines that ISDN station sends digit in DTMF or keypad facility after connected.

3	STATION COS	-	Day COS/Night COS	11 – 77	11	2 Digit 1 st Digit-Day COS 2 nd Digit-Night COS
4	STATION CO Group Access	1- 4	CO Line Group	1-4	1	1 st Flex : CO GRP 1 : 4 th Flex : CO GRP 4
5	Preset Call Forward	-		STA No (2Digit or 3Digit)	Not Assigned	The ISDN station or ICM box cannot be assigned as preset call forward station.
6	Flex Buttons Assignment			1-6		Type
				-- 1-8 - - STA No. SPD Bin No.		1: User Button 2: CO x 3: Reserved 4: LOOP 5: STA xxx 6: SPD xx
7	Warm Line Selection	-		1-4	Not Assigned	1:Flex Button 1) 2:CO Line 3:CO Group 4:Station
8	Page Zone	-		1-2	1	1:Page Zone 1 2:Page Zone 2
9	Language Code	-		1-2	Spanish	1:English 2:Spanish

1) Under following conditions, flex button cannot be assigned as warm line.

- If any station among entered range is SLT or 2B-SLT, you cannot save input value.
- If you entered the bigger flex number than stations have, you cannot save input value.

TABLE 13.9.2 CO LINE BASE PROGRAM (MAIN MENU 3)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	CO Line Attribute	1	CO Line Type	PBX / CO	CO	
		2	CO Line Signal Type	DTMF / Pulse	DTMF	
		3	Universal Night Answer (UNA)	Yes / No	NO	
		4	Flash Type	Ground / Loop	Loop	Only "loop" type is supported.
		5	DISA Account	Yes/No	No	
		6	Loop Supervision	Yes/No	Yes	
		7	DID/DISA Voice Announcement	Yes/No	Yes	
		8	CPT Tone Detect	Yes/No	Yes	LCO
2	ISDN CO Line Attribute	1	COLP	00-10	00	00:Not Assigned 01-10:indicate an entry of Outgoing COLP table
		2	DID_RN	00-99	00	00:Do not ignore 01-99:indicate an ignored called party number (DID_RN : DID Remove number from called party information)
		3	Type of Calling Number	0-8	2	0:Unknown number 1:International type 2:National number 3:Not used 4:Subscriber number 5:Not used 6:Not used 7:Not used 8:No send COLP
		4	DID Use	Yes/No	No	Do not set this field to YES in LCO.
3	CO Line Group Assign	-		1 - 4	1	
4	DISA Type	-		U/Day/ Night/Both	U	0/1/2/3
5	CO Flash Timer	-		000 - 300	050	10 msec base
6	CO Loop Supervision Timer	-		0 - 20	1	100msec base
7	CO Line Ring Assignment	1	Ring to station	No/Day/Night /Both	Station 1:All ring Station2-34:No ring	Flex key : Round-robin
		2	1 Ring to Hunt group 1		No ring	
			2 Ring to Hunt group 2			
			3 Ring to Hunt group 3			
			4 Ring to Hunt group 4			

1) Station group ring assignment (Flex key 2): Only 1 station group must be assigned for day mode. The rule is applied to night mode, too. But station group for day and night can be different.

TABLE 13.9.3 ISDN PROGRAM (MAIN MENU 4)

FLEX KEY	SUB MENU	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	TEI Type		Auto / Fixed	Auto (4 Ports)	After you change TEI, press RESET button on MBU to operate with the new TEI type.
2	Calling Sub-Address		Yes / No	No	
3	Incoming Zero Insertion		Yes / No	No	
4	Outgoing Zero Insertion		Yes / No	Yes	
5	Outgoing Check Digit		0 – 9	0	
6	My Area Code		5 Digits	Not Assigned	
7	My Nation Code		5 Digits	Not Assigned	
8	International Code		4 Digits	Not Assigned	
9	COLP Table		Entry No (01-10)	Not Assigned	Max : 10 digit
10	MSN Table		Entry No (01-24)	Not Assigned	Flex key 1: CO line no(1-8) Flex key 2: Station no(2digit or 3digit) Or Station Group no(61-64) Flex key 3: MSN no(1-8) Flex key 4: Night Station No(2digit/ 3digit) Or Group No(61-64) Flex key 5: Night MSN no(1-8) Flex key 6: Telephone no(max:20digit)
11	DID Digits Conversion	1.DID Received Digit from PX	2 - 4	3	
		2.DID First Two Digits Conversion	DID Received Digit No	***	0 – 9 # : Ignore Digit * : using received digit
		3.DID Second Digit Conversion	10 Digits	1234567890	
12	Transfer Code	-	2 Digits	*#	
13	Supplementary Service	1.Service Type			
		1)Hold/Retrieve	Keypad/ Functional	Keypad	
		2)3-Party Conference	Keypad/ Functional	Keypad	
		2.Hold Code	10 Digits	Not Assigned	
		3.Retrieve Code	10 Digits	Not Assigned	
		4.3-Party Conference Code	10 Digits	Not Assigned	
14	Loopback	-	Yes / No	No	

TABLE 13.9.4 SYSTEM BASE PROGRAM (MAIN MENU 5)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	SYSTEM ATTRIBUTES	1	Hold Preference	SYS / EXC	SYS	
		2	Privacy	YES / NO	YES	
		3	External Night Ring	YES / NO	NO	
		4	Multi-line Conference	YES/NO	NO	
		5	CO Line Choice	Last Choice / Round-robin	Last Choice	
		6	Override 1 st CO Group	YES / NO	YES	
		7	Analog Long/Short	Long / Short	Short	Spain version only
		8	Night DVU	YES/NO	NO	
		9	Music on Camp-on	YES/NO	NO	
2	ATTENDANT ASSIGNMENT	-		STA No (2Digit or 3Digit)	100 (1 st Station)	ICM box cannot be assigned as attendant station.
3	SET SYSTEM DATE/TIME	-				
4	LCD DISPLAY MODE	-		1-4	3 (12- DD/MM/YY)	1:24- DD/MM/YY 2:24- MM/DD/YY 3:12- DD/MM/YY 4:12- MM/DD/YY
5	PBX ACCESS CODE	-		MAX 2 Digits	Not Assigned	Max : 4 PBX Access Code
6	DID/DISA DESTINATION	1	Busy Destination	ATD/Tone	Tone	
		2	Error Destination	ATD/Tone	Tone	
7	DISA RETRY COUNTER		DISA Retry Counter	1-9	3	
8	SMDR ATTRIBUTES	1	SMDR Print Enable	YES / NO	NO	
		2	SMDR Recording Call Type	All Call / Long Distance	All Call	
		3	Print Incoming Call	YES / NO	NO	
		4	SMDR Print Baud Rate (RS-232C)	1-8	6	1:300Bps 2:600Bps 3:1200Bps 4:2400Bps 5:4800Bps 6:9600Bps 7:19200Bps 8:38400Bps
9	DIAL SPEED RATIO	-		60/40 or 66/33	66/33	10 PPS Only
10	ALARM ATTRIBUTE	1	Alarm Enable	YES / NO	NO	
		2	Alarm Contact Type	Close / Open	Close	
		3	Alarm Signal Mode	Repeat / Once	Repeat	
11	External Control Contact	1	First Contact	1-3 (Loud Bell/Door /Ext Page)	None	
		2	Second Contact		None	
12	BGM Type	-	-	1-3	1	1:Inetnal 2:External 3:Both
13	MOH Type	-	-	1-3	1	1:Inetnal 2:External 3: DVU

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
14	System Gain Control	1	Digital Keyset Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10. WHTU
		2	SLT Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10.WHTU
		3	CO Line Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10.WHTU
		4	Digital CO Line Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10.WHTU
		5	DVU Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.MUSIC2
						6. WHTU
		6	DTMF Rx Gain	00-60		1.SLT
						2.CO
						3.DCO

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
14	System Gain Control	7	WTU Rx Gain	00-60		1.DKTU
						2.SLT
						3.CO
						4.DCO
						5.DTMF RX
						6.TONE
						7.DVU
						8.MUSIC1
						9.MUSIC2
						10.WHTU
15	Fax Transfer CO Line	-	-	1-8	None	
16	External Page Port	-	-	Station No	None	Only SLT port
17	DISA/DID Forward to DVU	1	Busy	Yes / No	No	
		2	No Answer	Yes / No	No	
		3	Attendant No Answer	Yes / No	No	
18	CCR Table	1	Day/Night CCR Table		1-2	Input Type 1. Station 2. Hunt Group 3. DVU 4. DVU DROP 5. System Speed 6. Internal Page 7. External Page 8. All Call Page
19	Admin Password	-	-	4 Digits	Not Assigned	
20	DVU Setting	1	DATE/TIME Prompt Order	DATE/TIME TIME/DATE	DATE/TIME	
		2	DVU Message Retrieve Order	FIFO/LIFO	FIFO	
		3	Auto Delete of Retrieved Saved Messages	000-300 days	Not Assigned	
21	Weekly Time Table	-	-	1-7	-	Day of Week 1. Day Start Time : 0000-2359 (Default: 0900) 2. Night Start Time: 0000-2359 (Default:1800)
22	ACNR Tone Candence	1	Ring-Back Tone	000-255 (20 msec)	ON:075 OFF:150	
		2	Busy Tone	000-255 (20 msec)	ON:010 OFF:010	
		3	Error Tone	000-255 (20 msec)	ON:030 OFF:050	
		4	Second Dial Tone	000-255 (20 msec)	ON:100 OFF:000	

TABLE 13.9.5 SYSTEM TIMER PROGRAM (MAIN MENU 6)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	System Timer 1	1	Exclusive Hold Recall Timer	000 - 300	060	1 sec base
		2	System Hold Recall Timer	000 - 300	030	1 sec base
		3	Transfer Recall Timer	000 - 300	030	1 sec base
		4	I-Hold Recall Timer	000 - 300	030	1 sec base
		5	Attendant Recall Timer	00 - 60	01	1 min base
		6	CO Ring Detect Timer	1 - 9	7	100 msec base
		7	CO Ring Stop Detect Timer	01-15	06	1 sec base
		8	Pause Timer	1 - 9	1	1 sec base
		9	CO Release Guard Timer	01 - 15	01	1 sec base
		10	CO Dial Delay Timer	00 - 99	05	100 msec base
		11	Preset Call Forward Timer	00 - 99	10	1 sec base
		12	Call Forward Busy/No Answer Timer	00 - 99	10	1 sec base
		13	DID/DISA No Answer Timer	00 - 99	20	1 sec base
		14	Unsupervised Conference Timer	00 - 99	10	1 min base
		15	Message Reminder Tone Timer	00 - 60	00	1 min base
		16	Hook Switch Flash Timer	001 - 250	010	10 msec base This is the maximum Hook Flash time. 90msec Hook Flash will be detected with this default value.
		17	Door Open Timer	05 - 99	20	100 msec base
		18	Inter-Digit Timer	01 - 20	05	1 sec base
		19	Warm Line Timer	01 - 20	05	1 sec base
		20	SMDR Start Timer	000 - 250	000	1 sec base
		21	Wake-up Fail Ring Timer	00 - 99	20	1 sec base
		22	FAX Tone Detect Timer	01-10	05	1 sec base
		23	FAX CO Call Timer	1 - 5	1	1 min base
		24	DVU User Record Timer	010 - 255	020	1 sec base
2	System Timer 2	1	DVU Forward Answer Timer	04 - 40	04	1 sec base
		2	Valid User Message Timer	00 - 10	04	1 sec base
		3	Hunt Disconnect Timer	01 - 10	03	1 min base
		4	Call Park Recall Timer	0-600 (3 Digits)	120 (sec)	Determines the amount of time before a call placed in a call park location will recall the station placing the park.
		5	Normal Ring To DVIB Timer	0-300 (3 Digits)	4 (sec)	When Normal CO ring comes, all ring assigned station will ring during "Normal Ring to DVIB Timer" and the call will be routed to DVIB.
		6	CCR Inter Digit Timer	000 - 300 (3 Digits)	030	This field is used for the CCR inter-digit timer in the DISA/DID CO line. (100ms base).
		7	DISA Delay Timer	00-99 (3 Digits)	00	When this timer is expired, DISA is activated (1 sec base)
		8	ACNR Pause Timer	005 - 300 (3 Digits)	030	When expired, ACNR is activated. (1 sec base)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
2	System Timer 2	9	ACNR Delay Timer	000 – 300 (3 Digits)	030	When ACNR Pause Timer expires and there is no available CO Line in the group, this timer is invoked.
		10	ACNR Tone Detect Timer	000 –300 (3 Digits)	030	This timer is invoked upon completion of dialing and system considers the CO party as busy in the case that CPTU cannot detect the valid tone type until this timer expires. (1 sec base)
		11	ACNR No Answer Timer	10 – 50 (2 Digits)	30	This Timer is invoked after system detects CO ring back tone or voice from CO party. After this timer, system retries ACNR. (1 sec base)
		12	ACNR Retry Counter	1 – 30 (1 Digit)	03	This is decreased every time station retries ACNR, ACNR is canceled if set to 0.
		13	ACNR Retry No Tone	1 – 9 (5sec)	1	1 means 5 seconds, GDK-20W will wait this value to decide NO TONE. 3 means 15 seconds.

TABLE 13.9.6 TOLL TABLE (MAIN MENU 7)

FLEX KEY	SUB MENU	TERMINAL MENU	DEFAULT	REMARK
1	Allowed Table A	Entry No (01 – 20)	Not Assigned	Max : 8 digit
2	Denied Table A	Entry No (01 – 10)		Max : 8 digit
3	Allowed Table B	Entry No (01 – 20)		Max : 8 digit
4	Denied Table B	Entry No (01 – 10)		Max : 8 digit
5	Canned Toll Table : Allow	Entry No (01 – 10)		Max : 8 digit
	Canned Toll Table : Deny	Entry No (01 – 10)		Max : 8 digit

TABLE 13.9.7 AUTHORIZATION CODE TABLE (MAIN MENU 8)

SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
AUTHORIZATION CODE TABLES	-	Entry No (01-30)	5 Digit	Not Assigned	

TABLE 13.9.8 FLEXIBLE STATION NUMBERING (MAIN MENU 9)

NO	SUB MENU	FLEX KEY	TERMINAL MENU	RANGE	DEFAULT	REMARK
1	NUMBERING PLAN TYPE	-	-	Extension / Basic	Basic	
2	STA NUMBER DIGIT SIZE	-	-	3 / 2 Digits	3 Digits	
3	FLEXIBLE STATION NUMBER	1	Flex number for Port1-24	FLEX KEY 1-24	100-123	Each flex key denotes corresponding station.
		2	Flex number for Port24 -34	FLEX KEY 1-10	124-133	

TABLE 13.9.9 LCR PROGRAM (MAIN MENU 10)

FLEX KEY	SUB MENU	Range	Default	Remark
1	LCR Access	3-way toggle - DISABLE - OVERRIDE - ALWAYS	Disable	
2	Day Zone	F1 : Zone 1. Day : 1 - 7	1-7	Each day belongs to only one day zone.
		F2 : Zone 2. Day : 1 - 7	-	
		F3 : Zone 3. Day : 1 - 7	-	
3	Time Zone	F1 : Zone 1. Time : 00 – 24	00-24	Each hour belongs to only one time zone.
		F2 : Zone 2. Time : 00 – 24	-	
		F3 : Zone 3. Time : 00 – 24	-	
4	LDT (Leading Digit Table)	00 – 99 (total:100)	None	F1: LCR type, BOTH / INT / COL. F2: CD 12 digits F3: DMT index. 6 digits. Total three DMT indices for each time zone1/2/3 • F1 – Day zone 1 index to the DMT. • F2 – Day zone 2 index to the DMT. • F3 – Day zone 3 index to the DMT.
5	DMT (Digit Modification Table)	00 – 99 (total:100)	None	F1: A (Added digit stream). 25digits. F2: RP (Removal Position). 2digits. F3: RN (Removal Number of digits of CODE in each table) 2 digits F4: AP (Add Position). 2digits. F5: CG (CO group). 1digit. F6: ALT (Alternative DMT index). 2digits.

TABLE 13.9.10 STATION GROUP PROGRAM (MAIN MENU 11)

NO	SUB MENU	FLEX KEY	TERMINAL MENU		RANGE	DEFAULT	REMARK
1	Hunt Group Program	1	Type		Cir/Term/Ucd/VM/Ring/None	None	Deletion by [SPD] key.
		2	Group Member		Station No.	None	Max 10 station. Deletion by [SPD] key.
		3	Attribute		-	None	
			Cirm/ Term	1.No Answer Timer	0-99	15	1 second
				2.Ring Timer	0-99	60	1 second
				3.Overflow Destination	STA#,HUNT#, DVU, SYS SPD#		Destination Type 4. STA 5. HUNT 6. DVU 4. SYS SPD
				4.Overflow Timer	000-600	180	1 second
			UCD	1.First Announcement Timer	0-99	15	1 second
				2.Second Announcement Timer	0-99	15	1 second
				3.Announcement Repeat Timer	0-99	15	1 second
				4.Overflow Destination	STA#,HUNT#, DVU, SYS SPD#		Destination Type 5. STA 6. HUNT 7. DVU 4. SYS SPD
				5.Overflow Timer	000-600	180	1 second
			VM	1.Ring Timer	0-99	99	1 second
				2.Put Mail Index	1-4	1	
				3.Get Mail Index	1-4	2	
				8. Overflow Destination	STA#,HUNT#, DVU, SYS SPD#		Destination Type 1.STA 2.HUNT 3.DVU 4. SYS SPD
				5.Overflow Timer	000-600	180	1 second
			Ring	3.Ring Announce Timer	0-99	99	1 second
				4. Overflow Destination	STA#,HUNT#, DVU, SYS SPD#		Destination Type 1.STA 2.HUNT 3.DVU 4.SYS SPD
				3. Overflow Timer	000-600	180	1 second
2	VM Dialing Table	1	Put Mail		1-2	Prefix : P# Suffix : -	Flex 1 for Prefix, 2 for Suffix. Max 12 digits.
		2	Get Mail		1-2	Prefix : P## Suffix : -	
		3	Busy		1-2	Prefix : P##3P Suffix : -	
		4	No Answer		1-2	Prefix : P##4P Suffix : -	
		5	Error		1-2	Prefix : P##5P Suffix : -	
		6	DND		1-2	Prefix : P##6P Suffix : -	
		7	Disconnect		-	*****	

3. LCD Messages

NOTATION	MEANING
X	Dial #, Page zone #, etc.
XX	CO line #, Speed bin #, etc.
XXX	Station #, Time, etc.
XXXXXXX	EXT Station #, VM 6x, GRUPO6x

No	ENGLISH LCD MESSAGE	SPANISH LCD MESSAGE
1	ACCESS DENY	ACCESO DENEGADO
2	ALARM	ALARMA
3	ALL CALL PAGE BUSY	LLAMADA GENERAL OCUP
4	ALL CALL PAGE	LLAMADA GENERAL
5	BIN (01-99) ? XXX	ABR (01-99)? XXX
6	BUSY : STA XXX	OCUPADA : XXX
7	BUSY FORWARD XXXXXXXX	DESVIO OCUPADO XXXXXXXX
8	BUSY/NO ANS FWD XXXXXXXX	DESV.OCUP/NO CON XXXXXXXX
9	BY STA XXX	POR EXT. XXX
10	CALL BACK FROM STA XXX	RELLAMADA DESDE EXT. XXX
11	CALL BACK TO STA XXX	RELLAMADA A EXT XXX
12	CALL FROM STA XXX	LLAMADA DESDE EXT. XXX
13	CALL TO STA XXX	LLAMADA A EXT. XXX
14	CALL TO XXX PICKED UP	LLAMA A XXX
15	CALL WAIT(CANCEL)	LLAMAD EN ESPERA (CANCEL)
16	CALLED XXX	HA LLAMADO XXX
17	CAMP-ON BY STA XXX	RETROLLAM DESDE EXT. XXX
18	CAUSE(BUSY)	CAUSA (OCUP)
19	CO LINE XX BUSY	LINEA XX OCUPADA
20	CONFERENCE	CONFERENCIA
21	DATE(MM/DD/YY)?	FECHA (MM/DD/AA)
22	DIAL 1-4: X	MARCA 1-4: X
23	DIAL TOO LATE	RETRASO EN MARCAR
24	DISPLAY SECURITY	MOSTRAR SEGURIDAD
25	DO NOT DISTURB STA XXX	NO MOLESTAR EXT. XXX
26	ENTER CO BTN/SPD-BIN	PULSA BOTON LINEA/ABREV.
27	ENTER CO-BTN/DIGIT(XX)	PULSA BTN LINEA/DIG (XX)
28	ENTER ICM ANS MODE	MODO RESPUESTA ICM
29	ENTER SPEED BIN NO(XX)	MARQUE NUMERO ABREV (XX)
30	ENTER STA NO.	MARQUE NUMERO EXT.
31	ENTER STA OR PILOT NO.	MARQUE NRO. EXT O PILOTO
32	ENTER YOUR WAKEUP TIME	METER HORA DESPERTADOR
33	ERASE WAKEUP TIME	BORRAR HORA DESPERTADOR
34	ERASED WAKEUP TIME	HORA DESPERTADOR BORRADA
35	FORWARD TO XXXXXXXX	DESVIO A XXXXXXXX
36	FORWARD TO OFF-NET	DESVIO A EXTERIOR
37	FORWARD TO SPEED XX	DESVIO A NRO. ABREV XX
38	FROM STA XXX	DESDE EXT XXX
39	FROM XXX	DESDE XXX

No	ENGLISH LCD MESSAGE	SPANISH LCD MESSAGE
40	H(1) T(2) P(3)	H(1) T(2) P(3)
41	HANDSFREE MODE	MODO MANOS LIBRES
42	HH:MM	HH:MM
43	INTERNAL PAGE XX BUSY	MEGAFONIA INT XX OCUPADA
44	INTERNAL PAGE X	MEGAFONIA INTERNA X
45	INVALID	NO VALIDA
46	ISDN LINE RELEASED	LINEA RDSI LIBERADA
47	LCR MODE	MODO LCR
48	LIFT HANDSET TO PAGE	DESCOLGAR PARA MEGAFONIA
49	LINE RINGING	LINEA SONANDO
50	LINE XX RECALLING	LINEA XX RELAMANDO
51	LINE XX RELEASED	LINEA XX LIBERADA
52	LINE XX	LINEA XX
53	MEET ME PAGE FROM XXX	MEGAFONIA DESDE XXX
54	MESSAGE TO XXX	MENSAJE A XXX
55	MESSAGE WAIT(CANCEL)	MENSAJE ESPERA (CANCEL)
56	MSG: XXX	MENSAJE: XXX
57	NIGHT	NOCHE
58	NO ANS FORWARD XXXXXXX	DESVIO XXXXXXX NO CONT.
59	NO PICKED-UP CALL	LLAMADA NO CAPTURADA.
60	NO RESPONSE : STA XXX	NO RESPONDE: EXT XXX
61	PAGE FROM STA XXX	MEGAFONIA DESDE EXT. XXX
62	PRESS FLEX BUTTON	PULSA TECLA FLEXIBLE
63	PRIVATE MODE	MODO PRIVADO
64	PROGRAM	PROGRAMACION
65	RECALL FROM STA XXX	RELLAMADA DESDE EXT. XXX
66	REGISTER WAKEUP TIME	HORA DESPERTADOR
67	RELEASE : STA XXX	LIBERAR: XXX
68	RESET ALARM	APAGAR ALARMA
69	RING TONE	TONO LLAMADA
70	SELECT FWD TYPE	TIPO DE DESVIO
71	SET DATE AND TIME	FECHA Y HORA
72	SPD_NO LAST(*)	ULTIMO(*) NUMERO ABREV.
73	SPEED XX	NUMERO ABREVIADO XX
74	STA IN DO NOT DISTURB	EXT. EN NO MOLESTAR
75	STA XXX-XXX WAKEUP	EXT XXX-XXX DESPERTADOR.
76	STATION RANGE ?	SELEC. RANGO EXT.
77	STATION XXX	EXTENSION XXX
78	TIME(HH:MM)?	HORA (HH:MM)
79	TO SPD BIN:	NUMERO ABREVIADO:
80	TONE MODE	MODO TONO
81	TRANSFER FROM STA XXX	TRANSFER. DESDE EXT. XXX
82	UNCONDITION FORWARD	DESVIO INCONDICIONAL.
83	VIA STA XXX	VIA EXT XXX
84	VOICE OVER TO STA XXX	INTRUSION A EXT. XXX
85	WAKEUP FAIL	FALLO DESPERTADOR
86	WAKEUP RING	DESPERTADOR
87	[CALLBK], CAMP-ON(*)	[CALLBK], RETROLLAMADA

No	ENGLISH LCD MESSAGE	SPANISH LCD MESSAGE
88	INCOMING CO OFF-NET	DESVIO DE LINEA A N EXT
89	ENTER CO/CO-GRP NO.	INTROD. N LIN/GRUPO LIN.
90	ISDN SUPP SVC REJ	SERV SUP. RDSI RECHAZADO
91	ISDN CALL WAITING	LLAMADA EN ESPERA RDSI
92	PRESS HOLD FOR NEW CALL	PULSE HOLD NUEVA LLAMADA
93	DVU WARNING:MEMORY FULL	AVISO: MEMORIA CV LLENA
94	ENTER ANNC. TYPE	INTROD. TIPO DE MENSAJE
95	1-SYS MSG 2-PROMPT	1-M. SISTEMA 2-AVISOS
96	ENTER PROMPT NUM (1-9)	INTROD. N AVISO (1-9)
97	ENTER SYS MSG NUM (1-7)	INTROD. N MENSAJE (1-7)
98	PRESS # TO START REC.	PULSE # PARA GRABACION
99	INVALID PROMPT	AVISO INVALIDO
100	INVALID SYS MSG	MSJ DEL SISTEMA INVALIDO
101	INVALID USER MSG	MSJ DE USUARIO INVALIDO
102	MSG. NOT REGISTERED	MSJ NO GRABADO
103	DVU MSG FROM: XXXX	CORREO V.MSJ DE XXXX
104	DVU BUSY	CORREO VOCAL LLENO
105	DVU(XXX)	C.V(XXX)
106	ON XX/XX	EL XX/XX
107	AT XX:XX	A LAS XX:XX
108	CALL TO HUNT XXX	LLAMADA A GRUPO XXX
109	VIA HUNT	VIA CAPTURA
110	VIA UCD	VIA UCD
111	HUNT CALL	CAPTURA EN GRUPO
112	DOOR OPEN	APERTURA DE PUERTA
113	EXTERNAL PAGE	MEGAFONIA EXTERNA
114	EXTERNAL PAGE BUSY	MEGAF. EXTERNA OCUPADA
115	DELETE: * RECORD: #	BORRAR: * GRABAR: #
116	ATD SET: 1 HOUR EARLY	OPER: RETRASAR 1 HORA
117	ATD SET: 1 HOUR LATE	OPER: ADELANTAR 1 HORA
118	PRESS [HOLD] TO END REC.	PULSE [HOLD] FIN GRABAC.
119	[HOLD] [CALLBK] [CONF]	[HOLD] [CALLBK] [CONF]
120	RELEASE: DVU	LIBERACION: CORREO VOCAL
121	RECORDING...	GRABANDO...
122	DELETING...	BORRANDO...
123	DVU: PROMPT MEM FULL	C.V.:MEMO. AVISOS LLENA
124	REC EMOH: 1 STA: 2	GRAB EMOH:1 EXT:2
125	REC EMOH: 1 STA: 2 DEL:*	GRAB EMOH:1 EXT:2 BORR:*
126	BUSY FORWARD	DESVIO OCUPADO
127	NO ANSWER FORWARD	DESVIO NO CONTEST.
128	BUSY/NO ANS FORWARD	DESV. OCUP/NO CONTES