

# **DSX Version 3**

## **Introduction**



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# Introduction

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## Default Features for Lines

### Line Features on Initial System Startup

Default Features for Lines	
<b>1</b>	<p>All lines are loop start DTMF.</p> <ul style="list-style-type: none"> <li>Use <a href="#">3101-01: Line Type [Lines: Config: Setup: Type (3101): Type]</a> to change this assignment.</li> </ul>
<b>2</b>	<p>In DSX-80/160, lines 1-12 ring on line keys 1-12 for extensions 301-316.</p> <ul style="list-style-type: none"> <li>All other extensions are lamp only for lines 1-12.</li> <li>Lines 13-64 do not appear on line keys.</li> </ul>
<b>3</b>	<p>In DSX40, lines 1-8 ring on line keys 1-8.</p> <ul style="list-style-type: none"> <li>Lines 5-8 require the Line Expansion Board.</li> </ul>
<b>4</b>	<p>To customize line ringing, use one of the following:</p> <ul style="list-style-type: none"> <li><a href="#">User Programmable Features</a>Keyset: <b>Menu + 43</b>, Super Display: <b>Menu + Ringing</b>.</li> <li><a href="#">2132-[01-64]: Line Ringing Stations: Config: Ring Assign: Line Ringing (2132): Ring Assignment</a>].</li> </ul>

## Default Features for Extensions

### Extension Features on Initial System Startup

Default Features for Extensions	
1	The circuit types for keyset extensions are automatically set when the extension is plugged in.
2	<p>Keyset users can place outside calls by:</p> <ul style="list-style-type: none"> <li>Pressing a line key and dialing the outside number. See <a href="#">Central Office Calls, Placing</a>.</li> <li>Pressing <b>INTERCOM</b>, dialing <b>9</b>, then dialing the outside number. See <a href="#">Line Group Routing</a>.</li> <li>Line Dial-Up and Direct Line Access are disabled. See <a href="#">Central Office Calls, Placing</a> for more.</li> </ul>
3	<p>All extensions have full incoming and outgoing access to all outside lines.</p> <ul style="list-style-type: none"> <li>See <a href="#">Initial Startup System Programming</a> on page 10 if you want to change this assignment.</li> </ul>
4	<p>The default Feature Key assignments are:</p> <ul style="list-style-type: none"> <li>Keys 1-12 (1-8 on DSX-40) are line keys.</li> <li>Keys 13-24 (9-24 on DSX-40) are undefined.</li> </ul>



## Default Features for IntraMail

### IntraMail Features on Initial System Startup

Default Features for IntraMail	
<b>1</b>	<p>Each extension has an IntraMail voice mailbox assigned.</p> <ul style="list-style-type: none"> <li>Both DSX-40 and DSX-80/160 have 128 Subscriber Mailboxes by default (301-428).</li> </ul>
<b>2</b>	<p>In DSX-40, the first 8 Subscriber Mailboxes are active.</p> <ul style="list-style-type: none"> <li>If you need more mailboxes than 301-308, use <a href="#">2141-01: Station Mailbox Type Stations: Config: IntraMail: Mailbox Type (2141): Mailbox Type</a> to activate additional mailboxes.</li> </ul>
<b>3</b>	<p>In DSX-80/160, the first 16 Subscriber Mailboxes are active.</p> <ul style="list-style-type: none"> <li>If you need more mailboxes than 301-316, use <a href="#">2141-01: Station Mailbox Type Stations: Config: IntraMail: Mailbox Type (2141): Mailbox Type</a> to activate additional mailboxes.</li> </ul>
<b>4</b>	<p>The IntraMail Automated Attendant does not answer outside calls.</p> <ul style="list-style-type: none"> <li>To set up the Automated Attendant, turn to <a href="#">Automated Attendant</a>.</li> </ul>

## Initial Startup System Programming

### Some Typical System Programming on Initial Startup

Startup System Programming	
1	<p>To check your system's software level:</p> <ol style="list-style-type: none"> <li>1. When your telephone is idle, press <b>INTERCOM</b>.</li> <li>2. Dial <b>#*#*</b>. <ul style="list-style-type: none"> <li>• The system software level shows on the first line of your display.</li> <li>• For example, for DSX-40 version 3.01 you see:</li> </ul> <p style="text-align: center;"><b>DSX-40 Version 3.01</b></p> </li> <li>3. Press <b>SPEAKER</b> to exit.</li> </ol>
2	<p>Enter the programming mode.</p> <ol style="list-style-type: none"> <li>1. From any display telephone: <ul style="list-style-type: none"> <li>• Press <b>INTERCOM</b> + <b>Dial #*#*</b>.</li> <li>• Enter the system password + <b>HOLD</b>.</li> </ul> </li> <li>2. The system passwords are: <ul style="list-style-type: none"> <li>• <b>632379</b> (NECDSX) for Installer (level 3).</li> <li>• <b>9999</b> for System Administrator 2 (level 2).</li> <li>• <b>0000</b> for System Administrator 1 (level 1).</li> </ul> </li> <li>3. See <a href="#">System Programming Password Protection</a> for more.</li> </ol>
3	<p>Assign the correct circuit type to each of your installed lines.</p> <ol style="list-style-type: none"> <li>1. In <a href="#">3101-01: Line Type [Lines: Config: Setup: Type (3101): Type]</a>, assign the correct circuit type for each line. Analog line types are: <ul style="list-style-type: none"> <li>• <b>51</b> for loop start DTMF</li> <li>• <b>52</b> for loop start DP</li> </ul> </li> </ol>
4	<p>By default, each extension has full incoming and outgoing access to each line.</p> <ol style="list-style-type: none"> <li>1. To change this assignment, in <a href="#">2131-[01-64]: Line Access Stations: Config: Line Access: Line Access (2131): Line Access</a> change each extension's line access as required: <ul style="list-style-type: none"> <li>• <b>0</b> for no access</li> <li>• <b>1</b> for incoming access only</li> <li>• <b>2</b> for outgoing access only</li> <li>• <b>3</b> for full access</li> </ul> </li> <li>2. Using <a href="#">9021-01: Station Copy [See the Tool Bar]</a> may save you time.</li> </ol>

5	<p>By default, extensions 301-316 ring immediately day and night for on lines 1-12.</p> <ol style="list-style-type: none"><li>1. In <u>2132-[01-64]: Line Ringing Stations: Config: Ring Assign: Line Ringing (2132): Ring Assignment</u>, set the ringing option for each extension.<ul style="list-style-type: none"><li>• <b>0</b> for lamp only (no ringing) day and night.</li><li>• <b>1</b> for day and night ringing.</li><li>• <b>2</b> for night ringing only.</li><li>• <b>3</b> for delay ringing day and night.</li></ul></li><li>2. Using <u>9021-01: Station Copy</u> [See the Tool Bar] may save you time.</li></ol>
6	<p>To change the default system passwords:</p> <ol style="list-style-type: none"><li>1. Turn to <u>System Programming Password Protection</u>.</li></ol>
7	<p>To return the system to the factory installed (default) programming:</p> <ol style="list-style-type: none"><li>1. Turn to <u>9011-01: System Initialization</u> [Utilities: Initialize: System].</li></ol>

## Initial IntraMail Startup Programming

### Some Typical IntraMail Programming on Initial Startup

Startup IntraMail Programming	
1	<p>Enable the mailboxes for all installed extensions (not for Built-In Automated Attendant).</p> <ul style="list-style-type: none"> <li>In <a href="#">2141-01: Station Mailbox Type Stations: Config: IntraMail: Mailbox Type (2141): Mailbox Type</a>, enter 1. This enables a Subscriber Mailbox for the extension. <ul style="list-style-type: none"> <li>By default in DSX-80/160, the first 16 mailboxes are enabled (extensions 301-316).</li> <li>By default in DSX-40, the first 8 mailboxes are enabled (extensions 301-308).</li> </ul> </li> </ul>
2	<p>Set up the Line Schedules to send calls to IntraMail.</p> <ul style="list-style-type: none"> <li>See <a href="#">Line Schedules</a> for more.</li> </ul>
3	<p>Assign lines to Line Schedules.</p> <ul style="list-style-type: none"> <li>In <a href="#">3112-07: Schedule [Lines: Config: Options: Call Routing (3112): Options: Schedule]</a>, assign lines (1-64) to Line Schedules (1-8).</li> </ul>
4	<p>Normally, leave the following IntraMail programs at their default settings (not for Built-In Automated Attendant):</p> <ul style="list-style-type: none"> <li><i>1312: Voice Mail Numbering</i></li> <li><i>4101: Voice Mail Type</i></li> <li><i>4111: Options</i></li> <li><i>4112: Off-Hook</i></li> <li><i>4113: Line Access</i></li> <li><i>4114: Group Access</i></li> </ul>

## Dial Codes by Feature

### DSX Dial Codes Sorted by Feature

Dial Codes by Feature		
For this feature	Dial this code	When you are
<u>Barge In (Intrusion)</u>	<b>4</b>	Barging-In on a co-worker's call
<u>Call Waiting / Camp-On</u>	<b>INTERCOM + #9</b> + Line number (e.g., 01)	Using Line Dial-Up to place an outside call
<u>Central Office Calls, Placing</u>	<b>INTERCOM + #9</b> + Line number (e.g., 01)	Using Line Dial-Up to place an outside call
	<b>INTERCOM</b> + Line extension number (e.g., 101)	Using Direct Line Access to place an outside call
	<b>INTERCOM + 9</b> or <b>90-98</b>	Accessing a Line Group to place an outside call
<u>Dial Number Preview</u>	*	Previewing a number before dialing
<u>Directed Call Pickup</u>	<b>INTERCOM + **</b> + Extension	Intercepting a call ringing a co-worker's extension
<u>Flash</u>	<b>#3</b>	Flashing a line at a single line extension
<u>Forced Line Disconnect</u>	<b>#</b>	Using Forced Line Disconnect to disconnect a busy outside line
<u>Group Call Pickup</u>	<b>INTERCOM + *#</b>	Answering a call ringing a phone in your Pickup Group
<u>Hold</u>	<b>INTERCOM + *4</b> + Line number (e.g., 01)	Picking up an outside call on System Hold at a co-worker's extension
<u>Intercom</u>	<b>INTERCOM</b> + Extension (e.g., 301)	Placing an Intercom call to a co- worker
<u>Meet-Me Conference</u>	<b>INTERCOM + #11</b> or <b>#12</b>	Setting up or joining a Meet-Me Conference
<u>Monitor / Silent Monitor</u>	<b>6</b>	Setting up Monitor after calling a busy co-worker
<u>Night Service / Night Ring</u>	<b>**</b> + UNA code (01-04)	Answering a call ringing UNA at night
<u>Paging</u>	<b>INTERCOM + *1</b> + Page zone (1-7 or 0 for All Call)	Making an internal Paging announcement
<u>Park</u>	<b>INTERCOM + *</b> + System Park Orbit (60-69)	Parking or retrieving a call from System Park Orbit

	<b>INTERCOM</b> + ** + Extension (e.g., 301)	Using Personal Park to Park or retrieve a call at a co-workers extension
<u>Removing Lines and Extensions from Service</u>	<b>INTERCOM</b> + #40 + Extension (e.g., 301) or line (e.g., 101) + 4 (to return) or 6 (to remove)	Removing or returning an extension or line to service
<u>Selectable Display Messaging</u>	<b>INTERCOM</b> + *38 + Message (00-16) + Hold + Add additional digits + <b>HOLD</b>	Enabling a Selectable Display Message
<u>Speed Dial</u>	<b>INTERCOM</b> + # + System bin (201-299) or Personal number (701-720)	Dialing a System or Personal Speed Dial number
<u>Transfer</u>	<b>TRANSFER</b> + Extension (e.g., 301)	Transferring a call to a co-worker's extension
	<b>TRANSFER</b> + Extension (e.g., 301) + <b>V-MAIL</b>	Transferring a call to a co-worker's mailbox
<u>Voice Mail (IntraMail)</u>	<b>V-MAIL</b>	Calling your mailbox from your keyset
	Lift handset + *8	Calling your mailbox from your single line telephone
	<b>TRANSFER</b> + Extension (e.g., 301) + <b>V-MAIL</b>	Transferring a call to a co-worker's mailbox from your keyset
	Hookflash + Extension (e.g., 301) + 8	Transferring a call to a co-worker's mailbox from your single line telephone
	<b>INTERCOM</b> + *37 + 2 (all calls) or 8 (outside calls)	Setting up Personal Answering Machine Emulation
	<b>INTERCOM</b> + *30	Canceling Personal Answering Machine Emulation
<u>Voice Over</u>	<b>9</b>	Initiating a Voice Over to a busy extension (after hearing busy/ring tone)

## System Number Plan and Capacities

### Number Plan/Capacities

System Number Plan and Capacities		
	DSX-40	DSX-80/160
System Options		
Classes of Service	1-15 (COS 1 normally reserved for extension 301)	
Conference	32 simultaneous users in Conference (total of all Conferences system-wide) 8 simultaneous Conferences maximum 8 parties maximum in any one Conference	
Extension Hunting (UCD) Master Numbers	See <u>Department Groups</u> .	
Extension Hunting (UCD) Groups	See <u>Department Groups</u> .	
Department Groups	601-630	
Group Call Pickup Groups	8 (1-8, 0 = unassigned)	
Privacy Release Groups	16 (1-16, 0 = unassigned)	
Speed Dial, Personal	20 numbers at each extension (701-720)	
Speed Dial, System	999	
Tenant Groups	1	
Timeslots	Non-blocking	
Toll Restriction Levels	7 (1-7, 0 = no restriction)	
Voice Mail Master Numbers	1 (normally 700)	
Lines		
Direct Line Access Codes	101-108	101-164
Line Dial Up Codes	#901-#908	#901-#964
Ring Groups	See <u>Department Groups</u> .	
Department Groups	601-630	
Line Group Access Codes	90-98	
Line Groups	9 (90-98)	
Line Ports	8 (1-8) Lines 5-8 require the Expansion Board.	64 (1-64)
Extensions		

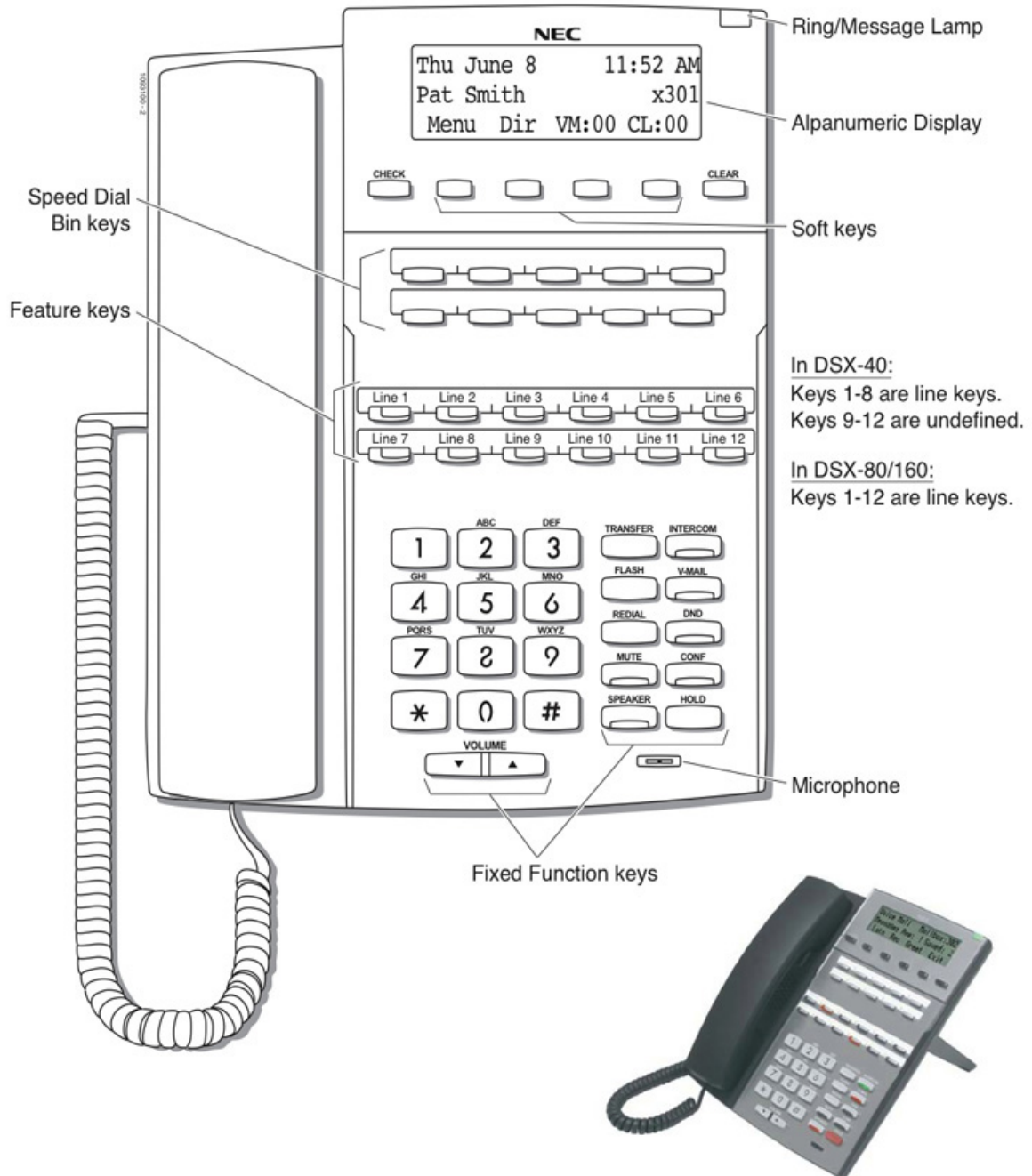
Attendant (Operator) Access Number	0 (single operator) 01-04 (multiple operators)	
Attendants	4	
Analog Door Boxes, Built-In	2 (327 and 328)	0
Analog Door Boxes, Total	The maximum number of DSX Analog Door Boxes you can install is determined by the number of 2PGDAD Modules, which in turn is limited only by the availability of 16ESIU station ports.	
DSS Consoles	4 The System Load Factor may limit the total number that you can install. Refer to the system's <i>Hardware Manual</i> .	
Telephone Extension Numbers	301-326	301-428
Telephone Station Numbers	34 (1-34)	128 (1-128)
Total Number of Station Devices	34 This includes digital extensions, analog extensions, and analog Door Boxes.	128 May be limited by load factor.
Built-In Modem	429	
<b>Paging and Park</b>		
Page Zones (Internal)	7 zones (1-7) and All Call (0)	
Page Zone (External)	All Call and zone 1 broadcast from the Page audio minijack	
Page Relays (Built-in)	2 (1 in each built-in Door Box port)	0
Page Relays (2PGDAD Module)	2 in each 2PGDAD Module	
Park Orbits	10 (60-69) Orbits 68 and 69 have extended (5 min.) timers	
<b>Passwords</b>		
System Administrator 1 (Level 1)	0000	
System Administrator 2 (Level 2)	9999	
Installer (Level 3)	632379 (NECDXS)	
<b>IntraMail</b>		
Routing Mailboxes	32 Announcement = 24 (809-832) Call Routing = 8 (801-808) Directory = 0 Distribution = 0	



Ring Group Mailboxes	See <u>Department Groups</u> .
UCD Group Mailboxes	See <u>Department Groups</u> .
Department Group Mailboxes	30 (601-630)
Subscriber Mailboxes	128 (301-428)
Total Mailboxes	190
Maximum Subscriber Message Length	4095 seconds (68.25 minutes)
Maximum Messages Per Subscriber Mailbox	99
Maximum Messages Per System	14,256
Ports	4 or 8 (depending on model)
Storage Hours	8, 16, or 32 (depending on model)
<b>IntraMail Built-In Automated Attendant</b>	
Routing Mailboxes	8 Call Routing = 8 Announcement = 0
Subscriber Mailboxes	0
Ring Group Mailboxes	See <u>Department Groups</u> .
UCD Group Mailboxes	See <u>Department Groups</u> .
Department Group Mailboxes	0
Total Mailboxes	8
Storage Hours	30 seconds for each Routing Mailbox
Voice Mail	None - does not provide Voice Mail

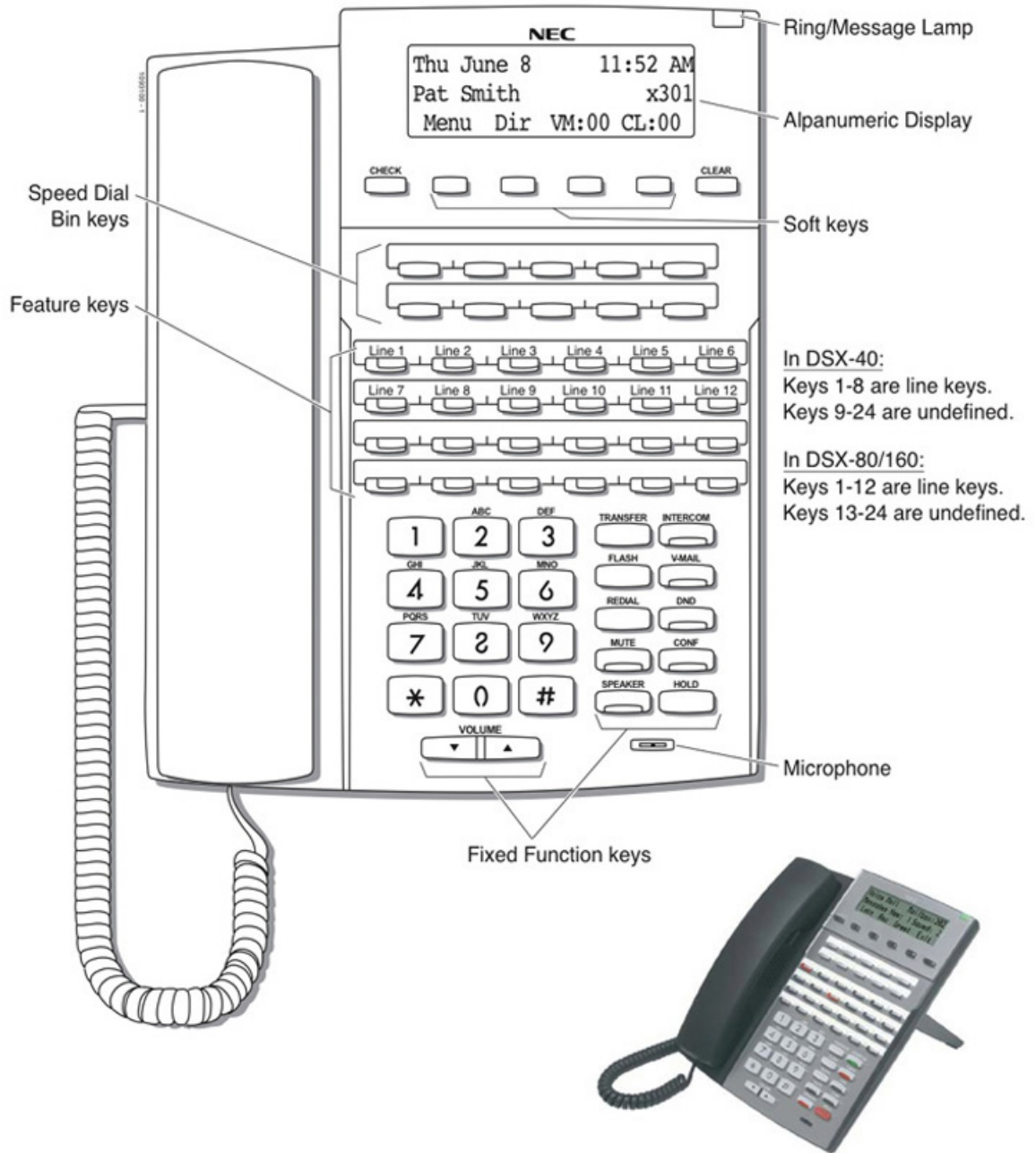
## 22-Button Display Telephone

### 22-Button Display Telephone Key Layout



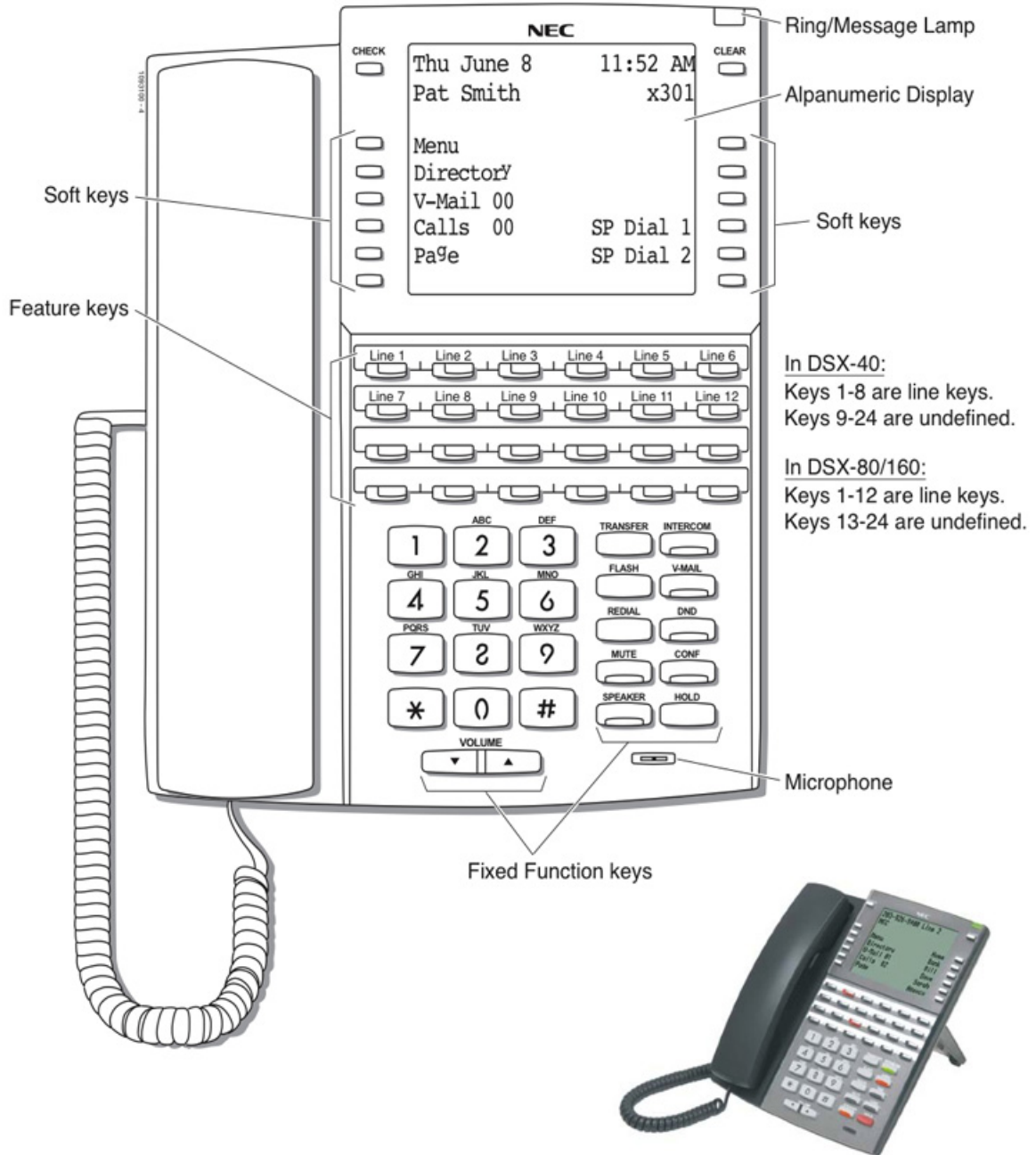
# 34-Button Display Telephone

## 34-Button Display Telephone Key Layout



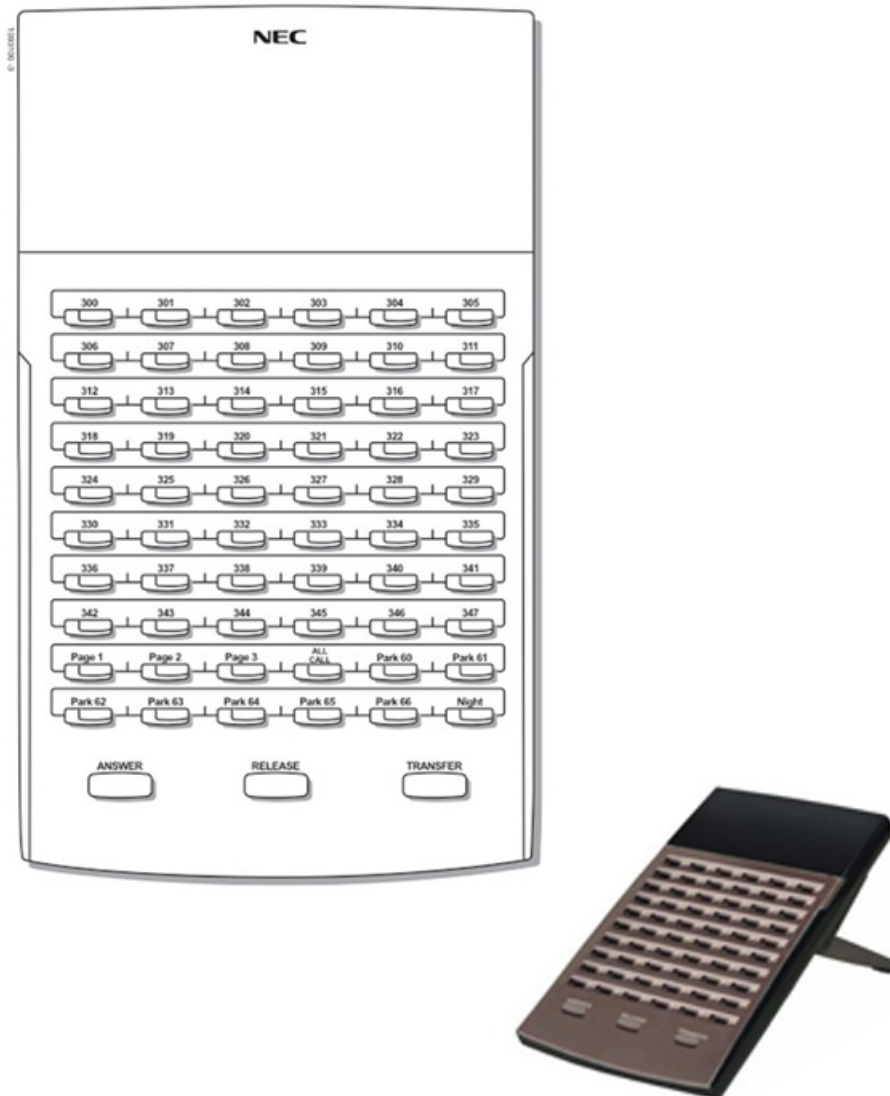
## 34-Button Super Display Telephone

### 34-Button Super Display Telephone Key Layout



## 60-Button DSS Console

### 60-Button DSS Console Key Layout



## Version 3 System Enhancements

### Call Timer Without a Key

#### Description

An extension user can enable the Call Timer display from their soft keys, without having to set up a Call Timer key. The soft keys also allow the user to check the duration of the previously timed call. Optionally, the administrator can enable the Call Timer display for an extension in system programming. A change made to the option in programming overrides the soft key setting and vice-versa.

### Caller ID Manual Callback Selection

#### Description

A Caller ID callback number can be automatically dialed by the system or manually selected by the extension user. To allow users to manually select the callback number, you must first turn off the Caller ID Routing Tables in programming. This lets the extension user choose a callback number right from the telephone display. For example, an extension user can:

1. Review their Caller ID log and display the number they wish to return.
2. Press **Callback**.
3. Select a number from their display. For example, if the incoming Caller ID number is 203-926-5400, the display choices are:
  - 203-926-5400
  - 1-203-926-5400
  - 926-5400
4. The number will dial out on the programmed Caller ID Callback route.

If the Caller ID number is non-standard (i.e., not 10 digits long), the system will dial the number on the programmed route exactly as it was received. It will not be processed in the Caller ID routing tables and the user will not be prompted with callback choices.

See [Caller ID Logging](#) for more.

### Check Key Enhancements

#### Using the Check Key to get System Information

[3.01] Pressing **CHECK** and a right-column Fixed Feature Key displays important information about your system. This capability is available at any keyset extension and is for viewing only. You cannot use the **CHECK** key to edit the displayed information. See the following table.

Check Key System Information		
CHECK +	Display	Description
INTERCOM	Extension xxx	The telephone's extension number.
	Station:xxx	The telephone's station port number.
	Slot:x Port:x	The slot to which the extension is connected, and the port on the card in that slot.

<b>V-MAIL</b>	<b>IntraMail Version x.xx</b>	The IntraMail prompt set version number.
	<b>Ports:x Type:Pro</b>	The number of IntraMail ports installed, followed by the IntraMail Type (Pro or Standard).
	<b>Lic Code:</b>	The 13-character IntraMail license code. If you want to upgrade your IntraMail, you'll need to provide this code.
<b>DND</b>	<b>IP:xxx.xxx.xxx.xxx</b>	The IP address of the system to which the telephone is connected.
	<b>GW:xxx.xxx.xxx.xxx</b>	The system's gateway (router) address.
	<b>DHCP:xxx</b>	The DHCP status: On, Off, or On (Manual IP).
<b>CONF</b>	<b>VoIP</b>	The VoIP installation status: Installed or Not Installed
	<b>Ports:</b>	The number of licensed VoIP ports.
	<b>Lic Code:</b>	The 13-character VoIP license code. If you want to add VoIP ports to the system, you'll need to provide this code.
<b>HOLD</b>	<b>DSX-xxx x.xx.xx</b>	The system type (40, 80, or 160) and the software level.
	<b>Installed</b>	The system installation date.
	<b>Sys Code:</b>	The 13-character system code. If you lose the level 3 system password or otherwise get locked out, you'll need to provide this entry so you can get an unlock code.

### Default Numbering Plan in Version 3

#### Description

The default numbering for system extensions is changed to 301-428 *from* 300-427. This makes it easier to correlate station ports to extension numbers. For example, station port 1 is extension 301, station port 2 is extension 302 and so on.

Department Groups, which have replaced Ring Groups and UCD Groups, are 601-632. See [Department Groups](#) for more.

Version 3 Numbering Plan Changes		
Description	Version 2	Version 3
Stations	300-427	301-428
Voice Mail Ports	501-508	No change
Voice Mail Master	700	No change
Ring Groups	600-607	Replaced by Department Groups
UCD Groups	700-707	Replaced by Department Groups
Department Groups	N/A	601-632
Routing Mailboxes	801-832	No change

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## Department Groups

### Description

The system has 30 Department Groups that you can set up as either Ring Groups or UCD Groups, replacing the separate Ring and UCD Groups in prior software versions. Department Groups provide additional group capacity, better flexibility, and more simplified programming. For example:

- There are 30 Department Groups, compared with 8 Ring Groups and 8 UCD Groups in prior versions.
- You can assign all the Department Groups as Ring Groups, all as UCD Groups, or choose any combination of the two.
- To configure a Department Group, just assign extensions to Department Groups and set the group types. Additionally, the group IntraMail options are set up by Department Group regardless of group type. There are no separate IntraMail options for Ring Groups and UCD Groups.

Separately programmed Ring Groups and UCD Groups are no longer available. Circular and Terminal Hunting setup is unchanged

System operators (if assigned) can be Department Group members. This is helpful for Door Box and workgroup answering.

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## DID Translation Name

### DID Translation Name

[3.01] When a DID call rings an extension, the display can optionally show the name programmed into the DID Translation table for each entry. Since the name is associated with the number the outside caller dialed, the extension user knows the nature of the call before they answer.

When setting up this option, keep the following in mind:

- The telephone display shows the first 11 characters of the DID name, even though the name can be 18 characters long.
- If DID Translation Name is enabled but not programmed, the user sees the name of the incoming line. If there is no line name, the user will see the default line name (e.g., "Line 9" for line 9).

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## Directory Dialing with Search

### Directory Dialing with Search

Directory Dialing is enhanced with search capability to help you quickly look through the directory for the co-worker or Speed Dial number you wish to call. To use search:

1. Press **Directory [Dir]** to select Directory Dialing.
2. Select the type of directory you wish to search.
  - **Extension [Ext]** = Co-workers
  - **Personal [Pers]** = Personal Speed Dial Numbers
  - **Company [Cmpy]** = Company-wide Shared Speed Dial Numbers
3. Start dialing letters for the directory name.
  - The search will narrow as you dial additional letters in the name.
  - Use **Previous [Prev]** and **Next [Next]** (or the volume keys) to scroll through the directory.
4. When the name you wish to call displays, press **Dial** to place the call.



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## Hold and Park Recall Cycles

### Hold and Park Recall Cycles

[3.01] The Hold and Park Recall Cycles option provides additional control over how the system handles unanswered held and parked calls. For example:

1. When a user Parks a call or places a call on Hold, the call waits for the recall interval.
  - Park uses the interval set in 1603-04: Park Orbit Recall Timer [System: Timers: Features: Recall (1603): Orbit Recall].
  - Hold uses the interval set in 1603-02: Hold Recall Timer [System: Timers: Features: Recall (1603): Hold Recall].
  - Exclusive Hold uses the interval set in 1603-03: Exclusive Hold Recall Timer [System: Timers: Features: Recall (1603): X-Hold Recall].
2. If not picked up, the call recalls the extension for the interval set in 1601-01: Line No Answer Timer [System: Timers: Features: Incoming (1601): Line No Answer].
  - If the extension has Extended Ringing enabled, the call recalls for the interval set in 1604-03: Extended Ringing Timer [System: Timers: Features: Station (1604): Extended Ring].
3. If the recall is not picked up, the system checks the Recall Cycles option set in 1603-05: Abandoned Hold Cycles [System: Timers: Features: Recall (1603): Recall Cycles].
4. One of the following then occurs:
  - If the number of programmed cycles *has not* been met, the call goes back on Hold or into orbit and the cycle continues.
  - If the number of cycles *has* been met, the line goes to Key Ring.

You can also set up the Recall Cycles option to *never* divert to the overflow destination by setting the Recall Cycles count at **0**. The call will continually switch between waiting in orbit (or on Hold) and ringing the initiating extension. This is helpful if the site receives may priority calls that should never reroute to a destination that allows other co-workers to pick them up.

---

## Hot Dial Pad

### Description

Hot Dial Pad allows an extension user to place a call without first lifting the handset or pressing **INTERCOM**. With Hot Dial Pad enabled, the user can more easily place Intercom calls (without first pressing **INTERCOM**), quickly place outside calls (using Line Group Access and Direct Line Access), and even use the User Programmable Features.

 **Note:** Hot Dial Pad is *not* available with the following features which use **#** as the first access digit:

- Placing a Speed Dial call (e.g., **#701** or **#201**)
- Programming (**##\***)
- Extension Locking (**##0**, **##3**, **##5**, and **##6**)

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## Intercom Queue Key for All Extensions

### Intercom Queue Key for All Extensions

[3.01] Any extension can have an Intercom Queue key, not just an operator. If an extension with an Intercom Queue key is busy on a call, and it receives an Intercom call, the new call will ring the key. If additional co-workers call the extension, their calls "stack up" under the Intercom Queue key. As soon as the busy extension becomes free, the

first (oldest) call rings the key first. The extension user can just press the Intercom Queue key to answer the call, then repeatedly press the key to answer the remaining calls. The Intercom Queue key is a visual reminder that additional Intercom calls are waiting to be answered.

An unlimited number of Intercom callers can queue for an extension with an Intercom Queue key. The callers hear ringback while they wait for the extension — not busy tone. The key winks on (green) when calls are queued.

By default, the extension receives Off-Hook Ringing for a call waiting on an Intercom Queue key.

If you assign an extension as an operator, it does not automatically get an Intercom Queue key.

---

## Line Scheduling

### Description

Use Line Scheduling to set up how you want the system to handle incoming calls. Line Scheduling is easy to understand and intuitive to set up, but has the power and flexibility to satisfy even complex call answering scenarios. There are eight Line Schedules with 20 Schedule Entries in each Schedule. Here are the basics on how to set this up:

1. Assign a line to one of the eight available Schedules.
2. Create an "Always" schedule that covers how you want calls handled *most* of the time.
  - For example, calls could Key Ring co-workers and then overflow to voice mail if they are not answered.
3. Set up more specific entries for certain times of the day, days of the week, or dates (like Christmas and company holidays).
  - You can have lunch time calls go to the Automated Attendant, evening calls go to a group mailbox, and weekend calls leave a message for an emergency service.
4. Add some "override" entries, each one activated by pressing a Manual Activation Mode Feature Key, for reoccurring events like closing early and opening late.
5. Additionally, create entries that automatically put the associated line into the night mode and activate the night time routing you have set in other features.

The power of Line Scheduling also comes from the myriad of combinations you can set up. Each line can use one of the eight schedules in combination with its per-line routing options. The 20 entries in each schedule can also work together with the per-line options to create even more routing possibilities. Add the Feature Key modes and Automatic Night Mode and you can benefit from complex answering scenarios that are easy to set up and understand.

Line Schedule selections are also available for each entry in the DID Translation Table. Incomplete DID calls can follow the routing set up in the schedule or the options programmed for the line.

### Skip Ahead

Skip Ahead is part of Line Scheduling and allows an extension user to press a uniquely programmed Skip Ahead Feature to skip ahead to the next schedule entry. This key is called the Skip Ahead key and allows the extension user to advance from the current schedule entry to the next schedule entry. Each Skip Ahead key is assigned to a specific schedule. An extension can have multiple Skip Ahead keys assigned to different schedules.

The following example illustrates how Skip Ahead helps even in sites using basic scheduling.

- The installation site has a schedule programmed as follows:
  - The Morning schedule entry runs every week day from 8:00 AM to 12:00 PM.
  - The Noon schedule entry runs every week day from 12:00 PM to 1:00 PM.
  - The Afternoon schedule entry runs from 1:00 PM to 5:00 PM.
  - The Evening schedule entry runs from 5:00 PM to 8:00 AM the following morning.
- Here are a few of the possible applications of Skip Ahead at this site.

- If an employee comes in early (before 8:00 AM), they can press Skip Ahead to activate the normal morning schedule entry.
- If the company has to close mid-afternoon (before 5:00 PM) because of inclement weather, an employee can press Skip Ahead to activate the evening schedule entry.

### Using the System Administrator to Test Line Schedules

The System Administrator *Lines: Schedules* page highlights the currently active Line Schedule entry. Each time you reconnect, the System Administrator updates the page. You can, for example:

- Go to the Schedules page and check the currently highlighted entry.
- Press a Skip Ahead key.
- Reconnect with the System Administrator and verify that the schedule has advanced.

---

## Park Orbit Recall Pickup

### Park Orbit Recall Pickup

[3.01] While a call is parked in orbit, a Park Orbit key for that orbit will flash indicating that the user can retrieve the call. The user just presses the key to answer the call.

- The orbit key flashes green (wink off) at the extension that parked the call.
- The orbit key flashes red (wink off) at all other extensions.

If the call is left in orbit past the Orbit Recall time, it will recall the extension from which it was initially parked. During the recall, the Park Orbit key on all extensions will continue to flash allowing any user to retrieve the call.

[<3.01] The orbit key is on (red) at all other extensions while the call is parked. Additionally, another extension user can not use their orbit key to pick up the call while it is recalling.

---

## PRI Calling Party Number per Extension

### Description

The extension outbound PRI Calling Party Number option is expanded from four to 18 digits. This allows the system to send a unique 10-digit telephone number to the called party for each extension. The Calling Party Number option applies only to outgoing PRI calls, but can be received at the destination over any line type with Caller ID capability.

[<3.01] The extension Calling Party Number option is four digits maximum and is overlaid over the telephone number sent by the line (if provided) or the system.

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## Speed Dial on Prime Line

### Speed Dial on Prime Line

[3.01] Speed Dial numbers have the option of dialing out over an extension's Prime Line (in addition to using the Intercom, Line, or Line Group selections). The Prime Line option is chosen when setting up the Speed Dial entry from either user or system programming. When the user selects the Speed Dial entry, the system will access the extension's Prime Line and dial the stored number.

The Prime Line option is available for both System and Personal Speed Dial. To select the Prime Line option for a Personal Speed Dial entry, the user dials \* instead of selecting Intercom, Line, or Line Group.

If the Speed Dial entry has Prime Line specified, and the extension is using Intercom Prime Line, the stored number will dial out over the "dial 9" line group.

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## User Level Programming

### User Level Programming

[3.01] User Level Programming using the soft keys has an extensive face lift and functional overhaul in Version 3. The new, more intuitive interface uses all three lines of the telephone display to provide the extension user with better guidance when selecting options and setting preferences.

The Main Menu consists of 10 sub-menus which group similar options into the same sub-menu. When setting up their telephone or using a feature, the user can just scroll through the soft key menus and options rather than remembering feature codes.

Keypad User Level Programming		
Menu	Description	Available in Access Levels
00:	Admin	4 and 5
10:	Volume Preferences	1-5
20:	Display Preferences	1-5
30:	Feature Preferences	1-5
40:	Ring Preferences	1-5
50:	Key Assignments	3-5
60:	Call Forwarding	1-5
70:	Speed Dial	Personal Speed Dial in 1-5. System Speed Dial in 4 and 5 only.
80:	Name and Language	1-5
90:	Option Preferences	1-5

### Shortcuts for Power Users

An extensive system of shortcuts is built into the soft key interface which allows "power users" to quickly jump to the option they want to customize. Each sub-menu has a numeric equivalent (see the chart above) that takes the user directly to the menu or even to an option within a menu. For example, the following shows two ways to get to the Display Language option:

*Normal User*

1. Press **Menu**.
2. Press **Next** until you see **50:Key Assignments**.
3. Press **Select**. You then see **51:Feature Keys**.

*Power User*

- Press **Menu** and dial **51**.

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## VoIP Extensions

### Description DSX IP Keysets

There are two available DSX IP Keysets: the *34-Button Backlit Display IP Telephone with Full-Duplex Speakerphone* and the *34-Button Backlit Super Display IP Telephone with Full-Duplex Speakerphone*.

### 34-Button Backlit Display IP Telephone with Full-Duplex Speakerphone (P/N 1090034)



The 34-Button Display IP Telephone features a large 3 line- by-24 character backlit alphanumeric display with 4 Interactive Soft Keys for intuitive feature access. It also provides 10 Personal Speed Dial keys, 24 programmable Feature Keys and 12 fixed function keys for streamlined operation. Additionally, this telephone offers a backlit keypad, a headset jack, and built-in Full-Duplex Speakerphone. Unique features include dual LEDs, built-in wall mounting, and an innovative two position angle adjustment.

The 34-Button Display IP Telephone has the same features and ease of use as the digital "TDM" model.

### 34-Button Backlit Super Display IP Telephone with Full-Duplex Speakerphone (P/N 1090035)



The Super Display IP Telephone features a large 9 line-by-24 character backlit alphanumeric display with 12 Interactive Soft Keys for intuitive feature access. It also provides 10 Personal Speed Dial keys, 24 programmable Feature Keys and 12 fixed function keys for streamlined operation. Additionally, this telephone offers a built-in Full-Duplex Speakerphone, a backlit keypad, and a headset jack. Unique features include dual LEDs, built-in wall mounting, and an innovative two position angle adjustment.

The 34-Button Super Display IP Telephone has the same features and ease of use as the digital "TDM" model.

## VoIP Installation

You can install a DSX IP Keyset on-premise in a managed network or as a remote IP extension. The DSX IP Keyset supports common CODECs (G.711A, G.729, and G.722) which let you easily balance voice quality with available bandwidth.

Setting up DSX Remote IP Keysets using *NAT Traversal* requires the purchase of a Linksys WRT54GL or WRT160NL router for each remote site. Additionally, port 5060 at the system-side router must be forwarded to the system IP address. Depending on your experience level, this may require the services of an IT professional.

If setting up DSX Remote IP Keysets using *VPN* (Virtual Private Network), it requires the purchase of third-party VPN routers and the services of an IT professional.

The DSX IP Keyset uses a single CAT5 ethernet cable to the desktop which connects to the compact, unobtrusive DSX IP Adaptor. The adaptor connects to the LAN, the IP keyset, and a PC, as well as provide the power required by the telephone. A separate power supply and cable are not required. If the router to which the keyset is connected is Power Over Ethernet (PoE 802.3af) compliant, the DSX IP Adaptor power supply is not required because telephone power can be provided by the router.

**DSX IP Adaptor (P/N 1091045)**



### Third Party SIP Extensions

Third party SIP extensions compliant with [SIP VoIP RFC 3261](#) can be installed on-site or remotely. The SIP extension should provide all the features available at a single line telephone unless dial pad keys are "hijacked" by the SIP extension. For example, if a SIP extension uses \* as a setup command, it won't be able to use Directed Call Pickup.

### Emergency (911) Calls and Remote IP Extensions

When a remote IP extension user dials 911, the call routes to the 911 service for the location in which the main system is installed. The emergency call *does not* route to the 911 service for the remote location.

### Common VoIP Terms

Term	Description
NAT Traversal	<p>Network Address Translation Traversal</p> <ul style="list-style-type: none"> <li>Allows a Remote IP Keypad behind an inexpensive off-the-shelf router to connect to the DSX over the public internet. Without NAT Traversal, the remote site would have to implement VPN.</li> </ul>
SOHO Router	<p>Small Office Home Office Router</p> <ul style="list-style-type: none"> <li>Usually refers to an inexpensive off-the-shelf NAT router typically found in a small office or home. Can be wired or wireless. The management interface provides basic features like DHCP setup, port forwarding, and basic security.</li> </ul>
VPN	<p>Virtual Private Network</p> <ul style="list-style-type: none"> <li>VPN sets up a private, secure, nailed-up connection (called a tunnel) between a Remote IP Keypad and the DSX system. This effectively puts the remote keypad and the DSX system on the same network. This is an alternative to NAT Traversal and requires network administration knowledge to set up.</li> </ul>

## Version 3 IntraMail Enhancements

### IntraMail Dedicated UCD group

#### Description

IntraMail has a unique UCD Group using master number 700 that is reserved for its own use and doesn't subtract from the total number of Department Groups. If required, you can reassign the IntraMail master number in system numbering but the reserved UCD Group stays intact.

### Email Integration Displays Caller ID Name

Available in software versions 3.01 and higher.

- Message from an outside caller shows both Caller ID number and name.

### Message Left by Outside Caller with Caller ID

[3.01] When a voice message is left by an outside caller and Caller ID was provided, Outlook 2007 shows the Caller ID number *and* name.

#### Inbox

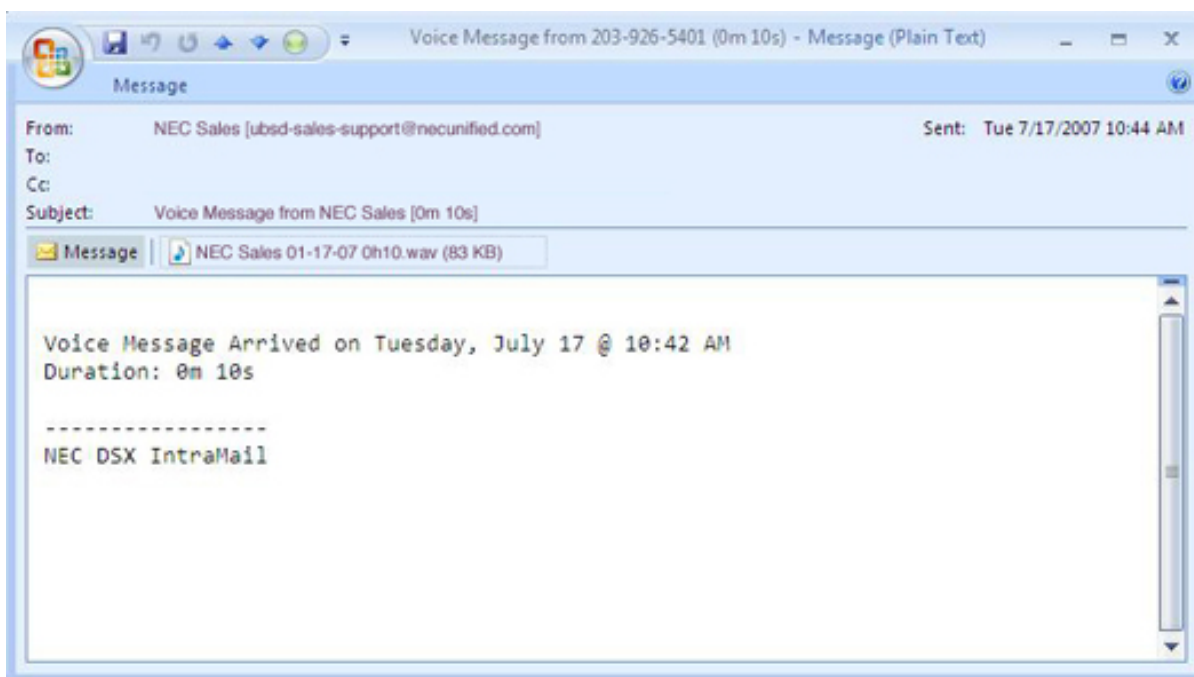
- *From* - Shows the Caller ID name.
- *Subject* - The text "Voice Message from" followed by the caller's name (provided by Caller ID), followed by the message duration.
- *Received* - The date and time the message was received.
- *Size* - The message size, which includes the size of the wav file attachment.

#### Message Body

- *From* - Shows the senders Caller ID name, followed by the programmed *Reply To* information.
- *Sent* - The date and time the message was sent.
- *Subject* - The same subject information shown in the inbox.
- *Message* - The wav file attachment name and the attachment size. In the example below,
  - *NEC Sales* is the caller's name (provided by Caller ID).
  - *07-17-07* is the date the message was left.
  - *10h42* is the time the attachment was created (e.g., 10:42 AM).
- *Body text* - Includes the date and time the voice message was received and the message length.



Inbox				Search Inbox
From	Subject	Received	Size	
NEC Sales	Voice Message from NEC Sales (0h10.wav)	Tue 7/17/2007 10:44 AM	88 KB	



## Find Me Follow Me

Available only with IntraMail Pro.

### Description

Find Me Follow Me helps a caller locate an extension user who is not at their desk. If their call is unanswered and is picked up by voice mail, the caller has the option of dialing a digit to try up to three alternate Find Me Follow Me destinations. A destination can be an outside number (such as a cell phone or home office) or a co-worker's extension.

The Find Me Follow destinations are set up in the Find Me Follow Me schedule. Each of the three schedule entries can be individually enabled or disabled and provides options for Start Hour, End Hour, and destination number. If the caller chooses the Find Me Follow Me option, the system will try each enabled entry that is active for the current time (i.e., in-schedule). The system will not try any entries that are disabled or are not in-schedule.

When trying the destinations, Find Me Follow Me skips an active, in-schedule number that is busy, in DND, or is unanswered. The caller can then choose to try Find Me Follow Me again or select another Automated Attendant option.

You can set up Find Me Follow Me for an extension in system programming. In addition, an extension user can set up Find Me Follow Me from their Mailbox Options.

 **Note:** Find Me Follow Me requires that Tandem Calls be enabled on the line that rings into the Automated Attendant. If Tandem Calls is not enabled, the Find Me Follow Me options for outside calls are unavailable.

### Find Me Following Interactions with other Call Handling Options

You can combine Find Me Follow Me with other call handling options like Park and Page and Next Call Routing Mailbox. For example, if an extension with all these options enabled simultaneously is unanswered, the caller can:

- Dial **1** to leave a message.
- Dial **2** to Park and Page.
- Dial **3** for Find Me Follow Me.
- Dial **4** for the Next Call Routing Mailbox options.



If Park and Page Immediate is enabled, Find Me Follow Me and the other call handling options occur if the initial Page is unanswered.

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## Message Notification, Cascading

Available only with IntraMail Pro.

### Description

If an extension user receives a new message in their mailbox, Cascading Message Notification will call them at up to five preset destinations to let them know a new voice mail message has arrived. A destination can be an outside number (such as a cell phone, pager, or home office) or a co-worker's extension.

The Cascading Message Notification destinations are set up in the Notification Schedule. Each of the five schedule entries can be individually enabled or disabled and provides options for:

- *Type*
  - Voice call or pager.
- *Start Hour*
  - The time the entry becomes active.
- *End Hour*
  - The time the entry becomes inactive.
- *Phone*
  - The destination telephone, pager, or extension number.
- *Busy Attempts*
  - The number of times the system will try the destination when it is busy. The system cancels notification callouts for this entry when the *Busy Attempts* **or** *RNA Attempts* number is met.
- *RNA Attempts*
  - The number of times the system will try the destination when it is unanswered. The system cancels notification callouts for this entry when the *RNA Attempts* **or** *Busy Attempts* number is met.
- *Security*
  - Enables or disables the Security Code requirement for the notification entry. For example, you may want to disable the Security Code when the entry is your cell phone. It is often inconvenient to dial digits after answering the notification callout.

### How Notification Cascades

When an extension with Cascading Message Notification turned on receives a new message:

1. The system tries the first *enabled* entry that is active for the current time (i.e., in-schedule).

The system will not try any entries that are disabled or are not in-schedule.

2. If the destination is busy or doesn't answer, the system decrements (decreases by one) the appropriate counter.

If busy, this is the *Busy Attempts* counter.

If unanswered, this is the *RNA Attempts* counter.

3. If neither counter has reached zero, the system waits the programmed interval and then retries the destination. (It does not yet cascade to the next destination.)
4. As soon as either the *Busy Attempts* or *RNA Attempts* counter is zero (i.e., no attempts left), notification cascades to the next destination. It will never retry the first destination.
5. If the notification remains unanswered (i.e., unacknowledged), this process continues until all in-schedule destinations have "zeroed out." Notification then stops.

A notification is considered acknowledged when the user logs into their mailbox.

6. When the extension receives a new message in their mailbox, the process starts again.

Note that a new message received during a notification process **will not** restart notification.

### Additional Notes on Cascading Message Notification

#### 1. IntraMail Pro

If the system has IntraMail instead of IntraMail Pro installed, only single destination Message Notification is available (to Notification Schedule entry 1).

#### 2. Maximum Number of Attempts

The setting of 4202-06: Number of Callout Attempts [Voice Mail: IntraMail: Config: Notification (4202): Maximum Attempts] sets the maximum number of notification attempts per entry. For example, if this value is 10, the user entry for *Busy Attempts* or *RNA Attempts* cannot be greater than 10.

#### 3. Pager Option

Notification is considered complete and acknowledged when the subscriber logs onto their mailbox. Cascading will stop.

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## Multilingual Voice Prompts

Available in software versions 3.01 or higher.

- Multilingual Voice Prompts requires one of the following:
  - Version 3 IntraMail or IntraMail Pro CompactFlash card.
  - Version 2 IntraMail or IntraMail Pro CompactFlash card that has been upgraded to Version 3.

### Description

Multilingual Voice Prompts provide IntraMail voice prompts in three languages: English, Spanish, and French. These language choices are available to Routing Mailboxes, outside lines, and Subscriber Mailboxes (for both stations and Department Groups). Here is how the system handles languages:

- *Routing Mailbox Language*
  - This is the language the Automated Attendant initially plays to the outside caller. Each Routing Mailbox has a unique language selection. The language provided depends on the Routing Mailbox that handles the call.
- *Line Language*
  - For outside calls not answered by the Automated Attendant, this is the language the caller hears when routed to voice mail. A caller also hears the line language if transferred to a mailbox.
- *Subscriber Mailbox Language*

- When a subscriber logs onto their mailbox, they always hear the language set for the mailbox. This is true for both station mailboxes and Department Group mailboxes.

Automated Attendant callers can optionally dial a digit to select the language of their choice.

### Selecting the User Interface

A Subscriber Mailbox can have either a numeric or mnemonic dialing interface. If set to numeric, voice mail options are announced as digits: “*To record and send a message, dial 7 7* (seven seven).” If set to mnemonic, voice mail options are announced descriptively: “*To record and send a message, dial R S*,” where R S is a mnemonic representation of Record and Send. You can set the user interface for both station and Department Group mailboxes.

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## Security Code Options

Available in software versions 3.01 and higher.

### Security Code Logon Option

After a subscriber enters their Security Code, they can choose to make it required for all logons or just remote logons. When enabled for *all* logons, the subscriber must enter their Security Code to access voice mail from their own extension, from a co-worker's extension, or remotely through the Automated Attendant. If enabled just for *remote* logons, the subscriber can go right into voice mail from their own telephone. However, the Security Code is still required from a co-worker's extension or from the Automated Attendant.

The Security Code logon option is a convenience for those who normally leave their office locked or otherwise secure. Those who work in open areas should normally set their mailbox to always require a Security Code.

A subscriber can set the Security Code option from the Mailbox Options Menu. You can also set the option from system programming.

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