## Notification

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**Last Update January 21, 2003**

# IMPORTANT SAFETY INSTRUCTIONS

**Installation Safety Precautions:**

1. Never install telephone wiring during a lightning storm.
2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3. Never touch un-insulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.

The **TransTel** TD-1648i/TDS-600 utilizes a 3 pin grounding power supply cord. This cord is not to be attached to any building surfaces. When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Read and understand all instructions.
2. Follow all warnings and instruction marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation, to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home or office, consult your dealer or local power company.
8. The socket-outlet shall be installed near the equipment and shall be easily accessible.
9. This product is equipped with a three wire grounding type plug, this plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.
10. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be damaged by persons walking on it.
11. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
12. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
13. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified service man when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassemble can cause electric shock when the appliance is subsequently used.
14. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    A. When the power supply cord or plug is damaged or frayed.
    B. If liquid has been spilled into the product.
    C. If the product has been exposed to rain or water.
    D. If the product does not operate normally by following the operating instructions. Adjust only those control, that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
    E. If the product has been dropped or the cabinet has been damaged.
    F. If the product exhibits a distinct change in performance.
15. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
16. Do not use the telephone to report a gas leak in the vicinity of the leak.

## SAVE THESE INSTRUCTIONS

# TransTel TD-1648i/TDS-600

## Digital Telephone System
## General Description - Installation - Programming Manual

## General Description – Introduction

The General Description section contains an easy to understand overview of the **TransTel**® TD-1648i/TDS-600 ISDN Digital Telephone System. It is the intent of this document to provide both technical and non technical readers with information pertaining to the system building blocks, capabilities, key highlights, electrical, physical and environmental characteristics of the **TransTel** TD-1648i/TDS-600 ISDN Digital Telephone System.

## FCC Rules and Regulation

In compliance with the requirements of Part 68 of the Federal Communications Commission Rules and Regulations for connection of terminal system equipment to the telephone network and for your convenience, the following information is presented.

FCC Registration Number

The **TransTel** TD-1648i/TDS-600 is registered with the FCC in a dual registration capacity enabling the system to operate as a key system only or as a hybrid system. The FCC Registration Numbers are 3A7KF03BGDS600 for key systems registration and 3A7MF03BGDS600 for hybrid operation.

### Ringer Equivalence Number

Ringer Equivalence 0.3B.

| **Notification of the Telephone Company** | |
|---|---|
| Customers connecting terminal equipment to the telephone network shall, upon request of the Telephone Company, inform the Telephone Company of the particular line(s) to which such connection is made, the FCC registration number and ringer equivalence number (REN) of the registered terminal equipment. | |
| The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area. | |
| This equipment is capable of providing users access to Interstate providers of operator services through the use of access codes. Modification of this equipment by call aggregators to block access dialing codes is a violation of the Telephone Operator Consumers Act of 1990. | |
| **Direct Connection to a Party-Line or Coin Operated Telephone Line is Prohibited.** | |
| **Incidence of Harm to the Telephone Lines** | |
| Should terminal equipment cause harm to the Telephone Network, the Telephone Company shall, where practical, notify the customer that service may be temporarily discontinued. However, where prior notice is not practical, the Telephone Company may temporarily discontinue service, if such action is reasonable in the circumstances. In case of such un-notified temporary discontinuance of service, the Telephone Company shall: | |
| (a) | Promptly notify the customer of such temporary discontinuance of service. |
| (b) | Afford the customer the opportunity to correct the situation which gave rise to the temporary discontinuance. |
| (c) | Inform the customer of the right to bring a complaint to the FCC pursuant to the procedures set out in Subpart E of Part 68 of FCC Telephone Equipment Rules. |

| **Compatibility of the Telephone Network and Terminal Equipment.** | |
|---|---|
| (a) | Availability of telephone interface information. |
| | Technical information concerning interface parameters and specifications not specified in FCC Rules, including the number of Ringers which may be connected to a particular line, which is needed to permit Terminal Equipment to operate in a manner compatible with Telephone Company communications facilities, shall be provided by the Telephone Company upon customer's request. |
| (b) | Changes in Telephone Company Communications Facilities, Equipment, Operations and Procedures. |
| The Telephone Company may make changes in its communications facilities, equipment, operations or procedures where such action is reasonably required in the operation of its business and is not inconsistent with the rules and regulations in FCC Part 68 of the FCC Rules and Regulations. If such changes can be reasonably expected to render any customer Terminal Equipment incompatible with Telephone Company Communications Facilities, or require modification or alteration of such Terminal Equipment, or otherwise materially affect its use or performance, the customer shall be given adequate notice in writing to allow the customer an opportunity to maintain uninterrupted service. | |

| **Radio Frequency Interference** |
|---|
| This equipment generates and uses radio frequency energy and if not installed and used properly and in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type-tested and found to comply with the limits for a Class A computing device in accordance with the specification in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, this is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: |
| Re-orient the receiving antenna.<br>Relocate the equipment with respect to the receiver.<br>Move the equipment away from the receiver.<br>Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits. |

## CTR 21 (98/482/EC) Declaration Network Compatibility

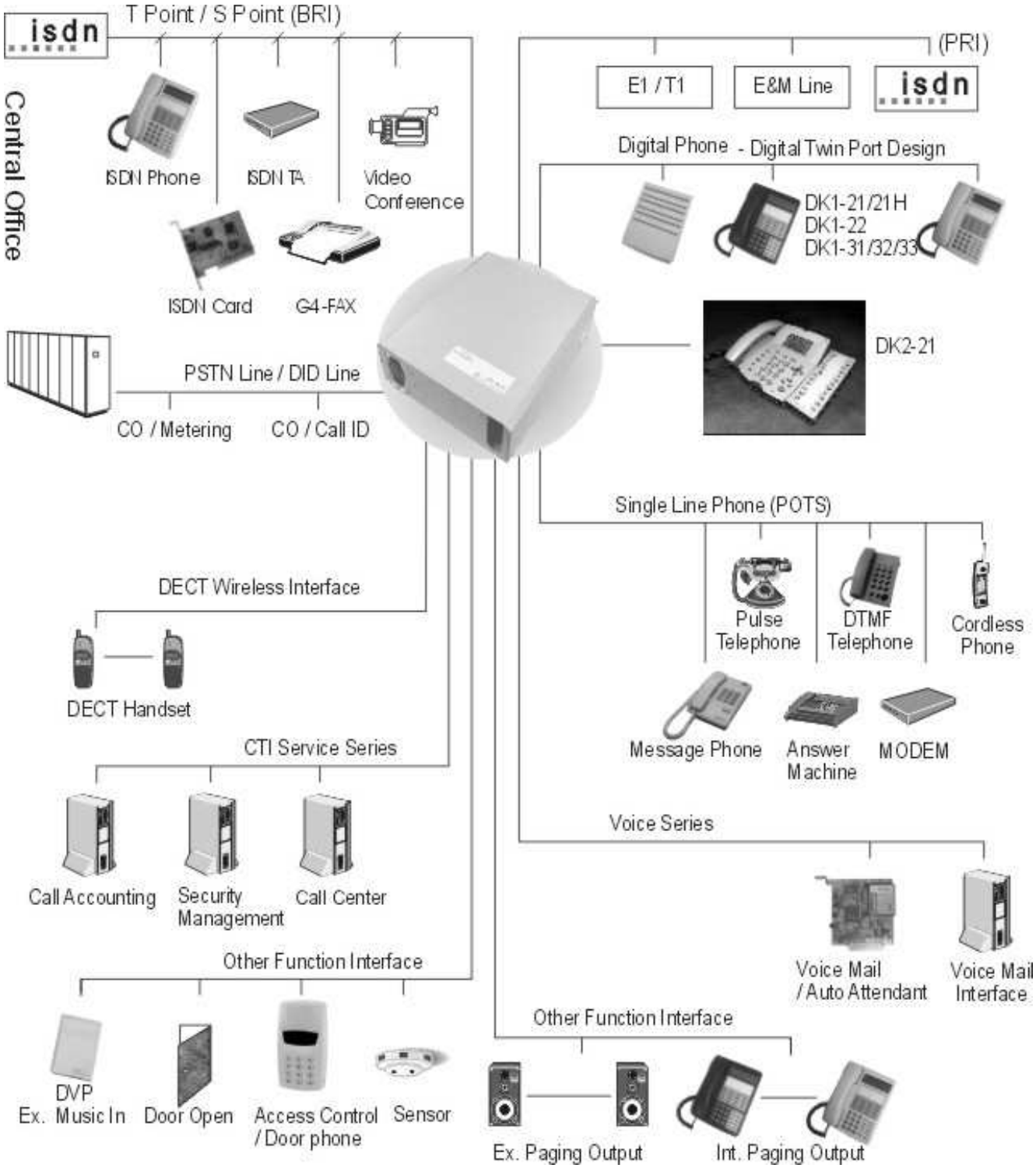
CTR 21 (98/482/EC) Declaration Network Compatibility, 'The equipment has been approved in accordance with Council Decision 98/482/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point. In the event of problem, you should contact your equipment supplier in the first instance.'

## ISDN Installation

For the ISDN unit (G2-SIU), TD-1648i/TDS-600 only offers ISDN S/T interface connection behind NT1 device. It could not be connected to "U" interface directly.

## Description

The TD-1648i/TDS-600 is an advanced ISDN Digital hybrid telephone system employing a microprocessor stored program and digitally controlled solid state Time-division switching. The TD-1648i/TDS-600 system is specifically designed for small business as well as residential applications. At the forefront of the system design is a universal concept to adapting and connecting with a variety of communications devices. Productive **TransTel** Digital Key Telephones offer thoughtfully designed productive feature access to keep you connected with one another and customers. TransTel technology leads the industry in providing for compatibility with devices such as fax machines, answering machines, cordless phones, computer modems and other office/home



equipment.

## Key highlights of the TD-1648i/TDS-600 series include:

**Economy and Efficiency**

The base system is equipped to support four (4) CO lines / two (2) or three (3) ISDN BRIs and eight (8) digital stations. The system may be expanded to a maximum of sixteen (16) CO lines / six (6) ISDN BRIs or Twenty-four 24 ISDN PRI Channels. Station cards may be selected to allow practically any combination ranging from all **TransTel** DK1 Digital Sets to all industry standard Single Line Telephone sets, with any combination of the two types. In addition to being cost effective at the initial phase and for expanding to it's maximum capacity. This allows a wide variety of applications for the system to work effectively.

**Easy Installation**

- "Factory Ready" - All TD-1648i/TDS-600 Telephone systems are "ready to go" right out of the box. A well thought out default database is factory installed on each system which meets the needs for most installations. This alleviates hours of on site time, minimizing installation costs for both dealer and customer.
- "Small & Compact" - The Key Service Unit's small size takes little space for installation and is about the size of a legal piece of paper.

**Easy Maintenance**

- Solid-state design minimizes trouble and eliminates periodic maintenance.
- Easy Expansion. Various Interface Cards for simple, modular expansion.
- Versatile programming and options for ease of selection.
- Database Flash Memory Back Up - Customer data is backed up when the power is turned off and there is no battery to replace.
- Battery Back Up (System Operation) - TD-1648i/TDS-600 systems can be equipped with an optional battery back up which keeps the system operational for up to 1 hour in the case of a commercial power failure.
- Customer Care Programming - Customers and service personnel can easily communicate and perform programming right over the telephone. **TransTel** telephone systems allow programming and voice conversations to be performed at the same time.
- Advanced software upgrades – Through the RS232 connection, system software can be upgraded easily without a chip change.

**Flexibility of System Applications**

Unlike other conventional systems in the TD-1648i/TDS-600 size range, the installer will find an unprecedented range of customer database programmability. In "system parameters" there are extensive options for various timing settings related to features. An array of parameters are programmable for signaling options on outside lines and internal single line telephone sets. The installer may Enable/Disable many system wide features. And in class of service, there are over 20 options for each station providing maximum flexibility for nearly any application.

**Varied Extension Alternatives**

You can connect an ISDN Modem, ISDN phone, proprietary **TransTel** DK series Keyphone, Access Control Phone (ACP), Door Phone and conventional industry standard single line sets – Modem, Answering Machine, Cordless phone, etc. directly to the KSU. This feature provides you with the choice to select different extension equipment to suit individual applications.

**Digital Twin Port**

Install two Digital Keyphones on a single two-wire cable. ***No Master and Slave difference***. Any keyphone can be plugged in and plugged out with no interference to the other. This feature provides easy cabling, easy expansion and easy maintenance.

**Hybrid Phone**

Use your current telephone equipment, such as Modems, cordless telephones, Answering machines, etc. Just plug this equipment into the Analog port of the key telephone and the call can be automatically transferred to the equipment when you are busy or do not answer. No extra wiring and programming. This feature provides easy installation and programming-free transfer of calls from the key telephone to Analog Single Line equipment.

**Full ISDN features**

The TDS 600 system allows you to access different outside line types (PSTN & ISDN BRI, PRI, T1, E1, …) in one box and enjoy ***Full ISDN Features when accessing an ISDN Line*** - such as:

- Call Charge Metering Information
- Caller Identification
- Direct Inward Dialing
- Call Forward Internal / External
- Call Waiting
- MSN (Multiple Subscriber Number)
- Sub-addressing
- User to User Signaling

You can easily control your budget by using different outside line arrangements.

**Liquid Crystal Display**

The DK1 Series Telephone Model DK-1D is equipped with a large, easy to read LCD display. The LCD is 32 characters total, comprised of 2 rows by 16 characters each.

The DK2 Series Telephone Model DK2-21 is equipped with a large, easy to read LCD display. The LCD is 64 characters total, comprised of 4 rows by 16 characters each

This LCD provides an invaluable tool for simplifying the use of the telephone by identifying the calling extension by name, outside lines by name and self prompting displays for feature access. Station feature usage is made simple with the help of the LCD display. Continuous prompting information is displayed during calls so that users know what to do and when to do it.

**32-character LCD Display shows:**

- Time
- Dialed telephone number
- Voice Mail Messages
- CO Line Names
- Last Number Redial
- Speed dial number
- Last number dialed
- The status of operation/function
- Absent messages
- Speed Dial Directory
- Calling Party Number and Name
- Input data during system data entry

**TransTel Telephone Model DK-1D / DK1-S**


**DK-ACP Access Control Phone**

**TransTel Telephone Model DK-2**

**DK-ATA Analog Terminal Adapter**

| MAXIMUM LOOP RESISTANCE/IMPEDANCE | |
|---|---|
| Key Telephone | Less than 40 ohms 26 AWG / 200 m |
| Single Line telephone | Less than 800 ohms 26 AWG / 800 m |
| Doorphone | Less than 40 ohms |
| Music Source Input Impedance | 600 ohms |
| Maximum Input | 0.775 VRMS |
| INTERNAL RELAY CONTACTS | |
| Type | SPST |
| Rating | 1 AMP, 24VDC |
| Function | Door Switch, Music on Hold, etc |
| CABLE REQUIREMENTS | |
| CO/PABX Line | Twisted 1 Pair (2 wires) |
| ISDN BRI | Twisted 2 Pair (4 wires) |
| ISDN PRI | |
| DK1/DK2/ACP Digital Key Telephone | Twisted 1 Pair (2 wires) |
| Doorphone | Twisted 1 Pair (2 wires) |
| Door Switch | Twisted 1 Pair (2 wires) |
| External Sensor | Twisted 1 Pair (2 wires) |
| External Music Source | Twisted 1 Pair (2 wires) |
| Single Line Telephone | Twisted 1 Pair (2 wires) |

**Mechanical Specifications (Key Service Unit)**

| CABINET DIMENSIONS | | |
|---|---|---|
| 357mm W | 126mm D | 436mm H |
| 14.1” | 4.96" | 17.2” |
| WEIGHT | 17 Kg (Configuration: 4 x 8) | |
| | 37.4 lbs | |

**Mechanical Specifications (Battery Back Up Housing)**

| CABINET DIMENSIONS | | |
|---|---|---|
| 15.5” W | 3.0” D | 5.75” H |
| WEIGHT | With Batteries -16 lbs Without Batteries- 4 lbs. | |
| Mounting Screws | 12.25” center to center | |

**Environmental Specifications**

| | OPERATING CONDITIONS | STORAGE CONDITIONS |
|---|---|---|
| Temperature | 0º to 45º C<br>(32º to 113º F) | -40º to 66º C<br>(-40º to 150º F) |
| Humidity | 10 to 95% relative<br>Non-condensing | 10 to 95% relative<br>non-condensing |

## Features

### System Features

Account Code Capability
Attendant Console Assignment
Attendant Overflow
Automatic Line Access
Automatic Line Search
Automatic Ringdown
Automatic Wake-up
Battery Charger
Behind PABX Operation
Centrex Operation
Class Of Service
CO Line Groups
CO Line Hunting
CO Line Name Programming
CO Line Ring Types
- Linear
- Common Audible
- Circular
- Hunt

Console Assignment
Day/Night Service
- Manual/Automatic Switch

Dial 9 Group
Direct In Line
Dial By Name
Dial Mode Selection(DP/DTMF)
Dial Pulse to DTMF Conversion
Distinctive Ringing
DTMF Signaling
Dual Port Capability
End to End Signaling
Easy Installation and Operation
Flash (Programmable)
Flash Memory Backup Memory
Flexible Expansion
Flexible Ringing Assignment
Flexible Key Group Assignment
Flexible Number Plan 2,3 or 4 Digit
Flexible Time Format 12/24 Hour
Forced Account Code Assignment
Intercom
Intercom Single Digit Assignment
Intercom Ring / Voice Select
Intercom Dialing Restriction
ISDN
- Call Charge Metering Information
- Caller Identification
- Direct Inward Dialing
- Call Forward Internal / External
- Call Waiting
- MSN (Multiple Subscriber Number)
- Sub-addressing
- User to User Signaling

Host PABX Access
Hot line
Line Group Assignment
Loud Bell Assignment
Multiple Attendant Consoles
Multiple Trunk Groups
Night Transfer
On Call Programming
Paging
- Internal
- Zone
- Meet Me

Password Assignment
- DISA
- System programming
- Toll Override

Pause
Pick Up Groups
Power Fail Transfer
Security Code
Single Digit Dialing
Station Group Assignment
Station Hunting
Station Lock
System Speed Dial and Personal Speed Dial
System Date & Time Setting
System Time-Reminder Service
Telephone Directory
Toll Control
- Day / Night

Tone to pulse dialing
Trunk Queuing
Trunk to trunk connections
Uniform Call Distribution
Voice Mail Compatibility

**Station Features**

Advisory Messages
- System
- Personal

Access to System Programming
Account Code Capability
Auto Hold
Auto Hold Recall
Automatic Call Back
Automatic Answer-Intercom
Automatic Line Access
Automatic Redial
Automatic Volume Increase
Brokers Call
Call Duration Timer (LCD Phones)
Call Waiting
Call Forwarding
- All Calls
- Busy
- No Answer
- Busy / No Answer
- External

Call Pickup
Call Split
Call Transfer
Calling Name Display (LCD Phones)
Calling Number Display (LCD Phones)
Camp On
Chain Dialing
Conference
Dial By Name (LCD Phones)
Dial Access to Attendant
Direct Station Selection
Doorphone Access
Do Not Disturb (DND)
Dual Color LED
Duration Time Display (LCD Phones)
Executive Override (Barge-In)
External Call Forwarding
Flash (Open Loop Timed Flash)
Hands-free Answer Back
Hearing Aid Compatibility
Headset Compatibility
Hold (Exclusive / System)
Hold Recall
I Hold Indication
I Use Indication
Intercom
Intercom ring / voice interchange
Intercom Step Call
Intercom Voice Announce
Last Number Redial
Message Waiting
Multi-Language Display
On Hook Dialing
Prime Line Select
Privacy
Privacy Release
Private Line
Pulse/Tone Conversion
Ring Frequency Selection
Ringing Line Preference
Saved Number Redial
Speed Dialing
Station Lock / Unlock
Station Monitor
Store Speed Dial/DSS Number
Timed Reminder Service
- System
- Station

Toll Restriction Override
Trunk Queuing
Volume Control
- Handset
- Speaker
- Ringer

**Optional Features**

Access Control Phone
Automated Attendant
Battery Backup (System)
Direct Inward System Access (DISA)
Door phone / Door Latch
Dual Port Operation
External Music Source
Music On Hold
Relay Control
RS232
Security Sensor/Door Open Indication
Station Message Detail Record (SMDR)
Voice Mail

## Parts & Peripherals

### System Modules

| *Model* | *Description* |
|---|---|
| G2-MMD | KSU with Power Modular |
| G2-MPU | G2 128/144/300/600 Main CPU Controller |
| G2-IPU | G2-1648 Main CPU Controller / G2 128/144/300/600 Interface Control Card. |
| G2-MSU | Multi-Service Card (External Paging/ Relay/ Sensor / RS232/ MODEM Interface/ Door Phone / External MOH Interface) |
| G2-TKU | Trunk Card : 4 CO lines |
| G2-PIU | ISDN PRI Interface: 24 Channels Maximum |
| G2-SIU-2 | ISDN S/T interface with 2 circuits |
| G2-SIU-3 | ISDN S/T interface with 3 circuits |
| G2-STU | Station Card : 4 Digital Twin-ports |
| G2-SLU | Single Line Card : 8 SLT ports |
| G2-PWU | G2 Power Supply |

### Type of Phones

| *Model* | *Description* |
|---|---|
| DK1-D/I<br>DK1-D/G | *Multifunction Key Telephone. Includes 32 character LCD display, speakerphone, handsfree, headset jack, 20 dual color keys and 14 function keys for feature access, DSS, CO Lines and speed dial. (Ivory or Gray)* |
| DK1-S/I<br>DK1-S/G | *Multifunction Key Telephone. Includes speakerphone, handsfree, headset jack, 20 dual color keys and 14 function keys for feature access, DSS, CO Lines and speed dial. (Ivory or Gray)* |
| DK1-B/I<br>DK1-B/G | *Multifunction Key Telephone. Includes speakerphone, intercom handsfree, headset jack, 8 dual color keys and 14 function keys for feature access, DSS, CO Lines and speed dial. (Ivory or Gray)* |
| DK1-SLC-1 | DK1 Keyphone - SLT port for DK1-2x series. Installs inside of digital telephone DK1-D and DK1-S to proviide one analog port. |
| DK-ACP | DK1-ACP Access Control Phone – Doorphone or Speakerphone *(Ivory only)* |
| DK-ATA | DK1-ATA Analog Terminal Adapter. Converts a digital station port into two analog (SLT) ports. |
| DK-WMK/I<br>DK-WMK/G | Wall Mount Kit for DK1 Series Telephones<br>*(Ivory or Gray)* |

### Peripheral Devices

| *Model* | *Description* |
|---|---|
| DPU05 | Door Phone - 2 Wires |
| BBOX0 | Battery Box without Batteries |
| BBOX1 | Battery Box with Batteries |

### Optional Interface Cards

| *Model* | *Description* |
|---|---|
| G2-VMU | Voice Mail Unit (4 Channels) / Auto Attendant / Wake-up / Message Waiting |
| G2-LMU | LAN Management Unit |
| G2-CIC-F | Caller ID Card for G2-TKU – FSK Mode |
| G1-MDC | 4 Channel Metering Card for G2-TKU |

## System Installation - Introduction

This section provides directions for installing the system and optional equipment.
The installation must be performed by qualified service personnel.

Main components of the system are:

**Key Service Unit**, which includes:

- Power Supply Unit (G2-PWU)
- Main KSU (G2-MMU)
- CPU Unit (G2-IPU)
- Multi-Service Unit (G2-MSU)
- Trunk Unit (G2-TKU / G2-SIU / G2-PIU)
- Digital Station Unit (G2-STU)

**Optional Expansion Cards**:

- Trunk Card (G2-TKU / G2-SIU / G2-PIU)
- Digital Station Card (G2-STU – four digital twin port circuits)
- Single Line Station Card (G2-SLU – eight single line port circuits)
- G2-CIC Card (Caller ID Card - four port circuits)
- Voice Mail Unit (G2-VMU)
- LAN Management Unit (G2-LMU)
- Metering Card (G1-MDC)

**NOTE:** Please follow the directions step by step. The TD-1648i/TDS-600 system should be installed in strict accordance with this manual.

## Site Requirements

### Location

### Choosing the Right Environment

- System should be installed in a clean, dry, secure location. This location must have adequate ventilation, and a temperature from 0 ℃ to 45℃ (32℉ to 113℉), with 10% to 95% non-condensing relative humidity. DO NOT install the equipment near sources of static electricity, excessive vibration, or water. Avoid direct sunlight.

### Installation Checklist

| ***INSTALLATION REQUIREMENTS*** | ***VERIFICATION*** |
|---|---|
| MOUNTING SURFACE | Flat surface with adequate space for main cabinet, power supply, wiring and optional Battery Backup cabinet. |
| AC LINE | AC line should be dedicated exclusively to the system. |
| POWER OUTLET | Power Outlet must be a<br>3-wire grounded outlet plug, having parallel blades and ground pin.<br>Input power Line capacity requirements - 10 amperes. |
| SURGE PROTECTION | A Surge Protector is recommended on the dedicated AC line. |
| VENTILATION AND TEMPERATURE | Humidity: 10% to 95% relative non-condensing<br>Temperature:32℉ to 113℉ (0 ℃ to 45 ℃). |
| EARTH GROUND | A proper ground connection. (14 AWG) |
| SERVICEABILITY | Lighting conditions and working space adequate for future service. |

## Equipment Requirements

- Unpack, Check and Verify Equipment - Unpack the telephone equipment boxes and verify the contents in accordance with the packing list provided. If any discrepancies are noticed, please contact TransTel or Authorized Dealers.
- Damaged Boxes - If you notice any damage to the packages, please notify both the shipper and TransTel or Authorized Dealers at once.
- List of parts included in basic KSU box:
    - KSU Main Cabinet
    - Power Supply
    - Mounting Template
    - Mounting Screws
    - Station Quick Connectors
    - Spare Fuses
    - Cable Cover

## Installation

**Caution**

1. **This system should be installed by qualified service personnel.**
2. **Do not install the Power Supply unless you have read the following instructions and completed all the installation and wiring.**
3. **STATIC SENSITIVE DEVICES! Please handle with care.**

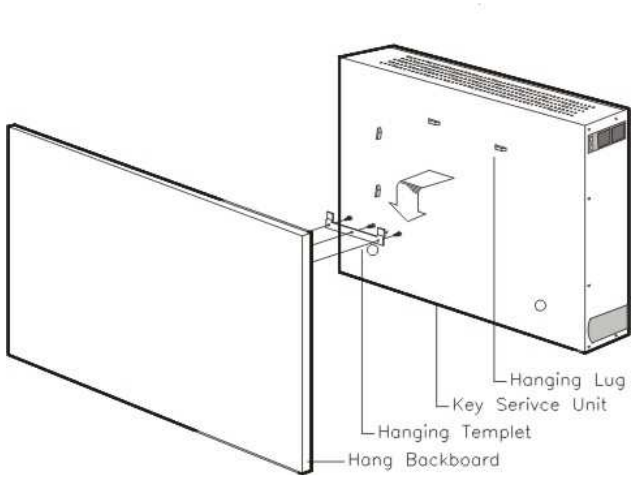
### Installing the Equipment

#### Backboard

Be sure to plan and allow enough space to mount and connect the key service unit, power supply and system battery back up if applicable.

#### Key Service Unit

Use the enclosed Hanging Template to locate the mounting position for the Key Service Unit. Drill appropriately spaced holes to fix the Hanging Template and mount the KSU on the wall. When mounting the KSU, make certain that there is adequate room for the future system expansion and that the connecting power cable between the power mains and the KSU. The same applies for the battery back up unit.




#### Power Supply

**Dedicated Power Source - The power supply must be connected to a dedicated AC outlet.**

Be sure that the third wire earth ground of the AC circuit is connected to a good electrical ground. If a music source is installed, it must be connected to a separate AC circuit rather than the system's dedicated AC line cord.

#### Check Your Voltage Selection Jumper

Verify that the input voltage and input voltage jumper are correct before you power on the system. The input voltage is set according to the Customer's requirement before shipping. However it is important to verify that the setting is correct prior to initial system power up.

#### Power Supply voltage options for the unit:

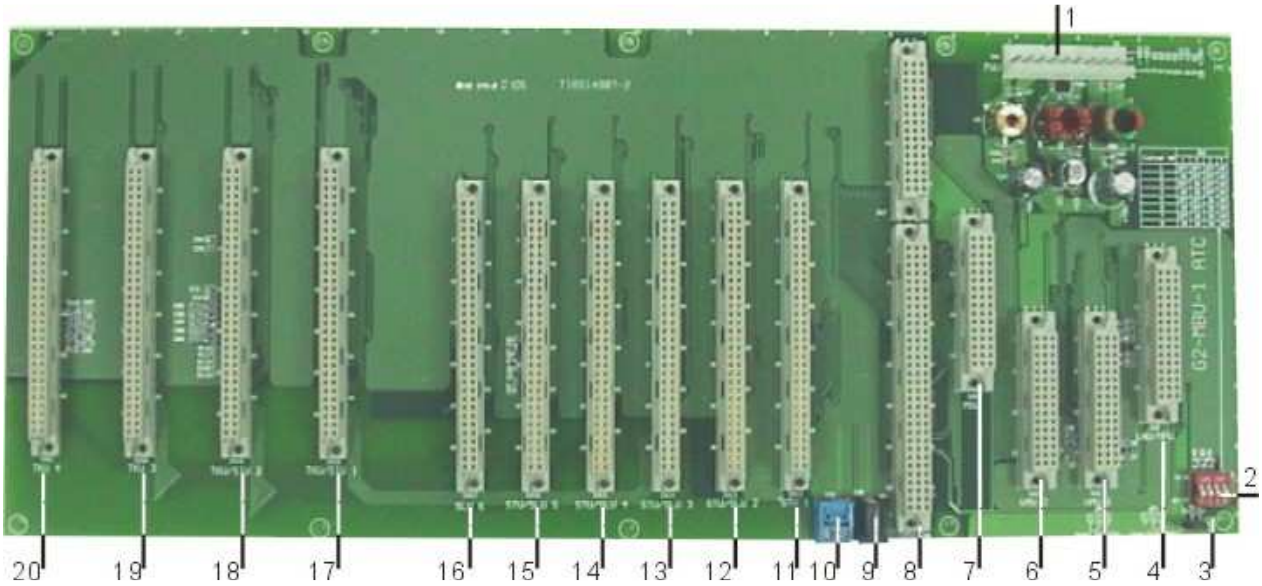
100-VAC: 100 to 120 V AC (50/60Hz) or 240-VAC: 205 to 265 V AC (50/60Hz).

#### Installing expansion and optional cards

In this step you will be installing printed circuit cards on to slots of the main board in the basic cabinet. Take your time and extra care to assure the printed circuit cards are properly aligned. After installing each option and expansion card, perform a visual inspection to assure the printed circuit card is installed properly.

1. Remove the 4 screws located at the corners of the cabinet and lift the front cover off.
2. Install the specific cards into the dedicated slots of G2-MBU as below card introduction.

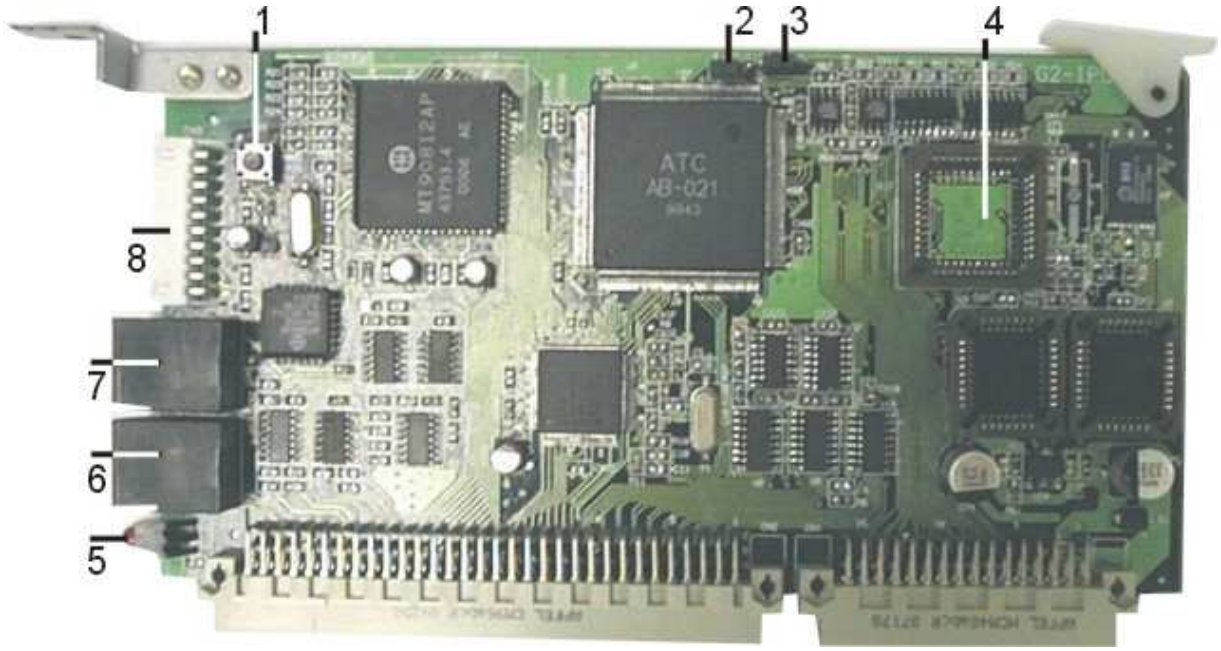
**Card Introduction**



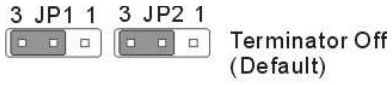

1. CN1: Power socket to connect to the main power unit (G2-PWU)
2. JP1: Reset jumper for flash memory
3. SW1: Cabinet position selection
4. CN2: LNU/MPU slot
5. CN3: VMU 1 slot
6. CN4: VMU 2 slot
7. CN5: MSU slot
8. CN6: IPU slot: G2-IPU slot
9. CN8: DC power output
10. CN9: Cabinet grounding for expansion
11. CN12: STU 1 slot
12. CN13: STU/SLU 2 slot
13. CN14: STU/SLU 3 slot
14. CN15: STU/SLU 4 slot
15. CN16: STU/SLU 5 slot
16. CN17: SLU slot 6
17. CN18: TKU/SIU/PIU 1 slot
18. CN19: TKU/SIU 2 slot
19. CN20: TKU/SIU 3 slot
20. CN21: TKU/SIU 4 slot

## Installing CPU and option cards

### G2-IPU

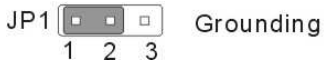



1. SW1: Reset button
2. JP1: Terminators for bus expansion of multi-cabinet.
3. JP2: Terminators for bus expansion of multi-cabinet.
4. Socket for the HDLC controller for bus expansion of multi-cabinet.
5. LED1: Heart beat LED
6. CN6: connector for expanding cabinet
7. CN5: connector for expanding cabinet
8. CN9: LCD connector




**G2-MSU- Multi Service Card**

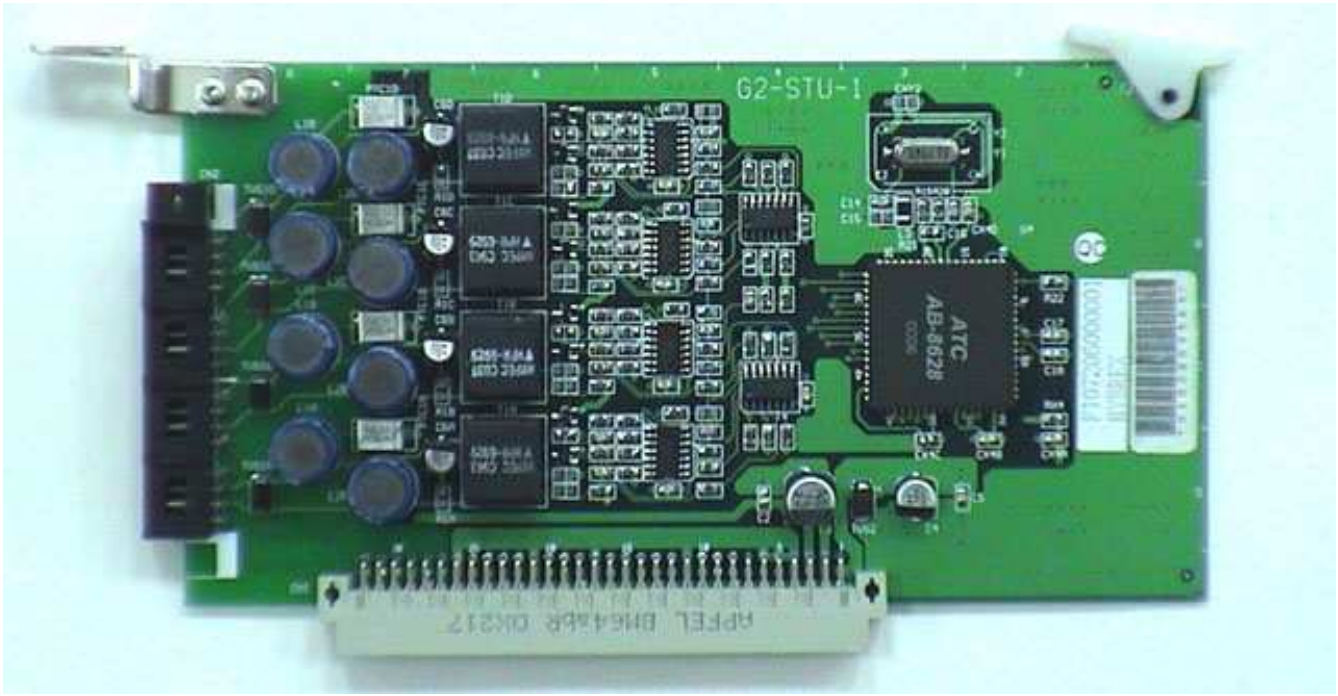

1. *JP1: Grounding Jumper for some specific external paging device*
2. MODEM connector for the external MODEM connection to the system
3. RS232 connector
4. Relay / Sensor / External Paging connector
5. CN3: Door Phone Interface (for DPU05)
6. CN2: External Music on Hold Interface

**G2-VSC- Voice Service Card**


**G2-STU Digital Station Card**

- Install this G2-STU card on STU1, STU/SLU2, …, STU/SLU5 slot of the G2-MBU.

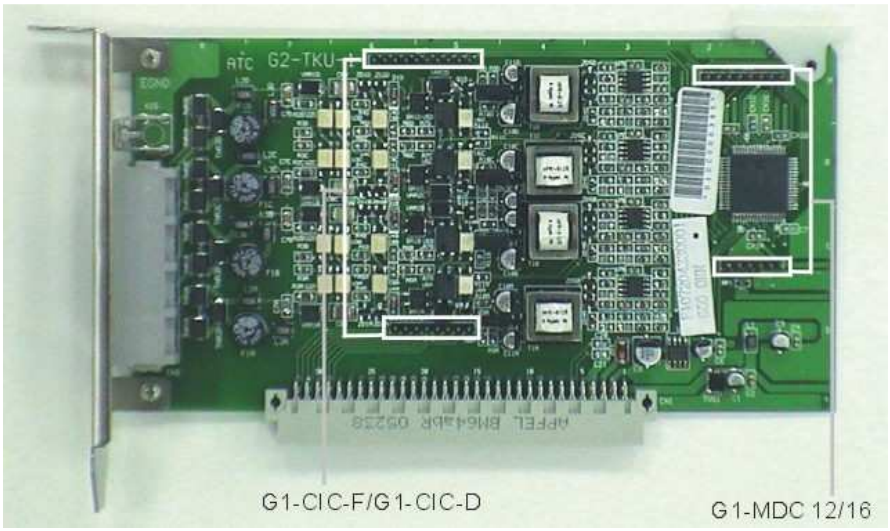


**G2-SLU Analog Station Card**

- Install this G2-SLU card on STU/SLU2, …, STU/SLU5, SLU6 slot of the G2-MBU.

**G2-TKU- 4 Port CO Line Card**

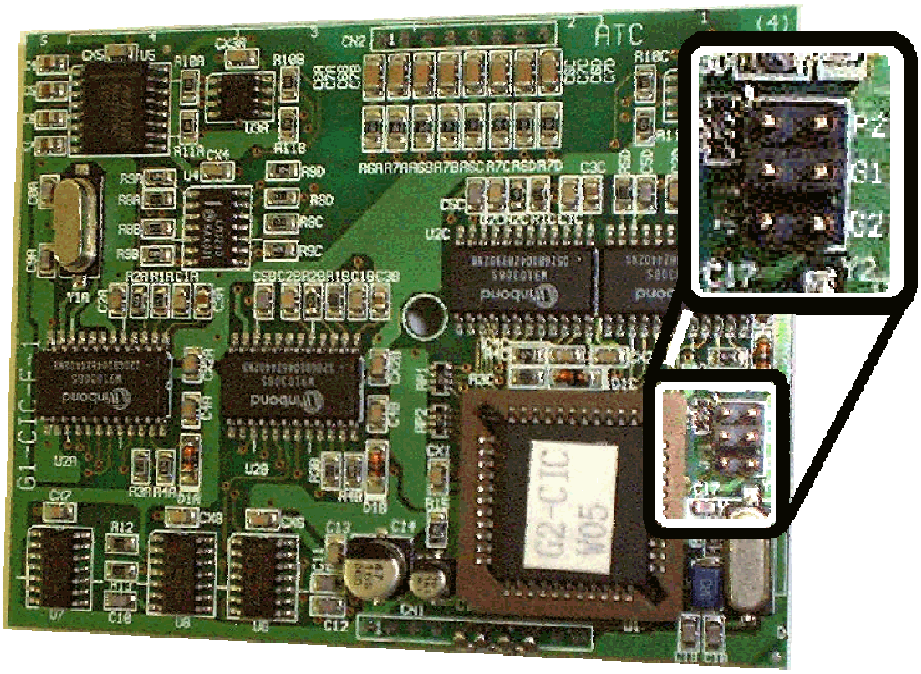
- Install G2-CIC card or G1-MDC card on G2-TKU (optional).
- Install this G2-TKU card on TKU1/TKU2/TKU3/TKU4 slot of the G2-MBU.
- Connect an attached cable between CN4 of G2-TKU to CN3 of G2-SLU for power failure transfer.



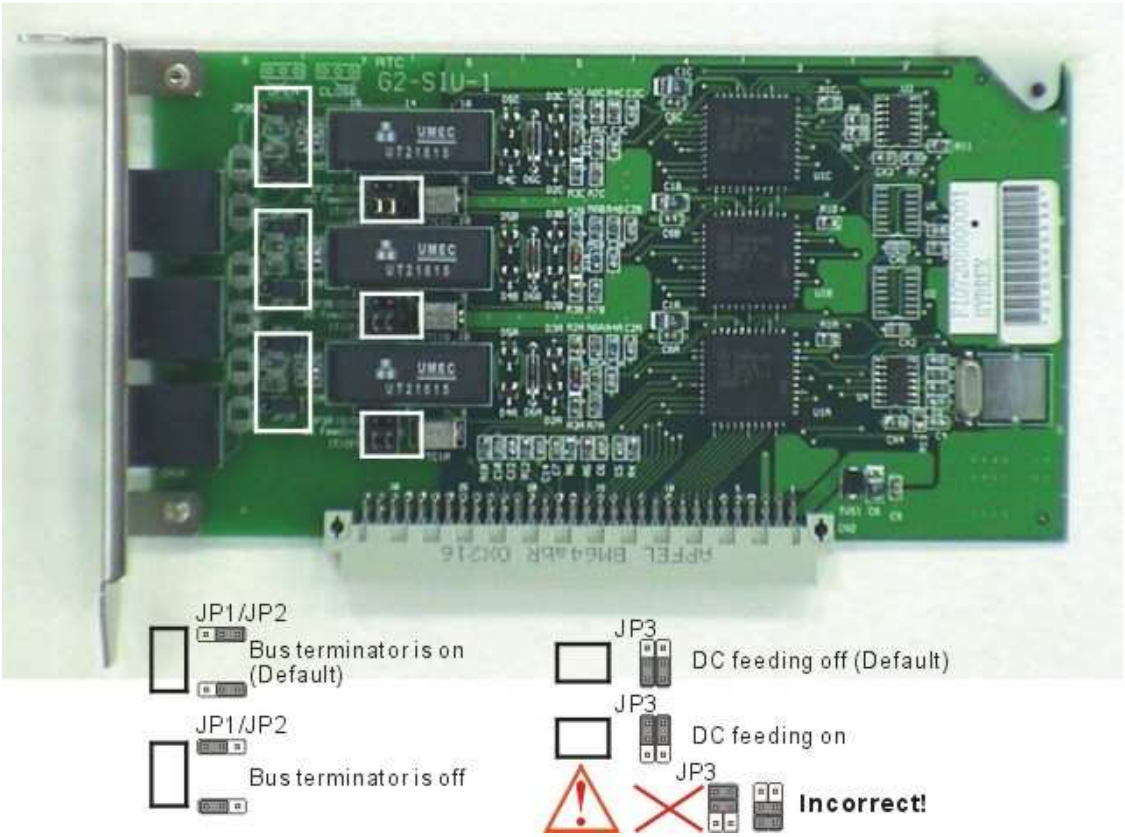

**CN6/CN7:** G2-CIC-D/G1-CIC-F
**CN2/CN3:** G1-MDC 12/16

**G2-CIC- Caller ID Card**

- Adjust JP1 of G2-CIC card for **G2** use. And then install G2-CIC card on CN6/CN7 of G2-TKU card. Misalignment could damage both cards or the system.



- Install this G2-SIU card on TKU1/SIU1 or TKU2/SIU2 slot of the G2-MBU.

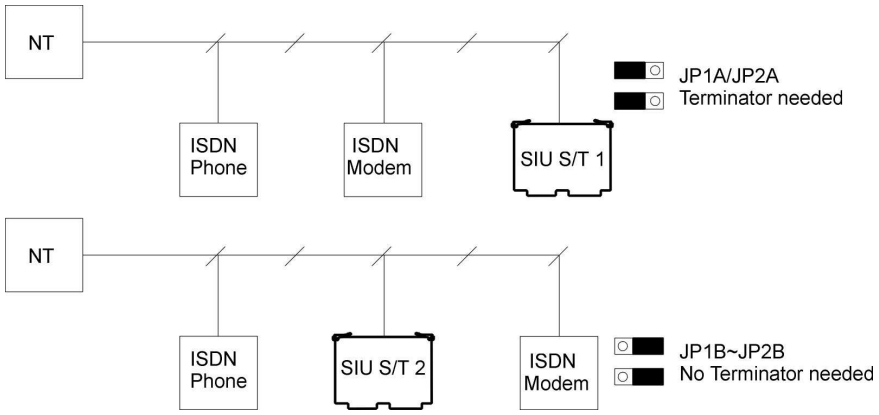



**JP3(A,B,C):** DC feeding jumper. Default is no DC output. If the internal ISDN device does not offer local power and need DC feeding to work. The related jumper of this internal ISDN interface needs to be set to “on”.

## Caution:

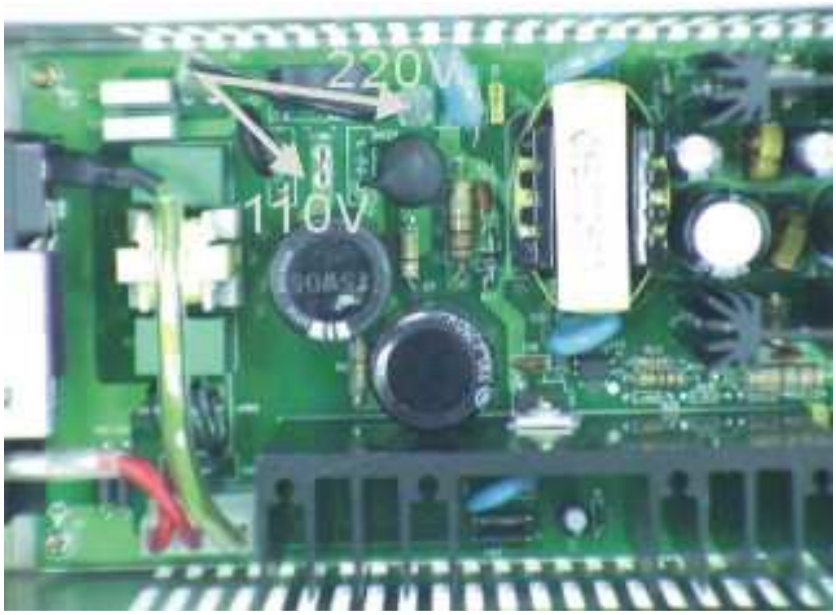
1. When this jumper is on, users cannot loop “S” interface back to another “T” interface for testing purpose. Otherwise, it will damage this card!
2. Incorrect jumper set will also damage this card.

**JP1(A,B,C)/JP2(A,B,C): Bus Terminator.**




**Voltage Selection Check**

- Make a check to assure the power supply jumper setting is for the proper voltage.
- When complete, place the power supply cover back on the power supply.



**Replace Fuses of Power Supply**

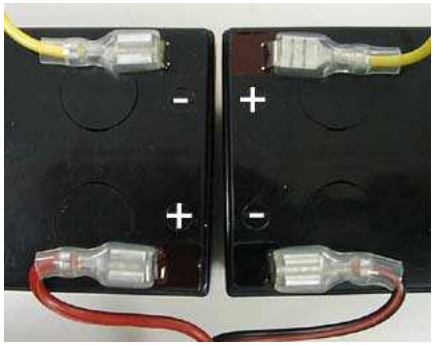
**Replace Cover**

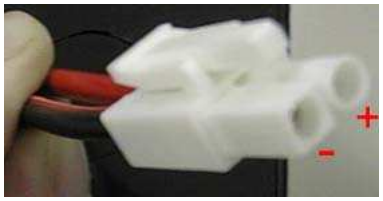
Replace the cover and install the 4 screws removed earlier.

**Preparing the External Battery Backup**

The Key Service Unit can have two battery backup devices BBOX1 connected for emergency power when a power failure takes place.


If you are installing an optional Battery Backup (BBOX1), make certain that there is adequate room for its installation. Make certain that the Battery Backup is mounted close enough to the Power Supply that the interconnecting cable between the Battery Backup and the Power Supply can connect.




**Do Not Connect the Battery Backup at this time!**

***Do Not Connect the Battery Backup at this time! Battery Backup should not be connected to the System power supply until all power up testing has been completed!***

**Charging the Battery**

The rechargeable batteries are automatically charged when the KSU is plugged in.
When System is in a full-load condition (eight CO Trunks and twenty-four Extensions all in use), the batteries provide a minimum of 1 hour's consecutive use. Change the batteries every two years.

**Installing or Replacing Batteries**

**Caution**

**To Reduce the Risk of Fire or Injury to persons, Read and Follow these Instructions.**

1. Use only the following type and size batteries:
   12 Volt 6.5 Amp/Hour "Gel-Cell" sealed batteries (2).
   Dimensions, approximately 3 1/4" (H), 5 15/16" (W), 2 1/2" (D).
   PowerSonic model PS660 or equivalent.
2. Do not dispose of the batteries in a fire. The cell may explode.
   Check with local codes for possible special disposal instructions.
3. Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
4. Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.

**This product is defined as a secondary battery operated device. As such, the following instructions should also be read and followed:**

1. Charge the batteries provided with or identified for use with this product only in accordance with the instructions and limitations specified in this manual.

2. Observe proper polarity orientation between the batteries and battery charger.

3. Do not mix old and new batteries in this product.

4. Do not mix batteries of different sizes or from different manufacturers in this product.

Before installing or replacing batteries, disconnect the battery supply unit to the KSU by removing the polarized battery connector at the KSU. Due to the weight of the batteries, it is advised that the battery cabinet be removed from the wall before working on it.

**System Ground**

It is strongly recommended that the system be grounded by connecting a heavy, insulated copper wire (e.g., 14AWG or larger) between the grounding bolt on the right-lower side of the cabinet and an earth ground. Without this System Ground there is no protection against lightning damage to Co lines and warranty will be voided. Do not connect the grounding wire of the KSU to a computer, telex, or any other external device.


**Connecting Stations**

The station cabling for the TD-1648i/TDS-600 should be a home run from the jack to the telephone room. The termination should be at conventional 66 type connecting blocks or Krone or directly to the provided station connectors. One pair twisted wiring is required for each station location. Attention to proper cabling will go a long way towards a successful installation and minimizing service calls after installation. Some guidelines for running station cable are as follows:

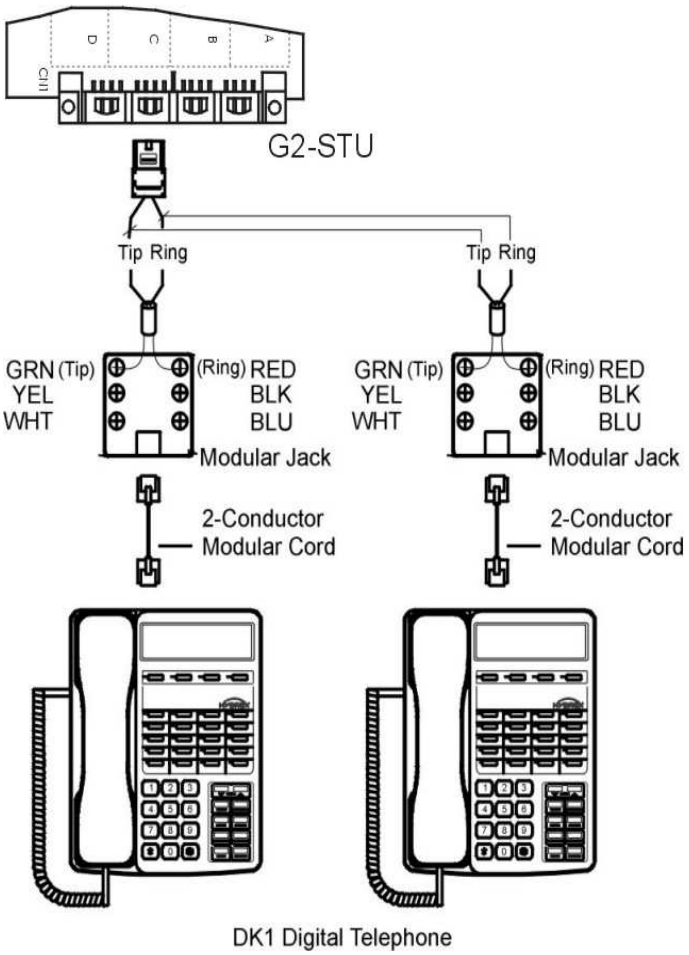
- Avoid running cable parallel to fluorescent light fixtures or electrical lines not in conduit. If these obstacles are unavoidable, run the cable at right angles across them.
- Do not run station cable inside conduit already occupied by electrical wiring.
- Do not run station cable near equipment with electric motors or strong magnetic fields.
- Do not place station cable on the ground where it can be stepped on or rolled over by office furniture or office equipment.

**Digital Key Telephone – DK1 Series, DK2 Phones and DSS Console**

- Terminate the station wires with the connectors that are provided. The stations will connect to the G2-STU of KSU using the center two pins only (***pins 2 - 3***).
- Connect Tip terminal with GRN terminal (screws) of the modular jack, Ring with RED.
- There is no polarity requirement on Tip and Ring.
- 2-conductor wiring is required for DK1 and DK2 Digital Key Telephones.
- DSS Consoles must be connected as the second station. When a DSS is connected, the alternate device on the pair must be configured as the first station.

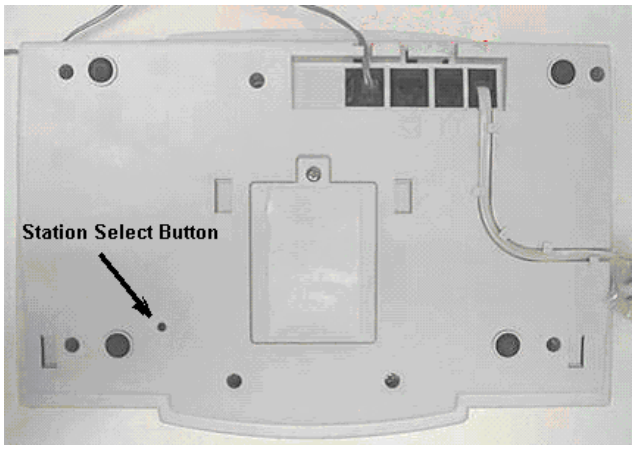
- **On DK-1 telephones**, open the overlay covering the function key and select the 1st or 2nd station. Dip switch to the right for the 1st station. Dip switch to the left for the 2nd station. *If you change the switch setting, it is necessary to unplug the telephone and plug it back in to reset to the alternate port.*

- **On DK-2 Telephones**, The recessed pushbutton cycles the telephone between the 1st and 2nd station. *This should be done with the telephone plugged in to the circuit*




DK1 Digital Telephone

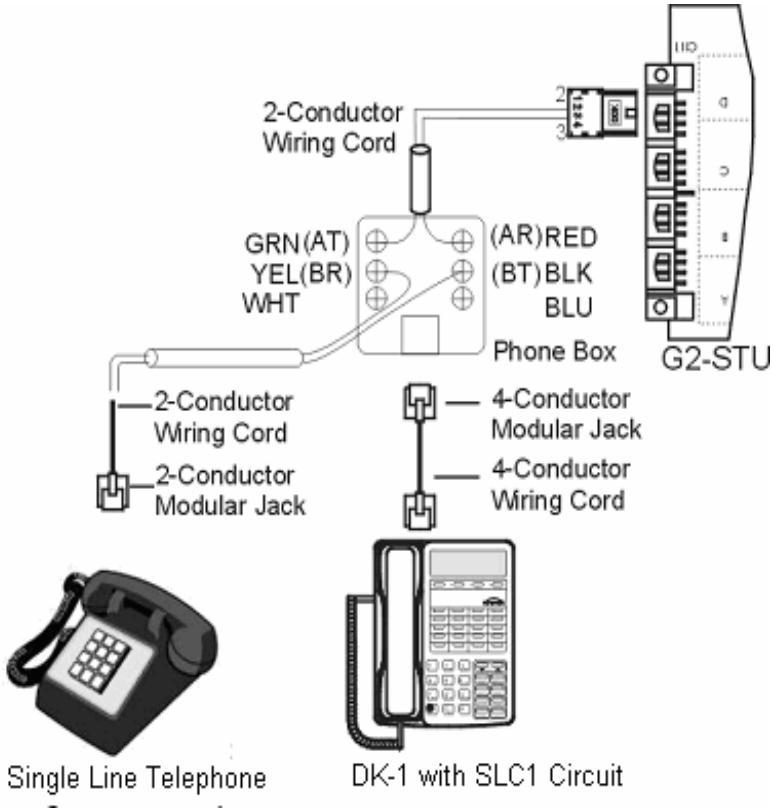

Dip to right: the 1st station.
Dip to left: the 2nd station.




**CAUTION!:** Avoid shorting Tip and Ring together. It may damage the G2-MBU or G2-STU board.

**Digital Key Telephone – DK-1D or DK-1S with SLC1 Circuit Pack installed**

- Terminate the station wires with the connectors that are provided. The digital station will connect to the **G2-STU** of KSU. Connections are to the center two pins of the connector ***(pins 2 – 3)***.
- Connect Tip terminal with GRN terminal (screws) of the modular jack, Ring with RED.
- There is no polarity requirement on Tip and Ring.
- **4-conductor wiring** is required for DK-1 w/SLC1 Card from the Handset to Wall socket.
- Open the overlay of the function key on DK-1 telephone and select the 1st station.
- Connect the single line telephone from the phone box. Connect Tip terminal with YEL terminal (screws) of the modular jack, Ring with BLK..





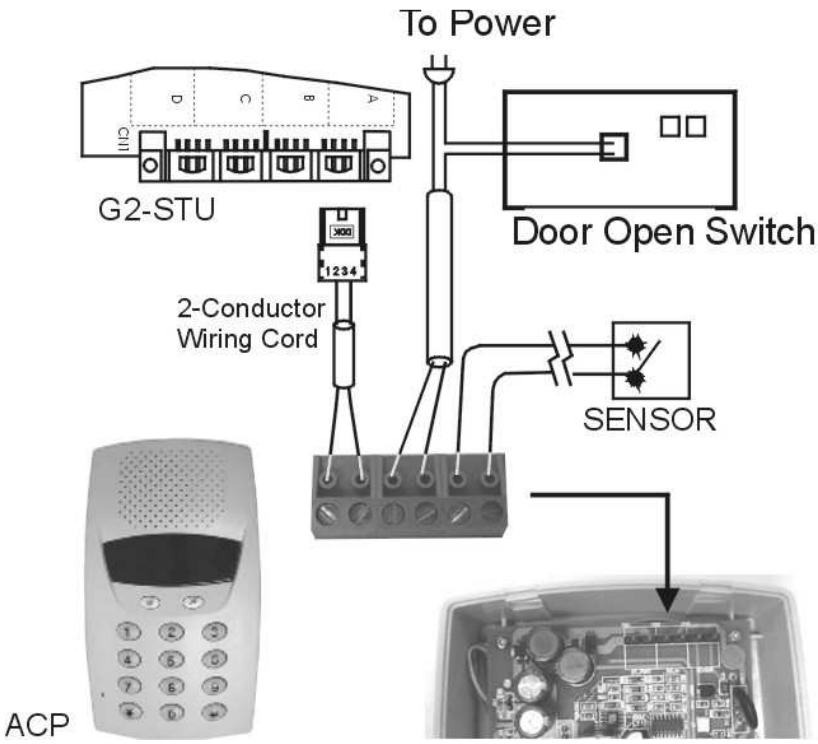
**Dip to right on DK1**

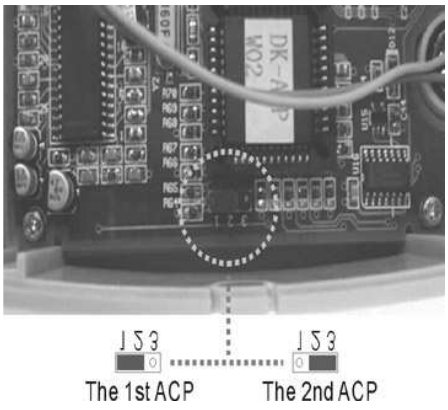
**CAUTION!**

1. Avoid shorting Tip and Ring together. It may damage the G2-MBU or G2-STU board.
2. System does not allow another Digital key phone to be connected on the same digital twin port as a DK-1 with SLC1 Adapter.

**Access Control Telephone – ACP**

- Terminate the station wires with the connectors that are provided. The stations will connect to the **G2-STU** of KSU. Connections are to the center two pins of the connector ***(pins 2 – 3)***.
- Connect Tip/Ring terminals from KSU(G2-STU) to the ACP connector (6 contacts).
- There is no polarity requirement on Tip and Ring.
- Connect Relay for applications such like door open to the ACP connector (6 contacts).
- Connect Sensor for applications such like door open alarm to the ACP connector (6 contacts).
- Mount ACP connector on ACP itself.
- Select the 1st or 2nd station. Jumper as below diagram showed.
- Mount ACP on the wall.

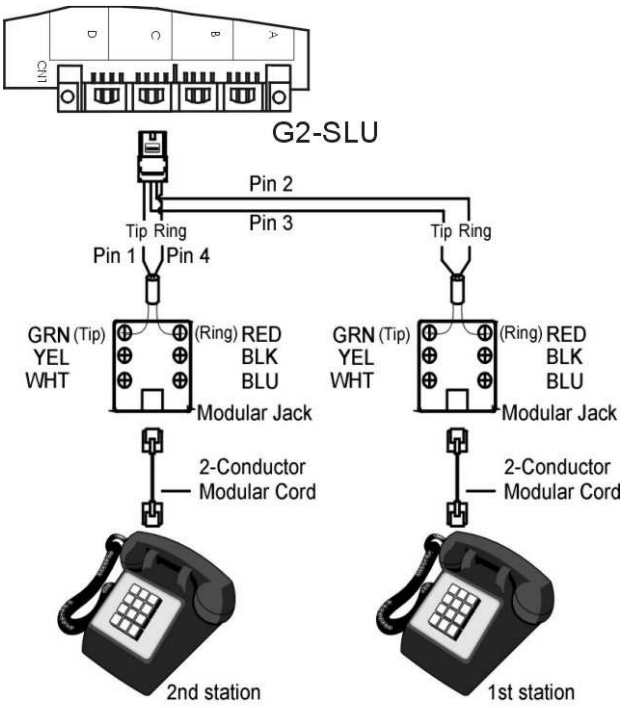



**CAUTION!:** Avoid shorting Tip and Ring together. It may damage the G2-MBU or G2-STU board.

**Single Line Telephone (connected to G2-SLU)**

- Terminate the station wires with the connectors that are provided. The stations will connect to the KSU through the G2-SLU. Pins 2 and 3 of the connector support the first station. Pins 1 and 4 support the second station.
- Connect Tip terminal with GRN terminal (screws) of the modular jack, Ring with RED.
- There is no polarity requirement on Tip and Ring.
- 2-conductor wiring is required for Single Line Telephones.



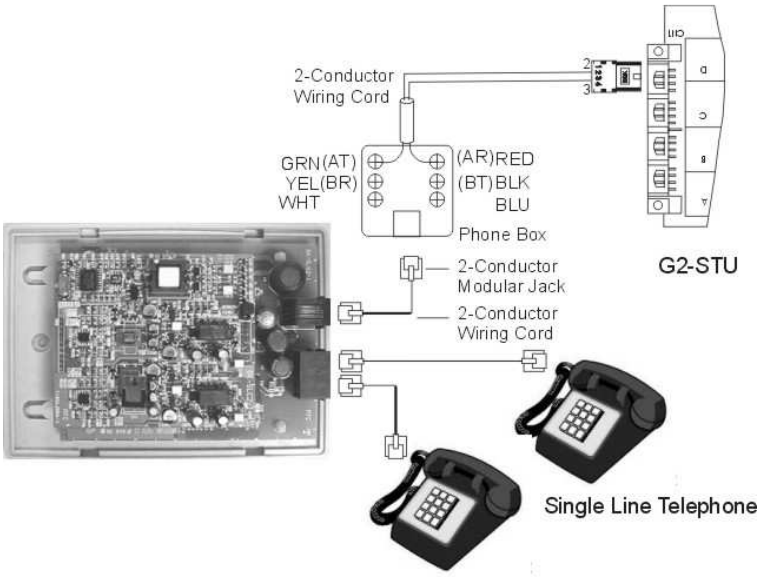

Single Line Telephone

**Door Phone Connection**

- One Door phone may be connected to the TD-1648i/TDS-600 system.
- A cable cover is provided with the KSU. Door phone cable can enter from either the top or bottom as desired. Remove one or both ends of the cover as required and route the door phone cable through the hole. Terminate the door phone wires with the connectors that are provided. The Door phone will connect to the G2-MSU (Refer to G2-MSU introduction).
- Connect Tip terminal with GRN terminal (screws) of the modular jack, Ring with RED.
- Tip and Ring are not polarity sensitive.
- 2-conductor wiring is required for Door phone.

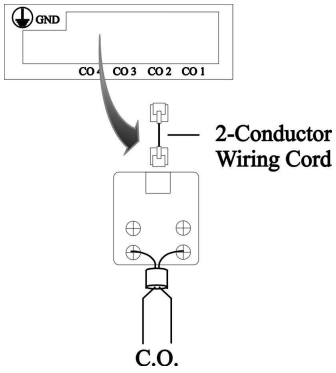
**Single Line Telephone (connected to ATA)**

- Terminate the station wires with the connectors that are provided. The stations will connect to the G2-SLU of KSU.
- Connect Tip terminal with GRN terminal (screws) of the modular jack, Ring with RED.
- There is no polarity requirement on Tip and Ring.
- 2-conductor wiring is required for ATA Single Line Telephone Adapter.
- Distribute two cords for two single line telephones.



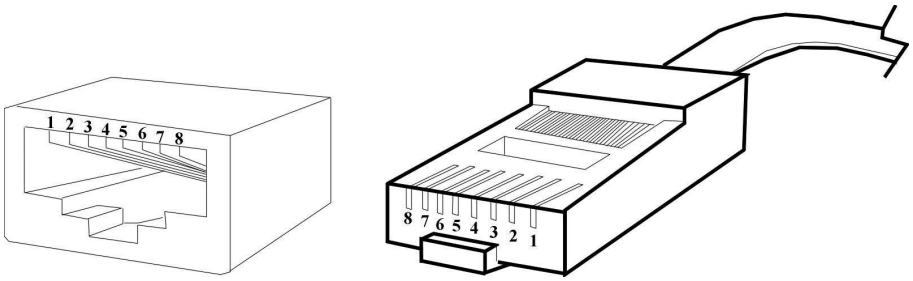

**CO/PABX Connections**

- Make your CO line connection to the telephone company on this connector. Pins 3 and 4 of the connector are for the CO line.
- RJ-11C (2 wire) modular connector is required.
- 2-conductor wiring is required.




**ISDN S/T Connections**

- Make your CO line connection to the telephone company on this connector. Pins 3 to 6 of the connector are for the CO line.
- Cable: Twisted 2 pairs
- Connector Type: RJ-45 (4 wire) modular connector is required.
- Connector PIN assignment: (Pin 1, 2, 7, 8 are reserved.)



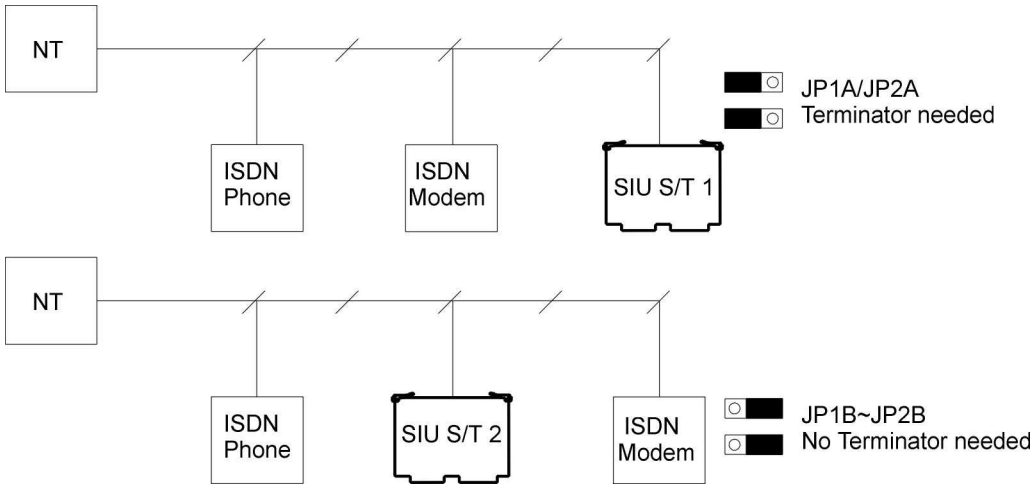

- Install/remove the terminators by adjusting the jumper JP1 (A, B, C) and JP2 (A, B, C) on SIU card. If there is no other ISDN device connected after the ISDN interface of SIU card when using point to multi-point connection, this ISDN interface port needs the terminator installed. Otherwise, remove the terminator.

***Example:***

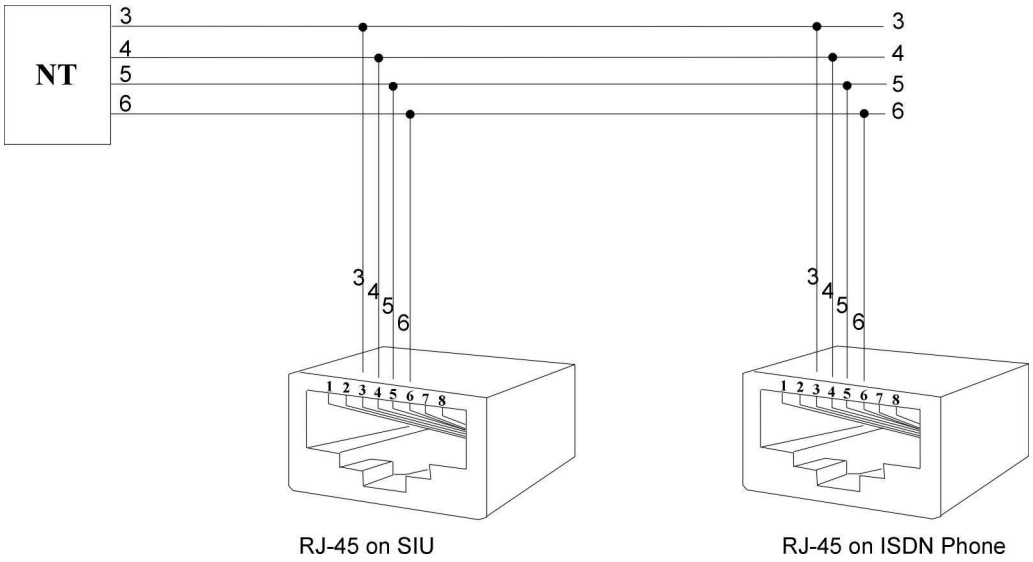
The following is the point to multi-point connection.

. The 1st ISDN interface needs the terminator because there is no other ISDN device connected after this ISDN interface of SIU card.

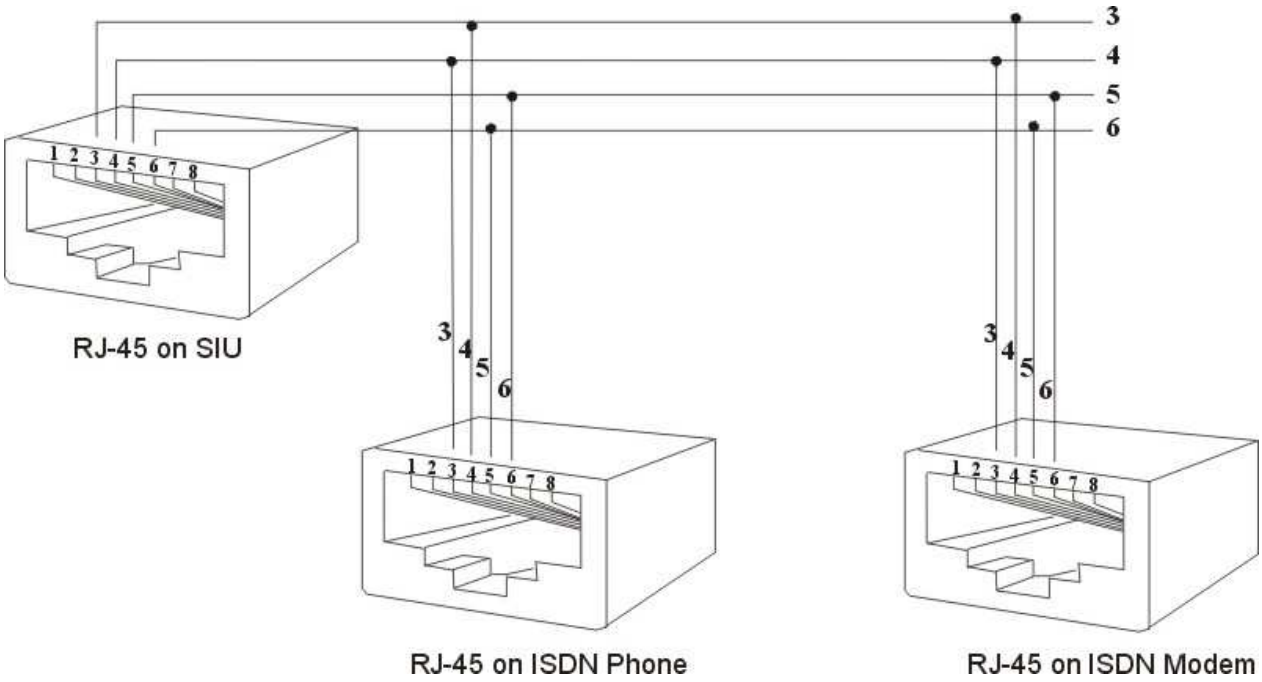
. The 2nd ISDN interface does not need the terminator because there is an ISDN Modem connected after this ISDN interface of SIU card.



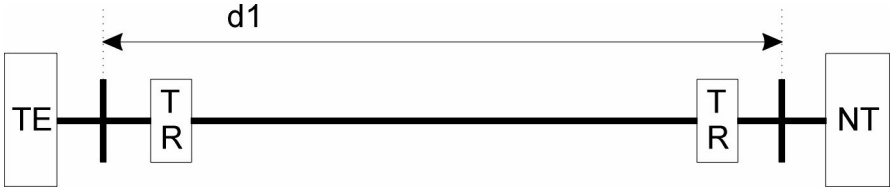

- T-Interface Connection:
  If the user has programmed the ISDN interface of SIU to a T-Interface, the wiring should be as follows:



- S-Interface Connection:
  If the user has programmed the ISDN interface of SIU to a S-Interface, the wiring should be as the following:

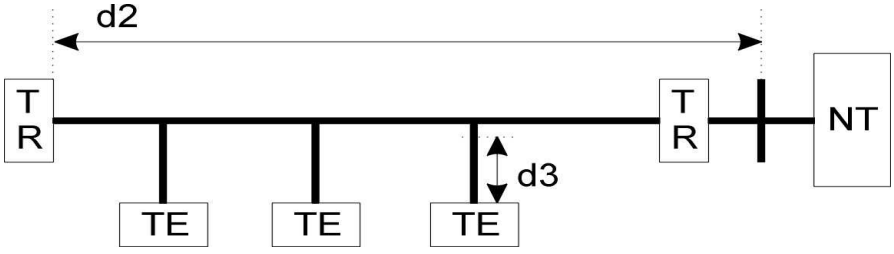



- Bus Configurations on the S/T Interface:
  ***Point to Point:***




d1: 750m ~ 1000m; Length limitation by attenuation of 6dB at 96kHz.

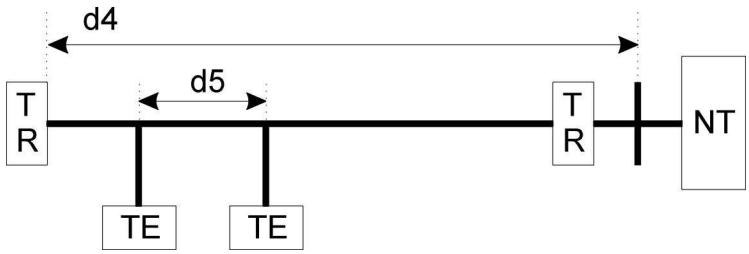
***Short Passive Bus:***




d2: 100m ~ 200 m; Length limitation by round trip delay 10us to 14us, not by attenuation.

d3: Recommendation with a cord having a minimum length of 5m and not more than 10m.(5m≦d3≦10m)

***Extended Passive Bus:***




d4: 500m ~ 800m; Length limitation by round trip delay 10us to 14us, not by attenuation.
d5: 25m ~ 50m; Length limitation between TEs by differential round trip delay of 2us.

**Optional Cabling**

Connect a 6 conductor mounting cord from the KSU to a RJ-25 modular block.

**Door Switch (Relay) Connection**

- One Door Switch (24+-12VDC) may be used on the TD-1648i/TDS-600 system.
- 2-conductor wiring is required.
- Connect the door switch to pins 1 and 6 of the RJ-11 connector.

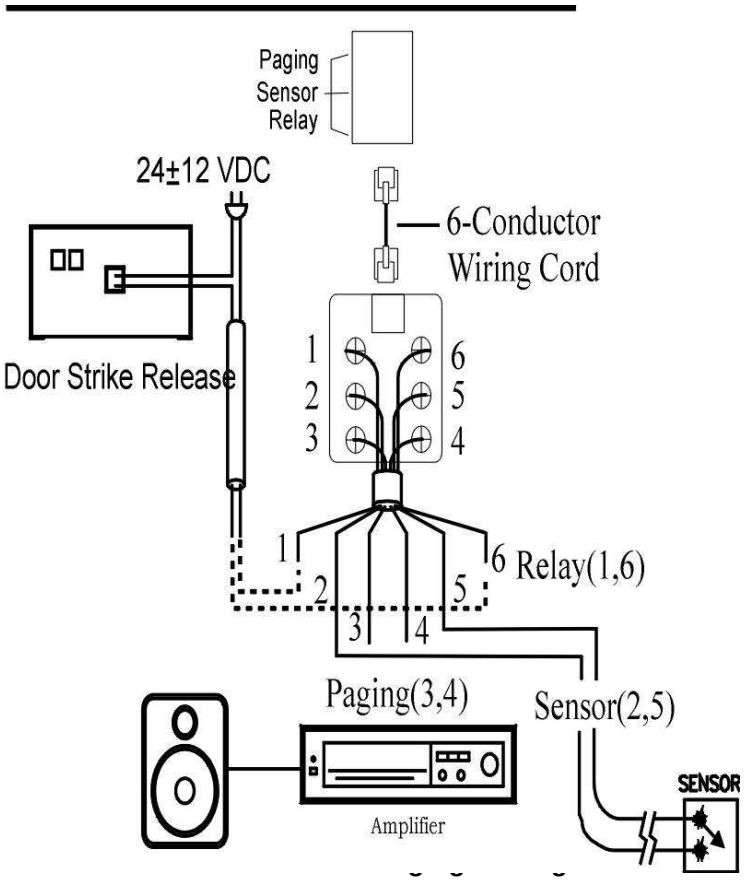
**Sensor Connection**

- The Sensor connector on TD-1648i/TDS-600 may be used for the External Sensor input.
- The sensor may be configured for normally open or normally closed operation.
- 2-conductor wiring is required.
- Connect the sensor to pins 2 and 5 of the RJ-11 connector.
- Refer to System Programming Form 39 -- Sensor Assignment.

**Paging Connection**

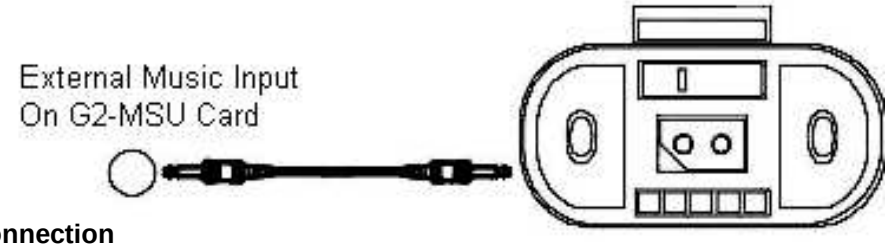
- The Paging connector on TD-1648i/TDS-600 may be used for an External Paging input.
- 2-conductor wiring is required.
- Connect the amplifier to pins 3 and 4 of the RJ-11 connector.

***Refer to Illustration Door Switch / Sensor / Paging cabling:***



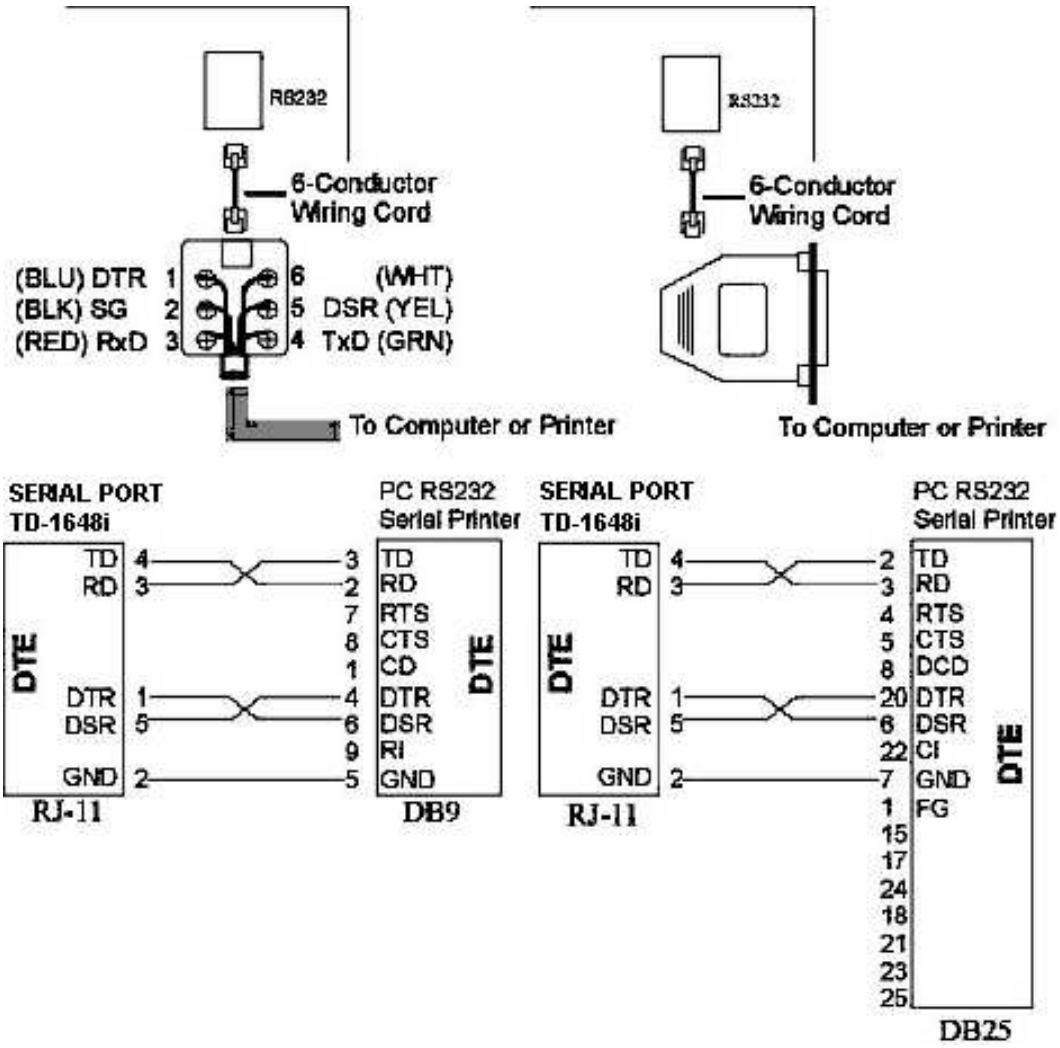
**Music on Hold Connection**

- Connect the (optional) external music source to the external Music" input labeled on the KSU.
- Use a 1/8” mini plug to connect the music source to the KSU via an approved line isolation unit.




**RS232 Port Connection**

Use the RJ-11 connector to terminate the RS232 cable. Then connect the RJ-11 to the KSU with a 6 conductor line cord. Insert the line cord into the connector labeled RS-232.




**Notice: Don’t connect the RS232 cable over the length limitation (50 feet.)**

**Power On and Operational Test**

Before connecting the G2-PWU to AC power:

- Verify that input voltage and input voltage selection jumper on G2-PWU are correct before you power up the system.
- Recheck the cabling for incorrect connections, loose wires and wiring fragments that may cause short-circuits.
- Plug the power cord into a power outlet.
- Verify the system boots properly by checking the display of a telephone set.
- You may now connect the battery back up unit if applicable.

**Operational Tests**

Check each telephone and CO line to verify that outgoing lines are connected properly.
Check that intercom calls can be made from extension to extension.

**WARNING:**
***DISCONNECT THE POWER SUPPLY FROM THE AC POWER SOURCE BEFORE WIRING OR CHANGING ANY WIRING.***

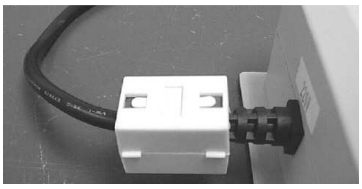
**Connect the Battery Backup *AFTER* AC power has been connected to the Power Supply. Disconnect Battery Backup *BEFORE* disconnecting AC power from the Power Supply.**

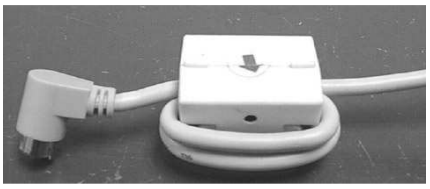
**NOTICE:**
**ONCE THE SYSTEM OPERATES PROPERLY, PROCEED TO SYSTEM PROGRAMMING. (REFER TO THE SYSTEM PROGRAMMING MANUAL.)**

**Special Immunity Protection for System and terminals**

Add **Noise Filter** for below points can enhance the immunity capability of system from outside environment noise.

**For Power Supply:**





**For Line:**

# Series Model TD-1648i/TDS-600 - Programming Manual

### Programming Information

This document contains the system forms required to program the TD-1648i/TDS-600 and an explanation of the parameters.

### New Systems

We recommend that all new systems have the system memory reset before system programming takes place. This ensures that any extraneous information that may be present in system memory is erased and that the system database will not be corrupt.

### To Reset System Memory.

Enter System Programming :
From an LCD equipped TransTel DK1-21(H)/DK1-31 Digital Telephone Set:

1. Press [PRG]. Press [2].
2. Enter Password if programmed. (New systems will not have a system password).
3. Press [SAVE].
4. LCD display will show:

| PROGRAM MODE: __<br>(01 – 92) |
|---|

5. Enter [2][5]. Press [SAVE]. Display will show:

| 25- Reset Data<br>0-9 Default |
|---|

6. Enter [2].
7. System Database is now reset. LCD will display:

| PROGRAM MODE: __<br>(01 – 92) |
|---|

8. You may commence database entry at this point, or exit system programming by pressing SPK key or by lifting and replacing the handset.

### To Enter System Programming:

1. Press [PRG]. Press [2].
2. Enter Password if programmed. (New systems will not have a system password).
3. Press [SAVE].
4. LCD display will show:

| PROGRAM MODE: __<br>(01 – 92) |
|---|

5. You may begin system programming at this point.

**Basic Programming Commands**

For the first time or infrequent installer, a programming overlay is provided with each Key Service Unit. This overlay, when placed on a TransTel LCD telephone set indicates keys used during programming for easy reference. Experienced installers may program without the overlay. Both key designations are listed below.

**Note:** Keys listed between [ ] indicate the default keys shown on a telephone set. Keys listed between { } indicate keys displayed by the programming overlay. ***See illustration Programming Overlay on the next page.***

These commands are active while in the system programming mode

[F4]{PRG} Moves to the Top Level Programming Mode Display (does not save information entered into any field unless [SAVE] is pressed first).

[F3]{SAVE} Commits the data that is showing on the LCD display into the system database.

[DSS 1]{PREV} Moves to the previous section of any multiple part form.

[DSS 2]{NEXT} Moves to the next section in any multiple part form.

[DSS 3]{LEFT} Moves the programming cursor to the left.

[DSS 4]{RIGHT} Moves the programming cursor to the right.

[DND/CN]{DON'T CARE} Enters a Wild Card (don't care) into Account Codes or Toll control entries. LCD will display d (lower case letter "d") to indicate don't care entry.

[HOLD]{PAUSE} Inserts a Pause when programming a Speed Dial Entry or for Voice Mail Programming. LCD will display p (lower case "p") to indicate a Pause entry.

[TRF/FL]{FLASH} Enters a FLASH command as part of a Speed Dial Entry. LCD will display F (upper case "F") to indicate a Flash command. Clears a digit during other entries (Passwords, etc).

[MSG]{P->T} Enters a command to convert from pulse dialing to DTMF dialing into a Speed Dial Entry. LCD will display T (upper case "T") to indicate a tone conversion command.

[MIC/AT]{CHANGE} CHANGE key. Depending on form, it will cycle through available Programming parameters.

[TRF/FL]{CLR DIGIT} Enters a FLASH command as part of a speed dial number. Clears a digit during other entries (Passwords, etc).

[SPK]{EXIT} Exits Programming. Returns telephone to normal idle mode.

[REDIAL]{CLR ALL} Clears all digits on an entry such as speed dial or account codes.

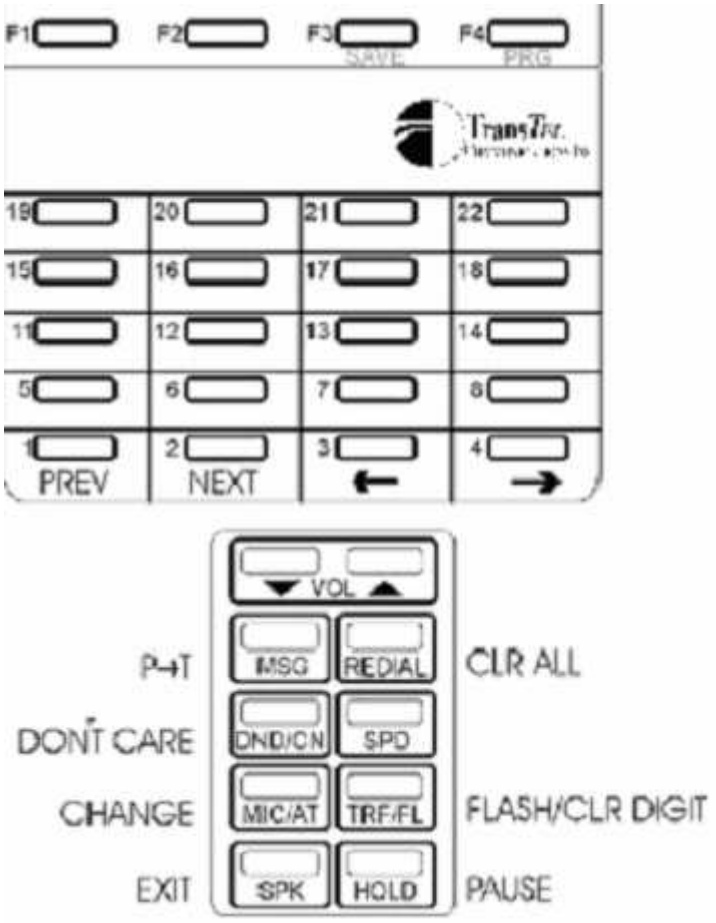
**Alphanumeric Entry**

The following table indicates the capabilities of the name programming functions if they are selected on the system. System Speed Dial, Personal Speed Dial, Stations, CO Lines and Sensors may be programmed with names.

| | | | |
|---|---|---|---|
| Key 1 = | , . : 1 (Blank Space) | Key 2 = | A B C 2 ; |
| Key 3 = | D E F 3 / | Key 4 = | G H I 4 _ |
| Key 5 = | J K L 5 - | Key 6 = | M N O 6 ‘ |
| Key 7 = | P Q R S 7 | Key 8 = | T U V 8 + |
| Key 9 = | W X Y Z 9 | Key 0 = | ä ü ñ ö 0 |
| Key # = | $ ! @ # ) | Key * = | % ^ & * ( |
| DSS Key 1 = | Backspace Cursor (Left) | DSS Key 2 = | Cursor Forward |

If an entry is made that is not within valid system parameters, the TransTel system will not accept the entry when [SAVE] is pressed. The Speaker on the programming set will return a busy tone and the LCD Display will place the programming cursor under the offending entry. You may make corrections and press [SAVE] again. If multiple errors are made, the system will continue to return you to the illegal entries as others are corrected.

It is not necessary to re-enter existing information on a multi-item form. You need enter only the information that is to be changed. You may move the cursor to the left or right in order to access only the specific entry that you want to change. You may press [SAVE] without regard for the placement of the cursor on the LCD display.



| Form 01 - Day Ringing and Ringing Line Preference Assignment | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ring Type : Linear / Circular / Hunt / Private / Common (See Form 35-CO-07)** | | | | | | | | | | | | | | | | |
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| **Default** | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |

**General:**

This program assigns each incoming line to ring the programmed stations. The ringing methods can be LINEAR (ring the first available station), CIRCULAR (Ring the next station following the last station who just answered an incoming call), HUNT (Ring the first assigned station for a set period of time (Form 05-08-01) then if no answer ring the next ring assigned station then the next etc.) COMMON AUDIBLE (All stations will ring simultaneously) or PRIVATE LINE (First station “owns” the line but all stations assigned will ring). See Program Form: 35-tk-07 to assign.

**Description:**

1. This program sets Day Time ringing.
2. The station number can be 2,3,4 digits.
3. A total of 16 stations can be assigned to ring for each trunk.
4. If the location is to be assigned to no station, the location value is set to " 0 ".
5. To clear all entries press **[REDIAL]**.

**Note:** As you enter stations into the ringing assignment, the top portion of the LCD display will advance, showing you the corresponding entry. For example: If you start on Form 01-01 (Day ringing for Line 1), the top portion of your display will show 01-01-01, which corresponds to the first entry. When you dial the digits to add an extension, the top portion of your display will change to say 01-01-02. That means you are now in position to enter the second station to ring on this line.

When you press [SAVE] your display will change to 01-02-01, which means the system is now ready for you to program ringing extensions on Line 2.

| Form 02 - Night Ringing and Ringing Line Preference Assignment | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ring Type : Linear / Circular / Hunt / Private / Common (See Form 35-CO-08)** | | | | | | | | | | | | | | | | |
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| **Default** | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |

**General:**

The parameters for this form are the same as for Program Form 01, except it affects Night Service Operation. Please see the description for Form 01 for available options. See Program Mode: 35-tk-08 to assign LINEAR, CIRCULAR, HUNT, COMMON AUDIBLE or PRIVATE LINE.

**Description:**

Description is as above for Form 01.

When you press [SAVE] your display will change to 02-02-01, which means the system is now ready for you to program ringing extensions on Line 2.

| Form 03 - Door Phone Ringing Assignment Form | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 03 – 01 - | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Extension | | | | | | | | |

**General:**

This program assigns the door phone to ring the programmed stations.

**Description:**

1. There is one door phone port available in the TD-1648i/TDS-600.

2. Eight stations can be assigned to ring for the door phone.

3. To clear all entries press **[REDIAL]**.

4. Door phone ringing time is set in Form 05-11-07.

5. Door Relay Unlock Time is set in Form 05-12-04.

6. Door phone Ringing frequency is set in Form 05-03-08.

A Door phone can be programmed to ring up to eight telephone sets. The first station to answer a call from a Door phone is automatically connected to the Door phone and all other stations are excluded from the conversation.

**Note:** Door phones may not be connected to outside telephone lines. They may not be involved in any station conference. They may not be transferred.

Any station can contact the Door phone by dialing 88 for Door phone

This form is not used for programming of ACP devices as doorphones.

| Form 04 - Console (Operator) Assignment Form | | | | |
|---|---|---|---|---|
| Console Group 01 | | | | |
| 04 – 01 - | 01 | 02 | 03 | 04 |
| Default | 11 | 12 | 13 | 14 |

**General:**

This program permits the selection of the consoles (system operators) in each station group.

**Description:**

1. There are 8 console groups (Operators) available.

2. A total of four stations can be set to be the operator/console in each group.

3. The first assigned station is the master operator/console.

4. To clear all entries press **[REDIAL]**. ***Do this in ALL unused groups***.

**Note:** Stations can be programmed into station groups on Form 41-ext-01 (Group Assignment). When stations are separated into different station groups, Their "Operator" may be different. A station assigned on form 41-ext-10 to group 2 will ring the operator(s) programmed on form 04-02 when the user dials 0.

In default system programming, all stations are assigned to Station Group 1.

**Form 05-01 - System Parameters Form - Timers-1**

| Form 05-01- | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| Range of Entries | 0-9 | 0-9 | 0-9 | 0-9 | 0-9 | 0-9 | 0-9 | 0-9 |
| **Default Value** | 1 | 1 | 1 | 1 | 4 | 2 | 2 | 1 |

| Item | Valid Settings | Description | Default Settings |
|---|---|---|---|
| 05-01-01 | 0-9 | Hold Recall Time | 1=60 Sec |
| 05-01-02 | 0-9 | Exclusive Hold Recall Time | 1=60 Sec |
| 05-01-03 | 0-9 | Hold Recall Timeout | 1=60 Sec |
| 05-01-04 | 0-9 | DISA Access Delay Time | 1=2 Sec |
| 05-01-05 | 0-9 | Busy Remind Cycle Time | 4=8 Sec |
| 05-01-06 | 0-9 | Pause Time | 2=800 Ms |
| 05-01-07 | 0-9 | DTMF Generation Time | 2=83 Ms |
| 05-01-08 | 0-9 | Call Forward No Answer TRF. Time | 1=20 Sec |

**05-01-01 - HOLD RECALL TIME:**

This parameter sets the time duration from when Hold is initiated to when the held call starts to ring (recall) the station.

After a pre-determined recall time (see 05-01-03: Hold Recall Timeout), if the station still does not answer, the hold call will automatically transfer to the Console.

**05-01-02 - EXCLUSIVE HOLD RECALL TIME:**

This parameter sets the time duration from when Exclusive hold is initiated to when the held call starts to recall the station.

After a pre-determined recall time (see 05-01-03: Hold Recall Timeout), if the station still does not answer, the held call will recall to the Console in addition to the holding station.

**05-01-03 - HOLD RECALL TIMEOUT:**

This parameter sets the time between a call recalling to a holding or transferring station and then recalling to the console if unanswered.

See Values below for these timers.

| | | | | |
|---|---|---|---|---|
| 0=30 seconds | 1=60 seconds | 2=90 seconds | 3=120 seconds | 4=150 seconds |
| 5=180 seconds | 6=210 seconds | 7=240 seconds | 8=253 seconds | 9=No recall |

**05-01-04 - DISA ACCESS DELAY TIME:**

This parameter sets the time duration that a DISA trunk will ring prior to connection to return dial tone or VSC message. (Stations can answer during this time.)

0 = Automatic connection, no ring to the stations.

1-8 = Automatic connection after 2-254 seconds ringing as listed below.

| | | | | |
|---|---|---|---|---|
| 0=0 second | 1=2 seconds | 2=4 seconds | 3=6 seconds | 4=8 seconds |
| 5=15 seconds | 6=30 seconds | 7=60 seconds | 8=120 seconds | 9=254 seconds |

**05-01-05 - BUSY REMIND CYCLE TIME (OFF-HOOK RINGING):**

This parameter selects the length of time an incoming trunk call rings the system before a busy ring assigned station is reminded of the call. A muted, one-second ring will be given to the station through the speaker to indicate the call. The tone will be repeated every busy remind time interval.
This parameter also sets the timing for the SLT Camp-On feature (see Mode 05-08-03 to extend timing for SLT Camp on tone) and the camp on tone for key stations.

| | | | | |
|---|---|---|---|---|
| 0=0 seconds | 1=2 seconds | 2=4 seconds | 3=6 seconds | 4=8 seconds |
| 5=15 seconds | 6=30 seconds | 7=60 seconds | 8=120 seconds | 9=254 seconds |

**05-01-06 - PAUSE TIME:**

This parameter sets the system pause time duration for speed dial entry, trunk access time and voice mail call forwarding tone delay..

| | | | | |
|---|---|---|---|---|
| 0=400 ms. | 1=600 ms. | 2=800 ms. | 3=1000 ms. | 4=1200 ms. |
| 5=1400 ms. | 6=1600 ms. | 7=1800 ms. | 8=2000 ms. | 9=2200 ms. |

**05-01-07 - DTMF GENERATION TIME:**

This parameter permits the selection of DTMF Generation output time. The generation time may need to be lengthened to access some Voice Mail or answering machines.

| | | | | |
|---|---|---|---|---|
| 0=48 ms. | 1=64 ms. | 2=80 ms. | 3=100 ms. | 4=114 ms. |
| 5=132 ms. | 6=156 ms. | 7=164 ms. | 8=180 ms. | 9=196 ms. |

**05-01-08 - CALL FORWARD NO ANSWER TRANSFER TIME:**

This parameter sets the duration between calling a station which has set call forward no answer, and the transfer of the call to the station to which it has been forwarded.

| | | | | |
|---|---|---|---|---|
| 0=10 seconds | 1=20 seconds | 2=30 seconds | 3=40 seconds | 4=50 seconds |
| 5=60 seconds | 6=70 seconds | 7=80 seconds | 8=90 seconds | 9=100 seconds |

**Form 05-02 - System Parameters Form - Timers-2**

| Form 05-02- | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Item | | | | | | | | |
| Range Of Entries | 0-9 | 0-9 | 0-9 | 0-9 | 0-9 | 0-9 | 0-9 | 0-9 |
| **Default** | 5 | 5 | 1 | 8 | 4 | 3 | 2 | 6 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-02-01 | 0-9 | SLT Dial Tone Timeout | 5=15 Sec |
| 05-02-02 | 0-9 | SLT Inter-Digit Timeout | 5=15 Sec |
| 05-02-03 | 0-9 | Auto Redial Ringing Time | 1=10 Sec |
| 05-02-04 | 0-9 | SLT Release Signal | 8=1400 ms |
| 05-02-05 | 0-9 | Flash Time - Key Phone | 4=640 ms |
| 05-02-06 | 0-9 | SLT Hold Signal | 3=200 ms |
| 05-02-07 | 0-9 | Ring On Time | 2=240 ms |
| 05-02-08 | 0-9 | Ring Off Time | 4=4 Sec. |

**05-02-01 - SLT DIAL TONE TIMEOUT:**

This parameter is for Single Line Telephones. If a key is not pressed before the assigned time period expires when Dial Tone is given, a Busy Tone will be heard and the DTMF receiver will be released.

**05-02-02 - SLT INTER-DIGIT TIMEOUT:**

This parameter is for Single Line Telephones. If the interval between digits dialed exceeds the assigned time period, a Busy Tone will be given and the DTMF receiver will be released.

| | | | | |
|---|---|---|---|---|
| 0=0 second | 1=2 seconds | 2=4 seconds | 3=6 seconds | 4=8 seconds |
| 5=15 seconds | 6=30 seconds | 7=60 seconds | 8=120 seconds | 9=254 seconds |

**05-02-03 - AUTO REDIAL RINGING TIME – CO LINES:**

This parameter is the time duration for which the system will redial the telephone number automatically and then hang up during Auto Redial on CO lines. ISDN lines will hang up immediately if the called number is busy.

| **Off Hook** | Auto-Redial Pause Time (Program 05-05-08), Y seconds | **Off Hook** |
|---|---|---|
| **Auto-Redial Ringing Timer** | On Hook | **Auto-Redial Ringing Timer** |

| | | | | |
|---|---|---|---|---|
| 0=1 second | 1=10 seconds | 2=20 seconds | 3=30 seconds | 4=40 seconds |
| 5=50 seconds | 6=60 seconds | 7=70 seconds | 8=80 seconds | 9=90 seconds |

**05-02-04 - SLT RELEASE SIGNAL:**

This parameter is the time duration of depressing the hook switch of an SLT that the system will see as a hang up, the system will take it as a hold signal if less than this time but longer than the SLT hook flash time.

| | | | | |
|---|---|---|---|---|
| 0=40 ms. | 1=80 ms. | 2=120 ms. | 3=400 ms. | 4=600 ms. |
| 5=800 ms. | 6=1000 ms. | 7=1200 ms. | 8=1400 ms. | 9=1600 ms. |

**05-02-05 - KEY TELEPHONE FLASH TIMER (MS. = MILLISECONDS):**

This parameter permits the selection of Flash time for Key stations when pressing the **[TRF/FL]** key or an analog phone which presses flash and then dials 800 while connected to an outside line. After dialing 800 the flash signal will be sent to the CO line and the analog phone will reconnect to the line.

| | | | | |
|---|---|---|---|---|
| 0=64 ms. | 1=80 ms. | 2=104 ms. | 3=200 ms. | 4=304 ms. |
| 5=400 ms. | 6=512 ms. | 7=600 ms. | 8=704 ms. | 9=800 ms. |

**05-02-06 - SLT HOLD SIGNAL:**

This parameter permits the selection of the Flash time from a single line telephone that the system will see as a Hold signal if the time is greater than the hold signal but less than the SLT release time.

| | | |
|---|---|---|
| DURING CONVERSATION | HOOK PRESSED-Period B | HOOK RELEASED |
| | Period **B <** SLT Release Time | **Hold** |

| | | |
|---|---|---|
| DURING CONVERSATION | HOOK PRESSED-Period B | HOOK RELEASED |
| | Period **B >** SLT Release Time | **Hang Up** |

| | | | | |
|---|---|---|---|---|
| 0=64 ms. | 1=80 ms. | 2=104 ms. | 3=200 ms. | 4=304 ms. |
| 5=400 ms. | 6=512 ms. | 7=600 ms. | 8=704 ms. | 9=800 ms. |

**05-02-07 - MINIMUM RING DETECTION (RING ON) TIMER (MS. = MILLISECONDS):** Minimum ring burst that must be present for the system to detect an incoming call.

| | | | | |
|---|---|---|---|---|
| 0=160 ms. | 1=200 ms. | 2=280 ms. | 3=400 ms. | 4=480 ms. |
| 5=600 ms. | 6=680 ms. | 7=800 ms. | 8=880 ms. | 9=1000 ms. |

**05-02-08 - RING CYCLE (RING OFF) TIMER:** Length of time that the system must have **without** a ring signal for the system to stop internal ringing (abandoned calls).

| | | | | |
|---|---|---|---|---|
| 0=2 seconds | 1=2 seconds | 2=2 seconds | 3=3 seconds | 4=4 seconds |
| 5=5 seconds | 6=6 seconds | 7=7 seconds | 8=8 seconds | 9=9 seconds |

| Form 05-03 - System Parameters Form - Codes-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Form 05-03- | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| **C**ode | | | | | | | | |
| Range Of Entries | 0 - 1 | 0 - 1 | 0 - 1 | 0 - 9 | 0 - 9 | 2 - 4 | 0 - 1 | 0 - 9 |
| **Default** | 1 | 0 | 0 | 9 | 0 | 2 | 0 | 9 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-03-01 | 0-1 | Make / Break Ratio | 1=40/60 |
| 05-03-02 | 0-1 | Automatic Trunk Search | 0=Allowed |
| 05-03-03 | 0-1 | Intercom Call Signaling Method | 0=Voice Signaling |
| 05-03-04 | 0-9 | PABX (Centrex) Outgoing Code | 9=9 |
| 05-03-05 | 0-9 | Toll Access Code | 0=0 |
| 05-03-06 | 2-4 | Station Numbering Plan | 2=2 |
| 05-03-07 | 0-1 | Intercom Dial Tone Pattern | 0=Steady |
| 05-03-08 | 0-9 | Door Phone Ringing Frequency | 9= Background Music |

**05-03-01 - PULSE DIAL - MAKE / BREAK RATIO DIAL PULSE RATIO:**

This permits the selection of a Make/Break Ratio for Dial Pulse signaling

| | |
|---|---|
| 0=33/67 | 1=40/60 |

**05-03 02 - AUTOMATIC CO LINE SEARCH DURING SPEED DIAL, AUTO REDIAL, SAVED REDIAL, ETC.:**

This allows the system to search for an available trunk according to the assigned dial 9 trunk group when automatic dialing features are used; i.e., Speed Dial, Save Redial, Redial, etc.

| | |
|---|---|
| 0=Enabled (Allowed) | 1=Disabled (Not Allowed) |

**05-03 03 - INTERCOM CALL SIGNALING TO ELECTRONIC TELEPHONE SET:**

This selects the Intercom calling method. The user can still override this selection by dialing 3 after initiating an intercom call. Individual stations can be set to automatic microphone switch-on in mode 46-st-03 and thus override the system wide ring method.

| | |
|---|---|
| 0=Voice Signaling | 1=Ring Signaling |

**05-03-04 - PABX (CENTREX) OUTGOING CODE (REFERENCE FORM 35-CO-01):**

This parameter assigns the PABX outgoing call access code for Redial and Save Redial when the system is installed behind a PABX.

It is used only when Trunk Lines are set to be PABX lines in Mode 35-TK-01.

This assignment also enables the system to identify whether the user's dialing is a PABX's Intercom call or an Outgoing call for toll restrictions. ***(Refer to Program 35-TK-01)***

| | | | | |
|---|---|---|---|---|
| 0=0 | 1=1 | 2=2 | 3=3 | 4=4 |
| 5=5 | 6=6 | 7=7 | 8=8 | 9=9 |

**05-03-05 - TOLL ACCESS CODE:**

The first digit that is checked for verification of a toll call. ***This has no effect on toll restriction within the system***. It is only used to notify SMDR that a particular call is a toll call. See Form 14-01-03.

***In the United States, this parameter (if used) will generally be set to 1.***

| | | | | |
|---|---|---|---|---|
| 0=0 | 1=1 | 2=2 | 3=3 | 4=4 |
| 5=5 | 6=6 | 7=7 | 8=8 | 9=9 |

**05-03-06 - STATION NUMBER DIGIT LENGTH:**

This assigns the number of digits used for the station numbering plan. 2, 3, or 4 digits may be used. In the TD-824i the system will set this parameter to 2 digits automatically at the time of system initialization

| | | |
|---|---|---|
| 2=2 digit length | 3=3 digit length | 4=4 digit length |

**05-03-07 - SLT DIAL TONE OPTIONS:**

This parameter assigns the pattern of intercom dial tone and other "off hook" tones within the system.

| Setting | ICM Tone | DND Tone | CFWD Tone | MSG Tone |
|---|---|---|---|---|
| 0 | Continuous | Special | Special | Continuous |
| 1 | Interrupted | Special | Special | Interrupted |
| 2 | Continuous | Continuous | Continuous | Continuous |
| 3 | Interrupted | Interrupted | Interrupted | Interrupted |
| 4 | Continuous | Special | Special | Interrupted |
| 5 | Interrupted | Special | Special | Continuousl |
| 6 | Continuous | Continuous | Continuous | Interrupted |
| 7 | Interrupted | Interrupted | Interrupted | Continuous |

| | | |
|---|---|---|
| Continuous = Normal Dial tone | Interrupted = Normal Busy Tone | Special = Three Short Beeps |

**05-03-08 - DOORPHONE RINGING FREQUENCY:**

This parameter allows for different ring patterns for the Door Phone

| | | |
|---|---|---|
| 0= continuous ringing | 1~8 = ring frequency of the DK telephone | 9= Background Music |

**Form 05-04 - System Parameters Form - Codes-2**

| Form 05-04- | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Item | | | | | | | | |
| Range of Entries | 0 | 0 - 1 | 0 - 2<br>5 - 7 | 0 - 1 | 0 | 0 - 4 | 0 - 1 | 1 - 2 |
| **Default** | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-04-01 | 0-7 | RS232 Baud Rate | 0=1200bps |
| 05-04-02 | 0-1 | Dial 9 Flag | 1=Enable |
| 05-04-03 | 0-8 | Action for Call Duration Limiting | 0=Warning |
| 05-04-04 | 0-1 | 12/24 Hours Clock | 0=12 Hours |
| 05-04-05 | 0 | Reserved | 0 |
| 05-04-06 | 2-4 | Speed Dialing Distribution | 1=200 Sets |
| 05-04-07 | 0-1 | Single Digit Intercom | 0=Disable |
| 05-04-08 | 0-4 | Message Waiting Method – SLT Phones | 1=Ring |

**05-04-01 - RS232 BAUD RATE:**

This parameter sets the baud rate for the RS232 port on G2-MSU card. This RS232 port can be used for SMDR, CTI signalling, MODEM for remote programming purpose.
**Caution:** High baud rate could cause system low performance for other applications.

| | | | |
|---|---|---|---|
| 0 = 1200 | 1 = 2400 | 2 = 3600 | 3 = 4800 |
| 4 = 9600 | 5 = 19200 | 6 = 38400 | 7 = 56000 (bps) |

**05-04-02 - DIAL 9 (HYBRID) ACTIVATION TURNS ON DIAL 9 (POOLED CO LINES):**

This parameter sets if a station can access an outgoing line by dialing 9. If this parameter is disabled the station can still access an outgoing line by pressing a line key

| | |
|---|---|
| 0=Dial 9 access Disabled | 1= Dial 9 access Enable |

**05-04-03 - CALL LIMIT TYPE:**

This parameter decides what action will be taken if a station has limit call duration enabled in Mode 40-nnnn-03. Settings 0 to 3 are for outgoing calls only. The outside party will also hear the warning tone.

| |
|---|
| 0=Continuous Warning After Timeout (Outgoing). |
| 1=1 Second Warning at Duration Limit (Outgoing). |
| 2=1 Second Tone 10 seconds Prior to Timeout. Continuous Tone 5 seconds prior. Line is released at Timeout (Outgoing). |
| 5=Same as 1 above, except affects both Incoming and Outgoing. |
| 6=Same as 2 above, except affects both Incoming and Outgoing. |
| 7=Same as 3 above, except affects both Incoming and Outgoing. |

**05-04-04 - TIME FORMAT DISPLAY:**

| | |
|---|---|
| 0=12 Hour Clock (AM/PM) | 1=24 Hour Clock 00:00-23:59 |

**05-04-05 - RESERVED:**

**05-04-06 - SPEED DIAL DISTRIBUTION:**

This parameter sets the number of speed dial numbers allocated to the system speed dial. Adding extra numbers to system Speed Dial reduces the number of personal Speed Dial numbers available to share between individual stations

***Numbers after backslash indicate sets available with name feature enabled.***

| | System | Personal | | System | Personal |
|---|---|---|---|---|---|
| 0 | 100 Sets | 500/200 Sets | 3 | 400/300 Sets | 200/000 Sets |
| 1 | 200 Sets | 400/100 Sets | 4 | 500/300 Sets | 100/000 Sets |
| 2 | 300 Sets | 300/000 Sets | | | |

**05-04-07 - INTERCOM SINGLE DIGIT DIALING:**

Single digit intercom allows the stations to call up to 5 other stations by dialing one digit only (1 to 5). This feature is for the Hotel / Motel Environment. Up to eight different groups may be programmed. If a group is not programmed with any entries then stations which are in the same number station group will be able to make intercom calls without dialing the room to room dialing prefix (6).

| | |
|---|---|
| 0=Disabled | 1=Enabled |

**05-04-08 - MESSAGE WAITING (MW) STATUS FOR SINGLE LINE PHONES:**

If the setting is Ring, the single line phone will receive 30 seconds intercom ringing every 5 minutes until the station answers.

If the setting is Voice Message, the station which is left a message will hear the voice message which is stored by the console after answering the message waiting.

If the setting is 250 ms. ring the analogue phone will receive two 250 ms. ring burst every 5 minutes. This is for use with the special telephones to turn on message lamp.

| | |
|---|---|
| 0= Disable All Message Waiting indications | |
| 1=MW Ring - Route recipient to message originator. (Day and Night) | 2=MW - Route to VSU. (Day and Night) |
| 3=250 millisecond ring every 5 minutes. (Day and Night) | 4=No MW during Night Service |

**Form 05-05 - System Parameters Form - Codes-3**

| Form 05-05- | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Item | | | | | | | | |
| Range of Entries | 0 - 1 | 0 | 0 - 6 | 0 - 9 | 0 | 1 | 0 - 9 | 0 - 9 |
| **Default** | 1 | 0 | 0 | 0 | 0 | 1 | 7 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-05-01 | 0-3 | Wake Up Call Type | 1=Music |
| 05-05-02 | 0-1 | Meter Pulse Detect | 0=Enable |
| 05-05-03 | 0-5 | Speed Dial Unrestricted-1 | 0=0 |
| 05-05-04 | 0-9 | Speed dial Unrestricted-2 | 0=0 |
| 05-05-05 | 0-7 | Name Feature For Extensions, Trunks, Speed dial | 7=Enable All |
| 05-05-06 | 0-1 | Dial Tone Detection | 1=Enable |
| 05-05-07 | 0-9 | Auto Redial Attempts | 1=2 Times |
| 05-05-08 | 0-9 | Auto Redial Pause Time | 0=10 Sec |

**05-05-01 - WAKE UP CALL SIGNALING:**

This parameter is for the Hotel/Motel environment to decide what an extension will hear upon receiving a wake up call.
Each station can be set in Mode 44-st-08 to decide whether to hear Background Music or DND tone

| | |
|---|---|
| 0=VSU (requires Voice Service Unit) | 1 = Back-ground music or DND tone. |
| 2 = VSC + Record Wake Up Call History via SMDR | 3 = Back-ground music or DND tone + Record Wake Up Call History via SMDR |

**05-05-02 - METER PULSE DETECTOR:**

If setting is Enabled, the system will detect the metering signal from the Exchange during the conversation. (Not used in North America).

| | |
|---|---|
| 0 = Enable | 1 = Disable |

**05-05-03 - SPEED DIAL UNRESTRICTED (HUNDREDS GROUP):**

If 05-05-03, 05-05-04 settings are A, B, then the speed dial codes from 100 to AB0 are not toll restricted. For example if the settings are 1 and 1 then Speed dials up to 110 can be used by stations whether they conflict with toll restrictions or not. Individual stations can be restricted from using this feature in Mode 45-st-07.
If 05-05-03, 05-05-04 settings are set to 0, 0, then all speed dial codes are toll restricted if the station using the speed dial is restricted.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0=000 | 1=100 | 2=200 | 3=300 | 4=400 | 5=500 | 6=600 | |

| **05-05-04 - SPEED DIAL UNRESTRICTED (TENS GROUP):** See 05-05-03 above | | | | | | 0=00 | 1=10 |
|---|---|---|---|---|---|---|---|
| 2=20 | 3=30 | 4-=40 | 5=50 | 6=60 | 7=70 | 8=80 | 9=90 |

**05-05-05 - NAME FUNCTION:**

This parameter enables the naming feature for trunks, extensions and speed dials.

| ***Features \ Values*** | ***0*** | ***1*** | ***2*** | ***3*** | ***5*** | ***7*** |
|---|---|---|---|---|---|---|
| Display Name instead of number for Extension | | V | | V | V | V |
| Directory Dial for Speed Dial | | | V | V | | V |
| Directory Dial for Extension | | | | | V | V |

V: The feature is enabled.

Note 1: When any of the above features are enabled the total number of speed dial sets will be reduced by 300. See Mode 05-04-06.

Note 2: For setting name for Extension/Speed dial/Trunk, Please refer to the programming mode 43 / 09 /35.

Note 3: For setting "Directory Dial" key, Please refer to mode 07.

| | |
|---|---|
| 0=No Names Used | 1=Display Names for Extensions |
| 2=Name Speed Dial. (Allow Dial by Name Speed Dial only) | 3=Name Extensions & Speed Dial (Dial by Name) |
| 5=Name Display and Dial by name for Extensions only | 7=Enable Name display and speed Dial. Enabled Dial by name for Extensions and Speed Dial |

**05-05-06 - DIAL TONE DETECTOR:**

If setting is enable, then the system will send out the dialing signals after the system detects the Dial Tone which is sent from the exchange, if dial tone is not detected by the system then dialing signals will not be sent out. If setting is disable, then the system will send out dialing signals whether Dial Tone is detected or not.

| | |
|---|---|
| 0 = Enable | 1 = Disable |

**05-05-07 - AUTO REDIAL ATTEMPTS:**

This parameter is to set the number of auto redial times which the system will attempt.

| | | | | |
|---|---|---|---|---|
| 0=Disabled | 1=3 Attempts | 2=6 attempts | 3=10 attempts | 4=20 attempts |
| 5=30 attempts | 6=40 attempts | 7=50 attempts | 8=60 attempts | 9=70 attempts |

**05-05-08 - AUTO REDIAL INTER-CALL TIMER (SECONDS):**

This parameter is the time duration between the system hanging up an auto redial attempt and starting to redial automatically

.

| Off Hook | **Auto-Redial Pause Time (Program 05-05-08), Y seconds** | Off Hook |
|---|---|---|
| Auto-Redial Ringing Timer | **On Hook** | Auto-Redial Ringing Timer |

| | | | | |
|---|---|---|---|---|
| 0=10 | 1=20 | 2=30 | 3=40 | 4=50 |
| 5=60 | 6=70 | 7=80 | 8=90 | 9=100 |

**Form 05-06 - System Parameters Form - Timer/Codes**

| Form 05-06- | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Item | | | | | | | | |
| Range Of Entries | 0 - 9 | 0 - 9 | 0 | 0 - 1 | 0 - 1 | 0-9 | 0, 1, 3 | 0 |
| **Default** | 4 | 4 | 1 | 1 | 0 | 3 | 0 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-06-01 | 0-9 | TRF Busy Recall Timeout | 4=30 sec. |
| 05-06-02 | 0-9 | TRF Idle Recall Timeout | 4=30 sec. |
| 05-06-03 | 0-1 | ISDN Audio | 1=u law |
| 05-06-04 | 0-9 | Polarity Reversal | 1=Enable |
| 05-06-05 | 0-1 | Operator Code | 0=0 |
| 05-06-06 | 0-9 | Unsupervised Conference And ECF Timer | 3=3 Min |
| 05-06-07 | 0-1 | Hold Method for SLT | 0=Flash |
| 05-06-08 | 0-2 | Station Hunting Group Ring Method | 0=Common |

**05-06-01 - TRANSFER RECALL TIMEOUT-BUSY (SECONDS):**

This parameter sets the time duration between transferring a call to a busy party and automatic transfer back to the transferring party when the called party remains busy

| | | | | |
|---|---|---|---|---|
| 0=5 | 1=10 | 2=15 | 3=20 | 4=30 |
| 5=40 | 6=50 | 7=60 | 8=70 | 9=No Recall |

**05-06-02 - TRANSFER RECALL TIMEOUT-NO ANSWER (SECONDS):**

This parameter sets the time duration between transferring a call to a station and automatic transfer back to the transferring party when the called party does not answer.

| | | | | |
|---|---|---|---|---|
| 0=5 | 1=10 | 2=15 | 3=20 | 4=30 |
| 5=40 | 6=50 | 7=60 | 8=70 | 9=No Recall |

**05-06-03 - ISDN AUDIO:**

This parameter sets ISDN Audio type.

| | |
|---|---|
| 0 = a law | 1 = u law |

**05-06-04 - POLARITY REVERSE DETECTION:**

This parameter is to enable the Polarity Reversal detection feature for incoming caller hang up detection in Australia and some European countries. See Mode 14-01-08 for SMDR setting. Telecom will need to enable polarity reversal at the exchange. When reversal is enabled the system will hang up the exchange line when the incoming caller hangs up and the exchange sends a reversal to the system.

0 = Disable
1 = Enable for 1 polarity reverse signal
2-9 = Delay for 1-8 Seconds and then detect Polarity Reverse Signal

**In North American applications this is not used. Leave it set to 1.**

| | |
|---|---|
| 0=Disable | 1=Enable |

**05-06-05 - OPERATOR ACCESS CODE:**

This parameter is to set whether to dial "0" or "9" for the operator or for accessing a CO. line.

| | |
|---|---|
| 0 = 0 Operator - 9 Outside Line | 1= 9 Operator - 0 Outside Line |

**05-06-06 - CO DISCONNECT TIMER FOR ECF, UNSUPERVISED CONFERENCE, AND DISA:**

This parameter sets the time that the system will allow an Unsupervised Conference or External Call Forward to continue before sending a warning tone to the parties and then disconnecting the call.
If either party sends a DTMF digit (0-9) to the system the timer will reset and allow the call to continue for the time setting. If reversal supervision is used it will override this setting.

| | | | | |
|---|---|---|---|---|
| 0=Disable | 1=1 minute | 2=2 minutes | 3=3 minutes | 4-9=4 minutes |

**05-06-07 - SINGLE LINE TELEPHONE HOLD PROCEDURE:**

This parameter is to set whether Single Line Telephones use [FLASH] (or [Hook-switch]) or [FLASH, 7] (or [Hook-switch, 7]) to place a call on Hold.

| | | |
|---|---|---|
| 0=Flash only | 1 +[7=Flash] | 3=Flash +[7] (System returns tone after Flash) |

**05-06-08 - STATION HUNTING GROUP RING METHOD:**

This parameter sets the ring method used in the station hunting groups. Pilot numbers for hunt groups are set in Mode 67 and Day/Night ring stations are set in Mode 68 & 69. This system wide parameter can be overridden by programming in Form 67-GP.

| | | |
|---|---|---|
| 0 = Common | 1 = Linear | 2 = Circular |

**Form 05-07 - System Parameters Form - Timer/Codes**

| Form 05-07- | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Item | | | | | | | | |
| Range of Entries | 0 - 1 | 0 - 1 | 0 | 0 - 1 | 0 - 7 | 0 - 9 | 0 | 0 |
| **Default** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-07-01 | 0-1 | Intercom Searching | 0=Disable |
| 05-07-02 | 0-1 | Toll Override Prevention from quick dial | 0=Disable |
| 05-07-03 | 0 | Reserved | 0 |
| 05-07-04 | 0-7 | DISA Transfer To Console - No Dialing | 0=Enable |
| 05-07-05 | 0-1 | KeyPhone Toll Override Prevention | 0=Disable |
| 05-07-06 | 0-9 | SMDR Digit Mask | 0=Disable |
| 05-07-07 | 0-9 | CO Guard Timer | 0=0 ms. |
| 05-07-08 | 0 | Reserved | 0 |

**05-07-01 - INTERCOM STEP CALL:**

If setting is enable, when calling an internal station which is busy or does not answer, pressing [4] will call the station on the next port which is in the same station group as the called station. If setting is disable then there will be no transfer.

| | |
|---|---|
| 0=Disable | 1=Enable on Busy |
| 2=Enable on No Answer | 3=Enable on Busy and No Answer |

**05-07-02 - SLT CALLING PROOF:**

In areas where dial tone from the CO is delayed, this option will disallow dialing before dial tone is available. If dial tone is delayed, SLT users may attempt to bypass toll control by dialing a DTMF digit before dial tone is available. Enabling this option causes toll checking to not occur until dial tone is heard on the CO trunk. If digits are dialed before dial tone is available, they are disregarded by the TD-824i.

| | |
|---|---|
| 0=Disable | 1=Enable |

**05-07-03 - RESERVED – SET TO 0**

| 05-07-04 - DISA OPERATOR RECALL CAPABILITY (NO DIGITS DIALED): | | | |
|---|---|---|---|
| **Setting** | **Situation** | | |
| | **No dialing after the first voice announcement from the VSU.** | **The VSU has announced that the called station is busy or no answer** | **The VSU has already announced the invalid number or a dialed number that has not been received completely.** |
| 0= | * | * | * |
| 1= | **T** | * | * |
| 2= | * | **T** | * |
| 3= | **T** | **T** | * |
| 4= | * | * | **T** |
| 5= | **T** | * | **T** |
| 6= | * | **T** | **T** |
| 7= | **T** | **T** | **T** |
| Note | **"*"** = Transfer the incoming call to console<br>**"T"**=System will announce VSU function 06 (if programmed) to the incoming call if no digits dialed timer has expired. System releases call (hangs up). | **"*"**=See Form 46-ST-04<br>**"T"**=See Form 46-ST-04. If 46-ST-04 is no recall to operator, VSU function 06 will be played to the caller (if programmed). System will release call (hang up). | **"*"**= System will transfer incoming caller to system operator if 05-08-07 has expired.<br>**"T"**=System will play VSU function 06 (if programmed) to the caller if 05-08-07 has expired. System will release the call (hang up). |

**05-07-05 - EKT CALLING PROOF :**

If the setting is enabled, then no audio will be sent from the handset until 3 digits are received by the KSU from the key station dial pad. The intent of this option is to prevent the use of external dialing devices in order to bypass existing toll restrictions. This parameter will be automatically disabled on any lines which are set to Pulse dial.

| | |
|---|---|
| 0=Disable | 1=Enable |

**05-07-06 - SMDR DIALED NUMBER PRINT:**

If setting is "0", then the full length of the telephone number will be output to the SMDR. If setting is n, then the length of the telephone number will be n digits long.

| | | | |
|---|---|---|---|
| 0=Print All Digits | 1=Print 1st digit | 2=Print First 2 digits | 3=Print First 3 digits |
| 4=Print First 4 digits | 5=Print First 5 digits | 6=Print First 6 digits | 7=Print First 7 digits |
| 8=Print First 8 digits | | 9=Print First 9 digits | |

**05-07-07 - CO TRUNK GUARD TIMER:**

This parameter is used to insert a pause between a line being released and being able to be re-selected for outward dialing.

| | | | | |
|---|---|---|---|---|
| 0=No delay | 1=1 second | 2=2 seconds | 3=3 seconds | 4=4 seconds |
| 5=5 seconds | 6=6 seconds | 7=7 seconds | 8=8 seconds | 9=9 seconds |

**05-07-08 - RESERVED:**

| Form 05-08-**T** | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| **Form 05-08 - System Parameters Form - Timer/Codes** | | | | | | | | |
| Item | | | | | | | | |
| Range of Entries | 0 - 9 | 0 - 1 | 0 - 9 | 0 - 1 | 0 - 8 | 0 - 9 | 0-9 | 0 |
| **Default** | 0 | 0 | 0 | 0 | 7 | 1 | 4 | 1 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-08-01 | 0-9 | Ring Hunt Interval | 0=0 Sec. |
| 05-08-02 | 0-1 | DSS Access To Other Trunk Group | 0=Enable |
| 05-08-03 | 0-9 | SLT Camp On Tone | 0=Disable |
| 05-08-04 | 0-1 | DISA Transfer Group (No Answer) | 0=Station Group |
| 05-08-05 | 0-8 | SLT Programming digit | 7=7 + Code |
| 05-08-06 | 0-9 | DISA TRANSFER Time No Answer or Busy | 1=16 Sec |
| 05-08-07 | 0-9 | DISA Transfer Time No Dialing | 4=4 Sec. |
| 05-08-08 | 0-1 | Music source selection | 1=Ext MOH/Int IC |

**05-08-01 - RING HUNT INTERVAL (SECONDS):**

If setting is n, Then when an incoming call rings the first ring assigned extension and that extension is busy, after n seconds the call will ring the second of the ring assigned extensions. If the 2nd extension is busy the call will go to the 3rd extension immediately. All stations which have been passed by the ring assignment will receive off hook busy remind. Up to 16 stations can be in the ring hunt group. If the setting is 0 then only the first ring assigned station will ring.

| | | | | |
|---|---|---|---|---|
| 0=0 | 1=2 | 2=4 | 3=6 | 4=8 |
| 5=15 | 6=30 | 7=60 | 8=120 | 9=250 |

**05-08-02 - DIRECT CO ACCESS:**

This feature enables or disables the ability of stations to use a DSS key to access CO lines not in their own dial 9 group.

| | |
|---|---|
| 0=Disable | 1=Enable |

**05-08-03 - SLT BUSY REMIND TONE TIMER:**

This feature enables a tone to indicate call waiting for a busy single line telephone and sets the interval between tones. The interval between tones will be the Off Hook Busy Remind Interval (t) x by the setting in this parameter. Off Hook Busy Remind Time is set in Mode 05-01-05.

| | | |
|---|---|---|
| 0=Disable | 1=1 X Value of Form 05-01-05 | 2=2 X Value of Form 05-01-05 |
| 3=3 X Value of Form 05-01-05 | 4=4 X Value of Form 05-01-05 | 5=5 X Value of Form 05-01-05 |
| 6=6 X Value of Form 05-01-05 | 7=7 X Value of Form 05-01-05 | 8=8 X Value of Form 05-01-05 |
| 9=9 X Value of Form 05-01-05 | | |

**05-08-04 - DISA OPERATOR RECALL LOCATION (NO ANSWER):**

This parameter decides to which Console group an unsuccessful DISA call will be transferred if the called station has transfer enabled in 46-st-04.

| |
|---|
| 0=Console for the Called Station's group (41-st-01) |
| 1=Console for the Incoming Trunk's group (36-gp) |

**05-08-05 - SLT FEATURE PROGRAMMING ACCESS CODE FIRST DIGIT:**

This feature changes the programming digit used by an Analog phone to perform its programmable features. For example call forward is normally 701, If this parameter is set to 3 the call forward code will be 301. If the setting is 0 then the analogue phones cannot do programming. If the setting is 8 it is necessary to press [*][#] before accessing programming or dialing any 8 codes. This will allow the use of digits 1 to 8 as the first digit of a station number

| | | | | |
|---|---|---|---|---|
| 0=Disabled | 1=1 | 2=2 | 3=3 | 4=4 |
| 5=5 | 6=6 | 7=7 | 8=[*][#][7] | |

**05-08-06 - DISA NO ANSWER RECALL TIMER (SECONDS):**

An incoming call is answered by the DISA voice message and transferred to the called extension. If the called extension does not answer after this time duration the voice card will announce the status of the station (no answer). Or if the station is busy will announce the status (busy) immediately and then retry the station the number of times set in Mode 05-11-06 and depending on the settings for individual stations in Mode 46-st-03 will also transfer the call to the console of the group specified in Mode 05-08-04, transfer the call to the console only or disconnect the call.

| | | | | |
|---|---|---|---|---|
| 0=8 | 1=16 | 2=24 | 3=32 | 4=40 |
| 5=48 | 6=56 | 7=64 | 8=72 | 9=80 |

**05-08-07 - DISA TRANSFER TIME (NO DIGITS DIALED) TRANSFER TO CONSOLE:**

This parameter sets the time that a DISA call will wait after the voice message is completed before transferring to the console if no digits are dialed by the caller. Do not set this to less than about 3 seconds for normal operation

| | | | | |
|---|---|---|---|---|
| 0=Immediate | 1 = 1 second | 2 = 2 seconds | 3 = 3 seconds | 4 = 4 seconds |
| 5 = 5 seconds | 6 = 6 seconds | 7 = 7 seconds | 8 = 8 seconds | 9 = 9 seconds |

**05-08-08 - MUSIC SOURCE SELECTION:**

This parameter sets the Music Source for the Internal Background Music and CO Music on Hold and Doorphone Ringback Tone.

| Set Data | B.G.M | M.O.H | Doorphone Ringback |
|---|---|---|---|
| 0 | Melody IC | Melody IC | Melody IC |
| 1 | External Source | Melody IC | Melody IC |
| 2 | Melody IC | External Source | External Source |
| 3 | External Source | External Source | External Source |
| 4 | Melody IC | External Source | SLT Music Port |
| 5 | External Source | External Source | SLT Music Port |
| 6 | Melody IC | Double Beep Tone | Silence |

| Form 05-09 - System Parameters Form - Misc. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Form 05-09-**T** | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| I**T**em | | | | | | | | |
| Range of Entries | 0 | 0 - 1 | 0-9 | 0 | 0 | 0 | 0 | 0 |
| **Default** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-09-01 | 0 | Reserved | 0 |
| 05-09-02 | 0-1 | Busy Console Queuing (Intercom Calls) | 0=Disable |
| 05-09-03 | 0-9 | Loop Disconnect Detection (CPC) | 3=320 ms |
| 05-09-04 | 0-9 | DISA Busy Tone Detection | 0=Disable |
| 05-09-05 | 0 | Reserved | 0 |
| 05-09-06 | 0-9 | UCD-1 Enable Time | 0=5 Sec |
| 05-09-07 | 0-9 | UCD-1 Segment 2 Recall Time | 0=Disable |
| 05-09-08 | 0-9 | UCD-1 Release Time | 0=No Release |

**05-09-01 - RESERVED:**

**05-09-02 - CONSOLE AUTOMATIC QUEUING:**

This feature enables the busy console(s) to have an intercom call(s) queued to it(them). If the station dials the operator (by 0 or 9) and all the consoles are busy, the system will put this call in the queue to wait for the operators to be free. The calling station will hear ring back tone instead of busy tone and the first operator in the group will receive the Busy Remind Signal. The first operator to go on-hook will receive the call.

| | |
|---|---|
| 0=Disable | 1=Enable |

**05-09-03 - CO LOOP DISCONNECT (CALLING PARTY CONTROL):**

This option enables Calling Party Control so that held calls that are abandoned are dropped by the system and callers who abandon while listening to voice mail do not continue processing. Calling Party Control is sent from the telco Central Office as an open loop (loop current dropped). Open loop interval is listed below in milliseconds

| | | | | |
|---|---|---|---|---|
| 0=Disabled | 1=80 ms | 2=160 ms | 3=240 ms | 4=320 ms |
| 5=400 ms | 6=480 ms | 7=560 ms | 8=640 ms | 9=720 ms |

**05-09-04 - DISA Busy Tone Detection:**

This feature allows the system to recognize busy tone from the CO line during DISA operation for clearing down the call.
Type 1 = busy tone is 250 ms. on, 250 ms. off.
Type 2 = 500 ms. on and 500 ms. off.
Type 3 = Continuous busy tone (>3.2 seconds).
Type 4 = 375 ms. on and 375 ms. Off.

| | | | | |
|---|---|---|---|---|
| 0 = Disable | 1 = Type 1 | 2 = Type 2 | 3 = Type 1 and 2 | 4 = Type 3 |
| 5 = Type 1 and 3 | 6 = Type 2 and 3 | 7 = Type 1, 2, 3 | 8 = Type 4 | |

**05-09-05 - RESERVED:**

**05-09-06 - UCD ENABLE TIME:**

This parameter is to set the time duration before the system answers an incoming call when the ring assigned station(s) are busy, if a VMU card is installed. The incoming call will show as a normal ring signal on the DSS key and can be answered by the operator at any time even while the voice message is playing to the caller.

| | | | | |
|---|---|---|---|---|
| 0=5 seconds | 1=10 seconds | 2=15 seconds | 3=20 seconds | 4=25 seconds |
| 5=30 seconds | 6=35 seconds | 7=40 seconds | 8=45 seconds | 9=50 seconds |

**05-09-07 - UCD HOLD RECALL TIME:**

After the assigned time duration, if a station in the hunt group or the system operator has not become free, the caller will recall the VMU and VMU 2nd UCD recording will be played. This time sets the hold value. The message will be played to the caller every time the recall time is reached until answered by the operator or the caller hangs up.

| | | | | |
|---|---|---|---|---|
| 0=disabled (Does not recall) | 1=30 seconds | 2=45 seconds | 3=60 seconds | 4=75 seconds |
| 5=90 seconds | 6=105 seconds | 7=120 seconds | 8=135 seconds | 9-150 seconds |

**05-09-08 - UCD DURATION TIME:**

If a call has not been answered by a live person by the time this timer expires, the system will disconnect the outside caller. The system will play a warning message to the caller before releasing the call

| | | | | |
|---|---|---|---|---|
| 0=Timer Disabled | 1=5 minutes | 2=10 minutes | 3=15 minutes | 4=20 minutes |
| 5=25 minutes | 6=30 minutes | 7=35 minutes | 8=40 minutes | 9=45 minutes |

| Form 05-10 - Voice Mail Leading Digits | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Form 05-10-**T** | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Range of Entries | | | | | | | | |
| **Default** | d | d | d | d | d | d | d | d |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-10-01 | 0 -9,*,# | Leading Digit 1 For Voice Mail Forwarding | d = None |
| 05-10-02 | DND | Leading Digit 2 For Voice Mail Forwarding | d = None |
| 05-10-03 | HOLD | Leading Digit 3 For Voice Mail Forwarding | d = None |
| 05-10-04 | | Leading Digit 4 For Voice Mail Forwarding | d = None |
| 05-10-05 | | Leading Digit 5 For Voice Mail Forwarding | d = None |
| 05-10-06 | | Leading Digit 6 For Voice Mail Forwarding | d = None |
| 05-10-07 | | Leading Digit 7 For Voice Mail Forwarding | d = None |
| 05-10-08 | | Leading Digit 8 For Voice Mail Forwarding | d = None |

**Description:**

This parameter allows the system to insert digits before the call forwarded station number when the call forward is received by the voice mail port if Standard Protocol is selected. If the station numbering is only 2 or 3 digits the system will insert additional digits if the Voice Mail requires more. The last digits of the voice mail box number will still have to be the same as the station numbering for correct recognition. The HOLD key can be used to insert a pause in the DTMF tone sending and will display as a (p). The DND key is no digits sent and is shown as (d).

**Example:**

The TransTel is set to 2 digit numbering but the voice mail requires 4 digits. The voice mail also requires a pause between answering the call and the tones being sent. Set this parameter to the following

```
05-10-IP SYS PAR
p 9 9 d d d d d
```

When the call forwarded station 11 is answered by the voice mail port after the pause time the digits 9911 will be sent to the port by the system. If station 11's voice mail box is 9911 then the mailbox number 9911 will be automatically opened by the tones.

There are 2 different Voice Mail Protocols available in the TransTel G series depending on the setting in Mode 05-12-05. If this mode is set to 0 then the Protocol will be the leading digits entered in this Mode plus the Station Number of the forwarded station. If Mode 05-12-05 is set to 1 then the Enhanced Protocol shown on the following page will be used.

**Enhanced Protocol**

Enhanced Protocol is a more sophisticated means of integration with most voice mails. Its use is preferable to that of the integration of 05-10 in most cases. Within the enhanced protocol the TD-824i defines specific types of calls. Depending on the application and the type of voice mail, this allows for the maximum flexibility in the processing of calls. Each digit string will be unique to the type of call and the user.

The format is as follows:

1 + extension number = Call Forwarding All Calls
2 + extension number = Call Forward Busy
3 + extension number = Call Forward No Answer
4 + extension number = Direct Call to Voice Mail (Auto Login)
5 + extension number = Call Record
6 + extension number = Recall to Voice Mail
7 + CO Trunk Number = Incoming CO Call
9# + extension number = Direct to Mailbox (Take A Message)

In the case of codes 1+ through 6+ and 9#+ the actual string will be the identifier digit plus the actual extension number.
Systems using two digit numbering will send a total of three digits (identifier plus 2 digit extension number).
Systems using three digit numbering will send a total of four digits (identifier plus 3 digit extension number).
Systems using four digit numbering will send a total of five digits (identifier plus 4 digit extension number).

If the Incoming trunk indentifier is enabled in the TD-824i on Form 05-12-05 the dial string will be 7+ a two digit trunk number, so an identifier for trunk 1 will be 701, trunk 2 is 702 and so on.

**Answer Digit** When a called station answers the System will play **[DTMF A]** to the voice mail port.
**Busy Digit.** When a called station is busy the system will play **[DTMF B]** to the voice mail port.
**Disconnect Digit.** The system will play **[DTMF C]** when an inside station disconnects or when a V/M is connected to a CO trunk which receives polarity reversal or Loop Disconnect.
These 3 functions will considerably speed up the operation of the V/M as it will not have to wait to listen to tones to see what is happening with calls.

**Answering Machine Operation**

When activated this function allows the caller to set call forward to the Voice Mail as usual but then monitor calls to the Voice Mail from his key phone (on hook) and if they wish can lift the handset and take the call back from the Voice Mail. To enable the user presses **[SPK] [7][7][3][1]** and to disable presses **[SPK] [7][7][3][0]**. You may have a button on your telephone programmed for Answering Machine Emulation. If so, Press the Answering Machine button. It will light up, indicating your telephone is in Answering Machine Mode. To remove from Answering Machine Mode, press the Answering Machine button again. The light will extinguish, indicating your exit from Answering Machine Mode.

**Record Function**

This function is dependent on the Recording Unit being capable of inserting the recording tone to alert the caller they are being recorded. To record it is necessary for the Key phone to have a **[RECORD]** key which is **FN 48 .** During a call the STN presses the [RECORD] button and the Voice Mail will answer if a port is available and the system will send the Protocol 15 + STN NO + STN No.

**Direct To Voice Mail**

Direct to Voice Mail allows a station to place another caller directly in a user's mailbox without the need to dial special codes. A station user presses the "Transfer to Voice Mail Key" and then either dials the extension user's number or presses their DSS button. The call is immediately routed to their voice mail box and their greeting without the need to transfer to a station and allow forwarding to take place. Assign FN:25 to a key (Form 07-*group-key*) for the phones you want.

**Message Waiting Digits**

Message Waiting is a non-programmable string that is sent by the voice mail system to the TD-824i in order to activate message waiting on telephones. The TD-824i accepts the following codes for Message Waiting utilization:

Message Waiting ON: 7071 + Extension Number
Message Waiting OFF: 7072 + Extension Number

**More About Voice Mail**

Voice Mail Ports are configured on Form 43-Port-02. Setting this parameter to a value of 8 identifies it as a voice mail port. It will then receive the integration digits selected for the system. All voice mail ports in a system must be set to type 8.

All Message Waiting levels for Voice Mail ports must be 9. Message Waiting level is set on Form 46-ext-02.

Voice mail ports must be assigned to Hunt Group 1 in the TD-1648i. The Pilot number for Hunt Group 1 is assigned on Form 67-01. Individual member of Hunt Group 1 are programmed on Form 68-01-01 for Day Service and 69-01-01 for Night Service.

When a voice mail port sets a message waiting on an LCD display set, the callback number displayed will be the first member of the hunt group. Message callbacks will call the station displayed. If it is busy, the system will hunt, just as if you had dialed the pilot number of the hunt group.

**Form 05-11 - System Parameters Form - Supplemental.**

| Form 05-11-**T** | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Item | | | | | | | | |
| Range Of Entries | 0 | 0 | 0 | 0 | 0-3 | 0-9 | 0-9 | 0-8 |
| **Default** | 0 | 0 | 0 | 1 | 0 | 0 | 5 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-11-01 | 0 | Reserved | 0= |
| 05-11-02 | 0-1 | DISA Password – 1 / 24 Sets | 0=1 |
| 05-11-03 | 0-2 | Select Music on Hold or Ring Back Tone | 1=MOH |
| 05-11-04 | 0-1 | DISA Queuing if VSU is busy or absent | 1=Queue |
| 05-11-05 | 0-3 | DISA Special Digit Access | 0=[8],[9],[*],[#] |
| 05-11-06 | 0-9 | DISA Transfer Timer: | 0=2 Times |
| 05-11-07 | 0-9 | Door Phone Ringing Time | 5=30 Sec. |
| 05-11-08 | 0-8 | DISA Single Digit Dialing | 0=Disable |

**05-11-01 - RESERVED:**

**05-11-02 - DISA PASSWORD:**

This parameter when enabled will increase the number of DISA passwords from 1 to 24. At the default setting of 0 the DISA password will be set in Form 13-02. If the parameter is set to 1, 24 passwords are available and they will be the same as the forced account codes numbers (25-48). Forced account codes are set in Form 17-(00-48).

| | |
|---|---|
| 0=Disable | 1=Enable |

**05-11-03 - MUSIC ON HOLD/RINGBACK ON TRANSFER:**

This parameter selects what the incoming caller will hear during Ring Transfer and Hold Recall conditions. The feature is designed for the U.S. to prevent the caller from hearing recognizing the TD-824i International Ring Back Tone and mistake it as a disconnect or busy signal and hanging up even though their call is still in progress.

| | | |
|---|---|---|
| 0 = Ring Back Tone | 1 = Music On Hold | 2 = Silence |

**05-11-04 - DISA QUEUING TO VSU (NOT APPLICABLE ON TD-1648I):**

This parameter is not valid on the TD-1648i. It must be set to 0 = disable queuing in order for DISA to operate.

| | |
|---|---|
| 0 = Disable Queuing | 1 = Enable Queuing |

**05-11-05 - DISA DIGIT ACCEPTANCE:**

This parameter sets which of the system functions are accessible by DISA callers

| | |
|---|---|
| 0=All special digits allowed | 1=[#] Allowed - [9],[0] Disallowed |
| 2=[9],[0] Allowed - [*],[#] Disallowed | 3=No Special Digits Allowed |

**05-11-06 - DISA TRANSFER COUNT:**

This function sets the number of times that an unsuccessful DISA call will attempt to retry a station and or transfer to a console after the ringing time set in Mode 05-08-06. A setting of 9 may cause trunks to lock up on systems that are completely unattended overnight. Please use care if you select 9 as the value for this parameter.

| | | | | |
|---|---|---|---|---|
| 0=2 | 1=3 | 2=4 | 3=5 | 4=6 |
| 5=7 | 6=8 | 7=9 | 8=10 | 9=Infinite |

**05-11-07 - DOOR PHONE RING TIMER :**

This parameter sets the time that Door Phone ring assigned stations will ring for when the Door Phone button is pressed.

| | | | | |
|---|---|---|---|---|
| 0=5 seconds | 1=10 seconds | 2=15 seconds | 3=20 seconds | 4=25 seconds |
| 5=30 seconds | 6=35 seconds | 7=40 seconds | 8=45 seconds | 9=50 seconds |

**05-11-08 - DISA SINGLE DIGIT DIALING:**

This feature allows a DISA caller to dial stations by 1 digit (1-5) using the settings in Form 10-gp-IP to set which station will be dialed by each digit

| | |
|---|---|
| | 0=No Single Digit Dialing |
| 1=Single Digit Group 1 | 2=Single Digit Group 2 |
| 3=Single Digit Group 3 | 4=Single Digit Group 4 |
| 5=Single Digit Group 5 | 6=Single Digit Group 6 |
| 7=Single Digit Group 7 | 8=Single Digit Group 8 |

**Form 05-12 - System Parameters Form - Miscellaneous**

| Form 05-12-**T** | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Item | | | | | | | | |
| Range Of Entries | 0 | 0 | 0-1 | 0 - 4 | 0-1 | 0 | 0 | 0 |
| **Default** | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-12-01 | 0-1 | Call Transfer Method – Key Telephone | 0=Key Phone |
| 05-12-02 | 0 | Reserved | 0 |
| 05-12-03 | 0-1 | Exclusive hold capability | 0=Enable |
| 05-12-04 | 0-9 | Door Unlock Relay Activation Time | 2=3 Sec |
| 05-12-05 | 0-7 | Voice Mail Call Forward Protocol Type / mute digits | 7=Muted DTMF |
| 05-12-06 | 0-1 | Linear/Circular Trunk group access | 0=Linear |
| 05-12-07 | 0-9 | LED indication of Check in / Check out on DSS console | 0=Disable |
| 05-12-08 | 0 | Reserved | 0 |

**05-12-01 - KEYPHONE TRANSFER METHOD:**

If set to 0, transfer procedure requires that the TRF/FL

| 0=Must use TRF/FL key, | 1=Can transfer by hanging up |
|---|---|

**05-12-02 - RESERVED:**

**05-12-03 - EXCLUSIVE HOLD:**

A call on exclusive hold cannot be readily retrieved by any other station. On all TransTel digital telephone stations, a call on exclusive hold will appear to other stations as a busy line (steady illuminated red pushbutton). The call owner will see a slow flash, to differentiate the exclusive call from other calls in the system.

| 0=Enable | 1=Disable |
|---|---|

**05-12-04 - DOOR RELAY ACTIVATION TIMER:**

This parameter sets the time that the door unlock relay will remain activated after the Door Unlock function is activated by the user. The Door unlock relay is programmed in Mode 06

| 0=1 second | 1=2 seconds | 2=3 seconds | 3=4 seconds | 4=5 seconds |
|---|---|---|---|---|
| 5=6 seconds | 6=7 seconds | 7=8 seconds | 8=9 seconds | 9=10 seconds |

**05-12-05 - VOICE MAIL INTEGRATION TYPE:**

This parameter selects between Standard Voice Mail Call Forward Protocol and the Digit+ Extension protocol. For a full description of Voice Mail Protocol see Mode 05-10. This parameter will also enable or disable muting of the leading digits to the outside caller.

| | |
|---|---|
| 0=Use Form 05-10 DTMF Not Muted | 1=Use Digit + Extension spec. DTMF Not Muted |
| 2=Use Form 05-10 DTMF Muted | 3= Use Digit + Extension spec. DTMF Muted |
| 4=Same as 0. | 5= Use Digit + Extension spec. Not Muted. Does Not send Direct CO Call Code |
| 6=Same As 2 | 7= Use Digit + Extension spec. DTMF Muted. Does Not send Direct CO Call Code. |

**05-12-06 - TRUNK GROUP ACCESS TYPE:**

If this parameter is set to 0 then line selection will be the first available trunk in the users dial (9-0) group. If the parameter is set to 1 then the lines will be selected in a Circular fashion till all lines have been used and then the selection will start again. Do **NOT** use Circular with CO lines unless there is a very good reason as call collision is more likely to occur as a result.

| | |
|---|---|
| 0=Linear Hunt | 1=Circular Hunt |

**05-12-07 - LED INDICATION OF CHECK IN / CHECK OUT:**

This parameter disables or enables the LED indication for Check in/Check out features for the DSS consoles and DSS Keys

**The LED indications are as follows:**

**Red and slow flash:** If the Reception has checked out an extension, the LED for extension will slow flash red.

**Green:** When the checked out extension's room has been cleaned by the cleaner(maid), they can dial [776] from the phone and hang up. The LED for that extension will go Green. This means the room is ready for a new guest

**Red:** The room is checked in and the phone is in use.

**Off:** The room is checked in and idle.

| | |
|---|---|
| 0 = Disable | 1= Enable |

**05-12-08 - RESERVED:**

| Form 05-13 - System Parameters Form - Miscellaneous | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Form 05-13-**T** | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Item | | | | | | | | |
| Range Of Entries | 0-1 | 0-1 | 0-3 | 0 | 0-1 | 0-1 | 0-7 | 0-7 |
| **Default** | 1 | 0 | 0 | 0 | 1 | 0 | 7 | 6 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-13-01 | 0-1 | Hot Dialing | 1=Enable |
| 05-13-02 | 0-1 | Immediate SMDR output | 0=Disable |
| 05-13-03 | 0-3 | Caller ID Buffer Block Size | 0=10 Sets |
| 05-13-04 | 0-9 | Reserved | 0 |
| 05-13-05 | 0-1 | Display CO Caller ID Name | 1=Display name |
| 05-13-06 | 0-1 | CTI-Trunk Status Report | 0= Disable |
| 05-13-07 | 0-7 | Least Call Routing(LCR) – 1st Special Rate Day | 7= Sunday |
| 05-13-08 | 0-7 | Least Call Routing(LCR) – 2nd Special Rate Day | 6= Saturday |

**05-13-01 - INTERCOM HOT KEY DIALING:**

This parameter when enabled allows stations to dial an intercom call On Hook without having to lift the handset or press the **SPK** key.

| 0 = Disable | 1= Enable |
|---|---|

**05-13-02 - IMMEDIATE SMDR OUTPUT:**

This parameter when enabled, is for external software to know who is dialing out at this moment. When enabled, if a station user dials out, system will send out the SMDR information immediately. The external software could start to count the cost in the beginning of the call. If the credit is 1 hour and time is expired, the external software could cut the connection by sending some commands back to KSU. Or any other applications are similar to this example could use this feature.

| 0 = Disable | 1= Enable |
|---|---|

**Example:**

Extension 18 accesses Trunk 01 and dials 1234567

```
18 01 N 1                    05/23  08:30'00"
18 01 N 12                   05/23  08:30'00"
18 01 N 123                  05/23  08:30'00"
18 01 N 1234                 05/23  08:30'00"
18 01 N 12345                05/23  08:30'00"
18 01 N 123456               05/23  08:30'00"
18 01 N 1234567              05/23  08:30'00"
18 01 # 1234567              05/23  08:30'00"     Hold line 1
18 01 * 1234567              05/23  08:30'00"     Retrieve line 1
18 01 * 1234567              05/23  08:30'00"     Hang up line 1
```

| 05-13-03 - CALL ID MEMORY BLOCK SIZE: | |
|---|---|
| 0 = 10 Records per Block | 1 = 20 Records per Block |
| 2 = 30 Records per Block | 3 = 40 Records per Block |

| **05-13-04 - RESERVED:** |
|---|

| **05-13-05 - CALLER ID DISPLAY METHOD:**<br>defines whether the system will display the incoming name or number when new calls arrive at the system | |
|---|---|
| 0 = Display Number of incoming call | 1 = Display Name of incoming call |
| 5 = Display Name and number of incoming call | |

| **05-13-06 - CTI-TRUNK STATUS REPORT:**<br>This parameter enables trunk status reports for CTI applications (Not currently available in North America). | |
|---|---|
| 0 = Disable | 1 = Enable |

| **05-13-07 - 1ST SPECIAL RATE DAY:**<br>This parameter sets an exception day to the standard day schedule. Use when the scheduling information changes on a specific day, such as the first day of the weekend.<br>**Related system Programming: 05-13-07. 05-13-08, 75, 76, 77, 78-st-01, 78-st-02** | |
|---|---|
| 0 = No Special Rate Day | 1 = Monday |
| 2 = Tuesday | 3 = Wednesday |
| 4 = Thursday | 5 = Friday |
| 6 = Saturday | 7 = Sunday |

| **05-13-08 - 2ND SPECIAL RATE DAY:**<br>This parameter sets an exception day to the standard day schedule. Use when the scheduling information changes on a specific day, such as the second day of the weekend.<br>**Related system Programming: 05-13-07. 05-13-08, 75, 76, 77, 78-st-01, 78-st-02** | |
|---|---|
| 0 = No Special Rate Day | 1 = Monday |
| 2 = Tuesday | 3 = Wednesday |
| 4 = Thursday | 5 = Friday |
| 6 = Saturday | 7 = Sunday |

**Form 05-14 - System Parameters Form - Miscellaneous**

| Form 05-14-**T** | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Item | | | | | | | | |
| Range Of Entries | 0 | 0 | 0-1 | 0 - 4 | 0-1 | 0 | 0 | 0 |
| **Default** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-14-01 | 0-1 | ISDN Recovery | 0=Disable |
| 05-14-02 | 0 | Reserved | 0=Reserved |
| 05-14-03 | 0 | Reserved | 0=Reserved |
| 05-14-04 | 0 | Reserved | 0=Reserved |
| 05-14-05 | 0 | Reserved | 0=Reserved |
| 05-14-06 | 0 | Reserved | 0=Reserved |
| 05-14-07 | 0 | Reserved | 0=Reserved |
| 05-14-08 | 0 | Reserved | 0=Reserved |

**05-14-01 - ISDN RECOVERY:**

This parameter enables different recovery functions for ISDN line under the worst case ISDN connection or environment.

| | | |
|---|---|---|
| 0 = Disable | 1= Recovery every 1 minute while idle | 2= Recovery every 1 minute always |

**05-14-02 - RESERVED:**

**05-14-03 - RESERVED:**

**05-14-04 - RESERVED:**

**05-14-05 - RESERVED:**

**05-14-06 - RESERVED:**

**05-14-07 - RESERVED:**

**05-14-08 - RESERVED:**

| Form 05-16 - System Parameters Form - Miscellaneous | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Form 05-16-**T** | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Item | | | | | | | | |
| Range Of Entries | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0-3 |
| **Default** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 05-16-01 | 0 | Reserved | 0=Disable |
| 05-16-02 | 0 | Reserved | 0=Reserved |
| 05-16-03 | 0 | Reserved | 0=Reserved |
| 05-16-04 | 0 | Reserved | 0=Reserved |
| 05-16-05 | 0 | Reserved | 0=Reserved |
| 05-16-06 | 0 | Reserved | 0=Reserved |
| 05-16-07 | 0 | Reserved | 0=Reserved |
| 05-16-08 | 0-3 | ISDN Event Monitor | 0=Disable |

**05-16-01 - RESERVED:**

**05-16-02 - RESERVED:**

**05-16-03 - RESERVED:**

**05-16-04 - RESERVED:**

**05-16-05 - RESERVED:**

**05-16-06 - RESERVED:**

**05-16-07 - RESERVED:**

**05-16-08 - ISDN EVENT MONITOR:**

This feature allows system to record the ISDN event for some maintenance purpose. All output will go through RS232 port.

| | |
|---|---|
| 0 = Disable ISDN Event Monitor feature | 1 = Enable ISDN Layer 2 Event Monitor feature |
| 2 = Enable ISDN Layer 3 Event Monitor feature | 3 = Enable ISDN Layer 2 & Layer 3 Event Monitor |

SMDR and CTI feature must be disabled before using this feature.

| **Form 06-01 - Relay Assignment Form**<br>*TD-MSC card has 1 dry contact relay.*<br>No voltage is provided by the system, the installer will have to provide their own source to suit the application. Only use the relays to switch 24V. They are only designed for low voltage control circuits. All Relays are Normally Open contacts and will close on activation of the function for which they have been programmed. |
|---|
| |
| 00-10 |

| **Valid Settings:** | |
|---|---|
| 00=Non-Operational (Default) | 04=CO Line Loud Bell |
| 01=Music On Hold | 05=Station Loud Bell |
| 02=Door Latch Release | 06=System Alarm |

## Form 07-gp-IP - Flexible Key Group Assignment

**General:**
This program assigns 8 groups of Flexible key plans for Key phones.
Each Key phone can be assigned to use two groups (Form 41-st-(02 & 03)).
Database Entry is as follows: 07-Gp-Key.
For example: Form 07-01-01 Refers to Form 07 – Key Group 1 – Button 1.
Form 07-01-29 Refers to Form 07 – Key Group 1 – Button 29.

**Description:**
Each key can be assigned as either a **Trunk**, a **Station** or a **Function**.
To change the assignment from TK to Station or to Function or vice versa, press the **[MIC/AT]** key before setting.

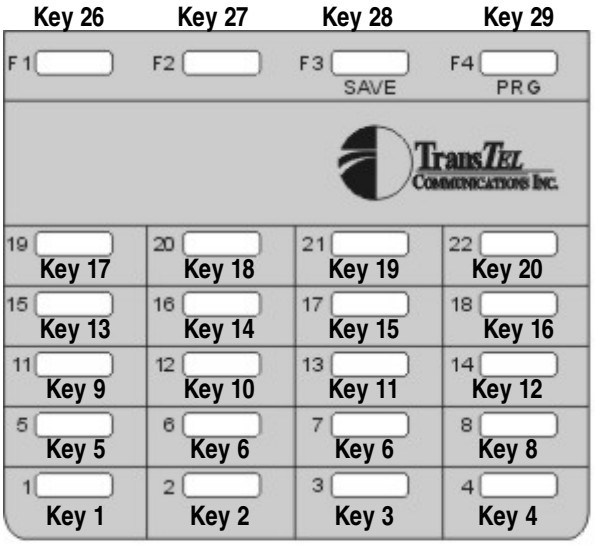
**nn** = 01-10 - Trunk Key (1 to 10) **xx** = 10-69 - Station Key (2 digits)
**fn** = 00-65 - Function Key (0 to 65)

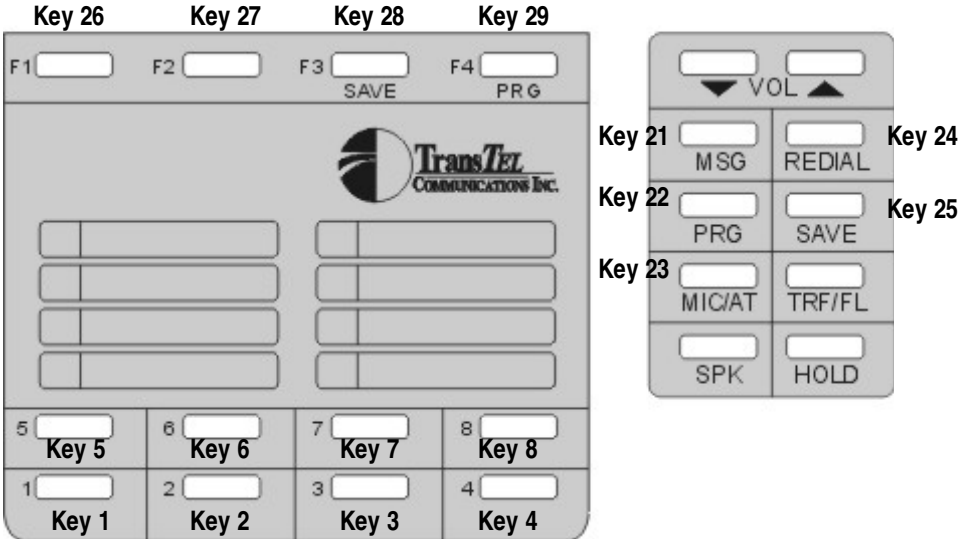
| **Form 07 - Key Assignment Parameters** | | | |
|---|---|---|---|
| Description | Entry | Description | Entry |
| CO Lines 01-08 | CO:XX | Any valid Station Number | XXXX |
| 1A2 Emulation | FN:24 | Lock/Unlock Station | FN:14 |
| Account Code (Forced) | FN:09 | Lock Override (One Call) | FN:16 |
| Alarm Assign (Wakeup) | FN:47 | Message Waiting / P/T | FN:03 |
| Caller ID History | FN:32 | Microphone / Auto Answer | FN:04 |
| Call Forward | FN:53 | Paging All Internal | FN:20 |
| Call Pickup Own Group | FN:35 | Paging All External | FN:21 |
| Call Pickup All Groups | FN:36 | Paging All Internal/External | FN:22 |
| Call Pickup Group | FN:37 | Paging External 1 | FN:33 |
| Loop Key Trunk Group 1 | FN:38 | Paging Internal Zone | FN:23 |
| Loop Key Trunk Group 2 | FN:39 | Page Meet Me | FN:56 |
| Loop Key Trunk Group 3 | FN:40 | Program Key | FN:01 |
| Loop Key Trunk Group 4 | FN:41 | One Touch Speed Dial Key | FN:00 |
| Loop Key Trunk Group 5 | FN:42 | Redial | FN:07 |
| Loop Key Trunk Group 6 | FN:43 | Reminder Key (Operator only) | FN:48 |
| Loop Key Trunk Group 7 | FN:44 | Save | FN:06 |
| Loop Key Trunk Group 8 | FN:45 | Shift Key | FN:57 |
| Date / Time Set up (Console) | FN:50 | Speed Dial | FN:05 |
| Do Not Disturb/Conference | FN:02 | Split/Swap Key | FN:26 |
| Directory Key | FN:62 | Voice Mail Transfer Key | FN:25 |
| Day/Night Key | FN:52 | Voice Mail Answer Machine Emulation | FN:27 |
| Door Phone | FN:60 | Voice Mail Live Call Recording | FN:34 |
| Headset Mode | FN:29 | Volume Level Setup | FN:10 |
| Hotel/Motel | FN:59 | | |

# Program Template For Key Assignment
Form 07

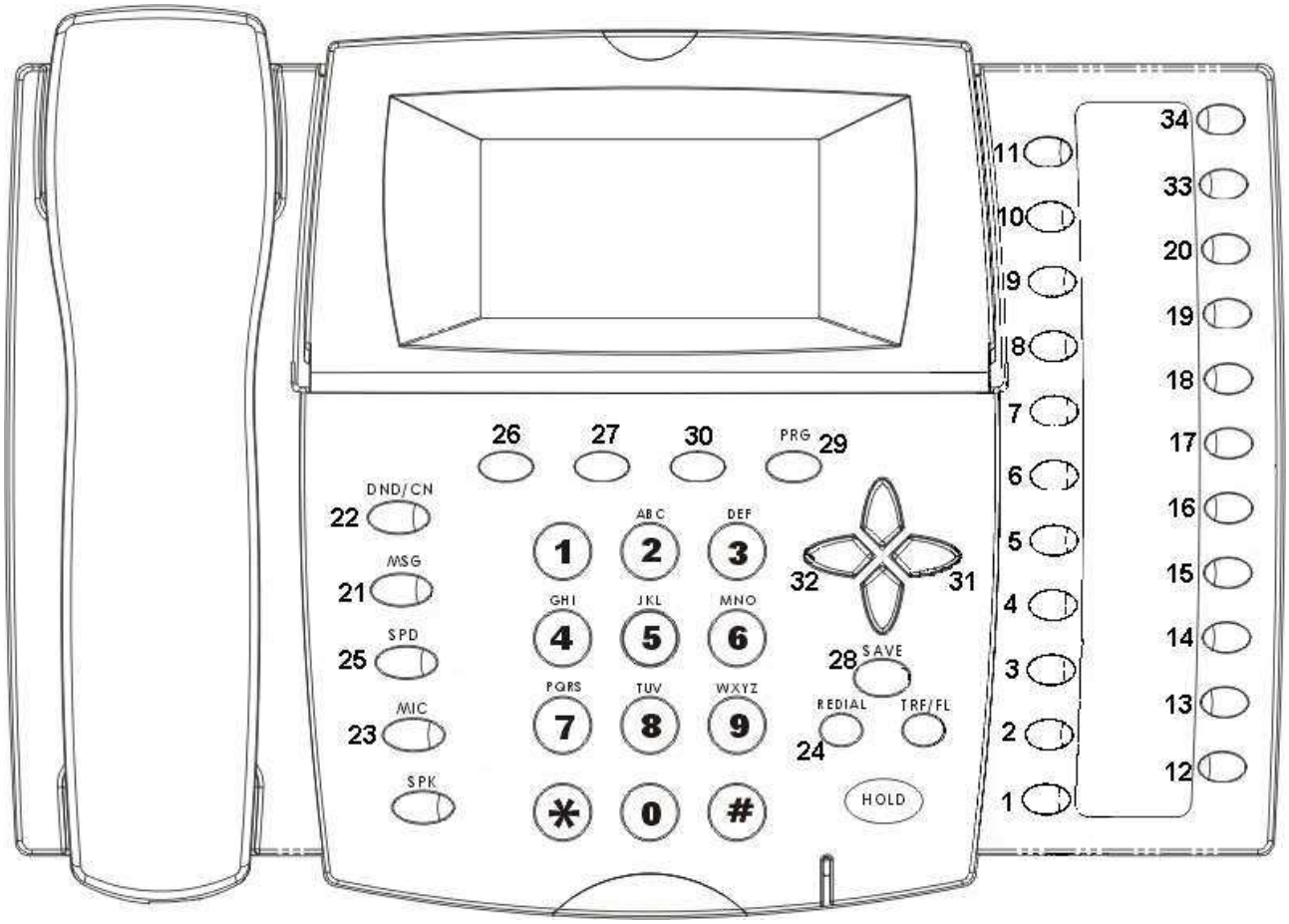
**Instructions:** When programming Form 07 to assign various features to key groups, use the following key numbers and assign the desired feature accordingly. Example, if you want to make key 22 as it appears on the DSS paper to be a Zone Paging Key, you would enter the data as 07-GP-20. The data would be FN:23. Note the actual key number for programming differs from that of the DSS paper. This is done so the station numbers begin with 11, after the 8th line in the system.

MIC/AT– Change Functions
Key 1– Go down a key
Key 2– Go up a key
Key 3– Move Left
Key 4– Move Right



**DK-2 Key Layout**




**Note:** Keys 1 through 29 are programmable. Keys 30 – 34 are not currently usable on the TD-1648i

**DK-3 Key Layout**


**Note:** Keys 31 – 32 are not currently usable on the TD-1648i.

## Form 08-gp-IP - DSS Key Group Assignment

**General:**
This program assigns 2 groups of Flexible key plans for DSS Consoles. There are a total of 8 key groups available in the TD-1648i.
Form 08-01 = DSS Key Group 1
Form 08-02 = DSS Key Group 2
Form 08-03 = DSS Key Group 3
….
Form 08-08 = DSS Key Group 8

The DSS Key Group to which a particular DSS console belongs is assigned on Form 43-port-03.

Database Entry is as follows: 08 – Group – Key Number.
For example: Form 08-01-01 Refers to Form 08 – Key Group 1 – Button (Key) 1.
Form 08-01-59 Refers to Form 08 – Key Group 1 – Button 59.
Assignment Values are the same as in Form 07 of this document.

**Note:** DSS Consoles are associated with individual stations.This is done through form 43-port-01. In order to make this association, the DSS console is assigned the same extension number as the telephone to which it will be associated. Please see Form 43 in this manual.

**For example**, If the DSS console connected to port 12 will operate in conjunction with extension 11, then 43-12-01 must be set to 11.

## Form 09-nnn-DP - System Speed Dial

**General:**

This program permits the assignment of up to 500 sets of system speed dialing codes.

**Description:**

| | | |
|---|---|---|
| nnn | = 100-599 | = Speed dial code, up to 500 sets in total. |
| DP | = 01-30 | = Digit Pointer for telephone number.<br>30 digits per speed dial code. |
| tt | = 01-10 | = Pre-assigned CO line number. |

**Pre-Assigned CO Line:**

Press the **{Change}** key to change or clear the Pre-assigned CO line number. This CO line is the dedicated outgoing line for the speed dial code. If the user presses a speed dial code without selecting a CO line first, the system will select this CO Line automatically. If no CO line is assigned, the system will select an available CO line according to the assigned Dial 9 group (Program 41-nnnn-04). A line may also be selected directly by the user.

**Telephone Number:**

30 digits maximum may be entered in each memory.
In addition to the digits 1 to 0, *, # the following can also be stored: Pause, Flash, Pulse to DTMF. Each function occupies one digit.

"Pause" is represented by the **[HOLD]** key. -- P
"Flash" is represented by the **[TRF/FL]** key. -- F
"Pulse to DTMF" is represented by the **{P->T}** key. -- T

i) Pause:
During dial procedures on CO line, the dialing will pause for a programmable period (See Program 05-01-06).
During dial procedures on ISDN line, the dialing will wait for the called party answers the call.

**For example,**
Store 2961135ppp506 in speed dial and use this speed dial on CO line to dial out. System will dial DTMF after three pause periods and send '506' by using DTMF code.

ii) Flash : This will make a loop disconnection of a pre-assigned duration.
(Refer program mode 05-02-05).

iii) Pulse to DTMF : If the dialed signal is "pulse", it will change to "DTMF".

**Note:** Pressing **{Don't Care}** will erase the digit which the cursor is on.
Pressing **[REDIAL]** will erase all the assigned digits.

**Note:** An indication of TK:00 will cause the system to utilize the first free line in a station's dial 9 group.
An indication of 01-08 will cause the system to always select the same CO Line.

**Note:** To enter a name, press the CHG (Volume Down) key until the letter "N" appears in the upper right corner of the LCD display. Letters and numbers may be entered through the keypad. For Dial by name to operate, 05-05-05 must be enabled.

Phone numbers may not exceed 30 digits in length (including special characters). Names may be entered up to 30 characters, but will only be displayed to 16 characters.

## Form 10-gp-IP - Intercom or DISA Single Digit Assignment

**General:**
This program permits the stations in one or more station groups to call a specific station by dialing one digit only. To enable station Single Digit Dialing, Form 05-04-07 must be set to 1 = Enabled.
The settings in this Form are also used by DISA Single Digit Dialing (Form 05-11-08 to enable for DISA use).

**Description:**

**SINGLE DIGIT INTERCOM:**

When single digit dialing is enabled and a group (1-8) selected in Form 41-stn-01 then extensions will be able to dial the stations in the group selected by dialing the digits 1 to 5. The digit 1 will call the first station in the group, 2 will dial the second station in the group and so on up to digit 5. The caller can also dial 6 and then dial a full extension number to call other extensions or dial (0 or 9) to call the operator.
If a particular group has no entries programmed, the stations in the same number station group will not have single digit dialing and will not have to use the station to station prefix.

**Note:** Default programming places all stations in Single Digit Group 1.

**SINGLE DIGIT DISA:**

When single digit dialing is enabled and a group (1-8) selected in Form 05-11-08 then DISA callers will be able to dial the stations in the group selected by dialing the digits 1 to 5. The digit 1 will call the first station in the group, 2 will dial the second station in the group and so on up to digit 5. The caller can also dial 6 and then dial a full extension number to call other extensions or dial (0 or 9) to call the operator.
If a position is left programmed to 0 then station numbers starting with the digit, which corresponds, to this position can be dialed in full.

Example

| 10-gp-IP S.D.I. |
|---|
| 11 13 22 00 55 |

In the above example an incoming DISA caller who dials 1 will call station 11, dialing 2 will call station 13, 3 will call Station 22. Dialing 4 will allow the caller to dial the full extension number of any extension, which starts with 4, e.g. 44. 55 has been assigned as a Hunt Group Pilot number so a DISA caller dialing 5 will call the Station hunting group which has 55 as it's pilot Number. Pilot numbers are set in Mode 67 and Hunt groups are programmed in Mode 68 and 69.

**Form 10 - Single Digit Dialing Assignment**

| Form 10 - Single Digit Group ___ (01-08) | | | | | | Form 10 - Single Digit Group ___ (01-08) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item | 01 | 02 | 03 | 04 | 05 | Item | 01 | 02 | 03 | 04 | 05 |
| Station | | | | | | Station | | | | | |
| Form 10 - Single Digit Group ___ (01-08) | | | | | | Form 10 - Single Digit Group ___ (01-08) | | | | | |
| Item | 01 | 02 | 03 | 04 | 05 | Item | 01 | 02 | 03 | 04 | 05 |
| Station | | | | | | Station | | | | | |

**Form 11 - Date and Time Settings**

| Form 11 - Date and Time | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item | 01 | 02 | 03 | 04 | 05 | 06 | | | | | |
| Input | | | | | | | | | | | |

01= Month (2 digits) 02=Date (2 digits) 03=Year (2 digits) 04=Hour (2 digits) 05=Minute (2 digits) 06=Day of Week (1digit)

**General:**

This program permits the setting of system Date & Time.

**Description:**

The Date & Time will be held during a power failure on the TD-824I if G1-MSC is fitted, there is no need to reset the Time after power is restored.

All entries are two digit, except 06 which begins with Sunday as 0, Monday as 1, Tuesday as 2, etc.

**Form 12 - System Alarm Schedule**

**General:**

This program permits the assignment of 10 time schedules for alarm clock purposes.

**Description:**

When the assigned time is reached, Background music will be broadcast over all Key telephones, which are idle. The time duration for alarm clock music is programmable (00 to 99 minutes.).

**Note:** A duration of 00 will deactivate a system alarm

Time entry format: 12 midnight until 11:59 AM = 00:00 to 11:59.
12 Noon until 11:59 PM = 12:00 to 23:59.

**Form 12 - System Alarm Schedule**

| Schedule: | Alarm Time (24 Hour Format 00:00-23:59) | Duration (01-98 minutes) |
|---|---|---|
| 01 | | |

## Form 13 - System Passwords

**General:**

This program permits the assignment of 9 different passwords in the system.

**Description:**

The password length is from 1 to 8 digits. All unused digit positions must have **'d'** entered in them.

Password No. 1 = Programming Password. System Default is None.

Password No. 2 = DISA Password. System Default is 3472.

Password No. 3 = Toll Free. System Default is 8655.

Password No. 4 = DISA Monitor Password.

Password No. 5 to 9 = Future.

| **Form 13 - System Passwords** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| d(on't care) = DSS Key 4. All other digits are entered from the station keypad. | | | | | | | | |
| **13-01 - SYSTEM PROGRAMMING PASSWORD:** | | | | | | | | |
| Password | | | | | | | | |
| **Default** | d | d | d | d | d | d | d | d |
| **13-02 - DISA PASSWORD:** | | | | | | | | |
| Password | | | | | | | | |
| **Default** | 3 | 4 | 7 | 2 | d | d | d` | d |
| **13-03 - TOLL OVERRIDE PASSWORD:** | | | | | | | | |
| Password | | | | | | | | |
| **Default** | 8 | 6 | 5 | 5 | d | d | d | d |
| **13-04 - MONITOR PASSWORD:** | | | | | | | | |
| Password | | | | | | | | |
| **Default** | d | d | d | d | d | d | d | d |

| Form 14 - Station Message Detail Recording | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Form 14 -01- | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Item | | | | | | | | |
| Options | 0-9 | 0-1 | 0-1 | 0-1 | 0-1 | 00-99 | 0 | 0-1 |
| **Default** | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 14-01-01 | 0-9 | Call Duration Start Time | 0=00 Sec. |
| 14-01-02 | 0-1 | Record Incoming Call | 0=Record |
| 14-01-03 | 0-1 | Record Local Call | 0=Record |
| 14-01-04 | 0-1 | Record Incoming Call No Answer | 0=Record |
| 14-01-05 | 0-1 | Print out the Title | 0=Yes |
| 14-01-06 | 00-99 | Number of records between titles | 21=21 |
| 14-01-07 | 0 | Reserved | 0= |
| 14-01-08 | 0-3 | Polarity Reversal | 0=No |

**14-01-01 - RECORDING START TIME:**

This parameter determines a "grace period" before call costing begins. This allows for calls that are made but unanswered. Calls that last less than the amount of time specified in this parameter will not be reported via the SMDR port.

| | | | | |
|---|---|---|---|---|
| 0=immediate start | 1=5 seconds | 2=10 seconds | 3=15 Seconds | 4=20 Seconds |
| 5=25 Seconds | 6=30 Seconds | 7=35 Seconds | 8=40 Seconds | 9=45 Seconds |

**14-01-02 - RECORD INCOMING CALLS:**

This parameter determines if inbound calls generate a record via SMDR

| | |
|---|---|
| 0=Enable (Record Incoming Calls) | 1=Disable (Do Not Record Incoming Calls) |

**14-01-03 - RECORD CALLS LOCAL CALLS (NO TOLL ACCESS CODE):**

Outbound calls that begin with the toll access code programmed on Form 05-03-05 are considered toll calls in this parameter. If this option is enabled, calls that do not begin with the selected toll code, they will still be recorded via SMDR. If this option is disabled, calls do not begin with the toll access code in 05-03-05 will not be recorded via SMDR.

| | |
|---|---|
| 0=Enable (Record local calls) | 1=Disable (Do Not Record local calls) |

**04-01-04 - RECORD UNANSWERED INCOMING CALLS:**

This parameter determines if an unanswered incoming call is recorded via SMDR.

| | |
|---|---|
| 0=Enable<br>(Record Unanswered Incoming Calls) | 1=Disable<br>(Does Not Record Unanswered Incoming Calls) |

**14-01-05 - PRINT PAGE HEADER:**

This parameter decides whether the system will output the description of each column.

| | |
|---|---|
| 0=Enable | 1=Disable |

| **14-01-06 - NUMBER OF CALL RECORDS TO BE PRINTED BETWEEN HEADERS:** | |
|---|---|
| This parameter permits the assignment of the number of records between each Header. If the Number = 00, The whole SMDR feature will be disabled. | |
| **00=Disable SMDR** | 01-99=Actual Number Of Call Records Between Headers |

| **14-01-07 - RESERVED:** |
|---|

| **14-01-08 - DETECT POLARITY REVERSAL:** | |
|---|---|
| If reversal is disabled, the system will start the call timer after accessing a CO line. If reversal is enabled, the system will start the call timer after the called party answers. | |
| 0= Not Detect P.R. / Normal SMDR format output | 1= Detect P.R. / Normal SMDR format output |
| 2= Not Detect P.R. / Simple SMDR format output | 3= Detect P.R. / Simple SMDR format output |

**SMDR OUTPUT DATA FORMAT**

| ST. | TK | S | TELEPHONE NUMBER | Account | MM/DD | START | DURATION | RING | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| 112 | 01 | | 001188629645752 | 12345678 | 10/02 | 08:35 | 00:02'35" | | |
| 115 | 02 | | Incoming | 87654321 | 10/02 | 08:45 | 00:10'20" | 00'10" | |
| 000 | 03 | | Incoming no answer | | 10/02 | 12:00 | | 00'35" | |
| 112 | 04 | | 001188629645752 | FAC:01 | 10/02 | 12:10 | 00:02'00" | | |
| 112 | 03 | X | FAC or PSW error | | 10/02 | 12:30 | | | |
| 112 | 05 | X | 001 | | 10/02 | 12:35 | 00:00'05" | | |
| 121 | 01 | # | 0294150100 | | 10/02 | 14:15 | 00:00'55" | | |
| 117 | 01 | * | 0294150100 | | 10/02 | 14:15 | 00:03'10" | | |
| D3 | 05 | | 0418220212 | | 10/02 | 21:01 | 00:02'30" | | |
| D-03 | D | | << D I S A OFF >> | | 10/02 | 21:00 | 00:02'40" | | |
| 112 | 02 | | DDI Num: 94150112 | | 10/02 | 08:45 | 00:10'20" | 00'10" | |
| | 03 | | CLI NoAns:294176288 | | 10/02 | 12:00 | 00:00'00" | 00'35" | |
| 111 | 05 | | CLI Num: 294150100 | | 10/02 | 12:35 | 00:00'05" | 00'05" | |
| | 05 | | DDI NoAns:94150112 | | 10/02 | 12:37 | 00:00'00" | 00'27" | |

**TITLE DESCRIPTION:**

| | |
|---|---|
| ST = Station No. | : 11 to 6999, D = DISA |
| TK = Trunk No. | : 01 to 10, |
| S = Status | : # = Hold, * = Answered the hold, X = Cut off by toll restrictions. |
| Telephone Number | : First 24 digits |
| Account | : 8 digits in total |
| MM/DD | : Month/Day |
| Begin_Time hh:mm | : The start time of accessing the trunk line. |
| Duration_Tm hh:mm:ss | : Time duration of the call. |
| Ring_Tm mm:ss | : Incoming ring time. |
| Unit 00000 | : Meter Pulse Count |

**CASE EXPLANATION:**

**CASE 1:** October 2, 08:35 A.M., Station 112 made a call (telephone No. is 00116495256611) through line 1. The call lasted 2 minutes and 35 seconds, Account code No. 12345678 was entered for the call and 12-meter pulses were recorded.

**CASE 2:** October 2, 08:45 A.M., An incoming call on line 2, rang for 10 seconds, station 115 answered the call and stored an Account No. 87654321.

**CASE 3:** October 2, 12:00 P.M., An incoming call through line 3, rang for 35 seconds, no one answered and the call was abandoned.

**CASE 4:** October 2, 12:10 P.M., Station 112 made a Long Distance call through line 4 by Forced Account Code 1 and 23 meter pulses were recorded.

**CASE 5:** October 2, 12:30 P.M., Station 112 made a call by Forced Account Code but was denied because of a wrong code.

**CASE 6:** October 2, 12:35 P.M., Station 116 made a call, which was restricted.

**CASE 7:** Line 1 was used by station 121 for 55 seconds then put on hold. One meter pulse was recorded against this station for its section of the call.

**CASE 8:** The held line 1 was answered by station 117 and he occupied the line for 3 minutes and 10 seconds. Four meter pulses were recorded against this station for its section of the call.

**CASE 9:** Incoming Line 3, using the DISA function, made an outside call 018220212 on line 5. The Duration time is for line 5. 3 meter pulses were recorded for this call.

**CASE 10:** DISA is completed. The Duration time is for line 3.

**CASE 11:** Incoming call on an ISDN system. The number displayed is the Indial number dialed by the calling party. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialed or the CLI information of the incoming caller

**CASE 12:** An incoming call rang for 35 seconds and no one answered. The CLI number of the calling station is displayed.

**CASE 13:** An incoming call on line 5 (ISDN) was answered by station 111. The SMDR displayed the CLI number (294150100) of the calling party and the extension number (112) of the calling party. The extension number shown is what the system will receive if the call is from another TransTel with **ISDN**. The format may be different or non-existent from other telephone systems or on PSTN lines. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialed or the CLI information of the incoming caller. The number 94150100 is the pilot number of the Indial group.

**CASE 14:** An incoming call rang for 27 seconds and no one answered. The Indial number the calling station dialed is displayed.

**SMDR OUTPUT DATA FORMAT - NEW WITH CLI OUTPUT**

| ST. | TK | S | TELEPHONE NUMBER | Account | MM/DD | START | DURATION | RING | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| 112 | 01 | | 001188629645752 | 12345678 | 10/02 | 08:35 | 00:02'35" | | 00012 |
| 112 | 02 | | DDI Num:94150112 | | 10/02 | 08:45 | 00:10'20" | 00'10" | |
| | 03 | | CLI NoAns:294176288 | | 10/02 | 12:00 | 00:00'00" | 00'35" | |
| 111 | 05 | | CLI Num:294150100*11 | | 10/02 | 12:35 | 00:00'05" | 00'05" | |

**Case 1:** Outgoing call. All information remains as before.

**Case 2:** Incoming call on an ISDN system. The number displayed is the Indial number dialed by the calling party. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialed or the CLI information of the incoming caller

**Case 3:** An incoming call rang for 35 seconds and no one answered. The CLI number of the calling station is displayed.

**Case 4:** An incoming call on line 5 (ISDN) was answered by station 111. The SMDR displayed the CLI number (294150100) of the calling party and the extension number (112) of the calling party. The extension number shown is what the system will receive if the call is from another TransTel with **ISDN**. The format may be different or non existent from other telephone systems or on PSTN lines. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialed or the CLI information of the incoming caller. The number 94150100 is the pilot number of the Indial group.

**Note:** Maximum 25 SMDR records can be stored in the system temporarily.

## Form 17 - Forced Account Code Assignment

This program creates **48** Forced Account codes.

**Description:**

Format: ddddddddd DN

The forced account code will temporarily override a station's toll restrictions. 48 codes of up to 8 digits maximum are allowed. If the system is fitted with a call accounting output the entry for a call made using a forced account code will display the code used in the account code column. The actual numbers of the code will not be displayed for security reasons, the reading will show FAC:XX. XX is the forced account code number 01 to **48**.

The Forced Account Code will not be displayed on the screen of Executive phones when it is entered.
Digit "d" is keyed in by **{Don't care}** button and means " Any digit " ("don't care").
Digit "_" is keyed in by **[TRF/FL]** button and means " No digit ".
Clear all digits by pressing **[TRF/FL]** to insert a line in place of the original entry.

The ninth and tenth digits (DN) allow you to assign specific toll class during Day Service and Night Service. When an account code is dialed, the chosen toll classification will govern the call.
The ninth digit assigns Day Service Toll Class. The tenth digit assigns Night Service Toll Class.

***Do not use Redial to clear forced account code entries as this will insert "don't care" which will allow any digit as a forced account code.***

The Forced Account Codes may also be used as DISA passwords to allow call accounting to show which user was making an external call using DISA from outside the system. In the TD-1648i/TDS-600 , Forced Account Codes 25 to 48 can be used for this purpose. This feature will need to be enabled in Mode 05-11-02.

**Form 17 - Forced Account Code Assignment**
Entries less than eight digits should have "d" in all trailing locations, (e.g., 123245ddd).

| ## | Actual Code | ## | Actual Code | ## | Actual Code |
|---|---|---|---|---|---|
| 01 | | 17 | | 33 | |
| 02 | | 18 | | 34 | |
| 03 | | 19 | | 35 | |
| 04 | | 20 | | 36 | |
| 05 | | 21 | | 37 | |
| 06 | | 22 | | 38 | |
| 07 | | 23 | | 39 | |
| 08 | | 24 | | 40 | |
| 09 | | 25 | | 41 | |
| 10 | | 26 | | 42 | |
| 11 | | 27 | | 43 | |
| 12 | | 28 | | 44 | |
| 13 | | 29 | | 45 | |
| 14 | | 30 | | 46 | |
| 15 | | 31 | | 47 | |
| 16 | | 32 | | 48 | |

## Form 18 - Toll Plan Assignment

This Form assigns Toll Plans to trunk lines. The Toll plans are to be written in Forms 51 to 59 and 61 to 66.

**Description:**

10 toll plans can be used.

Each Toll Plan assigns each trunk line a Toll Class. It is possible to allow a toll class to have different restriction level on a line by line basis.

Example 1: Mode 18-00 is set to 000000ddddddddddd. Any station in the system which is set to toll class 0 will be unrestricted on lines 1 to 6 but will be unable to dial out on lines 7 to 16.

Example 2: Mode 18-01 is set to 111100ddddddddddd. Any station in the system which is set to toll class 1 will be restricted by toll class 1 on lines 1 to 4, will be unrestricted on lines 5 and 6 but will be unable to dial out on lines 7 through 16.
To assign toll plans to stations, see Program **41-st-05, 41-st-06**.

***Toll Classes:***

| Class | Function | Prog. Mode |
|---|---|---|
| **0** | Unrestricted | Default |
| **1** | Use Mode 51 for the Unrestricted numbers. Use Mode 61 for the Restricted numbers | Mode **51,61** |
| **2** | Use Mode 52 for the Unrestricted numbers. Use Mode 62 for the Restricted numbers | Mode **52,62** |
| **3** | Use Mode 53 for the Unrestricted numbers. Use Mode 63 for the Restricted numbers | Mode **53,63** |
| **4** | Use Mode 54 for the Unrestricted numbers. Use Mode 64 for the Restricted numbers | Mode **54,64** |
| **5** | Use Mode 55 for the Unrestricted numbers. Use Mode 65 for the Restricted numbers | Mode **55,65** |
| **6** | Use Mode 56 for the Unrestricted numbers. Use Mode 66 for the Restricted numbers | Mode **56,66** |
| **7** | Use Mode 57 for the Unrestricted numbers. | Mode **57** |
| **8** | Use Mode 58 for the Unrestricted numbers. | Mode **58** |
| **9** | Use Mode 59 for the Unrestricted numbers. | Mode **59** |
| ***** | Use Mode 51-56 for unrestricted numbers. Use Mode 61-66 for all restricted numbers | |
| **D** | **Cannot access the trunk line.** | |

| **Form 18 - Toll Plan Assignment** | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18-00 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18-01 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 18-02 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 18-03 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 18-04 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 19 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 18-05 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 18-06 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 18-07 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 18-08 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 18-09 - **IT**em | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Item Default | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |

**Form 20 - Day/Lunch/Night Service Switching Schedule**

This program assigns daytime from Sunday to Saturday for automatic night switching and sets lunchtime to allow the VSU to play a different message for this period. All times must be in 24 hour format.

| Schedule | Day | Day Service Start | Day Service End | Lunch Service Start | Lunch Service End |
|---|---|---|---|---|---|
| 20-00 | Sunday | 00 00 | 00 00 | 00 00 | 00 00 |
| 20-01 | Monday | 00 00 | 00 00 | 00 00 | 00 00 |
| 20-02 | Tuesday | 00 00 | 00 00 | 00 00 | 00 00 |
| 20-03 | Wednesday | 00 00 | 00 00 | 00 00 | 00 00 |
| 20-04 | Thursday | 00 00 | 00 00 | 00 00 | 00 00 |
| 20-05 | Friday | 00 00 | 00 00 | 00 00 | 00 00 |
| 20-06 | Saturday | 00 00 | 00 00 | 00 00 | 00 00 |

The system is capable of switching automatically between day / lunch break / night settings using the time parameters set in this Mode. To change from manual to automatic night switching the console presses **[PRG] [TRF/FL] *.** Pressing ***** toggles between the 2 modes.

If a Function key has been set to function 52 then pressing this key will change from Day to night mode by one touch but will not change between Automatic and Manual switching.
Example

20-01 Day Time
08 30 17 00 12 30 13 30

On Monday the system will switch from nighttime to daytime start at 8:30 in the morning, will switch to lunchtime start at 12:30, switch back to daytime at 13:30 and switch to Nighttime at 17:00. To program no lunchtime leave the entries for items on 00.

**Form 25 - Reset Data to System Default**

This program resets all data to System Default. All new systems must be reset to default before any programming in case corruption has been caused during handling or shipping. When using item 3 or 4 these must be done AFTER the system reset is performed.

**General:**

This program resets all data to System Default. All new systems must be reset to default before any programming in case corruption has been caused during handling or shipping. It will also be necessary to reset to default after a software upgrade is installed. When using item 3 or 4 these must be done AFTER the system reset is performed.

**Description:**

1 = System data will be reset to system default except System Speed Dial Programming.

2 = The system data will be totally reset to system default.

**WARNING**: All user-defined data will be lost.

3 = For all Stations set
**44-st-02=1** (Hold Feature restricted)
**44-st-03=1** (Call Split Feature restricted)

This feature is for Hotel/Motel operation. After setting this Mode it is necessary to reprogram the Console and any Administration phones in Mode 44-st-02 to allow them to place calls on hold.

4 = For all stations set
**40-st-01=0** (Barge In not allowed)
**40-st-02=0** (Monitor not allowed)

It is strongly recommended that this parameter is used on ALL systems to prevent accidental Barge In operations being misinterpreted as cross talk.

All other system programming information remains unchanged when using 3 or 4.

**Form 29 - CO Line Specifications #1**

| Data → | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Range | 0-2 | 0-8 | 0-9 | 0-8 | 0-8 | 0-1 | 0-9 | 0-9 |
| Default | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 29-tk-01 | 0 | CO Line Length | 0=0 km |
| 29-tk-02 | 0-8 | UCD-1 Function Enable | 0=Disable |
| 29-tk-03 | 0-9 | ISDN Incoming Call Type | 0= InBlock |
| 29-tk-04 | 0-8 | Set Ring Frequency (KPU Only) | 0=H/set Setting |
| 29-tk-05 | 0-9 | Allow Audible Ring for Incoming Calls | 0=All Stations |
| 29-tk-06 | 0-1 | 1A2 Emulation feature | 0=Disable |
| 29-tk-07 | 0-9 | CO Delayed Ring Timer to Hunting Group | 0=Disable |
| 29-tk-08 | 0-9 | CO Delayed Ring Overflow Hunting Group | 0= Hunt Group |

**29-XX-01-– CO LINE LOOP RESISTANCE:**

This parameter allows adjustment of the system's analog trunk interface to adapt to different CO loop resistance.

| | | |
|---|---|---|
| 0 = 0 Km (default) | 1 = 3 Km | 2 = 5 Km |

**29-XX-02 - UCD FUNCTION SELECTION:**

This parameter enables or disables the UCD function for each trunk individually and is able to select whether UCD operates in Day or Night or Both Modes.

| | | | |
|---|---|---|---|
| 0 | Day Disable - Night Disable | 1 | Day Disable - Night Enable [1] |
| 2 | Day Disable - Night Enable [2] | 3 | Day Disable [1] - Night Disable |
| 4 | Day Enable [1] - Night Enable [1] | 5 | Day Enable [1] - Night Enable [2] |
| 6 | Day Enable [2] - Night Disable | 7 | Day Enable [2] - Night Enable [1] |
| 8 | Day Enable [2] - Night Enable [2] | | |

*1: Enable UCD-1 function only when all ring assigned stations are busy.
*2: Enable UCD-1 function when time set in mode 05-09-06 has elapsed even if the ring assigned stations are idle.

**29-XX-03 - ISDN INCOMING CALL TYPE:**

This feature allows the user to set ISDN line to fit different incoming call types.

**0 = InBlock Sending.** The ISDN Central Office will send "Extension Called Party Number" or "Extension Sub-address Number" during the setup procedure.

**1 = Overlap Sending.** The ISDN Central Office does not send "Extension Called Party Number" or "Extension Sub-address Number" during the setup procedure. After the setup procedure has been established, this information will be sent by Central Office.

**2 ~ 9 = MSN.** System rings the extensions assigned in Program 01/Program 02 when there is an incoming ISDN call.

**29-XX-04 - SET RINGING TONE:**

This feature allows each trunk to ring at DK telephone sets with its own individual ring frequency and override the frequency set by the user for all calls.

| | |
|---|---|
| 0=Use station's default ring | 1-8=Use assigned trunk ring cadence |

**29-XX-05 - INCOMING CALL CONNECT:**

This feature allows either some or all stations which are ring assigned in Mode 01 or 02 to receive the audible ring signal when a trunk rings at the station. If the audible signal is disabled the station will still be able to answer a call by lifting the handset only, if they are ring assigned in Mode 01 or 02

| | | |
|---|---|---|
| 0=Ring All | 1=Ring first station | 2=Ring first two stations |
| 3=Ring first three stations | 4=Ring first four stations | 5=Ring first 5 stations |
| 6=Ring first 6 stations | 7=Ring first 7 stations | 8=Ring 8 stations |
| 9=Ring first 9 stations | | |

**Example:** If there are 12 stations programmed on Form 01-01 and 29-01-05 is set to a value of 5, the first five stations will ring, but all twelve stations will be able to access the incoming line simply by lifting the handset.

**29-XX-06 - 1A2 EMULATION:**

When an extension is connected to a trunk, another extension can make a conference by press the busy trunk button if 1A2 Emulation is available. The actual operation of this parameter is dependant upon interaction with Form 78-ST-03, described elsewhere in this manual.

| | |
|---|---|
| 0=No Trunk Access | 1=Access Conditional upon 78-STN-03 |

The 1A2 Emulation status is shown below:

| 29-xx-06 | 78-St-03 | Status |
|---|---|---|
| 0 | N/A | No access |
| 1 | 0 | No access |
| 1 | 1 | access with tone |
| 1 | 2 | access with no tone |

Even if 1A2 Emulation status is enabled, the extension can temporarily disable 1A2 emuation by pressing Function key: [1A2 Emulation Privacy] – (FN:24 for DSS key in Form 07). When the extension sets 1A2 Emulation Privacy Key, the key LED will light, and other extensions can't enter the call. The extension can press [1A2- Emulation Privacy] again to cancel 1A2 Emulation Privacy and turn the key LED off.

**Related System Programming Mode: 07, 29-TK-06, 78-ST-03**

**29-XX-07 - CO DELAYED RING TIMER TO HUNTING GROUP:**

This parameter sets the delayed ringing time for an incoming call to the hunt group. If the stations in the Ringing Line Preference Assignment (Form 01/02) do not answer the incoming call within the timer listed below, the call will overflow to the pre-assigned hunt group (mode 29-TK-08).

| | | | | |
|---|---|---|---|---|
| 0=Overflow Disabled | 1 = 8 sec | 2 = 16 sec | 3 = 24 sec | 4 = 32 sec |
| 5 = 40 sec | 6 = 48 sec | 7 = 56 sec | 8 = 64 sec. | 9 = 72 sec. |

**Related System Programming Mode:** 29-Tk-07, 29-Tk-08, 67, 68, 69

**29-XX-08 - CO DELAYED RING OVERFLOW HUNTING GROUP:**

This parameter sets the pre-assigned overflow Hunt Group for an incoming call. If the stations in the Incoming Ring Assignment Forms 01 and 02 do not answer the incoming call within the pre-assigned time (form 29-TK-07), the call will overflow to the pre-assigned hunt group

| | | |
|---|---|---|
| 0 = Overflow to Hunt Group 1 | 1 = Overflow to Hunting Group 2 | 2 = Overflow to Hunting Group 3 |
| 3 = Overflow to Hunt Group 4 | 4 = Overflow to Hunt Group 5 | 5 = Overflow to Hunt Group 6 |
| 6 = Overflow to Hunt Group 7 | 7 = Overflow to Hunt Group 8 | 8 = Overflow to Hunt Group 9 |
| 9 = Overflow to Hunt Group 10 | | |

**Related System Programming Mode:** 29-Tk-07, 29-Tk-08, 67, 68, 69

**Form 35 - CO Line Specifications #2**

| Data → | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Range | 0-1 | 0-1 | 0-8 | 0-3 | 0-1 | 0-1 | 0-9 | 0-9 |
| Default | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 |

| Item | Valid Settings | Description | Default Settings |
|---|---|---|---|
| 35-tk-01 | 0-1 | Trunk Type | 0=CO |
| 35-tk-02 | 0-1 | Dialing Signal | 1=DTMF |
| 35-tk-03 | 0-8 | External Call Forward | 0=No |
| 35-tk-04 | 0-8 | DISA | 0=No |
| 35-tk-05 | 0-3 | Pick Up | 3=Yes |
| 35-tk-06 | 0-1 | Loud Bell | 0=No |
| 35-tk-07 | 0-5 | Inward Line Ringing Type - Day | 0=Com |
| 35-tk-08 | 0-5 | Inward Line Ringing Type - Night | 0=Com |

| **35-XX-01 - LINE TYPE:** | |
|---|---|
| 0=CO Line (Connected to Telco Lines) | 1=Behind PABX (Connected to a PABX Extension or Centrex line) |

| **35-XX-02 - DIAL SIGNALING TYPE:** | |
|---|---|
| 0=Pulse Dialing | 1=DTMF Dialing |

| **35-XX-03 - EXTERNAL CALL FORWARDING LOCATION:** (Only applicable if 35-CO-04 is programmed for External Call Forwarding) | | | |
|---|---|---|---|
| 0=Not Active | 1=Speed Dial 101 | 2=Speed Dial 102 | 3=Speed Dial 103 |
| 4=Speed Dial 104 | 5=Speed Dial 105 | 6=Speed Dial 106 | 7=Speed Dial 107 |
| 8=Speed Dial 108 | | | |

| **35-XX-04 - DISA / EXTERNAL CALL FORWARD STATUS:** | 0=Day Disable/Night Disable |
|---|---|
| 1=Day Disable/Night DISA | 2=Day DISA/Night Disable |
| 3=Day DISA/Night DISA | 4=Day Disable/Night ECF |
| 5=Day ECF/Night Disable | 6=Day ECF/Night ECF |
| 7=Day DISA/Night ECF | 8=Day ECF/Night DISA |

**35-XX-05 - LINE PICK UP ENABLE (ALLOWS A NON-RINGING STATION TO ANSWER AN INCOMING CALL):**

Enable = An incoming call on this line can be answered by non-ringing stations.
Disable = An incoming call on this line can not be answered by non-ringing stations.
This feature is to assign "Private Lines" in conjunction with the programming of dial 9 groups, or to prevent incoming calls being answered by users other than the ring assigned stations

| Value | Day Operation | Night Operation |
|---|---|---|
| 0 | Disable | Disable |
| 1 | Disable | Enable |
| 2 | Enable | Disable |
| 3 | Enable | Enable |

**35-XX-06 - LOUD BELL OPERATION:**

The system does not provide any voltage from the assigned relay. A separate ring voltage and ring device will need to be provided by the installer

| | |
|---|---|
| 0=Inoperative | 1=Relay #1 |

**35-XX-07 - DAY RING TYPE:**

0=Common Audible - Rings all assigned Extensions simultaneously

1=Linear - Each incoming call rings the first available Extension in order of the Extensions assigned in **Program 01-tk.**

2=Circular - The first incoming call on each trunk rings the first assigned Extension, the 2nd incoming call rings the next station, etc.

3=Hunt - If an incoming line rings an extension which is busy or does not answer, after the assigned Hunt Time (Program **05-08-01**,) the call will ring the next available extension assigned in the same group. If the next ringing station is busy the call will immediately move to the next ring assigned extension. If the station does not answer then the call will wait for the Hunt time and then ring the next assigned extension. Once the ring assignment has passed a station which is busy it will provide Off Hook Busy Remind signal and when the station is free if the call is still unanswered the station will begin ringing for that call. Stations which do not answer a call will also continue to ring until the call is answered.

4=Private Line - This is for an incoming private line. If the first station programmed on Form 01-xx is Forwarded by Personal Forwarding, by 46.st-07 or by 78-st-04, the call will follow the forwarding. Any other phones programmed on Form 01-CO will act as if this parameter is set to Common Audible.

**35-XX-08 - NIGHT RING TYPE:**

Parameters for this option are the same as 35-xx-07 above, except they apply when the system is in Night Service only.

| | | |
|---|---|---|
| 0=Common Audible | 1=Linear | 2=Circular |
| 3=Hunt | 4=Private Line | |

**Note: See explanation of ringing types in 35-xx-07. All parameters are the same. Night ring assignments are programmed on Form 02-CO.**

## Form 36 - CO Line Groups (Dial 9 Groups)

**General:**

This program permits each line to be assigned to different line (trunk) groups. There are eight groups in total.

**Description:**

In the bottom data-setting area, the line number (01-16) means that the trunk is included in the specified group. Press **[REDIAL]** to clear all entries from the table before entering the required trunks. It is recommented to always set outgoing calls to start from the highest installed line and program in descending order to the lowest line. This will prevent call collision particularly in systems with SLT'S where line selection is by access code rather than direct line button access..

There are 16 trunks maximum in a trunk group.

This parameter will work with the following features:

. Dial 9 or 0 access to trunk group.
. Tenant service.

**Related System Programming Form: 36, 38, 41-ST-04, 46-ST-01**

**Form 37 - Busy Out CO Trunk**

This program permits the trunk line to be locked (busy out) by a Technician. This feature is used when the user does not want to use the trunk or to remove a problem line. When the trunk is set to BUSY OUT, the LCD display on the phone will display " Access denied " when that line button is pressed.

| 37-tk Busy Out<br>0000000000000000 | tk = 01-16<br>Busy out Type |
|---|---|

**Settings:**

0 = Line is unlocked
1 = Busy for Outgoing calls
2 = Busy for Incoming and Outgoing calls (set loop on)
3 = Busy for Incoming and Outgoing calls (set line LED on)

## Form 38 - Alternate CO Line Groups (Dial 87 Groups)

**General:**

This program permits each line to be assigned to different groups which can be accessed by dialing [87]. There are 8 groups in total. This group will be available to a station in addition to it's dial 9 group. Set outgoing calls to start from the highest installed line and program in descending order to the lowest line installed. This will prevent call collision particularly in systems with SLT's. Press **[REDIAL]** to clear all entries in the table before entering required trunks.

**Description:**

This program is different from Form 36-gp-tk. This program is used for dialing [87] to access a Line.

Once a dial [87] group has been programmed it will need to be assigned to the stations that are to use it in Form 46-Stn-01.

**Related System Programming Mode: 36, 38, 41-ST-04, 46-ST-01**

| Form 39-000-IP - Sensor Assignments | | | |
|---|---|---|---|
| Form 39-Item- | 01 | 02 | Name - (Reference Only – Not programmed in system) |
| Form 39- | | | |

**Description:**

The G2-MSC provides 1 Sensor. Each Sensor can be assigned one of the following 18 functions in items 39-01in the TD-1648i/TDS-600 .

| | | | |
|---|---|---|---|
| ***00*** | ***No Operation*** | ***03*** | ***Door Phone 1 ( 88 )*** |
| ***01*** | ***Fire Alarm*** | ***04 – 18*** | ***Reserved for future use*** |
| ***02*** | ***Break Alarm*** | | |

The SENSOR type may be normally open or normally closed and can be set to be activated in Day or Night switching or in both. Parameters 39-02 in the TD-1648i/TDS-600 set each sensor contact to be a normally open or normally closed type and set whether to work in Day or Night Mode or both.

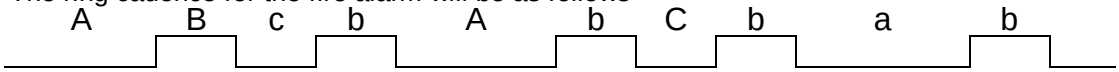
***0 = Disable Sensor function***
***1 = Normally Open, Activated for Daytime.***
***2 = Normally Closed, Activated for Daytime.***
***3 = Normally Open, Activated for Nighttime.***
***4 = Normally Closed, Activated for Nighttime.***
***5 = Normally Open, Activated for Day and Nighttime***
***6 = Normally Closed, Activated for Day and Nighttime.***

The applications are as follows:

1 = Fire Alarm: Sensor detects fire, all idle extensions will be rung and all busy extensions will Hear the alarm tone. The fire alarm will continue for 10 minutes.
Dialing **[7][7][7]** from the console will stop the fire alarm.
The LCD display will show FIRE ALARM !!!! when the alarm is activated.

2 = Break Alarm
The Sensor detects the signal appears, all idle extensions will be rung.
The Sensor detects the signal disappears, all extensions will stop ringing.
The LCD display will show BREAK ALARM !!!! when the alarm is activated.

Individual stations can be programmed to not receive the Break Alarm in Form 45-st-06.
The ring cadence for the fire alarm will be as follows




a = 1.25 seconds On b = 0.25 seconds off c = 0.25 seconds on.

If door key has been set in Form 07 and Form 39, the Door key on DSS will get the following indications:

| **LED Indication** | **Door Phone Status** |
|---|---|
| Off | Normal Close for Sensor |
| Red-Slow Flashing | Normal Open for Sensor |
| Red-Fast Flashing | Door Phone Is Calling |
| Green on | This Station is talking to Door Phone |
| Red on | Some other Station is talking to Door Phone |

**Form 40 - Station Class of Service (Part 1)**

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 40-st-01 | 0-9,d | Override/OHCA Level | 1=Low |
| 40-st-02 | 0-9 | Monitor Level | 1=Low |
| 40-st-03 | 0-9 | Limit Call Duration | 0=No |
| 40-st-04 | 0-1 | Station Loud Bell | 0=No |
| 40-st-05 | 0-1 | Access Paging | 0=Yes |
| 40-st-06 | 0-1 | Receive Paging | 0=Yes |
| 40-st-07 | 0-1 | Security Code Status | 0=None |
| 40-st-08 | 00-48 | Forced Account Code | 00=All |

**General:**
This programming Mode permits each station to be assigned a different Class of Service.

**Description:**

**40-EXT-01 - OVERRIDE AND OHCA LEVEL:**
Higher level stations can override lower level stations, equal levels may override each other.

| | |
|---|---|
| 0=Unable to Override/Disable OHCA | 1-9=Can Override equal and lower numbered levels |

**40-EXT-02 - MONITOR LEVEL:**
Higher level stations can monitor lower level stations, equal levels can not monitor each other.

| | |
|---|---|
| 0=Unable to Monitor | 1-9=Can Monitor lower numbered levels |

**40-EXT-03 - CALL LIMIT DURATION:**
Conversation will be interrupted by a BusyTone. A warning tone will be given 10 seconds before the end of the timed duration. (see form 05-04-03 to set call limiting action)
**Related System Programming Mode: 05-04-03, 40-st-03**

| | | |
|---|---|---|
| 0=No Duration Limit | 1=3 minutes | 2 = 5 minutes |
| 3 = 10 min | 4 = 15 minutes | 5 = 20 minutes |
| 6 = 30 minutes | 7 = 40 minutes | 8 = 50 minutes |
| 9 = 60 minutes | | |

| | | |
|---|---|---|
| **40-EXT-04 - ASSOCIATED LOUD BELL:** | 0=Disabled | 1=Use Relay on MSC Card |
| The system does not provide any voltage from the assigned relay. A separate ring voltage and ring device will need to be provided by the installer. | | |

**40-EXT-05 - PAGING ACCESS:**
Stations will be able to page only if this option is enabled.

| | |
|---|---|
| 0=Enable | 1=Disable |

| **40-EXT-06 - PAGING OVER SPEAKER:** | |
|---|---|
| This feature is useful for someone who should not be disturbed by paging calls. | |
| 0="All Page" will alert this station | 1= "All Page" can not be received by this station |

| **40-EXT-07- STATION LOCK/UNLOCK STATUS:** | |
|---|---|
| If a phone becomes locked accidentally or the user forgets their lock code, this parameter will unlock the phone. There is no way of finding what the lock code was. | |
| 0 = The station is unlocked. (Can make outgoing calls.) | 1 = The station is locked. (Can not make outgoing calls.) |

| **40-EXT-08 - FORCED ACCOUNT CODE:** |
|---|
| There are 48 forced account codes which can be used on the system. Each user can be allocated use of one or all of these. If a station has a Forced Account Code 01-48, the user can key **[PRG][4]** and the force account code to override toll restrictions for one call only.<br>If the setting is from 01-48 then this Account Code ONLY can be used by the station. If the setting is 00 then the station can use any one or all Account Codes.<br>Refer to Form 17, Create Forced Account Code |
| 00=Any Valid Account Code |
| 01-48=Only the corresponding Account Code (01-48) is Valid on this Set |

**Form 41 - Station Specifications**

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 41-st-01 | 1-8 | Station Group / Agent Group for UCD | 1=1 |
| 41-st-02 | 1-8 | Key Group For KeyPhone | 2=2 |
| 41-st-03 | 1-8 | Shift Key Group For KeyPhone | 0=None |
| 41-st-04 | 1-8 | Dial 9 trunk group | 1=1 |
| 41-st-05 | 0-9 | Toll plan - Day | 0=0 |
| 41-st-06 | 0-9 | Toll plan - Night | 0=0 |
| 41-st-07 | cn | c = Card number, n = Port number | |

| **41-EXT-01 - GROUP ASSIGNMENT:** | 1-8 = Valid Group Entries |
|---|---|
| Zone Paging - Pick Up Group Station Group - Single Digit Dialing Group | |

| **41-EXT-02 - FLEXIBLE KEY GROUP (EKT):** | 1-8 = Applicable Key Group From Form 07 |
|---|---|
| (This assigns stations to one of 8 flexible keygroups.**)** | |

**41-EXT-03 - SHIFT KEY GROUP (EKT):**

Each station can have access to a second soft key group accessed by the **[SHIFT]** key (refer to Form 07). The shift key must be programmed in the first group assigned to the station. When the shift key is used to access the second group then it will light red and override the function assigned to it in the second group.

| 0 = Disabled | 1-8 = Applicable Key Group From Form 07. |
|---|---|

**41-EXT-04 - DIAL 9 GROUP:**

When a station selects a trunk line by dialing 9, the system finds an available trunk according to the dial 9 group assignment. If a trunk is not in a station's assigned dial 9 group then the station will not be able to make outgoing calls on that trunk.

1-8 = Applicable Dial 9 Group From Form 36

**41-EXT-05 - TOLL PLAN (DAY SERVICE):**

This parameter assigns the toll plan to be used by the station in day mode.
Refer to Form 18 for Toll plan details.

0-9 = Applicable Toll Plan

**41-EXT-06 - TOLL PLAN (NIGHT SERVICE):**

This parameter assigns the toll plan to be used by the station in night mode. Refer to Form 18 for Toll plan details

0-9 = Applicable Toll Plan

| **41-EXT-07 - PORT NUMBER:** | |
|---|---|
| This is for checking purposes only, the system will automatically show the correct port number. It is not possible for the user to change or remove this parameter. | This parameter is not user programmable |

| Form 42 - Personal Speed Dial Table Assignment | | |
|---|---|---|
| Default | Numerical -01 | DSS -02 |
| 42-___- | | |

| 42-st-IP SPD-T<br>b1 b2 | st = Station No. (2-4 digits) IP = 01-02<br>blocks (2 max.) for a Station |
|---|---|

**b1**: Block 1 of Individual Speed Dial Codes (00-09 or DSS11~DSS20)
**b2**: Block 2 of Individual Speed Dial Codes (DSS1-10)

**General:**
This program divides sets of **Individual Speed Dial** into blocks for use by Stations.

**Description:**
- If in program **05-04-06,** the Individual Speed Dial Codes are assigned:
  **500** sets**,** the maximum blocks in this program are **50** blocks.
  **400** sets, the maximum blocks in this program are **40** blocks.
  **300** sets**,** the maximum blocks in this program are **30** blocks.
- Each block has 10 sets of Individual Speed Dial.
- Each set has up to 30 digits.
- Speed Dial Codes 00~09 shares the same memory block with DSS11~DSS20.
- Each Station can use up to 2 blocks (20 sets of Individual Speed Dial.)

## Example:

| 42-1**3**-IP SPD-T<br>**01 02** | **13**: Station No. ( 2-4 digits )<br>**01 02**: Station 553 can use block **01** and **02** for Individual Speed Dial (20 sets) |
|---|---|

| 42-**15**-IP SPD-T<br>**04 00** | **15**: Station No. ( 2-4 digits )<br>**04 00**: Station 105 can use block **04** (10 sets) for Individual Speed Dial (00-09 or DSS11~20), **00** : for no block. |
|---|---|

| 42-18-IP SPD-T<br>**00 03** | **18**: Station No. ( 2-4 digits )<br>**00 03**: Station 550 can use block **03** for Individual Speed Dial (DSS 1-10) |
|---|---|

* Refer to **Keyphone Operation** for the programming of Individual Speed Dial.
* Be sure to program these parameters before programming speed dial on key phones.

If problems are encountered with stations not being able to program speed dial numbers, check this parameter to be sure that speed dial locations are available to the station. If the station card was installed at the time of system initialization then the blocks will have been allocated automatically.

**Form 43 - Port Assignments**

| 43-cn-IP Port<br>st 0 1 2 00 00 | cn = Port No. (2 digits) IP = 01-06<br>Parameters for the port |
|---|---|

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 43-cn-01 | nnnn | Station Number (2 to 4 digits) | System |
| 43-cn-02 | 0-9 | Equipment Type | System |
| 43-cn-03 | 1-8 | DSS Key Group (Form 08) | 1 |
| 43-cn-04 | 0-8 | Disallow SLT Connection | 0=Yes |
| 43-cn-05 | 00-09 | Reserved | 00 |
| 43-cn-06 | 00-09 | Reserved | 00 |
| 43-cn-07 | 00-99 | Reserved | 00 |
| 43-cn-08 | 00-99 | Reserved | 00 |

**cn** = Position Number on Card (11-68)

In the TD-1648i/TDS-600 , the port number consists of 2 digits

11~18: station ports on the 1st G2-STU card.
21~28: station ports on the 2nd G2-STU or G2-SLU card
31~38: station ports on the 3rd G2-STU or G2-SLU card
41~48: station ports on the 4th G2-STU or G2-SLU card
51~58: station ports on the 5th G2-STU or G2-SLU card
61~68: station ports on the 6th G2-SLU card

**General:**
This program permits each port to be assigned different parameters and station numbers.
**Note:** ***Extension names are programmed using this form as well. See details on the next page.***

| **43-PORT-01 - STATION EXTENSION NUMBER:** | | | |
|---|---|---|---|
| Valid entries: | 10-69 (2 digit) | 100-699 (3 digit) | 1000-6999 (4 digit) |

| **43-PORT-02 - EQUIPMENT TYPE: (Recognized by the system Automatically)** | |
|---|---|
| 0=No Equipment Connected | 1=Digital Telephone without LCD |
| 2=Digital Telephone with LCD | 3=Hybrid function for Digital Phone with SLT adapter installed |
| 4=Single Line Telephone | 5=DSS Console (Only on even numbered ports) |
| 6=Reserved | 7=Music On Hold Port |
| 8=Voice Mail Port | 9=Reserved |
| D=Doorphone | |

**Note:** Equipment Type 7 & 8 (above) are the only items that can be programmed. All other entries are auto-detected by the system. Program equipment type 8 only when a single line circuit is connected to a voice mail port. Equipment type 7 is only when a single line circuit is connected to a Music-On-Hold adapter.

| **43-PORT-03 – DSS KEY GROUP ASSIGNMENT:** This parameter is only of value if the device connected to the port is a DSS console. This number refers to the DSS key group to which the DSS will belong. DSS key group assignments (key maps) are configured on Form 08-group-key. Please see Form 08 for more details. | | | |
|---|---|---|---|
| 1 = Key Group 1 | 2 = Key Group 2 | 3 = Key Group 3 | 4 = Key Group 4 |
| 5 = Key Group 5 | 6 = Key Group 6 | 7 = Key Group 7 | 8 = Key Group 8 |

| **43-PORT-04 - ASSOCIATED SINGLE LINE TELEPHONE:** This parameter is used on Display Digital Telephones that are equipped with an internal Single line adapter. When equipped the SLT and digital telephone may operate in conjunction with one another. |
|---|
| 0=SLT Device operates independently from the digital telephone. No association exists between the two devices. |
| 1=Auto call forward digital key telephone to single line telephone. |
| 2=Enable pickup key, allowing digital telephone to capture an existing phone call from the single line telephone port. |
| 3= Enable 1 & 2 above. |

**Programming Station Name.** Entries may be programmed on this form. Select the STN number that you wish to program, press [CHANGE] (MIC/AT) key. During name entry, the numeric keypad keys will operate as alphabetical character keys. Each key will enter the letters that appear on the keycaps. The following table illustrates the entries that each key can make.

Each character is indicated in order. For instance, pressing 2 will display A. Pressing it again will display B. Pressing it a third time will display C. Pressing it for the fourth time will display 2. The character that is being programmed will be underscored. Movement from character to character (left to right) is through the use of the DSS3 – (left) and DSS4 - (right) keys.

| ***Key Pad Depress*** | ***1 time Depress*** | ***2 times Depress*** | ***3 times Depress*** | ***4 Times Depress*** | ***5 Times*** |
|---|---|---|---|---|---|
| ***1*** | , | . | : | 1 | Space |
| ***2*** | A | B | C | 2 | ; |
| ***3*** | D | E | F | 3 | / |
| ***4*** | G | H | I | 4 | _ |
| ***5*** | J | K | L | 5 | - |
| ***6*** | M | N | O | 6 | ' |
| ***7*** | P | Q | R | S | 7 |
| ***8*** | T | U | V | 8 | + |
| ***9*** | W | X | Y | Z | 9 |
| ***0*** | Ä | ü | ñ | ö | 0 |
| ******* | % | ^ | & | * | ( |
| ***#*** | $ | ! | @ | # | ) |
| DSS Key 3 = Cursor Left | | | DSS Key 4 = Cursor Right | | |

When the name is acceptable, press **[SAVE]** to store the name in system memory.

To remove an existing name from the system, press **[REDIAL].** This will clear all characters from the entry.

**Form 44 - Station Class of Service (Part 2)**

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 44-st-01 | 0-1 | System Alarm | 0=Enable |
| 44-st-02 | 0-1 | Hold feature | 0=Enable |
| 44-st-03 | 0-1 | Call Split | 0=Disable |
| 44-st-04 | 0-1 | Manual Line | 0=Disable |
| 44-st-05 | 0-1 | Headset feature | 0=Disable |
| 44-st-06 | 0-1 | Use Engineering Password | 0=Enable |
| 44-st-07 | 0-1 | DTMF Receiver Control for Voice mail Ports | 0=Normal Timeout. |
| 44-st-08 | 0-1 | Station Alarm Signal Type | 0=Music |
| 44-st-08 | 0-1 | Voice Mail Unsupervised Conference/ECF | 0=Disabled |

**44-EXT-01 - SYSTEM ALARM STATION:**

If disabled, the station will not receive system alarm clock signals

| | |
|---|---|
| 0=Enable | 1=Disable |

| | | |
|---|---|---|
| **44-EXT-02 - CALL HOLD:** | 0=Hold is allowed | 1=Hold is not allowed |

**44-EXT-03 - CALL SPLIT:**

If the setting is allowed, the station will be able to activate the call split function. When activated and the station presses hook flash after placing a call on hold the call will not be retrieved. Dialing 9 (or 0) or 72 will retrieve the held call. When not allowed the station will only be allowed to transfer a call. It cannot access a second outside line.

| | |
|---|---|
| 0=Call split allowed | 1=Call split not allowed |

**Related System Programming Mode: 07(code 26), 44-st-03**

**44-EXT-04 - MANUAL LINE:**

If enabled, this options will cause a station to ring the console group when it goes off-hook.

| | |
|---|---|
| 0=Disable | 1=Enable |

**44-EXT-05 - HEADSET OPERATION:** This item controls whether the telephone can be placed in headset mode. In many locations, the prefix (office code) 775 exists as a local call. Frequently, keyset callers will neglect to dial 9 or press a CO line before commencing to dial. When 775 is entered, the telephone is placed in headset mode.

The result is that the telephone appears to lose audio functions. The end user is not aware of why and a service call results. Setting 44-ext-05 to a value of 0, eliminates use of this feature. Phones not normally equipped for headset use should have this option disabled (0).

0 = Cannot use 775 to enter and exit headset mode (FN:29 disabled also)

1 = Can use 775 or the Headset Key (DSS FN:29) to switch between handset and headset mode.
The LED of the headset key will be lit when in headset mode

| **44-EXT-06 - DEFAULT PASSWORD:** (System Programming Access)<br>If enabled, a station will have access to system programming.<br>If not, the station will be unable to access system programming. | |
|---|---|
| 0=Enable | 1=Disable |

| **44-EXT-07 - DTMF RECEIVER CONTROL FOR VOICE MAIL PORTS:** |
|---|
| This program controls the operation of DTMF detectors for each Voice mail Port. The parameter is set to free DTMF detectors quickly for systems with high Voice Mail traffic. |
| 0=After the Voice Mail dials the extension number,<br>The receiver remains online until the timeout of 05-02-02 (Interdigit timer). |
| 1=After the Voice Mail dials the extension number, The system releases the DTMF receiver immediately |

| **44-EXT-08 - ALARM SIGNALING TYPE: (ELECTRONIC AND SINGLE LINE TELEPHONES)** | |
|---|---|
| This parameter determines what a station will hear when a station alarm or Wake Up Call is activated. | |
| 0=Background Music | 1=Busy Tone |

| **44-EXT-08 – ALLOW EXTERNAL CALL FORWARDING / UNSUPERVISED CONFERENCE: (VOICE MAIL PORTS)** | |
|---|---|
| This parameter enables a Voice Mail Port to establish an Unsupervised Conference when transferring to a station with External Call Forwarding established. | |
| 0=Unsupervised Conference Not Allowed | 1=Unsupervised Conference Enabled |

**Related Programming: 43-port-02, 05-06-04=0, 05-06-06, 05-09-03**

**Form 45 - Station Class of Service (Part 3)**

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 45-st-01 | 0-1 | Intercom Call Limitation | 0=Disable |
| 45-st-02 | 0 | Reserved | 0 |
| 45-st-03 | 0 | Reserved | 0 |
| 45-st-04 | 0-1 | Trunk Access | 0=Enable |
| 45-st-05 | 0-1 | Inter-Group Station to Station Calls | 0=Enable |
| 45-st-06 | 0-1 | Receive Break Alarm | 0=Enable |
| 45-st-07 | 0-1 | Allow Unrestricted Speed Dial | 0=Enable |
| 45-st-08 | 0-1 | Record Station's SMDR Data | 0=Record |

| 45-st-IP STCOS<br>0 0 0 0 0 0 0 0 | st = Station No. (2-4 digits) IP = 01-08<br>System Default |
|---|---|

**45-EXT-01 - INTERCOM DIALING RESTRICTION:**

If this setting is enabled, the station can not make an intercom call by dialing a station number. Under this condition, the Key Phone still can press a Flexible Key to make an intercom call or the Key Station or Analogue phones can call a station using the "Single Digit" feature.

| 0=Disable | 1=Enable |
|---|---|

**45-EXT-02 - RESERVED:**

**45-EXT-03 - RESERVED:**

**45-EXT-04 - TRUNK ACCESS:**

If this function is disabled then the station will be unable to access any trunks for incoming or outgoing calls.

| 0= Enabled - Trunk Access Allowed | 1=Disabled - Trunk Access Disallowed |
|---|---|

**45-EXT-05 - INTER-STATION GROUP CALLING:**

If this function is disabled then stations will not be able to make intercom calls outside their own station group (Form 41-st-01). This parameter is for use in tenant arrangements where each company wishes to remain totally separate although some stations can still be allowed this function, for instance a shared Receptionist.

| 0=Enable | 1=Disable |
|---|---|

**45-EXT-06 - RECEIVE ALARM:**

If this parameter is disabled then the station will not receive the Alarm signal if one has been programmed in Form 39.

| 0 = Enabled – Receive Alarm | 1 = Disable – Do not Receive Alarm |
|---|---|

| **45-EXT-07 - SYSTEM SPEED DIAL ACCESS:** | |
|---|---|
| If this parameter is disabled then the station will not be able to access any of the Speed Dial numbers which have been unrestricted in Mode 05-05-03/04 if they conflict with the stations toll restrictions | |
| 0= Enabled – Toll Control is bypassed for unrestricted numbers | 1=Disabled - Toll Control applies to unrestricted stations. |

| **45-EXT-08 - RECORD STATION'S SMDR DATA:** | |
|---|---|
| If this parameter is disabled then calls to and from this station will not recorded or output to the SMDR or the Mini Accounting feature. When the Mini Accounting feature is enabled (see Mode 14-01-08) then all stations which are used for administration should have this feature disabled to prevent using memory unnecessarily to record their calls. If calls are allowed to accumulate against stations which are not checked in or out regularly then the system memory buffer will become full and calls will not be recorded. | |
| 0 = Record | 1 = Do not Record |

**Form 46 - Station Class of Service (Part 4)**

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 46-st-01 | 0-8 | Dial [87] Trunk Group | 0= None |
| 46-st-02 | 0-9 | Send Message Wait Signal Level | 1= Low |
| 46-st-03 | 0-2 | Automatic Answer Capability / Internal CLIP | 0 |
| 46-st-04 | 0-7 | DISA Recall Capability | 3= Recall |
| 46-st-05 | 0-9 | Maximum Number Of Transfer Times Allowed | 0= No Limit |
| 46-st-06 | 0-7 | Door Unlock/DND/CFWD Access | 7= Yes |
| 46-st-07 | 0-9 | Call Forward No Answer to Assigned Hunting Group | 0= Disable |
| 46-st-08 | 0 | Reserved | 0 |

| 46-st-IP STCOS |
|---|
| 0 1 0 3 0 7 0 0 |

st = Station No. (2-4 digits) IP = 01-08
System Default

**46-EXT-01 - DIAL 87 LINE GROUP:**

If this setting is from 1 to 8, after the station dials [87], the system will automatically search for a free line which is assigned in group 1 to 8 in Program Form 38.

| | |
|---|---|
| 0=Disabled | 1-8=Group Number |

**Related System Programming Mode: 36, 38, 41-ST-04, 46-ST-01**

**46-EXT-02 - MESSAGE WAITING LEVEL:**

The Stations assigned higher levels can leave message for stations with the same or lower levels. Ten levels (0-9) are available (9=highest level, 0=lowest level cannot leave messages).

| |
|---|
| 0=Cannot leave messages |
| 1-9 -Able To leave messages for stations of equal or lesser Message Waiting Level |

**46-EXT-03 - AUTOMATIC ANSWER CAPABILITY (DIGITAL TELEPHONE SETS):**

This parameter if enabled will automatically switch on the microphone of the station if it receives an intercom call. This setting is independent of whether the system is set to voice or ring signaling for intercom calls.

| | |
|---|---|
| 0 = No | 1 = MIC permanently on |
| 2 = MIC will switch on for Intercom calls | |

**46-EXT-03 - CALLER ID TO SINGLE LINE STATIONS:** (When Connected to TD-SLC1 card):
This enables system to send different internal Caller ID signals to single line telephones.

| | |
|---|---|
| 0 = Disable Caller ID | 1 = Enable to send SDMF(number without name) Caller ID to the single line telephone |
| 2 = Enable to send MDMF(number with name) Caller ID to the single line telephone | |

**46-EXT-04 - DISA RECALL CAPABILITY TO OPERATOR (NO ANSWER/BUSY):**

If this parameter is enabled then when a DISA call rings an extension but the station is busy or does not answer (depending on setting) after the voice message announcing the status of the station is heard, the system will recall the operator after the assigned DISA transfer time. Using settings 1 to 3 the called station will continue to ring until the console answers the call. Using Settings 5 to 7 the call will ring the station for 1 cycle (Form 05-08-06) and then camp on to the console only and cease to ring the called station. If the parameter is set to 0 then the call will stay at the station until answered or terminated.

| | |
|---|---|
| 0=No Recall to Operator | 1=Recall on No Answer |
| 2=Recall on Busy | 3= Recall on Busy and No Answer |
| 5=Recall on No Answer (Forwarding station stops ringing) | 6=Recall on Busy and Stop Busy Remind Tone at Forwarding Station |
| 7= Recall to Operator on No Answer/Busy (Stop Notification at Forwarding Station) | |

**46-EXT-05 - MAXIMUM TRANSFER TIMES:**

This feature allows the user or the automatic attendant console to re-transfer the same call for the number of times set in this parameter.

| | | | |
|---|---|---|---|
| 0 = No Limit | 1 = Allow 6 times | 2 = Allow 7 times | 3 = Allow 8 times |
| 4 = Allow 9 times | 5 = Allow 10 times | 6 = Allow 11 times | 7 = Allow 12 time |
| 8 = Allow 13 times | 9 = Allow 14 times | | |

**46-EXT-06 - DOOR UNLOCK/DND/CFWD ACCESS:**

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| Door Unlock | Disallow | Allow | Disallow | Allow | Disallow | Allow | Disallow | Allow |
| DND | Disallow | Disallow | Allow | Allow | Disallow | Disallow | Allow | Allow |
| CFWD | Disallow | Disallow | Disallow | Disallow | Allow | Allow | Allow | Allow |

**46-EXT-07 - CALL FORWARD NO ANSWER TO A PRE-ASSIGNED HUNTING GROUP:** (Keysets and Single Line Sets)

This parameter allows Call forward No Answer to the pre-assigned hunting group. This parameter will not be disabled if the user enables or disables the "Personal Call Forward" function, but will be temporarily overridden. If the user has set the Personal Call Forward to some specified number, system will use "Personal Call Forward" rule first. When the user disables Personal Call Forward, this option will once again go into effect.

| | |
|---|---|
| 0=Disable | 1-9=Forward to Hunt Group 1-9 |

**Related System Programming Mode: 46-st-07, 68, 78-st-04**

**46-EXT-07 - ACP RING TO A PRE-ASSIGNED HUNTING GROUP:** (ACP and Digital Doorphone only)

This parameter determine what station(s) will ring when an ACP doorbell button is pressed. Please note the difference in ringing assignments when an ACP is connected..

| | | |
|---|---|---|
| 0=Hunt Group 1 | 1=Hunt Group 2 | 2=Hunt Group 3 |
| 3=Hunt Group 4 | 4=Hunt Group 5 | 5=Hunt Group 6 |
| 6=Hunt Group 7 | 7=Hunt Group 8 | 8=Hunt Group 9 |
| 9=Hunt Group 10 | | |

| **46-EXT-08 - RING TYPE - SINGLE LINE TELEPHONE:** (Applies only to stations equipped with Single Line Telephones)<br>This parameter allows selection of different ringing types for single line telephone. Use this feature for some Voice Mails, Answer Machines which are unable to detect the double ring cadence for intercom calls or where an incorrect ring count is detected before answer.. | |
|---|---|
| 0 = Single Ring for Incoming CO calls – Double Ring for Intercom Calls | |
| 1 = Single Ring Cadence for All Calls | 2 = Double Ring Cadence for All Calls |

**46-EXT-08 - ACP FUNCTION:** (Applies only to stations equipped with ACP Device)

| Value | Doorphone / Wall Mount Phone | Activate Relay | Security Access |
|---|---|---|---|
| 0 | Doorphone | Inside ACP | ID Card **OR** Password |
| 1 | Wall Mount Keyphone | Inside ACP | ID Card **OR** Password |
| 2 | Doorphone | Use TD-1648i MSC Card | ID Card **OR** Password |
| 3 | Wall Mount Keyphone | Use TD-1648i MSC Card | ID Card **OR** Password |
| 4 | Doorphone | Inside ACP | ID Card **AND** Password |
| 5 | Wall Mount Keyphone | Inside ACP | ID Card **AND** Password |
| 6 | Doorphone | Use TD-1648i MSC Card | ID Card **AND** Password |
| 7 | Wall Mount Keyphone | Use TD-1648i MSC Card | ID Card **AND** Password |

**Form 47-st-IP - Hot Line Assignment**

| | |
|---|---|
| 47-st HOT LINE<br>00 | St = Station No. (2-4 digits)<br>Data. ( Extension Mode ) |
| 47-st HOT LINE<br>SPD:000 | St= Station No. (2-4 digits)<br>Data. ( SPEED DIAL Mode ) |

**General:**

This feature allows a user to lift the handset and directly call a specific outside party through System Speed Dial or an Intercom Extension without dialing any digits.

* Pressing **[SPK]** on a Keyphone allows the Hot line to be over-ridden.

**Description:**

1. Enter a System Speed Dial Number for an outgoing call or a Station Number for an Intercom call.

**Example:**

| | |
|---|---|
| 47-**15** HOT LINE<br>SPD:101 | **15** = Station No. ( 3 digits )<br>7 Speed Dial 101 (for example: 94150100) |

When the user lifts the handset, the System will automatically call 9425010 through System Speed Dial 101.

2. Press **{Change}** to select a hot line Intercom. (Press again 6 back to SPD assignment), the display shows:

| | |
|---|---|
| 47-15 HOT LINE<br>00 | ● Enter an Extension number **18** |
| 47-550 HOT LINE<br>**18** | ● The system calls Extension **18** when the handset is lifted. |

The Hot Line is the recommended method of connecting a Fax machine to the system. Use a spare analogue port and make the Fax extension a Hot Line to an unused Speed Dial number and allocate the fax line to be used by that Speed Dial. Do not program any number into the Speed Dial. When the fax goes off line it will select the Fax line and then wait for the Fax to dial the number required.

**Form 50 - Station Class of Service (Part 5)**

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 50-st-01 | 0 | Reserved | 0 |
| 50-st-02 | 0 | Reserved | 0 |
| 50-st-03 | 0-1 | ISDN Incoming Call Display type | 0=CLI |
| 50-st-04 | 0-1 | CTI-Extension Status Report | 0=Disable |
| 50-st-05 | 0-1 | Voice Mail Auto Logon Function | 0=Enable |
| 50-st-06 | 0 | Reserved | 0 |
| 50-st-07 | 0 | Reserved | 0 |
| 50-st-08 | 0 | Reserved | 0 |

| 50-st-IP STCOS<br>0 0 0 0 0 0 0 0 | st = Station No. (2-4 digits) IP = 01-08<br>System Default |
|---|---|

**50-EXT-01 - RESERVED:**

**50-EXT-02 - RESERVED:**

**50-EXT-03 - ISDN INCOMING CALL DISPLAY TYPE:**

This parameter selects what will be displayed on the screen of an LCD phone when an incoming call is received, either the Caller ID number or the ISDN Indial number. Caller ID on CO lines requires optional equipment to be installed. This will also select what will be displayed on the SMDR output for incoming calls. This setting also allows the naming of indials or Caller ID numbers using System Speed Dial Name / numbers. If this setting is a 1 then when an incoming call with Caller ID or an Indial number rings the TD-824i will search the System Speed dials and if this number is entered then the name associated with it will be displayed on the screen.

| | |
|---|---|
| 0 = Caller ID / Name | 1 = ISDN Indial Number / Name |

**50-EXT-04 - CTI-EXTENSION STATUS REPORT:**

If enabled this parameter will output the extension status report for CTI application.

| | |
|---|---|
| 0 = Disable | 1 = Enable |

**50-EXT-05 - VOICE MAIL AUTO LOGON FUNCTION:**

| | |
|---|---|
| 0 = EnableVoice Mail Auto Log On String | 1 = Disable Voice Mail Auto Log On String |

**Related System Programming Mode: 05-12-05, 50-ST-05**

**50-EXT-06 - RESERVED:**

**50-EXT-07 - RESERVED:**

**50-ext-08 - Reserved**

**Form (51 to 59)-code-IP - Toll Plans – Allowed Digits – Class 1 to 9**

**Toll Control Forms**
Forms 51 through 56 set exceptions (allow) to rules defined in corresponding forms 61 through 66. Form 51 & 61 correspond to toll class setting 1 as per Form 18 of the Td-824i. Forms 52 & 62 correspond to toll class setting 2, through forms 56 & 66, which correspond to a setting of 6 on form 18.

Forms 57 through 59 are allow tables which provide for exceptions to complete toll restriction. There are no corresponding forms to 57 through 59. If nothing is programmed on form 57, any station subject to toll class 7 will be restricted from placing any calls on a CO line. Forms 58 & 59 act in a like manner with respect to toll classes 8 & 9.

**Description:**
There are 16 codes for each Toll Class and each code contains up to 12 digits

In default any station allocated to Toll Plans 1 to 6 will be able to dial unrestricted until the associated Modes are programmed.

Allowed entries in this form are 0 to 9, d and
d = Don't care and means that any digit can be dialed in this position. _
<blank>= No digit is allowed to be dialed beyond this position.
If a digit is allowed as the beginning of a number then the entry should be filled with don't care's to the end of the line or the caller will not be able to dial the full number.

Forms 51 to 56 are used in conjunction with Forms 61 to 66 and Forms 57 to 59 are used independently.

**Toll Classes:**

| Class | Function | Prog. Mode |
|---|---|---|
| **0** | Unrestricted | Default |
| **1** | Use Mode 51 for the Unrestricted numbers. Use Mode 61 for the Restricted numbers | Mode **51,61** |
| **2** | Use Mode 52 for the Unrestricted numbers. Use Mode 62 for the Restricted numbers | Mode **52,62** |
| **3** | Use Mode 53 for the Unrestricted numbers. Use Mode 63 for the Restricted numbers | Mode **53,63** |
| **4** | Use Mode 54 for the Unrestricted numbers. Use Mode 64 for the Restricted numbers | Mode **54,64** |
| **5** | Use Mode 55 for the Unrestricted numbers. Use Mode 65 for the Restricted numbers | Mode **55,65** |
| **6** | Use Mode 56 for the Unrestricted numbers. Use Mode 66 for the Restricted numbers | Mode **56,66** |
| **7** | Use Mode 57 for the Unrestricted numbers. | Mode **57** |
| **8** | Use Mode 58 for the Unrestricted numbers. | Mode **58** |
| **9** | Use Mode 59 for the Unrestricted numbers. | Mode **59** |
| ***** | Use Mode 51-56 for unrestricted numbers. Use Mode 61-66 for all restricted numbers | 000 |
| **D** | **Cannot access the trunk line.** | |

**Note 1:** Default numbers in Form 61, 62, 63, 65, 66 are: ddddddddd
**Note 2:** Default numbers in Form 51, 52, 53, 55, 56, 57, 58, 59 are:----------
**Note 3:** d: Don't care: any digit is allowed in this position.
**Note 4:** _: The system does not allow any digits dialed after this symbol.

## Form (61 to 66)-code-IP - Toll Plans – Restricted Digits – Class 1 to 6

**General:**

This program sets Restricted numbers for Toll Class 1. These forms should be read in conjunction with Forms 51 to 56.

**Description:**

There are 16 codes for each Toll Class and each code contains up to 8 digits
In default any station allocated to Toll Plans 1 to 6 will be able to dial unrestricted until the associated forms are programmed.

Allowed entries in this Form are 0 to 9, d and _.
d = Don't care and means that any digit can be dialed in this position.
_ = no digit is allowed to be dialed beyond this position.
If a digit is allowed as the beginning of a number then the entry should be filled with don't care's to the end of the line or the caller will not be able to dial the full number.

Forms 51 to 56 are used in conjunction with Forms 61 to 66 and Forms 57 to 59 are used independently and do not have an associated restriction table.

In Default stations which are allocated Toll Plans 0 to 6 are able to dial any numbers.
When a station is allocated Toll Plans 7 to 9 they can dial no digits until the plans are programmed.

Form 51 and 61 combine to produce Toll Plan 1, Form 52 and 62 combine to produce Toll Plan 2 and so on up to Form 56 and 66 for Toll Plan 6. Toll Plans 7, 8 and 9 are associated with Form 57, 58 and 59.

The principle of these Toll Plans up to Plan 6 is to deny unwanted digits in Form 61 to 66 and then allow any exceptions for these digits in Form 51 to 56. If 1ddddddd is entered in Form 61 and 1212ddddddddd and 1203dddddd are entered in Form 51 then a station allocated to Toll Plan 1 will be able to dial any local number plus 1-212 + anything and 1-203 + anything. Any other number beginning with 1 will be disallowed.

**Toll Control Examples**

*This example is based on a location where 911 is enabled and all local calls are placed by dialing a 7 digit number. The customer wants calls only allowed to 911 and 1-800, 1-888 and 1-877. No local calls are permitted.*

Set Form 41-11-05/06 = 7
When this form is set and Form 57 is still at default then station 11 will be totally restricted.
Set form 57 to the following,

Form 57-01 = 911ddddddddd
Form 57-02 = 1800ddddddddd
Form 57-03 = 1888ddddddddd
Form 57-04 = 1877ddddddddd

Station 11 will now be only able to dial:
911
1-800-xxx-xxxx
1-888-xxx-xxxx
1-877-xxx-xxxx

**Example 2**

All except 0 and 1 plus, but allow 1-800, 1-888, 1-877.
Set Form 41-11-05/06 = 1
When this form is set and Form 51 and 61are still at default then station 11 will be unrestricted.
Set Form 61 to the following,

Form 61-01 = 0 (remove all trailing d digits)
Form 61-02 = 1ddddddddddd

Station 11 will now be only able to dial numbers beginning with digits 2 through 9.

Form 52-01 = 1800ddddddddd
Form 52-02 = 1888ddddddddd
Form 52-03 = 1877ddddddddd
Station 11 can now dial calls beginning with 1-800, 1-888 and 1-877.

**Form 67 - Hunt Group Pilot Number Assignment**

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 67-gp-01 | | Hunt Group Pilot Number | 00 |
| 67-gp-02 | 0-3 | Hunt Group Ring Method | 0=Common |

**General:**
This program sets Pilot Numbers for Hunting Groups 1 to 10 and it's ringing method.

**67-GP-01 - HUNTING GROUP PILOT NUMBER:**

There are 10 Hunt Groups available in the TD-1648i/TDS-600 . Each Hunt Group is assigned a Pilot Number in this form. . It must be a unique number (it cannot be the same as an extension). ***It must be within the range of valid numbers for extensions (2 digit numbering plan 10-69, 3 digit numbering plan 100-699, 4 digit numbering plan 1000-6999).***

**Hunt group pilots can be assigned to be rung from Single Digit DISA.**

**67-GP-02 - HUNTING GROUP RINGING METHOD:**

Assign one of 4 ringing methods for each hunting group.

| | |
|---|---|
| ***0 = Common*** | ***1 = Linear*** |
| ***2 = Circular*** | ***3= Follow programming Form 05-06-08*** |

Once Hunting Ring Type is set here or in Mode 05-06-08 then ringing this pilot number will access the stations in the group according to the ringing method selected and the order in which they are programmed in Form 68 (Day) and Form 69 (Night). Each Hunt Group can be from 1 to 5 stations in the TD-1648i/TDS-600 .

*There are 3 types of Ring available, Common, Linear and Circular.*
If **Common Ring** is enabled then calling the pilot number will always ring all available stations programmed in Mode 68 or 69.
If **Linear Ring** is enabled then calling the pilot number will always call only the first available station in the order in which they are programmed in Mode 68 or 69.
If **Circular Ring** is enabled then the stations will be called one after the other for each succeeding call until all have taken a call and then the Ring will revert to the beginning of the Ring assignment and then repeat the process.

*Stations can remove themselves from receiving Hunt calls by using the DND key but this will also prevent them from receiving direct calls.*

It is still possible to call each station in the Hunting group directly by dialing it's own individual station number.

If a station in a Hunt Group has set call forward to a station or another Hunt Group (for instance Voice Mail Group) then only direct calls to the station will be forwarded. If Hunt calls come to the station and it is call forwarded it will still ring for the call.

**Related System Programming Forms: 05-06-08, 67, 68, 69**

**Form 68 - Day Hunt Group Assignments**

| 68-GP-IP HUNT DA<br>00 00 00 00 00 | GP = 01-10, IP = 01-16<br>System default |
|---|---|

**General:**

This program sets Stations into Hunting Groups 1 to 10 for the TD-1648i/TDS-600 assigns the order in which they will be accessed during Daytime.

**Description:**
There are 10 Hunt Groups available and 16 stations can be assigned into each group for Day and 16 for Nighttime.

There are 3 types of Ring available, Common, Linear and Circular.

If Linear Ring is enabled then calling the pilot number will always call the first available station in the order in which they are programmed in Mode 68 or 69.

If Circular Ring is enabled then the stations will be called one after the other for each succeeding call until all have taken a call and then the Ring will revert to the beginning of the Ring assignment and then repeat the process.

It is still possible to call each station in the Hunting group directly by dialing its own individual station number.

**Related System Programming Mode: 05-06-08, 67, 68, 69**

**Form 69- Night Hunt Group Assignments**

| | |
|---|---|
| 69-GP-IP HUNT NI<br>00 00 00 00 00 | GP = 01-10, IP = 01-16<br>System default |

**General:**

This program sets Stations into Hunting Groups 1 to 10 for the TD-1648i/TDS-600 assigns the order in which they will be accessed during Night Service.

**Description:**

There are 10 Hunt Groups available and 16 stations can be assigned into each group for Day and 16 for Night Service.

There are 3 types of Ring available, Common, Linear and Circular.

If **Common Ring** is enabled then calling the pilot number will always ring all available stations programmed in Mode 68 or 69.

If **Linear Ring** is enabled then calling the pilot number will always call only the first available station in the order in which they are programmed in Form 68 or 69.

If **Circular Ring** is enabled then the stations will be called one after the other for each succeeding call until all have taken a call and then the Ring will revert to the beginning of the Ring assignment and then repeat the process.

It is still possible to call each station in the Hunting group directly by dialing its own individual station number.

**Related System Programming Mode: 05-06-08, 67, 68, 69**

**Form 70-Cd-IP - ISDN Interface Specifications Program**

| 70-Cd-IP S/T TYP 111 | Cd = 01-04, IP = 01-03<br>System default |
|---|---|

**General:**

To assign the ISDN interface to “S” interface or “T” interface.

**Description:**

Cd= 01 is to assign the “S” or “T” interface for the ISDN port on G2-SIU card.
- 0= “S” interface. It can connect two ISDN devices. Use Program 43-CN to set the Device Station Number (Station Type is 9).
- 1= “T” interface. It can be connected to “NT” interface of ISDN line.

Cd= 02 is for the test purposes only.
- 0= Loopback disabled
- 1= Loopback enabled

Cd= 03 is for connection method.
- 0= Point to Point(recommend ‘0’ for internal ISDN S interface use if only one ISDN device connected)
- 1= Point to Multi-point (Default)
- 2= Point to Multi-point and ignore the unknown MSN or DDI number (not assigned in mode 72)

- This application is normally for other ISDN device (e.g. ISDN TA, ISDN video conference, ISDN card, …) that is connected to NT1 with TD-1648i/TDS-600 together.

Cd= 04 is for ISDN PLL (Phase Loop Lock)
- 0= Auto detect
- 1= Lock this ISDN line for PLL. Signal.

The following table is the Cross Reference Table for physical position of ISDN interface and programming position.

| | | Cd | | | |
|---|---|---|---|---|---|
| | | Cd=01 | Cd=02 | Cd=03 | Cd=04 |
| IP | IP=01 | 1st interface | 1st interface | 1st interface | 1st interface |
| | IP=02 | 2nd interface | 2nd interface | 2nd interface | 2nd interface |
| | IP=03 | 3rd interface | 3rd interface | 3rd interface | 3rd interface |

Example:

| 70-01-IP S/T TYP 110 |
|---|

It sets the 1st and 2nd ISDN interface to “T” interface and 3rd interface to “S” interface. The user can program the station number in program mode 43, port 61~68.

## Form 71-tk - Reserved for Future Used

This form is reserved for future use.

## Form 72-St - ISDN Called Party Extension Number Assignment

| 72-St ST NUM<br>ddddddddddd 00 | St= Extension Number<br>System default |
|---|---|

**General:**

Assigns an ISDN MSN/DDI number to a station or station hunting group.

**Description:**

- Each incoming ISDN MSN or DDI number can ring a station or a hunting group.
- If ISDN MSN or DDI number is assigned for a station in this mode and this station is used to make an external call, the called party will receive the ISDN CLI number from this station.
- A Maximum of 12 digits can be assigned.

Example: A

| 72-12 ST NUM<br>2961135ddddd 00 | If the outside party calls ISDN number 2961135, station 12 will be rung. |
|---|---|

Example: B

| 72-60 ST NUM<br>29611356dddd 01 | If the outside party calls ISDN number 29611356, station hunting group 01 will be rung. |
|---|---|

When assigning a Group to ring for an Indial number, select an unused station number from the ISDN extension ports of 41-48, 51-58 or 61-68 and then assign the Indial number and the Hunt group number.

**Form 73-St - ISDN Extension Sub-Address Assignment**

| | |
|---|---|
| 73-St ST Sub Add dddd | St= Extension Number<br>System default |

**General:**

Assigns ISDN Sub-Address Numbers to the internal extensions.

**Description:**

- If the ISDN incoming call has the information of the Sub-Address number, system will ring this desired extension directly.
- Each extension can have its own Sub-Address Number.
  If there are two extensions that have the same Sub-Address Number, only the first extension can be rung.
- Maximum 4 digits can be assigned.

Example:

| | |
|---|---|
| 73-553 ST Sub Add 1234 | Assign an identifying Sub-Address Number 1234 to extension 553 for the ISDN incoming call. |

**Form 75-Num-IP - LCR - Analysis Table**

```
75-Num-IP Dg Tab
- - - - - - - - - -  0 0
```

Num = 001-500
System Default.

| IP | Data | Programming Data Description | Default |
|---|---|---|---|
| 01-10 | 0~9, *, | Under routing digits- | #, _, d |
| 11-12 | 01~20 | Routing Table | 00 |

**General:**
This program assigns the routing table for the specific dialed number.

**Description:**
500 specific dialed numbers can be assigned.
20 routing tables can be used.
Each specific dialed numbers can be assigned to a routing table.
Valid dialed digits are:
0~9, *, #.
'd' is the wildcard.
'-' means no digit.

**Related system Programming: 05-13-07. 05-13-08, 75, 76, 77, 78-st-01, 78-st-02**

**Form 76-Num-Tm - LCR – Routing Table**

| 76-Num-Tm Rou Ta |
|---|
| 00 00 0 00 0 00 |

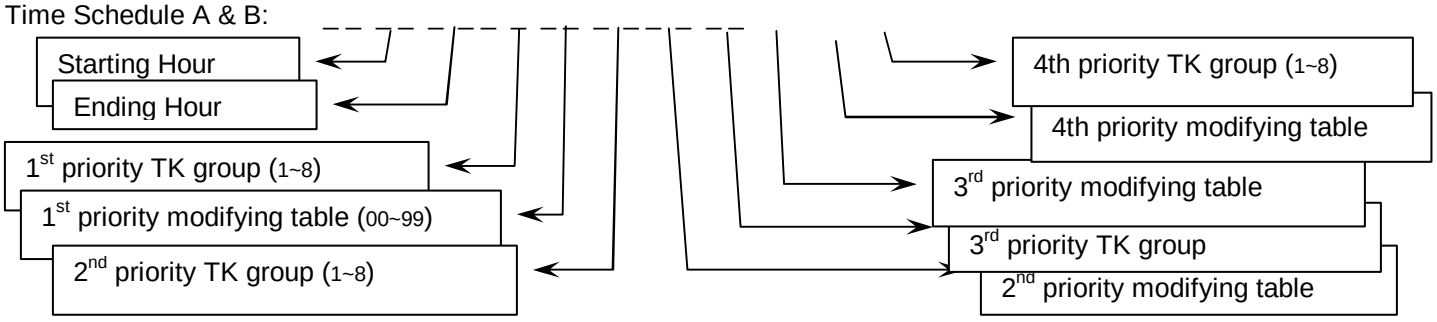
Num = 01~60 Tm = Time Schedule A, B, C
System Default.

| Item Pointer | Display Data | Programming Data Description | Default |
|---|---|---|---|
| 01,02 | 00~23 | Starting Hour of this Routing Table | 00 |
| 03,04 | 00~23 | Ending Hour of this Routing Table | 00 |
| 05 | 0~8 | The 1st priority trunk group for dialing | 0 |
| 06,07 | 00~99 | Modifying table for the 1st priority trunk group | 00 |
| 08 | 0~8 | The 2nd priority trunk group for dialing | 0 |
| 09,10 | 00~99 | Modifying table for the 2nd priority trunk group | 00 |
| 11 | 0~8 | The 3rd priority trunk group for dialing | 0 |
| 12,13 | 00~99 | Modifying table for the 3rd priority trunk group | 00 |
| 14 | 0~8 | The 4th priority trunk group for dialing | 0 |
| 15,16 | 00~99 | Modifying table for the 4th priority trunk group | 00 |

**General:**
This program assigns different time schedules, the priority to select different trunk groups and the modifying tables for the routing tables.

**Description:**
20 routing tables can be used.
3 time schedules can be assigned for each routing table.
4 priority trunk groups can be assigned for each routing table. (If there is no trunk group assigned here, system will use Dial 9 trunk group instead.)
4 modifying tables can be assigned for each routing table.
For weekly holiday, system will refer to 76-(21~40).
For weekly weekend, system will refer to 76-(41~60).

Time Schedule A & B:




Time schedule C does not have the Starting/Ending hour setting. Only priority trunk groups and modifying tables need to be assigned.

**Related system Programming: 05-13-07. 05-13-08, 36, 41-ST-04, 75, 76, 77, 78-st-01, 78-st-02**

**Form 77-Num - LCR – Modifying Table**

```
77-Num-IP Mo Tab
00 ddddddddddd
```

Num = 01~99
System Default.

| Item Pointer | Display Data | Programming Data Description | Default |
|---|---|---|---|
| 01-02 | 00~10 | Deleted Digit Length | 00 |
| 03-12 | 0~9, *, #, -, d, T, p | Added Digits | ddddddddddd |

**General:**

This program designs the rules for changing the dialed number to the routed number.

**Description:**

System will delete the first nn digits and then added the assigned digits in the front of the dialed numbers.
The added digits could be 0~9, *, #, p, T.
'd' is the wildcards.
'_' = Insert Extension Number (for LCR Extension Billing).
'-' is no digit.
'p' is the pause character.
'T' means to chain next modifying table with current one for long digit string.

For example if the carrier access code is 1346 and system inserts this before numbers dialed to route the calls to this carrier. The example below is able to add the extension number into the dialed string of digits inserted by the LCR tables.

77. = 00 1346_ddddd Where '_' = Extension Number

Dialing 9 19042341234 from extension 201 using the above rule would result in 1346 201 19042341234 being sent to the Line.

Dialing 9 14073452345 from extension 223 using the above rule would result in 1346 223 14073452345 being sent to the Line.

**Related system Programming: 05-13-07. 05-13-08, 75, 76, 77, 78-st-01, 78-st-02**

**Form 78-st-IP - Station Class of Service – 6**

78-st-IP STCOS
0 0 0 0 0 0 0 0

st = Station No. (2-4 digits) IP = 01-08
System Default

| Item | Valid Settings | Description | Default |
|---|---|---|---|
| 78-st-01 | 0-5 | LCR - Routing Level | 0 |
| 78-st-02 | 0-1 | LCR – Direct Access a Trunk | 2=2 |
| 78-st-03 | 0-3 | 1A2 Emulation feature (Station) | 0=None |
| 78-st-04 | 0-9 | Call Forward Busy To Assigned Hunt Group | 0 |
| 78-st-05 | 0 | Reserved | 0 |
| 78-st-06 | 0 | Reserved | 0 |
| 78-st-07 | 0 | Reserved | 0 |
| 78-st-08 | 0 | Reserved | 0 |

**78-ST-01 - LCR ROUTING LEVEL:**

This parameter assigns the LCR routing level for each station.

| | |
|---|---|
| 0 = Disable LCR. | 1 = Use the 1st priority trunk group only |
| 2 = Use the 1st and the 2nd priority trunk groups only | 3 = Use the 1st~3rd priority trunk groups only. |
| 4 = Use the 1st~4th priority trunk groups | 5 = Use the 1st~4th priority trunk groups. |

**Related system Programming: 05-13-07. 05-13-08, 75, 76, 77, 78-st-01, 78-st-02**

**78-ST-02 - LCR - DIRECT ACCESS A TRUNK:**

This parameter assigns the right of the station to select a trunk directly under LCR environment is enabled.

0 = Do not allow to access a trunk directly (need to dial 9 [or 0] first)

1 = Allow this station to access a trunk directly (by pressing line key button)

2 = Allow this station to access a trunk directly (by pressing line key button). System will assign a dedicated idle trunk for this extension. Stations which have this function enabled can only, access trunks, which are in their own trunk group set in 41-stn-04. LCR Routing will still apply for the calls but if the LCR route (form 76) has the trunk group set to 0 which means use station trunk group.

**Related system Programming: 05-13-07. 05-13-08, 75, 76, 77, 78-st-01, 78-st-02**

| **78-ST-03 - 1A2 EMULATION (STATION PROGRAMMING):** When an extension talks with a trunk, other extensions can make a conference by pressing this trunk's button if 1A2 Emulation is allowed. | |
|---|---|
| 0 = No 1A2 Access | 1 = Access with tone notification upon entry |
| 2 = Access without tone notification | |

1A2 Emulation status is setting below:

| **29-Tk-06** | **78-St-03** | **Status** |
|---|---|---|
| 0 | N/A | No access |
| 1 | 0 | No access |
| 1 | 1 | access with tone |
| 1 | 2 | access with no tone |

Even if 1A2 Emulation status is programmed, an extension can temporarily disable it by pressing the Function key:
[1A2 Emulation Privacy] – (FN:24 for DSS key in Form 07). When an extension sets 1A2 Emulation Privacy, the key LED will light, and other extensions will not be able to access the line in use. When the extension presses [1A2- Emulation Privacy] again 1A2 Emulation Privacy is cancelled and the LED will extinguish.

**Related System Programming Mode: 07, 29-TK-06, 78-ST-03**

| **78-ST-04 - CALL FORWARD BUSY TO A ASSIGNED HUNTING GROUP:** (Keysets and Single Line Sets) This parameter allows Call forward Busy to the pre-assigned hunting group. This parameter will not be disabled if the user enables or disables the "Personal Call Forward" function, but will be temporarily overridden. If the user has set the Personal Call Forward to some specified number, system will use "Personal Call Forward" rule first. When the user disables Personal Call Forward, this option will once again go into effect. | |
|---|---|
| 0=Disable | 1-9=Forward to Hunt Group 1-9 |

**Related System Programming Mode: 46-st-07, 68, 78-st-04**

**Form 83-st-IP - Caller ID Block Assignment**

| 83-st-IP CLI-T<br>b1 b2 | st = Station No. (2-4 digits) IP = 01-02<br>blocks (2 max.) for a Station |
|---|---|

**b1/b2**: Block 1/2 of Caller ID buffer for each extension

**General:**

This program divides sets of **Caller ID history buffer** into blocks for use by extension.

**Description:**

- Program **05-13-03,** the Individual CLI history buffers are assigned:

| 05-13-03 | Memory Block Size | Max. Memory blocks |
|---|---|---|
| 0 | 10 sets/Block | 24 Blocks |
| 1 | 20 sets/Block | 12 Blocks |
| 2 | 30 sets/Block | 8 Blocks |
| 3 | 40 sets/Block | 6 Blocks |

- Each station can use up to 2 blocks.
- The next assigned block must be null or continuous after the first assigned block number for each extension. That means if the first assigned block number is “n” then the next assigned block must be “0 = null” or “n+1”.

**Examples**:

***1. Form 05-13-03=0***

| 83-**13**-IP CLI-T<br>**01 02** | **13**: Station No. ( 2-4 digits )<br>**01 02**: Station 13 can use block **01** and **02** for CLI history buffer and it could store 20 sets (=10 + 10). |
|---|---|

***2. Form 05-13-03=1***

| 83-**15**-IP CLI-T<br>**04 00** | **15**: Station No. ( 2-4 digits )<br>**04 00**: Station 15 can use block **04** (20 sets) for CLI history buffer. **00**: for no block. |
|---|---|

***3. Form 05-13-03=3***

| 83-18-IP CLI-T<br>**03 00** | **18**: Station No. ( 2-4 digits )<br>**03 00**: Station 18 can use block **03** for CLI history buffer and it could store 40 sets, **00**: for no block. |
|---|---|

**Related System Programming Mode: 05-13-03, 83**

**Form 84-IP - Home Area Code**

| | |
|---|---|
| 84-01-01<br>NNN | NNN = Assigned home area code (3 digits maximum) |

**General:**

This program assigns the home area code for the Caller ID redial feature.

**Description:**

- 3-digit input maximum for this entry.
- The home area code could be included the toll access code prefixed.

**Form 85-nn-IP - Overlay Area Code**

| | |
|---|---|
| 85-nn-01<br>NNN | Nn = 01~05<br>NNN = Assigned overlay area code (3 digits) |

**General:**

Some larger cities in the United States have exhausted an entire area code. Instead of separating portions and assigning unique area codes to different geographic regions, the telco has instead and introduced an overlay area code. This program assigns 5 sets of overlay area code for Caller ID redial feature.

**Description:**

- The overlay area code is 3-digit format.
- 5 sets of overlay area code can be assigned for the Caller ID redial feature.

**Form 86-nnn-IP - Office Code Redial Pattern**

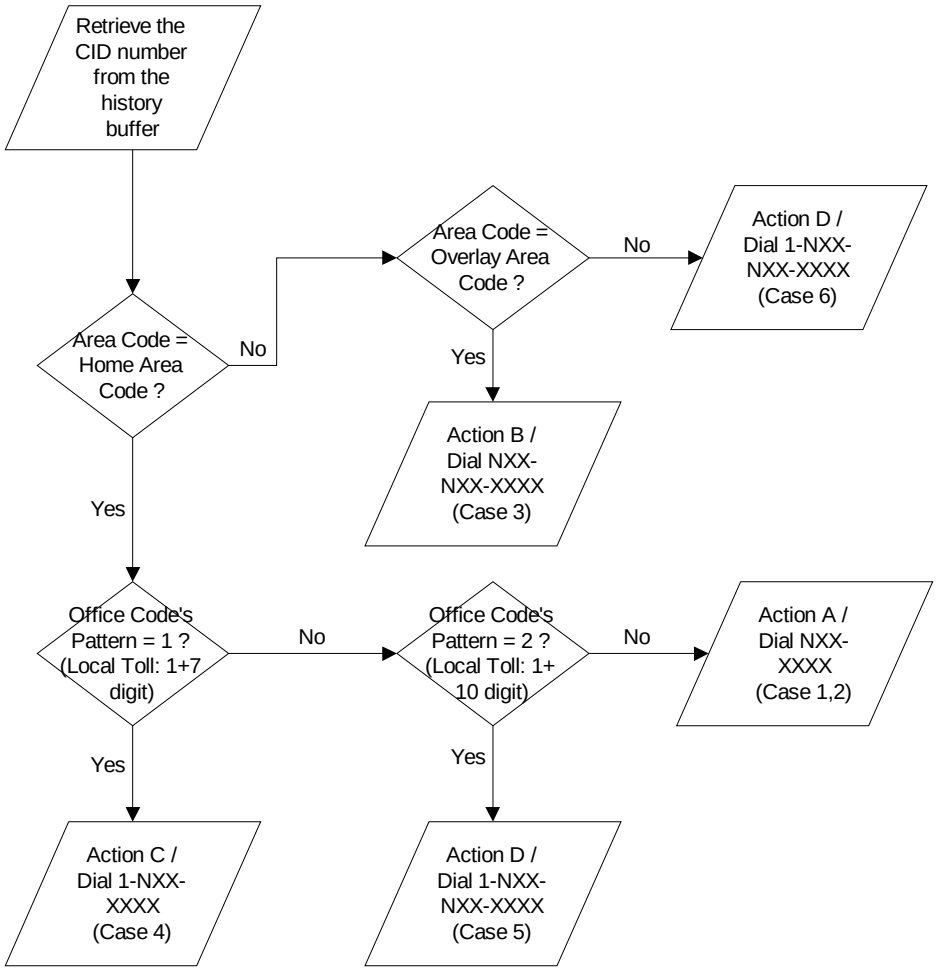
| | |
|---|---|
| 86-nnn<br>N | nnn = office code<br>N = Redial Pattern |

**General:**
This program assigns the redial pattern for different office co7des.

**Description:**

0 = Redial pattern is NXX-XXXX (Local call: 7 Digit)
1 = Redial pattern is 1-NXX-XXXX (Local Toll: 1 + 7 Digit)
2 = Redial pattern is 1-NXX-NXX-XXXX (Local Toll: 1 + 10 Digit)

# CID Redial Feature for USA Market



## Programming Cross Reference

### Incoming Calls

### Ringing Assignment

| | |
|---|---|
| 01-tk-stn | Day Ringing And Ringing Line Preference Assignment |
| 02-tk-stn | Night Ringing And Ringing Line Preference Assignment |
| 05-01-05 | Busy Reminder Tone Interval (Off-Hook Ringing / Busy - Camp-On) |
| 05-02-07 | Ring On Timer (Minimum ring to be detected) |
| 05-02-08 | Ring Off Timer (Time to hold signal during silent period) |
| 05-08-01 | CO Hunt Interval |
| 20-nn | Day/Night Service Schedule |
| 35-tk-07 | Day Ring Type |
| 35-tk-08 | Night Ring Type |

### Outgoing Calls

### Dial ‘9'

| | |
|---|---|
| 05-04-02 | Dial ‘9' Enable/Disable |
| 36-grp-tk | Dial ‘9' Group Assignment |
| 41-stn-04 | Stations Dial ‘9' Group Assignment |

### PABX Outgoing Code

| | |
|---|---|
| 05-03-04 | Code for outside line in PABX (If trunk/trunks are served by PABX) |

### Trunk Specifications

| | |
|---|---|
| 05-01-06 | Pause Time Duration (For Speed Dial Pauses) |
| 05-01-07 | DTMF Generation Time |
| 05-02-05 | Flash Time to CO (For Special CO Features or Centrex) |
| 05-02-07 | Ring On Time (Minimum ring signal detected) |
| 05-02-08 | Ring Off Time (Time to hold signal during silent period) |
| 05-03-01 | Make/Break Ratio |
| 35-trk-01 | Trunk Type (PABX/CO) |
| 35-trk-02 | Trunk Signaling Type (dial pulse/DTMF) |

### Speed Dial

| | |
|---|---|
| 05-01-06 | Pause Duration for Speed Dial pauses |
| 05-03-02 | Automatic Trunk Search During Speed Dial, Auto Redial, Saved Redial, etc. |
| 05-04-06 | Speed Dial Distribution |
| 05-05-03/04 | Speed Dial Unrestricted |
| 09-spd-xx | System Speed Dial Locations |
| 42-stn-01/02 | Register Memory Block for Personal Speed Dial |

### Auto-Redial

| | |
|---|---|
| 05-02-03 | Auto-Redial Off Hook (wait for answer) Timer |
| 05-03-02 | Automatic Trunk Search |
| 05-05-07 | Auto-Redial Attempts (Quantity) |
| 05-05-08 | Auto-Redial Time (Inter-Call) between attempts |

## Intercom Calls

### Intercom Call Signaling

| | |
|---|---|
| 05-03-03 | Intercom call signaling to electronic telephone sets |

### Step Call

| | |
|---|---|
| 05-07-01 | Intercom Step Call Type |
| 41-stn-01 | Station Group Assignment |

### Dial Tone Pattern

| | |
|---|---|
| 05-03-07 | SLT Dial Tone Pattern Options |
| 05-04-07 | Intercom Single Digit Dialing |
| 10-grp-xx | Single Digit Dialing Assignment |
| 41-stn-01 | Station Group Assignment |

### Direct Station Select

| | |
|---|---|
| 07-grp-key | Flexible Key Group Assignment |
| 41-stn-02 | Keyphone Flexible Key Group Assignment |

### Dial 0 (Call Operator)

| | |
|---|---|
| 05-06-05 | Operator/CO access codes |
| 44-stn-04 | Manual Line |

### Intercom Dialing Restriction

| | |
|---|---|
| 45-stn-01 | Intercom Dialing Restriction |

## Busy/During Conversation

### Hold and Hold Recall

| | |
|---|---|
| 05-01-01 | Hold Recall Timer (Time until station is warned of hold call) |
| 05-01-02 | Exclusive Hold Recall Timer (Same operation as hold recall) |
| 05-01-03 | Hold Recall Time out (Time before call is rerouted to Operator - After Hold Recall Timer has expired.) |
| 05-07-04 | DISA Recall Capability |
| 05-12-03 | Station ability to place call on Exclusive Hold |
| 44-stn-02 | Station ability to hold a call |

### Busy Remind / Camp-On

| | |
|---|---|
| 05-01-05 | Busy Reminder Interval (Time between notifications) |

### Call Split

| | |
|---|---|
| 44-stn-03 | Call Split |

### Transfer

| | |
|---|---|
| 05-06-01 | Transfer Recall Timer Blind transfer (Camp-On / Busy) |
| 05-06-02 | Transfer Recall Timer blind transfer (No Answer) |
| 05-08-06 | DISA No Answer Recall (To Message) Timer |
| 05-08-07 | DISA Transfer Time (No Digits Dialed) |

### Message Waiting Level

| | |
|---|---|
| 46-stn-02 | Message Waiting Level |

### Override

| | |
|---|---|
| 40-stn-01 | Override Level |

### DISA

| | |
|---|---|
| 05-01-04 | Delayed DISA Access Time |
| 05-07-04 | DISA Recall Capability |

| | |
|---|---|
| 05-08-04 | DISA Operator Recall Location ( No Answer) |
| 05-08-06 | DISA No Answer Recall Timer |
| 05-08-07 | DISA Transfer Timer - No digits dialed |
| 05-11-06 | DISA Transfer Count - Console busy |
| 05-11-02 | DISA Password - Optional extra passwords |
| 05-11-05 | DISA Special Digit Acceptance |
| 35-tk-04 | DISA / External Call Forward Status |

**DISA Single Digit Dialing**

| | |
|---|---|
| 05-04-07 | Intercom Single Digit Dialing Enable |
| 05-11-08 | DISA Single Digit Dialing |
| 10-grp-stn | Single Digit Dialing Assignment |
| 20-nn | Day/Night Service Schedule |

**Automated Attendant - Voice Service Unit**

| | |
|---|---|
| 19-ch-fn | Voice Service Unit Channel Assignments |
| 46-stn-04 | DISA Recall Capability (No Answer/Busy) |

**Night Service**

| | |
|---|---|
| 02 | Night Ringing And Ringing Line Preference Assignment |
| 09-spd-nn | System Speed Dial 101~109 for ECF |
| 20-nn | Day/Night Service Schedule |
| 35-tk-03 | External Call Forward Location (Speed Dial Assignment) |
| 35-tk-04 | DISA/ECF, Day/Night Status |

**Group Assignments**

**Console Assignment**

| | |
|---|---|
| 04-grp-stn | Assign Stations to be consoles by group |

**Flexible Key Group Assignments**

| | |
|---|---|
| 07-grp-key | Key Group Layout Assignment |
| 41-stn-02 | Assign stations to Key Groups |

**Dial ‘9' Trunk Groups**

| | |
|---|---|
| 36-grp-trk | Assign trunks to groups for Dial ‘9' |
| 41-stn-04 | Assign stations a Dial ‘9' group |

**Dial ‘87' Trunk Groups**

| | |
|---|---|
| 38-grp-trk | Assign trunks to groups for Dial ‘87' |
| 46-stn-01 | Assign stations a Dial ‘87' group |

**Group Assignment for stations (Page Zone, Pick up, Single digit)**

| | |
|---|---|
| 41-stn-01 | Assign stations to station groups |

**Call Control**

**Toll Restriction**

| | |
|---|---|
| 05-05-03 | Set a portion of system speed dial for no restriction (Hundreds) |
| 05-05-04 | Set a portion of system speed dial for no restriction (Tens) |
| 05-03-05 | Toll Access Code (Usually a ‘1') for SMDR only |
| 18-pln-trk | Assigning Toll Class by Toll Plan/Trunk used |
| 41-stn-05 | Station Day Toll Plan Assignment |
| 41-stn-06 | Station Night Toll Plan Assignment |
| 51~59 | Allowed (Exception) Tables for Toll classes 1~9 |
| 61~66 | Restrict (Deny) Tables for Toll classes 1~6 |

**Forced Account Codes**

| | |
|---|---|
| 17-nn | Creating Account Codes |
| 40-stn-08 | Assigning Account Codes to Stations |

**Call Limit**

| | |
|---|---|
| 05-04-03 | Call Limit Type |
| 40-stn-03 | Call Limit Duration (Class of Service - per station) |

**Passwords**

| | |
|---|---|
| 13-01 | System Programming Password (default=none) |
| 13-02 | DISA Password (for using a trunk on DISA call) |
| 13-03 | Toll Override Password |
| 13-04 | Password for Monitoring over DISA (defaulr=none) |

**Station Lock/Unlock**

| | |
|---|---|
| 40-stn-07 | Station Lock/Unlock Status |

**Busy out a trunk**

| | |
|---|---|
| 37-tk-x | Taking a trunk out of service |

**Intercom Dialing restrictions**

| | |
|---|---|
| 45-stn-01 | Restrict station to station intercom dialing |

**System Clock**

**Date and Time Setup**

| | |
|---|---|
| 05-04-04 | 12/24 hour time format |
| 11- | Set the system time |
| 20-nn | Day/Night schedule Definition |

**System Alarm**

| | |
|---|---|
| 12-nn | System Alarm Clock |
| 44-stn-01 | Stations to include (notify) in system alarms |

**Wake Up calls**

| | |
|---|---|
| 05-05-01 | Wake up signaling type |
| 19-ch-fn | VSC channel Assignment |

**Station Numbering**

| | |
|---|---|
| 05-03-06 | Digit length selection (2, 3, or 4 digits) |
| 43-port-01 | Station number (extension) Assignment |

**Single Line Telephone**

| | |
|---|---|
| 05-02-01 | Dial Tone Timeout |
| 05-02-02 | Interdigit Timeout |
| 05-02-04 | Hookswitch Disconnect Timer |
| 05-02-06 | Minimum Flash Timer (used to recognize a hook switch flash for hold) |
| 05-04-08 | Message Waiting Status Setup |
| 05-06-07 | Single Line Telephone Hold Procedure |
| 05-07-02 | Toll fraud Protection (Calling Proof) |
| 05-08-03 | SLT Busy Remind Tone Timer |
| 05-08-05 | SLT Feature Programming Access Code |
| 45-stn-02 | Setting Single line type (VM port, Dual Port) |

## Miscellaneous

### Monitor

| | |
|---|---|
| 40-stn-02 | Station Monitor Level |

### Paging

| | |
|---|---|
| 40-stn-05 | Station Paging Access |
| 40-stn-06 | Receive Page Over Speaker |
| 41-stn-01 | Station Page Group |

### Call Forward No Answer Transfer Time

| | |
|---|---|
| 05-01-08 | Call Forward-No Answer Timer |

### Hot Line

| | |
|---|---|
| 09-spd-nn | System Speed dial number for Hot Line use |
| 47-stn-xx | Hot Line destination for a station |

## Optional Services

### Door phone & Door switch

| | |
|---|---|
| 03-01-ext | Stations to ring upon Door Phone Activation |
| 05-12-04 | Door Relay Activation Timer |
| 06-01-fn | Relay Assignment (for doorphone latch release) |

### Voice Mail Integration

| | |
|---|---|
| 01 | Day Ringing Assignment |
| 02 | Night Ringing Assignment |
| 05-02-04 | Single Line Telephone Release (Disconnect) Timer |
| 05-02-06 | Single Line Telephone Minimum Flash Timer |
| 05-06-07 | Single Line Telephone Hold Procedure |
| 05-10 | Voice Mail Leading Digits |
| 05-12-05 | Voice Mail Integration Type |

**By Program Type in Alphabetical Order**

**System Parameters**

| | |
|---|---|
| Least cost routing (analysis table) | 75-NUM |

**Class Of Service/Station programming**

| | |
|---|---|
| Access Paging | 40-ST-05 |
| ACP Assign key card to door phone | 87 |
| ACP Delete key card | 89 |
| ACP Password | 13-05 |
| ACP Encode key card | 90 |
| ACP Register key card | 88 |
| Alarm signaling type | 44-ST-08 |
| Allow Trunk Access | 45-ST-04 |
| Allow Unrestricted Speed Dial Access | 45-ST-07 |
| Associated loud bell | 40-ST-04 |
| Automatic Answer Capability | 46-ST-03 |
| Be paged by others | 40-ST-05 |
| Call duration limit | 40-ST-03 |
| Call Hold | 44-ST-02 |
| Call Split | 44-ST-03 |
| CTI-Extension Status Report | 50-ST-04 |
| Dial (87) Trunk Group | 46-ST-01 |
| Dial 9 Trunk Group | 41-ST-04 |
| Direct CO access | 45-ST-08 |
| DISA Recall Capability | 46-ST-04 |
| Disallow SLT Connection | 43-ST-04 |
| Door Unlock/DND/CFWD Access | 46-ST-06 |
| DTMF Receiver Control For Voice Mail Ports | 45-ST-06 |
| Equipment Type | 43-ST-02 |
| Flexible Key Pattern Group Assignments (Key Phone) | 41-ST-02 |
| Forced Account Code | 40-ST-08 |
| Headset Feature | 44-ST-05 |
| Hold Feature | 44-ST-02 |
| Intercom Call Limitation | 45-ST-01 |
| Intercom Calls To Different Station Groups | 45-ST-05 |
| Intercom dialing restriction | 45-ST-01 |
| Intercom direct call to VM (send leading digits) | 50-ST-05 |
| ISDN Incoming Call Display Type | 50-ST-03 |
| Least cost routing level for station | 78-ST-01 |
| Least cost routing override for station | 78-ST-02 |
| Limit Call Duration | 40-ST-03 |
| Manual Line | 44-ST-04 |
| Maximum Re-Transferred Times | 46-ST-05 |
| Message Waiting Level | 46-ST-02 |
| Monitor Level | 40-ST-02 |
| Override Level | 40-ST-01 |
| Paging allowed | 40-ST-06 |
| Port Number | 41-ST-07 |
| Receive Break Alarm | 45-ST-06 |
| Record Station's SMDR Data | 45-ST-08 |
| Ringing Volume Up Gradually Capability | 45-ST-03 |
| Security Code Status | 40-ST-07 |
| Shift Key Group For Keyphone | 41-ST-03 |
| Station Alarm Signal | 44-ST-08 |
| Station Group (pick up, page, single digit group | 41-ST-01 |
| Station Key Group | 41-ST-02 |
| Station lock/unlock | 40-ST-07 |
| Station Loud Bell | 40-ST-04 |
| Station Number | 43-ST-01 |
| System Alarm | 44-ST-01 |

| | |
|---|---|
| System speed dial access (all/only restricted area) | 45-ST-07 |
| Telephone/ACP setting | 46-ST-08 |
| Toll Plan – Day | 41-ST-05 |
| Toll Plan – Night | 41-ST-06 |
| Use Engineering Password | 44-ST-06 |

# TransTel Key Telephone Operation Manual.

### Introduction

This section is devoted to an explanation of the implementation and operation of TransTel electronic telephones (keysets). Included are normal functions that are available to most station users and functions that are available only to console operators.

### 1A2 Emulation / Privacy Release

This feature allows station users to join a conversation in progress with outside lines and other station users. A station user must have a class of service option enabled in order to join a call in progress. You may temporarily invoke privacy to reject others attempts to join your conversation, if desired, through the use of a 1A2 (privacy release) key. This feature may be activated on all lines, or only specific lines as required.

**TO JOIN IN ON A CONVERSATION:**

1. Dial desired party and hear busy tone
2. Press desired **[CO]** line key. Your telephone set will be connected to the call in progress on that line.

**TO INVOKE PRIVACY:**

1. If you are on a conversation and you would like the conversation to remain private, press the 1A2 key. The 1A2 key will light indicating the call's status as private.

**Note:** In system programming individual lines may or may not be permitted 1A2 Emulation. Also, individual stations may be allowed the ability to invoke the feature by pressing the line and entering into the conversation. Certain station users may elect to invoke call privacy by pressing the 1A2 key.

### Account Codes – Client

During a conversation you may enter an account code for billing purposes. The system will output a call record to an external device for tracking purposes of billable time spent with a specific client.

**<u>During a conversation</u>**

1. Press [SAVE] followed by [MSG]
2. Enter Account Code (up to 8 digits)
3. Press [SPK] to end.

### Advisory Messages

*If your telephone is equipped with an LCD, you can put a message on your telephone when you are unavailable. Any other station that is equipped with an LCD will see this message on their LCD when they call your station.*

Press PGM.
Press MSG.
Enter the message number you wish to display.

*To cancel an advisory message:*

Press PGM.
Press MSG.
Press SPKR.

**Alternate Trunk Group Access (Dial 87)**

*In some applications, you may have more than one type of outside line. If you do, you will probably use this method to access your secondary lines.*

Lift the handset or Press SPKR.
Dial 87.
You will be connected to an available line in your alternate trunk group.

**Answering Calls**

There are several ways that you may answer calls at Your telephone. Depending on the particular type of call and the system programming, calls may require different actions in order to answer them.

**Intercom Calls**

Voice Announce Call:
If the system is programmed for Voice Announce calls, you will hear a quick tone. The calling party will then be routed to your speaker. To answer the call and have the ability to talk back to the caller, press **[MIC]** (if your telephone is equipped with a speakerphone) or lift the handset .

**Note:** If your telephone is programmed for Auto Answer, your microphone will activate automatically upon a voice announce call. It is not necessary to press any buttons to answer a call if your station is in the Auto Answer mode.

Tone Signal Call:
If the system is programmed for Tone Signaling on Intercom calling, or if you are called by a Voice Mail Port, you will hear a double ring that repeats until you answer the call. You may answer the call by pressing **[SPK]** if your telephone is speakerphone equipped or answer by lifting the handset.

**External Calls Ringing Your Telephone Set**

For outside line calls that ring at your telephone, lift the handset or press **[SPK]**. You will be connected to the call.

**External Calls Not Ringing At Your Set**

Calls With CO Line Appearance:
Incoming calls on a line that appears on your set may be picked up by pressing the flashing CO line key. You will be connected to the call.

**Note:** This feature depends on system programming. On some systems this option may be disabled. If that is the case, this procedure will not work.

**Calls That Do Not Appear on Your Telephone Set:**
If an incoming call is not ringing on your telephone set and it does not appear on a line button on your telephone set, you may answer the call by one of several methods, depending on the way the call is presented.

Please see Call Pickup for further explanation if necessary.

**Line is ringing at a station within your pickup group:**
Press the Group Pick Up key on your telephone set or
1. Press **[*]**.
2. The LCD on your telephone (if equipped) will display: **Pick Up _**
3. Press **[0]**. You will be connected to the call.

**Line is ringing at a station in a pickup group other than your own:**
Press the Group Pick Up key on your telephone set or
1. Press **[*]**.
2. The LCD on your telephone (if equipped) will display: **Pick Up _**
3. Press **[8]**. Display shows: **Enter GROUP #**
4. Dial the group where the call is ringing (1-8). You will be connected to the call.

   **OR**

   Press **[*]** followed by **[9]** to pick up any ringing telephone assigned to any ringing group.

**Answering a Doorphone**

*You can only answer a doorphone if your station is programmed to ring when the doorphone button is pressed.*

When your telephone rings, lift the handset or press SPKR.
You will be connected to the doorphone.

*If your system is equipped with a door strike relay:*

Press 0 while talking to the doorphone. The strike release will activate, allowing security door (or other controlled area) to be accessed.

**Answer Paging (Meet Me Page)**

*Use this when you want to talk to the person who is making the page.*

Lift the handset or press SPKR.
Dial # and *.
You will be connected to the person who is making the page.

*If the person who made the page has hung up, you will hear busy tone.*

**Automatic Callback**

When dialing another station that is busy, you may activate an automatic callback. When the busy station becomes free, your telephone set will ring. When you answer the callback, the other station's telephone will ring and you will be connected.

**To initiate a Callback:**

1. Dial desired party and hear busy tone

2. Press **[MSG].** Your telephone set will return to an idle condition.

**To respond to a Callback:**

1. If you are on a conversation and a callback has been left on your telephone and you have an LCD display it will indicate in the lower portion of the LCD: **MSG ST:XX** Also, your Message key will flash. This tells you who is leaving the callback message.

2. You may place your existing call on hold and hang up or simply hang up. The originator of the callback will be called and upon answer, your telephone will ring. Answer and you will be connected.

**Automatic Last Number Redial**

*Rather than pressing REDIAL over and over again, you can let the telephone system do it for you. This feature will repeatedly re-dial a telephone number for you. But you must be near your telephone, because this feature doesn't listen to see if the other end answers. It only stays off hook for a certain period of time (determined by system programming) and then it hangs up…..unless you lift your handset or turn on your microphone.*

After you have dialed an outside call,
Hang up.
Press SPD.
Press REDIAL. Your telephone will redial the last number called and remain off hook for at least 10 seconds (depending on system programming). And will continue to redial the number periodically for a number of times (the number of times also depends on system programming).
When the number you dialed answers, lift the handset or press your MIC key to carry on a conversation and keep the system from hanging up.

**Automatic Line Access**

Automatic Line Access allows a station to gain access to a telephone line without pressing a specific CO line button. It is also known as Dial 9 access.

1. Dial **[9].**
2. Outside CO line dial tone will be returned from the first available CO line in your Dial 9 group. If no outside lines in your group are available, you will hear a Busy signal.

**Note:** In some systems, you must dial **[0]** instead of **[9]** depending on the country where you are located. Please check with your system administrator for the applicable access code.

**Automatic Redial**

Automatic Redial allows you to save a telephone number for use at a later time. This feature is in addition to Last Number Redial.

1. You have dialed an outside call. The number does not answer or is busy.
2. Press **[SAVE]**.
3. The lower portion of the LCD (on display telephones) will display: **Auto Save**
4. You may hang up.
5. You may make other calls if you wish.
6. While your telephone is idle, press **[SAVE]**.
7. The telephone will access an available line, turn on your speaker and redial the saved number.
8. If you take no action, the system will monitor the call for a programmable period of time and then disconnect the call and return your telephone to idle.
9. The telephone set will periodically access a CO line and continue to redial the saved number. Steps 7 and 8 will continue for a programmed number of times or until you lift the handset while an attempt is in progress.

**Note:** If you place another call while Auto Redial is active, your telephone will wait until you have finished the call and resume the Auto Redial mode.

**Automatic Saved Number Redial**

*This feature is similar to Automatic Last Number Redial, but it adds the ability for you to save a number, dial some other calls and then come back to it later.*

After you have dialed an outside call,
Press SAVE. Your Display (if you have one) will show "Auto Save."
Hang up.

*You may make 1 or a hundred calls (or more if you need to…) in between.*

Press SAVE. Your telephone will redial the number you previously saved and remain off hook for at least 10 seconds (depending on system programming). And will continue to redial the number periodically for a number of times (the number of times also depends on system programming).
When the number you dialed answers, lift the handset or press your MIC key to carry on a conversation and keep the system from hanging up.

**Background Music**

If your system is equipped with background music or music on hold capabilities, you may choose to have the music play over your telephone's speaker when your set is idle. Background music will automatically be interrupted whenever you initiate a telephone call or receive a call.

1. While your set is idle, press **[#]**. The **[SPK]** button will light. Background music will be heard through your telephone speaker.
2. You may discontinue background music by pressing **[#]** or by pressing the lit **[SPK]** key.

**Barge-In (Override)**

*If you need to join a conversation for any reason, this feature will let you drop in on an existing conversation. Please be aware that this option is a level controlled option (from system programming), so you may be able to override no phones, a few phones or all phones, depending on your telephone's access level. Some stations may not have access to this feature.*

Dial a station. It is busy (or in Do Not Disturb)
Press 0. If you have access, you will hear a warning tone (so will everyone else in the call) and you will be allowed into the conversation.

*You may also use this feature on a CO line if you do not have an appearance of the station you want to override.*

Lift the handset or press SPKR.
Press the busy CO line.
Press 0. If you have access, you will hear a warning tone (so will everyone else in the call) and you will be allowed into the conversation.

**Caller ID Features**

The Caller ID feature on the TD-824i system allows you to identify incoming callers before you answer the call. This feature is available only to digital telephone sets equipped with an LCD display.

**<u>While your telephone set is ringing with an incoming call:</u>**

1. Your LCD will display: **TK: XX**
   **TransTel**

**Note:** Caller ID information will appear on your LCD with incoming calls, held calls, transferred calls, and recalls back to your station. You will also ger Caller ID information if you are talking on an outside line and another calls rings in to your telephone set.

**<u>To review Caller ID records:</u>**

1. Press the lit Caller ID key on your telephone set.
Press **[VOL ]** or **[VOL ]** to scroll back and forth through the records.

**<u>To view Date and Time:</u>**

1. While reviewing a record you may also view the date and time by pressing the **[MIC]** key.

**Redial Caller ID Number:**

1. Press the **[REDIAL]** key. The system will place the call for you automatically. The current Caller ID record will be dialed back.

**Delete Caller ID Record:**

1. While reviewing a Caller ID record, you may delete it by pressing the **[TSF]** key.

**To exit Caller ID Review Mode:**

1. Press the **[SPK]** key.

**Call Forwarding**

**To forward All calls:**

Press PGM.
Enter CFD
Dial the extension number where you want to forward your calls.
Press 1 for All Calls.
*Your telephone will return to idle. Your telephone is now forwarded. All calls to your station number will now ring at the forwarding location.*

**To forward busy calls:**

Press PGM.
Enter CFD
Dial the extension number where you want to forward your calls.
Enter 2 for Busy Conditions.
Dial the extension number where you want to forward your calls.
*Your telephone will return to idle. Your telephone is now forwarded. All calls to your station number will now ring at the forwarding location, when your telephone is busy*.

**To forward calls when you don't answer or are busy:**

Press PGM.
Enter CFD
Dial the extension number where you want to forward your calls.
Enter 3 for No Answer / Busy Conditions.
Dial the extension number where you want to forward your calls.
*Your telephone will return to idle. Your telephone is now forwarded. All calls to your station number will now ring at the forwarding location, if you do not answer your telephone or your telephone is busy.*

**Call Hold**

*You can place outside callers and internal (intercom) calls on hold.*
Press HOLD.
The caller is on hold.

*To pick up an outside line call on Hold.*
Lift the handset or press SPKR.
Press the Flashing CO line key
OR
Dial 80 plus the line number (1-4).

**Calling the Doorphone**

*If your system is equipped with a doorphone, this is how you will call it.*
Lift the handset or press SPKR.
Dial 88 to speak to the Doorphone.
(If the doorphone is programmed with a Relay, you may activate it
by dialing 0 while connected to the doorphone).

**Call Pickup**

*You can use call pickup to answer calls that are ringing at other telephones. There are a variety of types that you may choose.*

**Direct (Extension) Call Pickup**

*This allows you to answer a specific station that is ringing.*
Lift the handset or press SPKR.
Press the * key on the dial pad.
Dial the extension number of the station that is ringing.
You will be connected to the caller.

**All Group Pickup**

*You can pick up any ringing call in the system using this method. You will pick up the oldest ringing call.*
Lift the handset or press SPKR.
Press the * key on the dial pad.
Press 9 on the dial pad.
You will be connected to the caller.

**Pickup within your group**

*This allows you to pick up telephones that are in your own station group.*
Lift the handset or press SPKR.
Press the * key on the dial pad.
Press 0 on the dial pad.
You will be connected to the caller.

**Pickup a caller in another group**

*This allows you to pick up telephones in another station group. You must know the group number that you want to answer to use this. In the TD-824i, it is unlikely that you will use it, but it is available.*
Lift the handset or press SPKR.
Press the * key on the dial pad.

Press 8 on the dial pad.
Press 1 - 8 for the group that you want to pick up.
You will be connected to the caller.

**Call Swap**

*If you want to alternate between two callers, this feature allows you to do so quite easily.*

You are speaking with the first caller.
Press HOLD.
The caller is on hold.
Make a second call.
Press SPD and then #. You will be connected to the first party. The second party will be on hold.

Press SPD and then #. You will be connected to the second party. The first party will be on hold.

*If you have a Split/Swap Key programmed on your telephone set, you may use it instead of SPD #.*

**Call Transfer**

*Call transfer allows you to send a call to a specific station. Most of the time when you are using TransTel Electronic sets, placing a station on hold and announcing the call to the station is all that is necessary, but instances where you need to transfer a call to a FAX machine or a computer modem, you need to use the capability.*

*Unscreened Transfer:*
Place the caller on hold by pressing the HOLD button.
Dial the station number where the call needs to go.
Press TRF/FL or hang up (depending on programming).
The call has been successfully transferred.

*Screened Transfer:*
Place the caller on hold by pressing the HOLD button.
Dial the station number where the call needs to go.
Wait for the station to answer.
Press TRF/FL or hang up (depending on programming).
The call has been successfully transferred.

*If you have a DSS button for the station where you transfer the call, you do not need to press the HOLD button first. Just press the DSS button for the station where you want to transfer the call. Then you use either the Unscreened or Screened method of transfer.*

**Call Waiting (Camp On)**

*If the station you call is busy, you can "mark" the station so that when the station becomes free, the called station will ring back to your telephone.*

When you hear busy tone, Press MSG key.
Hang up.
When the other station is free, your station will ring with a special ringing tone. When you answer, the other station will begin ringing.

***Check In – Check Out*** (Operator Function)

Check In - Check Out allow an operator station to change the dialing restriction of a telephone. This is commonly used in Hotel applications where there is a need to "turn off" dialing capabilies of individual room telephones. This function is only available to system operators.

**Note:** The use of Check In - Check Out requires that function keys are programmed on the telephone set.

**Check In:**
1. Press **[Hotel]** and the digit 1.

2. Dial the extension number to be unrestricted.
3. Press **[SAVE]**.
4. Press **[SPK]** to return the set to idle.

Check Out:
1. Press **[Hotel]** and the digit 2.
2. Dial the extension number to be restricted.
3. Press **[SAVE]**.
4. Press [SPK] to return the set to idle.

**Conference**

*You can conference any two parties, internal or outside CO lines.*

Establish your conversation with the first party.
Press HOLD to hold the first party.
Get the second party on the line.
Press DND/CN when you have the second party on the line.
You know have a three way conference.

You may continue this procedure to add additional parties to the conference.

*You can leave the conference and allow the other two parties to continue the conversation. Just press the DND/CN key before you hang up. If you don't press the key and just hang up, the other parties will be disconnected, if they are both outside lines.*

To rejoin the conference, press either CO line button and then the DND/CN key.

*If you cannot rejoin an unsupervised conference, you may not have the capability in your class of service. Check with your system administrator or check system programming to see if your override capability is enabled.*

**Conversation monitor**

*If you need to monitor a conversation for any reason, this feature will let you observe an existing conversation. Please be aware that this option is a level controlled option (from system programming), so you may be able to override no phones, a few phones or all phones, depending on your telephone's access level. Some stations may not have access to this feature.*

Dial a station. It is busy.
Press #. If you have access, you will be connected to the station.

**Date and Time Setting (Operator Function)**

*You must be a system operator to set the date and time.*

Press PGM.
Press HOLD
Press 7
Press SAVE
Enter the two digit month (01 - 12)
Enter the two digit date (01 - 31)
Enter the two digit year (97 - 99 or even further)
Enter the hour (00 - 24).
Enter the minute (00-59)
Enter the day of the week (0=Sunday - 7=Saturday)
Press MSG.

**Day / Night Service Switching Setup (Operator function)**

*With this feature, you can make incoming calls ring in different places based on day time or night time. You should have a LCD equipped telephone to use this feature. It also controls the dialing (toll restriction) capabilities of telephones if your installer programmed it that way). Yes, you must be an*

*operator to do this. The change from day to night service may be either automatic, or it may be under manual control of the operator.*

*Selecting Manual or Automatic Switching:*
Press PGM.
Press TRF/FL.
Your telephone will display the current mode (day or night) and status (automatic or manual).
By pressing the * key you will "toggle" between automatic and manual switching.
When you are finished, press SPKR.

**Selecting Day or Night Mode When in Manual Switching Mode**:
Press PGM.
Press TRF/FL.
You can alternate between Day Service and Night Service by pressing the TRF/FL key.
When finished, press SPKR.
OR
If you have a Day/Night button, you can achieve the same results simply by pressing the DAY/NIGHT key.

**Note:** Programming of Automatic schedules is done as a function of system programming. For more information on Automatic scheduling, see Form 20 in the Programming Forms section of this manual.

**Dial By Name**

Dial by name allows you to use your TransTel DK1-D LCD equipped telephone set to dial intercom calls, personal speed dial calls, and system speed dial calls by name rather than by number.

**Note:** In order to utilize Dial By Name, your telephone must be equipped with LCD and a programmed Directory button.

1. Press **[DIR]**.
2. The LCD will display: **1= Intercom**
   **2= Speed Dial**
3. Select the directory that you want to utilize by pressing either **[1]**, or **[2]**.

**Note:** Depending on how your system is programmed, steps 2 and 3 may not appear.
4. The LCD will display: **ENTER LETTER**
5. Using the numbers on the keypad, enter the first letter of the name that you want to dial.
6. When the letter that you want is displayed in the lower left corner of the LCD, press **[VOL ]**. The lower portion of the display will show the first matching name. If that is not the name you want, you may press **[VOL ]** again to scroll through the names. When the end of the list is found, the system will "wrap around" and present the first name on the list again.
7. When you see the name that you want, lift the handset or press **[SPK].** The call will be automatically dialed.

**Note:** System program 05-05-05 must be enabled beforehand in order for Dial By Name to operate.

**Dialing Operator**

Lift the handset or press SPKR. (Optional when dialing the operator).
Press 0.
Your telephone will ring the operator's station.

**Direct Trunk Access**

*Using this method, you can "punch in" to an outside line.*

Lift the Handset or Press SPKR (Optional).
Press CO trunk button.
You will be connected to the CO line you pressed (if you have access to it).

**Do Not Disturb**

*You can block incoming ringing from individual extensions, including paging announcements to them. If your telephone is in Do Not Disturb, you can still place calls and use features of the telephone. Any station that calls you and is equipped with an LCD will see "DND" in the upper left portion of the LCD.*

Press DND/CN key.
The DND/CN Light will flash. Your telephone is in Do Not disturb.

*To cancel Do Not Disturb:*

Press DND/CN key.

**Environment Monitor**

*This feature is similar to the Room Monitor, except that this can be done to a telephone without a prior setup. You can be "sneaky" about listening with this option.*

Lift handset or press SPKR.
Dial 7, 7, 4.
Dial the extension number of the station you want to monitor.

*You will be connected to the station you want to monitor.*

***Note:*** *You can only use this feature to monitor either an DK-1D or DK-1S Electronic Set.*

**Exclusive Hold**

*Exclusive Hold allows you to place a call on hold without the worry of someone else picking it up from hold by accident. Exclusive Hold only applies to outside calls. When a call is on exclusive hold at your station, the line appears to be in use (not on hold) at all other stations.*

While you are on a call.
Press HOLD HOLD *(that's pressing HOLD twice)*.
The call is placed on Exclusive Hold for your extension.

You can alternate between Exclusive Hold and System Hold with each press of the HOLD key.
As noted above, to place a call on Exclusive Hold, press HOLD twice.
Pressing HOLD again will return the call to regular system hold.
Another press of the HOLD key will return the call to Exclusive Hold.

*To retrieve a caller from Exclusive Hold at your station.*

Lift Handset or press SPKR.
Press the line button that you placed on Exclusive Hold
OR
Dial 80 plus the line number that you placed on hold
You will be connected to the caller.

*To retrieve a caller from Exclusive Hold at another station. (Yes, you can get a call from another extension…but you have to make an effort to pick it up. It's difficult to pick this call up by accident).*

Press CO line button. Press HOLD.
You will be connected to that caller.

**Feature Menu**

Digital LCD telephones allow you to select, activate and program most system features even if you do not have all the keys that are required to program. This is called the feature menu.

1. Press **[PGM]**,**[0]** . The LCD will begin scrolling through the feature menu. Each menu item will be displayed for two seconds. The system will then scroll to the next menu item.

2. You may press **[*]** to step the display backwards or press **[#]** to move the display forward. At any time you may press **[0]** to access the feature that is displayed on the LCD.

3. Feature programming or activation continues according to the individual descriptions in this features guide.

**Note:** The feature menu also lists the keystrokes required in order to invoke or program a function within the Superkey system.

**Flash (To an outside telephone line)**

*Use this feature to make use of telephone company services such as Call Waiting and Three way calling. Or to access Centrex features like call transfer and call conferencing.*

Press the TRF/FL key.
The outside line will receive a flash.

**Note:** This feature is dependent upon system programming. Some program settings will provide a disconnect when the TRF/FL button is pressed.

**Forced Account Codes**

*If telephones are restricted within the system, this feature can allow people to enter a code and place calls on a telephone that otherwise would be restricted.*

Press PGM.
Dial 4
Enter the forced account code.
If the forced account code you dialed is recognized by the system, you will be connected to a CO line. You can then place an outgoing call.
If the system does not authorize your account code, you will hear busy tone.

**Handsfree Operation**

All TransTel Digital Telephone sets may be used in the Handsfree mode for On Hook Dialing and receiving calls handsfree. Models DK1-D and DK1-S offer conversation "Hands Free" on both internal and outside calls. The DK1-B offers handsfree conversations on intercom calls only.

**Note:** Intercom Handsfree dialing is dependent upon system programming. Some systems may not have this capability.

**<u>Placing Intercom Calls:</u>**

1. Dial the station number that you wish to reach or press the station's **[DSS]** button.
2. Your station will automatically enter the handsfree speakerphone mode. You will be able to hear call progress tones through the telephone speaker.

3a. If the party answers, you may lift the handset to begin the conversation.

3b. You may begin the conversation or lift the handset and begin the conversation.

**Handsfree Dialing (External):**

1. Press a **[CO]** line button or dial **[9]**. The **[SPK]** follwed by the **[MIC]** button will light and you will be connected to an outside line.
2. Dial the number that you wish to reach. You will hear all call progress over the telephone's internal speaker.

3a. If the party answers, you may lift the handset to begin the conversation.

3b. If you have a speakerphone, you may talk handsfree.

**Alternating Between Handset and Handsfree:**

1. While in the Handsfree mode, you may lift the handset to change to the handset mode of operation.
2. While in the handset mode, you may change to the handsfree mode by pressing **[SPK]**. This will allow you to hang up the handset and utilize the built in speaker in the system.
3. These steps may be repeated as many times as you like.

**Note:** All speed dial functions, including Dial by Name may be accessed in the Handsfree mode. For more information, see System Speed Dialing, Personal Speed Dialing, and Dial by Name in this document.

**Immediate CO Line Access**

Immediate Line Access will connect you to the first available line in your Dial 9 Group when you lift the handset while in an idle state.

**To Enable/Disable:**

1. Press **[7]**, **[7]**, **[1]**.
2. If Auto Line Access was previously disabled, it is now enabled. If it was previously active, it is now disabled.

**Note:** Automatic Line Access is only applicable when the handset is lifted. Activation of the [SPK] button will still provide intercom dial tone. You may still place intercom calls by pressing the DSS button of the desired party.

**Intercom dialing**

*An intercom call allows you to talk to another station within your telephone system.*

Lift Handset or press SPKR.
Dial the extension number of the station you wish to reach.

*You can reach another station by using a DSS button if you are equipped with one.*

Lift Handset or press SPKR. (Optional)
Press the DSS button of the station you want to call.

**Last Number Redial**

*This feature lets you redial the last number you just called. It's great when you want to catch that busy number as soon as it's free!*

Lift the handset or press SPKR. (Optional)
Press REDIAL.
The last (outside) number you called will be dialed again.

**Lock / Unlock SMDR from Console**

*If your system is equipped with an RS-232 port and is using a printer to keep a telephone log, you can temporarily suspend the output of the RS-232 port so you can change the paper on the printer or for any other reason where the printer needs to go off line. If you lock the SMDR port, calls will be stored in the TD-824i until you re-enable the port.*

Press SPKR.
Dial 7, 7, 2.
This will toggle the RS-232 port on or off.

*If you have an LCD equipped telephone, the display will show the current status of the SMDR port. If it is on, the display will show "SMDR IS UNLOCK." If it is off, the display will show "SMDR IS LOCK."*

**Macro Keys**

*This feature will let you program your own "custom" function onto up to 4 keys on your telephone.*

Press PGM.
Press one of the assigned Macro Keys (15-22).
Dial the exact keystrokes that you want to save. (Up to 5 keystrokes)
Press the assigned Macro Key again.

**Mute**

*Use the mute function any time you don't want the outside party to hear what you are saying.*

While you are on the handset:
Press MIC/AT key.
The microphone on the handset will be muted. The LED on the MIC/AT button will flash rapidly.
Press MIC/AT key.
The microphone on the handset will be enabled. The MIC/AT button will go dark.

While you are on the speakerphone:
Press MIC/AT key.
The microphone on the Speakerphone will be muted. The LED on the MIC/AT button will flash rapidly.
Press MIC key.
The microphone on the Speakerphone will be enabled. The LED on the MIC/AT button will remain lit.

**Operator Set Timed Reminder or Wakeup (Remote Setup)**

*This allows the system operator to set a Timed Reminder or Wake Up call for another station within the system.*

Press PGM
Press REDIAL
(Or Press Remind if your phone is equipped with a REMIND Key)
Enter the extension number of the station you where you want to set up a reminder or wake up call.
Enter the time for the reminder (24 hour clock, please).
Enter the type of call (01-98 for a reminder, 99 for a wakeup call).
Press SAVE.
Press SPKR

**Operator Timed Reminder or Wake Up**

**Note:** This sets a message only on your own station!

Press PGM.
Press HOLD.
Press 8.
Enter the time you want the reminder to occur (must be in 24 hour format).
Enter the duration (01 through 98). That is how long you want the reminder period to be. This type of reminder will occur every day at the same time.
OR
Enter 99 for a Wake Up call. This call will occur only once, then never again.
Press SAVE.
Press SPKR to exit.

*To cancel:*
Press PGM.
Press HOLD
Press 8
Press HOLD.

**Paging**

*Internal Zone*
Lift the handset or press SPKR.
Press # and 2.
Then press the one digit Paging Zone Code. (1-8)
*You will be connected to the telephones in that zone.*

*All Paging*
Lift the handset or press SPKR.
Press # and 0.

**Pulse To Tone Conversion**

*This feature is of use to you if you are located in an area where your telephone company does not accept DTMF (Touch Tone),This feature lets you dial DTMF (Touch-Tone) for services such as remote voice mail, bank by phone, etc.*
Press MSG key.
Your telephone set will now dial DTMF digits instead of pulse dialing on a CO line.

**Room Monitor**

*If you need to listen in on another room, such as a baby's room or a secured room, you can set this function up so that any telephone in the system can monitor the room by dialing the extension number.*
At the telephone that you are going to monitor:
Press the SPKR key or take the handset off hook.
Dial 770.

*The telephone is now in the room monitor mode. Any station can now dial the extension number of the station and be placed in the Room Monitor mode. The calling station will hear room activitiy. This connection will stay in place until the calling station hangs up or until the Monitored station is placed on Hook or the SPKR is turned off.*
*Only one station at a time can monitor a room, but the monitored station will stay in the room monitor mode until it is reset. So you can set up a monitor from one telephone and if your activities take you to another room, when you leave the first room, hang up. When you get to the next room, you can re-enter the monitor mode at the new extension, so you can go all over a building and still be able to monitor an individual room.*

**Saved Number Redial**

Saved Number Redial allows you to save a telephone number for use at a later time. This feature is in addition to Last Number Redial.

**Automatic Save:**

1. You have dialed an outside call. The number does not answer or is busy.
2. Press **[SAVE]**.
3. The lower portion of the LCD (on display telephones) will display:

**Auto Save**

4. You may hang up.
5. Make other calls if you wish.
6. While your telephone is idle, press **[SAVE]**.
7. The telephone will access an available line, turn on your speaker and redial the saved number.
8. If you take no action, the system will monitor the call for a programmable period of time and then disconnect the call and return your telephone to idle.
9. The telephone set will periodically access a CO line and continue to redial the saved number. Steps 7 and 8 will continue for a programmed number of times or until you lift the handset or press **[SPK]** while the system is on the line or until you make another call.

**Note:** If you lift the handset or press **[SPK]** immediately before step 6 above, the system will dial the number without the automatic redial functions taking effect.

**Saved Number Redial (SuperSave)**

You are on an outside call and you need to save a number for dialing later. Supersave provides a way for you to save the number to your telephone set so that you can dial it later.

**SuperSave:**

1. You are on an outside call.
2. Press **[SAVE]**.
3. Dial the new telephone number that you wish to save.
4. You may hang up.
5. Make other calls if you wish.
6. While your telephone is idle, press **[SAVE]**.
7. The telephone will access an available line, turn on your speaker and redial the saved number.
8. If you take no action, the system will monitor the call for a programmable period of time and then disconnect the call and return your telephone to idle.
9. The telephone set will periodically access a CO line and continue to redial the saved number. Steps 7 and 8 will continue for a programmed number of times or until you lift the handset or press while the system is on the line or until you make another call.

**Shift Key**

The shift key allows you to use an alternate key map. It is used primarily when you have a use for more keys than your telephone is capable of displaying. This requires system programming to enable.

Press your SHIFT key (which has been programmed on one of the DSS buttons on your telephone. The SHIFT key will light. While you are in SHIFT key mode, your telephone will operate as if it is in the SHIFT key group. To return to your own group, press SHIFT key again and the SHIFT light will go out. You are now in your telephone's regular key group.

**Speed Dialing**

*You can use this feature to access frequently dialed telephone numbers.*

Lift the handset or press SPKR.

Press SPD key.
Dial 100 through xxx (for system speed dial).
OR Dial 00 through 09 (for personal speed dial).
OR press a DSS button (for personal speed dial).

**Speed Dial Programming**

*There are three types of speed dial in the system, numeric personal speed dial, DSS personal speed dial and system speed dial. This section shows you how to program and personal speed dial if you are a regular station. If you are the system attendant (operator), your methods will be different - Please See Programming Speed Dial (Operator).*

***Note:*** *There are three special keys that you may need to use when programming speed dial numbers. They are:*

***HOLD*** *- When entering a speed dial number, if you press this key, the speed dial will pause for approximately 2 seconds (this time is programmable, but 2 seconds is the standard length). You may press HOLD multiple times for a longer pause.*

***TRF/FL*** *- Pressing this button while you are entering a speed dial number will cause the system to perform a hookswitch "flash" to the outside telephone line. This may be of use if your telephone system has Centrex or special telephone company provided features.*

***MSG*** *- This key will cause the telephone to stop using pulse (rotary) dialing and begin using DTMF (Touch tone). This may be useful if your telephone company doesn't recognize Touch Tone, but you need to access remote banking, paging, or voice mail services that require Touch Tone digits.*

*Programming Personal Numeric Speed Dial*

Press PGM
Press SPD.
Press the number that you want to program (0-9).
*(If you want the speed dial number to access a specific telephone line every time it places the call, Press the MIC button and dial 0 plus the line number. Otherwise skip this step.)*
Enter the telephone number you want to dial.
Press SAVE.
Press SPKR.

*Programming Personal DSS Speed Dial*

Press PGM
Press SPD.
Press the DSS button that you want to enter (DSS button 1 through 10).
*(If you want the speed dial number to access a specific telephone line every time it places the call, Press the MIC button and dial 0 plus the line number. Otherwise skip this step.)*
Enter the telephone number you want to dial.
Press SAVE.
Press SPKR.

**Speed Dial Programming (Operator).**

*Programming (Operator) Personal Numeric Speed Dial*
Press PGM
Press SPD 8.
Press the number that you want to program (0-9).
*(If you want the speed dial number to access a specific telephone line every time it places the call, Press the MIC button and dial 0 plus the line number. Otherwise skip this step.)*
Enter the telephone number you want to dial.
Press SAVE.
Press SPKR.

*Programming (Operator) Personal DSS Speed Dial*
Press PGM
Press SPD 8.

Press the DSS button that you want to enter (DSS button 1 through 10).
*(If you want the speed dial number to access a specific telephone line every time it places the call, Press the MIC button and dial 0 plus the line number. Otherwise skip this step.)*
Enter the telephone number you want to dial.
Press SAVE.
Press SPKR.

*Programming (Operator) System Speed Dial Numbers*
Press PGM
Press SPD 7.
Press the number that you want to program (100-*xxx*).
Press MSG.
*(If you want the speed dial number to access a specific telephone line every time it places the call, Press the VOLume Down button and dial 0 plus the line number. Otherwise skip this step.)*
Enter the telephone number you want to dial.
Press MSG.
Press SPKR.

**Station Lock / Unlock**

*This feature lets you lock your telephone so that no one can make unauthorized telephone calls on it. In order to unlock your telephone, you must remember the 3 digit long "password" that you enter when you lock it. You will need this to unlock your telephone. You can create any 3 digit code to lock your station, but the code to unlock it MUST be the one that you used to lock it!*

*To lock or unlock your station:*
Press PGM.
Dial 9.
Enter your 3 digit "password."
Press SAVE.

*Your telephone is now locked.*
*To temporarily unlock your station (This will allow you to make one telephone call. Then it reverts back to a locked state):*

Press PGM.
Dial #.
Enter your 3 digit "password."
You will be connected to the outside world. You may dial your call.
Your telephone will revert to the locked state when you hang up.

**Switching between Handsfree and Handset mode**

*If you want to switch from the handset to speakerphone….or vice versa.*
While on the handset:
Press SPKR.
Place the handset back in the cradle.
You are now in Speakerphone mode.

While on the Speakerphone:
Lift the handset.
You are now in the handset mode.

**Timed Reminder or Wake Up**

*With this feature, you can set an appointment reminder, that will alert you only once, or you can set a daily reminder that will happen every day at the same time (like when it's time to stop working and go home).* ***Note: If you are a system operator, the procedure you follow will be different. Please see Operator Timed Reminder or Wake Up.***
Press PGM.
Press HOLD.
Enter the time you want the reminder to occur (must be in 24 hour format).
Enter the duration (01 through 98). That is how long you want the reminder period to be. This type of reminder will occur every day at the same time.

OR
Enter 99 for a Wake Up call. This call will occur only once, then never again.
Press SAVE.
Press SPKR to exit.

To cancel:
Press PGM.
Press HOLD HOLD (that's Hold….two times).

**Trunk Queuing**

*If you need an outside line and none are available, this feature will make sure you get one when it becomes available.*
Lift the handset or press SPKR. (Optional)
Select a CO line (either by dialing 9 or by pressing a CO line button)
Press MSG key.
Hang up.
*When the CO line (or one of the lines in your Dial 9 group) is free, your telephone will ring. When you answer it, you will be connected to the outside line.*

**Trunk Group Access (Dial 9)**

*This is one method of getting an outside line.*
Lift the handset or press SPKR. (Optional for Dial 9)
Dial 9.
You will be connected to an available line in your dial 9 group

**Voice Service Unit (Operator Function)**

*The Voice Service Unit has up to 8 channels on which you can record up to 8 different messages. The actual number of messages that you record will be determined by how your system is programmed. This section explains how to record and playback the messages so that the system can use them. Remember, the Voice Service Unit allows a maximum of 60 seconds total recording time.*

**To Record (Operator only):**

Lift handset (we don't recommend that you make the recordings using the Speakerphone).
Dial 86.
Dial 0
Record your message after the tone.
To stop the recording and select the next voice channel, press 1.
To record the next segment, dial 0 . Repeat as necessary.
Your LCD display will always show you which channel you are currently recording.

*Please note that you cannot record one message and then record another message at another time. When you record a message, you must record all messages, one after another. In the future, if you need to update a message, it will be necessary that you re-record all messages.*

**To Playback (Operator only):**

Lift handset or press SPKR.
Dial 86

Dial 7 to play the first message.
Press 1 to advance to the next message.
Continue the Dial 7 and Dial 1 sequence to hear all messages.

*When you are finished, either put the handset back in it's cradle or Press the SPKR button (which ever is appropriate).*

**Voice Mail Access**

A Voice Mail Access Key is typically programmed on each telephone set of each station user. This Voice Mail Access Key represents the total number of voice mail ports in your system. The voice mail ports are assigned in system programming into a hunt group. By pressing the Voice Mail Access Key, you are making a call in a hunting or rollover fashion to the available voice mail ports in the system. The Voice Mail Pilot number for the voice mail hunt group is programmed on a key by using Form 07.

**To access voice mail ports**

1. Press the voice mail access key and listen for the voice prompts. An available voice mail port will be accessed. If the auto login feature is enabled, you will be asked for your security code.
2. Enter your security code.
3. You are logged in to the voice mail system and may use various features that are spoken to you by the voice mail system.

**Voice Mail Live Call Recording**

Live Call Recording allows you to record a conversation directly into your mailbox for retrieval at a later time.

**During a Conversation:**

1. Press the Record key on your telephone set. The voice mail system will be notified of your request to record the conversation automatically. At the end of your conversation, the voice mail system will light your MSG key, indicating you have a new message.

**To Stop a Recording without Ending the call:**

1. Press the **[HOLD]**, placing the caller on hold. Then retrieve the call from hold. Live call recording is terminated when you place the caller on hold.

**Voice Mail Message Retrieval**

When messages have been left in your voice mailbox, you will notice a flashing MSG key on your telephone set. LCD equipped digital telephones will also have an indication of *xx* Messages.

**To retrieve your messages:**

1. While the MSG key is flashing, press the **[MSG]** key.
2. **Call *XX (Voice Mail Port Name)***
   automatically call the Voice Mail System. If you have messages from other station users, you may scroll through the messages by pressing [**VOL** or **[VOL** until you come to the Voice Mail Message, then press **[SPK]** or lift the handset to make the connection.
3. If the auto login feature is enabled you will be prompted to enter your security code. After entering your security code, proceed with the voice prompt instructions to retrieve your messages.

**Voice Mail Transfer Key**

The Voice Mail Transfer Key allows user's the ability to transfer outside callers directly to the personal mailbox greeting of the desried station user.
For example, a call comes into the system and the caller would like to leave a voice message for John Smith. The Operator knows that John Smith is out of the office and can use the Voice Mail Transfer Key to send the caller directly to his mailbox.

**During a conversation with an outside party:**

1. Press the Voice Mail Transfer Key. The line goes on hold automatically.
2. Press desired **[DSS]** key or enter the station number. Hang up.

**Volume Control**

*If the person on the other end isn't quite loud enough….or is too loud!*
Press Vol UP to increase the volume level.
*Press VOL DOWN to decrease the volume level.*

**Volume Levels Programming (Permanent)**

*You can permanently set the volume levels on your telephone.*
Press PGM.
Press 6.
Dial 1 to set Ringing Volume.
OR
Dial 2 to set Speaker Volume.
OR
Dial 3 to set Handset Volume
OR
Dial 4 to Set Ringing Volume Increase (Rings louder as the call ages)
OR
Dial 5 to set the Ringing Frequency (Pitch)
*And adjust the pitch using your volume up and down keys on your telephone.*
OR
Dial 6 to set Microphone Level
OR
Dial 7 to set Camp-On Tone Volume
Press the Volume UP or Volume DOWN to reach the desired volume level.
Press PGM when finished.

Access Control Phone Operation Manual

**Intercom (as doorphone)**

Operation:

1. Press [ ♪ ] to call the associated hunt group and open the door; or
2. Dial extension number, then press [ ♪ ] to call an individual extension to answer and open the door.

**Note:** [ ♪ ] calls the hunt group according to TD-824i system settings:
**ACP Hunt Group Routing** - See Programming Form 46-st-07 (0-9 = Group 1 - Group 10)
**Hunt Group Pilot Number** - Form 67-GP (GP = 01-10)
**Hunt Group Members** - 68-GP-01-05 (GP=01-10)

**Outgoing call (as wall mount phone)**

Operation:

1. Press [9] to access an outgoing trunk.
2. Press [ ♪ ] to disconnect and return to idle.

**Note:** Auto-answer is available for both intercom and in-coming call.

**Access via password**

Operation:

Press [ ♪ ] +[7]+[password]+[#] to open the door (Display will show 'PASS')

**Note:** On invalid password, ACP will play busy tone for 5 sec and display will show 'ERR'.

**Access via proximity card(Touch-N-Go)**

Operation:

Use the registered and authorized card, touch and go (Display will show 'PASS')

**Note:** On invalid card, ACP will play busy tone for 5 sec and display will show 'ERR'.

**Access via password and proximity card**

Operation:

[Touch the card]+[password]+[#] to open the door (Display will show 'PASS')

**Note:** On invalid password or card, ACP will play busy tone for 5 sec and display will show 'ERR'.

**Check out (lock) ACP (as wall mount phone)**

Operation:

1. [ M ] +[8]+[password (3-digit)] to lock up ACP (as wall mount phone) to prevent it from use by others.

2. [ M ] +[#]+[password (3-digit)] to un-lock ACP (as wall mount phone) for temporary use (making a call) by the owner. After the use, ACP is locked up again.

**Burglary Report**

When the sensor is opened, ACP will signal PC for application of warning or asking help. (Not currently available)

**Time Display**

When ACP is idle, display will show the time ('08.30' for 8:30AM).

**As a wall mount phone**

When ACP is in use of as a wall mount phone, 'auto answer' is operational for both intercom call and incoming call.

**ACP Related Programming**

**Extension Number length for ACP**

Form 05-03-06

**'Voice' announce or 'ring' announce for ACP**

Form 05-03-03. '0' for Voice Announce; '1' for Ring Announce.

**Hunt group for ACP**

To specify the groups associated with the ACP (as doorphone).
Form 46-st-07 (0-9 = Group 1 - Group 10)

**Hunt Group Pilot Number**

Form 67-GP (GP = 01~10)

**Hunt Group Members**

68-GP-01-05 (GP=01-10)

**Station Hunt Group Ringing Method**

Form 05-06-08 (0=common audible, 1=linear ringing 2=circular ringing)

**Station Function Form 46-st-08**

There are three parameters under control of 46-st-08.

1. ACP Functions as:
    a. Doorphone
    b. Wall Mount Telephone
2. Door lock function activates the relay:
    a. in the ACP
    b. in the KSU.
3. Security Access is:
    a. Via password OR Identification Card
    b. Via password AND Identification Card.

| **Form 46-st-08 ACP Function** (Applies only to stations equipped with ACP Device) | | | |
|---|---|---|---|
| Value | Doorphone / Wall Mount Phone | Activate Relay | Security Access |
| 0 | Doorphone | Inside ACP | ID Card **OR** Password |
| 1 | Wall Mount Keyphone | Inside ACP | ID Card **OR** Password |
| 2 | Doorphone | Use TD-824i MSC Card | ID Card **OR** Password |
| 3 | Wall Mount Keyphone | Use TD-824i MSC Card | ID Card **OR** Password |
| 4 | Doorphone | Inside ACP | ID Card **AND** Password |
| 5 | Wall Mount Keyphone | Inside ACP | ID Card **AND** Password |
| 6 | Doorphone | Use TD-824i MSC Card | ID Card **AND** Password |
| 7 | Wall Mount Keyphone | Use TD-824i MSC Card | ID Card **AND** Password |

**Dial 9 Access (System Option)**

Form 05-04-02 = 0

**Forced Account Code for ACP (as wall mount phone)**

Form 17 (01-48) (Program Forced Account Code)
Form 40-st-08 = 01-48 (specify the Account Code programmed given in Form 17 for a specific station)

**Password for ACP (as doorphone)**

There are two ways to assign a password for ACP

1. Use/share the same code given for FAC; Form 17 & Form 40-st-08
2. Use the password in Form 13-05.
   This password will be available for all ACP in the system.

**Note:** Password given in Mode 13-05 will only be applied when FAC is not used or programmed.