



Working together

Norstar

**Modular Plus Release 5
System Administration Guide**

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SECTION I: System Administration



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Safety and Regulatory information

Markings

	<p>The CE Marking on this equipment indicates compliance with the following:</p> <p>This device conforms to Directive 1999/5/EC on Radio Equipment and Telecommunications Terminal Equipment as adopted by the European Parliament And Of The Council.</p>
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This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Hereby, Nortel Networks declares that Modular ICS, is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Information is subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant. This equipment has been tested and found to comply with the European Safety requirements EN 60950 and EMC requirements EN 55022 (Class A) and EN 55024. These EMC limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial and light industrial environment.

	<p style="text-align: center;">WARNING!</p> <p>This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures. The above warning is inserted for regulatory reasons. If any customer believes that they have an interference problem, either because their Nortel Networks product seems to cause interference or suffers from interference, they should contact their distributor immediately. The distributor will assist with a remedy for any problems and, if necessary, will have full support from Nortel Networks.</p>
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You must be the administrator

If the installer has given this guide to you, you are most likely the system administrator.

As an administrator your role is to:

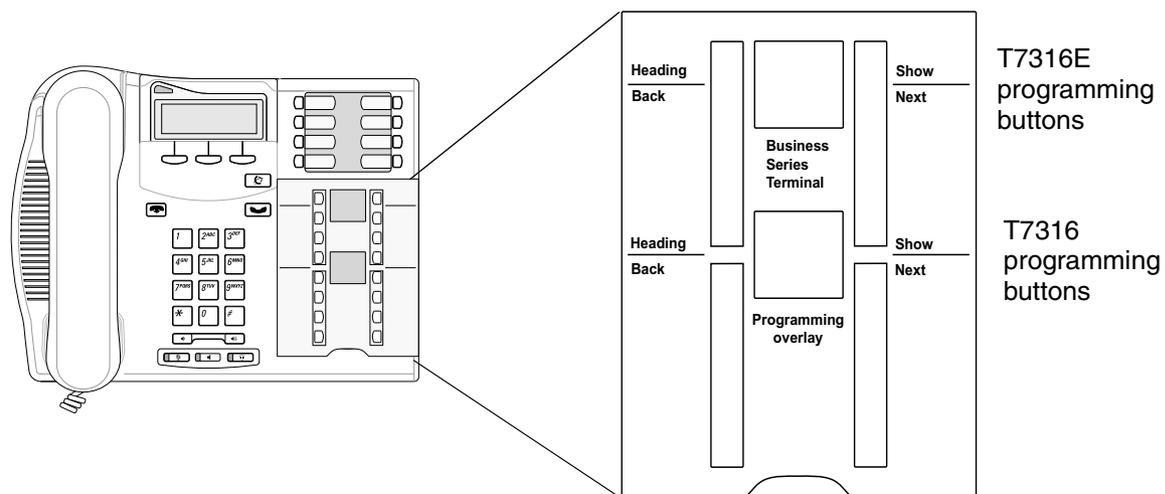
- help your colleagues learn to use their Norstar/Business Series Terminal (BST) extensions
- change Norstar programming to customise the system for your office or to keep up with changes in your office environment or personnel
- call for help or service when necessary

The System Administration Guide contains all the information you need to become proficient at using and programming the Modular Plus system.

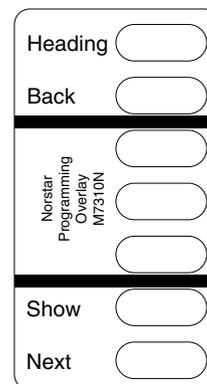
Here's what you need to start programming

By following instructions on the telephone display and by pressing a few keys, you can change the Modular Plus system to suit the specific needs of your office. Before you begin programming, make sure you have one of the following telephones, with overlay:

- T7316E telephone and the T7316/T7316E programming overlay.

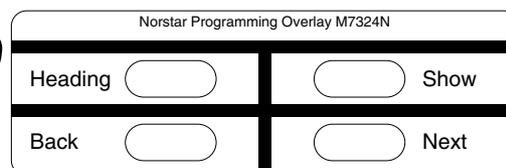


- an M7310N extension and its programming overlay



OR

- an M7324N telephone and its programming overlay.



Placing the programming overlay

Place the programming overlay on the appropriate four memory keys as shown in the preceding illustrations. The four marked memory keys have special functions during a programming session. Once you exit programming, the keys return to their normal functions. The programming keys are active or inactive at different stages of programming. When a key is active, the indicator next to it is lit with a ◀ or ▶.

This is what each programming key does:

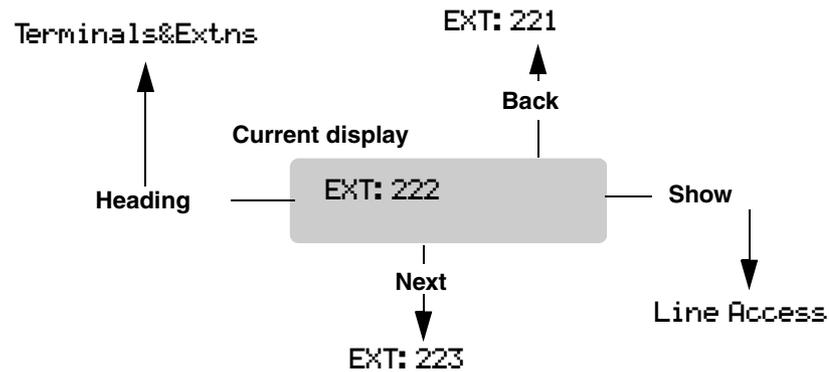
Heading—shows you the heading for the current level

Back—moves you back one item at the current level

Show—shows you the first setting within the level

Next—moves you one item forward at the current level

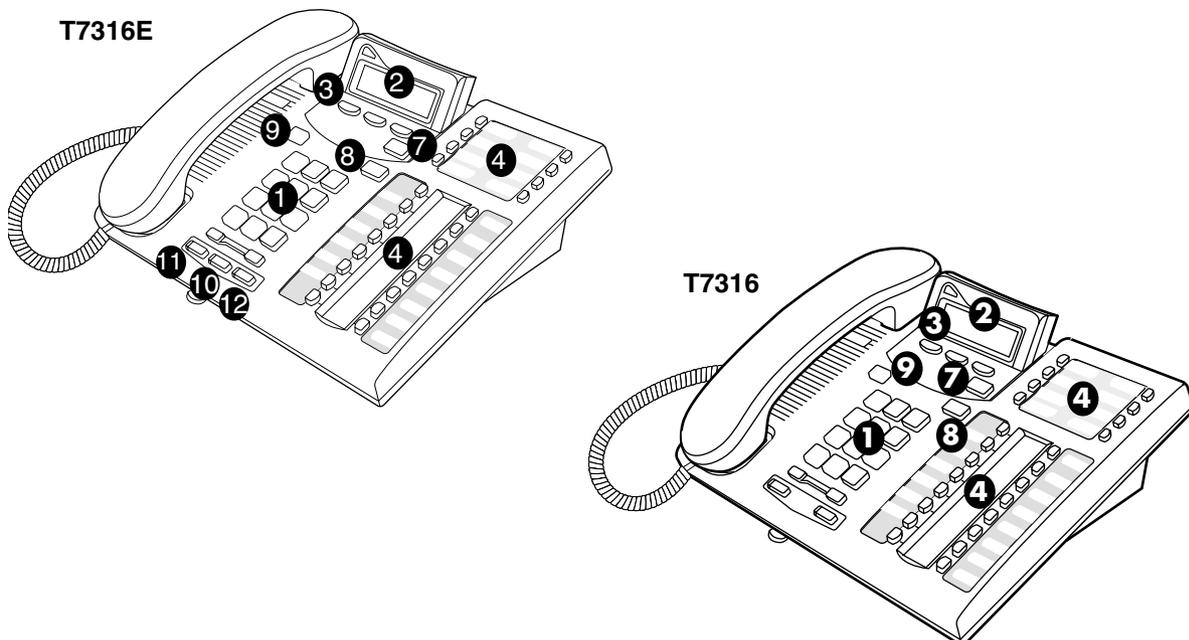
The diagram below visually shows you how the overlay buttons move through the menus.

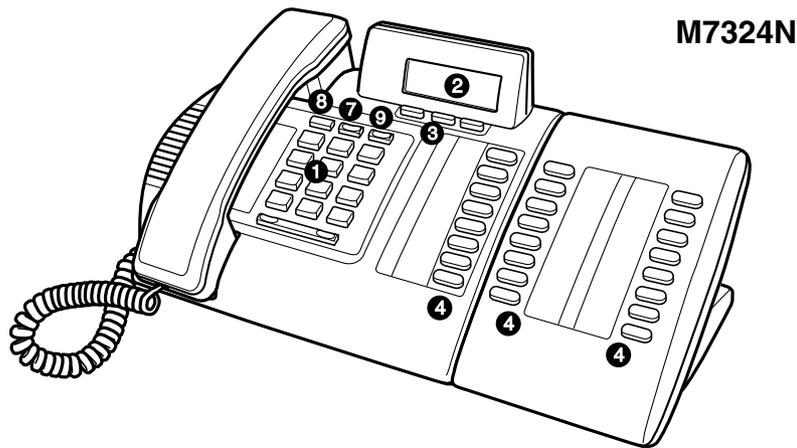
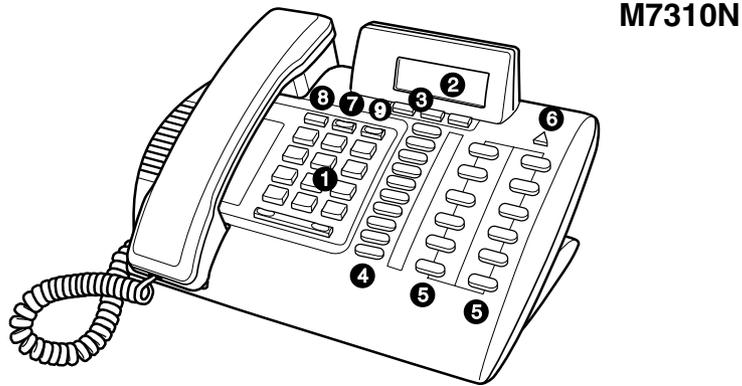


Understanding the telephone keys

Take a few minutes to study the telephones. Notice that the M7324N, T7316 and T7316E telephones do not have a shift key or dual memory keys.

Locate the different items shown in the following illustrations.





The following table indicates what each type of key does:

1 keypad	Used for dialling numbers when you are making calls and for entering numbers and letters when you are programming.
2 Display	Shows instructions for using and programming the telephone.
3 Display key	Activates the instruction that appears on the display above the display key.
4 Memory key	Activates a number or feature code stored in the key.
5 Dual memory key	Can store two numbers or feature codes (M7310N only).
6 Shift key	Press the Shift key before a dual memory key to activate the number or feature code stored in the secondary memory of the dual memory key (M7310N only).
7 Feature key ( , Feature or F_x)	Allows you to enter a feature code while using or programming the telephone.

8 Hold key 	Puts an active call on hold.
9 Release key 	Hangs up an active call or ends programming.
10 Mute key 	Mutes handset and microphone. Only available on T7316 and T7316E keystations.
11 Handsfree key 	Turns on speaker so user does not have to pick up handset or use headset. Only available on T7316E keystations.
12 Headset key 	Allows user to use switch between headset and handset answer mode without removing headset. Only available on T7316 and T7316E keystations.

Telephone programming buttons

This guide shows the Business Series Terminal (BST) buttons. The following table shows how the Business Series Terminals (T-series) buttons compare with the Norstar telephones (M-series).

Button Name	T7316E, T7316, T7208, T7100, T7000	M7324N, M7310N, M7208N, M7100N, M7000
Hold		
Release		
Feature		

To use a feature: Press ,  or  and enter the feature code. For example: Press     to access your mailbox.

Note: The BST terminal programming keys have label tabs beside the buttons.

Entering numbers and letters using the keypad

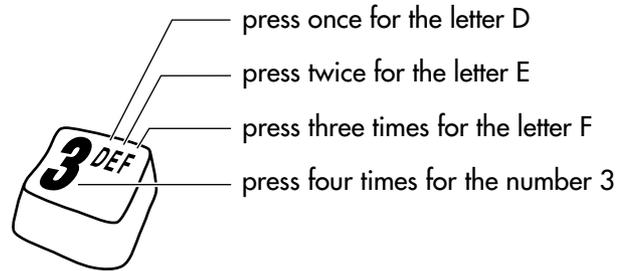
Use the keys on the telephone keypad to enter numbers and letters during programming. When you enter programming or use a feature code, the keys you press often spell a word. For example, when you press         , the number keys spell CONFIG. The C is on key number 2, the O is on key number 6, the N is also on key number 6, and so on. However, the display

shows numbers instead of letters. The word just provides an easy way to remember the sequences of numbers.

Entering names using the keypad

When you want to use a key to spell a name, such as naming a hunt group during programming, the function of the key changes according to the number of times you press the key. The following illustration shows the functions for the keypad key  when entering letters.

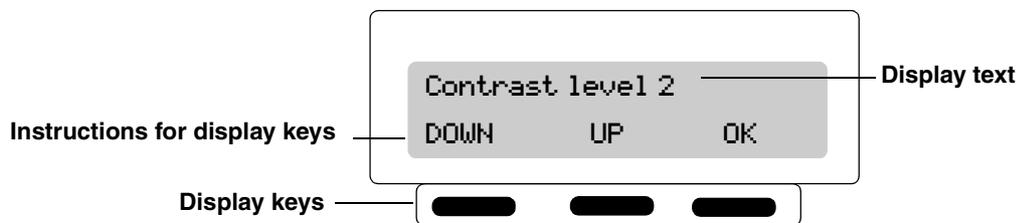
Keypad key



More about display keys

Use the three display keys below the display on your telephone to set and select options. Their function depends on the instruction that appears on the display directly above each key. Some display instructions that you may see during programming are DOWN, UP, or OK.

Display keys



Starting a programming session

As administrator, the first steps in making any change to the Modular Plus system are always the same. You must press **[E]**, and then press **[*] [*] 2 6 6 3 4 4** to access programming.

Jan 1 1:00am Press **[E]**.

Feature: Press **[*] [*] 2 6 6 3 4 4**
(CONFIG).

Password: Press **2 3 6 4 6** (ADMIN).
RETRY Press **RETRY** to re-enter the password if it is
entered incorrectly.

Terminals&Extns The display shows the first of the seven
headings available for programming.

2 3 6 4 6 (ADMIN) is the Administrator password, unless the password has been changed. Check the *Modular Plus Programming Record* for the most recent password.

Ending a programming session

Possible display Press **[E]** to end the session.
CHANGE

End of session After a few seconds, the time and date re-
appear on the display.

The system proceeds with any changes you make to programming as soon as you move away from a setting, either by using the navigation keys or by pressing **[E]**.

You can check to see if the changes you made to telephone programming took effect by pressing the **UPDATE** display key. The display shows you how many telephones have not been updated yet.

Using passwords to access programming

There are three passwords for Administration programming.

- **7 2 7 5 8 7** (SAPLUS) — The System Administrator Plus password accesses all the settings for Administration programming, plus several installer settings.
- **2 3 6 4 6** (ADMIN) — The Administrator password accesses most of the settings for Administration programming.
- **2 2 7 4 2** (BASIC) — The Basic password accesses a few settings that can be changed using feature codes.

The Basic password allows you to delegate some of the duties of being an administrator without allowing access to sensitive

programming. It should be given out with care and changed when necessary (for example, when someone leaves the company).

For information about changing passwords, see ‘Passwords’ on page 171. For more information about the settings that can be changed with the Basic password, see ‘Using passwords’ on page 30.

Understanding your system

Exchange lines have been set up by your installer to be either public, private, or part of a line pool.

- A public line is assigned to more than one extension.
- A private line is assigned to only one extension and to the Prime extension for that line.
- A line can be assigned to one of three line pools. Extensions are assigned access to line pools and they share the lines in the pool with other extensions having access to that pool.

The Modular Plus system automatically assigns extension 221, the first available extension, as the Prime extension for each exchange line. The Prime extension provides backup answering for all unanswered calls coming in on the exchange line.

Software key codes are used to activate optional features on your Norstar system. These features are ISDN30 channels, and D-channel signalling.

If a Norstar system is powered down for a period of 48 hours or more, activated software keys may be lost. In all cases, starting up a system using **☎ * * S T A R T U P** erases any existing programmed data, including software keys.

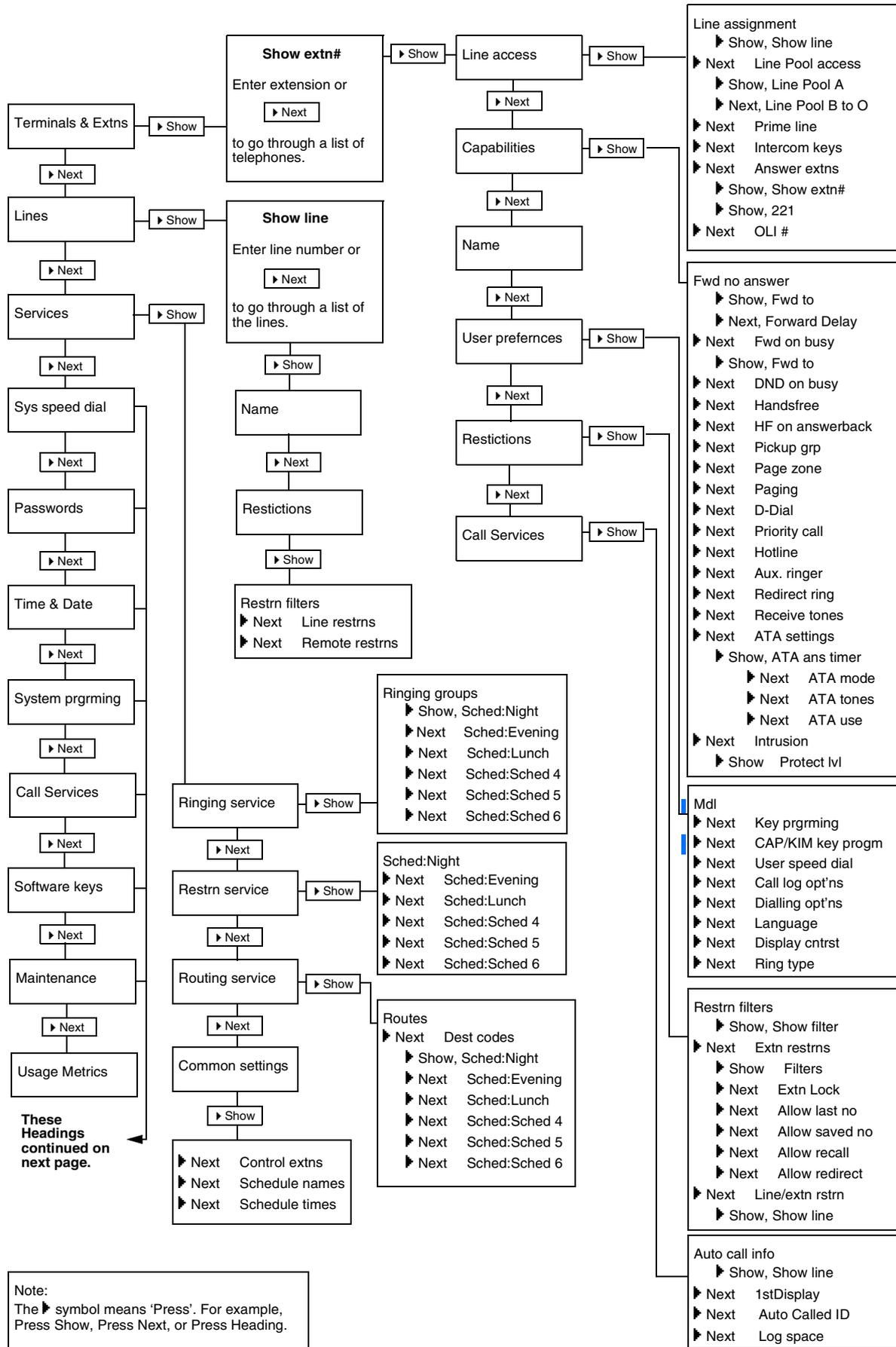
BT reserves the right to apply additional charges for the provision of software keycodes that are lost as a result of a system powered down for more than 48 hours.

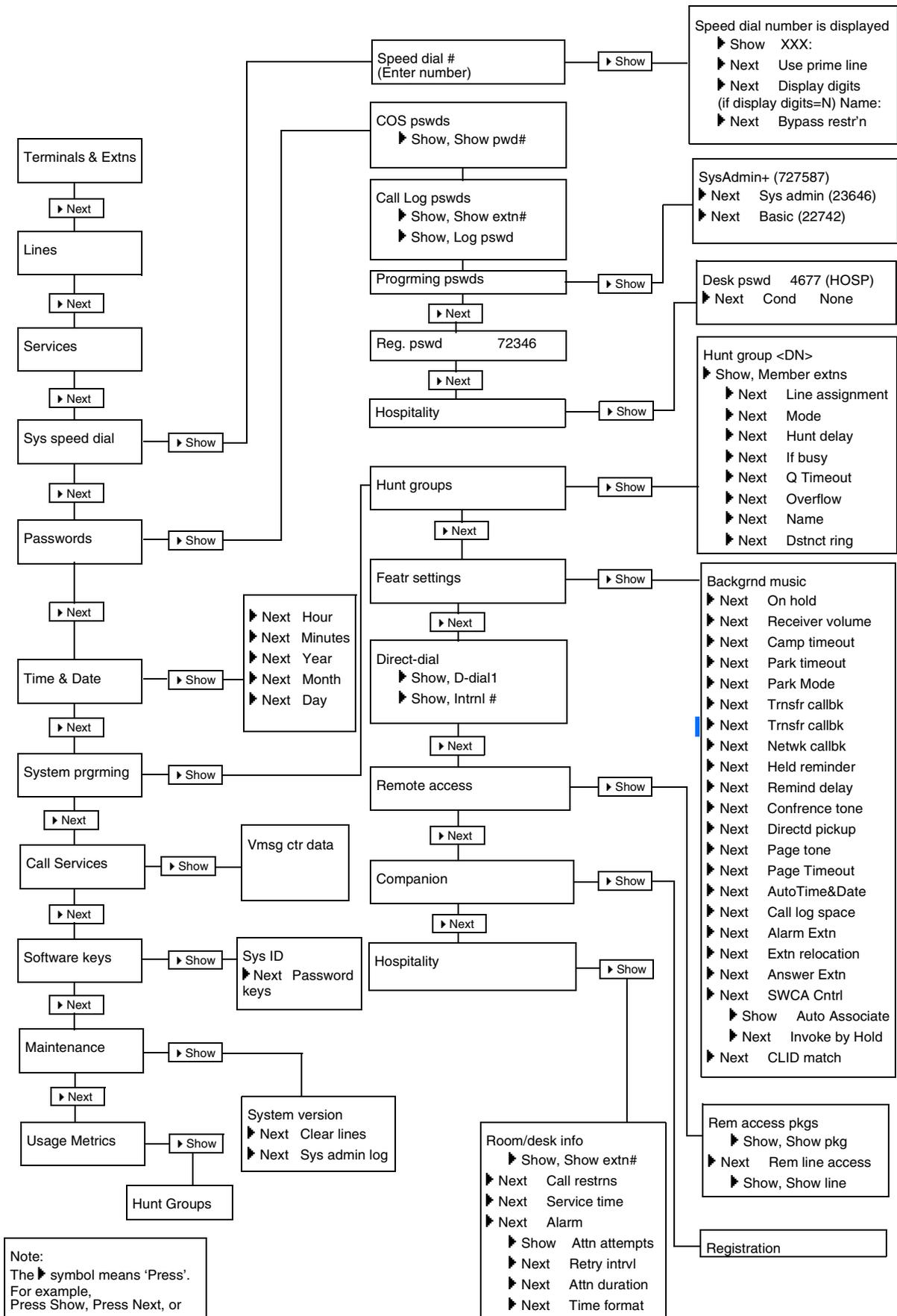
Map of Administrator Plus programming

The programming map on the following pages shows the headings, sub-headings, and settings that you can view when you access the programming menus by pressing:

☎ * * 2 6 6 3 4 4 (CONFIG) and entering the Administrator Plus password **7 2 7 5 8 7** (SAPLUS).

Programming map (Administrator Plus)





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Conventions used in this guide

This section describes the programming choices available to assist you in designing a system that is efficient for your business.

When you see a numbered symbol, **1**, it represents the numbers on the telephone keypad. A lettered symbol, **A**, represents the letters on the telephone keypad. represents a telephone key. Keys shown like this, **↵**, are found on the telephones around the dial pad. Four keys, **Heading**, **Show**, **Back** and **Next**, are labelled on the programming overlay and represent the temporary use of keys during programming.

A word shown like this, **OK**, on the second line of a two-line display, indicates the action for the display key directly below that word.

All default settings appear in bold in the procedures. For example, if the default setting is none, it appears as **None**.

Programming overview

Use programming to change default settings, as required. Default settings for the PBX template are shown in **bold** in the Programming Map on page 26.

Headings and sub-headings in programming help you to know where you are.

Programming has the following main headings

Terminals&Extns	Assign settings to each telephone.
Lines	Assign settings to each internal, external, and DIA line.
Services	Create services such as night ringing, routing and restrictions for making external calls.
Sys speed dial	Create speed dial codes that can be used by any telephone in the system.
Passwords	View and change passwords for programming and features.
Time&Date	Set the time and date on the system clock.
System prgrming	Change system-wide settings and Hunt Group settings.
Software Keys	Determine System ID number, activate additional DASS2, DPNSS 1 or PRI lines.
Maintenance	View diagnostic information about the system.
Usage Metrics	View statistical information about Hunt groups.

Each main heading has sub-headings within it. For example, **Terminals&Extns** has six sub-headings: Line access, Capabilities, Name, User preferences, Restrictions, and Call Services.

By using the System Administrator Plus password, you programme settings for the entire system, as well as settings for individual telephones.

ATTENTION!

Programming affects system operation.

Only a qualified installer or sales support officer should perform start-up, installation, and maintenance programming. Some of the settings affect the correct operation of the system.

The first three steps of each procedure allow you to get to **Terminals&Extns** on the telephone display and can be used to access programme headings for any individual item at any time. However, when you are programming the whole system, after you have completed the first programming item, it is not necessary to start at step 1 of the next procedure unless you leave programming. Just press to move to the next item in the programming sequence.

While you are programming the system, the display occasionally shows **Update**. You can press the display key below the word to see what programming changes the system is undergoing.

Any procedure that specifies using the Administrator (ADMIN) password can also be accessed using the System Administrator Plus (SAPLUS) password.

Programming overview

Startup
Template: PBX, Square, Hybrid Start Extension: 221
Terminals & Extns
Show extn#: _
Line access
Line assignment Show line: _
Non-DIA line
L001: Ring only , Appr&Ring, Appr only, Unassigned
DIA line (line 255 to 382)
L255: Ring only , Appr&Ring, Appr only, Unassigned
Appearances: 1
LinePool access
Line Pool A, N and O: Y , Line Pool B to M: N
Prime line: None, PoolA, Pool N, Pool O, Intcm
Intercom keys: 2 (0 to 8)
Answer extns
Show extn#:_
221: Unassigned , Appr&Ring, Appr only
OLI #: Extn #
Capabilities
Fwd no answer
Fwd to: None
Forward delay: 2, 3, 4, 6, 10
Fwd on busy
Fwd to: None
DND on busy: 221: N , others: Y
Handsfree: None , Auto, Std
HF answerback: Y
Pickup grp: None , 1, 2, 3, 4, 5, 6, 7, 8, 9
Page zone: None, 1, 2, 3, 4, 5, 6
Paging: Y
D-Dial: None, Extn1 , Extn2, Extn3, Extn4, Extn5
Priority call: N
Hotline: None , Intrnl, Extrnl
(if Extrnl) Use prime line , Use line, Pool code, Use routing tabl
Aux. ringer: N
Redirect ring: Y
Receive tones: N
ATA settings
ATA ans timer: 3, 5, 7, 10
ATA mode: Tone , Pulse
ATA tones: N
ATA use: On site, Off site
Intrusion
Protect lvl: None , Low, Med, High
Name: Extn #
User preferences
Mdl: M7208N , M7310N, M7324N, M7100N, T7000, T7316E+KIM
Key prgrming
(If T7000) 1 key
(If M7100N) 1 key
(If M7208N) 8 keys
(If M7310N) 10 +24 keys
(If M7324N) 24 keys
(If T7316E+KIM) 16 + 8 + 24 keys per KIM
KIM key prgrming
KIM1 ...
User speed dial
Call log opt'ns: No one answered , Unanswerd by me, Log all calls, No autologging
Dialling opt'ns: Automatic dial , Predial, Standard dial
Language: English , Opratng
Display cntrst: 1, 2, 3, 4 , 5, 6, 7, 8, 9
Ring type: 1, 2, 3, 4
Restrictions (extns)
Restrtn filters (00-99)
Show filter:_
Restrtn ftt: 00
No restrictions
Restrtn ftt 01
Restrtn 01: 0
Deny: 0
Override 01: 0800
Restrtn 02: 1

Deny: 1
No overrides
Restrtn ftt 05
Restrtn 01: 010
Deny: 010
No overrides
Restrtn 02: 1
Deny: 1
No overrides
Restrtn 03: 00
Deny: 00
No overrides
Restrtn ftt 06
Restrtn 01: <ANY>
Deny: <ANY>
No overrides
Extn restrtns
Filters
Normal: 02
Night: 11
Evening: 12
Lunch: 13
Sched 4: 00
Sched 5: 00
Sched 6: 00
ExtnLock: None , Partial, Full
Allow last no: Y
Allow saved no: Y
Allow recall: Y
Allow redirect: N
Line/extn rstrtn
Show line:_
Normal: None
Night: None
Evening: None
Lunch: None
Sched 4: None
Sched 5: None
Sched 6: None
Call services
Auto call info
Show line:_
Call log set: N (Default for DIA: Y)
Extrl VMsg set: N
1stDisplay: Name , Numb, Line
Auto called ID N
Log space
Log 0 Pool 600

Lines

Show line:

Line data
BRI-ST lines (001 to 008, 031 to 038, 061 to 234)
Trunk type: BRI-2 (2-port BRI card), BRI-4 (4-port BRI card)
Line type: PoolA, PoolB to O, Public , Private to:
PrimeExtn: 221
CLID extn: None
Auto privacy: Y
Ans mode: Auto, Manual (if Ans mode: Auto) Ans with DISA: N
Aux. ringer: N
Full AutoHold: N
Dstnct ring: None (2, 3, 4)
DASS2 lines (001 to 030, 031 to 060)
Trunk type: DASS2
Line type: PoolA , PoolB to O, Public , Private to:
PrimeExtn: 221
CLID extn: None
Auto privacy: Y
Ans mode: Auto , Manual (if Ans mode: Auto) Ans with DISA: N
Aux. ringer: N
Full AutoHold: N
Dstnct ring: None (2, 3, 4)
PRI lines (001 to 030, 031 to 060)
Trunk type: PRI
Line type: PoolA, PoolB to O, Public , Private to:
PrimeExtn: 221
CLID extn: None
Auto privacy: Y

Ans mode: **Auto**, Manual (if Ans mode: Auto) Ans with DISA: **N**
 Aux. ringer: **N**
 Full AutoHold: **N**
 Dstnct ring: **None** (2, 3, 4)
 Exchange line (001 to 004, 031 to 034, 061 to 230)
 Trunk type: **Loop**
 Line type: PoolA, PoolB to O, **Public**, Private to:
 Dial mode: **Tone**, Pulse
 PrimeExtn: **221**
 Auto privacy: **Y**
 Mode: **EarthCalling**, LoopGuarded, LoopUnguard
 (if Mode: Earth Calling or LoopGuarded) Ans mode: Auto, **Manual**
 (if Ans mode: Auto) Ans with DISA: **N**
 Aux. ringer: **N**
 (if Mode: LoopUnguard) Recall: **Timed brk**, Earth500, Earth1000,
 Earth1500
 Recall at EXCH: **N**
 Dial Tone: **Detect**, Delay
 Full AutoHold: **N**
 Dstnct ring: **None** (2, 3, 4)
 AC15A private circuits (241 to 254)
 TrunkType: **AC15**
 Line type: **PoolO**, Public, Private to:, Pool A to N
 Dial mode: **Tone**, Pulse
 PrimeExtn: **221**
 Auto privacy: **Y**
 Amplified AC15: **Y**
 Vol. Setting: 1, 2, 3
 Aux. ringer: **N**
 Recall at EXCH: **N**
 Full AutoHold: **N**
 Dstnct ring: **None** (2, 3, 4)
 DPNSS lines
 TrunkType: DPNSS
 Line type: **Pool N**, Pool A to Pool O, Public, Private to <extn>
 PrimeExtn: **221**
 Dstnct ring: **None** (2, 3, 4)
 CLID extn: **None**
 Auto privacy: **Y**
 Ans mode: Manual, **Auto**
 Aux. ringer: **N**
 Full AutoHold: **N**
 Direct Inward Access lines (255 to 382)
 Line type: PoolA, PoolB to O, **Public**, Private to:
 Received numbrs
 Private#: **extn #** (1 to 7 digits)
 Public#: **extn #** (1 to 7 digits)
 If busy: **BusyTone**, To prime
 PrimeExtn: **221**
 CLID extn: **None**
 Aux. ringer: **Y, N**
Name: Line #
Call services
 VMsg centre: 1, 2, 3, 4, 5, **None**
Restrictions (lines)
 Restrtn filters (00-99)
 Show filter:_
 Restrtn flt 00
 No restrictions
 Restrtn flt 01
 Restrtn 01: 0
 Deny: **0**
 Override 001:**0800**
 Restrtn 02: 1
 Deny: **1**
 No overrides
 Restrtn flt 05
 Restrtn 01: 010
 Deny: **010**
 No overrides
 Restrtn 02: 1
 Deny: **1**
 No overrides
 Restrtn 03: 00
 Deny: **00**
 No overrides

Restrtn flt 06
 Restrtn 01:<**ANY**>
 Deny: <**ANY**>
 No overrides
 Line restrtns
 Normal: **03**
 Night: **21**
 Evening: **22**
 Lunch: **23**
 Sched 4: **00**
 Sched 5: **00**
 Sched 6: **00**
 Remote restrtns
 Normal: **04**
 Night: **31**
 Evening: **32**
 Lunch: **33**
 Sched 4: **00**
 Sched 5: **00**
 Sched 6: **00**

Services

Ringng service

Ringng groups (001-100)
 Show group:_
 Ring grp: 01
 Show extn#:_
 221: **Assigned**, all others: **Unassign**
 Sched:Night
 Service: **Manual**, Auto, Off
 Trunk answer: **Y**
 ExtraDial: **221**
 Line settings
 Show line:_
 Ring grp: 001
 Aux. ringer: **N**
 Sched: **Evening**
 Sched: **Lunch**
 Sched: **Sched 4**
 Sched: **Sched 5**
 Sched: **Sched 6**

Restrtn service

Sched: **Night**
 Service: Manual, Auto, **Off**
 Sched: **Evening**
 Sched: **Lunch**
 Sched: **Sched 4**
 Sched: **Sched 5**
 Sched: **Sched 6**

Routing service

Routes (000-999)
 Show route:_
 Rte 000
 DialOut: **No numbr** (Max.24 digits)
 Use: **Pool O**
 Dest codes
 Show DstCode:_
 Normal: **000**
 AbsorbLength: **All**
 Night: **None**
 Evening: **None**
 Lunch: **None**
 Sched 4: **None**
 Sched 5: **None**
 Sched 6: **None**
 Sched: Night
 Service: Manual, Auto, **Off**
 Overflow: **N**
 Sched: Evening
 Sched: Lunch
 Sched: Sched 4
 Sched: Sched 5
 Sched: Sched 6

<p>Common settings</p> <p>Control extns For lines Show line:_ L001: 221</p> <p>For extns Show extn:_ 221: 221</p> <p>Schedule names Sched 1: Night Sched 2: Evening Sched 3: Lunch Sched 4: Sched 4 Sched 5: Sched 5 Sched 6: Sched 6</p> <p>Schedule times Monday Sched: Night Start time: 23:00 Stop time: 07:00 Sched: Evening Sched: Lunch Sched: Sched 4 Sched: Sched 5 Sched: Sched 6</p> <p> Tuesday Wednesday Thursday Friday Saturday Sunday</p>
<p>Sys speed dial</p> <p>Speed dial #: (Max. 24 digits) XXX: No Number, <extern. extn> Use prime line, Use line, Pool code, Use routing tabl Display digits: Y (if Display digits=N) Name: Sys Spd Dial XXX, <name> (max. 16 characters) Bypass restr'n: N</p>
<p>Passwords</p> <p>COS pswds Show pswd #:_ (00-99) COS pswd # 00 Pswd 00: None User fit: None (00 to 99) Line fit: None (00 to 99) Remote pkg: None (00 to 15)</p> <p>Call log pswds Show extn#:_ 221:221 Log pswd: None</p>
<p>Progming pswds Installer: 266344 (CONFIG) SysAdmin+: 727587 (SAPLUS) Sys admin: 23646 (ADMIN) Basic: 22742 (BASIC) Reg.pswd: 72346 (RADIO)</p> <p>Hospitality Desk pswd: 4677 (HOSP) Cond: None</p>
<p>Time&Date</p> <p>Hour: 01 Minutes: 00 Year: 01 Month: 01 Day: 01</p>
<p>System prgming</p> <p>Hunt groups Show group:_ HGn:(extension) Members extns M001: _ (extension) Appr only, Appr&Ring, Ring only</p>

<p>Line assignment Show line:_ Lnnn: Unassigned, Assigned Mode: Sequential, Cyclic, Broadcast Hunt delay: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 If busy: BusyTone, Overflow, Queue Q Timeout: 15, 30, 45, 60, 120, 180 Overflow:_ (extension) Name: HGn, _ (7 characters) Dstrct ring: None (2, 3, 4) Aux ringer: N</p>
<p>Change extns Old extn#:_ (Max. 7 digits) New extn#:_ (Max. 7 digits)</p>
<p>Featr settings</p> <p>Backgrnd music: N On hold: Tones, Music, Silence Receiver volume: Use sys volume, Use extn volume Camp timeout: 30, 45, 60, 90, 120, 150, 180 Park timeout: 30, 45, 60, 90, 120, 150, 180, 300, 600 Park Mode: Lowest, Cycle Trnsfr callbk: Y Trnsfr callbk: 3, 4, 5, 6, 12 Netwk callbk: 15, 30, 45, 60, 90, 120 DRT to prime: Y DRT delay: 1, 2, 3, 4, 6 EX-EX Tfr/Conf: Y Held reminder: Y Remind delay: 30, 60, 90, 120, 150, 180 Confrence tone: Y Directd pickup: Y Page tone: Y PageTimeout: 15, 30, 60, 120, 180, 300, 600, 2700 Auto Time&Date: Y SWCA Cntrls Auto Associate:N Invoke by Hold:N Call log space Reset all logs? Host delay: 1000 (1000 to 7000 in 500 ms increments) AlarmExtn: 221 Extn relocatn: N EXCH ring: Preset, Echo PCct delay: 200, 800, 1600 Msg reply enh: N Ans Extn: Basic, Enhanced, Extended CLID Match: 3, 4, 5, 6, 7, 8, None</p> <p>Direct-dial D-Dial 1: Intrnl, Extrnl, None Intrnl#: 221, Extrnl#: None</p>
<p>CAP/KIM assignment CAP1/KIM1: None</p>
<p>Access codes</p> <p>Line pool codes Line pool A: 9, Line pool B to O: None Park prefix: 1, 6, 7, 8, None Privaccode: None (00 to 99) Exchg code: 6, 7, 8, 9, None Direct Dial: 0, 6, 7, 8, None Auto #: None DISA #: None</p>
<p>Remote access</p> <p>Rem access pkgs (00 to 15) Show pkg:_ LinePool access: Pool A(to O: N Remote page: N Rem line access Show line:_ L001: Rem pkg: 00</p> <p>Chnge extn type Show extn#:_ 477 to 508: Portable, ISDN; 509 to 540: Portable, ISDN</p> <p>Companion Registration Registration: Y, N Portable extns</p>

Show extn#:_
477: **Available**, Registrd

Radio data
Radios
Cell Assignment
Show radio:_
1011: **Unassigned**, Assigned

Antenna Type
Show radio:_
1011: **Internal**, External

Cells (01-08)
Show cell:_
Cell: **01**
Cell radios
Show radio:_
1011: Assigned, **Unassigned**

Cell nghbrs
Show nghbr:_
01: Assigned, **Unassigned**

Cell rad nghbrs
Show RadNghbr:_
01: Assigned, **Unassigned**

System LID

Rec'd # lengths
Private length: **3** (1-7)
Public length: **3** (1-7)
Extn# length: **3, 4, 5, 6, 7**

Loc code:
Hospitality
Room / desk info
Show extn#:_
Room #:_
Adm pwd req'd: **Y**

Call prmissions
Vacant: **00**
Use fit:
Basic: **00**
Mid: **00**
Full: **00**

Service time
Hour: **00**
Minutes: **00**

Alarm
Attn attempts: **1, 2, 3, 4, 5**
Retry intrvl: **2, 4, 6, 8**
Attn duration: **10, 15, 20, 30, 40, 50**
Time format: **12hr, 24hr**

Expired Alarms
Notify extn: **None**
Use tone: **N**

Network Services
ETSI
Network Diversion: **N**
MCID: **N**

Call Services
MMsg ctr data:_
VMsg center: **1,2,3,4,5**
Tel#:_
MWI:
MWC:

Software Keys
SysID (8 digits)
Password keys
Key 1 (8 digits)
Key 2 (8 digits)
Key 3 (8 digits)

Hardware
Show Module
Cards on CCU
Cd1 - CCU: Loop, BRI-4, BRI-2, PRI, **DASS2**, DPNSS (requires keycode)
Cd2 - CCU: Loop, BRI-4, BRI-2, PRI, **DASS2**, DPNSS (requires keycode)
(if BRI card)
Card type: BRI-2, BRI-4
Loops: 201-204 (4-port BRI Cd1), 231-234 (4-port BRI Cd2), 201-202
(2-port BRI Cd1), 231-232 (2-port BRI Cd2)
Type: **S, T**
Loop nnn

(If Type T) press to view Lines on loop)
(If Type T) Protocol: **Euro**, BTNR 191
(If Type T) D-Packet service (keycode required)
(If Type S) Sampling: **Adaptive**, Fixed

Extns on Lpnnn
Assign extns
Show extn#:_
477: **Availabl**

Loop extn#:_ **None**
(if DTI card [DASS2])
Card type: DASS2
Lines 001-030, 031-060
Clock Src: **Primary**, Secndry, TimMstr
(if DTI card [I.421])
Card type: PRI
Lines 001-030, 031-060
Clock Src: **Primary**, Secndry, TimMstr
(if DTI card [DPNSS])
Card type: DPNSS
Lines 001-030
Clock Src: **Primary**, Secndry, TimMstr
Local num len: **1,2,3,4,5,6,7,8,9,10**
Max Transits: **25**

Cards on Mod:_ (module 3 to 8)
CD1 on Mod_(BRI-2, BRI-4, Loop)
CD2 on Mod_(BRI-2, BRI-4, Loop)
CD3 on Mod_(BRI-2, BRI-4, Loop)
(if BRI card)
Loops: 301 to 804
Type: **S, T**
(If Type T) Protocol: **Euro**, BTNR 191
press to view Lines on loop
(If Type S) Sampling: **Adaptive**, Fixed

Extns on Lpnnn
Assign extns
Show extn#:_
477: **Availabl**
Loop extn#:_ **None**

Maintenance
System version
Clear lines
Port/Extn stat
Module status
Sys test log
Sys admin log
Network evt log
Link quality
Provisioning
Tests
BERT-extn tests
Loopback tests
Diagnostic tools*
Dialtone detect
Line: _
System restart
Restart system
Link status

Usage Metrics
Hunt groups
Show group:_
HG <n> metrics
Clear
Time&Date of last clear
Total Calls nnnnn
Ans nnnnn=nnn%
Avg ans nnn sec
Abn/dn nnnnn=nnn%
Busy nnnnn=nnn%
Ovrl nnnnn=nnn%
Avg Q nnn sec

Using passwords

Programming access is controlled by four passwords.

- Installer password—allows you to see and change any item in programming.
- System Administrator Plus password—provides knowledgeable users with access to all but a few sensitive areas of programming.
- Administrator password—used to view and change the settings that are part of day-to-day administration of the Norstar system.
- Basic password—only used with a limited number of feature codes to change programming and control system services.

The following tables show the items that can be programmed when using the System Administrator Plus password or the Administrator password.

Programming using the SAPLUS password

Terminals&Extns
Line access
Capabilities
Name
User preferences
Restrictions
Call services
Lines
Name
Restrictions

Services
Ringing service
Restrn service
Routing service
Common settings
Sys speed dial
Passwords
COS pslds
Call log pslds
Progrming pslds
Reg. psld
Hospitality psld
Time&Date

System prgrming
Hunt groups
Featr settings
Direct-dial
Remote access
Companion
Hospitality
Software Keys
SysID
Password keys
Maintenance
System version
Clear lines
Sys admin log
Usage Metrics

Programming using the Administrator password

Terminals&Extns
Capabilities
Name
User preferences
Restrictions (Extn only)
Call services

Lines
Name
Services
Ringing service
Restrn service
Routing service
Sys speed dial

Passwords
Call log pslds
Progrming pslds
Reg. psld
Time&Date
System prgrming
Companion

Entering programming using the SAPLUS password

The staff member who is in charge of making changes to the Modular Plus system is called the system administrator.

The System Administrator Plus password allows the administrator to access all the settings for administration programming, plus a few installer settings that may need to be changed infrequently. All procedures in this guide indicate whether you need to use the System Administrator Plus or the Administrator password.

The default System Administrator Plus password is **7 2 7 5 8 7**, which spells SAPLUS on the keypad.

1. Press **☐ * * 2 6 6 3 4 4** (CONFIG).
The display shows **Password :**.
2. Press **7 2 7 5 8 7** (SAPLUS). The display shows **Terminal&Extns.** Three triangular indicators ► appear on the vertical display between the rows of keys.
3. Place the programming overlay over the keys pointed to by the indicators ►.

Entering programming using the Administrator password

The Administrator password is your key to administration programming. Most of the programming in this guide can be entered with the Administrator password.

The default Administrator password is **2 3 6 4 6**, which spells ADMIN on the telephone keypad.

Entering programming using the Basic password

The Basic password allows someone to do day-to-day maintenance of individual telephones without allowing access to sensitive programming.

The default Basic password is **2 2 7 4 2**, which spells BASIC on the telephone keypad.

You do not enter Basic programming using **2 6 6 3 4 4** (CONFIG). Instead, you enter the Feature code that you want to programme, followed by **2 2 7 4 2** (BASIC).

For example:

1. Press **☐ * ***, followed by the code.
2. Enter **2 2 7 4 2** (BASIC).
3. Follow the instructions on the display and make your selections using the display keys.

The following feature codes can be accessed using the Basic password:

- *** * 8 7 3 7** (USER)—User preferences settings allow you to programme telephone model, key assignment, User speed dial, Call log options, Dialling options, Language, Display contrast, and Ring type.
- *** * 8 4 6 3** (TIME)—Time and Date settings allow you to change any of the settings for hour, minutes, seconds, year, month, and day.

Programmable settings and features

Modular Plus has several features that ensure that calls do not go unanswered or do not get lost. For example, extensions can be programmed to provide back-up answering for other extensions or lines. You can also create an attendant position to provide answering for a group of extensions.

You can forward calls that are unanswered, pick up calls for other extensions, redirect selected lines to telephones inside or outside your business, and have calls answered from any extension during non-business or off-peak hours.

Many call capture features are pre-configured with your Modular Plus system. Others, however, must be programmed in order to take full advantage of their flexibility. The following programming settings are used to enhance answering and handling calls:

Do Not Disturb (DND) on Busy	Answer extension
Forward on Busy	Call Forward all calls
Forward No Answer	Call Pickup Directed
Hunt groups	Call Pickup group
Pickup Group	Call Queuing
Prime extension	Do Not Disturb
Prime line	Line redirection
Redirect Ring	Ring again
Trunk Answer	Transfer
SWCA keys	

Do Not Disturb (DND) on Busy

When this setting is turned on, you do not hear any ringing if a second call arrives while you are talking on the telephone. If you want to know when a second call arrives, turn this setting off.

For example, Mr. Forbes dislikes having his telephone ring when he is on a call. Therefore, he uses the DND on Busy feature so that additional calls are diverted to the Prime extension until he has finished his current call.

If your telephone is a Prime extension for any line, do not use the DND on Busy feature.

If an extension is a member of a hunt group and the extension activates this feature, the extension will not receive notification of incoming hunt group calls while on a call.

See ‘Programming Do Not Disturb on busy’ on page 102.

Forward on busy

When you already have a call, ensure that other calls to your extension are answered. Forward the additional calls to an extension that you know will be monitored.

For example, Miss Vale works with Mr. Cassidy as a team. They answer each other’s calls. Forward on busy is set for the extension of the other person. When Mr. Cassidy is busy on a call, other calls to his extension are forwarded immediately to Miss Vale.

If your extension is a member of a hunt group, the Call Forward on busy setting is overridden by the hunt group routing.

See ‘Setting Call Forward on busy’ on page 102.

Forward no answer

When you are away from your extension, ensure that calls are answered by forwarding to an extension that you know will be monitored.

For example, Miss Vale works with Mr. Cassidy as a team. They make sure that one of them is always in the office. Forward No Answer is set for the extension of the other person. When Miss Vale is away from her extension, calls are forwarded immediately to Mr. Cassidy.

If your extension is a member of a hunt group, the Call Forward no answer setting is overridden by the hunt group routing.

See ‘Setting Call Forward no answer’ on page 100.

Hunt groups

Establish hunt groups in your system to allow external and internal callers to reach a group of extensions by calling a single directory number. The hunt groups feature ensures calls are easily routed to the appropriate extension. You can programme the members for a group, member position within a group, how calls are distributed, how long is spent looking for available agents and what happens if all agents are busy.

For example, your company has five sales people available to field calls from clients. Bob is your most experienced salesperson and you would like him to receive incoming calls first. You would set up a hunt group with these five extensions as members. Programme Bob's extension as the first member in the group, set the distribution mode to sequential so Bob receives incoming calls first, and name this group SALES.

See 'Programming Hunt groups' on page 119.

Pickup group

Assign extensions to one of nine Pickup groups for maximum call coverage. This ensures that extensions in a group can answer calls for any other extension in that group.

For example, Mr. Forbes and Ms. Smith both belong to Pickup group 3. When Mr. Forbes is away from his extension, Ms. Smith presses on her own extension to answer Mr. Forbes's calls.

A hunt group call ringing at an extension that is a member of a hunt group can be picked up by any extension in that call pickup group.

See 'Assigning a Pickup group' on page 105.

Prime extension

The Modular Plus system automatically assigns extension 221 as the Prime extension for each exchange line. Your system installer can change the extension number in **Lines** programming.

The Prime extension can be programmed to receive unanswered calls through Delayed Ring Transfer, Held Line Reminders, and Do not Disturb transfers.

In a busy office, the receptionist or secretary extension may be designated as the Prime extension.

Prime line for an extension

A line can be assigned to a telephone as its primary line to use when making an outgoing call. This feature saves the user time because the system automatically selects the line rather than the user having to select the line.

See ‘Assigning a Prime line to an extension’ on page 44.

Re-direct ring

When this feature is turned on, the extension gives an audible signal whenever a call has been re-directed. This reminds you that a line has been re-directed using the Line redirection feature, and serves as a cue to turn the feature off.

For example, you have re-directed line 1 to another extension in the network. If Redirect ring is on, you hear a short ring every time a call on line 1 is forwarded to the other telephone.

See ‘Allowing an extension to use Redirect ring’ on page 110.

Trunk answer

This feature is active by default for all Services. This means that during non-business or non-busy times, any extension can answer calls ringing at any other extension. It does not matter which lines appear on the extensions. It only matters that the line itself has been placed in a Service mode using its Control extension.

For example, during the lunch break between 11:30 a.m. and 1:00 p.m., lines 1, 2, and 3 are put in Lunch mode. Trunk answer is active, so whenever any extension rings, Mr. Cassidy, who acts as a temporary attendant, can answer from his extension.

See ‘Using alternate or scheduled services’ on page 158.

Answer extension

If your telephone has an Answer key for someone else’s extension, you can answer that person’s calls on your telephone.

For example, Mr. Cassidy’s telephone has an Answer key for Miss Vale. When Miss Vale’s telephone rings, Mr. Cassidy can answer it on his telephone by pressing the Answer key assigned with Miss Vale’s extension.

Simply press the Answer key when you hear the other person’s telephone ringing.

See ‘Answer extension’ on page 142.

Call Forward all calls

If you know you are going to be away from your extension for a while, forward your calls to another extension. Otherwise the callers must wait for the Forward no answer feature to automatically transfer the call after several rings.

For example, Mr. Forbes knows that most client calls arrive in the morning, but he will be in meetings until noon. He forwards his extension to Ms. Smith, who can deal with issues right away.

Press , then the extension number that you wish to send the calls to.

If your extension is a member of a hunt group, the Call Forward all calls setting is overridden by the hunt group routing.

See ‘Forwarding your calls’ on page 269.

Call Pickup Directed

If any telephone is ringing in your office, you can answer it from your extension.

For example, only a few people are in the office early in the morning. When Miss Vale’s telephone rings, Mr. Forbes takes the call using Call Pickup Directed.

Press , then dial the extension of the telephone that is ringing.

See ‘Answering a telephone using Directed Pickup’ on page 234.

Call Pickup Group

If your telephone is part of a Pickup Group, you can answer calls ringing on any telephone in the same group.

For example, Mr. Forbes and Ms. Smith both belong to Pickup Group 3. When Mr. Forbes is away from his extension, Ms. Smith uses the Call Pickup Group feature on her own extension to answer Mr. Forbes’s calls.

Press .

See ‘Answering a telephone using Pickup Group’ on page 235.

Call Queuing

When more than one call is ringing at your extension, you can ensure you answer the calls in the order they arrived.

For example, Mr. Cassidy notices that he has calls on Line 3 and on line 4. He does not know which call arrived first, so he uses Call Queuing to answer.

Press .

See ‘Answering the next queued call’ on page 229.

Do Not Disturb

If you do not want to be interrupted by any telephone calls, turn on the Do Not Disturb feature so that calls are immediately transferred to the Prime extension.

For example, Mr. Moore is having a performance review meeting with the president of the company. Mr. Moore turns on Do Not Disturb before the meeting so that all calls are routed to the attendant.

Press .

A hunt group extension can temporarily leave the hunt group by activating this feature.

See ‘Do Not Disturb’ on page 224.

Line redirection

You can use the Line redirection feature to redirect the calls coming in on your external lines to a telephone outside the office.

You can redirect exchange lines to AC15A private circuits, AC15A private circuits to either exchange lines or private circuits, and exchange lines to exchange lines.

You may choose to redirect all your external lines or only some of them. For example, you generally receive personal calls on Line 1 and customer calls on Line 2. You can redirect Line 2 to a colleague when you are busy, but still accept personal calls on line 1.

Press , then follow the prompts on your display.

See ‘Line redirection’ on page 272.

Ring Again

You can have the Norstar system notify you when an extension is either not busy or has just been used. This feature enables you to reach the person on that extension.

For example, Miss Vale has an urgent request for Mr. Moore. When she dials his extension, it is busy. She uses the Ring Again feature to monitor the line. As soon as Mr. Moore hangs up, Miss Vale's telephone rings to let her know that she can try her call again.

Dial the extension number, press , then hang up.

See 'Using Ring Again' on page 283.

Transfer

If you are an attendant, or if a call should be routed to someone else, you can do it easily with Modular Plus. For example, a client calls Mr. Forbes. Mr. Forbes realizes that it would be better for the client to speak to Ms. Smith, so he transfers the call to Ms. Smith's extension. When Ms. Smith answers, Mr. Forbes explains the situation briefly and then hangs up. The client remains on the line with Ms. Smith.

Press , dial the number, then hang up.

See 'Transferring a call' on page 247.

SWCA keys

System-wide call appearance keys, allow anyone in the system to pick up a parked call, by entering the feature code that was used to park the call, which can be any one of these 16 codes:

to .

You can also assign a number of these codes to memory buttons with indicators to any group of telephones. In which case, calls can be parked on the memory buttons and are visible and can be retrieved at other extensions by pressing the corresponding button.

See "Setting SWCA controls" on page 143.

Making suggestions

Please submit your comments and suggestions to:

British Telecommunications
Norstar Product Manager
Weston House
246 High Holborn
London
WC1V 7DQ
U.K.

Advice Line

If you have difficulty programming or using a system feature, refer to the description of the feature, and follow the appropriate procedures. If you still have difficulty, call the Advice Line at

0800 378822

Programming Terminals and Extensions

- Terminals & Extensions.....42
- Assigning a line to an extension (line access).....42
 - Assigning line pool access.....44
 - Assigning a Prime line to an extension.....44
 - Assigning intercom keys to an extension.....45
 - Assigning an Answer key to an extension.....46
- Setting the Originating Line Identification for an extension.....47

Terminals & Extensions

Terminals&Extns allows you to assign settings to each telephone.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn** (nnn represents the three-digit extension number).

Assigning a line to an extension (line access)

Line access allows you to assign lines to individual telephones.

When you are finished programming line access settings for one telephone, you can copy those settings to other telephones by pressing the display key under **COPY** at the **Line Access** display. For more information about copying extension programming, see ‘Copying programming for telephones’ on page 147.

Line assignment

This setting allows you to assign physical lines and Direct Inward Access (DIA) lines to each telephone. DIA lines are assigned and removed in the same manner as other lines.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn**.
6. Press three times. The display shows **Show line:**.
7. Enter the line number. The display shows **Lnnn:Unassigned.**
8. Press **CHANGE** to change the setting for each line: **Appr&Ring**, **Appr only**, **Unassigned**, or **Ring only**.

9. Press **SCAN** to view the lines assigned to this telephone and the setting for each.
10. Press  to exit or to continue in programming.

In general, exchange lines are not assigned to telephones. If assigned, they are used for monitoring incoming call usage, or for making outgoing calls.

You cannot assign a line that is private to another telephone.

Each line assigned to appear at a telephone must appear at a key with an indicator on that telephone.

If you set a line to Ring only, incoming calls appear on an intercom key.

A Central Answering Position (CAPN/CAP) telephone with a CAPN module (M7324) or KIM (T7316E) can provide extra line keys.

The M7100N/T7100 and M7000/T7000 telephones are exceptions. They have no line keys and can be assigned any number of lines.

Ensure that the lines assigned to M7100N/T7100 and M7000/T7000 telephones are assigned to ring so that you can detect incoming calls on the lines.

Number of appearances

This setting allows you to assign the number of appearances of a DIA line (lines 255 to 382) allowed on an extension. In order to programme the number of appearances, the line assignment value cannot be Unassigned. The default appearance setting is 1.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press  * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press 7 2 7 5 8 7 (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn.**
6. Press three times. The display shows **Show line:**.
7. Enter the line number. The display shows the line number and its assignment.
8. Press until the display shows **Appearances: 1.** This prompt does not appear if the line is unassigned.
9. Press **CHANGE** and enter a numeric value from 1 to 255.
10. Press  to exit or to continue programming.

Assigning line pool access

Line pools allow the system to share lines among a number of telephones, reducing line costs and the number of button appearances on the telephones in the system.

This setting allows a telephone to access one or more of the line pools available (A, B to O).

When you change the setting to Yes for a line pool, the telephone being programmed can access any line in that line pool.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn**.
6. Press twice. The display shows **Line assignment.**
7. Press . The display shows **LinePool access.**
8. Press until you reach the line pool you want to show the number for. Note: Only assigned line pools appear on the list.
9. Press **CHANGE** to select the setting: N (No) or Y (Yes).
10. Press to exit or to continue in programming.

Assigning a Prime line to an extension

This setting assigns a Prime line to the telephone. When the telephone is being used to make an outgoing call, the Prime line is the first line the system selects.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn**.

6. Press twice. The display shows **Line assignment.**
7. Press until the display shows **Prime line:**.
8. Press **CHANGE** to select the setting: **None**, Pool A, Pool N, Pool O, or Intcm (intercom). Only assigned lines and line pools appear.
9. Press to exit or to continue in programming.

An assigned Prime line is not associated with the assignment of a Prime telephone.

An exchange line must be assigned to the telephone in Line assignment before it can be assigned as the Prime line to the telephone.

A line pool must be assigned to the telephone in line pool access before a line pool can be assigned as the Prime line to the telephone.

By assigning a line pool as a Prime line, a telephone can be made to search automatically for an idle line in a pool.

Note: If you set Prime line to Intcm (intercom), you can still access any line pools you have assigned to the telephone by entering a line pool access code. When you enter the line pool access code, the system searches for an idle line in that pool. When all the lines in the pool are busy, the display shows **No free lines.** The system does not search from one pool to another.

Assigning intercom keys to an extension

This setting assigns the number of intercom keys to a telephone. Intercom keys can provide a telephone with access to internal lines and line pools.

See ‘Using Autodial’ on page 279 for information on using intercom keys.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display show **nnn:nnn.**

6. Press twice. The display shows **Line assignment.**
7. Press until the display shows **Intercom keys:**.
8. Press **CHANGE** to select the setting: 0, 1, 2, 3, 4, 5, 6, 7, or 8.
9. Press to exit or to continue in programming.

Each intercom key assigned during programming automatically appears on the telephone. The keys start with the lower right-hand key, or one key above if the Handsfree/Mute feature is assigned to the bottom right key on the extension.

A telephone needs two intercom keys to establish a conference call with two other telephones.

Only one intercom key may be required if the key is only to be used to access line pools and to make and receive internal calls.

If a telephone has several lines assigned only to ring and not appear, the arrangement works better if there are two intercom keys.

The M7100N and T7100 telephone default assignment of two intercom keys cannot be changed. These keys do not appear on the telephone.

Assigning an Answer key to an extension

Calls for other Norstar/BST extensions can appear and be answered at the telephone being programmed. The extension numbers of the other telephones are referred to as Answer extension numbers. You can assign up to eight Answer extension numbers to the telephone being programmed.

See 'Answer keys' on page 236 for information about using Answer keys.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn.**
6. Press twice. The display shows **Line assignment.**

7. Press until the display shows **Answer extns.**
8. Press . The display shows **Show extn#:**.
9. Enter the extension number.
10. Press **CHANGE** to change the setting for the Answer extension number: **Appr&Ring**, **Appr only**, or **Unassigned**.
11. To assign additional Answer extension numbers, press , , then enter the next Answer extension number.
12. Press **SCAN** to view the Answer extension numbers assigned to this telephone.
13. Press to exit or to continue in programming.

Every Answer extension number assigned to the telephone automatically assigns an Answer key with an indicator to the telephone. These keys should be labelled accordingly, identifying the telephone with its name or extension number.

More than one telephone can have an Answer key for the same extension number. In this way, more than one telephone can provide Call Alerting and Call Answering for any calls directed to that extension number.

A private line does not generate alerting at an Answer key.

Note: You cannot assign Answer extension numbers to an M7100N or a T7100 telephone or to a single-line telephone connected to an Analogue Terminal Adapter.

Setting the Originating Line Identification for an extension

Outgoing calls on a Direct Inward Access (DIA) line use an Originating Line Identification (OLI) number, which appears on the telephone display of the called party as part of the calling line identification (CLID). Modular Plus allows you to programme the OLI number for each extension. The OLI number could be the Public Received number for the DIA line assigned to the extensions, or it could be a different Public Received number if you wish calls to be returned to someone else's extension. Ensure that the OLI numbers are in the same range as the received digits that come from the exchange.

For example, a sales manager may wish to have returned calls directed to an assistant. The OLI programmed for the manager's extension is the Public Received number for the assistant's extension. Thus, a client viewing the CLID number on their telephone display sees the assistant's telephone number.

If the OLI number is set to None, then the CLID displayed at the called party's telephone is a Listed Extension number for your Modular Plus system.

If the programmed OLI number is outside the allowed range, Modular Plus may insert a default number.

ATTENTION!

If your system is equipped with a mixture of digital line cards, it is strongly recommended that you programme the extensions to use line pools when making outgoing calls.

If line pools are not properly configured, an extension may use a line with a network range that does not include the extension's OLI, causing the network to present an incorrect CLID to the called party.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn.**
6. Press twice. The display shows **Line assignment.**
7. Press until the display shows **OLI #:**.
8. Press **CHANGE** and enter the number.
9. Press to exit or to continue in programming.

Programming Hospitality Services

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Hospitality Services (HS) is a group of features that increases the value of the Modular Plus system in small to medium-sized hotels, motels or hospitals.

In a hotel setting, guests gain improved services through immediate access to basic functions like:

- wake-up service or reminders
- accurate tracking of the room service requirements (for example check-in/check-out).

Hospitality Services features must be activated by qualified personnel using Software keycodes. See 'Software Keys' on page 60.

| Hospitality extensions

Norstar/BST extensions are classified as one of following types of telephones:

- **Common extension:** A common extension can be a telephone found in a lobby, office, or common area. It is not associated with a room. A common extension does not have access to all HS features.
Common extensions are Norstar/BST extensions or analogue telephones connected to an analogue terminal adapter (ATA) or to an analogue extension module (AEM).
- **Room extension:** A Room extension is a telephone assigned to a room in System programming. Up to five telephones can be assigned to the same room (they all share the same room number).
Room extension can be any Norstar/BST extension or analogue telephone connected to an ATA or an AEM.
- **Hospitality Services admin telephone:** A HS admin telephone is any two-line display Norstar/BST extension. A HS admin telephone can be programmed to require a user to enter the Desk admin password before access to HS admin features is granted. To change the Desk admin password see "Hospitality passwords" on page 174.

Alarm time (AL) feature

The Alarm time feature provides an alarm clock capability on Norstar/BST extensions and analogue telephones connected to an ATA. Both room extensions and common extensions can be programmed to sound an audible alert at a requested time.

One Alarm time within a 24-hour period is programmable on a room or common extension and must be reset daily. When the alarm sounds, all telephones in a given room alert. Cancelling the alarm on any telephone cancels the alarm on all the telephones in the room. A new Alarm time entered on a room or common extension overwrites any previously-set alarm.

If the Modular Plus system experiences a mains failure, the failure can result in missed Alarm times. When the Modular Plus system is running and the system time resets, the missed Alarm times alert on respective room or common extensions. At all times, the Modular Plus system allows up to a maximum of 24 extensions that can alert at the same time.

Programming the Alarm time feature

To programme the Alarm time feature on display telephones:

1. Press **[e] 8 7 5**. The display shows **Alarm: 07:00am OFF**.
2. Correct or change the alarm time.
 - If the alarm time is correct press **ON/OFF**. The display shows **Alarm:07:00am ON**. Press **DONE** to exit.
 - To enter a new alarm time press **CHG**. The display shows **Enter time:**.
3. Enter a new four-digit alarm time.
 - If the 24-hour clock format is used (hour: 00 to 23 and minutes: 00 to 59), no confirmation is required. The display shows **Alarm ON hh:mm**.
 - If the 12-hour format is used, the display shows **hh:mm AM or PM?**. Press the **AM** or **PM** display key. The display shows **Alarm ON hh:mm**.

To programme the Alarm time feature on M7000/T7000 telephones or on an analogue telephone:

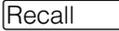
1. Press  8 7 5 on the T7000 telephone, or  * 8 7 5 on an analogue telephone. A tone sounds.
2. Enter a four-digit alarm time.
 - If the 24-hour clock format is used (hour: 00 to 23 and minutes: 00 to 59), a tone sounds.
 - If the 12-hour format is used, press  to select am or  to select pm. A tone sounds.

At the selected times, telephones in the room ring to wake-up or remind the occupant of the next event or meeting. If Music on hold is programmed for the system, the occupant will hear music when they answer a wake-up call.

Changing or cancelling an earlier selected Alarm time

To set a new time for an Alarm time, re-enter a new Alarm time. The new time overwrites any earlier set time. Cancelling the Alarm time for any telephone cancels the Alarm time for all the telephones in the same room.

Cancelling the alarm

- To cancel the Alarm time on a display telephone, press  # 8 7 5. The display reads **Alarm off**.
- To cancel the Alarm time on an M7000/T7000 telephone, press  # 8 7 5.
- To cancel the Alarm time on an analogue telephone, press  # 8 7 5.

Turning off the Alarm

When a telephone rings at the selected time, the occupant can release the Alarm ring as follows:

- On a Norstar/BST extension, press any key except .
- On an M7000/T7000 telephone, press any key except the  key.
- On an analogue telephone, lift the handset, and then replace it back into position.

Note: If the user presses the  key when the telephone rings, it temporarily deactivates the Alarm (snooze). After a number of minutes, the telephone will alert again. If the user is on a call when the alarm sounds they can press any key except  to cancel the alarm and maintain their active call.

Hospitality Services admin alarm feature

Only an Hospitality Services (HS) admin telephone can use the Hospitality Services admin alarm feature. The HS admin alarm feature controls only room extensions.

The Hospitality Services admin feature can:

- query the current or last alarm time set for a room
- overwrite previous Alarm time programming for a room on the system
 - assign an Alarm time for any room on the system
 - change an Alarm time for any room on the system
 - cancel an Alarm pending for any room on the system

To programme the Alarm time for a room with the Hospitality Services admin alarm feature:

1. Press     on a two-line display Norstar/BST extension.
2. If configured, the display reads **password#:**. Enter the Desk admin password.
3. The display reads **Al of rm#:**. Enter the room number.
4. Press VIEW. The display shows **Alarm: 07:00am OFF:**.
5. If the alarm time is correct press the **ON/OFF** display key to activate the alarm.
6. Enter a four-digit alarm time.
 - If the 24-hour format is used (hour: 00 to 23 and minutes: 00 to 59), no confirmation is required. The display shows **Alarm hh:mm ON.**
 - If the 12-hour format is used, the display shows the four-digit time plus **AM or PM?**. Press the **AM** or **PM** display key. The display shows **Alarm hh:mm am or PM ON.**
7. Press the  key to exit programming.

Room occupancy (RO)

The Room occupancy (RO) feature allows front desk operators to assign dialling restrictions to room extensions, and also works with the Room condition (RC) feature.

Dialling permissions for room extensions, defined in **Restrictions** under **Terminals&Extns** and **Call Permissions** under **Hospitality** in **System Programming**, replace dialling filters set under **Services**. The RO feature does not apply to common extensions.

The RO feature uses the following room states:

- **Vacant** Room is empty.
- **Basic** Room is occupied, and occupants can access basic callout features.
- **Mid** Room is occupied, and occupants can access basic callout features, plus other specified features, for instance, toll-free calling.
- **Full** Room is occupied and occupants can access all call features allowed on the system.

A dialling filter can be assigned to each room state to provide permission control for outgoing calls from the room. The default setting is **Vacant**.

Programming the state of a room extension

To access the Room Occupancy feature and assign the state of a room extension:

1. Press **[*] [8] [7] [9]** on a two-line display Norstar/BST extension.
2. If configured, the display reads **Password#:**. Enter the Desk admin password.
3. The display reads **Occ of rm#:**. Enter the room number and press **OK** or **LIST**.
4. The display reads **rrrrr:Vacant**. Press the **CHANGE** display key and select the required status for the room extension: Vacant, Basic, Mid or Full. The default setting is **Vacant**.
5. To programme other rooms, press the **FIND** or **NEXT** display key and return to step 3. If no more rooms require programming, press the **[*]** key to exit programming.

Note: Programming a room to Vacant state cancels any outstanding alarms.

Room condition (RC)

The Room condition (RC) feature allows users to exchange information about the serviced state of a room. Users are front desk attendants and cleaning or maintenance personnel of an establishment. The RC feature is not available from a common extension.

The Modular Plus system maintains a database of the state of each room. This database is accessed from either the room extension or a Hospitality Services admin telephone. You can set a Room Condition password to limit access to this features. See "Room condition password" on page 174.

Room extensions can:

- set the associated room state to Service done (**Srvc done**)
- set the associated room state to Needs service (**Needs srvc**)
- query the state of the associated room on a telephone with a display.

Hospitality Services admin telephones can:

- set any room state to Service done (**Srvc done**)
- set any room state to Needs service (**Needs srvc**)
- query the state of any room.

The system changes the state of occupied rooms to Needs service on a daily basis at a set time that is configured in the system.

Maintenance personnel programme the condition of the room to Service done when service in the room is complete.

The front desk attendant can query or programme the condition of a room with a Hospitality Services admin telephone. The Modular Plus system automatically sets the status of a room to **Needs srvc**, when a Room occupancy status changes from Basic, Mid or Full to **Vacant**.

Room condition with a room extension

To update the Room condition using a room extension:

1. Press     on a Norstar/BST extension.
 Press     on any M7000/T7000 telephone.
 Press      on an analogue telephone.
2. At the prompt, enter the status of the room.
 - Press  on the dialpad to indicate *Set to srv done*.
If required, enter the Room condition password.
 - Press  on the dialpad to indicate *Set to needs srv*.
If required, enter the Room condition password.
3. On a display telephone the display reads *Set to srv done* or *Set to needs srv*. On any M7000 or T7000 telephone or analogue telephone, replace the handset to exit.

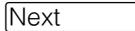
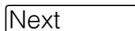
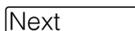
Room condition with a Hospitality service admin telephone

To update or query the Room condition using a Hospitality services admin telephone:

1. Press     on a two-line display Norstar/BST extension.
If configured, the display reads *Password#:*.
2. Enter the Desk admin password.
The display reads *Cd of rm#:*.
3. Enter the room number and press OK.
The display reads *rrrrr:Vacant*.
4. Press the CHANGE display key and select the required status for the room extension:
 - if the room is occupied, select *Srvc done* or *Needs srvc*
 - if the room is vacant, select *Vacant* or *Needs srvc*.
The default setting is **Vacant**.
5. To update or query other room extensions, press the FIND or NEXT display key and return to step 3. If there are no more room extensions updates or queries, press the  key to exit programming.

Service time

The **Service time** heading under **Hospitality** in **System Programming** allows you to programme the time when occupied rooms change state from Service done to Service required. The **Service time** heading is an integral part of the Room condition (RC) feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press  * * C O N F I G . The display reads **Password:**.
3. Press       (SAPLUS). The display shows **Terminals&Extns.**
4. Press  until the display reads **System Programming**.
5. Press  . The display shows **Hunt groups**.
6. Press  until the display shows **Hospitality**.
7. Press  . The display shows **Room/desk info**.
8. Press  until the display shows **Service time**.
9. Press  . The display shows **Hour:00**.
10. Press the **CHANGE** display key and enter the hour (00 to 23).
If the number is less than 13, the display shows **AM**. Press **CHANGE** to select **PM**.
11. Press  . The display shows **Minutes:00**.
12. Press the **CHANGE** display key and enter the minutes (00 to 59).
13. Press the  key to exit programming.

Software Keys

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Viewing the system ID

You can view the system ID during a programming session in **Software Keys**.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Software Keys**.
5. Press . The display shows **Sys ID:** followed by the unique system ID number.
6. Press to exit or to continue in programming.

Software Keys

Software Keys are provided by your system installer.

You are given three keys (passwords), consisting of eight digits each. These numbers are entered in the Modular Plus system through programming using the Prime telephone and the Software Keys heading. Once the Software Keys are entered, the system makes the corresponding capability available.

Record the passwords in the *Modular Plus Programming Record*. You need the numbers to restore an upgraded system after a cold start.

Entering the Software Keys

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Software Keys**.
5. Press . The display shows **Sys ID:**.
6. Press . The display shows **Password keys**.
7. Press . The display shows **Key 1:**.

8. Enter the eight-digit password number for Key1. Use **BACKSPACE** to make corrections. As soon as the eighth digit is entered, the display shows **Key 2:**.
9. Enter the eight-digit password number for Key 2. The display shows **Key 3:**.
10. Enter the eight-digit password number for Key 3.
11. Press **OK**. The display shows **Entry successful**.
12. Press  to exit or to continue in programming.

Setting System speed dial

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Setting System speed dial

Speed dial saves time by allowing you to dial frequently-called numbers using a three-digit code. For example, you can programme telephone numbers for major suppliers or clients for easy dialling by everyone in the office.

Speed dial codes numbered from 001 to 255 are intended for system-wide use. Speed dial codes from 256 to 279 are for personal use and can be programmed differently at each telephone. See ‘Changing a Personal (user) speed dial code’ on page 115 for more information on the Speed dial feature.

The steps to programming System speed dial are:

- assign a number to a System speed dial code
- select an outgoing facility to be used for the number
- set whether the system displays the number or a name (optional)
- set whether the speed dial number bypasses any restrictions on the line or telephone where it is used (optional).

See ‘Chart 1: System speed dial’ on page 326 of Appendix A for a programming overview. See ‘Using Speed Dial’ on page 225 for information on using the System speed dial feature.

Assigning a number to a System speed dial code

First, choose a three-digit speed dial code (from 001 to 255) and then assign a telephone number to it.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press **☎ * * 2 6 6 3 4 4** (CONFIG). The display shows **Password :**.
3. Press **7 2 7 5 8 7** (SAPLUS). The display shows **Terminals&Extns.**
4. Press **Next** until the display shows **Sys speed dial**.
5. Press **Show**. The display shows **Speed dial #:**.
6. Enter the system Speed dial code (001 to 255).
7. Press **Show**. The display shows the number currently assigned to the code, or **No number**.
8. Press **CHANGE**.
9. Enter the telephone number (up to 24 digits) and press **OK**.

Selecting a line

After assigning a telephone number to the speed dial code, you must select an outgoing facility for the number to use. Choose either a Prime line, an exchange line, a line pool, or the routing table.

When you programme a line pool as part of a speed dial number, use the programme key labelled Intercom and the line pool access code, or a programmed line pool key.

If you assign a specific line to a system speed dial number, only telephones with an appearance of that line can use the speed dial number.

1. Begin with the display showing the speed dial code you just changed (at the end of step 9 of the previous procedure).
2. Press . The display shows **Use Prime line**.
3. Press **CHANGE** to choose **Use prime line**, **Use routing tbl**, **Use line**, or **Pool code**. Stop pressing **CHANGE** when you see the line you want to use for the speed dial.
4. Press to exit or to continue in programming.

Setting the speed dial to display a name

When you use a speed dial code, you can choose to have the display show either the telephone number or a name. For example, you could programme a speed dial for a frequently used courier and have the display show **Courier** instead of the telephone number. System speed dial names can be 16 characters long. The default is set to display the number.

Alpha tagging: If you specify a name for a system speed dial, and your system is set up for CLI display, an incoming call on a number-only CLI line that matches the system speed dial number will display whatever name you entered into the system speed dial name field. This is referred to as alpha tagging. You can determine how many digits of the incoming call and the number entered into the system speed dial must match before the system determines that the numbers are the same. Refer to ‘CLID Match’ on page 144.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns**.
4. Press until the display shows **Sys speed dial**.

5. Press . The display shows **Speed dial#:**.
6. Enter the system Speed dial code (001 to 255) you want to use.
7. Press . The display shows the number currently assigned to the code, or **No number**.
8. Press until the display shows **Display digits:**.
9. Press **CHANGE** to choose **N** (No).
No means the display shows a name for the code.
10. Press . The display shows **Name:Sys spd di...**
(Press to see the rest of the display.)
11. Press **CHANGE**. The display shows **Name:**.
12. Enter the name you want to give to the Speed Dial code.

Enter the name by pressing the appropriate key on the dialpad until the first letter of the name is displayed. Press -->, then enter the next letter of the name, and so on. Up to 16 characters are allowed. Press # to add spaces.
13. Press to exit or to continue in programming.

CLID name display (alpha tagging)

If your system allows name display, you can specify a name for a System Speed dial, and when an outside call comes in over a number-only analogue line or target line that matches the system speed dial number, the name of that speed dial displays. If you do not specify a name for the system speed dial, only the number or line displays.

Note: For name display to occur, the calling number must also match the system speed dial entry, as defined under CLID match. Refer to "CLID Match" on page 144.

To program the order that the name appears on your telephone, follow these steps:

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn**.

6. Press . The display shows **Line access**.
7. Press until the display shows **Call Services**.
8. Press . The display shows **Auto Call Services**.
9. Press . The display shows **1stDisplay**.
10. Press **CHANGE** until you get to Name.
11. Press **OK**.
12. Press to exit or to continue programming.

Setting the speed dial number to bypass restrictions

System speed dial numbers are generally subject to any restrictions that are programmed in the Modular Plus system, but they can be programmed to bypass these restrictions. The default setting is N (No), which means the number is subject to normal call restrictions.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns**.
4. Press until the display shows **Sys speed dial**.
5. Press . The display shows **Speed dial #:**.
6. Enter the System speed dial code (001 to 255).
7. Press . The display shows the number currently assigned to the code, or **No number**.
8. Press until the display shows **Bypass restr'n:**.
9. Press **CHANGE** to choose Y (Yes) or N (No).
10. Press to exit or to continue in programming.

Naming extensions and lines

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Naming extensions

You can personalise your office communications by assigning names to lines and extensions in the Modular Plus system.

The extension default name is the extension number (for example, **Extn 221**). The line default name is the line number (for example, **Line 001**).

Names can be seven characters long. Line and extension names can contain both letters and numbers, but not # or *. To avoid confusion, do not assign the same name to two extensions, two lines, or to both an extension and a line in your system. Use creative combinations of initials, abbreviations, or even nicknames, to give each extension a unique name.

As the administrator, you can programme the system so that when you enter an internal extension number the name appears on your telephone display. At the same time, the person you are calling sees your name on their display.

See 'Chart 2: Naming extensions' on page 326 of Appendix A for a programming overview.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press until the display shows **Name#:**.
8. Press **CHANGE**.
9. Enter the characters of the name using the keypad by pressing **-->** after each letter, or press to restore the default name.
10. Press to store the name.
11. Press to exit or to continue in programming.

Naming lines

Assigning names to lines can help you identify incoming calls. For example, if both the Sales line and the Service line ring at your extension, your display shows which line the call is on, **Sales** or **Service**, when the line key is pressed or the handset is lifted.

If the Sales department is in a meeting and they forward their lines to your extension, the telephone display shows **Sales** for any incoming calls on their lines.

See ‘Chart 3: Naming lines’ on page 327 in Appendix A, for a programming overview.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Lines.**
5. Press . The display shows **Show line:**.
6. Enter the line number. The display shows the current name.
7. Press . The display shows **Name:**
8. Press **CHANGE**.
9. Enter the characters of the name using the keypad or press to restore the default name.
10. Press to store the name.
11. Press to exit or to continue in programming.

Changing the time and date

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Changing the time and date

The system time and date appear on the display of idle Business Series Terminals (BST) and Norstar telephones. M7100N/T7100 telephones connected to an Analogue Terminal Adapter cannot display the time and date. If the mains power is interrupted, you have to reset the time and date.

Note: You only need to change the time and date at one Norstar/BST telephone and the clock resets for the entire system.

If you have BRA lines then your time and date automatically corrects itself when an outgoing call is answered. See 'Automatic Time&Date' on page 76.

The clock also controls the schedules used for services, such as ringing and routing.

After a power failure, the clock is behind by the length of time the power was lost. For example, if the power is out for two minutes, the clock is two minutes behind.

To quickly change the time one hour ahead or one hour back, use ****FWD** or ****BACK** features on 'Changing the time by an hour' on page 76.

Changing the time

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press until the display shows **Time&Date.**
5. Press . The display shows **Hour:**.
6. Press **CHANGE** (or **NEXT** if you do not need to change the hour).
7. Enter the hour (00 to 23). If the number is less than 13, the display shows **AM**. Press **CHANGE** to select **PM**.
8. Press **OK**.
9. Press . The display shows **Minutes:**.
10. Press **CHANGE**.
11. Enter the minutes (00 to 59).
12. Press to exit or to continue in programming.

Changing the date

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press until the display shows **Time&Date.**
5. Press . The display shows **Hour:**.
6. Press twice. The display shows **Year:**.
7. Press **CHANGE**.
8. Enter the last two digits of the current year.
9. Press . The display shows **Month:**.
10. Press **CHANGE**.
11. Enter the month (01 to 12).
12. Press . The display shows **Day:**.
13. Press **CHANGE**.
14. Enter the day of the month (01 to 31).
15. Press to exit or to continue in programming.

Changing the time and date using the Basic password

You can change the time and date using * * 8 4 6 3 (TIME) and the Basic password.

1. Press * * 8 4 6 3 (TIME). The display shows **Password:**.
2. Press * * 2 2 7 4 2 (BASIC). The display shows **Hour:**.
3. Press **CHANGE** (or **NEXT** if you do not need to change the hour).
4. Enter the hour (00 to 23). If the number is less than 13, the display shows **AM**. Press **CHANGE** to select **PM**.
5. Press **NEXT**. The display shows **Minutes:**.
6. Press **CHANGE** (or **NEXT** if you do not need to change the minutes).
7. Enter the minutes (00 to 59).
8. Press **NEXT**. The display shows **Year:**.
9. Press **CHANGE** (or **NEXT** if you do not need to change the year).
10. Enter the last two digits of the current year.
11. Press **NEXT**. The display shows **Month:**.
12. Press **CHANGE** (or **NEXT** if you do not need to change the month).

13. Enter the month (01 to 12).
14. Press **NEXT**. The display shows **Day:**.
15. Press **CHANGE**.
16. Enter the day of the month (01 to 31).
17. Press  to exit.

Changing the time by an hour

Modular Plus offers two features that allows you to adjust the time quickly for changes in British Standard Time.

Moving one hour forward with ** FWD

1. Press  * * 3 9 3 (FWD). The display shows **Forward by 1Hr?**.
2. Press **YES**. The display briefly shows **Time Changed**.

Moving one hour backward with ** BACK

1. Press  * * 2 2 2 5 (BACK). The display shows **Backward by 1Hr?**.
2. Press **YES**. The display briefly shows **Time Changed**.

Automatic Time&Date

When an outgoing BRI or a PRI call is answered, the network may provide time and date information to the Modular Plus system. The Auto Time&Date feature enables the Modular Plus system to use this information to automatically update the time and date for the Modular Plus system.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press  * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press 7 2 7 5 8 7 (SAPLUS). The display shows **Terminals&Extns**.
4. Press until the display shows **System Prgrming**.
5. Press . The display shows **Hunt groups**.
6. Press until the display shows **Featr settings**.
7. Press . The display shows **Backgrnd music:**.
8. Press until the display shows **AutoTime&Date**.
9. Press **CHANGE** to choose Y or N.
10. Press  to exit or to continue programming.

Assigning a Direct-Dial extension

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Programming Direct-Dial

Direct-Dial allows you to dial a designated telephone in your Modular Plus system or private network, with a single digit. The Direct-Dial digit is the digit you dial to reach an attendant in your office. You can have up to five Direct-Dial extensions in your Modular Plus system. A person whose telephone is a Direct-Dial extension is usually a receptionist for your entire office or for a particular department.

The Direct-Dial telephone can send up to 30 messages and can invoke Services to activate the extra-dial telephone.

You can forward calls to a Direct-Dial telephone that is outside your Modular Plus system if the Direct-Dial configuration is set to use a routing table or a prime line, where the prime line is set to Intercom. An example of this, is one of your direct-dial telephones is configured on another system that is part of a private network. Even though the telephone is on the private network, the system considers it an external telephone.

Note that ISDN terminals cannot use the Direct-Dial digit to reach a Direct-Dial extension.

For information about which telephones can access the Direct-Dial extension, see ‘Assigning telephones to the Direct-Dial extension’ on page 107.

See ‘Chart 5: Direct-Dial’ on page 328 in Appendix A for a programming overview.

See ‘Programming Direct-Dial’ on page 78 for information on using the Direct-Dial feature.

Programming an internal Direct-Dial extension

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System Prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Direct-dial.**
7. Press . The display shows **D-Dial1:Intrnl.**
8. Press . The display shows **Intrnl #:**.
9. Press **CHANGE**.
10. Enter the extension number.
11. Press to exit or to continue in programming.

Programming an external Direct-Dial extension

When you assign an external number as the Direct-Dial extension, you must also specify whether to use a Prime line, exchange line, line pool or routing table to place the call.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Direct-dial.**
7. Press . The display shows **D-Dial1:Intrnl.**
8. Press **CHANGE** to switch to **Extrnl.**
9. Press . The display shows **Extrnl#:**.
 Note: If the direct-dial telephone is on another system in a private network, it is still considered an external number by the system. Use the private network dialing string for that extension in this field.
10. Press **CHANGE**, then enter up to 24 digits for the external number.
11. Press **OK**. The display shows the number you have entered.
12. Press . The display shows the facility.
13. Press **CHANGE** until the display shows the facility you want.
 Options are: **Use prime line**, **Use line**, **Pool code**, or **Use routing tabl.**

ATTENTION!

If you want to be able to forward calls to an external direct-dial telephone, the facility needs to be set to use the routing table or a prime line, where the prime line is set to Intercom.

14. If you choose **Use line** or **Pool code**, you must enter a line number or pool code. If you choose **Use routing tabl**, you must enter a destination code.
15. Press to exit or to continue in programming.

Barring calls and privileges (Restrictions)

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Using restriction filters to bar calls

Restrictions are digits that the system does not accept during dialling. Overrides are digits that the system accepts in spite of the restrictions. Groups of restrictions and overrides are programmed into Restriction filters.

Rather than define individual restrictions and apply them repeatedly to each telephone and line, a restriction filter allows you to apply restrictions as a single package of dialling sequences that are not permitted.

Different filters can be applied to

- lines, to prevent telephones that share a line from dialling restricted numbers
- extensions, to prevent a specific telephone from dialling restricted numbers
- a combination of line and extension, to allow specific telephones to be exempt from the line filter.

For example, a manager and four employees share a line but the employees have a line/extension filter that restricts the calls they can make on that line.

- AC15A private circuits, to prevent people from using your network to make restricted calls

The number of restriction filters that you have for your system depends on a number of factors. You may want to have different restrictions for different times of the day (such as barring long-distance calls after work hours). You may want different restrictions for a telephone that clients may use.

Default filters

You may not have to create or change a filter. Some of the more popular filters that restrict long-distance calls exist by default. The following table shows the default restriction filters that the Modular Plus system provides.

Filter 01 prevents you from dialling any number that begins with 0 or 1, except when the number begins with 0-800.

Filter 05 prevents you from dialling any number that begins with 010, 1, and 00.

Filter 06 prevents you from dialling numbers that begin with any digit.

Filters 04, 31, 32, 33 are used for Line Redirection. If you add restrictions to them it will affect the Line Redirection function.

Restriction filter defaults

Filter	Restrictions (denied)	Overrides
00	No restrictions (cannot be changed)	
01	01: 0 02: 1	001: 0800
02	No restrictions	
03	No restrictions	
04, 31, 32, 33	No restrictions	
05	01: 010 02: 1 03: 00	
06	01: • (the dot represents any digit)	
07 - 99	No restrictions or overrides programmed	

Note: Emergency numbers 000 and 1144 can be restricted in any filter.

Customising a call barring filter

You can customise default filters for your needs before you apply them. You can

- create a new restriction filter
- add or remove restrictions
- add or remove overrides

Rules for adding and creating filters

- You can have up to 100 restriction filters.
- There is a maximum of 400 restrictions and overrides allocated to the 100 programmable filters.
- Each programmable filter can have up to 48 restrictions. There is no limit on the number of overrides that can be allocated to a restriction.
- You can use any restriction or override in more than one filter. Each time it is used, it counts as one entry. For example, if restriction 411 exists in filters 01, 02 and 03, it uses up three of the 400 entries available.
- The maximum length of a restriction is 15 digits. The maximum length of an override is 16 digits.
- You can use and in a sequence of numbers in either a restriction or an override. These characters are often used as part of feature codes for other systems or for features provided by the PSTN.
- The solid dot (•) can represent any digit. It is inserted by pressing the display key under **ANY**.

- When you are finished programming restrictions for one telephone, you can copy those settings to other telephones by using **COPY** at the **Restrictions** display. For more information about copying telephone programming, see ‘Copying programming for telephones’ on page 147.
- You cannot delete a filter but you can delete a restriction within a filter. Removing the restrictions programmed on a filter makes it an unrestricted filter but the filter itself is not removed.

ATTENTION!

Removing a restriction changes the identifying number of the restriction.

Removing a restriction removes the overrides associated with it, and changes the identifying number of the restriction. For example, removal of restriction 01 renumbers restrictions 01 to 08 as 01 to 07.

Applying restriction filters

Once you create the filters, you can assign the restrictions to a telephone (under **Terminals&Extns**), to a line (under **Lines**), to a particular line on a telephone (under **Terminals&Extns**), and to remote callers (under **Remote access**).

To assign restriction filters for different times of the day, see ‘Restriction service’ on page 160.

See ‘Chart 6: Restriction filters’ on page 329 in Appendix A for a programming overview.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press **[OK] * * 2 6 6 3 4 4** (CONFIG). The display shows **Password :**.
3. Press **[7] [2] [7] [5] [8] [7]** (SAPLUS). The display shows **Terminals&Extns**.
4. Press **[Show]**. The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn**.
6. Press **[Show]**. The display shows **Line access**.
7. Press **[Next]** until the display shows **Restrictions**.
8. Press **[Show]**. The display shows **Restrtn filters**.
9. Press **[Show]**. The display shows **Show filter:**
10. Enter the two-digit code or press **[Next]**.
11. Press **[Show]**.
12. Use **REMOVE**, **ADD**, the dialpad, and **OK** to change the restrictions for the filter.

13. Press , then to see the overrides for the restriction.
14. Use **REMOVE**, **ADD**, the dial pad, and **OK** to change the overrides for the restriction.
15. Press to quit or to continue in programming.

Assigning filters to a telephone (Extn restrns)

Extension restrictions allows you to assign a restriction filter to a telephone to prevent certain numbers from being dialled from that telephone. You can assign a different restriction filter for normal service and for each of six schedules.

See 'Using alternate or scheduled services' on page 158 for more information about the schedules.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press until the display shows **Restrictions.**
8. Press . The display shows **Restrtn filters.**
9. Press . The display shows **Extn restrns.**
10. Press . The display shows **Filters.**
11. Press . The display shows **Normal:**
12. Press **CHANGE** and use the keypad to enter the number of the restriction filter to be assigned to the telephone for each schedule. The following table shows the default restrictions.

Default filters for extensions

Schedule	Restriction filter
Normal	02
Sched 1 (Night)	11
Sched 2 (Evening)	12
Sched 3 (Lunch)	13
Sched 4	00
Sched 5	00
Sched 6	00

This means, for example, that if you enter a set of restrictions for filter 11, they are automatically applied when the Night schedule is in use.

13. Press to quit or to continue in programming.

Assigning filters to a line (Line restrns)

Line restrictions allows you to assign a restriction filter to a line to prevent certain numbers from being dialled from any telephone with that line appearance. You can assign a different restriction filter for normal service and for each of six schedules. See ‘Using alternate or scheduled services’ on page 158 for more information about the schedules.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Lines.**
5. Press . The display shows **Show line:**.
6. Enter the line number.
7. Press . The display shows **Name:**.
8. Press until the display shows **Restrictions.**
9. Press . The display shows **Restrtn filters.**
10. Press . The display shows **Line restrns.**
11. Press . The display shows **Normal:**.
12. Press **CHANGE** and use the dial pad to enter the number of the restriction filter to be assigned to the line for each schedule. The following table shows the default restrictions.

Default Filters for extensions

Schedule	Restriction filter
Normal	03
Sched 1 (Night)	21
Sched 2 (Evening)	22
Sched 3 (Lunch)	23
Sched 4	00
Sched 5	00
Sched 6	00

This means, for example, that if you enter a set of restrictions for filter 21, they are automatically applied when the Night schedule is in use.

13. Press  to quit or to continue in programming.

Assigning filters to a specific line or extension

Line/extension restrictions allow you to assign a restriction filter to a specific line that can be used for outgoing calls at a specific telephone. This type of filter replaces any line or extension restriction filters that might otherwise apply. It restricts the numbers you can dial on a line, but only from that telephone. The same line on another telephone can have different restrictions.

As with extension restrictions, you can apply a different line or extension restriction for normal service and for each of the six schedules.

A maximum of 255 line/extension restrictions may be applied to lines at telephones.

If a line/extension restriction is assigned to a line at a particular telephone, it overrides any line restrictions or extension restrictions that might otherwise apply.

If no line/extension restrictions have been defined, the numbers are checked against the extension restrictions and the line restrictions, if either of these have been defined. The numbers may be rejected by either restriction.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press  * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press 7 2 7 5 8 7 (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press until the display shows **Restrictions.**
8. Press . The display shows **Restrtn filters.**
9. Press until the display shows **Line/extn restrn.**
10. Press . The display shows **Show line:**.
11. Enter the line number.
12. Press . The display shows **Normal:**.

13. Press **CHANGE** and use the dial pad to enter the number of the filter to be assigned as the line/extension restriction for each schedule. There are no default line/extension restrictions.
14. Press  to quit or to continue in programming.

Class of service passwords

Call barring shows you how to customise and apply dialling filters to restrict calls. You can temporarily override these filters with a Class of service (COS) password. COS passwords replace one set of filters with another to allow someone to make calls that would otherwise be restricted, without giving them complete freedom to make every kind of call. COS passwords let you define individual passwords and determine the restriction filter and remote package associated with each.

A system can have a maximum of 100 six-digit COS passwords, ranging from 00 to 99. Each password consists of a user filter, which replaces the current extension or line/extension filter, and a line filter, which replaces the current line filter.

Your COS password is in effect only for the duration of your call and does not affect the restrictions placed on other users of the system.

COS passwords for a system should be determined randomly and should be changed regularly. Employee COS passwords should be deleted when an employee leaves the company.

Typically, each user has a separate COS password. However, several users can share a password or one user can have several passwords. Users should memorise their COS passwords instead of writing them down.

You can use **COPY** and the keypad to copy the restriction filters and remote package from one COS password to another. COS passwords must be unique.

Before you begin programming a COS password, make sure you have defined the appropriate restriction filters in **Restrictions** under **Lines**. Then check that you have created a suitable remote package in **Remote access** under **System programming**.

See 'Using Class of service passwords' on page 257 for information about using this feature.

Selecting a COS password

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press . The displays shows **Show Pswd #:**.
7. Enter a two-digit password (00 to 99).
8. Press . The display shows the setting for that COS password.
9. Press **CHANGE**.
10. Enter a password (maximum six digits).
11. Press to exit or to continue in programming.

Assigning user restrictions to the COS password

A COS password can be used by internal and external users, therefore, you must assign restrictions for the user instead of for the extension.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press . The displays shows **Show Pswd #:**.
7. Enter a two-digit password (00 to 99).
8. Press . The display shows the setting for that COS password.
9. Press . The display shows **User flt:**.
10. Press **CHANGE**.
11. Enter the number for the restriction filter to be applied with this COS password.
12. Press to exit or to continue in programming.

Assigning line restrictions to the COS password

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press . The displays shows **Show Pswd #:**.
7. Enter a two-digit password (00 to 99).
8. Press . The display shows the setting for that COS password.
9. Press until the display shows **Line flt:**.
10. Press **CHANGE**.
11. Enter the number for the restriction that applies to the line when this COS password is used.
12. Press to exit or to continue in programming.

Assigning a remote package to the COS password

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press . The displays shows **Show Pswd #:**.
7. Enter a two-digit password (00 to 99).
8. Press . The display shows the setting for that COS password.
9. Press until the display shows **Remote Pkg:**.
10. Press **CHANGE**.
11. Enter the number of the remote package that applies with this COS password.
12. Press to exit or to continue in programming.

Assigning a remote access filter

People on other systems in your private network can dial into your system over AC15A private circuits or exchange lines and make outgoing calls from your system. Therefore, you may want to limit the numbers that can be dialled over AC15A private circuits and exchange lines. You do this by assigning a remote access filter to the AC15A private circuits or exchange lines.

See 'Chart 7: Remote access packages' on page 330 in Appendix A for a programming overview.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Remote access.**
7. Press twice. The display shows **Show pkg.:**
8. Enter a package number.
9. Press . The display shows **LinePool access.**
10. Press . The display shows **Pool A:**.
11. Press **CHANGE** to choose Y (Yes) or N (No).
12. Press .
13. Press . The display shows **Remote page:**.
14. Press **CHANGE** to choose Y (Yes) or N (No).
15. Press twice.
16. Press . The display shows **Rem access pkgs.**
17. Press . The display shows **Rem line access.**
18. Press . The display shows **Show line:**.
19. Enter the number of the AC15A private circuit (241 to 254). The display shows the line number followed by **Rem pkg.**
20. Press **CHANGE**.
21. Enter the number of the remote package that you just created.
22. Press to exit or to continue in programming.

Changing an existing COS password

To maintain the security of a Class of service password, it is a good idea to change it frequently.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password #:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press . The display shows **Show Pswd #:**.
7. Enter the password number of the COS password you want to change (00 to 99).
8. Press . The display shows **Pswd**, followed by the number you chose and the current password.
9. Press **CHANGE**.
10. Enter six digits for the new password.
11. Press to exit or to continue in programming.

Changing the filters assigned to an existing COS password

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password #:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press . The display shows **Show Pswd #:**.
7. Enter the password number of the COS password whose filter you want to change (00 to 99).
8. Press . The display shows **Pswd**, followed by the number you chose and the current password.
9. Press . The display shows **User flt#:** and the current setting.
10. If you are changing the user filter, press **CHANGE**. The display shows **User fltr#:**.

11. Enter the two-digit number of an existing dialling filter or leave blank to return to the default filter.
12. Press . The display shows **Line fltr:** and the current filter assigned.
13. If you are changing the line filter, press **CHANGE**. The display shows **Line fltr:**.
14. Enter the two-digit number of an existing dialling filter or leave blank to return to the default filter.
15. Press to exit or to continue in programming.

Erasing an existing COS password

When a COS password is no longer needed, you can erase it.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press . The display shows **Show Pswd #:**.
7. Enter the password number of the COS password you want to erase (00 to 99).
8. Press . The display shows **Pswd**, followed by the number you chose and current password.
9. Press **CLR**.
10. Press .
11. Press to exit or to continue in programming.

Locking an extension

You can limit the number of features that can be used or programmed at a particular extension. The options are:

- **None** (default)—not locked. You can programme any system or extension setting.
- **Full**—fully locked. You can programme only these settings: display contrast, ring type, ring volume, and volume control.
- **Partial**—partly locked. You can programme most extension settings. You cannot programme system settings, Personal Speed Dial codes, dialling mode, or memory keys, and you cannot move line keys or enable Voice Call Deny.

Note: Do not apply extension lock to the telephone you use to programme the system. There must be at least one two-line display telephone in the system that has Extension Lock set to None, or you will not be able to programme the system.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn**.
6. Press . The display shows **Line access.**
7. Press until the display shows **Restrictions.**
8. Press . The display shows **Restrtn filters.**
9. Press . The display shows **Extn restrns.**
10. Press . The display shows **Filters.**
11. Press . The display shows **ExtnLock:**.
12. Press **CHANGE** to select **None**, **Full**, or **Partial**.
13. Press to exit or to continue in programming.

Preventing Last Number Redial

Under some conditions, a telephone may be used by customers or clients. You can prevent non-employees from accessing sensitive numbers by blocking certain features at the telephone. The default setting allows an extension to use the Last Number Redial feature.

See 'Chart 8: Extension restrictions' on page 331 in Appendix A for a programming overview.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn**.
6. Press . The display shows **Line access.**
7. Press until the display shows **Restrictions.**
8. Press . The display shows **Restrtn filters.**
9. Press . The display shows **Extn restrns.**
10. Press . The display shows **Filters.**
11. Press until the display shows **Allow last no:**
12. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
13. Press to exit or to continue in programming.

Preventing Saved Number Redial

The default setting allows an extension to use the Saved Number Redial feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn**.
6. Press . The display shows **Line access.**

7. Press until the display shows **Restrictions**.
8. Press . The display shows **Restrtn filters**.
9. Press . The display shows **Extn restrtns**.
10. Press . The display shows **Filters**.
11. Press until the display shows **Allow saved no:**.
12. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
13. Press to exit or to continue in programming.

Preventing Recall

The default setting allows an extension to use the Recall feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns**.
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn**.
6. Press . The display shows **Line access**.
7. Press until the display shows **Restrictions**.
8. Press . The display shows **Restrtn filters**.
9. Press until the display shows **Extn restrtns**.
10. Press . The display shows **Filters:**.
11. Press until the display shows **Allow recall:**.
12. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
13. Press to exit or to continue in programming.

Preventing Redirect

The default setting allows an extension to use the Redirect feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press until the display shows **Restrictions.**
8. Press . The display shows **Restrtn filters.**
9. Press until the display shows **Extn restrtns.**
10. Press . The display shows **Filters:**.
11. Press until the display shows **Allow redirect:**.
12. Press **CHANGE** to choose Y (Yes) or N (No).
13. Press to exit or to continue in programming.

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Programming an extension

Many features that can be used at individual extensions (see ‘Appendix A: Programming overviews’ on page 323) must first be programmed for use. As the Administrator, you can:

- programme Full and Automatic Handsfree
- assign Pickup Groups to allow colleagues to easily answer calls ringing at a telephone other than their own
- assign page zones so that colleagues can page within their groups without disturbing the whole office
- programme an auxiliary ringer (loud bell) that alerts you when there are incoming calls to an extension
- assign a Direct-Dial extension so your colleagues can reach an attendant by dialling just one digit
- set Call Forward so that all calls are answered when telephones are busy or unanswered
- programme Do Not Disturb on busy
- activate Redirect ring
- assign a Hotline telephone to call one number automatically
- allow Priority call

See ‘Chart 9: Extension capabilities 1’ on page 332 in Appendix A for a programming overview.

Setting Call Forward no answer

When you set the system up to forward calls that are not answered at a particular telephone, you must define the extension that the calls are sent to and the number of times that an incoming call rings before the call is forwarded. You can choose 2, 3, 4, 6, and 10 rings. The default is 4 rings.

Note: If the extension that you are forwarding calls to does not have a free intercom key, or has Do Not Disturb or Do Not Disturb on busy activated, the incoming call continues to visually alert at your telephone, and the caller continues to hear ringback.

If this is not desirable, you can programme a Call Forward on busy or Call Forward no answer destination for the second extension.

For example, extension 224 is programmed to forward all incoming calls to extension 235, which in turn is programmed to forward all incoming calls to extension 240.

Unanswered calls coming in on an outside line are automatically transferred to the Prime extension for that line.

If the extension is a member of a hunt group, the Call Forward no answer feature is overridden and the hunt group call will continue to ring until the hunt time has expired.

A hunt group extension can be a Call Forward on busy extension.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press three times. The display shows **Fwd to:None.**
7. Press **CHANGE** and enter the extension number where you want the calls to be sent. You can press **CLR** to change the destination back to None.
8. Press to exit or to continue in programming.

Changing the number of rings before a call is forwarded

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Capabilities.**
7. Press . The display shows **Fwd no answer#:**.
8. Press . The display shows **Fwd to:nnn.**
9. Press . The display shows **Forward delay#:**.
10. Press **CHANGE** to choose the number of times the telephone rings before it is forwarded: 2, 3, 4, 6, or 10 rings.
11. Press to exit or to continue in programming.

Setting Call Forward on busy

When a call comes in and you are already engaged on the telephone or when you have Do Not Disturb activated at your telephone, Call Forward on busy automatically passes the call to another extension.

If the extension is a member of a hunt group, the Call Forward on busy feature is overridden and the hunt group call will continue to ring until the hunt time has expired.

A hunt group extension can be a Call Forward on busy extension.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Capabilities.**
7. Press . The display shows **Fwd no answer#:**.
8. Press . The display shows **Fwd on busy.**
9. Press . The display shows **Fwd to#:**.
10. Press **CHANGE** and enter the extension number you want to receive the calls. Press **CLR** to change the destination back to **None.**
11. Press to exit or to continue in programming.

Programming Do Not Disturb on busy

When you are busy on a call and a second call comes in, your telephone rings softly to alert you to the second call. If you find this second ring distracting, you can have the system prevent a second call from ringing by assigning Do Not Disturb (DND) on busy to your extension.

When DND on busy is turned on for the extension, internal and private network callers hear a busy tone instead of ringing when you are on the telephone. External callers are transferred to the Prime extension used in your system.

If you use DND on busy, the line indicator for an external incoming call still flashes, but your telephone does not ring.

Forward on busy takes priority over DND on busy.

If an external call uses a DIA line, the call is processed according to the programming of the DIA line. If there are no available appearances of the DIA line, the caller will hear a busy tone.

Note: When using DND on busy with the M7000/T7000 telephones or a telephone connected to an Analogue Terminal Adapter, there is no indication that a second call is ringing on your extension. Putting your first call on hold automatically answers the second incoming call.

If the extension is a member of a hunt group, the DND on busy feature overrides the hunt group. This extension does not receive notification of hunt group calls while on a call.

DND on busy is invoked at an extension using . See 'Do Not Disturb' on page 224 for information about using this feature.

Setting and cancelling Do Not Disturb on busy

You can set or cancel DND on busy for each extension according to personal preference.

The default is Y (Yes, DND on busy is enabled) except for extension 221.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press . The display shows **Capabilities.**
8. Press . The display shows **Fwd no answer#:**.
9. Press twice. The display shows **DND on busy#:**.
10. Press **CHANGE** to choose **Y** (yes) or **N** (No).
11. Press to exit or to continue in programming.

Programming Handsfree

Norstar/Business Series Terminal (BST) telephones allow you to make calls without using the telephone handset. When Full Handsfree operation is programmed for a telephone, a Handsfree/mute key is automatically assigned to the telephone. **Note:** The T7208 and T7316 telephones have a separate Mute button. The T7316E has separate buttons for both Handsfree and Mute, also located under the dial pad.

Once a telephone has Full Handsfree, you can also programme Automatic Handsfree. Automatic Handsfree allows you to make and receive Handsfree calls without pressing the designated Handsfree key.

Note: Handsfree is not available on the M7100N/T7100, M7000/T7000 telephones or a telephone connected by an Analogue Terminal Adaptor.

See 'Using Handsfree' on page 233 for information on using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**
3. Press 2 3 6 4 6 (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press twice. The display shows **Fwd no answer#:**
7. Press until the display shows **Handsfree#:**
8. Press **CHANGE** to choose Auto, Std, or **None**.
9. Press to exit or to continue in programming.

ATTENTION!

The T7316E keystation must be set to Auto to allow the handsfree button work. When a call is answered, the keystation defaults to the last-used answer method.

Programming Handsfree answerback

Handsfree answerback allows you to answer a call without lifting the receiver. It is always turned off for M1700N/T7000 and M7000/T7000 telephones.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press twice. The display shows **Fwd no answer#:**.
7. Press until the display shows **HF answerback#:**.
8. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
9. Press to exit or to continue in programming.

ATTENTION!

The T7316E keystation defaults to the mode that was used for the last call. For instance, if you use a headset to receive a call, the next call defaults to the headset.

Assigning a Pickup group

The Call pickup feature allows you to pick up calls that are ringing at another telephone in your Pickup group. You can assign telephones into one of four Pickup groups. Options for this setting are 1 to 9, and None. The default is None.

Telephones can be put into and taken out of any Pickup group. See 'Answering a telephone using Directed Pickup' on page 234 for information on using this feature.

A hunt group call ringing at an extension that is a member of a Pickup Group can be picked up by any extension in that Call Pickup Group.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**

4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn**.
6. Press twice. The display shows **Fwd no answer**.
7. Press until the display shows **Pickup grp:**.
8. Press **CHANGE** to assign the telephone to Pickup Group 1, 2, 3, 4, 5, 6, 7, 8, 9, or **None**.
9. Press to exit or to continue in programming.

Assigning a page zone

Page zones give you the advantage of paging different parts of the office without disturbing the entire office. You can assign telephones to one of six page zones. (A zone is any set of Norstar/BST telephones that you want to group together for paging, regardless of their location.) The options for this setting are zones 1, 2, 3, 4, 5, 6, or None (no page zone assigned). The default is page zone 1.

Members of a hunt group can be included in a page zone but hunt group extensions (551 to 580) cannot.

You can make a telephone part of a page zone only if that telephone has paging set to **Y** (Yes).

Make sure that everyone who needs to make page announcements has a list showing the telephones that are in each page zone. Keep a master list with your other Programming Records.

See 'Paging' on page 264 for information about using this feature.

Note: You can make an announcement to one person by placing a Voice call () to that person's telephone.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (ADMIN). The display shows **Terminals&Extns**.
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn**.
6. Press twice. The display shows **Fwd no answer**.
7. Press until the display shows **Page zone**.
8. Press **CHANGE** to assign page zone 1, 2, 3, 4, 5, 6, or None.
9. Press to exit or to continue in programming.

Allowing paging

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press twice. The display shows **Fwd no answer.**
7. Press until the display shows **Paging#:**.
8. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
9. Press to exit or to continue in programming.

Assigning telephones to the Direct-Dial extension

Direct-Dial allows you to dial a designated extension in your Modular Plus system or private network, with a single digit. For example, the Direct-Dial digit is the digit you dial to reach an attendant in your office.

The Direct-Dial digit is an internal or external number that the system automatically dials when someone enters the Direct-Dial digit.

The Modular Plus system allows for up to five Direct-Dial extensions. A person whose telephone is a Direct-Dial extension is usually a receptionist for your entire office or for a particular department. To access the Direct-Dial extension, enter the Direct-Dial digit (the default Direct-Dial number is 0).

The Direct-Dial extension can send up to 30 messages and can invoke Services to activate the extra-dial telephone.

You can change which Direct-Dial telephone an extension is assigned to including none at all. Any number of telephones can be assigned to call the Direct-Dial telephone.

See 'Chart 11: Extension capabilities 3' on page 334 in Appendix A for a programming overview.

See 'Accessing a Direct-Dial extension' on page 260 for information on using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press twice. The display shows **Fwd no answer.**
7. Press until the display shows **D-Dial.**
8. Press **CHANGE** to select **Extn1**, **Extn2**, **Extn3**, **Extn4**, **Extn5**, or **None**.
9. Press to exit or to continue in programming.

Allowing Priority call

If you get a busy signal or a Do Not Disturb message when you have an urgent call for someone in your office, you can interrupt their call using the Priority call feature.

By default, telephones are not allowed to make Priority calls. If you want a telephone to be able to make a Priority call, you must programme Priority call for that extension.

A person who receives a Priority call while on another call has 8 seconds to accept or block the call. For information on blocking calls see 'Do Not Disturb' on page 224. If the person does nothing, the Priority call feature puts their active call, including conference parties, on Exclusive Hold and connects your call.

See 'Making a Priority call' on page 247 for information on using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press twice. The display shows **Fwd no answer.**
7. Press until the display shows **Priority call#:**.

8. Press **CHANGE** to choose Y (Yes) or N (No).
9. Press  to exit or to continue in programming.

Assigning a Hotline

You can set up a Hotline telephone that automatically calls one number (internal or external) when you lift the handset or press the key labelled Handsfree. For example, you can have an external Hotline to your local taxi company for your customers to use.

A hunt group extension number can be specified as a Hotline telephone.

Label the telephone, telling people that it is a Hotline and what number it dials so that they do not use it mistakenly.

See 'Using Hotline' on page 284 for information on using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press  * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**.
3. Press 2 3 6 4 6 (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press twice. The display shows **Fwd no answer.**
7. Press until the display shows **Hotline.**
8. Press **CHANGE** to select the type of call the hotline makes: **None**, **Intrnl**, or **Extrnl**.
Choosing Internal assigns an extension number.
Choosing External assigns an external number.

If you select an external number:

9. Press . The display shows **Extrnl#:None.**
10. Press **CHANGE**.
11. Enter the telephone number as you would dial it. Press **OK**.
12. Press , then **CHANGE** to choose **Use prime line**, **Use line:**, **Pool code:**, or **Use routing tabl.**
13. Press  to exit or to continue in programming.

Bypassing a Hotline

Press a line key, or use the Pre-Dial or Automatic dial feature before you pick up the handset or press the key labelled Intercom on a hotline telephone. Refer to the Telephone Feature Card.

Auxiliary ringer

An auxiliary ringer is a separate external telephone ringer or bell that must be connected by the installer. The installer programs the auxiliary ringer to ring for calls on a particular line in programming. An auxiliary ringer can also be programmed to ring for a line placed in a Service mode. The extension default for auxiliary ringer is No.

See ‘Chart 12: Extension capabilities 4’ on page 335 in Appendix A for a programming overview.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press twice. The display shows **Fwd no answer.**
7. Press until the display shows **Aux. ringer.**
8. Press **CHANGE** to choose Y (Yes) or N (No).
9. Press to exit or to continue in programming.

To use the auxiliary ringer with Night service, you must programme under Services.

Allowing an extension to use Redirect ring

As the administrator, you may want to programme the system to remind people when a line is being redirected. Redirect ring alerts your extension with a brief ring when a call is redirected on one of its lines.

See ‘Line redirection’ on page 272 for information on using this feature.

To allow an extension to use Redirect Ring:

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.

5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn**.
6. Press twice. The display shows **Fwd no answer**.
7. Press until the display shows **Redirect ring:**.
8. Press **CHANGE** to select **Y** (Yes) or **N** (No).
9. Press to exit or to continue in programming.

How Line redirection is different from Call Forward

Call Forward forwards all calls that arrive at a particular telephone to another telephone within the Modular Plus system. Line redirection redirects only the lines you specify, no matter which telephones they appear on, to a telephone outside the Modular Plus system. Line redirection takes precedence over Call Forward.

Receive tones

Analogue equipment that is connected to the system with an analogue terminal adapter (external or internal), responds only to tone dialling signals. If you have analogue equipment connected to an extension, set Receive Tones for that extension to Yes. Otherwise, leave Receive Tones set to No.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (ADMIN). The display shows **Terminals&Extns**.
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn**.
6. Press twice. The display shows **Fwd no answer**.
7. Press until the display shows **Receive tones**.
8. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
9. Press to exit or to continue in programming.

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Programming User preferences

The User preferences section of programming allows you to programme memory keys, speed dial codes, and other settings for any Norstar/BST telephone on the system.

For example, an employee may want to have the Do Not Disturb feature programmed to a memory key or create a speed dial code. Instead of programming from that telephone, you can enter User preferences on the nearest two-line display telephone.

See ‘Chart 13: User preferences’ on page 336, for a programming overview.

You can copy User preferences settings from one telephone to another whenever **COPY** appears on the display. The only programming that does not get copied is key programming between different models of telephones.

Changing the key programming for an extension

If there is one or more key on a particular model of telephone that you would like to change, you can customise one key at a time.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn**.
6. Press . The display shows **Line access.**
7. Press until the display shows **User preferences.**
8. Press . The display shows **Model:** followed by a five-digit code.
9. Press . The display shows **Key programming.**
10. Press . The display shows how many keys are on that model of telephone.
11. Press **FIND** or press to see a list of key programming.
12. Press **TEL#**, **FEATR**, or **CLR** to change the programming for any key.
13. Press to exit or to continue in programming.

Changing a Personal (user) speed dial code

See ‘Personal Speed Dial codes’ on page 225 for information about using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn**.
6. Press . The display shows **Capabilities.**
7. Press until the display shows **User preferences.**
8. Press . The display shows **Model:** followed by a five-digit code.
9. Press twice. The display shows **User speed dial.**
10. Press . The display shows the number of speed dial codes that are available.
11. Press to see the first speed dial code (256).
12. Press to search through all the speed dial codes.
13. Press when you see the code you want to change.
14. Press **CHANGE** and enter the telephone number the same way you would dial it on the telephone.
15. Press **OK**.
16. Press and choose the line (or enter a code for a line pool) that the speed dial code should use.
17. Press to exit or to continue in programming.

Changing the Call log options

See ‘Call log’ on page 288 for information about using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.

5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn**.
6. Press . The display shows **Capabilities**.
7. Press until the display shows **User Preferences**.
8. Press . The display shows **Model:** followed by a five-digit code.
9. Press until the display shows **Call log opt'ns**.
10. Press . The display shows **No one answered**.
11. Press **CHANGE** to choose **No one answered**, **Unanswerd by me**, **Log all calls**, or **No autologging**.
12. Press to exit or to continue in programming.

Changing the Dialling options

See 'Dialling mode' on page 218 for information about using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (ADMIN). The display shows **Terminals&Extns**.
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn**.
6. Press . The display shows **Capabilities**.
7. Press until the display shows **User Preferences**.
8. Press . The display shows **Model:** followed by a five-digit code.
9. Press until the display shows **Dialing opt'ns**.
10. Press . The display shows **Automatic dial**.
11. Press **CHANGE** to choose **Automatic dial**, **Standard dial**, or **Predial**.
12. Press to exit or to continue in programming.

Changing the display language

The Modular Plus system supports a Visually Impaired Operator Console (VIOC), which provides computer-based speech synthesis for the programming interface. To use this function, the display language needs to be set to Operating.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the extension you wish to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Capabilities.**
7. Press until the display shows **User Preferences.**
8. Press . The display shows **Model#:** followed by a five-digit code.
9. Press until the display shows **Language#:**.
10. Press **CHANGE** to choose **English** or **Oprating**.
11. Press to exit or to continue in programming.

Changing the display contrast

Display contrast allows you to lighten or darken the telephone display to suit the lighting conditions in your office.

See 'Display contrast' on page 219 for information about using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display show **nnn:nnn.**
6. Press . The display shows **Capabilities.**
7. Press until the display shows **User Preferences.**

8. Press . The display shows **Model1:** followed by a five-digit code.
9. Press until the display shows **Display cntrst:**.
10. Press **CHANGE** to choose 1, 2, 3, 4, 5, 6, 7, 8, or 9.
11. Press to exit or to continue in programming.

Note: You do not see any change in the display of the telephone you are using when you are programming User preferences from another telephone.

Changing the Ring type

See 'Ring type' on page 221 for information on using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press 2 3 6 4 6 (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Capabilities.**
7. Press until the display shows **User preferences.**
8. Press . The display shows **Model1:** followed by a five-digit code.
9. Press until the display shows **Ring type:**.
10. Press **CHANGE** to choose 1, 2, 3, or 4.
11. Press to exit or to continue in programming.

Programming Hunt groups

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Hunt Groups

The hunt groups feature allows you to establish hunt groups in your system to allow incoming calls to reach a group of extensions using a single directory number.

Hunt groups are used in situations where a group of people performing the same task are required to answer a number of related queries. Some typical uses of hunt groups are:

- a sales department answering questions about product prices, availability etc.
- a support department answering questions concerning the operation of a product
- an emergency department answering calls for help

A company with support services for different products may want to have a hunt group dedicated to each product. Support personnel handling Product A can be in one group, and support personnel handling Product B can be in another group.

Incoming calls look for the next available extension in the group. If no extension is available, the hunt groups feature places the call in a queue or routes it to an overflow extension.

Under the hunt groups sub-heading, you can programme:

- members of a group
- member position in a group
- the lines assigned to a group
- the distribution of incoming calls
- the length of time the system looks for available agents before sending the call to the overflow position
- how the system handles calls if all agents are busy

Note: Do not programme videophones as members of a hunt group. Hunt groups allow one B channel connection at a time and videophones use two B channels.

Adding or removing members from a group

Modular Plus supports 30 groups with a maximum of 600 members system-wide. Members of the group can be any Norstar or Business Series Terminal extension, DNA, ISDN extension, or cordless handsets. An extension can be in multiple hunt groups, however, each occurrence increases the total number of members in the system.

There can be one appearance of the same hunt group on a set.

The extension number range for the 30 hunt groups is 551 to 580. The extension numbers in this range cannot be members of a hunt group.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press . The display shows **Show group:**.
7. Enter the hunt group number you want to programme (01-30). The display will show the hunt group number, followed by the hunt group extension number, e.g. **HG01:510.**
8. Press . The display shows **Member extns:**.
9. Press . The display shows the members for that group.
10. Press **ADD** to add a member or press **REMOVE** to remove a member from the group.
11. To program the extension appearance, press . The display shows **APPR&Ring.**
12. Press **CHANGE** to select **APPR only**, **APPR&Ring** or **Ring only**.
13. Press to exit or to continue programming.

Moving members of a group

Member order within a hunt group is important. The member order determines how the system routes calls through a hunt group.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press . The display shows **Show group:**.
7. Enter the hunt group number you want to programme (01-30).
8. Press . The display shows **Member extns:**.
9. Press . The display shows the members for that group.
10. Press **MOVE** to move an existing member to another place within the hunt group. The display shows the member number followed by an arrow.
11. Enter the new position number for the extension.
12. Press to exit or to continue programming.

Members line appearance

Member extensions can have a line appearance of Appear only, Appear and Ring, or Ring Only.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press . The display shows **Show group:**.
7. Enter the hunt group number you want to programme (01-30).

8. Press . The display shows **Member extns.:**
9. Press . The display shows the members for that group.
10. Press **CHANGE** to select Appr only, Appr&Ring or Ring only. The default is Appr&Ring.
11. Press to exit or to continue programming.

Assigning or unassigning lines to a group

We recommend that you set the Hunt group line Prime extension to None. Doing so prevents delayed ring transfer of external hunt group calls to the Prime extension before the hunt group can receive the call.

You can assign a line to only one group.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press . The display shows **Show group.:**
7. Enter the hunt group number you want to programme (01-30).
8. Press . The display shows **Member extns.:**
9. Press . The display shows **Line assignment.**
10. Press . The display shows **Show line.:**
11. Enter the line number you want to programme, press **SCAN** to go the first line assigned to this group or press **LIST** to go to the first line in the system.
12. Press **CHANGE** to programme the line as **Unassigned** or **Assigned**.
 HGnn means the line is assigned to another hunt group.
13. Press to exit or to continue programming.

Assigning a distinctive ring pattern to a Hunt Group

You can assign distinctive ring patterns to your Hunt Group so that calls can be rated in priority for the group.

These distinctive ring patterns have the same characteristics as for line and set distinctive ring patterns. Refer to ‘Sorting calls by distinctive ring patterns’ on page 228.

- If the Hunt Group ring pattern priority is higher than the line ring pattern or the ring patterns on member telephones, the call will ring at all telephones with the ring pattern specified for the Hunt Group.
- If members of the group have ring patterns assigned to their telephones that are higher than the ring patterns of the incoming line or the Hunt Group, then the Hunt Group will use the ring of the corresponding member telephones.
- If the incoming call (line) has a higher ring pattern assigned than the Hunt Group, the Hunt Group will ring with the line ring pattern.

If the incoming call (line) has a higher ring pattern assigned, than the Hunt Group, the Hunt Group will ring with the line ring pattern.

Follow these steps to set a distinctive ring pattern for a hunt group:

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press **[☎] [*] [*] [2] [6] [6] [3] [4] [4]** (CONFIG). The display shows **Password:**.
3. Press **[2] [6] [6] [3] [4] [4]** (CONFIG). The display shows **Terminals&Extns.**
4. Press **[Next]** until the display shows **System Prgrming.**
5. Press **[Show]**. The display shows **Hunt groups.**
6. Press **[Show]** until the display shows **Member extns:**.
7. Press **[Next]** until the display shows **Dstnct Ring:NONE.**
8. Press **CHANGE** to toggle to the ring pattern number you want to assign to the Hunt group line.
9. Press **[☎]** to exit or **[Next]** to continue programming.

Setting the distribution mode

There are three distribution settings for hunt group calls.

- **Broadcast**—rings each extension in the group simultaneously. The system handles calls one at a time, routing other calls according to the routing option selected in the **If busy** setting (see ‘Programming options if all hunt group members are busy’ on page 126). When a call is answered, the next call in the queue is presented to the hunt group.

This setting allows all the receptionists in the group can share the load of answering large volumes of calls. An example is a fund-raising campaign where a group of operators wait to take each call as it comes in.

- **Sequential**—starts the call at the first extension in the hunt group. Distribution is complete when the system finds the first free extension. This distribution method allows the system to present simultaneous calls to the hunt group. Distribution is order-based.

In Sequential mode, you can programme your top salesperson to be the first member of the group to receive incoming calls.

- **Cyclic**—distribution begins with the member following the last extension to receive a hunt group call. Distribution is complete when the system finds the first free extension. This distribution method allows the system to present simultaneous calls to the hunt group. Distribution is order-based.

Using Cyclic mode, you ensure that your helpline personnel receive calls in an evenly distributed method.

If a call goes unanswered and the hunt group has available agents, the system routes the call through the member list until someone answers the call or the queue time-out occurs. If a queue timeout occurs, the system routes the call to the overflow position.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System Prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press . The display shows **Show group:**.
7. Enter the hunt group number you want to programme (01-30).
8. Press . The display shows **Member extns:**.
9. Press until the display shows **Mode:**.
10. Press **CHANGE** to set the mode: **Sequential**, Cyclic, Broadcast.
11. Press to exit or to continue programming.

Setting the hunt delay

You can programme the number of ring cycles the system allows at a hunt group extension before moving to the next hunt group extension.

You can estimate the delay in seconds by multiplying the number of rings by six.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press . The display shows **Show group:**
7. Enter the hunt group number you want to programme (01-30).
8. Press . The display shows **Member extns:**
9. Press until the display shows **Hunt delay:**
10. Press **CHANGE** to select the setting: 1,2, 3, 4, 5, 6, 7, 8, 9, 10.
11. Press to exit or to continue programming.

Programming options if all hunt group members are busy

A Hunt Group is busy when all extensions are ringing for a Hunt group call or all members are on a Hunt group call. An extension that invokes Do Not Disturb (DND) on busy or is on an internal or external call does not make the Hunt group busy.

There are three routing options if all agents are busy:

- BusyTone—the caller gets a busy tone
- Overflow—the call routes to the hunt group overflow position
- Queue—the call stays in the system for the period of time programmed in **Q timeout**. Within this period of time, the call presents to an agent if one becomes available. When time-out occurs, the call routes to the hunt group overflow position.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Hunt groups.**
5. Press . The display shows **Show group:**.
6. Enter the hunt group number you want to programme (01-30).
7. Press . The display shows **Member extns:**.
8. Press until the display shows **If busy:**.
9. Press **CHANGE** to set the mode: **BusyTone**, Overflow, Queue.
10. Press to exit or to continue programming.

Programming the queue timeout

This setting allows you to programme the number of seconds a call remains in the hunt group queue before it is also routed to the overflow position.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press . The display shows **Show group:**.
7. Enter the hunt group number you want to programme (01-30).
8. Press . The display shows **Member extns:**.
9. Press until the display shows **Q Timeout:**.
10. Press **CHANGE** to set the queue timeout: 15, 30, 45, **60**, 120 or 180.
11. Press to exit or to continue programming.

Programming the overflow extension

You can programme which extension receives overflow calls. If the overflow extension is a hunt group extension, the call is considered a new call and joins the queue.

The overflow extension can be an extension number associated with a voice mailbox.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press . The display shows **Show group:**.
7. Enter the hunt group number you want to programme (01-30).
8. Press . The display shows **Member extns:**.
9. Press until the display shows **Overflow:**.
10. Press . The display shows **Overflow:HGN.**
11. Press **CHANGE** to change the overflow position.
12. Enter the new overflow position.
13. Press to exit or to continue programming.

Setting the name

You can programme the hunt group name, such as SERVICE or SALES. The name can be up to seven characters in length.

Note: The Hunt group name does not display on incoming calls to that group, only the line or extension number.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt Groups.**
6. Press . The display shows **Hunt groups.**
7. Press . The display shows **Show group:**.
8. Enter the hunt group number you want to programme (01-30).

9. Press . The display shows **Member extns.:**
10. Press until the display shows **Name.:**
11. Press **CHANGE**.
12. Using the dialpad, enter the name of the hunt group.
13. Press to store the name.
14. Press to exit or to continue programming.

Checking hunt group metrics

This feature provides you with hunt group call information.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password.:**
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Usage Metrics.**
5. Press . The display shows **Hunt groups.**
6. Press . The display shows **Show group.:**
7. Enter the number of the hunt group you wish to view. The display shows **HG<n> metrics.**
8. Press . The display shows the date the information was last cleared.
9. Press . The display shows **TotalCalls.:**
The value shown is the total number of calls received by the hunt group, to a maximum of 99999.
10. Press . The display shows **Ans.:**
The values shown are the total number of calls that were answered and the percentage of answered calls to total calls.
11. Press . The display shows **Avg ans. sec.**
The value shown is the average time in seconds that it took to answer a call, to a maximum of 999.
12. Press . The display shows **Abndn.:**
The values shown are the number of abandoned calls and the percentage of abandoned calls to total calls.
13. Press . The display shows **Busy.:**
The values shown are the number of times the hunt group was busy and the percentage of busy calls to total calls.

14. Press . The display shows **Overf1:**

The values shown are the number of calls sent to the overflow position and the percentage of overflow calls to total calls.

15. Press . The display shows **Avg Q:sec.**

The value shown is the average time, in seconds, the call waited in the queue, to a maximum of 999.

16. Press to exit or to continue programming.

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Background music

This feature allows people to listen to music through their telephone speakers, providing that an external music source has been installed. The default is No, which means that background music is disabled.

See 'Background music' on page 224 for information on using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music:**.
8. Press **CHANGE** to choose Y (Yes) or N (No).
9. Press to exit or to continue in programming.

On hold

You can choose what a caller hears when the call has been put on hold.

Note: In systems networked with private circuits, it is a good idea to have callers hear tones on all systems on the private network. Otherwise, callers who are transferred across the private network may hear a confusing variety of music, tones, and silence.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music:**.
8. Press until the display shows **On hold:**.

9. Press **CHANGE** to choose **Tones**, Music, or Silence.
10. Press  to exit or to continue in programming.

Receiver volume

Receiver volume allows you to specify whether the volume level of a receiver or headset returns to the system default level when a call is ended or put on hold, or whether it remains at the level set at the individual telephone.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press  * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press 7 2 7 5 8 7 (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music:**.
8. Press until the display shows **Receiver volume.**
9. Press and use **CHANGE** to choose **Use sys volume** or **Use extn volume.**
10. Press  to exit or to continue in programming.

Note: This feature is not available on some older telephones.

Camp timeout

You can send an external call to another extension, even though all of its lines are busy using the Camp-on feature. It is useful for people who process many calls, such as secretaries or receptionists. Camp timeout specifies the number of seconds before an unanswered call returns to the telephone that camped the call.

See 'Transferring to a busy extension (Call Camping)' on page 248 for information about using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press  * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press 7 2 7 5 8 7 (SAPLUS). The display shows **Terminals&Extns.**

4. Press until the display shows **System prgrming**.
5. Press . The display shows **Hunt groups**.
6. Press until the display shows **Featr settings**.
7. Press . The display shows **Backgrnd music**.
8. Press until the display shows **CamP timeout:**.
9. Press **CHANGE** to choose 30, **45**, 60, 90, 120, 150, or 180 seconds.
10. Press to exit or to continue in programming.

Park timeout

The Call Parking feature allows you to place a call on hold and assign it a code so it can be retrieved from any telephone in the Modular Plus system. The Park timeout setting allows you to specify how long, in seconds, a call can be parked without being answered before the call is returned to the telephone that parked the call.

See 'Call Parking' on page 244 for information about using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns**.
4. Press until the display shows **System prgrming**.
5. Press . The display shows **Hunt groups**.
6. Press until the display shows **Featr settings**.
7. Press . The display shows **Backgrnd music**.
8. Press until the display shows **Park timeout:**.
9. Press **CHANGE** to choose 30, 45, **60**, 90, 120, 150, 180, 300, or 600 seconds.
10. Press to exit or to continue in programming.

Park Mode

Park Mode allows you to suspend a call, and allows someone retrieve the call by entering a retrieval code at any system extension in the system.

The Park Mode retrieval code is a three-digit number. By default, the first digit of that number is 1, with the possible retrieval codes ranging from 101 to 124.

The M7000/T7000 and M7100N/T7100 telephone park code is 125.

You can determine how the system will assign retrieval codes to all telephones, except the M7000/T7000 and M7100/T7100 telephones, by choosing one of the following modes:

Lowest—Modular Plus assigns the lowest available retrieval code. If there is only one parked call on the system, the number is 101. If there are three calls, they are assigned 101, 102, and 103.

Cycle—Modular Plus assigns the next available retrieval code in the sequence (101 to 124). If the last parked call was assigned 106, then the next one is assigned 107. If the last retrieval code was 124, then the next code is 101.

See ‘Call Parking’ on page 244 for information about using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System Prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music.**
8. Press until the display shows **Park Mode:**.
9. Press **CHANGE** to choose **Lowest** or **Cycle**.
10. Press to exit or to continue in programming.

Transfer callback

If Transfer callback is enabled, after a specified number of rings, a transferred call that remains unanswered returns to the telephone that made the transfer. Transfer callback allows you to enable/disable this feature, and to specify the number of rings before the call is returned when the feature is enabled. You can estimate the delay in seconds if you multiply the number of rings by six.

See ‘Transferring a call’ on page 247 for information about the Transfer feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrmin9.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music.**
8. Press until the display shows **Trnsfr callbk:**.
9. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
10. Press until the display shows **Trnsfr callbk:**.
11. Press **CHANGE** to choose 3, 4, 5, 6, or 12 rings.
12. Press to exit or to continue in programming.

Network callback

If you transfer a call to a private network destination and the call is not answered, it comes back to you after a specified time. Network callback defines the time, in seconds, before a call is returned to your extension.

Since the time required to transfer a call across the private network varies depending on the complexity of your private network, you may need to experiment to achieve the correct setting.

Note: Depending on how a private network call is routed, it may not always be possible for the system to return a transferred call.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music.**
8. Press until the display shows **Netwk callbk:**.
9. Press **CHANGE** to choose 15, **30**, 45, 60, or 90 seconds.
10. Press to exit or to continue in programming.

Held line reminder and delay

A reminder tone and display message occur at a Norstar telephone or Business Series Terminal when a call has been placed on hold for a certain period of time. The display continues to show the name of the held line until the call is dealt with. In the case of multiple calls on hold, the display shows the name of the line that has been held the longest. Once that call has been dealt with, the display shows the number of the next longest held call.

You can switch Held line reminder on or off and set the time before the reminder takes effect.

The Held line reminder emits a double periodic tone. This tone distinguishes the feature from the Call Waiting tone, which uses a single periodic tone.

See 'Holding' on page 240 for information on this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrmin9.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Back9rnd music.**
8. Press until the display shows **Held reminder:**.
9. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
10. Press . The display shows **Remind delay:**.
11. Press **CHANGE** to choose 30, **60**, 90, 120, 150, or 180 seconds.
12. Press to exit or to continue in programming.

Conference tone

This tone may be heard by all parties as soon as a three-way call is established using the Conference or Privacy feature. You can turn conference tones on or off for the whole system.

See 'Making a conference call' on page 253 for information about using the Conference feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrmin9.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Back9rnd music.**
8. Press until the display shows **Conference tone:**.
9. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
10. Press to exit or to continue in programming.

Directed (call) pickup

The Directed pickup feature allows someone to pick up calls that are ringing at another telephone by entering and the extension number. You can enable or disable Directed pickup for the system. The default is Yes, which means that Directed pickup is enabled.

See ‘Answering a telephone using Directed Pickup’ on page 234 for information about using this feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music.**
8. Press until the display shows **Directed pickup:**.
9. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
10. Press to exit or to continue in programming.

Page tone

You can choose whether a tone sounds before a page begins. See ‘Paging’ on page 264 for information about using the Paging feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music.**
8. Press until the display shows **Page tone:**.
9. Press **CHANGE** to choose **Y** (Yes) or **N** (No).
10. Press to exit or to continue in programming.

Page timeout

The paging feature is automatically disconnected after a specified length of time.

See ‘Paging’ on page 264 for information about using the Paging feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music.**
8. Press until the display shows **Page timeout:**.
9. Press **CHANGE** to choose 15, 30, 60, 120, **180**, 300, 600, 2700 seconds.
10. Press to exit or to continue in programming.

Call log space

Call log space customises how log space is allocated to telephones in the system. Resetting all logs allows you to re-allocate the Call log space equally to all telephones in your system.

Use this heading only if you want to allocate an equal amount of log space to all the telephones in your system. There are 600 call log spaces available in the system. There are no spaces allocated by default. Changing the space allocation using Log defaults defines the log space available to all telephones in the system. Any remaining unassigned log space is available in a log pool, and can be re-allocated under Terminals&Extns.

Re-allocating call log space may destroy call log data at telephones that lose space.

See ‘Call log’ on page 288 for information about using the Call log feature.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music.**
8. Press until the display shows **Call log space.**
9. Press . The display shows **Reset all logs?**
10. Press **YES** and use the keypad to enter the space allocation for the call log at each telephone. You must use a three-digit number (for example, 020 to give 12 extensions 20 spaces each).
11. Press **YES** to accept the settings and end programming. The system automatically re-allocates Log space. Press **NO** to reset the number of spaces allocated to each log.

Alarm extension

An Alarm extension displays system alarm codes, should they occur. You can determine which extension receives the alarms. The default is extension **221**.

ATTENTION!

The Alarm telephone must have a two-line display.

The Alarm telephone must be a, T7316, T7316E, an M7310N or an M7324N telephone.

See 'Recording and reporting alarm codes' on page 198 for information about the alarm codes.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music.**

8. Press until the display shows **AlarmExtn:**.
9. Press **CHANGE**.
10. Enter the extension number or press **CLR** to set the Alarm telephone to None.
11. Press to exit or to continue in programming.

Answer extension

The Answer extns setting in Terminals&Extns programming allows you to assign Answer extension numbers to a telephone. The AnsExtn setting in Featr settings programming allows you to determine what types of calls will alert at the telephone. Your choices are: Basic, Enhanced and Extended.

Basic permits the same call coverage allowed in Modular 32 Desktop ISDN. Enhanced permits the same call coverage as Modular 32 Desktop ISDN as well as overflow call routing calls but will not permit blind transferred calls. Extended permits all call types except priority calls, voice calls and other Answer key calls to alert at the telephone.

A Norstar telephone or Business Series Terminal may have up to eight Answer keys to monitor other extensions.

See 'Answer extension' on page 142 for information about using Answer keys.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (CONFIG). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt Groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music:**.
8. Press until the display shows **Ans. extn:**.
9. Press **CHANGE** to select the settings: **Basic**, Enhanced, and Extended.
10. Press to exit or to continue programming.

Setting SWCA controls

This feature allows answered calls to have and maintain an appearance on a SWCA key at all telephones with the same defined SWCA keys. When the call is placed on Hold, the incoming line is freed up for the next call.

Up to 16 System Wide Call Appearance keys can be assigned to each extension in a group. You can program the telephone keys while you are setting up the telephones, or the user can assign this feature to keys with a display at any time. However, all extensions in an answer group should have the same keys assigned to the same SWCA feature code. SWCA keys can be assigned to memory keys using feature code **[*] 3** to define a key with one of these codes: **[*] 5 2 0** to **[*] 5 3 5**.

On the system, under **Feature Settings, SWCA Cntl** you define how incoming calls get associated to SWCA keys and how Hold will handle the calls.

The **Auto Associate** setting determines if answered calls will automatically be assigned to SWCA keys (**Auto Associate = Y**). If you want the user to press the Hold button or a free SWCA key before the call transfers to a SWCA key, set **Auto Associate** to **N**. Calls remain assigned to SWCA keys for the duration of the call.

The **Invoke by Hold** setting determines if a SWCA call put on Hold can be picked up from other extensions in the group.

- If you want the call to be available to be picked up by other members of the groups when you put a call on Hold, set **Invoke by Hold:** to **Y**. A flashing indicator appears beside the SWCA key when the call assigned to that key is put on Hold.
- If you want calls to remain on Hold only at the telephone where the call is received, set **Invoke by Hold:** to **N**. Even if you set this field to **N**, users can still put selected calls on SWCA keys, by pressing a free SWCA key, which automatically parks the call on that key and indicates that it is available for pickup at any other telephone with access to that key.

See ‘Changing the key programming for an extension’ on page 114 for general information about setting or changing key programming for a telephone.

See ‘Using SWCA line buttons’ on page 230 for information about using SWCA keys.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press (CONFIG). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt Groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music: N.**
8. Press until the display shows **SWCA Cntrl:**
9. Press . The display shows **Auto Associate: N.**
10. Press **CHANGE** to choose the Y or N option.
11. Press . The display shows **Invoke by Hold: N.**
12. Press **CHANGE** to choose the Y or N option.
13. Press to exit or to continue programming.

CLID Match

This setting determines the minimum number of digits that an external call must match to an existing system speed dial number in order for the system to offer a name display for the CLID prompt if the system speed dial number is set up to display the caller name. Refer to ‘Setting System speed dial’ on page 64

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (CONFIG). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music: N.**
8. Press until the display shows **CLID match: 8.**
9. Press **CHANGE** to select the a number from 3 to 8, or select None, if you do not require any number matching.
10. Press to exit or to continue programming.

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Extension relocation

The Extension relocation feature allows you to move a telephone from one extension socket to another without losing any of its custom programming or its assigned extension number. By default Extension relocation is set to No.

ATTENTION!

Wait 1 minute between moves.

After moving a telephone, wait 1 minute before moving the telephone a second time or changing the telephone extension number. The CCU may take up to 60 seconds to recognise that a telephone moved to a new location.

ATTENTION!

Don't fill the vacated socket before relocating the telephone.

When moving a telephone with Extension relocation turned on, do not connect another telephone to the vacated socket before connecting the first telephone to a new extension socket.

If you connect a telephone of the same type to the vacated extension socket, the newly-connected telephone will receive the programming of the original telephone.

If you connect a telephone of a different type to the vacated extension socket, the newly-connected telephone will receive default programming, and the original programming will be lost.

Turn Extension relocation to No after the telephone installation and programming are completed, rather than before. This provides you with more flexibility in testing equipment. If Extension relocation is set to No while a telephone is moved, that extension number and data remain with the physical port on the central control unit (CCU), and the telephone does not receive the original programming when it is reconnected elsewhere.

Remember to record any programming changes in Programming Record. 'Chart 14: Extension relocation' on page 337



Relocate to extension jacks that are configured for telephones.

When moving extensions from one jack to another, ensure that all jacks support a Norstar telephone or Business Series Terminal. If a fax machine, Analogue Terminal Adapter, analogue telephone, or modem was plugged into the jack, do not plug a Norstar telephone or Business Series Terminal into the jack until you are sure it is wired correctly for the telephone.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Featr settings.**
7. Press . The display shows **Backgrnd music.**
8. Press until the display shows **Extn relocatn.**
9. Press **CHANGE** to choose Y (Yes) or N (No).
10. Press to exit or to continue in programming.

Copying programming for telephones

During programming, you can copy certain programmed settings from one line to another, or from one telephone to another using the **COPY** key when it appears on the display. You can copy either system programming or system programming and personal programming.

Personal programming includes the settings programmed by people at their own telephones using feature codes. You can only copy personal programming between telephones of the same type, when both are plugged into the system.

See 'Chart 15: Copying settings' on page 338 in Appendix A for a programming overview.

Copying system programming to a single extension

Pressing the **COPY** softkey allows you to copy programming from one telephone to another telephone, to a range of telephones, or to all telephones in the system.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press and enter the extension number whose programming you want to copy.
5. Press **COPY**. The display shows **Copy:SYSTEM data.**
6. Press **CHANGE** to toggle between **SYSTEM data** (to copy the programming of the system) and **SYSTEM+USER** (to copy the programming of the system and the programming of a particular extension).
7. Press . The display shows **Copy:SINGLE.**
8. Press . The display shows **Copy to:**.
9. Enter the extension number of the telephone that will be programmed. The display shows nnn>nnn briefly, then returns to **Copy to:**.
10. Keep entering extension numbers if you have other, single extensions that you wish to programme.
11. Press **CANCL** when you are finished.

Copying system programming to a range of extensions

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press and enter the extension number whose programming you want to copy.
5. Press **COPY**. The display shows **Copy:SYSTEM data.**
6. Press **CHANGE** to toggle between **SYSTEM data** (to copy the programming of the system) and **SYSTEM+USER** (to copy the programming of the system and the programming of a particular extension).

7. Press . The display shows **Copy:SINGLE**.
8. Press **CHANGE** to select either a range of extensions or all extensions.
9. Press . The display shows **Only equipped Ext.**
10. Press **CHANGE** to switch between equipped extensions and all extensions.
11. Press . The display shows **Begin at:.**
12. Enter the starting extension number. The display shows **End at:.**
13. Enter the ending extension number. The display shows **nnn>nnn-nnn?**.
14. Press **OK** to copy the programming to the specified extensions.

Depending on the activities going on in the system, a copy may not take effect for a while. The brief display you see once you have finished a copying session does not indicate the process is complete.

You can leave the programming session even if the copy has not been completed. If you exit programming, copying continues uninterrupted until it is complete.

Event codes capture both the start and completion of the copying process.

System settings you can copy

- line assignment
- line pool access
- Prime line designation
- number of intercom keys
- settings programmed under the heading **Capabilities**

Personal settings you can copy

- the personal programming for dialling modes
- line key positions
- personal speed dial entries
- automatic delivery of call information for outgoing calls
- log settings
- programmed memory keys

Settings you cannot copy

- extension number and name
- log password
- Direct-Dial and Extra-Dial extension designations
- Service mode Control extension designation for a line
- Service mode ringing extension designation for a line
- Prime extension designation for a line, or private line appearances
- personal programming for display contrast, ring type, and ring volume

Settings for analogue equipment

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Settings for analogue equipment

Analogue equipment includes answering machines, fax machines and analogue telephones. Analogue equipment is connected to the Modular Plus system through the Integrated Analogue Terminal Adapter (I-ATA) or with an external Analogue Terminal Adapter (ATA). The Modular Plus system includes one I-ATA port. Additional ATA ports must be added externally by purchasing optional equipment. External ATA and Internal ATA support different features. The I-ATA supports only one set and the external ATA supports multiple sets. The internal ATA responds only to incoming tone dialling signals.

The ATA and I-ATA allow analogue telephones to access some Norstar features such as Call Forward, Conference, Transfer, and Last Number Redial. Telephones connected to the ATA or I-ATA cannot display the time and date. For information on using Norstar features from an external analogue telephone connected to an ATA, refer to Analogue Terminal Adapter User Card.

You can adjust the following settings:

- change the number of rings the analogue equipment waits before answering a call
- change the extension used for analogue equipment to receive tone dialling signals
- set whether an external ATA is required and whether it is used On-site or Off-site
- change the dial mode for outgoing data of an external ATA to either tone or pulse
- set whether the ATA should receive confirmation and error tones (only for analogue telephones).

Setting the delay before the ATA answers

To accommodate the device connected to the Analogue Terminal Adaptor (ATA), you may want to lengthen or shorten the delay before the device is able to receive tones. For example, a modem or fax machine requires only a short delay.

Refer to the ATA Terminal Feature Card for information on using the ATA features.

See "Chart 16: ATA settings" on page 339 in Appendix A for a programming overview.

The ATA answer timer controls this delay. The default setting is a seven-second delay before the speech path is connected.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display show **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press . The display shows **Capabilities.**
8. Press . The display shows **Fwd no answer.**
9. Press until the display shows **ATA settings.**
10. Press . The display shows **ATA ans timer#:**.
11. Press **CHANGE** to choose 3, 5, 7, or 10 seconds.
12. Press to exit or to continue in programming.

Changing the dial mode of an ATA

You must tell the system whether the device connected to the ATA sends out pulse or tone (DTMF) signals.

The default signal is tone.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display show **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme.
6. Press . The display shows **Line access.**
7. Press . The display shows **Capabilities.**
8. Press . The display shows **Fwd no answer.**
9. Press until the display shows **ATA settings.**
10. Press . The display shows **ATA ans timer#:**.
11. Press . The display shows **ATA mode#:**.
12. Press **CHANGE** to choose **Tone** or Pulse.
13. Press to exit or to continue in programming.

Setting whether the ATA should receive system tones

You must tell the system whether the device connected to the ATA should receive confirmation and error tones. These tones inform a person of call progress, but confuse a modem or fax machine.

- If the ATA is connected to a telephone, set tones to Y.
- If the ATA is connected to any other device, set tones to N.

The default is No.

Note: This setting does not interfere with intrusion and conference tones on a telephone connected to an ATA. These tones are heard through the telephone handset regardless of the ATA tones setting.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display show **Show extn#:**.
5. Enter the extension number of the telephone you want to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press . The display shows **Capabilities.**
8. Press . The display shows **Fwd no answer.**
9. Press until the display shows **ATA settings.**
10. Press . The display shows **ATA ans timer#:**.
11. Press until the display shows **ATA tones#:**.
12. Press **CHANGE** to choose Y (Yes) or N (No).
13. Press to exit or to continue in programming.

Setting whether an ATA is used on-site or off-site

The external ATA can connect Modular Plus to analogue telephones, modems, or answering machines that are either on your premises or at another location. When you want to connect extensions at some other location to your system, specify Off-site.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display show **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press . The display shows **Capabilities.**
8. Press . The display shows **Fwd no answer.**
9. Press until the display shows **ATA settings.**
10. Press . The display shows **ATA ans timer#:**.
11. Press until the display shows **ATA use#:**.
12. Press **CHANGE** to choose On site or **Off site**.
13. Press to exit or to continue in programming.

Programming Services

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Using alternate or scheduled services

Your Modular Plus system is set up to handle calls during normal business hours. However, you may wish to handle incoming calls differently at lunch time, in the evening, at night, or during holidays.

To accommodate changes, Modular Plus provides Services that let you customise the way calls are handled at different times of the day, on schedules. Besides a Normal schedule, there are six additional schedules. Three of the schedules are already named: Lunch, Evening, and Night. You can assign new names for these modes and assign names to the three unnamed schedules.

When Ringing service and Restriction service are set to manual, a control extension is used to place the extensions and exchange lines that it controls, into and out of service schedules. A control extension can be assigned to control either lines or extensions, or both lines and extensions.

A service schedule activates three aspects of system operation: Ringing, Restriction, and Routing.

- You can customise the Ringing service so that
 - an extra extension rings for calls placed to the Direct-Dial extension
 - additional extensions ring for incoming calls
 - an auxiliary ringer notifies when a line rings
- You can bar long-distance calls by applying Restriction service to a line or extension in a service schedule.
- You can take advantage of alternate route selection by assigning different routes to be used during the different schedules.

Turning Services on or off

8 7 1 is used to turn ringing services on and off. Refer to "Turning a manual service on or off with a feature code" on page 168.

Ringling service

You can have Ringling service set up to run differently for each of the six schedules. You may decide you want Ringling service for the Night schedule to come into effect only when it is turned on and off manually.

If you manually call on a service, it remains in effect until you cancel it, regardless of any automatic modes scheduled. Manual service also overrides any automatic mode that is active.

If you programme a service as Manual, you must use the control extension to turn the service on using a feature code. The default control extension for all lines and extensions is 221. See "Chart 17: Ringling service" on page 340 in Appendix A for a programming overview.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press twice. The display shows **Services.**
5. Press . The display shows **Ringling service.**
6. Press . The display shows **Ringling groups.**
7. Press until the display shows the period you want to set the service for: **Sched:Night, Evening, Lunch,** or customise your own **Sched 4, Sched 5** or **Sched 6.**
8. Press . The display shows **Service:**.
9. Press **CHANGE** to choose **Manual**, Auto, or Off.
10. Press to exit or to continue in programming.

Add extensions for Ringling service

You can add lines within groups to ring for these services on different extensions. For example, you might want the ring to be heard at two locations for ease of access. To add an extension:

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press twice. The display shows **Services.**
5. Press . The display shows **Ringling service.**

6. Press . The display shows **Ringing groups**.
7. Press . The display shows **Ring grp: 001**.
8. Press to cycle through the ring groups until you find the one you want (from 001 to 100). Or, enter the number directly on the keypad.
9. Press . The display shows **Show extn#:**.
10. Press to cycle through the extensions available, or enter the number directly on the keypad. The extension currently assigned to Ringing service will display **Assigned**.
11. Press **CHANGE** to assign another extension to ringing service.
12. Press to exit or to continue in programming.

Deleting extensions from ringing service

To delete an extension from Ringing service, follow the same steps as for adding. The final **CHANGE** step will **Unassign** the extension.

Restriction service

Assigning restriction filters to schedules gives you control over calls made outside of normal business hours. For example, you may allow long-distance calls during the day but bar them in the evening (using the Night schedule), and on weekends (using Schedule 5, which you may have renamed Weekend schedule).

See "Chart 18: Restriction service" on page 340 in Appendix A for a programming overview.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns**.
4. Press twice. The display shows **Services**.
5. Press . The display shows **Ringing service**.
6. Press . The display shows **Restrtn service**.
7. Press . The display shows **Sched:Night**.
8. Press and use **CHANGE** to choose Manual, Auto, or **Off**.
9. Press to exit or to continue in programming.

Routing service

Instead of having to manually decide which routes to use at different times of the day, you can set the routes to be automatically selected according to the programmed settings for each of the six schedules.

Designating alternate routes for calls

The programming for Routing service decides what path an outgoing call takes using the digits that are dialled.

When you select an internal line and dial, the numbers you enter are checked against the routes. If the number you dialled starts with a destination code, the system uses the line pool and dials out digits specified by the route assigned to that destination code, and then dials the number that you dialled.

Routing service replaces a number of tasks that otherwise have to be done manually, including

- entering a line pool code
- dialling an access code for a long-distance carrier
- accessing an alternate route if the Prime line is busy or unavailable

Uniform numbering plan

Modular Plus can be programmed to provide dialling transparency by using a uniform numbering plan. For example, a worker at the head office in London can call a colleague at a branch office in Birmingham as though they were calling an extension in their own office.

Dialling transparency depends on establishing a numbering plan where all extension numbers are unique and of a uniform length. For example, if you have three company sites (two in London and one in Birmingham) then all three sites should have the same number of digits in their extension numbers, and each extension number should be unique.

When performing System Start-up you can change the starting value and length of extension numbers as well as the received number length. If you apply the PBX template at System Start-up, received numbers and the received number length are set automatically to match the extension numbers.

How Routing service works

There are two headings for Routing service: **Routes** and **Dest codes**. Under **Routes**, you programme **DialOut** and **Use**.

- **DialOut**—specifies the digits (up to 24) to be dialled out to reach the called extension.
- **Use**—defines a specific line pool to be used to make the call.

Under **Dest codes** you programme the **Destination route** and **Absorb length**.

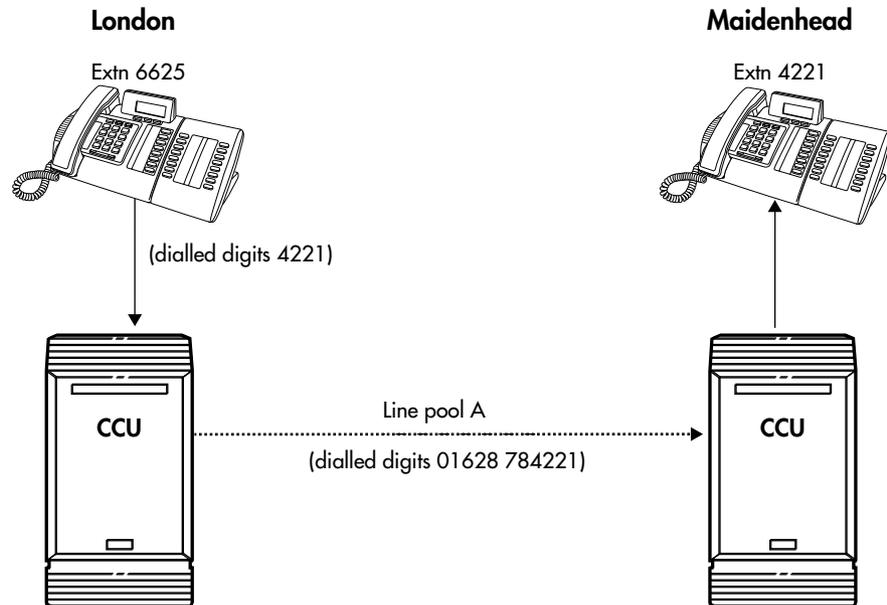
- **Normal**—is for assigning the route code to be used during regular business hours.
- **Absorb length**—indicates how many of the digits in the destination code should be absorbed by the system (not dialled out to reach the called extension).

When a caller dials a number, Modular Plus checks the leading digits of the number against the destination codes. If the leading digits are matched to a destination code, Modular Plus proceeds to select the route containing the appropriate line pool and dial-out digits. It then adds the digits that the caller dialled (minus the ones that are to be absorbed from the destination code).

In the following example, a caller at extension 6625 in London wants to reach a colleague in Maidenhead. Without the routing service, the caller would have to select a line and dial 01628 784221 to reach extension 4221 in Maidenhead.

Because the system has an appropriate route and destination code, the caller simply dials 4221. The system recognises 4 as a destination code. It checks destination code 4, which instructs it to use **DialOut 01628 78** and **Line Pool A** from **Route 002**. It is instructed not to absorb any digits from the destination code, so it adds all the digits the caller dialed (4221) to the end of the dial out string, and dials out the call.

Example of a simple Route



Routing service settings

Routes (Route 002)
 DialOut: 01628 78
 Use: Pool A

Dest codes (DstCode 4)
 Normal: 002
 AbsorbLength: 0

Specifying the type of line to be used

Each route allows you to programme the line pool, and thus the type of line to be used as the outgoing facility to reach a destination. For example, if ISDN lines have been placed in line pool B, specifying pool B as the line pool to use in a route for a particular destination code ensures that all calls being routed to that destination use ISDN lines.

You must ensure that extensions and ISDN terminals have access to the line pools that they need to make calls (programmed under **Line Access in Lines**).

See "Chart 19: Routing service" on page 341 in Appendix A for a programming overview.

Programming routes

Use DialOut

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Services.**
5. Press . The display shows **Ringing service.**
6. Press until the display shows **Routing service.**
7. Press . The display shows **Routes.**
8. Press . The display shows **Show route:**.
9. Enter a three-digit route code or press .
10. Press . The display shows **DialOut:**.
11. Press **CHANGE**.
12. Enter the Dial Out digits (up to 24) or press **CANCL** to choose **No number**.

Note: You can press to insert a 1.5 second pause in the dialling string, if necessary.

Note: Route 000 shows **Pool 0** by default and cannot be changed.
13. Press **OK**.

Use Pool

1. Begin with **DialOut:** (step 10 of previous procedure).
2. Press . The display shows **Use:**
3. Press **CHANGE** to **Pool A** to O.

Programming destination codes

Dest Codes and wild cards

When programming destination codes, you can use wild cards as the last number in a destination code string. By using wild cards, you can reduce the number of destination codes programmed in the system, maximizing the distribution of destination codes in the system.

The wild card character is added to the destination code by pressing the **ANY** display key as the last digit of the code. This character represents any digit from 0 to 9, except for digits already programmed or used by other numbering plans. Should there be a conflict with other digits already programmed or used with by numbering plans, the digit will not be displayed.

The wild card character can only be used to group destination codes that use the same Route and Absorb Length.

Given the routes shown in the table below, the next two tables show you how to set up destination codes with or without a wild card characters.

Route	DialOut	Line Pool
555	0162 237 625	Line Pool C
565	0173 133 2211	Line Pool A

Destination codes without the use of a wild card character

Destination codes	Route	Absorb Length	DialOut
0621	555	3	0162 237 6251
0622	555	3	0162 237 6252
0623	555	3	0162 237 6253
0624	555	3	0162 237 6254
0625	555	3	0162 237 6255
0626	555	3	0162 237 6256
0627	565	All	0173 133 2211
0628	555	3	0162 237 6258
0629	555	3	0162 237 6259

Destination codes with the use of a wild card character

Destination codes	Route	Absorb Length	DialOut
062 •	555	3	0162 237 625X where X is the final dialout digit, from 1 to 9, but not 7
0627	565	All	0173 133 2211

Configuring destination codes

Enter a destination code that is recognised when used as part of a telephone number for an outgoing call. It can be up to seven digits long.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Services.**
5. Press . The display shows **Ringin9 service.**
6. Press until the display shows **Routin9 service.**
7. Press . The display shows **Routes.**
8. Press . The display shows **Dest codes.**
9. Press . The display shows **Show DstCode:**.
10. If there are no codes defined, use **ADD**, the keypad, and **OK** to a new destination code (up to 7). To enter a wild card character (•) in the destination code, press the **ANY** display key.
11. If there are codes defined, press to select one.
12. Use **ADD**, **FIND**, and **REMOVE** to change the destination code.

Normal rte

Select which route a call using the destination code will take during normal service and for each of the schedules. The automatic schedule times are programmed under Services. The default Normal route is **000**, which has no DialOut digits and uses Pool A.

Note: Be sure you have pre-programmed the route before you do this procedure. See "Designating alternate routes for calls" on page 161.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Services.**
5. Press . The display shows **Ringin9 service.**
6. Press until the display shows **Routin9 service.**
7. Press . The display shows **Routes.**

8. Press . The display shows **Dest codes**.
9. Press . The display shows **Show DstCode:**.
10. If there are no codes defined, use **ADD**, the keypad, and **OK** to a new destination code (up to 7). To enter a wild card character (•) in the destination code, press the **ANY** display key.
11. Press . The display shows **Normal:**.
12. Press **CHANGE** to select a different route for the destination code.
13. Enter the three-digit code.

Absorb length

Select the portion of the destination code that is always absorbed by the system and not used in the dialling sequence.

1. Begin with **Normal:** (step eleven of the previous procedure).
2. Press . The display shows **AbsorbLength:**.
3. Press **CHANGE**.
4. Select the number of digits to be absorbed: 0, **All**, or any number up to the length of the destination code.
5. Press to exit or to programme the next schedule.

If a telephone number does not match any of the programmed destination codes, the user must first decide which line to select and then dial the number. To make this task simple, and to ensure that all long-distance calls are being routed consistently, all area codes in the United Kingdom numbering plan should be programmed as destination codes.

For example, a destination code for Maidenhead might look like this:

- Destination code: 01628
Normal route: 003
Absorb length: 0
- Route: 003
DialOut: No number
Use: Pool C

A caller wishing to dial Maidenhead might dial 01628 237625. The system would recognise 01628 as a destination code. It would select Pool C, absorb no digits, add no DialOut digits, and dial the remaining digits to complete the call.



Routing service modifications

Changes to routes should only be made during least busy call times or on an idle system. Plan to programme routes when user activity is at a minimum.

Turning a manual service on or off with a feature code

There are separate on and off codes for each of the services: Ringing, Routing, and Restriction.

 8 7 1	Turn on Ringing service.
 # 8 7 1	Turn off Ringing service.
 8 7 2	Turn on Restriction service.
 # 8 7 2	Turn off Restriction service.
 8 7 3	Turn on Routing service.
 # 8 7 3	Turn off Routing service.

To turn on a service

From a Control extension, enter the feature code to turn Ringing, Restriction, or Routing service on. If activating Restriction or Routing service, use the password      (ADMIN). The display shows **Service Modes ON**.

To turn off a service

From a Control extension, enter the feature code to turn Ringing, Restriction, or Routing service off. The display shows **Normal** followed by the name of the service (Ringing, Restr'n, or Routing).

Assigning control extensions

When Ringing service and Restriction service are set to Manual, a control extension is used to place the extensions and exchange lines that it controls into and out of service schedules. A control extension can be assigned to control either lines or extensions, or both lines and extensions.

You can also use a control extension to manually override an automatic Schedule.

You may want different lines to be assigned to different control extensions. For example, if the Customer Service department is open during evening hours, you could place the Customer Service lines under a separate control extension. The Sales department, which closes at the end of the afternoon, could be placed under a different control extension that could call on a service schedule for those lines, while leaving the Customer Service lines unaffected.

Assigning lines to a control extension

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Services.**
5. Press . The display shows **Ringin9 service.**
6. Press until the display shows **Common settings.**
7. Press . The display shows **Control extns.**
8. Press twice. The display shows **Show line:**.
9. Enter the line number. The display shows the line number followed by the current control extension.
10. Press **CHANGE** and enter the extension number you want to assign as the control extension for this line.
11. Press to exit or to continue in programming.

Assigning extensions to a control extension

In addition to placing lines into Service modes, a control extension can apply Restriction service (dialling filters) to other extensions.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Services.**
5. Press . The display shows **Ringin9 service.**
6. Press until the display shows **Common settings.**
7. Press . The display shows **Control extns.**
8. Press . The display shows **For lines.**
9. Press . The display shows **For extns.**
10. Press . The display shows **Show extrn#:**.
11. Enter the extension number. The display shows the extension number followed by the current control extension.
12. Press **CHANGE** and enter the extension number you want to assign as the control extension for this extension.
13. Press to exit or to continue in programming.

Changing the name of a schedule

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Services.**
5. Press . The display shows **Ringin9 service.**
6. Press until the display shows **Common settings.**
7. Press . The display shows **Control extns.**
8. Press . The display shows **Schedule names.**
9. Press . The display shows **Sched 1:**.
10. Press **CHANGE** and enter the name you want to assign to the schedule.
11. Press to exit or to continue in programming.

Changing the time of a schedule

It is only necessary to programme the start and stop times for schedules that are activated automatically.

If you are programming a schedule to start and stop at the same time each day, use **COPY** to transfer the settings from one day to the next.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Services.**
5. Press . The display shows **Ringin9 service.**
6. Press until the display shows **Common settings.**
7. Press . The display shows **Control extns.**
8. Press twice. The display shows **Schedule times.**
9. Press . The display shows **Monday.**
10. Press . The display shows **Sched:Night.**
11. Press . The display shows **Start time:**.
12. Press **CHANGE** and enter the time you want the schedule to start.

Passwords

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Password security

You can, and should, change your passwords regularly for security reasons. Keep a record of your passwords in a secure place, and remember: the longer the password, the more likely it is to be secure.

See "Chart 20: Passwords" on page 342 in Appendix A, for a programming overview.

Setting the SAPLUS password

The System Administrator plus password is one to six digits long and allows you to access all of the programming needed to set up the system for your company. The default password is

, which spells SAPLUS on the dial pad.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press four times. The display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press until the display shows **Programing Pswds.**
7. Press . The display shows **SysAdmin+:**.
8. Press **CHANGE** and enter the new password.
9. Press **OK** to accept the new password.

Erasing the SAPLUS password

If you leave the SAPLUS password blank (by entering no digits in step 8), the password is erased. If you erase the password, anyone can enter programming without a password.

Setting the Administrator password

The Administrator password is one to six digits long and allows you to access programming. The default password is **2 3 6 4 6**, which spells ADMIN on the dial pad.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press **☐ * * 2 6 6 3 4 4** (CONFIG). The display shows **Password:**.
3. Press **7 2 7 5 8 7** (SAPLUS). The display shows **Terminals&Extns.**
4. Press **Next** four times. The display shows **Passwords.**
5. Press **Show**. The display shows **COS Pswds.**
6. Press **Next** until the display shows **Progrming Pswds ▶.**
7. Press **Show** until the display shows **Sys admin:**.
8. Press **CHANGE** and enter the new password.
9. Press **OK** to accept the new password.

Erasing the Administrator password

If you leave the Administrator password blank (by entering no digits in step 8), the password is erased. If you erase the password, anyone can enter Administrator programming without a password.

Setting the Basic password

The Basic password is one to six digits long and allows you to access some programming settings using feature codes. You cannot enter regular programming with this password. The default is **2 2 7 4 2**, which spells BASIC on the dial pad.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press **☐ * * 2 6 6 3 4 4** (CONFIG). The display shows **Password:**.
3. Press **7 2 7 5 8 7** (SAPLUS). The display shows **Terminals&Extns.**
4. Press **Next** four times. The display shows **Passwords.**
5. Press **Show**. The display shows **COS Pswds.**
6. Press **Next** until the display shows **Progrming Pswds.**
7. Press **Show**. The display shows **SysAdmin+:**.
8. Press **Next** until the display shows **Basic:**.
9. Press **CHANGE** and enter the new password.
10. Press **OK** to accept the new password.

Erasing the Basic password

If you leave the Basic password blank (by entering no digits in step 9), the password is erased. If you erase the password, anyone can enter Basic programming without a password.

Hospitality passwords

The Hospitality passwords are one to six digits long and allow you to access some or all of the Hospitality Services feature programming. There are two types of Hospitality services feature passwords, the Desk admin password and the Room condition password.

Setting the Desk admin password

The Desk admin password is used to access all Hospitality Services admin features. The default Desk admin password is: (4677). To change the default Desk admin password:

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press . The display reads **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display reads **Passwords.**
5. Press . The display reads **COS Pswds.**
6. Press until the display reads **Hospitality.**
7. Press . The display reads **Desk Pswd:4677.**
8. Press the **CHANGE** display key. Enter a one to six digit number. Press **OK**.

Room condition password

The Room condition password controls the ability to change the room condition with . The default room condition password is: **None**. Different from the Desk admin password, the room condition password can remain as None. To change the default Room condition password:

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press . The display reads **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display reads **Passwords.**

5. Press . The display reads **COS Pswds.**
6. Press until the display reads **Hospitality.**
7. Press . The display reads **Desk Pswd:4677.**
8. Press . The display reads **Cond Pswd:None.**
9. Press the **CHANGE** display key. Enter a one to six digit number. Press **OK**.

Setting the Registration password

To register each Companion cordless handset with the Modular Plus system, you must enter the Registration password on each cordless handset. The default is or .

You can, and should, set your own password to prevent unauthorised cordless handsets from registering on your system. You can choose any combination of one to six digits. You will find it easier to remember the password if the numbers correspond to a word. Keep a record of the Registration password in a secure place.

This setting only appears if you have cordless credits available.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press four times. The display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press until the display shows **Reg. Pswd.**
7. Press **CHANGE** and enter the new password.
8. Press **OK** to accept the new password.

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Erasing a forgotten Call log password

If someone forgets their Call log password, you can reset it to None so that they can set a new one. You cannot set a new password using this method. You can only erase an existing one. See ‘Call log’ on page 288 for information about setting a new Call log password.

See ‘Chart 21: Call log passwords’ on page 343 in Appendix A for a programming overview.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Passwords.**
5. Press . The display shows **COS Pswds.**
6. Press . The display shows **Call log Pswd:**.
7. Press . The display shows **Show extn:..**
8. Enter an extension number.
9. Press . The display shows **Log Pswd:nnnnn.**
10. Press **CHANGE** to erase the current Call log password.
11. Press to exit or to continue in programming.

Programming Call services

See ‘Chart 22: Call services’ on page 344 in Appendix A for a programming overview.

1st Display

The Modular Plus system allows extensions to display call information. You specify the extension number under **CLID extn** in **Line data**. The 1st Display option allows you to choose what call information displays first on that extension. Depending on the services you subscribe to, Call Display information may contain:

- the number of the caller
- the name of the line in your Modular Plus system that the call is on
- the name of the caller, if you have a system speed dial specified for the caller, with the name of the caller also specified

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press until the display shows **Call services.**
8. Press . The display shows **Auto call info.**
9. Press . The display shows **1stDisplay.**
10. Press **CHANGE** to choose **Name**, **Numb**, or **Line**.
On an incoming call, the display may show **Unknown number** if the information is not available from your telephone company. You may see **Private number** on the display if the caller blocks that information.

Auto called ID

This setting applies to Norstar/BST extensions only. Cordless handsets receive CLID. ISDN terminals can receive CLID automatically if supported by the terminal.

The Auto called ID (identification) momentarily shows the number of the called party on the display of a Norstar/BST extension. The default is No, the Auto called ID is not displayed.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password#:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The displays shows **nnn:nnn.**
6. Press . The display shows **Line access.**
7. Press until the display shows **Call services.**
8. Press . The display shows **Auto call info.**
9. Press until the display shows **Auto called ID#:**.
10. Press **CHANGE** to choose **N** (No) or **Y** (Yes).
11. Press to exit or to continue in programming.

Remote access

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Programming lines and features for remote access

Remote access packages

Remote access packages allow you to control the remote use of Modular Plus line pools and the paging feature.

You create a remote access package by defining which of your system line pools the caller will be able to access and whether the caller can use Page and line pools. You then assign the package to individual lines (using Rem line access), and to a particular class of service password.

Remote access packages defaults

Parameter	Square	PBX	Hybrid
Package 00	Prohibits remote access to line pools and Page. Cannot be changed.		
Package 01			
Line pool access	N for Pool A to O		
Remote Page	No		
Packages 02 - 15			
Line pool access	N for Pools A to O		
Remote Page	No		

You can use **COPY** and the keypad to copy settings from one remote package to another.

The line pool access display shows an alphabetic line pool identifier, followed by a numeric line pool access code in parentheses (for example, **PoolA (9):N**). If no access code has been identified, there is nothing between the brackets (for example **PoolA ():N**). The line pool access code can be programmed under **Terminals&Extns**.

Remote package 00 is the default setting for the Remote package setting. It does not permit access to line pools or to remote paging. Unlike packages 01 to 15, package 00 cannot be changed.

You can define up to 15 remote access packages (01 to 15).

The remote restrictions and line restrictions still apply for remote users who call into the Modular Plus system to use lines for calling out.

To use features on a Modular Plus system remotely, press ***** followed by the feature code. Even if you are calling from another Modular Plus system, press ***** instead of **☎**.

Line Pool access

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Remote access.**
7. Press . The display shows **Remote access pkgs.**
8. Press again. The display shows **Show pkg:**.
9. Enter the number of the package (00 to 15).
10. Press . The display shows **LinePool access:**.
11. Press again. The display shows **Pool A:**.
12. Press **CHANGE** to choose N (No) or Y (Yes).
13. Press to exit or to move to the next line pool.

Remote page

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Remote access.**
7. Press . The display shows **Remote access pkgs.**
8. Press again. The display shows **Show pkg:**.
9. Enter the number of the package (00 to 15).
10. Press . The display shows **LinePool access:**.
11. Press . The display shows **Remote page:**.
12. Press **CHANGE** to choose N (No) or Y (Yes).
13. Press to exit or to continue in programming.

Rem line access

Remote line access allows you to assign a different remote package to each line in your system.

L001 Rem pkg

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System Prgrming**.
5. Press . The display shows **Hunt groups**.
6. Press until the display shows **Remote access**.
7. Press . The display shows **Remote access Pkgs.**
8. Press . The display shows **Rem line access**.
9. Press . The display shows **Show line:**.
10. Enter the line number or press **LIST** to see line 001.
11. Press **CHANGE**.
12. Enter the number for the remote package that will apply to the line whenever it is used by a remote caller.
13. Press to exit or to continue in programming.

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Cordless Capabilities

Cordless capability allows you to make and receive calls at any location within the workplace. Calls can ring at your desk or calls can be directed to your cordless handset.

To enable cordless capability on your Modular Plus system, you must enter Software Keys. See ‘Software Keys’ on page 59 for more information.

Your cordless handset can access many Modular Plus business features such as Call Forward and Call Transfer. Cordless capability on your Modular Plus system consists of four components:

- **Norstar software**—Norstar software manages the telephone traffic between Basestations and cordless handsets. Basestations are connected to the CCU in the same way as are Norstar/BST telephones. Cordless handsets are registered on the system and do not take up any ports on the system.
- **Basestations**—Basestations are positioned throughout the coverage area to send and receive calls between the cordless handsets and the CCU. Each Basestation contains two radio transceivers and can handle two cordless handset calls at once.

Basestations are positioned and grouped into cells that provide continuous telephone service in the specified coverage area of your business premises (both indoors and outdoors). The CCU hands off your call from one cell to another as you walk around within the coverage area.

- **Cordless handsets**—The cordless handsets used with your Modular Plus system are small, lightweight units with fully digital performance to provide clear voice quality. For more information, refer to the Cordless Handset User Guide for your model of cordless handset.

Cordless handsets can be assigned to someone as the only telephone, or in addition to the desk telephone (with a separate extension number).

- **Programming**—Programming of cordless capability is easily and quickly done on a T7316, T7316E, M7310N or M7324N telephone. The administration terminal is used to assign cordless handsets to the system, check Basestation parameters, programme cells and radios, and enable and disable registration.

As you programme the cordless handsets, make sure that you record the information in the Programming Record.

You can do the following:

- turn on Master Registration for the entire system
- check if an extension number is available for registration
- register each cordless handset using the Registration password
- de-register a cordless handset
- turn off Master Registration for the entire system

After you have registered the cordless handsets, you can

- programme the extension name (not all models of cordless handsets can display extension names)
- programme where calls will be forwarded to when the cordless handset is busy or there is no answer
- assign extension or line/extension filters for each Service
- assign a cordless handset to a Direct-Dial extension

Note: Do not designate a cordless handset to be a Direct-Dial extension because a cordless handset can handle only two calls at a time and may not always be reachable. Also, a cordless handset cannot invoke a Service mode to extend ringing to an Extra-Dial telephone.

Each cordless handset is an extension and requires an extension number. A user may have both a desk telephone and a cordless handset. Both telephones have their own extension numbers. You can switch your call between the cordless handset and the desk telephone.

To switch between cordless handset and desk telephone

Use the Transfer feature described in the Using your Cordless Handset system feature card for your model of portable handset.

Note: A person who has both a desk telephone and a cordless handset will be able to use the desk telephone to answer calls ringing at the handset, if the Installer has programmed an Answer key on the desk telephone. Refer to ‘Answer keys’ on page 236.

Registration password

To register each cordless handset with the Modular Plus system, you must enter the Registration password on each cordless handset. The default is or . To change the Registration password, see ‘Setting the Registration password’ on page 175.

Set your own password to prevent unauthorised cordless handsets from registering on your system. You can choose any combination of one to six digits. You will find it easier to remember the password if the numbers correspond to a word.

The current Registration password should always be recorded in the Programming Record, but if you forget the password, you can easily programme a new one. Registering cordless handsets

To communicate with the Modular Plus system, each cordless handset must be registered to an extension number. Refer to the Programming Record to see what extension numbers are available.

By default, the cordless handset extension numbers are 477 to 508, but the Installer may have changed the available number range.

Note: You can register a cordless handset to more than one system. You cannot register a cordless handset to more than one extension number per system. You cannot register more than one cordless handset to one extension number.

Turning on Master Registration

To register cordless handsets you must first turn on registration for the entire system.

The options are Yes or No:

- Option Y (Yes) indicates that Master Registration is turned on.
 - Option N (No) is the default and indicates that Master Registration is turned off.
1. Place the programming overlay over the appropriate keys on your programming telephone.
 2. Press (CONFIG). The display shows **Password :**.
 3. Press (SAPLUS). The display shows **Terminals&Extns.**
 4. Press until the display shows **System Prgrming.**
 5. Press . The display shows **Hunt groups.**
 6. Press until the display shows **Companion.**
 7. Press . The display shows **Registration.**
 8. Press . The display shows **Registration:**.
 9. Press **CHANGE** to toggle the setting between Y (Yes) and N (No).
 10. Press to exit or to continue programming.

Note: To prevent unauthorised cordless handsets from registering on your system, leave Master Registration set to N when you are not registering cordless handsets.

Register the cordless handsets

When you have turned on Master Registration, you are ready to register individual cordless handsets on the system. For information on this procedure, see the Cordless Handset Telephone Registration Instructions for your model of cordless handset.

As you register the cordless handsets, you can identify them by putting a sticker (customer supplied) with the owner's name on each one (be careful not to cover the charger contacts or the microphone).

Troubleshooting registration

If you cannot register a cordless handset, ensure the batteries are charged and properly installed. For more information, see the Cordless Handset User Guide for your model of cordless handset.

If you receive an overflow tone, either the extension number is invalid or the cordless handset is already registered against another extension number on the system. It is best if only one person registers cordless handsets at a time.

If you are unable to register a cordless handset, make sure that

- Master Registration is set to Y
- you are able to establish a radio connection (the radio connection icon in the cordless handset display is lit)
- you are using the correct Registration password. For more information see “Registration password” on page 187.
- the extension number you are trying to assign is available. Make sure that the extension number really is the one you want to use. You may have to de-register another cordless handset first.

Checking if an extension is available for registration

When you register a cordless handset, you assign it an extension number on the Modular Plus system. This implies that no other cordless handset is registered against that extension number. The extension number must be available for registration to succeed.

You can check the extension number registration status. The available conditions include:

- **Available:** the extension number is available for cordless handset registration
- **Unavailable:** registration has been disabled for that extension number
- **Registered:** a cordless handset is currently registered on the extension number and another cordless handset cannot be registered on it. The extension number must be de-registered from the registered handset to make it available.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System Prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Companion.**

7. Press . The display shows **Registration**.
8. Press . The display shows **Registration#:**.
9. Press . The display shows **Portable extns.**
10. Press . The display shows **Show extn#:**.
11. Enter the extension number. The display shows the registration status for this extension.
12. Press to exit or to continue programming.

De-registering an extension number for a cordless handset

To register a cordless handset on an extension number that has another handset registered against it, you must first de-register that extension number. De-registering makes the extension number available for registration.

De-register an extension number when:

- the cordless handset must be replaced due to loss or breakage
- the cordless handset owner departs and you want to assign the cordless handset to someone else and use a different extension number for that person
- the cordless handset has been stolen and you wish to prevent unauthorised access to your system.

Note: You can also de-register a cordless handset from the system using on-air de-registration by the cordless handset. For more information, see the Cordless Handset Registration Instructions for your model of cordless handset.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password :**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **System Prgrming.**
5. Press . The display shows **Hunt groups.**
6. Press until the display shows **Companion.**
7. Press . The display shows **Registration.**
8. Press . The display shows **Registration#:**.
9. Press . The display shows **Portable extns.**
10. Press . The display shows **Show DN#:**.

11. Enter the extension number. The display shows the extension, followed by **Registrnd**. If **Registrnd** does not appear, then there is no cordless handset registered at this extension number.
12. Press **DEREG** to de-register a currently registered cordless handset.
13. Press  to exit or to continue programming.

Note: This procedure does not clear the registration data in the cordless handset. For information on clearing registration data from the cordless handset, see the Cordless Handset Registration Instructions for your model of cordless handset.

Turning off Master Registration

After you have registered the individual cordless handset on the system, turn off registration for the entire Modular Plus system.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press  * * 2 6 6 3 4 4 (CONFIG). The display shows **Password :**.
3. Press 7 2 7 5 8 7 (SAPLUS). The display shows **Terminals&Extns**.
4. Press until the display shows **System prgrming**.
5. Press . The display shows **Hunt groups**.
6. Press until the display shows **Companion**.
7. Press . The display shows **Registration: Y**.
8. Press **CHANGE** to change the setting. N prevents registration.
9. Press  to exit or to continue programming.

What to tell your colleagues

This section tells you what information to give to the people who will use the cordless handsets. You should have this information ready before you hand out the cordless handsets to the users. Read the Cordless Handset User Guide for your model of cordless handset. Familiarise yourself with the cordless handset and its basic operation.

As you hand out the cordless handsets with the Cordless Handset User Guides and Using your Cordless Handset system feature cards, be prepared to demonstrate the basic use of the cordless handsets. You may find it convenient to call people together for a brief training session and go over the Cordless Handset User Guides with them.

Also give your users the following information:

1. Your name and telephone number

Your colleagues can write your name and number on the system feature cards so that they can contact you for information and help about the system.

2. Where they can use the cordless handsets

Tell people where they can use their cordless handsets within the building. Explain that voice quality will degrade and they will lose their connection if they move out of the coverage area.

Tell them that their cordless handsets have been registered with your system. If cordless handsets have been registered to more than one system, show them how to switch from one system to another.

3. How to switch between cordless handset and desk telephones

Use the Transfer feature described in the Using your Cordless Handset system feature card for your model of cordless handset.

Note: A person who has both a desk telephone and a cordless handset will be able to use the desk telephone to answer calls ringing at the handset, if the Installer has programmed an Answer key on the desk telephone.

4. Where a call goes if the handset loses its radio connection

If a person using a cordless handset moves out of the coverage area or the handset's batteries fail, the radio connection may be lost. Explain to people that a call will be transferred to the Prime extension if a cordless handset loses its radio connection. Tell them who is staffing the Prime extension.

5. How to switch from Pulse Dial mode to Tone mode during a call

If your system uses Pulse Dial mode, you can change a cordless handset to Tone mode for the duration of the active call by pressing the # key. Tone mode can be used to access other telephone features, such as voice mail.

Maintenance

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Beginning a Maintenance session

Maintenance overview

A Maintenance session provides information that you can use to diagnose problems that may occasionally arise within the Modular Plus system.

The Maintenance section of programming has three headings available for System Administrator programming.

System version	Displays the version number of the System Processor software.
Clear lines	Clears a hung line. See 'Clearing a hung line' on page 199 for more information
Sys admin log	Displays a list of system initialisations, programming sessions, invalid password attempts and password changes.

You can run a Maintenance session from any working T7316, T7316E, M7310N or M7324N telephone. Only one person at a time can access a Maintenance session. Photocopy the System Administration log found at the end of this chapter, and use it to record maintenance information.

Follow these steps any time you enter a Maintenance session:

1. Release all calls on your telephone.
2. Place the programming overlay over the appropriate keys on your programming telephone.
3. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
4. Press (SAPLUS). The display shows **Terminals&Extns.**
5. Press until the display shows **Maintenance**.

When necessary, refer back to these five steps about how to begin a Maintenance programming session. Only one person at a time can access a Maintenance session.

Checking the system version of the software

System version tells you the version number of the system processor software found in the Feature card. The release version can be used to trace any software fault that may occur. Write the system processor version number in the maintenance records.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Maintenance**.
5. Press . The display shows **System version**.
6. Press . The display shows the version number of the system processor.
7. Write the system processor version number in the appropriate maintenance record.
8. Press to exit or to continue in programming.

System administration log record

You can check under the **Sys admin log** heading to find a list of administrative events performed on Modular Plus. Use the following table to record these log items whenever you run a Maintenance session.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Maintenance**.
5. Press . The display shows **System version**.
6. Press until the display shows **Sys admin log**.
7. Press . The display shows **Items in log:**.
8. Press and to move down or up the list of event codes.
9. Press to exit or to continue in programming.

Troubleshooting

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Recording and reporting alarm codes

Occasionally, you may encounter a problem with your Modular Plus system, either from internal or external causes.

You need to know the following:

- the alarm extension that displays messages when there are problems
- how to recognise and clear hung lines
- when a power failure occurs
- what happens to the system.

When there is a problem, the Modular Plus system generates a message called an alarm code on the Alarm extension. You assign a Norstar/Business Series Terminal (BST) extension with a two-line display (T7316, T7316E, M7310N or M7324N) to be the alarm extension.

If an alarm code appears on the display of the Alarm extension:

1. Record the alarm code.
2. Press **TIME** and record the time displayed.
3. Call the Advice Line and report the alarm code.
4. After speaking to the support person, press **CLEAR**.

Clearing lines

A line is hung when it remains busy even when no conversation or data communication is taking place and it cannot be disconnected by normal means. Lines can become hung when exchange lines are connected to AC15A private circuits. Lines connected to a device such as an answering machine, fax machine or modem can also become hung.

It is a matter of judgement to decide whether a line is hung or simply in use. When a line is busy, you see a solid indicator next to the line key and the message, **Line in use**, when you attempt to select the line.

If a line is the only line in a line pool, and it is busy, a solid indicator appears next to the line pool key and the message, **No free lines**, appears on the display. For a line that is one of several lines in a line pool, there is no direct indication that the line is busy as long as other lines in the line pool are free. The indicator next to the line pool key and the **No free lines** message appear only when all lines in a line pool are busy. If one or more lines in a line pool become hung, these busy indications appear with greater frequency than usual.

Note: If you ensure that all lines assigned to line pools appear individually on at least one telephone in the system, it is much easier to detect hung lines. When lines become hung as a result of a call being directed into or through your system on a private circuit, they become hung in pairs. The hung line pair consists of one private circuit and one exchange line or private circuit. If network lines become hung regularly, this indicates a problem with your network configuration.

Clearing a hung line

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Check the line number of the hung line using (the Key Inquiry feature).
3. Press (CONFIG). The display shows **Password:**.
4. Press (SAPLUS). The display shows **Terminals&Extns.**
5. Press until the display shows **Maintenance.**
6. Press . The display shows **System version.**
7. Press . The display shows **Clear lines.**
8. Press . The display shows the number of the first busy line in the system, followed by the time, in hours and minutes, that the line has been busy. If there are no hung lines, the display shows **No busy lines** for a short time, then **Clear lines.**
9. If this is not the line you want to clear, press until the line you want to clear is displayed.
10. Press **CLEAR** to disconnect the line. The display confirms that the line has been cleared.
11. Press to exit or to continue in programming.

Power failure

If the power fails, your Modular Plus system maintains its programming for a period of three days. Telephones also keep their personal programming. The clock always needs to be set to the correct time after a power failure.

Power-fail telephone

Each analogue line card installed in either the Modular Plus Central Control Unit (CCU) or a Line Module, provides one power-fail telephone connection at the Box Connection.

ATTENTION! power-fail lines not supported

The following line cards do not support power fail telephone lines:

NTBB1202: LM with auto-ranging power supply

These versions of LMs do not support emergency telephones.

NTBB20AD-93 UK Class B LM

NTBB20AE-93 Australia LM

NTBB20FD-93 Eng/Fr LM

NTBB20FF-93 Cala LM

NTBB20FG-93 International LM

The power-fail telephone is an analogue telephone that functions independently of the Modular Plus system. You can use the power-fail telephone only when your Modular Plus system is disconnected or without power. The power-fail telephone is usually located near the Modular Plus CCU. If there is no power-fail telephone next to the CCU, plug a standard analogue telephone into the power-fail telephone socket located near the CCU.

The power-fail telephone facility is not supported on a BRI loop. Modular Plus customers with digital exchange lines who require power-fail telephones have the following options:

- add analogue exchange lines to the system
- install an uninterruptable power supply (UPS) stand-by power unit for the Modular Plus

Troubleshooting a cordless handset

If you suspect that you have a faulty cordless handset, ensure that your system is functioning properly by using a cordless handset that you know works properly. Then troubleshoot the cordless handset.

When there is a problem with a cordless handset:

1. Check that the cordless handset is on and that the battery is not low or incorrectly inserted.
2. Establish a radio connection to get dial tone.
3. If there is no dial tone on the cordless handset, check
 - that dial tone is available from the system
 - that the cordless handset is inside the radio coverage area

- that you have chosen the right system number on the cordless handset
- that the cordless handset has been assigned the correct extension number by calling it from another telephone to see if it rings
- that the cordless handset is registered. If it is not registered, try to register the cordless handset again.

Note: For further information about registration, see “Registering cordless handsets” on page 103 and the Registration Instructions for your model of cordless handset.

If the problem persists, call your system supplier.

SECTION IV: Using telephone features

About your system telephones

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 - T7316 Business Series Terminal.....207
 - M7324N telephone and CAPN.....208
 - M7310N telephone.....209
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 - M7100N/T7100 telephones.....211
 - M7000/T7000 telephone.....211
 - Release key.....212
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Your system telephones allow you to use many features with just a few key presses. At the same time, you can view what is happening by reading the telephone display, if it has one. You can choose which of the system features you want to have available, make them work the way that suits you best, and assign the features you use frequently to the keys on your telephone.

The current time and date appear on the display of idle display telephones.

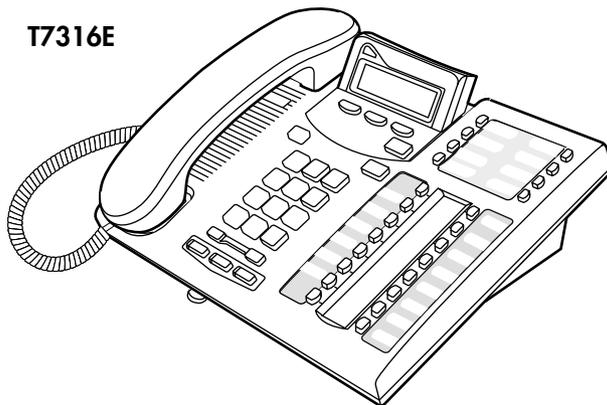
T7316E Business Series Terminals and KIMs

The T7316E BST telephone has a two-line display, three display keys, 16 memory keys with indicators, eight memory buttons without indicators.

This keystation has handsfree ability, accessed from a button located under the dialpad. Also under the dial pad are a mute key that mutes for all features, and a headset key which allows the user to attach a headset and direct the call to the headset or the handset without needing to disconnect the headset.

Line numbering starts on button 09.

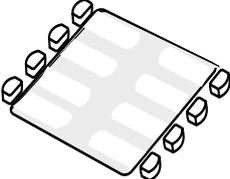
T7316E



The default button assignments for the T7316E depend on the template applied. Refer to your Programming Records to identify the current button programming for each telephone or group of telephones.

T7316E BST upper buttons (PBXtemplate)

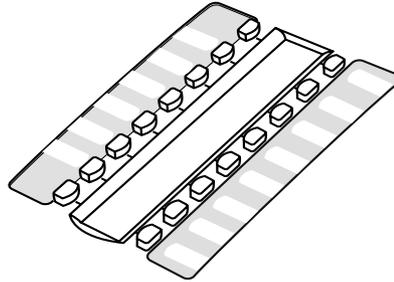
PBX template		
01	Contrast	05
02	Show Time	06
03		07
04		08
		Send Msg
		Speed dial



Hybrid template		Square template	
01	Contrast	05	Saved No.
02	Show Time	06	Sys Park
03	Privacy	07	Send Msg
04		08	Speed dial

T7316E BST lower buttons

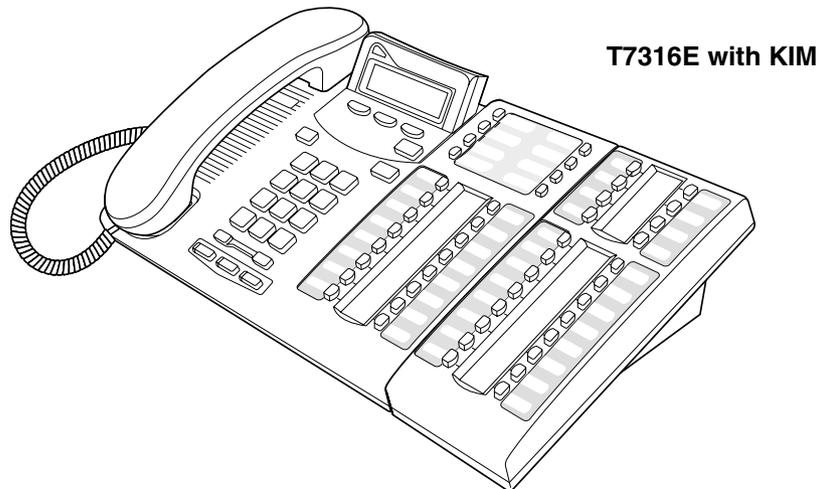
PBX template	
09	Sys Park
10	Saved No.
11	Call Fwd
12	Pick-Up
13	Page
14	Transfer
15	Time/Date
16	Receive msg
17	Call Timer
18	Ring Again
19	DND
20	Conf/Trans
21	Last No.
22	Voice Call
23	Intercom
24	Intercom



Square template		Hybrid template	
09	Line<xx>	17	Call Timer
10	Line<xx>	18	Ring Again
11	Line<xx>	19	DND
12	Line<xx>	20	Conf/Trans
13	Page	21	Last No.
14	Transfer	22	Voice Call
15	Time/Date	23	Intercom
16	Receive msg	24	Intercom

Central Answering Position (CAP)

The T7316E can be used alone or you can expand feature and line button capacity by adding one or more Key Indicator Modules (KIM). Each KIM has 24 buttons with indicator displays.



T7316E with KIM

A KIM that is configured to support line and hunt group appearances is called an eKIM. A T7316E supports a maximum of four eKIMs.

A KIM that is not configured in system programming does not support lines. This type of module is called an OKIM. A T7316E can support a maximum of nine OKIMs. You need to add a system power supply (SPS) if you install five or more OKIMs on a T7316E.

The CAPN is usually the Prime extension and the Direct-Dial telephone for the lines and telephones it serves.

The **T7316E telephone** displays a set of icons in place of flashing arrows when it is connected to a system with version 5 or newer software. If you connect a T7316E telephone to a system that is running previous versions, the standard line indicators display. The KIM also displays these icons. Note that the KIM is only supported by version 5 and later software.

	Active call	The line is active and/or you are connected to this telephone.
	Ringing	A call is coming into this line.
	Hold	The call on this line is on Hold at this telephone.
	Call forward	The call on this line has been forwarded.
	Active button	The feature assigned to this button is active. Also used by Do Not Disturb.

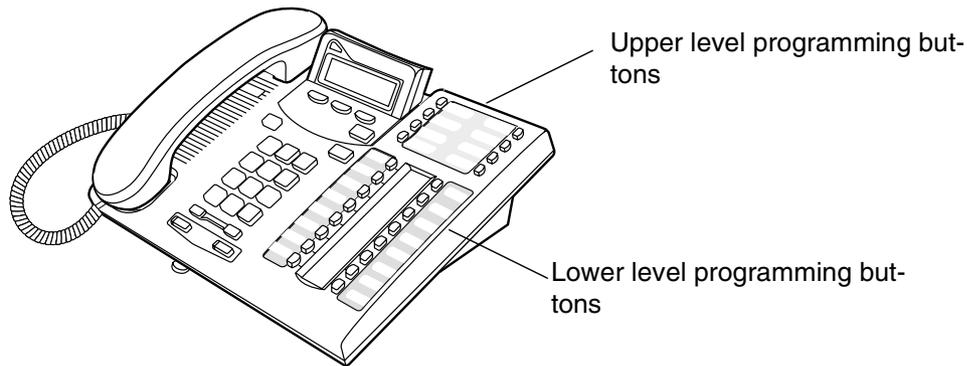
T7316 Business Series Terminal

The T7316 telephone has a two-line display, three display keys, 16 memory keys with indicators, eight memory keys without indicators, and Handsfree capability.

The default button assignments for the T7316 Business Series Terminal (BST) depend on the template applied.

Refer to the Programming Record to identify the current button programming for each set or group of sets.

T7316 telephone



Upper level buttons

Note the button numbering for the upper buttons of this set. They are mapped to the button settings from the M7310 telephone which has two levels of programming on the upper buttons. However, since there is no second level of memory for the buttons on this set, the button numbers are not consecutive.

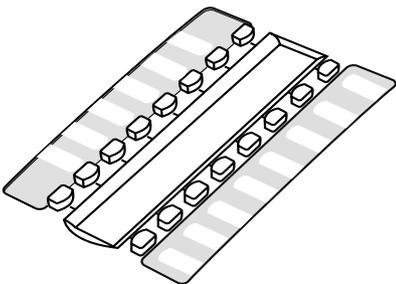
These examples show defaults for a system with three-digit internal numbers. The defaults do not actually exist on any telephone, as no telephone has an autodial button for itself. The position that would be taken by the autodial button for itself, is blank.

T7316 BST upper buttons

Button 23	Set 227	Button 31	Set 231
Button 25	Set 228	Button 33	Set 232
Button 27	Set 229	Button 24	Set 239
Button 29	Set 230	Button 26	Set 240

 A diagram of a telephone keypad showing the upper level buttons. The buttons are arranged in a grid. The top row has buttons 23, 25, 27, and 29. The second row has buttons 31, 33, and a blank space. The third row has buttons 24 and 26. The buttons are shaded to indicate their positions.

T7316 BST lower button assignments

Button #/ Function	Square template	Button #/ Function
11 Set 221		17 Set 224
13 Set 222		19 Set 225
15 Set 223		21 Set 226
01 Line 1		06 Conf/Trans
02 Line 2		07 Last No.
03 Call Fwd		08 Voice Call
04 Pick-Up		09 Intercom
05 Page		10 Intercom

PBX template		Hybrid template	
11 Set 221	17 Set 224	11 Set 221	17 Set 224
13 Set 222	19 Set 225	13 Set 222	19 Set 225
15 Set 223	21 Set 226	15 Set 223	21 Set 226
01 DND	06 Conf/Trans	01 Line 1	06 Conf/Trans
02 Transfer	07 Last No.	02 Line pool	07 Last No.
03 Call Fwd	08 Voice Call	03 Call Fwd	08 Voice Call
04 Pick-Up	09 Intercom	04 Pick-Up	09 Intercom
05 Page	10 Intercom	05 Page	10 Intercom

M7324N telephone and CAPN

The M7324N telephone has a two-line display, three display keys, 24 memory keys with indicators, and Handsfree capability.



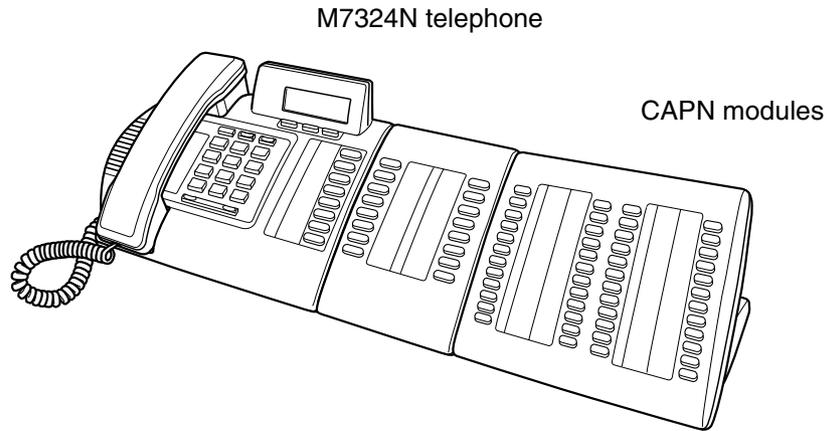
M7324N memory key assignments

Square			Hybrid			PBX		
Line 1	Call Fwd	Conf	Line 1	Call Fwd	Conf	Blank	Call Fwd	Conf
Line 2	Spd Dial	Transfer	Line Pool	Spd Dial	Transfer	Blank	Spd Dial	Transfer
Line 3	Last No.	DND	Blank	Last No.	DND	Blank	Last No.	DND
Line 4	Save No.	Pick-Up	Blank	Save No.	Pick-Up	Blank	Save No.	Pick-Up
Blank	Blank	Vce Call	Blank	Blank	Vce Call	Blank	Blank	Vce Call
Blank	Blank	Page	Blank	Blank	Page	Blank	Blank	Page
Blank	Blank	Intercom	Blank	Blank	Intercom	Blank	Blank	Intercom
Blank	Blank	Intercom	Blank	Blank	Intercom	Blank	Blank	Intercom

Central Answering Position (CAPN)

The Central Answering Position telephone (CAPN) is a Norstar M7324N telephone connected to at least one CAPN module. The CAPN module is an add-on device that provides 48 extra memory or line keys. You can connect one or two CAPN modules to an M7324N telephone.

The CAPN is usually the Prime extension and the Direct-Dial telephone for the lines and telephones it serves.



The CAPN module key mapping is the same for all templates. All keys are blank keys by default.

M7310N telephone

The M7310N telephone has a two-line display, three display keys, 10 memory keys with indicators, 12 dual-memory keys without indicators, and Handsfree capability.

M7310N memory key assignments, key with indicators



Square	Hybrid	PBX
Line 1	Line 1	Line Pool
Line 2	Line Pool	Conf/tran
Line 3	Call Fwd	Call Fwd
Line 4	Pick-Up	Pick-Up
Spd Dial	Spd Dial	Spd Dial
DND	DND	DND
Last No.	Last No.	Last No.
Page	Page	Page
Intercom	Intercom	Intercom
Intercom	Intercom	Intercom

M7310N key assignments for dual-memory keys (all templates)

Extn 233 Extn 221	Blank Extn 227	The defaults shown may not actually occur on any telephone, as no telephone has an autodial key for itself. The extension number for each telephone appears as a blank key on that telephone.
Extn 234 Extn 222	Blank Extn 228	
Extn 235 Extn 223	Blank Extn 229	
Extn 236 Extn 224	Blank Extn 230	
Blank Extn 225	Blank Extn 231	
Blank Extn 226	Blank Extn 232	

M7208N/T7208 telephones

These telephones have a single-line display, eight memory keys with indicators, and handsfree capability.



M7208N



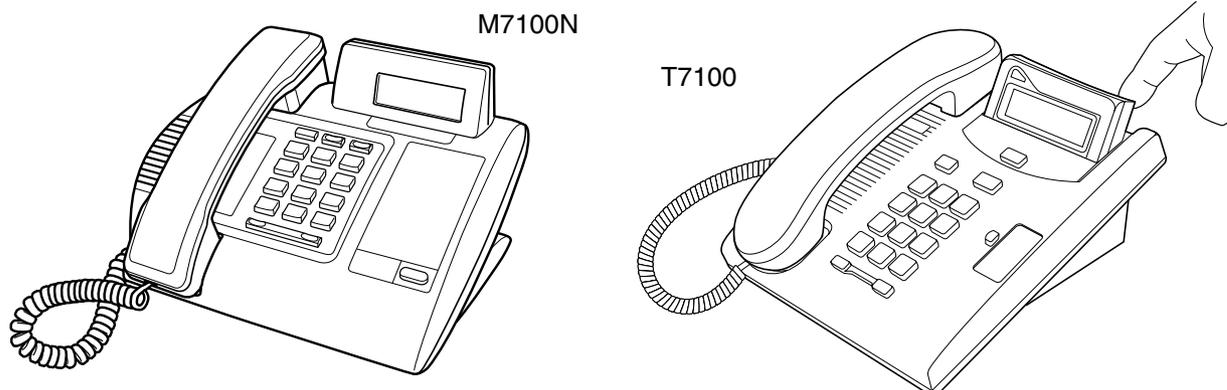
T7208

M7208N memory key assignments

Square	Hybrid	PBX
Line 1	Line 1	Line Pool
Line 2	Line Pool	Pick-Up
Last No.	Last No.	Last No.
Page	Page	Page
Spd Dial	Spd Dial	Spd Dial
Conf/tran	Conf/tran	Conf/tran
Intercom	Intercom	Intercom
Intercom	Intercom	Intercom

M7100N/T7100 telephones

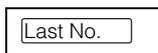
These telephones have a single-line display and a single memory key with no indicator.



These telephones do not have any line keys, so they may work slightly differently from the display telephones for some of the call features. For instance, where other telephones may require you to select a line key to answer a call, for these telephones, you pick up the handset. Where other telephones require you to select a line key to take a call off hold, you press  on these sets.

The M7100N and T7100 telephones cannot have a Handsfree/Mute key. The one feature key on these sets is always defaulted to Last Number redial. You will find special instructions for these telephones in some feature descriptions.

M7100N/T7100 key assignment (all templates)



M7000/T7000 telephone

The M7000/T7000 telephones do not have a display or line keys. They do have four programmable memory buttons, without indicators.

To answer a call with the this type of telephone, lift the handset. To place a call on hold, you press the  key. To reconnect the held call, press  again. This style of telephone does not have a Handsfree/Mute key.

These telephones are commonly used with the Hospitality Services feature.

Refer to "Programming M7000/T7000 memory keys" on page 221 for a detailed steps for programming the four memory keys on this telephone.

Release key

Pressing  ends a call. You do not have to put the handset down.  also ends feature programming. While you are on a call, do not press  to end a feature you are using. If you do, you disconnect the call. Instead, press  to end a feature.

Visually Impaired Operator Console

The Modular Plus system supports a Visually Impaired Operator Console (VIOC) for the visually impaired attendant. The VIOC provides computer-based speech synthesis for the programming interface. A VIOC consists of an M7324N telephone, a CAPN module, an IBM-compatible PC, a PCI-B card, a PC-based voice synthesiser card, and an analogue mixer card.

The PC uses the PCI-B to obtain information from the Central Control Unit (CCU) and controls the voice synthesiser to generate audible prompts. The synthesiser output is routed to a headset where it is coupled with the telephone call in progress, enabling the operator to respond to the caller and to hear status information at the same time.

PCI-B is an add-on card for the PC that allows applications running on the PC to access the Modular Plus D-channel signalling and B2 data channels. VIOC requires D-channel signals.

The voice synthesiser card is an add-on for the PC that is capable of performing text-to-speech synthesis. The volume and speed of the synthesised speech can be adjusted by the user.

The analogue mixer card is an add-on for the PC that takes the analogue signal from the voice synthesiser and mixes it with the headset audio output from the M7324N extension. The result is sent to the headset port of the mixer card. The mixer card does not provide any volume control.

To use the VIOC function, the display language needs to be set to Operating. See "Changing the display language" on page 117 for instructions.

Common feature display messages

You may see the following displays when using a feature.

Access denied	Someone is already using programming, or the feature you are trying to use is not compatible with the configuration of the telephone or line.
Denied in admin	You have tried to use a feature, but you have not been given access to it in programming.
Feature timeout	You have taken more than 15 seconds to press a button in response to a display.
Inactive feature	You have entered a feature code that is used by an application programme that your system does not have.
Invalid code	You have entered an invalid feature code.
Not available	You have tried to use a feature that is not available in the present set-up of your Modular Plus system.
Set locked	You cannot use the feature you have chosen because your telephone is locked. See 'Locking an extension' on page 86.
1234567890123... VIEW→ OK	Press # or press VIEW→ or +VIEW to view a number that is too long to fit on the display. Press ↵ or OK when you are finished.
§	This indicates a long-distance call. (May be available with Call Display services.)
239>221	Either you are receiving an internal call from telephone 239 forwarded by telephone 221 or you have an answer button for telephone 221 and an internal call from 239 is ringing on 221.
221 TRANSFER	You are connected to an internal call. Press TRANSFER to transfer the call.
221 calling	You are receiving a call from telephone 221.
Call 221? YES NO	You have received a Ring Again offer for a call to an internal telephone. Press the flashing internal line button or YES to call the number again. On the T7100/M7100N or T7000/M7000 telephones, just lift the receiver. Otherwise, press NO or wait 30 seconds for the Ring Again offer to expire.
Camped: 221 CALLBACK	The person to whom you camped the call did not answer it. The call has come back to you. Press the line button or CALLBACK to reconnect to the call.
Line001 TRANSFER	You are connected to an external call. Press TRANSFER to transfer the call.
Line001>221	Either you are receiving an external call forwarded from telephone 221 or you have an answer button for telephone 221 and an external call is ringing on that telephone.
Line001 transfer	The call on line 001 is being transferred to you by someone else in your Modular Plus system.

You may see the following displays when using a feature.

Line001 waiting	A camped call is waiting. Press the line button or use Call Queuing to answer the call. Press  if you have T7100/M7100N telephones.
No calls waiting	You tried to use Call Queuing but no call was ringing at your telephone.
No line selected	There is no call ringing at your telephone. If you have a flashing line button but your telephone is not ringing, press the line button to answer the call on that line.
Not in service	The telephone to which you directed a call is not in service or is otherwise unavailable. The call is returned to your telephone.
Parked call CALLBACK	No one answered the call you parked. The call has come back to you.
Pick up receiver	You have used the Call Queuing feature without picking up the receiver. Auto Handsfree has not been assigned to your telephone. You must use the receiver or the handsfree button to answer a call.
Priority>221 BLOCK	You are receiving a Priority Call. If you are on another call, inform the person you are speaking to that the call is about to be put on hold. Press the flashing line indicator of the Priority Call or wait until the call connects automatically (in 8 seconds). The Priority Call goes through when you hear the next beep. Your active call is placed on Exclusive Hold. It is reconnected automatically when the Priority Call ends (unless you transfer the Priority Call, in which case you must press the line button of your original call to reconnect). Use DND ( 8 5) or press BLOCK to reject a priority call.
Release a call	You have no free line buttons on which to receive a call. Release one of your current calls and try to answer the incoming call again.
Use line pool? YES NO	You have received a Ring Again offer for a line pool. Press the flashing internal line button or YES to use the line pool. On T7100/M7100N or T7000/M7000 telephones, just lift the receiver. Otherwise, press NO or wait 30 seconds for the Ring Again offer to expire.
Hold or release	You cannot programme a feature button while you are on a call.
Release calls	You have tried to use a feature while you were on a call or had calls on hold. Release the call, or calls, before using the feature.
Line in use	The line is in use. Make the call using normal methods or wait until the line is free.
No button free	You have tried to make, receive, or pick up a call when no line button was available. Some features also require you to have a button free. Releasing calls can free up line buttons.

Make calls first	The feature you tried to use requires you to be on an active call at your telephone. This display also appears when information about a call has been cleared by a system reset.
No free lines	All the lines or line pools available to the telephone are in use. This display also appears when you have tried to dial an external number or use a feature that conflicts with the lines, line pools or Prime line used by the telephone. This must be corrected by your customer service representative or installer.
No line selected	The telephone has been set up to dial an external number on a Prime line but the telephone does not have a Prime line. This must be corrected by your customer service representative or installer.
In use: 221	You have tried to programme redirection while someone else is programming redirection. Only one person can programme line redirection at a time.
Incoming only	The line you are trying to use for redirecting calls is for incoming calls only. Choose an outgoing line.
9. QUIT BKSP OK	Continue entering digits. Press the volume control or BKSP to delete incorrect digits. Press  or OK when you are finished.
Invalid number	You have entered an invalid line pool code or an invalid destination code.
Line denied	You have selected a line that is private to another telephone.
Restricted call	The destination you have chosen for line redirection is restricted.

Customising your telephones

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- Display contrast.....219
 - Key Inquiry.....219
- Moving line keys.....220
 - Ring type.....221
 - Ring volume.....221

Dialling mode

Business Series Terminals and Norstar telephones support three dialling modes. All three methods allow you to dial a call without picking up the handset. The special features of the Automatic dial and Predial settings are available only when you dial without picking up the handset.

- **Standard dial**—You make a call by selecting a line and dialling the number. If you have a Prime line, it is selected automatically when you lift the handset or press the button marked Handsfree/Mute.
- **Automatic dial**—If you have a Prime line assigned to your telephone, you can dial a number without selecting a line. Your Prime line is selected as soon as you start dialling a number. Automatic dial does not work if your telephone has no Prime line or if the Prime line is in use. Telephones connected to an Analogue Terminal Adaptor (ATA) cannot use Automatic dial.
- **Predial**—Allows you to enter a telephone number, check it, then change it before actually making the call. The call is not dialled until you select a line or line pool or pick up the handset.

You can predial external and extension numbers. You must, however, select the correct type of line (external or internal) for the type of number you have entered. If all the lines on your telephone are busy, you cannot enter a telephone number. If your telephone starts ringing while you are predialling a number, you can stop the ringing by turning on Do Not Disturb (  ). This does not affect numbers you are entering.

Setting the dialling mode of your telephone

1. Press    .
2. Press  or **NEXT** to choose **Automatic dial**, **Predial**, or **Standard dial**.
3. Press  or **OK** to select the displayed dial mode.

Note: Standard dial does not support dialling without lifting the handset of M7100N/T7100 or M7000/T7000 telephones. If you have one of these telephones, use the Automatic dial or Predial modes for dialling without lifting the handset.

Note: The dialling modes feature code cannot be programmed to a memory key.

Display contrast

You can adjust the contrast on your telephone display to make it easier to read.

1. Press **[☎] [*] [7]**. The display shows **Contrast level 4**.
2. Press a number on the keypad for the contrast level you want or if you have a two-line telephone, press **UP** and **DOWN** to adjust the contrast.
3. Press **[☺]** or **OK** to set the new contrast level.

Key Inquiry

Ensure that the function of a key matches the label on the key by pressing **[☎] [*] [0]** and then the key. The key function displays on the telephone. On the M7100N/T7100 telephones, Key Inquiry displays the extension number is followed by the function assigned to the single memory key.

To find out your extension number, use the key Inquiry feature (**[☎] [*] [0]**) on an intercom key.

Displays

```
001 Line001
  SHOW  OK
```

The display shows the number and name of the line. Press **SHOW** to view the redirection status of the line.

```
123456789012345...
  VIEW→ OK
```

Press **#** or press **VIEW→** or **+VIEW** to view a number that is too long to fit on the display. Press **[☺]** or **OK** when you are done.

```
21 <SETNAME>
NEXT VIEW→
```

The display shows the directory number of the telephone, and the assigned name. Press **NEXT** to see the first line assigned to ring at the intercom key.

```
<Feature name>
  SHOW  OK
```

The name of the feature assigned to a key is displayed when you press the key. Press **#** or **SHOW** for additional information.

```
Press a key
EXIT
```

Press the key you want to check. Press **[☎]** or **EXIT** when you are finished.

Checking the function of a key

1. Press **[☎] [*] [0]**.
2. Press the key you want to know about.

The display reads what has been programmed for the key.

Labelling keys on the telephone

After programming a key on your telephone, you may wish to label it.

Norstar M-series telephones also have key pre-labelled key caps. When you are labelling or removing a key cap, activate Key Inquiry (\square \square \square \square) first so that you do not accidentally activate a feature.

Note: On M7100N/T7100 telephones, Key Inquiry shows your extension number followed by the function assigned to your single-memory key. This is usually Last Number Redial.

To remove a keycap, slip the fingernails of your index fingers under each end of the keycap and pull up until it pops off. If you do not have a printed keycap to replace it, you can write the name in the blank label space beside the key.

The T-series telephones are labelled beside the buttons. You can use the Desktop Assistant utility to make changes and print a new label card. Your system administrator can access this application from the system CD or download it from <http://www.nortelnetworks.com> (Customer Support/Software Distribution, under Product Selection choose Desktop Assistant).

Moving line keys

You can move exchange lines to different keys on your telephone. Use this feature to arrange your lines as you prefer.

1. Press \square \square \square \square .
2. Press the key you want to move the line from.
3. Press the key you want to move the line to.
4. Press \square or **QUIT** when you are finished moving lines.

Note: You also use this feature code to move hunt group appearances.

Displays

Exchanged	The two keys you selected have exchanged position.
Invalid location	You have tried to move a line to a key that cannot be used as a line key, such as an intercom key, Handsfree/Mute key, or an Answer key.
Move line from: QUIT	Press the key of the line you want to move. Press \square or QUIT when you have finished moving lines.

Move line to: QUIT	Press the key you want to move the line to. Neither of the keys is erased. The lines, or the line and feature, simply switch places.
Press a line	The key you are trying to move is not a line key. If you are trying to switch a line and a feature, move the line to the feature key and not the feature key to the line.

Ring type

To help you recognise which telephone is ringing in an open office, you can choose one of four distinctive rings for your telephone.

1. Press  * .
2. Press 1, 2, 3, 4, or **NEXT**. You hear the selected ring for two seconds.
3. Repeat until you hear the ring you prefer, then press  or **OK**. The display briefly shows **New ring stored**.

Note: Ring type can be overridden by assigned distinctive ring patterns for lines and Hunt groups if those assigned rings are higher priority.

Ring volume

1. Press  *   to make the telephone ring.
2. Press the volume controls to adjust the volume up or down.

Programming M7000/T7000 memory keys

The M700/T7000 telephones have four programmable keys. Features programmed on these keys have the following restrictions:

- do not have a display for information or instructions
- do not have line or extension keys

External autodial

1. Press  * .
2. Press the key you want to programme.
3. Enter the telephone number.
4. Press the  key.

Internal autodial (DSS)

1. Press  * 2 .
2. Press the key you want to programme.
3. Enter the telephone number.

Feature access key

1. Press  * 3 .
2. Press the key you want to program.
3. Press  and the code you wish to programme.

Personal Speed Dial programming

1. Press  * 4 .
2. Enter the speed dial code.
3. Enter the telephone number.
4. Press the  key.

Ring Type programming

1. Press  * 6 .
2. Press 1, 2, 3 or 4 to select the Ring type desired.
3. Press the  key.

Tones

Since the M7000/T7000 telephones do not have a display, you will hear the following tones:

- stuttered dialtone for Do Not Disturb and Call Forward
- single, low frequency command input tone
- single, high frequency confirmation tone

Note: The lamp shows a solid light if there is a message from a Direct-Dial extension or a Voicemail message for this style of telephone.

Using personal features

- Background music.....224
 - Do Not Disturb.....224
- Personal Speed Dial codes.....225
 - Using Speed Dial.....225

Background music

If an external music source has been connected to your Modular Plus system, this feature allows you to play music over your telephone speaker.

Press **[Mute] [8] [6]**.

The music pauses while you are making or answering a call.

To cancel, press **[Mute] [#] [8] [6]**.

Do Not Disturb

Extensions that are members of a hunt group can temporarily leave a hunt group by activating the Do Not Disturb feature. Hunt group calls arriving while an extension is in Do Not Disturb mode will be routed to the next member in the hunt group.

Stopping calls from ringing at your telephone using DND

You can stop calls from ringing at your telephone by pressing **[Mute] [8] [5]** on an idle extension. The display shows **Do not disturb**.

Only Priority Calls ring at your telephone. A line key will flash when you receive a call, but your telephone does not ring.

Refusing to answer a call

While you are on a call, you can refuse to answer a second call, including a Priority Call.

Press **[Mute] [8] [5]** while your telephone is ringing.

Cancelling Do Not Disturb

Press **[Mute] [#] [8] [5]**. The display briefly shows **Allow calls**. Your telephone now receives calls normally.

Using Do Not Disturb

Once you turn Do Not Disturb on, calls are forwarded to the Prime extension only if there is no other telephone on which the line appears. If there is another telephone that shares the same line, the call may be answered by that person.

Do Not Disturb also prevents voice calls from alerting at your telephone. Voice calls are presented as normal internal calls on the Intercom key.

Personal Speed Dial codes

You can quickly dial external telephone numbers that have been programmed onto Speed Dial codes. Speed Dial codes

- 001 to 255 are programmed for the entire system by the system administrator under the System Speed Dialing heading. These codes are valid for any telephone that is allowed to use speed dialing keys. See "Assigning a number to a System speed dial code" on page 64.
- 256-279 are personal and may be programmed differently at each telephone by the user. These can also be programmed by you as part of the telephone programming, and changed by the user, as needed.

Using Speed Dial

System Speed Dial programming allows you to assign three-digit Speed Dial codes to the external numbers your colleagues call most frequently. Personal Speed Dial programming allows individuals to programme their own Speed Dial numbers.

Speed Dial numbers are subject to the same restriction filters as regularly dialled numbers. However, you can programme system Speed Dial numbers to bypass dialling restrictions.

Speed Dial numbers may include host system signaling codes.

Note: There is no difference between using personal Speed Dial and using system Speed Dial. They differ only in how they are programmed.

Adding or changing Personal Speed Dial

1. Press   .
2. Enter a three-digit code from 256 to 279 that you want to associate with a telephone number.
3. To include a line selection for this number, press the line or intercom key. To select a line pool, press a programmed line pool key, or press the programmed button labelled **Intercom**, and enter a line pool access code. On the M7100N/T7100 telephones, you can only select a line pool.
4. Enter the number you want to programme.
5. Press  or **OK**.

Displays that occur for the personal speed dial feature

<p>9. CANCL BKSP OK</p>	<p>Continue entering the number you wish to programme. You can change the number by pressing <u>BKSP</u> or the volume control. When you are finished, press  or <u>OK</u>.</p>
<p>Enter digits QUIT OK</p>	<p>Enter the telephone number you wish to programme exactly as you would if you were dialling it normally. When you are finished, press  or <u>OK</u>. This message appears only after you select a line or line pool.</p>
<p>Error code:</p>	<p>Enter a three-digit number between 256 and 279 to select the code for programming.</p>
<p>No number stored</p>	<p>There is no number stored on the speed dial code you have dialled.</p>
<p>Program and HOLD</p>	<p>On the T7100/M7100N and T7208/M7208N telephones, if you want to programme a line or line pool selection for this speed dial number, select the line or line pool. Otherwise, enter the telephone number exactly as you would if you were dialling it normally. When you are finished, press .</p>
<p>Program and OK QUIT OK</p>	<p>If you want to programme a line or line pool selection for this speed dial number, select the line or line pool. Otherwise, enter the telephone number you wish to programme exactly as you would if you were dialling it normally. When you are finished, press <u>OK</u>.</p>
<p>Select a line</p>	<p>There is no line associated with the speed dial number you are trying to use. Select a free exchange line or line pool and enter the speed dial feature code again.</p>
<p>Unknown number</p>	<p>The system cannot dial the number stored. Reprogram the number.</p>
<p>Speed dial></p>	<p>Enter a three-digit number between 001 and 279 to select the code for dialling.</p>
<p>No free lines LATER</p>	<p>All lines are busy. Press <u>LATER</u>, then <u>YES</u> to have the system notify you when a line is free.</p>

Making a Speed Dial call

To make a call using a personal or system Speed Dial code:

1. Press  .
2. Enter the appropriate three-digit Speed Dial code (001-279).

Answering calls

- Answering a call.....228
- Privacy feature (external calls only).....228
 - Answering the next queued call.....229
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 - Listening in a group.....237
 - Disconnecting Accidentally.....237

Answering a call

When a call rings at the telephone, pick up the handset or press the button marked Handsfree/Mute to connect the call.

Sorting calls by distinctive ring patterns

When lines are configured on your system, they can be assigned one of four distinctive ring patterns (DRP). The default for all telephones and lines is None, which is the lowest priority.

Call ringing: When multiple calls are presented to the telephone, the call with the highest priority DRP setting will be the call that rings at the telephone.

Call answering: When multiple calls are presented to a telephone, and the user picks up the handset, the call with the highest priority DRP setting is the call that is presented.

Note: External calls always have a higher priority than internal calls.

Note: If the ring type is changed on a telephone after the DRPs are set on the line, the DRPs are overwritten by the telephone settings. If the DRPs are set for a line after telephone programming, then the telephone ring programming is overridden by the line DRP program. Refer to 'Ring type' on page 221.

Privacy feature (external calls only)

Lines in your system can be programmed to have automatic privacy. If a line is programmed with automatic privacy, only one person at a time can use the line. If a line is not programmed with automatic privacy, anyone with the line assigned to their telephone can join your call by pressing the line key. Should another telephone join your call, you hear a tone and see a message on the telephone display. A telephone cannot join a call without this tone being heard.

If a line is not programmed with automatic privacy, you can still use the privacy feature by pressing    after connecting an external call.

Note: Privacy control cannot be used on internal or conference calls.

Creating a conference by releasing Privacy

If a line is programmed with automatic privacy, you can turn privacy off to allow another person with the same line to join in your conversation and form a conference. All the rules applicable to a conference apply, except there is only one line in use, instead of the normal two. This means that you cannot split a conference.

1. After connecting an external call, press .
2. Tell the other person to press the line button and join your conversation.

Only two system telephones, in addition to the external caller, can take part in this kind of conference.

Answering the next queued call

An attendant who has many calls coming in at once can use Call Queuing to answer the calls in order. When there is more than one call ringing, you can answer the call that has been ringing longest. If you are already on an incoming call, and you put it on hold, the next longest waiting call is automatically connected.

1. After you pick up the handset, press .

Answering hunt group calls

The three hunt group distribution modes allow you to customise how hunt group calls are distributed in your office.

In Broadcast mode, a single incoming call will ring simultaneously at all the extensions in a group. In a busy office you might have three receptionists in a hunt group. Each receptionist has a hunt group button on their telephone so incoming calls alert at all three telephones, if available, and can be answered by any one of the receptionists. The other two telephones do not track the call.

The sequential distribution mode follows the programmed member order when distributing calls. The incoming call starts at the first extension in the hunt group and directs the call through the hunt group members in order until a hunt group member answers the call. The next hunt group call goes through the same distribution process.

In this mode, you can programme your most experienced personnel to be the first members of the group to receive incoming calls.

The cyclic distribution starts the call at the extension following the one which was last presented with a call. So if extension 223, 224 and 225 are members 001, 002 and 003 respectively of a hunt group

and the last call was answered by 224 (member 002), the next incoming call will start with extension 225 (member 003).

This way, you can ensure that all your personnel are receiving calls, rather than one person receiving the majority of calls.

Multiple appearances of DIA lines

DIA lines can be assigned to one or more telephones. Calls on DIA lines alert at all telephones programmed with appearances of the DIA line. Once the DIA call is answered, the call is no longer tracked by any other telephone with the appearance of the DIA line, leaving the other telephones free to receive subsequent incoming calls.

Using SWCA line buttons

This feature allows a call to maintain an appearance on the System Wide Call Appearance (SWCA) buttons to a group of users for the life of the call. SWCA codes can be assigned to up to 16 program buttons on each telephone in a group.

See "Changing the key programming for an extension" on page 114 for general information about setting or changing key programming for a telephone. SWCA keys can be assigned to memory keys using \square * 3 to assign the SWCA feature codes: \square * 5 2 0 to \square * 5 3 5. Refer "Setting SWCA controls" on page 143 for information about determining how the system will assign calls to SWCA keys, and how the Hold feature will perform.

Note: Each group telephone must either have a line appearance of the call coming in, or a free intercom button to be able to retrieve a SWCA call.

The number of SWCA keys that can be assigned will depend on available buttons on the telephone. T7316, T7316E, and T7324N telephones provide the broadest use of this feature. Companion, M7000/T7000 and M7100N/T7100 telephones do not have line or intercom buttons, therefore, they cannot be assigned SWCA buttons. However, they can be used to park and unpark SWCA calls by entering the codes on the dial pad to enter the SWCA code for a call.

Your system administrator can also configure SWCA buttons during the initial configuration of your telephone.

Auto Hold

Your telephone must be set to have Full autohold if you want to use SWCA lines so that a call automatically gets placed on hold if the user answers a second call. If the telephone does not do this, the user can change the system setting at the telephone using  7 3.

Call Park

The Call Park access code must be active for SWCA buttons to work. This means that it cannot be set to 0.

Incoming calls

When you answer an external call, the system can react in one of two ways, depending on what settings were specified in system programming:

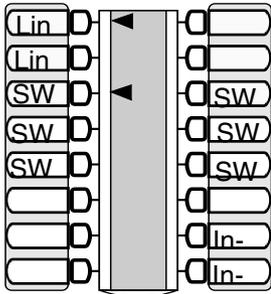
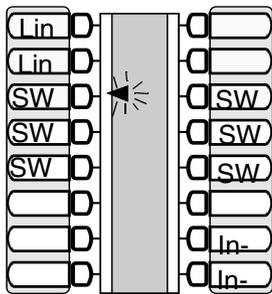
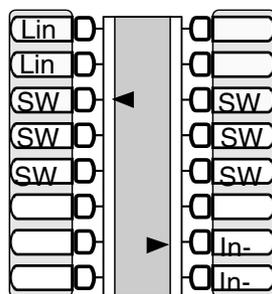
- the call may be transferred automatically to a free SWCA key when you answer the call. In this case, you need to put the call on Hold to free the line the call came in on.
- you may need to press the a free SWCA button to transfer the call manually to a free SWCA key. In this case, when you transfer the call, the line the call came in on is released.

When you put a call on hold, the system can react in one of two ways if you have SWCA keys defined:

- when you put the call on Hold, the call transfers to a SWCA key and all the other extensions with corresponding SWCA keys display a flashing indicator beside the button. The call can be picked up at any other extension
- when you put the call on Hold, it stays on hold on the line that it came in on. To make the call available to other extensions, press a free SWCA key.

Calls with appearances on SWCA keys show a solid indicator when the call is active. On the extension where the call is active, an Intercom or Line button also becomes active for the call.

SWCA indicators, call status states (auto assign)

<p>Call is answered and automatically assigns to a SWCA key.</p> 	<p>Call is put on Hold. The SWCA indicator flashes at all extensions.</p> 	<p>Call is taken off Hold. Indicator appears beside Intercom button and the SWCA indicator becomes solid on all extensions, indicating that the call is active.</p> 
--	---	---

Outgoing calls

When you make an outgoing call using the intercom key on your telephone, the call is automatically transferred to the first available SWCA key. Solid indicators appear beside the intercom button and the SWCA key on your telephone. All other telephones in the group also see a solid indicator beside the SWCA key, indicating that the line for that key is in use. If you put the call on hold, the SWCA key indicator fast-flashes on your telephone, and slow-flashes on the other telephones in the group. The call can then be picked up by any other telephone in the group.

No free call keys

If all the SWCA keys are currently occupied when a new call comes in, you can still put the call on Hold.

- If a SWCA key has been freed up between the time you answered the call, and when you put the call on Hold, the call will transfer to the free SWCA key and act as described in “Incoming calls” on page 231.
- If all SWCA keys are still occupied when you put the new call on Hold, the call will be held at your telephone on the line it came in on. When a SWCA key becomes free, you can take the call off hold and transfer it to a SWCA key so it has a group-wide appearance.

These principles also apply to outgoing calls.

Using Handsfree

Your system telephone allows you to make calls without using the handset. The M7000/T7000 and M7100N/T7100 telephones do not support handsfree operation.

T7208 and T7316 telephones have a separate Mute key. The system assigns Handsfree to the bottom, right memory key, but the Mute feature is assigned to the Mute key.

T7316E telephones have both a Mute and a Handsfree key, which are located under the dial pad.

T7316 and T7316E telephones also have a Headset key which allows the user to switch between using the headset and using the other features, such as Handsfree, without need to remove the headset.

Making calls without lifting the handset

1. If you do not have a Prime line assigned to your telephone, press a line key.
2. Press the button labelled Handsfree. The internal microphone and speaker on your telephone are automatically turned on.
3. Dial your call and speak at a normal level.

Answering calls without lifting the handset

1. Press the line key for the ringing call. (This step is not necessary if you have a Prime line assigned to your telephone.)
2. When your telephone rings, press the button labelled Handsfree and speak normally.

Direct your voice toward the telephone. The closer you are to the telephone, the easier it is for the microphone to transmit your voice clearly to your listener.

Muting a handsfree call

You can switch off the telephone microphone so that you can speak privately while you are on a handsfree call.

Press the button labelled Handsfree/Mute or Mute. The microphone is turned off.

To turn the microphone back on again and continue your handsfree call, press the button labelled Handsfree/Mute or Mute.

Note: The indicator next to the button labelled Handsfree is solid when you are in handsfree mode. It flashes when you mute the microphone.

Changing a handset call to a handsfree call

Press the button labelled Handsfree and hang up the handset.

Changing a handsfree to a regular call

Lift the handset.

Hints for using handsfree

Wait for your caller to finish talking before you speak. The microphone and speaker cannot be on at the same time. Your caller's voice may be cut off if you both speak at the same time. Noises such as a tapping pencil could be loud enough to turn on your microphone and cut off your caller's speech.

To prevent a possible echo, keep the area around your telephone free of paper and other objects that might screen your microphone. Turning down the microphone volume (press the volume control while speaking), also prevents echoes. When you change the volume level, both the microphone and speaker volume are adjusted to prevent feedback problems.

Place the telephone so that any unavoidable local noise (such as an air conditioner) is behind it. This limits the amount of disruptive background noise being transmitted.

In open-concept environments, use the handset when handsfree communication is not necessary or when you need privacy during a call. Another option is to use a headset.

Answering a telephone using Directed Pickup

You can answer any telephone that is ringing in your Modular Plus system using Directed Pickup or Group Pickup.

1. Press .
2. Enter the extension number of the ringing telephone.

Directed Pickup cannot be used to answer private lines.

To use Directed Pickup, the telephone must be ringing. If, for example, the auxiliary ringer is ringing, but the call is not ringing at a telephone, the call cannot be answered using Directed Pickup. It must be answered normally at a telephone that has a flashing indicator for the call, or by using Trunk Answer. You can also answer a call that is ringing when someone has transferred the call to a telephone and the call is ringing on an intercom key.

Directed Pickup can also retrieve calls that are ringing on an Answer extension number. Although you may enter the extension number of the telephone you hear ringing, it may be calls from another telephone you are answering.

Answering a telephone using Pickup Group

Your Modular Plus system can be divided into nine Pickup Groups. If you are a member of a Pickup Group, you can pick up a call that is ringing at any telephone in your Pickup Group.

Press **[*] 7 5**.

Note: Group Pickup cannot be used to retrieve a camped call.

If there is more than one incoming call at a telephone in a Pickup Group, a call ringing on an exchange line is answered first followed by calls on the Prime line and, finally, calls on internal lines.

Displays

Already joined	You are already connected to the telephone that made the call you are trying to pick up. This can happen if you are on a call to a colleague, your colleague dials the number of a telephone in your Pickup Group, and you attempt to pick up that call.
Pickup denied	There is no call that you can pick up or the call that was ringing has already been answered. You have tried to pick up a call on someone else's private line.
Pickup:	Enter the extension number of the telephone that is ringing. (You may use an internal autodial key to do this.) If you decide not to answer a ringing call after you have activated Directed Pickup, press [*] .

Line Answer

The Line Answer feature allows you to answer a ringing call anywhere in the system from any telephone in the system. The line you are answering does not have to appear or ring at the telephone you are using.

Line Answer works only with calls that are ringing on lines for which a Ringing service schedule is active and if Line Answer is enabled.

Answering a call using Line Answer

Press **[*] 8 0 0**.

If there is more than one incoming call on lines in a Ringing service, the Line Answer feature picks up the external call that has been ringing the longest.

Displays

Line denied	You have tried to pick up a call on someone else's private line.
Pickup denied	The call that is ringing is on a line that is not in a Ringing Service.

Note: Line Answer does not pick up calls that are coming in on a private line.

Answer keys

An Answer key allows a telephone to receive calls intended for another telephone. For example, an Answer key allows an assistant to answer incoming calls to a manager's telephone.

When installing your Modular Plus system, you assign telephones to have Answer keys for other extensions. You also set whether the incoming call for the monitored extension will ring at the Answer key or simply activate the key indicator (◀ or ▶ or ▲ for T7316E telephones). A BST or Norstar telephone may have up to eight Answer keys to monitor other extensions.

M7100N/T7100 and M7000/T7000 telephones, SLTs and ISDN terminals cannot be assigned Answer keys to monitor other extensions, but they can be monitored.

Each Answer key should be clearly labelled with the name or number of the extension it monitors.

You cannot make calls using Answer keys.

If more than one call is ringing at a telephone, the first call appears on the attendant's Answer key. Any subsequent calls appear on intercom keys, if they are available.

More than one attendant may have an Answer key for a single telephone. This allows two or more attendants to handle calls for a busy person.

Each telephone can handle calls for up to four other people using separate Answer keys for each person.

Listening in a group

The Group Listen feature allows other people in your office to listen in on a call without the caller hearing any noise from the office because the telephone external microphone is off.

1. Press **[*] 8 0 2**. You hear the caller through your telephone speaker.
2. Speak to the caller through the telephone handset.

To cancel the Group Listen feature during your call, press **[*] # 8 0 2**.

Group Listen is cancelled automatically when you hang up the call.

You can switch a Group Listen call to handsfree by pressing the key labelled Handsfree. To switch back to Group Listen, enter the Group Listen feature code again.

Note: Keep the handset away from the speaker, or you may hear feedback. Press **[*]** to prevent feedback when hanging up.

Disconnecting Accidentally

If you accidentally drop the handset into the telephone cradle while answering a call, you can retrieve the call by picking up the handset. The system calls on the Handsfree feature, which keeps the call active.

Malicious call identification (MCID)

The MCID feature allows you to use **[*] 8 9 7** to have call information recorded on the central office system of the line-source provider for an incoming call on a specific line (EUROISDN lines, only).

Note: This feature must be allowed in network programming to work. Check with your system administrator.

Invoke the feature code without hanging up, and within 30 seconds (time varies on different networks) after the caller hangs up.

The following information registers on the network:

- called party number
- calling party number
- local time and date of the invocation in the network serving the called user
- service provider option: calling party subaddress, if provided by calling user)

Holding calls

- Holding.....240
- Listening on hold.....241

Holding

When you put a call on hold, the Modular Plus system maintains the connection to the caller but the call is no longer active at your telephone. The indicator flashes on all telephones that have access to the line where the call is on hold. The call can be retrieved from any of these telephones.

To put a call on hold, press .

To retrieve a held call, press the flashing line key of the held call.

If the call comes in on a DIA line, the indicator flashes at the telephone that answered the call, leaving other telephones which have appearances of that DIA line free to take other incoming calls. The call can be retrieved at the answering extension.

On the T7100/M7100N telephones,  alternates between two lines: one active, one on hold. These telephones cannot retrieve a call placed on hold by another telephone.

On the T7000/M7000 telephones, pressing  puts a call on hold. This telephone cannot retrieve a call placed on hold by another.

Answered hunt group calls can be placed on hold at the answering extension.

Automatic Hold

If you are on a call and want to pick-up another call at your telephone, use Automatic Hold.

Press the line key of the caller you want to speak to. Your current caller is put on hold automatically.

Exclusive Hold

You can put a call on Exclusive Hold so that the call can be retrieved only at your telephone.

Press    or  . The line appears busy on all other telephones with that line appearance, and the call cannot be picked up by anyone else in the office.

Display

On hold: LINENAM

You have placed one or more lines on hold. The name of the line that has been held the longest is displayed. This feature works with external calls only.

Listening on hold

If you have been put on hold, Listen on Hold allows you to replace the handset and wait to hear when the other person speaks.

If Automatic Handsfree has been assigned to your telephone, you can use the Handsfree/Mute feature instead of Listen on Hold.

Without handsfree

1. Press .
2. Hang up the handset.
3. Press the line key of the call. You may hear indications from the far end that you are on hold (for example, tones or music). Your telephone microphone is off, so no one at the other end can hear anything in your office.
4. When the person you were talking to returns, you hear them through your telephone speaker. Lift the handset and talk.

With handsfree

1. If using the handset, press the key labelled Handsfree.
2. Hang up the handset.
3. Press the key labelled Handsfree again. Your microphone is off but you can hear when the caller returns.
4. When the caller returns, press the key labelled Handsfree or lift the handset.

Routing calls

- Call Parking.....244
 - DIA calls.....245
- Making a Priority call.....247
 - Transferring a call.....247
- Transferring to a busy extension (Call Camping).....248

Call Parking

Call Parking allows you to suspend a call so that someone else can retrieve it from any telephone in the Modular Plus system. You retrieve a parked call by dialling the retrieval code. As many as 25 calls can be parked at one time on the Modular Plus system.

When you park a call, the system assigns a retrieval code. These codes consist of the Call Parking prefix, which may be any digit from 1 to 9, and a two-digit call number between 01 and 25. For example, if the Call Parking prefix is 4, the first parked call is assigned Call Parking retrieval code 401.

The Modular Plus system assigns Call Parking codes in sequence, from the lowest to the highest, until all the codes are used. This round-robin approach means that a greater variety of codes are used, which makes it easier for a call to reach the right person when more than one incoming call is parked.

The highest call number (the Call Parking prefix followed by 25) is used only by M7100N/T7100 and M7000/T7000 telephones or devices connected to the system using an Analogue Terminal Adapter.

You programme the Call Parking prefix and the time delay before parked calls are returned to the originating telephone under Access Codes. External calls parked for longer than the programmed delay are returned to the Prime extension.

Answered hunt group calls are parked in the same manner as other calls.

Call Parking can be disabled by your System Administrator. You must have Call Parking active to use the SWCA keys.

Parking a call

1. While on a call, press **[☎] 7 4**. The display shows the Call Parking retrieval code.
2. Use **[☎] 6 0** (the Page feature) or press **PAGE** to announce the retrieval code displayed by your telephone.

Retrieving a parked call

1. Select an internal line on any system telephone.
On M7100N/T7100 and M7000/T7000 telephones, pick up the handset.
2. Dial the Call Parking retrieval code (the default retrieval codes are 101 to 124).
The retrieval code for T7100/M7100N and T7000/M7000 telephones is 125.

DIA calls

Direct Inward Access (DIA) allows BRA lines to use internal lines to route incoming calls from the public exchange. The calls pass directly to a system extension without operator intervention. The internal lines 255 to 382 between the Norstar CCU and the extensions are called DIA lines.

BRA lines must have *Answer Mode* programmed to *Auto* for DIA. Outgoing calls can also be made on auto-answer BRA lines if they are assigned to a line pool or appear on an extension.

The Modular Plus system handles simultaneous calls on DIA lines. The number of appearances of a DIA line on an extension depends on the Line assignment setting for that extension.

If the DIA line is programmed to *Appr&Ring* or *Appr only*, then the extension can have as many simultaneous DIA calls as there are DIA key appearances. If the DIA line is programmed to *Ring only* then the extension can have as many simultaneous DIA calls as there are Intercom keys.

Direct Inward Access on Loop-guarded or Earth Calling lines

When an incoming call comes in on an auto-answer loop guarded or Earth calling line that is not configured to answer with DISA, the caller hears system dial tone. They can then enter a DIA line public received number to dial direct to an extension, a line pool access code to break out, or a remote feature code from a DTMF telephone, if a suitable remote access package has been assigned.

Number of appearances

The installer programs the number of appearances for each DIA line assigned to the extension. When an extension with an appearance of a DIA line answers a call, other extensions with appearances of that DIA line do not track the state of that call. The other extensions are free to receive additional calls on the DIA line while the first call is still in progress.

By default, the number of DIA line appearances is one. The secondary appearance of a DIA line is any appearance given to an extension after the first appearance. There is a limit to the number of secondary target line appearances in the system.

Automatically, the first DIA line (255) is assigned to the first Start extension number of 5255, DIA line 256 is assigned to the next extension number 5256, and so on. Also, the Received numbers, as well as the Originating Line Identification number, are automatically set to the extension number.

Received number

When the system automatically answers an incoming call on auto-answer ISDN BRA lines, it matches these digits to a Received number, and routes the call to the appropriate DIA line.

The installer programs the Received number length. A Received number cannot be the same as another Received number or the Auto number. It also cannot start with the same first digit as any line pool code.

Busy tone for a Direct Inward Access line

You can program a DIA line to return busy tone or route a call to the Prime extension for the line, if all extensions are busy.

When *If busy* is set to *Busy Tone*, the caller receives a busy tone. When *If busy* is set *To Prime* the call is routed to the Prime extension. If all intercom keys on the Prime extension are busy the caller receives busy tone.

Busy tone with Do Not Disturb on Busy

When *Do Not Disturb on Busy* (DND) is turned on for an extension, internal and network callers hear a busy tone. External callers are transferred to the Prime extension.

If there are no available appearances of the DIA line and the *DND on busy* feature is set to *Yes* for one of these extensions, the second caller hears ring-back and the call is routed to the Prime extension for the line.

If there are no available appearances of the DIA line and the *DND on busy* feature is set to *No* on all extensions with an appearance of the DIA line, the caller hears busy tone. When *If busy* is set to *Busy Tone* the call is routed to the Prime extension if the DIA line feature is set to Prime extension.

The *If busy* feature is a line feature and DND is an extension feature. The *If busy* feature is activated when a call cannot ring at any extension in the system.

The following table outlines the call scenarios when a DIA line is busy, that is, there are no available appearances of the DIA line.

DND on busy	Yes	Yes	No	No
If busy	Busy Tone	Prime	Busy Tone	Prime
The caller hears:				
If Prime is Yes	Ring-back, call goes to Prime	Ring-back, call goes to Prime	Busy Tone	Ring-back, call goes to Prime
If Prime is No	Busy Tone	Busy Tone	Busy Tone	Busy Tone

Note: DIA does not apply to ISDN lines that are programmed as manual answer lines.

Making a Priority call

If the Administrator has allowed Priority call for your extension, you can make an internal voice call when the system telephone you are calling is idle, busy, or has Do Not Disturb activated. If you get a busy signal when you call someone in your office, you can interrupt them. Use this feature for urgent calls only.

Press    or press **PRIORITY**. Wait for a connection, then speak.

Note: A person who receives a Priority call while they are on another call has eight seconds to accept or reject the call. If the person does not take the call, the Priority call feature puts their active call on Exclusive Hold and connects your call.

If Call Forward is active at the telephone you are trying to reach, your call is forwarded.

If the telephone receiving the Priority call is in a conference call, the other two parties are automatically put on hold when the Priority call is accepted.

If the extension is a hunt group, the Priority call is rejected.

Transferring a call

You can transfer a call to any internal or external number. Depending on how the Installer has programmed your system, you may not be able to transfer a call on one exchange line to another exchange line.

1. Press    or press **TRANSFER**.
2. Call the person you want to transfer the call to.
3. If you want to talk to the person you are transferring the call to, wait for them to answer before proceeding.
4. When you are ready to complete the transfer, press  or hang up. (You do not have to wait for the person to answer.)

You can cancel a transfer and reconnect with the party you are attempting to transfer at any time before the transfer is complete.

1. Press     or press **CANCL**.
2. If you are not reconnected, press  and then press the line key of the original call, which is now on hold.

Transferring to a busy extension (Call Camping)

You can send an external call to another extension, even though all of its lines are busy, by camping the call. The Call Camping feature is useful for people who process many calls, such as secretaries or receptionists.

1. After answering an external call, press ☎ 8 2.
2. Dial the extension number that is the destination for the call.

Camped calls appear on a line key on the receiving telephone, if one is available. If there is no line key available, you receive a message on the display and hear camp tones.

Each system telephone can handle only one camped call at a time.

Note: The Call Camping feature will only work if Do Not Disturb (DND) is programmed to No for that telephone.

Displays

21 Camp max CALLBACK	You tried to camp a call to a telephone that already has a camped call. The call has come back to you. Press <u>CALLBACK</u> or the line key to reconnect to the call. On T7100/M7100N or T7000/M7000 telephones, just pick up the handset.
21 DND CALLBACK	The person to whom you redirected a call has Do Not Disturb activated. The call has come back to you. Press <u>CALLBACK</u> or the line key to reconnect to the call. On T7100/M7100N or T7000/M7000 telephones, just pick up the handset.
Camp denied	You have tried to camp an internal call. You can only camp external calls.
Camp to: CANCEL	Dial the number of the internal telephone to which the call is to be sent.
Camped: 21 CALLBACK	The telephone to which you camped a call did not answer the call. The call has come back to you. Press <u>CALLBACK</u> or the line key to reconnect to the call. On T7100/M7100N or T7000/M7000 telephones, just pick up the handset.
Line001 hung up	A call you camped has come back to you, but the caller hung up before you could reconnect.
Not in service CALLBACK	The telephone to which you have camped a call is out of service or is being used for programming. The call has come back to you. Press <u>CALLBACK</u> or the line key to reconnect to the call. On T7100/M7100N or T7000/M7000 telephones, just pick up the handset.
Release a call	The line that the camped call is on is in use, or that line does not appear at your telephone. Release the line or release an internal line.

Answering a camped call

While you are on a call, you hear a beep whenever there is a camped call waiting.

Press the flashing line key or intercom key that the call is camped on. If your extension has no free lines, finishing one of your active calls releases a line for the camped call.

Making external calls

- Using an exchange code.....252
 - Using line pools.....252
 - Making a conference call.....253
- Using Class of service passwords.....257

Using an exchange code

You can access exchange lines to make external calls by using the intercom key and dialling the exchange code (the default exchange code is 9).

The exchange code is generally used to make external calls on M7100N/T7100 or M7000/T7000 telephones and on telephones connected to an Analogue Terminal Adapter.

Using line pools

A line pool is a group of exchange lines that can be shared by many telephones. You can use a line in a line pool to make an external call.

The Modular Plus can have a maximum of 15 line pools, and a telephone can be programmed to access any of them.

A line pool access code is a number you dial to get a line pool. The access code can be up to four digits long. You can have several different line pools for your system, each one giving you access to a different set of exchange lines. It is one way of sharing lines across telephones in a system.

You programme the line pool access codes and give each telephone access to a line pool.

Everyone in the office should have a list of the line pool access codes for the line pools their telephones can use.

Using a line pool to make a call

1. Press .
2. Enter a line pool access code.

If you have a free internal line, you can make a call using a line pool without entering the feature code first.

1. Select an internal line (intercom).
2. Dial the line pool access code.

If no lines are available in the line pool, you can use Ring Again at the busy tone. You are notified when a line in the line pool becomes available. See "Using Ring Again" on page 283.

Programming a memory key with a line pool feature code

When you programme a key with the line pool feature code, you must enter a line pool access code after the feature code. The programmed line pool key accesses a specific line pool, not the line pool feature. See "Using line pools" on page 252 for more information.

If you programme a key with an indicator to access a line pool, when all the lines in a line pool are busy, the indicator for the line pool key turns on. The indicator turns off when a line becomes available.

Making calls from an ISDN terminal

Note that ISDN terminals do not have line keys or intercom keys as do Business Series Terminal or Norstar extensions. To make an outgoing call from an ISDN terminal, access an exchange line by entering a line pool code or a destination code.

Making a conference call

You can share a call with two other people (internal or external) by forming a conference. Once a conference is established, any one of the parties can hang up, leaving the other two connected, unless the two other parties are on exchange lines. In this case, if the person who created the conference hangs up, the other two parties may be disconnected, or they may remain connected, depending on the equipment being used. Your system may be programmed to prevent connections between one exchange line and another.

To establish a conference call with two other system telephones, a telephone must have two assigned intercom keys. The keys appear starting at the lowest right-hand position, or one key above that if the Handsfree feature is assigned to the telephone.

The M7100N/T7100 or M7000/T7000 telephones do not have keys that can be used to assign intercom keys.

Forming a conference

1. Make or answer the call with the first party.
2. Place that call on hold.
3. Make the call to the second party.
4. Press  .
5. Take the held call off hold.

This is automatic on the M7100N/T7100 and M7000/T7000 telephones.

Allowing a colleague to join your conference

Normally your calls are private. You can turn Privacy off for a call allowing another person in your office with the same line to press the line key and join in a conference or a two-way call.

1. While on a call, press   .
2. Tell the other person to press the line key and join your conversation.

Only two system telephones, in addition to the external caller, can take part in this kind of conference.

Disconnecting one person from the conference

You can disconnect one party from a conference and continue talking to the other.

M7208N/T7208, M7310N/T7316, T7316E, or M7324N telephones

1. Press the line key of the call that you want to disconnect. The call that you want to keep is automatically put on hold.
2. Press . The call is disconnected.
3. Press the line key of the held call to speak to the remaining person.

M7100N/T7100 telephones

1. Press    to place one caller on hold.
2. Press  again to put the caller you want to keep on hold.
3. Press . The first call is disconnected.
4. Press  to speak to the remaining party.

M7000/T7000 telephones

1. Press    to place one caller on hold.
2. Press  to put the caller you want to keep on hold.
3. Press . The first call is disconnected.
4. Press  to speak to the remaining party.

Using Hold on a conference

If you use Hold on a conference, you can

- put the two other people on hold (they cannot speak to each other)
- put the conference on hold (the other two people can speak to each other)
- put one person on hold while you continue to talk to the other person.

You can reconnect to the conference by pressing either of the held line keys. For M7100N/T7100 and M7000/T7000 telephones, press .

Separately holding two calls

For all system digital telephones except the M7100N/T7100 and M7000/T7000 telephones, you can put the two people in a conference call on hold independently so that they cannot talk to each other.

1. Press the line key of one person. The other person is automatically put on hold.
2. Press . The second person is put on hold.

You can re-establish the conference using this sequence:

1. Take one call off hold.
2. Press  .
3. Take the other call off hold.

Putting a conference on hold

You can put a conference on hold, allowing the other two people to continue speaking to each other.

1. Press .

You can reconnect to the conference by pressing either of the held line keys.

Splitting a conference

You can talk with one person while the other person is on hold.

M7208N/T7208, M7310N/T7316, T7316E, or M7324N telephones:

Press the line key of the person you want to speak to. The other person is automatically put on hold.

M7000/T7000 telephones:

2. Press  # 3 . The first party is on hold.
3. Press  , if necessary, to switch parties.

On M7100/T7100N telephones:

1. Press  # 3 . The first party is on hold.
2. Press  , if necessary, to switch parties.

Re-establishing the conference.

1. Press  3 . On the M7000/T7000 telephone, press  3 .

Removing yourself from a conference

You can remove yourself from a conference, and connect the other two callers through your Modular Plus system.

Press  7 0 (the Transfer feature code).

When you remove yourself from a conference using the Transfer feature, and both callers are from outside your system, one of the callers must have called you on a disconnect supervised line or the call is disconnected.

Sending Hookswitch or DTMF during a conference call

Either system telephone engaged in a three-way conference call over a Network CLID or DS trunk can issue a hookswitch or DTMF dialing request without leaving the conference.

- To hear DTMF tones on both telephones during dial, activate Long Tones (**FEATURE 808**).
- To conference in someone through the trunk, use **Link (FEATURE 71)**

Displays

3 Parties only	You are trying to add a fourth party to your conference call or to join two conferences together. Release one call from the conference before adding another, or keep the two conferences separate.
Conf. on hold	You have put a conference call on hold.
Conference busy	You have tried to make a conference call, but your system is already handling its maximum of four conference calls.
Line001 21 TRANSFER	You are on a conference with the two lines or telephones shown. You can drop out of the conference and leave the other two parties connected (Unsupervised Conference) by pressing TRANSFER or entering the Transfer feature code.
Press held line	You have activated the Conference feature with one call active and another on hold. Press the line of the call on hold to bring that person into the conference.

Using Class of service passwords

Class of service (COS) passwords permit controlled access to system resources by internal and remote users. When you enter a COS password at a telephone, the restriction filters associated with your COS password apply, rather than the normal restriction filters. Similarly, when a remote user enters a COS password on an incoming Auto-Answer line, the restriction filters and remote package associated with their COS password apply, rather than the normal restriction filters and remote package. COS passwords are programmed by either your Customer Sales Support Officer or installer.

Users should memorise their COS passwords instead of writing them down. Employees' COS passwords should be deleted when they leave the company. Typically, each user has a separate password. However, several users can share a password or one user can have several passwords.

Changing your COS password

You must enter a COS password each time you wish to make a call that is normally restricted on a line or telephone.

Changing the restriction filters on a line or telephone

1. Press **[*] [6] [8]**.
2. Enter your six-digit COS password.

COS passwords allow you to define individual passwords and determine the restriction filters and remote package associated with each.

If you use your Modular Plus system from outside the office, you may have to enter a COS password to gain access to the system.

Displays

	(Blank display) Enter your password. It is not shown on the display.
Invalid Password	You have entered a password that is not programmed into your system.

Making internal calls

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Making an Internal call

When you want to make or receive internal or private network calls, make calls to hunt group extensions, or access exchange lines through line pools, use the programme key labelled **Intercom**. A telephone may be assigned up to eight intercom keys.

1. Press an intercom key or lift the handset on M7100N/T7100 and M7000/T7000 telephones.
2. Dial the extension number or a line pool access code.

Making a Conference call

To establish a conference call with two other system telephones, a telephone must have two intercom keys assigned to it.

1. Make or answer a call with one extension.
2. Put the call on hold.
3. Press the remaining intercom key and dial the second extension.
4. Press  .
5. Press the held intercom key (step 2) to connect.

Accessing a Direct-Dial extension

The Modular Plus system allows for up to five Direct-Dial extensions. To access an Direct-Dial extension, enter the Direct-Dial digit (the default Direct-Dial number is 0). The Direct-Dial digit is an internal or external number that the system will automatically dial when someone enters the Direct-dial digit.

A person whose extension is a Direct-Dial extension is usually a receptionist for your entire office or for a particular department.

The Direct-Dial extension can send up to 30 messages and can invoke Services to activate the extra-dial telephone.

You can divert calls to a Direct-Dial extension that is outside your Modular Plus system if the Direct-dial programming has been set to use a routing table or a prime line, where the prime line is set to Intercom.

Note: ISDN terminals cannot use the Direct-Dial digit to reach a Direct-Dial extension.

Leaving Messages

You can leave a message on the display of another telephone in your Modular Plus system. Messages appear on the telephone display informing the recipient to call the person who sent the message. Messages can only be sent within the Modular Plus system. The message sent reads **MSG**. Analogue telephones attached to an ATA cannot receive messages, but can send them.

Direct-Dial extensions can send up to 30 messages. Only Direct-Dial extensions can send messages to M7000/T7000 telephones and telephones attached at an ATA.

Sending a message

1. Press **[*] 1**.
2. On a telephone with a two-line display, press **ADD**. (This step is not necessary on a telephone with a single-line display.)
3. Enter the extension number of the person you want to send the message to. The display reads **Message for You** and above the display key **MSG**.

Cancelling a message

1. Press **[*] # 1**. The display reads **Cancel for:**.
2. Enter the extension number of the person you sent the message to.

Viewing received messages

You can receive up to four messages from different telephones.

On a telephone with a two-line display:

1. Press **MSG**. The display reads **nnn called** (where nnn represents the extension number of the caller).
2. Press **NEXT** to move through your messages.

On a telephone with a single-line display:

1. Press **[*] 6 5**. The display reads the first message you received.
2. Press **[*]** or **#** to move through your messages.

Note: You cannot view messages on M7100N/T7100 or M7000/T7000 telephones. A solid light indicates that there is either a message from a Direct-Dial extension or a Voicemail message.

Replying to a message

You can call the person (or your voice message centre) who sent a message while you are viewing the message.

On a telephone with a one-line display

1. Press **0**.

On a telephone with a two-line display

1. Press **CALL**.

On an M7000/T7000 telephone

1. Press **☎ 6 5**. The telephone will call the Direct-dial extension that left the message.

If you wish to call your voice message centre using a line other than the programmed line, exit your message list and dial the voice message centre telephone number using normal dialling methods.

Viewing the messages you have sent

On a telephone with a two-line display, you can view the messages you sent. You can send up to four messages to different extensions. Each extension, including the Prime extension, can receive up to four messages from different extensions, but only one message from any one extension.

1. Press **☎ 1**.
2. Press **SHOW** to display your first sent message.
3. Press **NEXT** to move through your sent messages.

Displays

Cancel denied	You have entered an invalid number when attempting to cancel a message.
In use: 21	You are trying to call from your message waiting list. The line that you are trying to use is being used by the identified Norstar user.
Message denied	You have tried to send a message to an invalid extension number or to a telephone that is out of service.
Message list SHOW ADD EXIT	SHOW appears only if you have outstanding messages. Press SHOW to review messages you have sent. Press ADD to send a new message.
Message to:	Enter the extension number of the telephone to which you want to send a message.

Messages & Calls MSG CALLS	You have one or more messages and one or more new Call Logs. Press  8 0 6 to change the first line of the display to the current time and date.
No key free	You have no line key free with which to reply to a message.
Start of list NEXT	You are at the beginning of your list of messages. Press <u>NEXT</u> to move through your messages.
Their list full	You are trying to send a message to a user whose message waiting list is full.
Your list full	You have tried to send a message but your telephone list of sent messages is full. Cancel one of the messages you have sent, if possible, or wait until you have received a reply to one of those messages.

Erasing messages

You can erase a message while you are viewing it in your message list.

On a telephone with a one-line display

Press .

On a telephone with a two-line display

Press ERASE.

The Direct-Dial extension can receive up to four messages and can send up to 30 messages.

If your reply to a message is forwarded or is answered at another extension using the Call Pickup feature, the message remains on your extension until you cancel it or successfully contact the extension that sent the message.

Paging

Paging allows you to make announcements over the Modular Plus system using the telephone speakers, or your loudspeaker system, if one is available.

The administrator can assign extensions to one of six page zones.

Making a page announcement

1. Press **[☎] [6] [0]**.
2. Choose a page type:
 - [1]** or **EXTNS** through the telephone speakers (internal page)
 - [2]** or **SPKR** through an external speaker (external page)
 - [3]** or **BOTH** for both internal and external (combined page)
3. If necessary, choose a zone (0 to 6).
4. Speak clearly into the handset and make your announcement.
5. Press **[☎]**.

Paging shortcuts

Instead of entering the Page feature code followed by the page type, you can enter the following shortcut codes:

- Internal (**EXTNS**)—**[☎] [6] [1]** and zone (1 to 6)
- External (**SPKR**)—**[☎] [6] [2]** (no zones)
- Combined (**BOTH**)—**[☎] [6] [3]** and zone (1 to 6)

Remote paging

To use features on a Modular Plus system remotely, press **[*]** followed by the feature code. Even if you are calling from another Modular Plus system, press **[*]** instead of **[☎]**.

Making a remote page announcement

1. Dial the number to access your Modular Plus system.
2. Enter your Class of Service password.
3. Press **[*] [6] [0]**.
4. Choose a page type:
 - [1]** or **EXTNS** through the telephone speakers (internal page)
 - [2]** or **SPKR** through an external speaker (external page)
 - [3]** or **BOTH** for both internal and external (combined page)
5. If necessary, choose a zone (0 to 6).
6. Speak clearly into the handset and make your announcement.
7. Hang up.

Voice Call

Voice Call allows you to make a voice announcement or begin a conversation, through the speaker of one other telephone in the Modular Plus system. The person you call hears a tone before your voice call comes through.

Hunt groups cannot accept voice calls.

Making a Voice Call

1. Press **[☎] [6] [6]**.
2. Dial the extension for the person you want to speak to.
3. Wait for the beep, then speak.

Muting voice call tones

When a voice call begins at your telephone, you hear a beep every 15 seconds as a reminder that the microphone is on.

To stop the beeping, pick up the handset or press the key labelled Handsfree/mute or Mute.

Preventing Voice Calls to your telephone

You can use Voice Call Deny to prevent your telephone from receiving voice calls.

Press **[☎] [8] [8]**. Voice calls ring as do regular internal calls. Your other calls proceed normally.

To cancel, press **[☎] [#] [8] [8]**.

Answering a voice call without touching your telephone

If Handsfree Answerback is assigned to your telephone, you can respond to a voice call without touching the telephone. Handsfree Answerback is not available to M7100N/T7100 or M7000/T7000 telephones.

When someone makes a voice call to you, simply start talking. Your telephone microphone picks up your voice.

Once you have answered a voice call, you treat it as a normal call.

Displays

Dial voice call	Dial the extension number or press the internal autodial key of the person to whom you want to speak.
Microphone muted	Your handsfree microphone is muted. Press the button labelled Handsfree/mute or Mute or pick up your handset to respond to the voice call.
No voice call	<p>The telephone receiving the call cannot accept voice calls for one of the following reasons:</p> <p>it is active or ringing with another call</p> <ul style="list-style-type: none">• Call Forward is turned on• Do Not Disturb is turned on• Voice Call Deny is turned on• it is not a Norstar telephone. <p>Your call proceeds automatically as a regular ringing call.</p>
Voice call	The line is open for you to speak.

Forwarding calls

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- External Call Forward.....270
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 - Line redirection.....272

Forwarding your calls

You can forward your calls to an internal or external telephone. Press **[*] 4** and enter the number of the telephone to which you want your calls forwarded.

To forward your calls to an external destination you must enter the route plus the dialling digits of the external telephone. For example, if your system requires you to dial 9 for external calls then you must enter 9 plus the dialling digits to forward your calls to an external number.

To enable External Call Forwarding (ECF), the individual extensions must:

- have access to a line pool
- be programmed to **Allow Redirect: Y** under **Terminals&Extns/Restrictions (extns)** to allow external destination programming

Note: When setting DPNSS Diversion using **[*] 4**, certain digits and Feature codes cannot be used in the dialout number. This is because the digits received from the network must map to a valid extension in the PBX, and these digits will not. They are listed in following table:

Invalid digits/codes
*
#
[*] 8 0 4
[*] 7 8
[*] 7 1

When you use **[*] 4**, all calls go to the destination you select, regardless of how Forward on Busy and Forward no Answer are programmed.

You can also use Line Redirection to forward calls outside the system. Line redirection takes precedence over Call Forward.

Cancelling Call Forward

To cancel Call Forward, press **[*] # 4**.

External Call Forward

You can set individual extensions to forward calls using Call Forward All Calls (CFAC) or you can set individual extensions to automatically Call Forward Busy (CFB) or Call Forward No Answer (CFNA).

External Call Forward (ECF) allows you to forward the forwarding features to external destinations. To allow ECF, the individual extensions must:

- have access to a line pool
- be programmed to `Allow Redirect:Y` under `Terminals&Extns/Restrictions(extns)`.

ISDN and Network Call Diversion

On a Modular Plus system with ETSI ISDN lines, Call Forward features have a slight variation in naming convention. The functions remain the same. Features are labelled as follows:

- Call Forward Unconditional (CFU)—implemented on Norstar CFAC `[*]4`.
- Call Forward on Busy (CFOB)—implemented on Norstar CFB.
- Call Forward on No Response (CFNR)—implemented on Norstar CFNA.

ISDN external lines use external Call Diversion if this is available from the local exchange.

User Programming

Although users cannot program individual extensions for CFB or CFNA, they can program their own extension to CFAC, as follows:

Internal Call Forward—Press `[*]4` at any extension, followed by the internal number to which you want calls forwarded.

External Call Forward—Press `[*]4` at any extension, followed by the route or line-pool code number, and then the external number.

Note: The destination or line pool code and dialling digits cannot exceed 24 digits. The set must have access to a line pool and be programmed to `Allow Redirect:Y` under `Terminals&Extns/Restrictions(extns)` to allow external destination programming using `[*]4`.

Cancelling Call Forward

To cancel Call Forward, press `[*]#4`.

Forwarding all calls

You can temporarily forward your calls to another telephone in the Modular Plus system by using the Call Forward All Calls feature.

If the telephone to which you forwarded your calls does not have the same exchange lines as your telephone, the forwarded calls appear on intercom keys.

If a call is forwarded, it does not ring but the line indicator flashes on your telephone. You can still answer the call by pressing the key next to the flashing indicator.

If you are one of a group of people who regularly forward their calls to one another, be aware that it is possible to set up loops where a call is forwarded from one telephone to another in a circle, but it is not answered anywhere.

1. Press **[☎] [4]**.
2. Enter the extension number of the telephone you want to forward your calls to. The display shows **Forward>nnn**.

To cancel, press **[☎] [#] [4]** or press **CANCEL**.

Note: You can also set the system to forward your calls to another telephone when your telephone is busy or is not answered.

Note the differences between Line redirection and Call Forward. Call Forward forwards all calls that arrive at your telephone to another telephone within the Modular Plus system. Line redirection redirects only the lines you specify, no matter which telephones they appear on, to a telephone outside the Modular Plus system. Line redirection takes precedence over Call Forward.

Overriding Call Forward

If you telephone someone who has their calls forwarded to your extension, your call rings at that person's telephone. In this way you can still communicate with the forwarded extension.

Line redirection

Line Redirection, or Selective Line Redirection (SLR), is a telephone feature activated by users within a Modular Plus system. This feature allows users to redirect incoming calls to external telephones. This feature may be turned on or off as required, but an extension can redirect only those lines to which it is assigned.

The incoming trunk must have Disconnect Supervision and the outgoing trunk must be answer supervised for Line Redirection to perform properly. Modular Plus supports simultaneous redirections on DIA lines, if there are enough outgoing lines available.

Modular Plus detects if the called destination is busy and informs the local exchange so it can provide busy tone to the caller.

You can redirect exchange lines to AC15A private circuits, AC15A private circuits to either exchange lines or private circuits, and exchange lines to exchange lines.

Modular Plus supports simultaneous redirection of DIA calls, subject to the same barring rules and depending on the availability of outgoing resources.

You may choose to redirect all your exchange lines or only some of them.

You cannot use the Line redirection feature code at M7100N/T7100 or M7000/T7000 telephones, or at a telephone connected to an Analogue Terminal Adapter.

You redirect lines at a telephone, but once redirected, the lines are redirected for the entire system. You can only redirect lines for which there are line keys on the telephone you are using.

Note: SLR re-uses ETSI Call Diversion when calls come in over ISDN ETSI lines.

Redirection rules

Redirection is allowed or disallowed depending on line type. The following table shows which line redirections are permitted in the Modular Plus system.

Redirection by line type

From: → To: ↓	AC15/ DPNSS 1	Loop EarthCallin g/Guarded	Loop Unguarde d	BRI/P RI	DASS2	DIA
AC15/DPNSS 1	√	√	—	√	√	√
Loop EarthCalling/ Guarded	√	—	—	—	—	—
Loop Unguarded	—	—	—	—	—	—

Redirection by line type (continued)

From: → To: ↓	AC15/ DPNSS 1	Loop EarthCallin g/Guarded	Loop Unguarde d	BRI/P RI	DASS2	DIA
BRI/PRI	√	√	—	√	√	√
DASS2	√	√	—	√	√	√
DIA	—	—	—	—	—	—

How line redirection handles a busy condition also depends on the line types in use, as shown in the table below.

Busy condition handling

From: → To: ↓	AC15 / DPNSS	Loop EarthCallin g /Guarded	Loop Unguarded	BRI / PRI	DASS2
AC15 / DPNSS 1	Call answered, ringback heard	Call not answered, ringback heard	Call not answered, ringback heard	Call not answered, ringback heard	Call not answered, ringback heard
Loop EarthCalling /Guarded/ Unguarded	Call answered, busy heard	—	—	—	—
BRI/PRI	Call answered, then released	Call not answered, ringback heard	—	Call released, busy heard	Call released, busy heard
DASS2	Call answered, then released	Call not answered, ringback heard	—	Call released, busy heard	Call released, busy heard
DIA	—	—	—	—	—

Note: On redirection of a DASS2 to an ISDN line, the ISDN line may not respond within the time required by the DASS2 line. This will result in the timing-out of the network attached to the DASS2 line, and release of the line. This is normal operation under this condition.

In a networked system, Line redirection allows you to redirect calls coming in on your external lines to a telephone outside the office. You can redirect exchange lines to AC15A private circuits, AC15A private circuits to either exchange lines or private circuits and exchange lines to exchange lines.

How Line redirection is different from Call Forward

Call Forward forwards all calls that arrive at a particular telephone to another telephone within the Modular Plus system. Line redirection redirects only the lines you specify, no matter which telephones they appear on, to a telephone outside the Modular Plus system. Line redirection takes precedence over Call Forward.

Using Line redirection

When redirecting DIA lines, ensure the outgoing resource is a line pool with sufficient lines to support redirected traffic. The number of appearances for a DIA line is not limited to the number of appearances on that extension. As many DIA calls are redirected as the outgoing resource permits.

You can answer the telephone if it rings while you are in the middle of programming Line redirection, but none of the Modular Plus call handling features are available until the feature times out. If you need to use a Modular Plus feature to process the call, quit Line redirection programming by pressing . Do not press  or you will disconnect the call you are trying to process.

While you are programming Line redirection, you do not receive any indication of calls that do not actually ring at your telephone.

Be careful to avoid redirection loops. If for example, you redirect your lines to your branch office and your branch office redirects its lines to you, you can create a redirection loop.

In certain situations, callers may experience lower volume levels when you redirect calls to an external location.

Redirecting your lines

1. Press   .
 2. Select the outgoing line to be used for redirected calls.
 3. Do one of the following to indicate where the line will be redirected (maximum 24 digits):
 - Enter the number from the dial pad, including routing codes
 - press an auto-dial key that has the number programmed
 - if the number is on a Saved Number Redial or Last Number Redial key, press that memory key.
 4. Press  or **OK**.
- Note:** If the outgoing line is a private network line that does not require you to dial digits, you do not need to perform step 3 or 4.
5. Select the lines to be redirected using **ALL** or individual line keys.
 6. Wait until the line indicators for the selected lines are lit, then press  or **OK**.

If you press  or **OK** before all the lines light up, those lines not lit are not redirected.

The line chosen for redirecting calls on other lines can still be used normally when it is not busy on a redirected call. To avoid redirection failing because the chosen line is in use, choose a line pool with several lines in it.

The system does not check that the number you give for line redirection is a valid one. If you redirect to an invalid number, redirection fails. Using an auto-dial key to enter the redirection number helps avoid this possibility. An auto-dial key used for Line redirection must be programmed to use a specific line.

Cancelling Line redirection

1. Press .
2. Select the lines you no longer want to be redirected.

If a telephone has redirect ring enabled, it rings briefly for redirected calls on one of its lines even if another telephone set up the line redirection.

Displays while redirecting lines

Intercom	You selected the intercom key as the facility to place the call on. Enter a line pool code or a destination code.
Line redirection QUIT ADD REMOVE	Press <input type="button" value="*"/> or <u>ADD</u> to begin redirection. Press <input type="button" value="#"/> or <u>REMOVE</u> to cancel a previous redirection.
No line to use	You have one exchange line on your telephone, but you need a second line to perform line redirection. Redirect your exchange line using a line pool as the outgoing line.
Outgoing line	You are attempting to redirect a line and the line you have chosen is the outgoing line you have selected as a destination. You cannot redirect a line to itself. Select another line.
Pool code: QUIT	Enter a valid line pool access code.
Redir by 221 OVERRIDE	You have attempted to redirect a line, but someone else has already redirected that line. Press <input type="button" value="*"/> or <u>OVERRIDE</u> to override the previous redirection and redirect the line as you wish.
Redirect denied	You can only redirect calls on individual line.
Select line out QUIT	Select the line that will be used to redirect calls out of the system.
Select line(s) QUIT ALL	Press the lines to be redirected. To undo a line selection, press it again. Press <u>ALL</u> to redirect all your lines.
Select line(s) ALL OK	Continue to press the lines to be redirected. Press <input type="button" value="☎"/> or <u>OK</u> when you are finished.
Unequipped line	The line you are attempting to redirect cannot be redirected because the hardware does not support redirection.

Displays while cancelling redirection

Select line(s)
QUIT ALL

Press the lines that are no longer to be redirected. The lines light up as you press them. Once you cancel redirection for a line you cannot restore it by pressing the line again. Press ALL to cancel redirection for all your lines. When you are finished, press  or OK.

Select line(s)
ALL OK

Continue to press the lines that are no longer to be redirected. Press  or OK when you are finished.

Saving time with features

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Using system Speed Dial

Frequently dialled numbers can be programmed with system Speed Dial codes so that they can be accessed quickly with a three-digit code. After programming Speed Dial codes, distribute a list of system Speed Dial codes for your office.

1. Press  .
2. Enter the appropriate three-digit Speed Dial code (001 to 255).

Note: To programme personal Speed Dial codes (256 to 279) at your extension, see "Personal Speed Dial codes" on page 225

Using Autodial

You can programme memory keys for one-touch dialling of internal or external telephone numbers.

Keys used for lines, answer or handsfree cannot be used as autodial keys.

If the power to your Modular Plus system is off for more than three days, autodial numbers (as well as some other system programming) may be lost from the memory.

Autodial key for an external number

1. Press   . The display briefly shows **Externl autodial** then **Press a key**.
2. Press the key you want to programme.
This step is not necessary on M7100N/T7100 telephones, which have only one memory key.
3. If you want this autodial key to use a particular line or line pool, select that line or press the key labelled Intercom and enter the line pool code or destination code.
Note: The keystation must be assigned with the lines or line pools.
4. Enter the number.
5. Press  or **OK** when you are finished.
The display shows **Programmed**.

Autodial key for an extension number

1. Press  *  . The display briefly shows **Internal autodial** then **Press a key**.
2. Press the key you want to programme.
The display shows **Extn#:.:**
This step is not necessary on M7100N/T7100 telephones, which have only one memory key.
3. Enter the number. The display shows **Programmed**.

For M7100N/T7100N telephones, an external autodialer can only be programmed using a line and not a line pool.

If you do not include a line selection in an autodial number, the call uses your Prime line (if you have one).

Note: If line pool access codes or destination codes are changed, remember to re-programme autodial numbers as well.

Displays

987. QUIT BKSP OK	Continue to enter digits until the number is complete. Press the volume bar or BKSP to erase an incorrect digit. Press  or OK when you are finished.
Autodial full	The memory allotted to autodial numbers in your Modular Plus system is full.
key erased	While programming external Autodial, you erased the key by pressing  or OK before entering any digits.
Enter digits QUIT OK	Enter the number you wish to programme (choosing the line first if necessary) exactly as you would if you were making a call.
Intercom #:. QUIT	Enter the internal telephone number you wish to programme.
Invalid number	You are programming an internal autodial key and have entered a number that is not an extension number on your system. Enter a valid extension number. If the number you are entering is a destination code, use external autodial.
Press a key QUIT	Press the memory key you want to programme.
Program and HOLD	Enter the number you want to programme to the key, then press  .
Program and OK QUIT OK	Enter the number you want to programme to the key, then press  or OK . You may include a line or line pool selection in an autodial sequence by selecting the line before entering any digits.
Programmed	The number is stored on the key.

Feature moved

You have programmed an autodial number to a key that had a feature code programmed. The feature has moved to another key. Use **[☎] [*] [0]** (Key Inquiry feature) to locate it.

Using Redial

You can save the number of any external call you dialled and call it again later. You can also redial the last external number you dialled.

Saving a number to redial later

While you are still on the call, press **[☎] [6] [7]**.

Saved Number Redial records a maximum of 24 digits.

Redialling a saved number

Press **[☎] [6] [7]** when you are not on a call.

If you have a programmed Saved Number Redial key, you can use **[☎] [*] [0]** (Key Inquiry), then press the Last Number Redial key followed by **[#]** to check the last number before you dial it.

You can disallow this feature in programming. Refer to "Preventing Saved Number Redial" on page 95.

Last Number Redial

Press **[☎] [5]**.

Last Number Redial records a maximum of 24 digits.

If you have a programmed Last Number Redial key, you can use **[☎] [*] [0]** (Key Inquiry), then press the Last Number Redial key followed by **[#]** to check the last number before you dial it.

This feature can be disallowed on individual keystations. Refer to "Preventing Last Number Redial" on page 95.

Programming memory keys

You can programme a feature code to a memory key. When this guide tells you to enter a feature code, you press the memory key as a shortcut. In some cases, pressing the key a second time cancels the feature.

Any memory key not programmed as an external or internal line, a target line, a hunt group indicator, intercom, answer key, or handsfree key is available for programming features.

You can erase a memory key, but you cannot erase answer, handsfree, intercom, or line keys.

You cannot programme these feature codes to a memory key:

- Long Tones for signalling remote devices (see "Setting long tones" on page 296)
- Any code beginning with * except *501 (Language Choice), *7 (Contrast Adjustment), and *520 to *535 (SWCA keys).

When you programme a key with the line pool feature code, you must enter a line pool access code after the feature code. The programmed line pool key accesses a specific line pool, not the line pool feature.

Programming a memory key

1. Press *3.
2. Press the key you want to programme with a feature.
This step is not necessary on the M7100N/T7100 telephones, which have only one memory key.
3. Enter the feature code you want to assign to the key.

Erasing a key

1. Press *1.
2. Press the feature key.
3. Press  or **OK** to erase the key.

Displays

```
<Feature name>
SHOW  OK
```

The name of the feature assigned to a key is displayed when you press the key. **SHOW** appears when there is more information available. Press **#** or **SHOW** for additional information.

Enter code:	If you are checking a speed dial key, enter the three-digit speed dial code that you want to check.
F. QUIT CLEAR	Enter the feature code, or press  or QUIT to quit programming or CLEAR to clear the numbers you have entered. The system accepts the entry as soon as you enter a valid feature code.
Feature code: QUIT	Press  and enter the feature code you want to assign to the key. You cannot enter invalid codes.
Feature moved	You have programmed a key with a feature that was already programmed to another key. The feature has moved to the key you just programmed. Its original key is now blank.
Press a key EXIT	Press the key you want to check. Press  or EXIT when you are finished.
Program and HOLD	Enter the number you want to programme and press  . To erase the key, just press  .
Program and OK QUIT OK	Enter the number you want to programme and press OK . To erase the key, press  or OK .

Using Ring Again

If you cannot get through to someone on your Modular Plus system because their telephone is busy or there is no answer, you can use the Ring Again feature to tell you when they hang up or next use their telephone. You can also use the Ring Again feature to tell you when a busy line pool becomes available.

An internal call to a hunt group extension cannot use the Ring Again feature.

The Ring Again feature cannot be used with a hunt group.

1. Dial the extension number you want to reach.
2. Before you hang up, press  .

Cancelling Ring Again

Press   .

Displays

Can't ring again

You cannot use Ring Again on your current call. You can only use Ring Again while you have a busy signal on an internal call or line pool request, or while an internal call is ringing.

Ring Again?
YES NO EXIT

Press **YES** to use Ring Again. Press **NO** if you prefer to send a message.

Using Hotline

Hotline

A Hotline telephone calls a pre-set internal or external telephone number when you pick up the handset of a Hotline telephone (or press the button labelled Handsfree).

Label the telephone to inform anyone using it that Hotline is active.

Bypassing a Hotline

Press a line key, use the Pre-Dial or Automatic Dial feature, or press the button labelled Handsfree before you pick up the handset on a hotline telephone. Refer to Telephone Feature Card.

Using display features

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Time and Date

The current time and date appear on the display of idle Modular Plus telephones. Telephones connected to an Analogue Terminal Adapter cannot display the time and date.

Checking the current time and date while on a call

You can briefly display the current time and date while you are on a call by pressing **[*] 8 0 3**.

Static Time

When you have a message or a call log item on the telephone display, the time and date are not shown. The Static Time feature allows the time and date to be displayed at all times.

- Press **[*] 8 0 6** to turn Static Time on.
- Press **[*] # 8 0 6** to turn Static Time off.

Call duration time

Use the Call Duration Time feature to see how long you spent on your last call or how long you have been on your present call.

By pressing **[*] 7 7**, you can see how long you spent

- on your last call
- how long you have been on your present call

Displays

21 02:47

The display shows the last call you made or the current call, and the total elapsed time in minutes and seconds.

Line001 01:45

You parked your last call. The display shows the length of time the call was parked. You cannot see the length of time a call was parked unless the call is active at your telephone or has just been released by your telephone.

Call Information

Call Information is an optional supplementary service provided by the public telephone company. If your business subscribes to this service, you can view the number of an external caller unless the caller has blocked the information.

Lines in your Modular Plus system may appear at more than one extension. However, only one extension can receive Call Information automatically for an incoming call. Your programme which Norstar/BST extension will automatically receive Call Information. If Call Information is not delivered automatically to your extension and your company subscribes to the service, you can view Call Information using (the Call Information feature code).

Cordless handsets receive Call Information automatically. ISDN terminals receive Call Information automatically if supported by the terminal.

Note: Not all calls on ISDN lines necessarily provide Call Information because of the way the call is routed, or because the information was lost or corrupted.

Call Information gives you information about your active call or the highest priority ringing call.

Call Information is more detailed than the Call Display information you can receive without subscribing to Call Information. For external calls, you can display the caller's telephone number, line name, or a combination of these items. For an internal call, it is possible to display the caller's name and their extension number. It is also possible to display information for ringing, answered, or held calls.

Call Information displays even if the call has been transferred, forwarded, or re-routed in some way.

Call Log displays the same information as Call Information, along with the date and time of the call, and the number of times the caller called.

Note: You may continue to press line keys to get information on other calls. If you press the same line key twice, you are connected to that call. If you press any other key, including keys used to show more information about a call, you exit the Call Information feature, and the key you pressed performs its normal function.

Call Information symbols

Only incoming calls can be logged. Calls preceded by + are outgoing and cannot be logged.

Symbol	Description
+	Indicates the number of the telephone you called (not an incoming call).
...	Press  or <u>VIEW</u> to see the rest of the number.
	You cannot use another feature until you exit the Call Information feature.
×	The number is incomplete (missing digits).
↗	The number shown is too long. The last 14 digits are shown following the ↗.
	The call shown in the call log has been answered.

Call log

If your system is equipped with the appropriate equipment and you have subscribed to the call information feature supplied by your service provider, you can capture information about incoming callers in your call log. The same feature is supplied by an ISDN service package that comes with calling line identification (CLID).

You can protect the privacy of your call log by assigning a password. A handy feature of the call log is that you can easily use it to place calls to the numbers recorded.

Call log creates a record of incoming external calls. For each call the log could contain the following:

- sequence number in the call log
- number of the caller
- indication if the call was long-distance
- indication if the call was answered (and who answered)
- time and date of the call
- number of repeated calls from the same source
- name of the line that the call came in on

Call log can help you to

- keep track of abandoned or unanswered calls
- track patterns for your callers (for example volume of calls and geographical location of calls)
- record caller information quickly and accurately

- build a personal telephone directory from log items

The long-distance indicator, as well as the caller's number, may not be shown in the log, depending on the Call Display services provided by your local telephone company and the caller's local telephone company.

Setting which calls are logged at an extension

You can set which types of incoming calls are logged at your extension. The options are:

- **No autologging**
- **No one answered** (only for autologging extensions) (default setting)
- **Unanswered by me** (only for autologging extensions) but answered elsewhere in the system
- **Log all calls** (including those you answer)—applies to all lines capable of providing call information, even if your extension is not assigned as an autologging extension for that line

1. Press **[☎] [*] [8] [4]**.
2. Press **[#]** or **NEXT** to change the options.
3. Press **[☺]** or **OK** to select the display option.

Setting your Call log password

You can set a password for access to your call log to keep your log private. From then on you must enter this password to view your call log.

1. Press **[☎] [*] [8] [5]**. The display shows **New Password:.**
2. Enter your four-digit password. The display shows **Repeat New:.**
3. Re-enter your four-digit password. The display shows **Password changed**, which confirms that your password has been assigned.

To enter Call log using your password

1. Press **[☎] [8] [1] [2]** to enter Call log. If you have programmed a password, the display shows **Password:.**
2. Enter your four-digit password.

If you forget your Call log password, it can be removed in programming. See 'Changing your Call log password'.

Changing your Call log password

1. Press **[*] [8] [5]**. The display shows **Old Password:**.
2. Enter your old password. The display shows **New Password:**.
3. Enter your new four-digit password. The display shows **Repeat New:**.
4. Re-enter your password. The display shows **Password changed**, which confirms that your password has been changed.

Removing your Call log password

When you remove your Call log password, anyone can access your call log.

1. Press **[*] [8] [5]**. The display shows **Old Password:**.
2. Enter your old password. The display shows **New Password:**.
3. Press **[OK]** or **[OK]**. The display shows **No Pswd assigned**, which confirms that your password has been deleted.

Logging an incoming call (Logit)

If your calls are not automatically logged, you can manually log call information when you are connected to an external call. Storing information for your current call can be helpful in many situations. For example, you may want to

- record a caller's name and number without using paper and pencil
- record only calls that you choose, as opposed to using Call log automatically
- quickly record caller information before a caller hangs up.

To log an external call manually:

Press **[*] [8] [1] [3]**.

Note: If you programme the Call log feature code to a memory key with an indicator, the indicator lights when there are new items in the log.

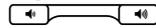
Viewing your Call log

New items are shown with the first character underlined.

Press **[*] [8] [1] [2]**.

Use either the display keys or your keypad to navigate through the log.

Call log key pad and display key actions.

Action	Key	Display key
On entering the log		
View log items you have viewed before		<u>OLD</u>
View the last item you viewed		<u>RESUME</u>
View new items in the log		<u>NEW</u>
When viewing an item		
View the next item in the log		<u>NEXT</u>
Erase the item you are viewing		<u>ERASE</u>
View more information on this item	Right side of 	<u>MORE</u>
Trim digits from the beginning of the number you are viewing prior to dialling the number	Left side of 	<u>TRIM</u>
Go back to the previous item		

Placing a call to a number in the call log

You may find it helpful to place calls from within your call log. The number stored for each call may vary depending on the type of call. For example, if the call was placed from a Centrex or PBX system, the first few numbers may need to be shortened before you can make the call. If the number you want to call is long distance, or if you want to use a line pool, you may need to add numbers.

To place a call

1. Display the log item for the call you want to place.
2. Display the associated telephone number.
3. Dial any extra digits required.
4. Press an exchange line or line pool key.
5. Lift the handset. (This is not necessary if Handsfree is programmed at your telephone). The displayed number is dialled.

While viewing the log, you can place a call to the number displayed in the log.

1. If the number begins with digits that you do not need when calling from your location, press the left side of the volume bar or TRIM, once for every digit that you want to remove.
2. Add any digits required to route this number to an appropriate line (for example, 9 to get an outside line, if your system requires

- it). Use the left side of the volume bar or **BACKSP** to erase incorrect digits. You cannot enter host system signalling codes.
3. Select a line for the call as you normally would for making a call of this type (for example, by pressing an appropriate line, Intercom or Handsfree/Mute key, or by lifting the handset).
 4. The displayed number is dialled.

Note: When you edit a number in the log to call that number, the edits you make are not saved in the log.

Programming a telephone to log calls automatically

Your installer or Sales Support Officer can programme each telephone to log calls coming in on a line automatically.

Displays

1:Unknown number	The caller's number is unavailable.
12.1234567890123 NEXT ERASE MORE	. indicates a new item.
12)1234567890123 NEXT ERASE MORE) indicates that the call was answered.
12\$1234567890123 NEXT ERASE MORE	\$ indicates a long-distance call.
49/1234567890123 NEXT ERASE MORE	/ indicates that the stored number has been shortened to its final 11 digits. Press the volume bar or MORE to display additional information about the call.
Call(s) bumped	One or more log entries have been deleted by the Autobumping feature while you are looking at the call log.
Hold or release	Hold or release your active call before entering Call Log.
In use: SETNAME	The exchange line is in use.
Jan 4 9:00a 3X NEXT ERASE MORE	The repeat call counter, shown along with time and date, indicates the number of calls you have received from the same caller.
Line001)227 NEXT ERASE MORE	This call was answered at another telephone (227).
Line001)Logit NEXT ERASE MORE	This call was logged manually.
Line001 NEXT ERASE MORE	This call was not answered.
Messages & Calls MSG CALLS	There are one or more items in your message waiting list, and there are one or more new items in your Call Log. Press [E] [8] [0] [6] to change the first line of the display to the current time and date.

New calls begin	You have viewed your last old log item and can now view your new log items.
No info to log	No information is available for the call.
No log assigned	No log space has been assigned to the telephone.
No resume item	The resume item has been removed because of Autobumping. Repeat Call Update, or log reallocation while you are looking at the call log.

Autobumping

Deleting log items

Your log has a set number of items that it can hold. When it becomes full, new calls cannot be logged. When your log is full, Autobumping automatically deletes the oldest Call Log item and logs the new call.

To enable Autobumping

Press **[*] 8 1 5**. The display shows **Autobump ON**.

To disable Autobumping

Press **[*] # 8 1 5**. The display shows **Autobump OFF**.

Call Charge

Modular Plus extensions can display information about the cost of the last call placed on a DASS2 line. This is the basic call charge only and may not include any applicable taxes or other charges.

Viewing the charge for your last DASS2 call

Press **[*] 8 1 8**.

Ensure Call Charge data applies to last call

The Call Charge information displayed by this feature is for the last call for which such information was available. If your last call did not provide Call Charge information, the display shows the Call Charge information for the last call for which such information was available. To avoid confusion, note the time of the call.

Note: To get Call Charge information for both parts of a conference call (in which you placed both of the conferenced calls), disconnect one call, check the Call Charge information for that call, then disconnect the second

call and check the Call Charge information for that call. If you disconnect both calls simultaneously, only the information for one will be available.

To see how long a call lasted, use the Call Duration Time feature ().

Special dialling features

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Special dialling features

System telephones can access a remote system or dial a number on a private network by using host system access features such as Recall, Pause, Wait for Dial Tone, and Run/Stop. These features either send a special signal to the host system or allow you to programme delays required by host systems to external autodial keys or speed dial codes.

Inserting a pause

The Pause feature enters a 3.5-second delay in a dialling sequence on an exchange line. You may need this for signalling remote devices, such as answering machines, or when dialling through to PBX features or host systems.

You can programme more than one pause in an external autodial or speed dial sequence.

For pulse dialling, ***** inserts a 1.5-second pause into the dialling sequence.

The pause symbol (**Ⓟ**) uses one of the 24 spaces in a dialling sequence.

Press **☎** **7** **8** while programming a dialling sequence.

Note: You can obtain a pause with one key press if you programme the feature code to a memory key. More than one pause can be programmed to an external autodial key.

Setting long tones

The Long Tones feature allows you to control the length of a tone so that you can signal devices such as fax or answering machines, which require tones longer than the standard 120 milliseconds.

1. While on a call, press **☎** **8** **0** **8**.
2. Use the keypad to produce the appropriate tones. Each tone sounds for as long as you hold down the key.

Note: Long Tones can be used on any call except a conference call.

You can use internal lines of the Modular Plus system to activate a device connected to an Analogue Terminal Adapter (ATA) in another area of your office, or exchange lines to access devices outside the Modular Plus system.

Programmed Release

The Programmed Release feature performs the function of the  key in a programmed dialling sequence. When the system encounters a Programmed Release in a dialling sequence, it stops dialling and hangs up the call.

The Programmed Release symbol () takes up two of the 24 spaces in a programmed dialling sequence.

The system ignores any digits or commands that follow a Programmed Release in a programmed dialling sequence.

Press     while programming a dialling sequence.

Recall

If your Modular Plus system is connected to a PBX, you can use a Recall signal to access special features. programme Recall to a memory key for one-touch access.

The Recall signal can also be included as part of a longer stored sequence on an external autodial key or in a speed dial code. The Recall symbol () uses two of the 24 spaces in a dialling sequence.

If your Modular Plus system is connected to a host system, a private branch exchange (PBX) for example, you can use a Recall signal to access special features such as PBX Call Forward and PBX Transfer.

While you are on a call or programming an autodial key, press

  .

Run/Stop

Run/Stop inserts a break point into an autodial or speed dial number. This may be necessary when you are connecting to a PBX or similar host system.

For example, you may call a company with an automated receptionist that instructs you to dial the extension number you need. You can programme the company number, a Run/Stop, then the extension number on one external autodial key. Press the autodial key once to dial the company number. When you hear the automated receptionist, press the autodial key again to dial the extension number.

The Run/Stop symbol () uses one of the 24 spaces in an autodial or speed dial sequence.

You can include up to three Run/Stop commands in a dialling string. The system ignores a fourth Run/Stop, and any digits or commands that follow it in a programmed dialling sequence.

Press    while programming a dialling sequence.

Wait for Dial Tone

Wait for Dial Tone causes a sequence of numbers to pause until dial tone is present on the line before continuing to dial. This is useful if you must dial a remote system and then wait for dial tone from that system before dialling the rest of your number.

The Wait for Dial Tone symbol (■) uses two of the 24 spaces in an autodial or speed dial sequence.

Press **[☎] [8] [0] [4]** while programming a dialling sequence.

Displays

Invalid code

You have entered a code that can only be used in a programmed autodial or speed dial sequence, not on a call you dial directly. Programmed Release and Run/Stop are for use in programmed dialling sequences only.

Using pulse dialling for a call

If your external telephone lines use pulse dialling, you can temporarily switch to tone dialling by pressing **[#]** after selecting the line. Tone dialling allows your telephone to communicate with devices and services that respond to tone signals, such as automatic switchboards and fax or answering machines.

Integrated Services Digital Network (ISDN)

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- Digital Network Adapter.....302

ISDN services

Integrated Services Digital Network (ISDN) provides a fast, accurate, and reliable means of sending and receiving data, image, text, and voice information through the telephone system.

Two types of ISDN service are supported on Norstar systems: Basic Rate Interface (BRI) and Primary Rate Interface (PRI).

The Modular Plus system supports the 2-port and 4-port Basic Rate Interface (BRI) cards. The 2-port BRI card supports two loops and the 4-port BRI card supports four loops. Each of these loops consists of two separate B-channels that can be used to make two simultaneous voice or data calls, or one data call and one voice call. A video call requires the use of both B-channels on the loop.

Your installer configures the BRI loops for the Modular Plus system.

The Modular Plus system also supports the DTI card (I.421). Each PRI loop consists of 31 separate channels, 30 B-channels and a D-channel for carrying control and signalling information.

ISDN applications

Using the appropriate ISDN terminal equipment, you can access a wide range of business applications.

Videoconferencing and video telephony

Videoconferencing offers instant visual and audio contact between distant parties using either studio-based or desktop ISDN terminals.

- **Videoconferencing and video telephony:** Videoconferencing offers instant visual and audio contact between distant parties using either studio-based or desktop ISDN terminals.
- **Desktop conferencing:** ISDN allows computer users in distant locations to share and edit any image, data, or text file on their own computer screen, while simultaneously discussing the information.
- **File transfer:** ISDN allows you to transfer files containing data, text, image, or audio clips, faster and cheaper than with a conventional modem.
- **Home working:** Convenient retrieval, processing, and storage of files is possible for the home worker, using ISDN lines to give high-speed access to information held in the office.
- **Group 4 fax:** ISDN fax applications pride cost savings by increasing transmission speed and quality of resolution.

- **Remote LAN access:** ISDN provides an affordable and fast means for workers in remote sites (at home or branch offices) to access local-area networks (LANs).
- **Leased circuit back-up:** Essential back-up for leased KiloStream circuits can be provided using ISDN as required, rather than duplicating costly permanent circuits.
- **LAN to LAN bridging:** LAN bridge/routers allow flexible interconnection between LANs using ISDN, with charges only incurred when information is actually transmitted.
- **Broadcasting:** Using ISDN and digital codecs, broadcasters can convey music, news, and commentaries with absolute clarity.
- **Video surveillance:** Dial-up access using videocodecs provides advanced surveillance on demand.
- **Accessing information services:** The fast call set-up and high bandwidth of ISDN are ideal for accessing information services such as Internet and databases.

ISDN Supported services

Modular Plus supports the following ISDN services:

- basic incoming calls
- basic outgoing calls
- Direct Dial Inward
- Calling Line Identification Presentation
- Multiple Subscriber Numbering
- Sub-addressing
- bearer capabilities
- teleservices

The Call Forward All Calls and Transfer features can be used from ISDN terminals connected to Modular Plus.

Note that Norstar extensions can accept voice calls only. Video and data calls do not alert at a Norstar extension.

Although an ISDN S-loop can support up to eight devices, the loop has a limit of two B-channels. An ISDN data or voice terminal uses one B-channel for an incoming or outgoing call. An ISDN video terminal uses two B-channels for an incoming or outgoing call. If both B-channels are in use, other devices on that loop cannot make or receive calls until a B-channel is available, or until both B-channels are available in the case of a video terminal. Thus, the number of terminals installed on an S-loop must take into account whether you require dedicated access for the terminals on that loop.

Services not available does not support the following ISDN services:

- Terminating Line Identification
- Three Party Service
- Incoming/Outgoing Calls Barred Service
- Night Busying
- Fixed Destination
- Administration Controlled Call Diversion
- Reasons for Release
- Separate Channel Numbering

Note that Modular Plus extension features, other than Transfer and Call Forward All Calls, are not available to ISDN terminals. In addition, you cannot retrieve a parked call, or reach a Direct-Dial extension by using the Direct-Dial digit from an ISDN terminal.

Digital Network Adapter

The Digital Network Adapter (DNA) is an optional device for use with the Modular Plus CCU. It provides an integrated desktop solution for voice, data, and Computer Telephony Integration (CTI) services. You can also telecommute over a digital telephone line to access high-speed network features from your home by connecting to a DNA in your office.

The DNA serves as a terminal adapter (TA) and provides reliable high-speed end-to-end digital connectivity between a personal computer and a remote data server through the CCU and public network.

The DNA uses standard communication protocols such as Point-to-Point (PPP) and Multi-link PPP (MP) in applications such as Internet access and remote LAN access.

A system telephone can also be connected to a DNA, to access Modular Plus voice services. You can have a conversation at the same time that your computer is connected to the Internet or remote LAN, with no loss of CCU features.

This sharing of voice and data communication is made possible by software in the CCU that provides dynamic bandwidth allocation across the two channels of the connection. What this means is both channels are used for data traffic. When you use the telephone that is connected to the DNA, one channel of the connection is for the voice conversation, while the data connection continues on the other channel. When the voice call ends, the extra bandwidth is once again available to the data traffic.

Instructions for installing and programming the Digital Network Adapter are included in the Digital Network Adapter Guide.

Digital Private Network Signalling System Number 1 (DPNSS 1)

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DPNSS 1 services

DPNSS 1 is a networking protocol enhancement that extends the private networking capabilities of existing Norstar systems. It is designed to offer greater centralised functionality for operators, giving them access to Norstar features over multiple combined networks.

DPNSS 1 allows a Norstar local node to communicate with other PBXs over the network. For example, corporate offices separated geographically can be linked over DPNSS 1 to other Norstar nodes, bypassing the restrictions of the PSTNs to which they may be connected. This allows connected Norstar nodes to function like a private network, with access to all features of your Norstar system.

DPNSS 1 features can be used on any Norstar extension. On most system telephones, you must use specific keys and/or enter a number code to access the features. For a description of the types of BST and Norstar telephones that can be used on your system, see "About your system telephones" on page 203.

DPNSS 1 capabilities

Norstar supports the following capabilities over DPNSS 1 lines:

- Direct Inward Access (DIA) for incoming calls
- Originating Line Identification (OLI) for incoming and outgoing calls:
 - for incoming calls, the Calling Line Identification (CLI/CLID) information is displayed to the user on extensions with line display (must be configured in programming).
 - for outgoing calls, the directory number of the originating party is sent out as OLI.
- Terminal Line Identification (TLI) for incoming and outgoing calls. Referred to as Called Line Identification.
- calls between DPNSS 1 and BRI/PRI, DASS2, Analogue, and AC15 lines use Selective Line Redirect (SLR) or External Call Forward (ECF). Note that under certain line conditions, ECF will not work.
- remote access features: DIA, line pool access code, destination Codes, remote page feature codes.
- Software Keys; these are required to enable DPNSS 1

DPNSS 1 features

Some DPNSS 1 features are identical to existing Norstar features, and are simply enhancements for distance networking. Other features are new.

Available DPNSS 1 features are:

- Three Party Service (similar to Norstar Conference)
- Diversion (similar to Norstar Call Forward)
- Redirection
- Call Offer
- Executive Intrusion (similar to Norstar Priority Call)
- Route optimisation
- Message waiting indication
- Loop avoidance

Some features are transparent to the user, but must be programmed to be activated. Others are available for end-user programming at the extension.

Programming

The following parameters can be configured for DPNSS 1 lines:

- Line Type
- Prime Extension
- CLID Extension
- Auto Privacy
- Answer Mode
- Auxiliary Ringer
- Full auto Hold

Refer to the "Programming overview" on page 24, for details on system defaults and programming for DPNSS 1.

Three Party Service

Three Party Service is a DPNSS 1 feature for Norstar, similar to the Norstar Conference feature. In fact, using the feature at an extension is identical in all respects to the Conference feature.

The Three Party Service allows a user, often an operator, to establish a three-party conference by calling two other parties from one extension. Once the connection is made, the controlling party can hang up, leaving the other two connected. The controlling party can even put one party on hold, and talk to the other party.

This feature is basically designed to allow operators to assist in the connection of calls from one main location.

Making a conference call

To initiate or disconnect from a conference call on a Norstar system over DPNSS 1, proceed as in "Making a conference call" on page 253.

Note: Three Party Service is supported on M7100N/T7100 and M7000/T7000 extensions, but in a receive-only fashion. These extension types cannot initiate Three Party Service.

Diversion

Diversion is a DPNSS 1 feature for Norstar that allows users to forward their calls to a third party on the DPNSS 1 network.

There are five variations on Diversion:

- **Diversion Immediate** diverts all calls to a programmed extension. This function is set by the user.
- **Diversion On Busy** diverts all calls to a programmed extension when an extension is busy. This is an administrator set function.
- **Diversion On No Reply** diverts calls that go unanswered after a specified amount of time. This is an administrator set function.
- **Bypass Call Diversion** is a receive only feature. If an incoming call is received with the diversion bypass service request, any Call Forward features, if active on the extension, are overridden and the call keeps ringing on the extension.
- **Follow-me Diversion (Registration and Cancellation)** is a receive only feature. If there is a request from the nominated extension to register follow-me diversion, Norstar will check the Originating Line Identifier (OLI) for the incoming request. If it matches with the programmed Diversion Immediate destination, it will make a virtual call for the validation to the new destination and overwrite the existing Diversion Immediate destination by the new destination. If there is a request for the nominated extension to cancel the Diversion Immediate programmed, Norstar will check the OLI for the incoming request. If it matches with the programmed Diversion Immediate destination, Diversion is cancelled.

Note: There is no cancellation of Diversion on Busy or Diversion on No Reply from the nominated extensions. These are programmable only by the System Administrator or the Installer, and not by the user (as in Diversion Immediate).

If multiple extensions are programmed to take a call, the first extension to respond will act and all other responses are ignored. Therefore, if the first extension to respond has Diversion set, this feature will be invoked.

Setting Diversion

You set Diversion for DPNSS in the same way as Call Forward, see "Programming an extension" on page 100. You will need to enter the DPNSS 1 network number when prompted with **Show extr#:**. You may also need to include the DPNSS 1 routing number. norstar must have a private access code programmed that maps to a valid destination code or line pool code on the DPNSS line.

Note: When setting DPNSS Diversion using , certain digits and Feature codes cannot be used in the dialout number. This is because the digits received from the network must map to a valid extension in the PBX, and these will not. They are listed in following table:

Invalid digits/codes
*
#
<input type="text" value="☎"/> <input type="text" value="8"/> <input type="text" value="0"/> <input type="text" value="4"/>
<input type="text" value="☎"/> <input type="text" value="7"/> <input type="text" value="8"/>
<input type="text" value="☎"/> <input type="text" value="7"/> <input type="text" value="1"/>

Redirection

Redirection is a DPNSS 1 feature for Norstar, similar to the Norstar Transfer Callback feature. Redirection allows a call that has not connected or is on hold to be redirected by the originating party to an alternate destination after a time-out period. Failed calls can also be redirected. Priority calls cannot be redirected.

Note: The address to redirect depends on the history of the call. Calls that have been transferred could be redirected to the party that transferred it. In all other cases, the address to redirect is the one registered at the PBX originating the redirection.

The Diversion on No Reply feature takes precedence over Redirection.

Setting Redirection

The timer used for the network Callback Feature applies for redirection. See "Transfer callback" on page 136.

Executive Intrusion

Executive Intrusion (EI) is a DPNSS 1 feature that allows an operator, or other calling party, to intrude on a line when it is busy. This feature might be required, for example, in times of emergency or to make an important announcement when the recipient is on another call.

EI is similar in functionality to Norstar Priority Call. It is, however, a receive-only feature on Norstar extensions; that is, EI cannot be initiated from a Norstar extension. The originating caller would be on another PBX on the DPNSS 1 network.

When EI is used to intrude on a call in progress, a three-way connection is established between the originating party and the two parties on the call. The result is very much like a conference call. When one of the three parties clears the line, the other two remain connected, and EI is terminated.

The extension receiving the intrusion will display **Intrusion Call**. A warning indication tone will sound after intrusion has taken place, and the standard conference call tone will sound every 20 seconds.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password#:**.
3. Press (ADMIN). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**.
5. Enter the extension number of the telephone you wish to programme. The display shows **nnn:nnn**.
6. Press . The display shows **Capabilities.**
7. Press until the display shows **Intrusion.**
8. Press . The display shows **Protect lvl.**
9. Press **CHANGE** to select the level of intrusion protection: **None**, **Low**, **Med**, or **High**.
10. Press to exit or to continue in programming.

Call Offer

Call Offer over DPNSS 1 allows a calling party to indicate to the wanted party that there is an incoming call available, even though that line is busy. The intended recipient can ignore, accept, or decline the offered call. Call Offer is useful in increasing the call-coverage capability of a Norstar system, and helps to lift the network processing load. It is a receive-only capability on Norstar: incoming calls would be initiated at another PBX on the DPNSS 1 network.

An example of Call Offer in use is an operator or attendant having a number of calls coming in at once.

Note: DND on busy must be programmed to **M** under **Terminals & Extns > Capabilities** for an extension to accept Call Offer.

Displays

When a Call Offer is made by the originating exchange, the target extension displays a message, and a tone is heard. When an offered call arrives on extensions with line display, the user will see `XX...X wtrng` if the calling party ID is available and CLID is enabled; otherwise, `Line XXX waiting` is shown (the line name associated with the call). If there are more than 11 digits in the incoming number, only the last 10 will display.

If Call Queuing is programmed for the system, see "Answering the next queued call" on page 229, the display will show `Release Line XXX`.

This will be the line name of the highest-priority queued call.

Restrictions by set type

Call Offer is indicated differently on different types of extensions:

- M7000/T7000—the associated LED or LCD will flash, and a tone is heard
- ATA—Call Offer is supported as a Camp On feature; a tone is heard
- ISDN—not supported
- Cordless Handsets—not supported
- DNA—not supported.

User Actions

The party receiving a Call Offer has three choices, as follows:

- **Ignore it.** After a programmed time interval, the Offer will terminate.
- **Reject it,** using . Using Do Not Disturb (DND) will also reject the Offer (the line indicator for external incoming calls still flashes). However, the user must remember to release DND following the call using .

A call cannot be offered to a busy extension with DND on busy programmed.

Note: Call Forward on busy takes priority over DND on busy. Also, Call Offer cannot be accepted by putting an active call on hold.

- **Accept it.** The Offer is accepted by releasing the active call.

Route Optimisation

Route Optimisation is a DPNSS 1 feature for Norstar that allows calls to follow the optimum route between two end PBXs. This allows efficient use of network resources.

Route Optimisation is initiated by the system and is transparent to the user. However, in some cases the user may see a call switch from an appearance on the extension to another appearance key or from an intercom key to the appearance key or vice versa. This occurs when Norstar receives a Route Optimisation request and initiates a new call to follow the optimal route.

If an extension is active on a private line call, the Route Optimisation call that is being established may go on a public line. This will cause the user to lose their private line.

Data calls are rejected by Route Optimisation in order to ensure the data transmission is not affected.

Certain situations result in Route Optimisation not taking place. For example, calls that are using Hold, Parking, or Camp features will not undergo Route Optimisation, and if a Route Optimisation call undergoes diversion, the Route Optimisation is dropped.

Setting Route Optimisation

There is no system programming required for the feature when Norstar is working as a terminating PBX.

Message Waiting Indication

Message Waiting Indication (MWI) is a DPNSS 1 feature for Norstar. Messages are received at a centralised location (an extension you pre-determine), where they are processed and forwarded to the target extension. This centralisation relieves the network processing load, making the system more efficient. MWI provides users with the ability to scroll through, erase, and reply to messages.

When there are messages to be retrieved, ~~Message for you~~ is displayed at the extension. Once all the messages are retrieved by the user, a Message Waiting Cancellation (MWC) is sent from the call centre, and the user extension no longer displays MWI.

MWI also allows the user to reply or call back to the message centre.

This feature is only supported on Norstar target lines.

Setting Message Waiting Indication

First, you must provide an extension with the ability to access target lines for receiving messages:

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press * * 2 6 6 3 4 4 (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Show extn#:**...
5. Enter the line number you want to programme.
6. Press . The display shows **Line Access.**
7. Press . Until the display shows **Call Services.**
8. Press . The display shows **Auto call info.**
9. Press . The display shows **Call log set:**
10. Change this setting to **N**.
11. Press . The display shows **Ext1 UM9 set.**
12. Change this setting to **Y**.
13. Press to continue programming and proceed to step 4 below.

Assigning message centres to a line

You need to assign one of five, or NONE of the message centres to the line:

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press . The display shows **Lines.**
5. Press . The display shows **Linexxx:Linexxx.**
6. Enter the line number you want to programme.
7. Press . The display shows **Line Data.**
8. Enter the name of the line you want to programme.
9. Press . The display shows **Call Services.**
10. Press . The display shows **UMsg center.**
11. Change the setting according to the required message centre or NONE.
12. Press . The display shows **IC key.**
13. Program the number to be dialled on the IC key when the call has to be made to reach the messaging centre
14. Press . The display shows **MWI.**
15. Program the Non-Specified Information (NSI) string for message waiting indication that is expected from the particular message centre.
16. Press . The display shows **MWC.**

Program the NSI string for message waiting cancellation that is expected from the particular message centre.

Viewing your messages

If you have messages your display will read **Message for you**.

There are three ways you can retrieve or call back the message centre:

- Pressing **MSG** (M7324N, M7310N, T7316 and T7316E extensions only)
- Dialling the **[*] [6] [5]** code for Msg reply
- Pressing a key that is programmed for Msg reply

Your display will show the message number and name along with one or more of **NEXT**, **CALL** and **CLEAR**.

Note: **NEXT** appears when there is more than one message. **CALL** appears when the number for that particular message centre has been programmed into the system.

Scrolling through messages

You can use **NEXT** or the **[#]** key to receive the following message in the list.

NEXT is displayed only if there is more than one message.

Use the **[*]** key to display the previous message in the list.

Replying to messages

If **CALL** appears on the display you can use it to connect to the messaging centre in order to reply.

Note: A password may be required for logging on to the voice mail system. This is provided by the message centre since Norstar does not provide any password for this feature.

CALL is displayed only if the number for that particular message has been programmed into the system.

Removing messages

You erase messages by pressing **CLEAR** or the **HOLD** key on your extension. This clearing takes place locally; the status of the message remains the same at the message centre.

Loop avoidance

Errors in the configuration of a network may make it possible for a call to be misrouted and arrive at a PBX through which it has already passed. This would cause a loop which would eventually use up all of the available channels. The Loop Avoidance service permits counting of DPNSS 1 transit PBXs and rejecting a call when the count exceeds a predetermined limit.

Programming Loop avoidance

Set Loop avoidance during the hardware configuration.

1. Place the programming overlay over the appropriate keys on your programming telephone.
2. Press (CONFIG). The display shows **Password:**.
3. Press (SAPLUS). The display shows **Terminals&Extns.**
4. Press until the display shows **Hardware.**
5. Press . The display shows **Card Type: DPNSS 1.**
6. Press . The display shows **Max transits: 0-25.** The default is the maximum value of 25.

Feature quick reference

- Modular Plus feature codes.....316
 - ISDN terminal features.....318
- Cordless handset features.....320
 - ATA extension features.....321

Modular Plus feature codes

Using Modular Plus features

1. Press  and enter the desired feature code on the dial pad.
OR

Press the programmed memory key.

2. Follow the display messages.

If you change your mind while entering a feature code, press  to cancel. If you use the  key to end a feature, you may drop an active call.

To display what has been programmed on a memory key, enter  * 0 (the Key Inquiry feature code) and press the memory key.

Note: Norstar extensions accept voice calls only. Video and data calls do not alert a Norstar extension.

Feature	To activate	To cancel
Autobumping (Call Logs)	 8 1 5	 # 8 1 5
Background music	 8 6	 # 8 6
Call Camp-on	 8 2	
Call Duration Timer	 7 7	
Call Forward All Calls	 4	 # 4
Call log	 8 1 2	
Call log options	 * 8 4	
Call log password	 * 8 5	
Call Parking	 7 4	
Call Pickup Directed	 7 6	
Call Pickup Group	 7 5	
Call Queuing	 8 0 1	
Class of service password	 6 8	
Conference	 3	
Contrast adjustment	 * 7	
Dialling modes	 * 8 2	
Do Not Disturb	 8 5	 # 8 5
Group listen	 8 0 2	 # 8 0 2
Hold		
Holding a call exclusively	 7 9	

Feature	To activate	To cancel
Key Inquiry	* 0	
Last Number Redial	5	
Line pools	6 4	
Line redirection (not available on M7100N and T7100)	8 4	# 8 4
Logit (Call Logs)	8 1 3	
Long tones	8 0 8	
Memory keys		
Programming	* 3 or * 2 or * 1	
Erasing	* 1 then <u>OK</u>	
Messages		
Reply	6 5	# 6 5
Sending	1	# 1
View messages	6 5	
Moving line keys	* 8 1	
Page		
General	6 0	
Internal	6 1	
External	6 2	
Internal and external	6 3	
Pause	7 8	
Priority Call	6 9	
To block a Priority call	8 5	
Privacy	8 3	# 8 3
Programmed release	* 8 9	
Recall	7 1	
Ring Again	2	# 2
Ring Type	* 6	
Ring Volume	* 8 0	
Run/Stop	* 9	
Saved Number Redial	6 7	

Feature	To activate	To cancel
Services		
Ringing service	[*] 8 7 1	[*] # 8 7 1
Restriction service	[*] 8 7 2	[*] # 8 7 2
Routing service	[*] 8 7 3	
Show Time and Date	[*] 8 0 3	
Static Time	[*] 8 0 6	[*] # 8 0 6
System Wide Call Appearances (SWCA)	[*] * 5 2 0 to [*] * 5 3 5	
Move clock forward by 1 hour	[*] * * 3 9 3	
Move clock back by 1 hour	[*] * * 2 2 2 5	
Speed Dial		
Making a call	[*] 0	
Storing a Speed Dial code	[*] * 4	
Transfer	[*] 7 0	[*] # 7 0
Trunk Answer	[*] 8 0 0	
Voice Call	[*] 6 6	
Voice Call Deny	[*] 8 8	[*] # 8 8
Wait for Dial Tone	[*] 8 0 4	

ISDN terminal features

The Call Forward All Calls and Transfer features can be used from an ISDN terminal connected to Modular Plus. On most ISDN terminals, you need to press one or more keys to access feature services before you enter the feature code for these features. To see what keys to press, consult the instructions that came with the ISDN terminal.

Note: Although ISDN terminals may have Transfer and Call Forward keys or display prompts, these keys do not activate Modular Plus features. Always use the appropriate procedure to access feature services, then enter the feature code as described below.

Other Norstar extension features are not available to ISDN terminals. In addition, you cannot retrieve a parked call, or use the Direct-Dial digit to reach a Direct-Dial extension from an ISDN terminal.

Call Forward All Calls

Using the Call Forward All Calls feature

The Call Forward All Calls feature allows you to forward your calls to another telephone in your Modular Plus system.

1. Press *** 4 ***.
2. Enter the number of the extension you want your calls forwarded to, followed by **#**.
3. Enter the appropriate key to send.

Cancelling Call Forward

1. Press **# 4 #**.
2. Enter the appropriate key to send.

Transfer

Using the Transfer feature

The Transfer feature allows you to transfer a call to an internal or external telephone. You also can transfer a call to a hunt group extension. Depending on how the system was programmed, you may not be able to transfer a call on one exchange line to another exchange line.

Depending on the type of ISDN terminal, you may have to press a service key to access feature services (consult the instructions that came with your ISDN terminal).

1. Press *** 7 0 ***.
2. Enter the number of the extension you want to transfer the call to, followed by **#**.
3. Enter the appropriate key to send.

Cancelling Transfer

Depending on the type of ISDN terminal, you may have to press a service key to access feature services (consult the instructions for your terminal).

1. Press **# 7 0 #**.
2. Enter the appropriate key to send.

Line access from an ISDN terminal

Note that ISDN terminals do not have line keys or intercom keys as do BST and Norstar telephones. To make an outgoing call from an ISDN terminal, access an exchange line by entering a line pool code or a destination code.

Making or receiving calls involving two B-channels

For incoming calls that require two simultaneous B-channels, Modular Plus requires that calls be made sequentially to two distinct numbers, rather than simultaneously to the same number.

In the case of a DIA call, the same DIA line can be used but the ISDN extension needs to have the number of appearances for that DIA line to 2.

For example, in the case of a *Presence* video terminal, the first call establishes a 1B video connection and the second call establishes the 2B video connection.

Cordless handset features

Availability of features may vary with the model of cordless handset. The following list provides an approximate guide to the Modular Plus features available. For more information, see the feature card for your model of cordless handset. For more information on the operation of the cordless handset, see the user guide for that model.

Features for cordless handsets

- Call Forward All Calls
- Conference
- Line pools
- Recall
- Retrieve a parked call
- Speed Dial
- Transfer
- Trunk Answer

ATA extension features

The Analogue Terminal Adapter (ATA) connects a digital Norstar telephone port to a standard analogue voice device. It is most commonly used to attach to a single-line telephone or a data communication device such as a modem or facsimile machine.

Refer to the ATA Terminal Feature Card for complete information.

Feature	To activate	To cancel
Alternate line	Link <input type="text"/> * 2	
Call Forward	Link <input type="text"/> * 4	Link <input type="text"/> # 4
Call parking	Link <input type="text"/> * 7 4	
Call pick-up (Directed)	Link <input type="text"/> * 7 6	
Call pick-up (Group)	Link <input type="text"/> * 7 5	
Call Queuing	Link <input type="text"/> * 8 0 1	
Call Waiting	Link <input type="text"/> * 8 0 1	
Camp-on	Link <input type="text"/> * 8 2	
Conference call	Link <input type="text"/> * 3	
Hold Call (Exclusive)	Link <input type="text"/> * 7 9	
Hold Call (Public)	Link <input type="text"/> 2	
Last Number Redial	Link <input type="text"/> * 5	
Line Pool selection	Link <input type="text"/> * 6 4	
Page		
General	Link <input type="text"/> * 6 0	
Intercom	Link <input type="text"/> * 6 1	
External	Link <input type="text"/> * 6 2	
Intercom/External	Link <input type="text"/> * 6 3	
Priority Call	Link <input type="text"/> * 6 9	
Privacy control	Link <input type="text"/> * 8 3	
Reach through		
Recall	Link <input type="text"/> * 7 1	
Pause	Link <input type="text"/> * 7 8	
Timed release	Link <input type="text"/> * 7 2	
Restriction override	Link <input type="text"/> * 6 8	
Ring Again	Link <input type="text"/> * 2	Link <input type="text"/> # 2
Saved Number Redial	Link <input type="text"/> * 6 7	

Feature	To activate	To cancel
Send Message	Link <input type="text"/> * 1	Link <input type="text"/> # 1
StarTalk or Norstar Voice Mail		
Access mailbox	Link <input type="text"/> * 9 8 1	
Leave a message	Link <input type="text"/> * 9 8 0	
System Speed Dial	Link <input type="text"/> * 0	
Tones	Link <input type="text"/> * 8 0 9	Link <input type="text"/> # 8 0 9
Transfer	Link <input type="text"/> * 7 0	
Trunk Answer from any telephone	Link <input type="text"/> * 8 0 0	
Voice Call	Link <input type="text"/> * 6 6	

Appendix A: Programming overviews

Charts

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Chart 1: System speed dial

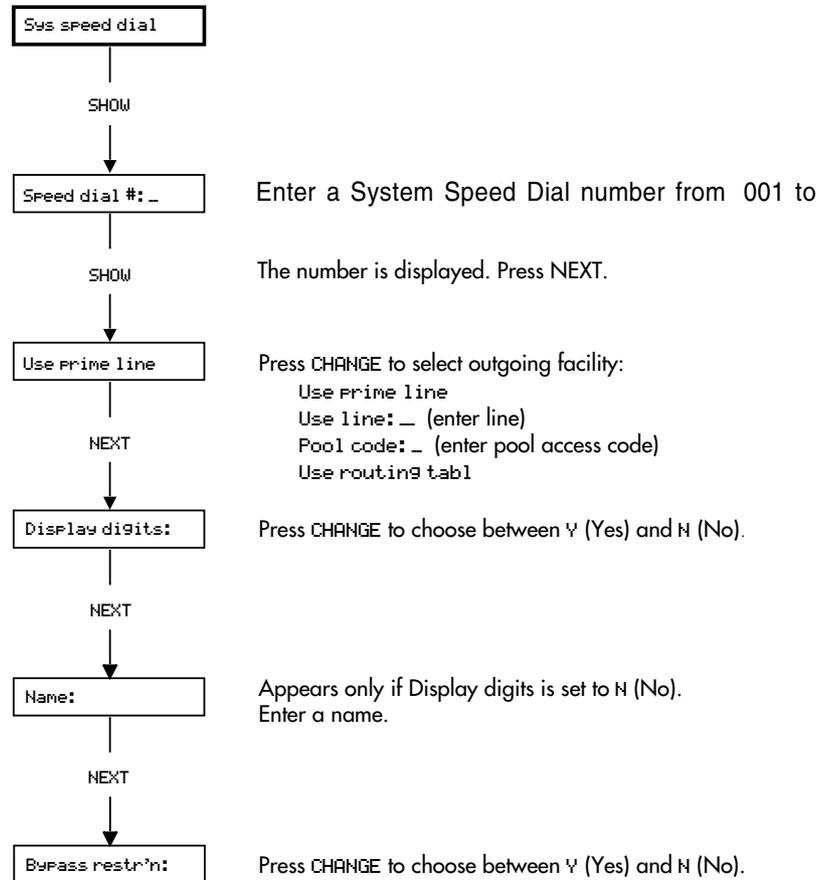


Chart 2: Naming extensions

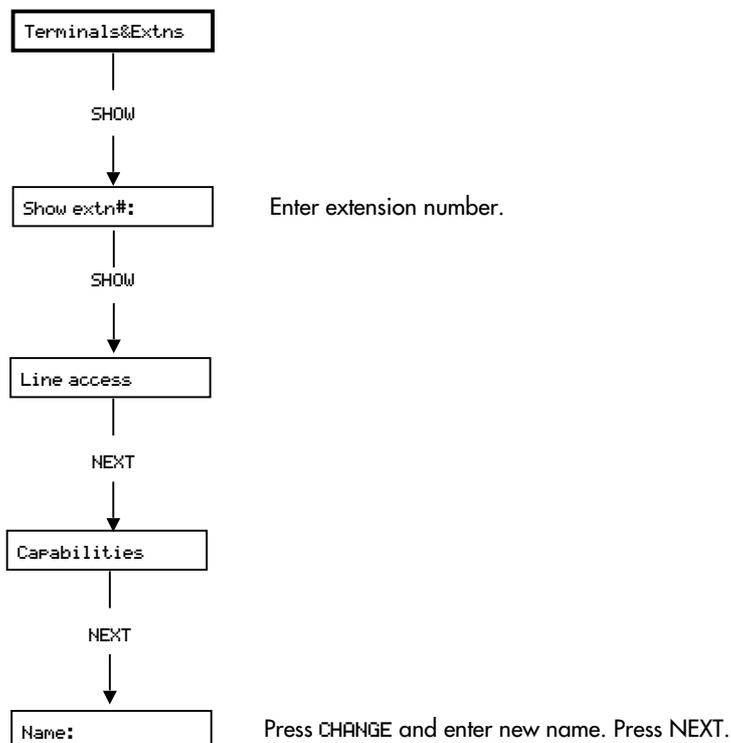


Chart 3: Naming lines

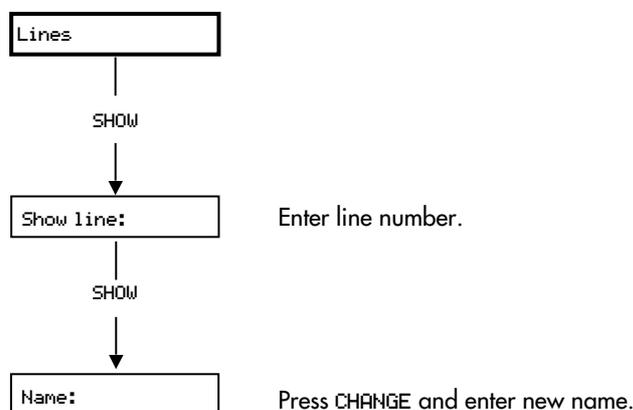


Chart 4: Time and date

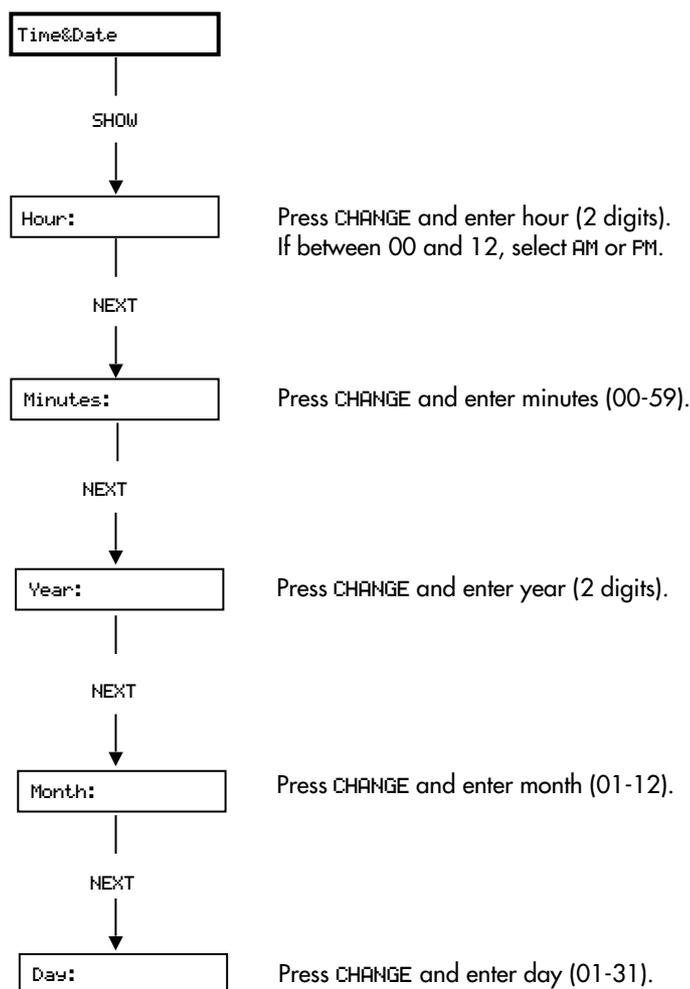


Chart 5: Direct-Dial

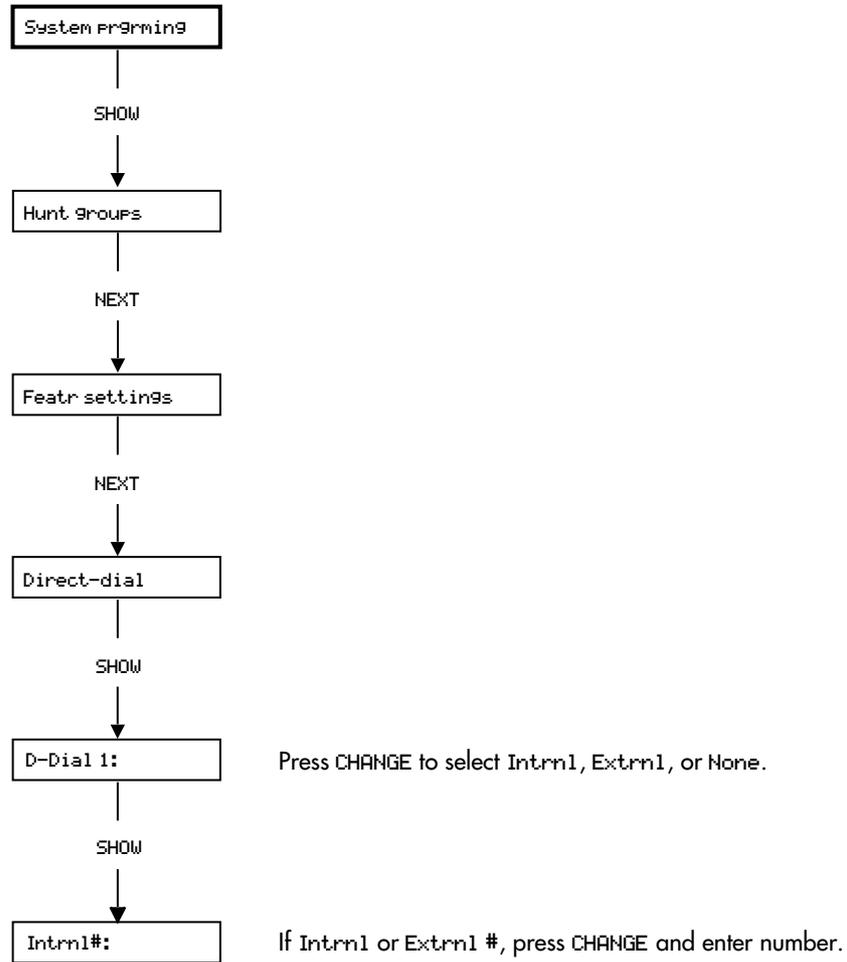


Chart 6: Restriction filters

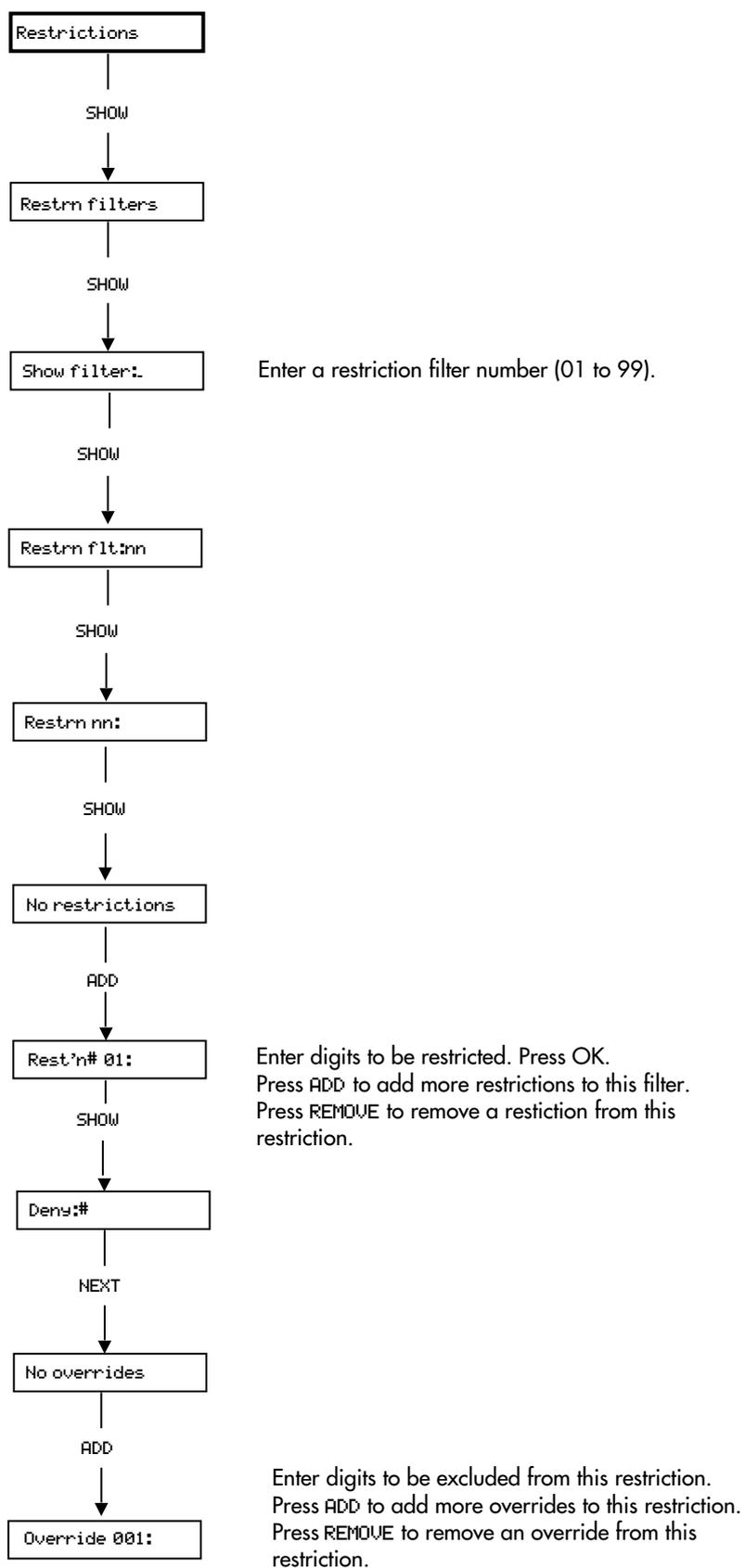
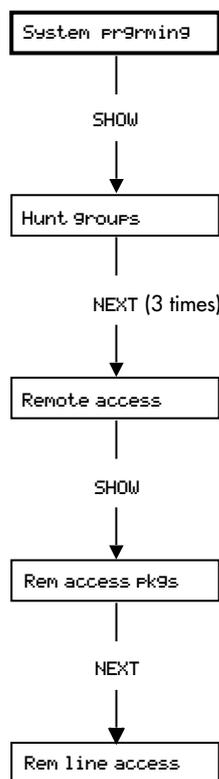


Chart 7: Remote access packages



Press and enter pkg#.
Press to see settings: LinePool access,
Remote page, Remote admin, and Remote monitor.
Press CHANGE to choose between Y (Yes) and N (No).

Press and enter line number.
Press CHANGE and enter remote package number.

Chart 8: Extension restrictions

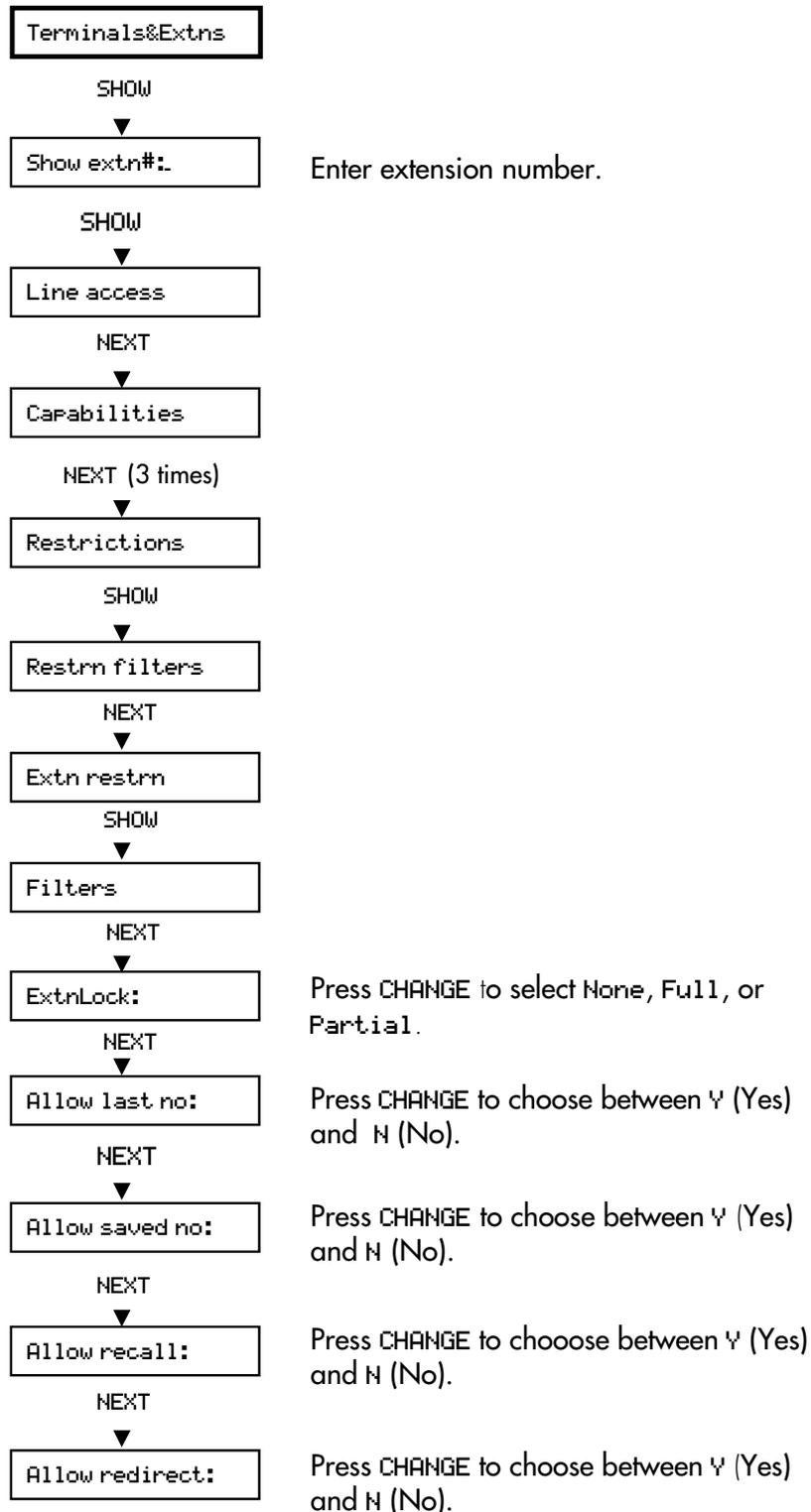


Chart 9: Extension capabilities 1

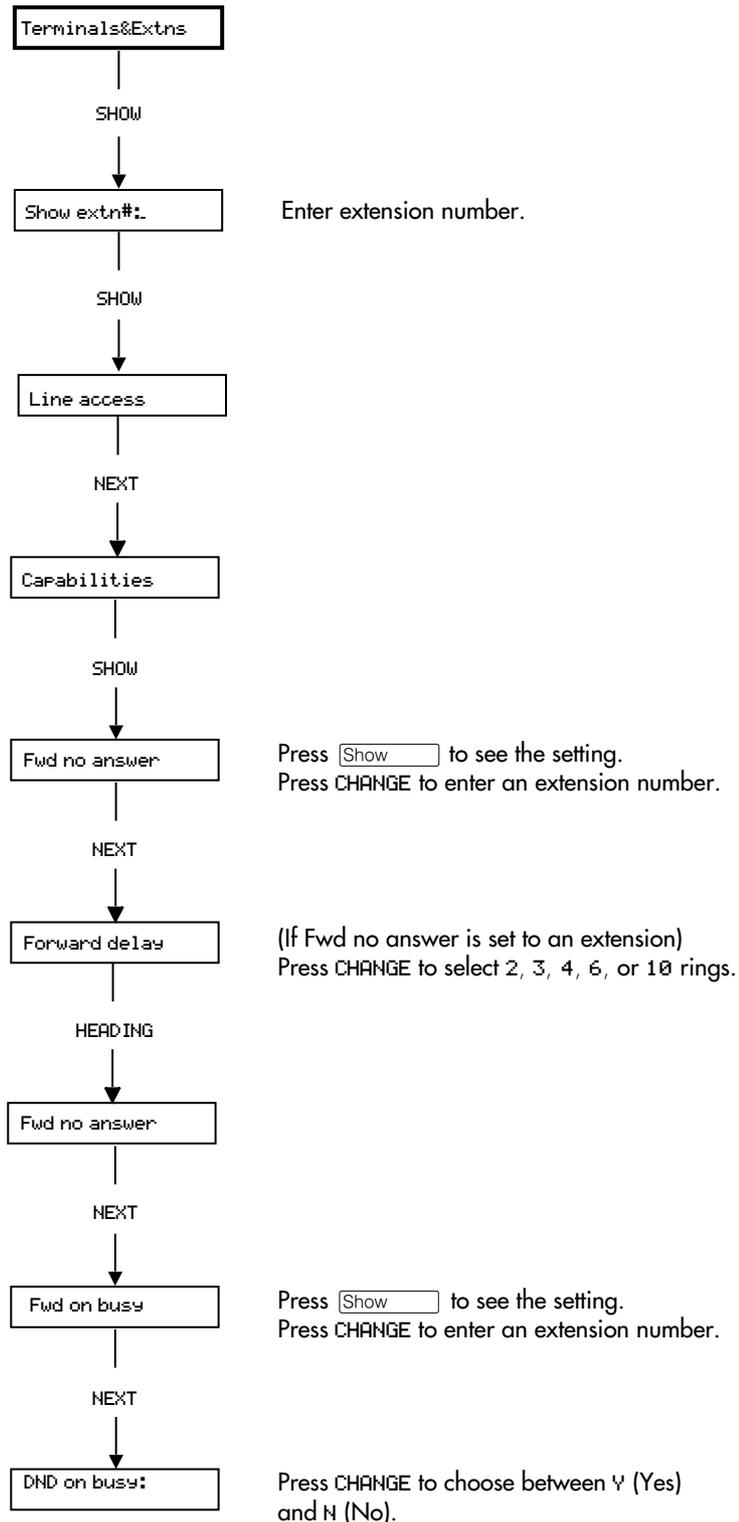


Chart 10: Extension capabilities 2

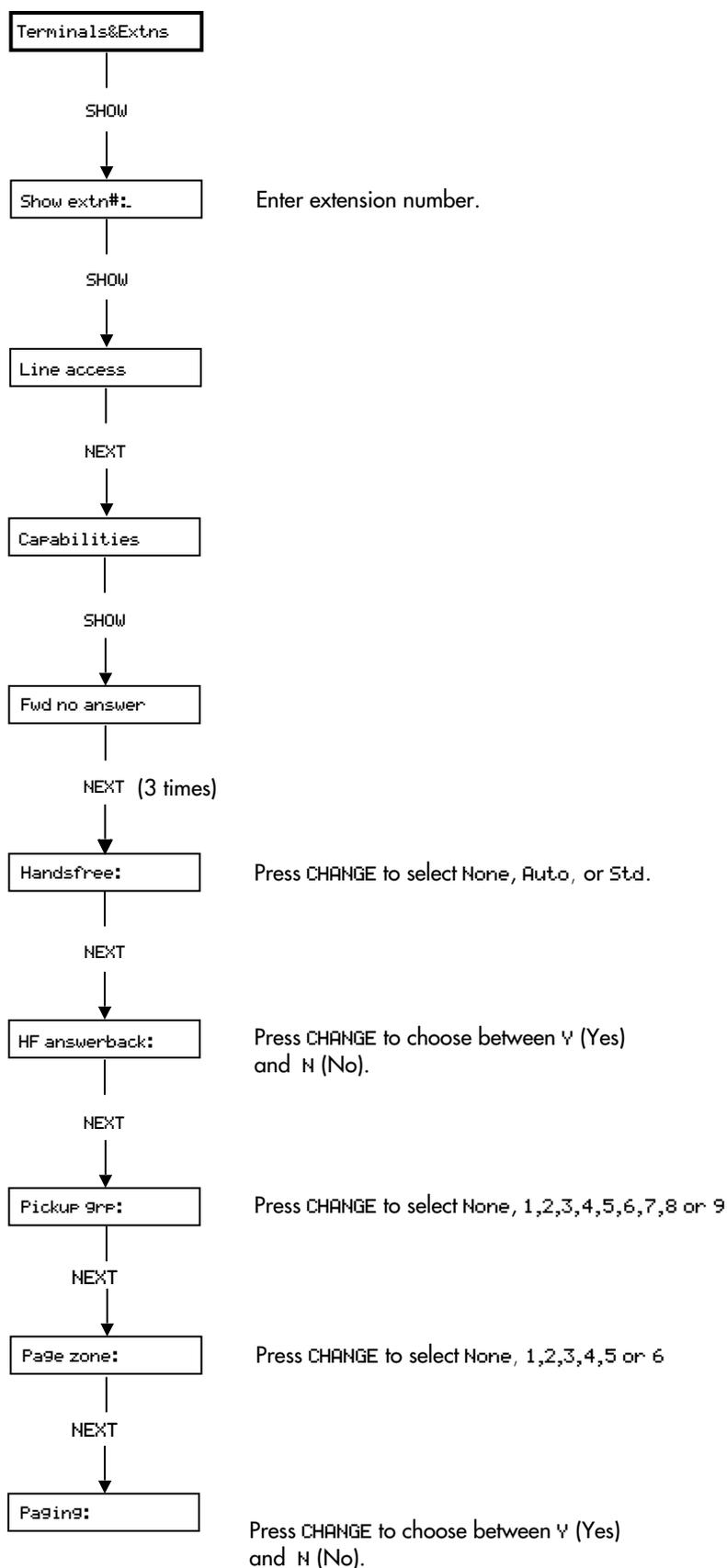


Chart 11: Extension capabilities 3

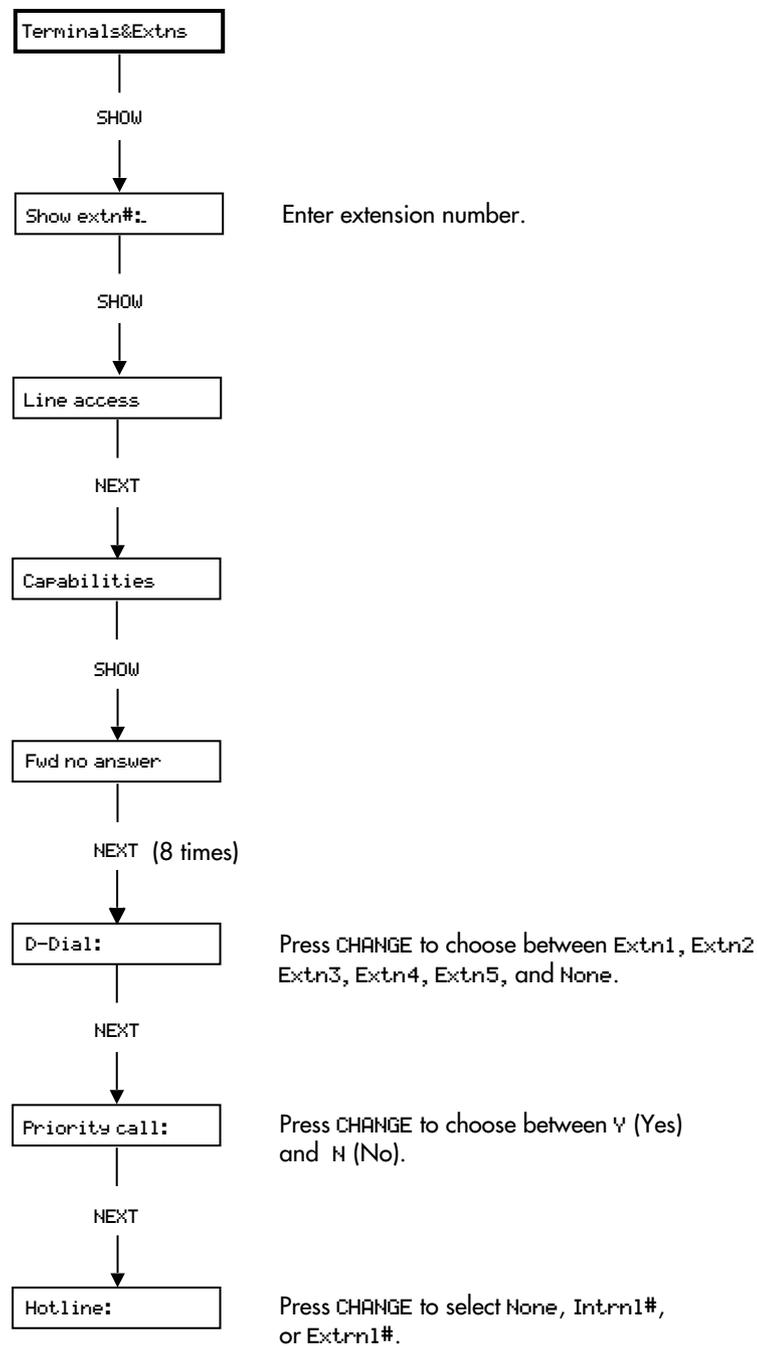


Chart 12: Extension capabilities 4

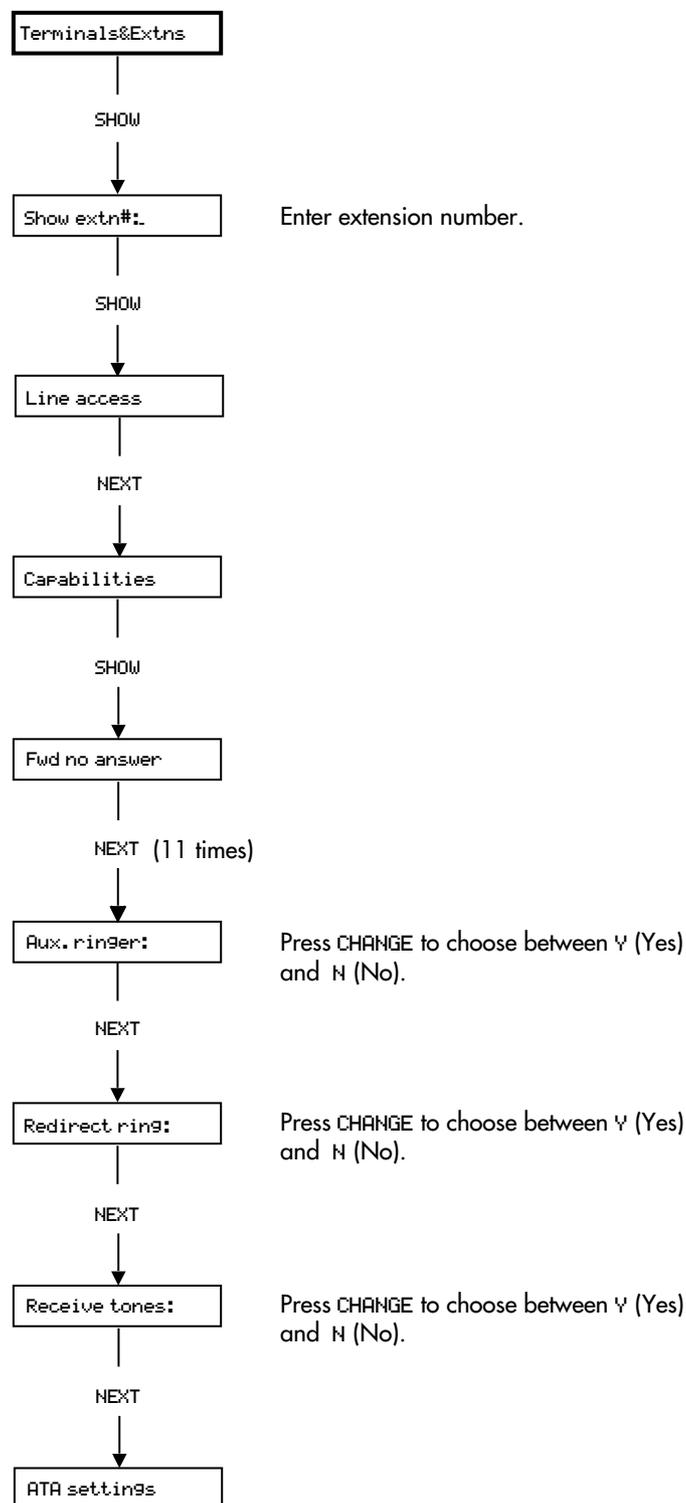


Chart 13: User preferences

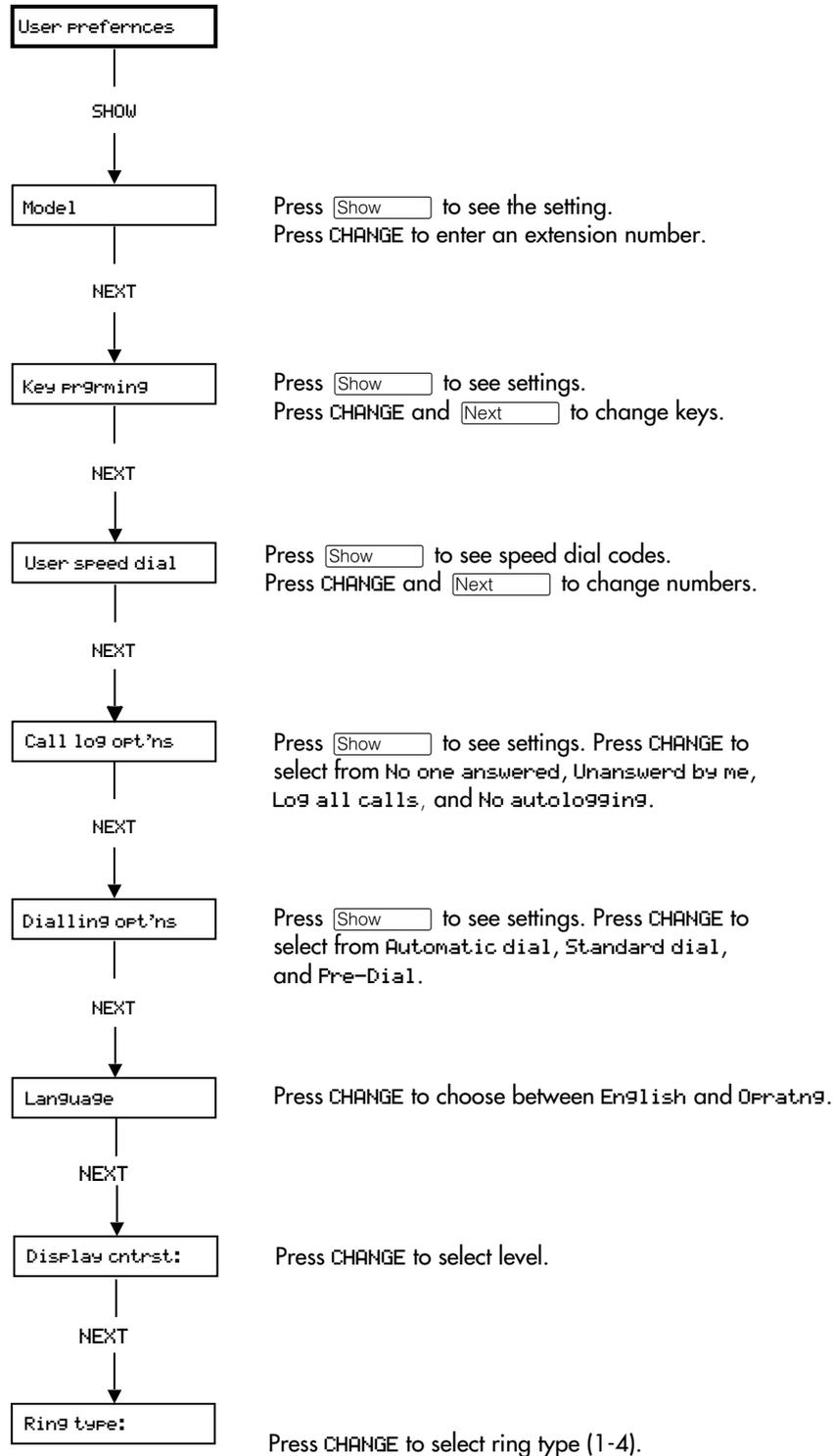


Chart 14: Extension relocation

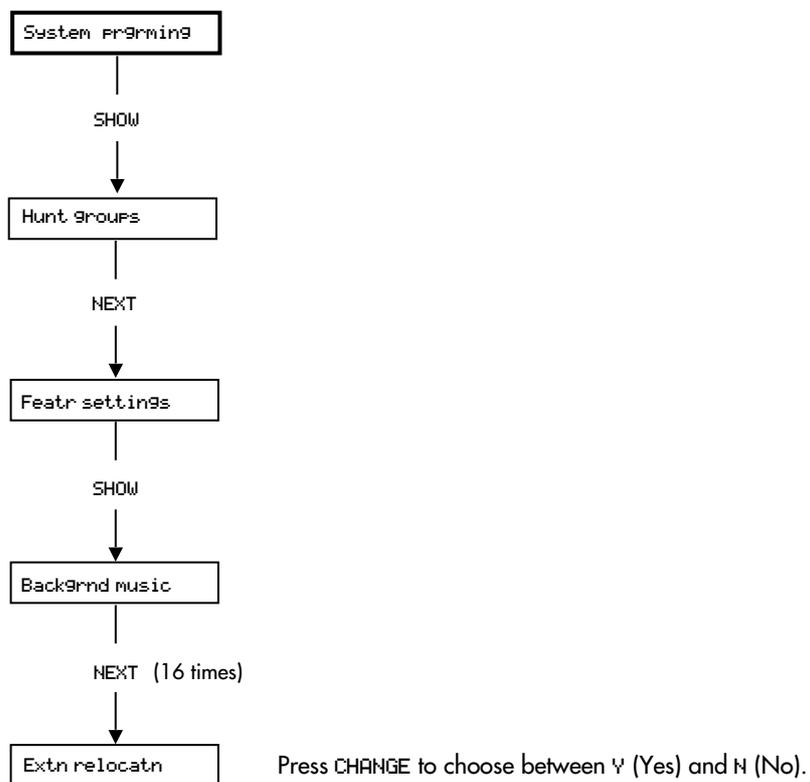


Chart 15: Copying settings

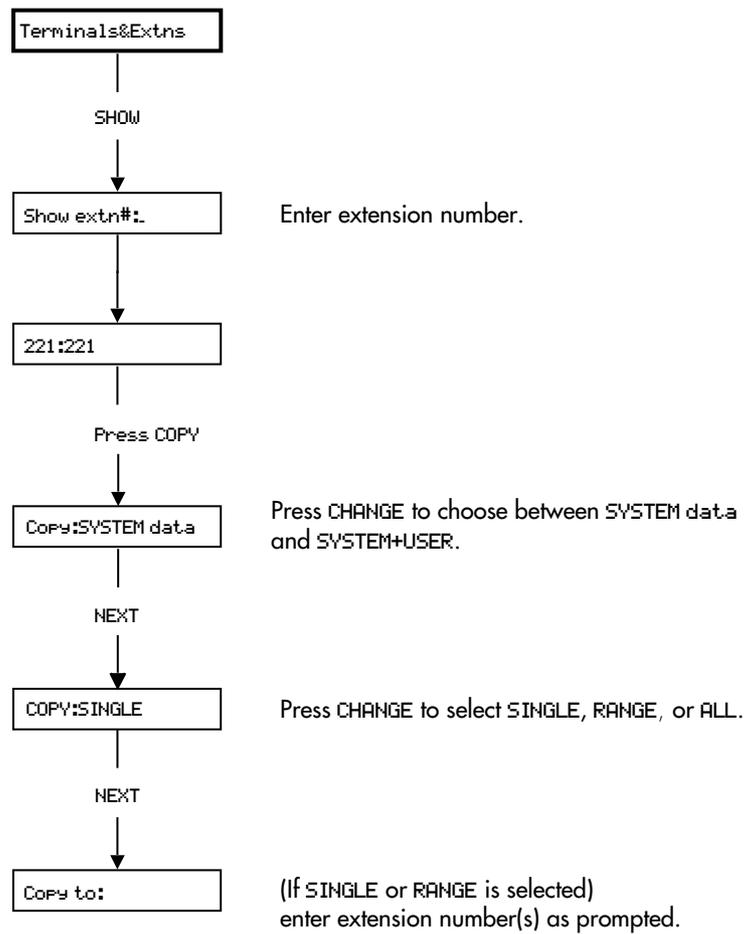


Chart 16: ATA settings

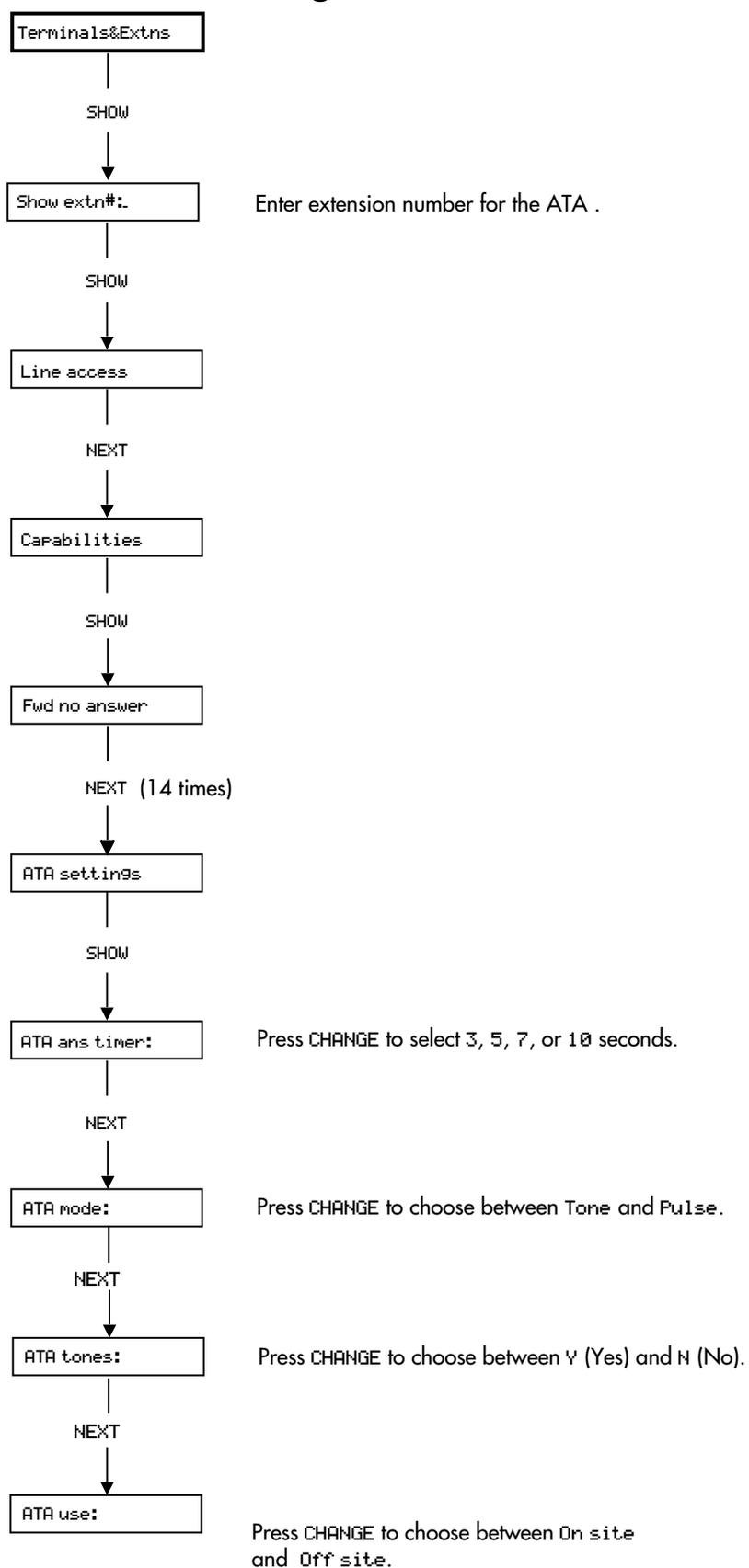
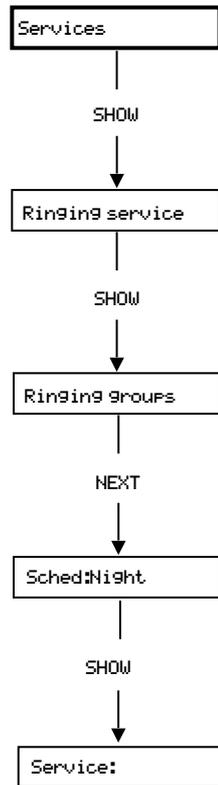
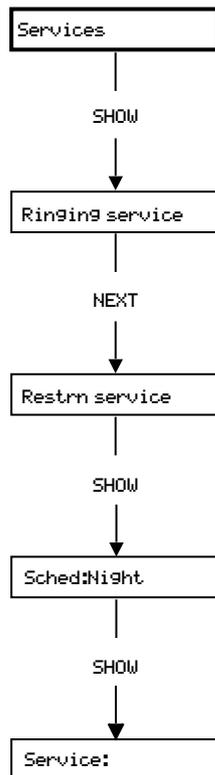


Chart 17: Ringing service



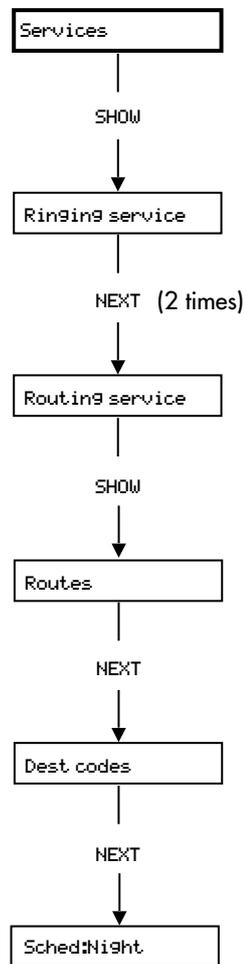
Press CHANGE to select from Manual, Auto, and Off.

Chart 18: Restriction service



Press CHANGE to select from Manual, Auto, and Off.

Chart 19: Routing service



Press CHANGE to select from Manual, Auto, and Off.

Chart 20: Passwords

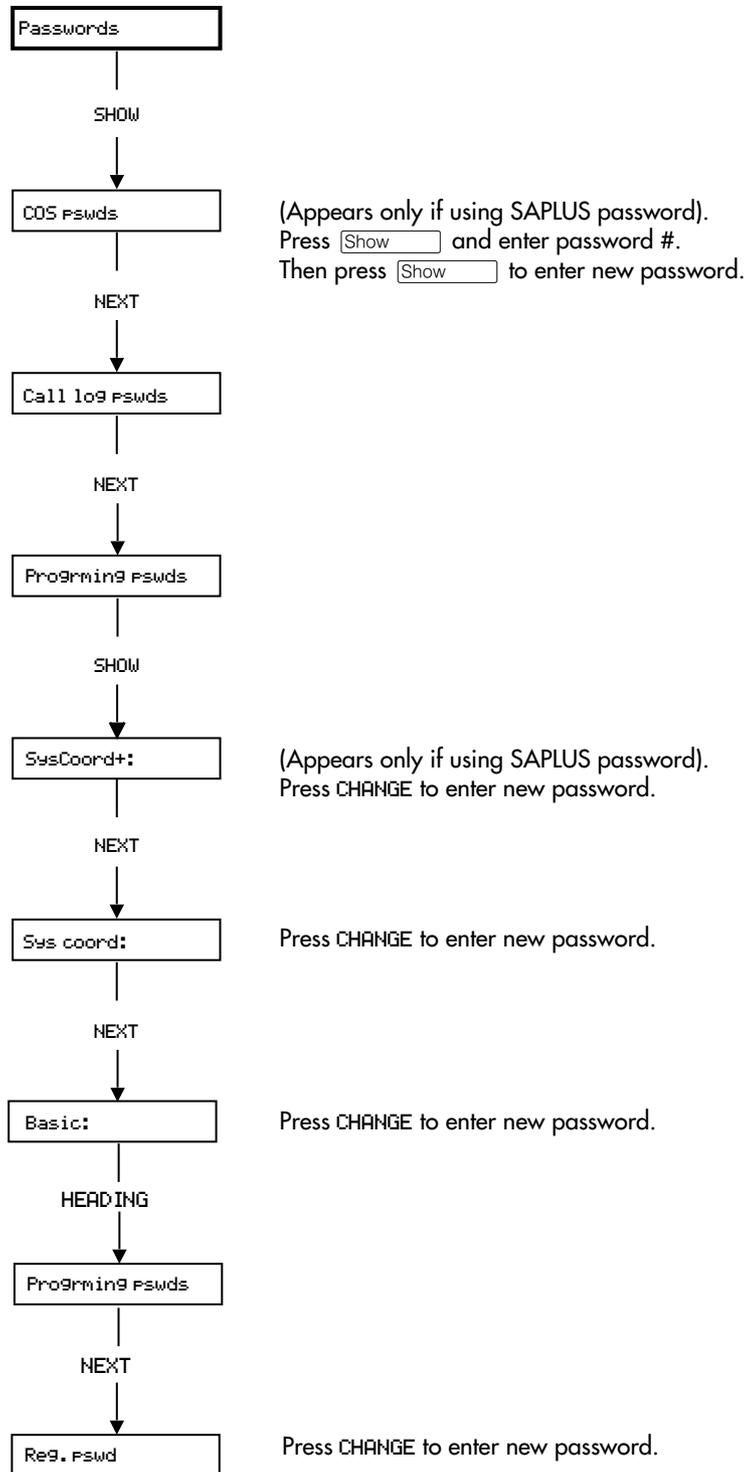


Chart 21: Call log passwords

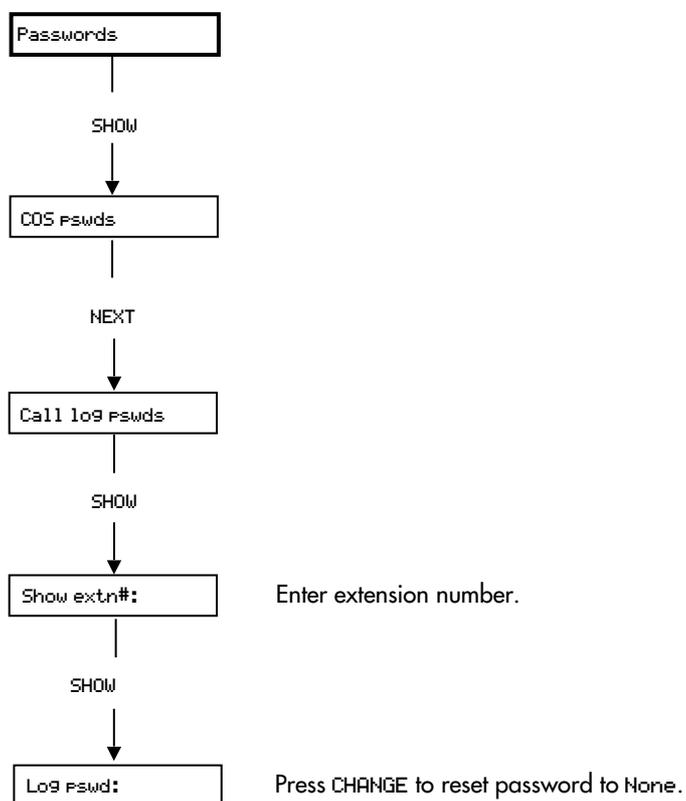
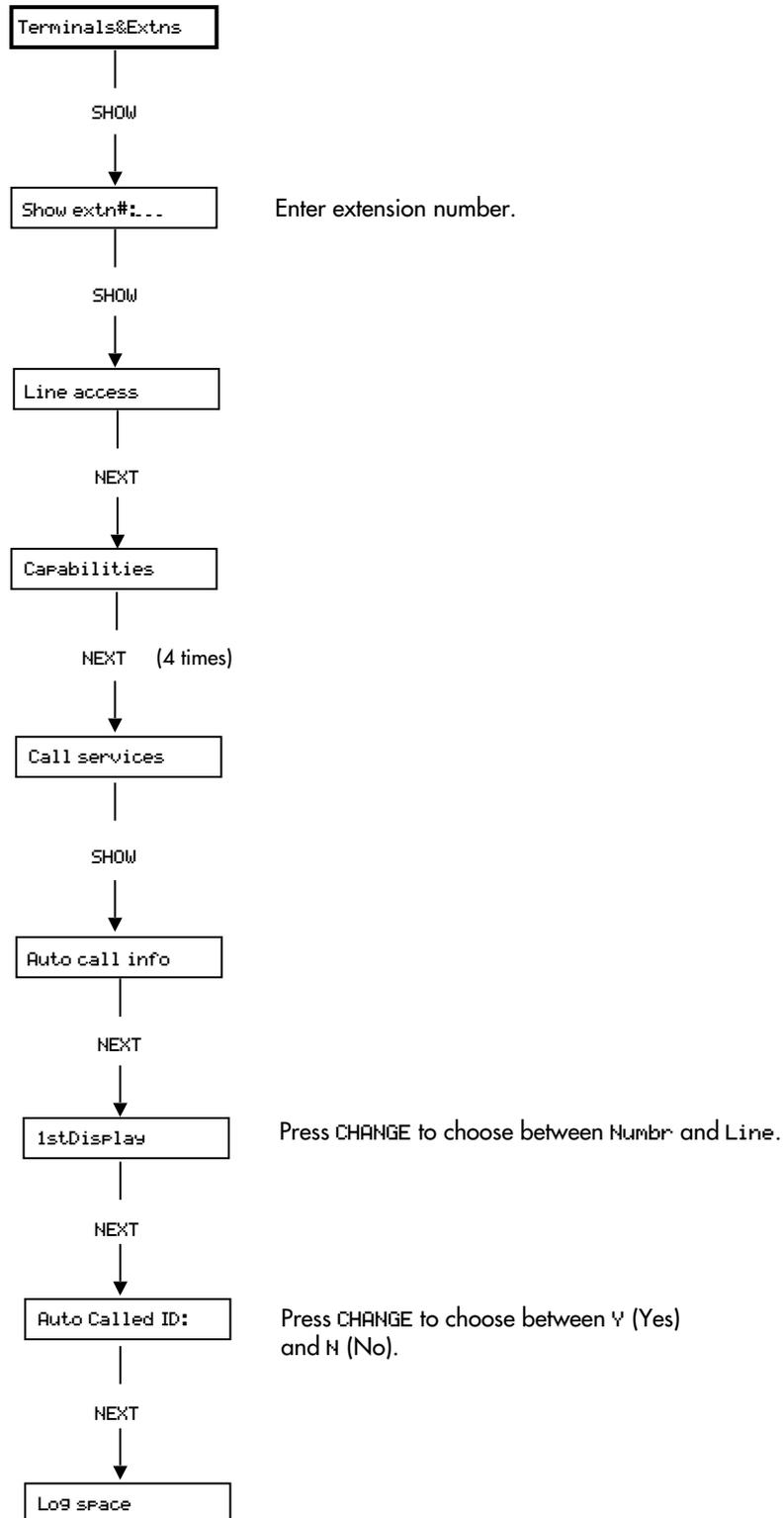


Chart 22: Call services



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