**TONE COMMANDER®**

# 7210 / 7220
# IP Centrex Telephone
# User Manual

# Contents

# Introduction

This document applies to telephone software version **01.02.19**.

## General Features ———————————————

Tone Commander **7210** and **7220** IP Centrex VoIP (Voice over Internet Protocol) Telephones are easy to use multiline terminals that provide sophisticated ISDN services over managed IP networks. The telephones support Centrex ISDN services provided through a Lucent/AG Communication Systems iMerge Centrex Feature Gateway. They include a built-in 10/100BaseT repeater to allow daisy-chain connection of a PC workstation without additional equipment. Models are available in white or black, with 10 (7210) or 20 (7220) call appearances.

The optional **6030X Expansion Module** adds 30 multifunction keys to any 7210 or 7220 phone.

| Model | Multifunction Keys |
|:-----:|:------------------:|
| **7210** | 10  (40 with 6030X) |
| **7220** | 20  (50 with 6030X) |

Features of the 7210 and 7220 include:

- AutoSPID and Parameter Download
- Call Log
- Call Timer
- Last Number Redial
- Speed Dial
- Hot Key Dialing
- Direct Station Select
- Call Directory
- Flexible Ringing Options
- Ringing Control for Shared Lines

- Automatic Switch Type Detection
- Message Waiting Indication
- Desktop or Wall Mounting
- Tilt Display
- Integrated Speakerphone
- Voice Announce
- Handset or Headset Operation
- 10/100BaseT Repeater
- Firmware Updates via TFTP

# Controls and Indicators
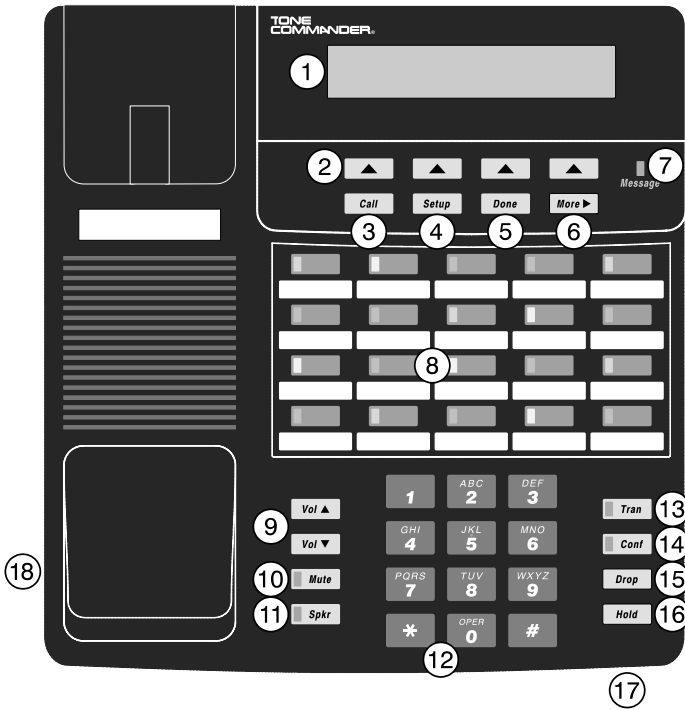


1)  **Display** – shows the call state, caller ID, dialed digits, network call control messages, and elapsed time during calls. When not on a call, the date, time of day, and softkey options are displayed.

    The viewing angle can be adjusted by tilting the display, then changing the contrast setting – see page 67.

2)  **Softkeys** (4) – select the function displayed above the key on the second line of the display.

3)  **Call Key** – selects the Call Directory, Call Log, and Call Identification Display modes.

4)  **Setup Key** – enters Setup Mode.

5)  **Done Key** – exits the current menu, saves any changes made, and returns to the previous menu options.

6)  **More ▶ Key** – cycles through the menu option groups in Setup Mode.

7) **Message Indicator** – a bright red indicator is lit when messages are waiting; controlled by the network.

8) **Multifunction Keys** – select call appearances, activate network features, or dial personal speed dial numbers. Red and green indicators on the keys show call appearance and feature status.

| Call Appearance State | Indication |
|---|---|
| Idle | OFF |
| Call Ringing | Green – flashing |
| In Use by You | Green – on steady |
| On Hold by You | Green – winking |
| In Use at Another Terminal | Red – on steady |
| On Hold at Another Terminal | Red – winking |

9) **Volume Keys** – adjust the receiver/speaker volume when on a call; adjust the ringer volume when on-hook.

10) **Mute Key** – mutes the microphone when using the speakerphone or handset/headset. A red indicator on the key is lit when mute is active.

11) **Speaker Key** – enables/disables the speakerphone. A green indicator on the key is lit when the speakerphone is in use.

12) **Dial Pad** – dials telephone numbers, and sends DTMF tones to external equipment such as voice mail systems. The dial pad is used for number entry during setup.

13) **Transfer Key** – places the current call on hold, and selects an idle call appearance for transferring the call. A second press completes a transfer.

14) **Conference Key** – adds other parties to a conference call.

15) **Drop Key** – removes the last party added to a conference call, or disconnects you from a call when not in conference mode.

16) **Hold Key** – places a call on hold.

17) **Microphone** – used for hands-free (speakerphone) calling; located in front of the Hold key on the bottom of the telephone.

18) **Handset/Headset Jack** – a jack on the side of the telephone connects to the handset or a standard headset.

# **Operation**

## **Placing a Call** ─────────────────────────────

### Selecting a Call Appearance

If the Call Preference option (page 64) is set to *Idle* or *Ringing*, your telephone will automatically select an idle call appearance when you go off-hook, or activate the speakerphone when you press a Speed Dial, DSS, REDIAL, dial pad, or UNANS-DIAL key while on-hook.

**Automatic Call Appearance Selection**

Lift the handset, press the *Spkr* key, or press a dial pad key to select an idle call appearance.

**Manual Call Appearance Selection**

Press an idle (unlit) call appearance key.

### Dialing

Wait for dial tone.

Dial the number with the dial pad.
The dialed number will be displayed briefly, then the network will confirm the dialed digits in the display.
The call duration timer begins when you are connected.

**Hot Key Dialing**

Begin dialing by pressing a dial pad key while on-hook. An idle call appearance, if available, will be selected automatically.

## Last Number Redial

The Redial feature dials the last number that was dialed with the dial pad or a Speed Dial key. Digits dialed after a call is connected are not saved.

| ▲ | Select REDIAL to redial the last number.

## Using the Call Log – refer to page 10.

## Using the Call Directory – refer to page 13.

## Using Speed Dial Keys

Speed Dial keys automatically dial a series of up to 24 digits when pressed. If your telephone is on-hook, an idle call appearance will be selected before dialing. If you are already on a call, the digits will be dialed using DTMF tones on that call.

Use Speed Dial keys to dial frequently-called numbers, to activate network features that include a directory number, and to speed up dialing of access numbers for voice mail, auto attendant, and similar systems.

Any unused multifunction key can be programmed as a Speed Dial key – see page 37.

Press a Speed Dial key to dial a number.
The dialed digits will be shown in the display.

## Using DSS Keys

DSS keys are a special type of Call Appearance/Directory Number keys that are programmed with speed dial numbers to provide Direct Station Selection. When the call appearance is idle or busy, DSS keys act like Speed Dial keys, to call a station. When ringing, DSS keys act like CA/DN keys, to answer a call.

Press an idle DSS key to dial the selected station number.
If the station associated with the DSS key is ringing, the call appearance will be answered.

# Answering a Call ━━━━━━━━━━━━━━━━━━━━━━━━━━

When a call is ringing, the display will show the calling number (if available) and the called number.

| `▌ Spkr` | Lift the handset or press the *Spkr* key to answer the ringing call shown in the display. |

| `▐ ▌` | To answer a different ringing call, press the ringing Call Appearance key before going off-hook. |

## Call Preference

If the Call Preference option (page 64) is set to *Ringing*, your telephone will automatically answer the ringing call shown in the display when you lift the handset or press the *Spkr* key.

## Ringing Control

The Ringing Control option (page 63) determines how calls ring at your telephone. Individual call appearances can be set to always ring, never ring, or ring after a delay.

# Bridging a Shared Call Appearance ━━━━━━

You can bridge (connect to) an active call on a call appearance that is shared with other terminals, unless call privacy is enabled at the network.

| `▐ ▌` | Press the busy Call Appearance key for the call you want to bridge. |

| `▌ Spkr` | Lift the handset or press the *Spkr* key.<br>The call duration timer begins when you are connected to the call. |

| `▌ Spkr` | To disconnect from the call, replace the handset or press the *Spkr* key. The other parties will remain connected. |

# Displaying Call Appearance Information ——

| | |
|---|---|
| `Call` | Press the *Call* key. |
| `▲` | Select ID *(Shortcut – you can skip this step and immediately press Call Appearance keys)*. |
| `☐` | Press Call Appearance keys.<br>Network call information will be displayed for currently active keys.<br>"NO CALL INFORMATION" and the assigned directory number, if available, will be displayed for idle keys. |
| `Done` | Press the *Call* or *Done* key when finished. |

# Holding Calls ————————————————

| | |
|---|---|
| `Hold` | Press the *Hold* key or another Call Appearance key to place the currently connected call on hold.<br>The held call appearance indicator will wink with a green light. |
| `☐` | Press the held Call Appearance key to return to the call. |

# Transferring Calls ———————————————

Use this feature to transfer an active call to another party.

| | |
|---|---|
| `Tran` | Press the *Tran* key while in an active call.<br>The current call is placed on hold, and an idle call appearance is automatically selected. The *Tran* indicator flashes (on some network switch types, the *Conf* indicator may light instead of the *Tran* indicator). |
| `JKL 5` | Dial the party you want to transfer the call to with the dial pad or a Speed Dial key.<br>Wait until the called party answers to announce the call, or transfer it immediately before the called party answers. |
| `Tran` | Press the *Tran* key again to transfer the call. |

## DSS Transfer

`Tran`  While on an active call, press the **Tran** key.

`▯▭`  Press the DSS key for the destination party.

`Tran`  Press the **Tran** key to transfer the call.


# Conferencing Calls ─────────────────

You can initiate multi-party conference calls from your terminal. Conferences are limited to 3 or 6 parties, depending on your network configuration.

## Conferencing a New Call

`Conf`  Press the **Conf** key while on an active call.
The current call is placed on hold and an idle call appearance is automatically selected. The *Conf* indicator lights.

`JKL 5`  Dial the party you wish to add to the conference.

`Conf`  After the added party answers, press the **Conf** key to conference all parties together.

Repeat the above steps to add another party.


## Conferencing a Held Call

`Conf`  Press the **Conf** key while you are on an active call with another call on hold.
The current call is placed on hold and an idle call appearance is automatically selected. The Conf indicator lights.

`▯▭`  Press the Call Appearance key for the held call you wish to add to the conference.

`Conf`  Press the **Conf** key to conference all parties together.

Repeat the above steps to add another party.

## Dropping the Last Party

| |
|---|
| $\boxed{\textit{Drop}}$ |

Press the *Drop* key to remove the last party added to a conference.

## Terminating a Conference

| |
|---|
| $\boxed{\blacksquare \ \textit{Spkr}}$ |

Replace the handset or press the *Spkr* key to terminate a conference, removing yourself and all other parties.

Depending on your network configuration, other parties in the conference may remain connected or be disconnected.

# Using Network Features ─────────────

Feature Activator keys access features provided by the telephone network. A feature is active when the key's red indicator is on.

Some commonly available features are listed below. Consult your service provider for more information.

## Call Forwarding

Forwards ringing calls to another number. When the Call Forward key indicator is lit, incoming calls will be forwarded.

## Privacy

Prevents other users from bridging on your active call.

## Group Call Pickup

Answers a call ringing at another telephone in your workgroup.

## Directed Call Pickup

Answers a call ringing at a specified telephone.

## Automatic Callback (Recall)

Calls you when a dialed busy station becomes idle, then redials the station when you answer.

## Message Waiting

Lights the Message Indicator on your telephone when you have a voice mail message.

# Using the Call Log ────────────────────

## What does the Call Log Do?

The call log maintains a running list of the last 100 incoming or outgoing calls from your telephone. You can view the caller ID number (if available), the date and time of the call, and elapsed time for connected calls.

## Types of Calls in the Call Log

**Unanswered Incoming Calls** – calls that rang at your telephone, and were not answered. Forwarded calls are not logged.

**Answered Incoming Calls** – calls that were answered at your telephone.

**Outgoing Calls** – calls originating from your telephone.

## Viewing the Call Log

Call     Press the *Call* key.

```
           CALL MENU
     DIR   LOG    ID
```

▲     Select LOG.

> A password may be set to prevent unauthorized entry into your call log.
>
> When prompted for a password, enter your 4-digit password with the dial pad. Press the *Done* key after entering the password.
>
> To change or remove the password, please refer to page 68.

```
   SELECT CALL LOG TYPE
UNANS   ANSWD   OUT
```

▲  Select the type of call you want to view – UNANS
(unanswered), ANSWD (answered), or OUT (outgoing).

A key indicator will alternately flash red and green to identify
the call appearance that was used for the logged call.

To view a previous (older) call in the log, select ←BACK.

To return to the last displayed (newer) call in the log, press the
*More▸* key.

To delete a call from the log, select DELETE.

```
 9:42a 4/15 425-349-1234
DELETE DIAL   TIME  ←BACK
```

▲  To view the elapsed call time for answered calls, select TIME.

```
00:25:12     425-349-1234
DELETE DIAL   DATE  ←BACK
```

▲  To return to the time and date display, select DATE.


## Shortcut to the Unanswered Call Log

▲  If any calls ringing at your telephone were unanswered,
UNANS will appear in the display. You can select UNANS to
enter directly into the Unanswered call log. After you have
viewed the unanswered call log, the UNANS display indication
will clear until new calls are received.

# Dialing a Call Log Entry

▲    With the call you want to dial showing in the call log display, select DIAL.

An idle call appearance will be automatically selected. The directory number from the log will be shown in the second line of the display. For outgoing calls, all digits that were dialed to complete the original call are shown.

```
3=Dial:
              4253491234
                    ▲
```

WXYZ
9

1
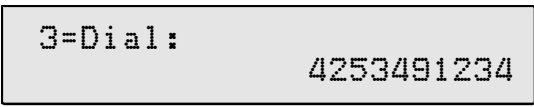
   Add any required prefixes, then press the softkey under the directory number to dial the digits displayed.

```
3=91
              4253491234
                    ▲
```
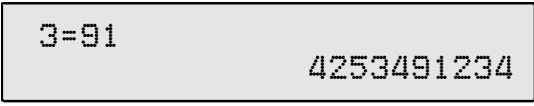
# Using the Call Directory ───────────

## What is the Call Directory?

The Call Directory is a softkey-based speed dialing system that can store up to 36 entries. A name display identifies each entry. Use the directory to store frequently-dialed numbers when additional Speed Dial keys are not available.

Directory entries are displayed on nine screen pages, with four entries per page. The current directory page number (1-9) will be shown at the upper right of the display.

## Dialing from the Call Directory

`Call`  Press the *Call* key.

```
        CALL  MENU
DIR    LOG     ID
```

`▲`  Select DIR.

```
DIRECTORY        PAGE1÷
Jim G  Home
```

`▲`

`JKL 5`
`More ▶`  To see a different directory page, select a page by pressing a dial pad key (1-9), or press the *More ▶* key to cycle through the nine pages until the desired page is displayed.

`▲`  Press the softkey that is under the number you want to dial.

`Call`  To exit the Call Directory, press the *Call* key again.

To add or change directory entries, see page 60.

# Using the Speakerphone ─────────────

The speakerphone feature allows two-way hands-free conversation and on-hook dialing.

## Placing and Answering Calls

The Call Preference option (page 64) determines the behavior of your telephone when the *Spkr* key is pressed. If this option is set to *Idle* or *Ringing*, your telephone will automatically select an idle call appearance when you press the *Spkr* key, or activate the speakerphone when you press a Speed Dial or DSS key while on-hook.

With the Ringing option selected, you can answer a ringing call appearance by pressing the *Spkr* key.

## Muting the Microphone

You can mute the microphone for privacy. The other party will not be able to hear you, but you can still hear the other party.

| Mute | Press the *Mute* key to disable or enable the microphone. The indicator light on the *Mute* key will be on when the microphone is muted.

Muting is turned off when you change from speakerphone to handset use.

The microphone is located in front of the rubber pad on the bottom of the telephone, in front of the Hold key.

For proper speakerphone operation, make sure that the telephone is placed directly on a hard surface, and the microphone is unobstructed.

# Using Voice Announce ───────────

The Voice Announce feature may be used to provide hands-free call announcing of screened calls or station-level paging when your phone is on-hook. Incoming calls that meet specific predefined criteria (see page 39) can be answered automatically by the speakerphone. The microphone can be automatically disabled for announcing only, or enabled to allow two-way conversations. You can enable or disable Voice Announce at any time.

## Enabling/Disabling

When the phone is idle, the display will show the current Voice Announce state.

*The Voice Announce state is shown only if Voice Announce keys have been set up as explained on page 39*.

▲  Press the softkey beneath the VA display to enable or disable Voice Announce.

```
UNANS VA ON
```
▲
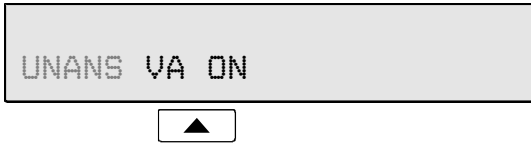
## Receiving Voice Announce Calls

Calls selected for voice announcing will be answered automatically. You and the caller will hear a double beep if your microphone is muted, or a single beep if your microphone is enabled. The call will disconnect when the caller hangs up. After the call has been answered, you can pick up the handset for a private conversation, turn muting on or off, press the *Spkr* key to disconnect, and perform other normal call operations. **Voice Announce is disabled when you are on an active call with the handset, headset, or speakerphone**.

*CAUTION* – If Call Announce is enabled for a calling directory number, the caller should not transfer calls unscreened (blind) to your telephone, otherwise the transferred call will be answered using Voice Announce.

## Using a Headset ───────────────────

### Headset Mode Operation

Your telephone can be set for handset or headset use (see page 65). With a headset, the *Spkr* key is used as the hookswitch, and the speakerphone feature is disabled.

### Optimizing the Phone to Match Your Headset

Headset models may vary in their microphone sensitivities and receive levels. Your telephone provides adjustments for transmit and receive levels to accommodate most headsets – see page 65.

## Adjusting the Receive Volume ───────────

The *Vol▲* and *Vol▼* keys adjust the receive volume level for the handset, headset, and speakerphone while you are on a call.

The telephone stores individual preset volume settings for the handset and headset. Volume settings return to the programmed preset levels after a call is completed. See page 65 to change the preset values.

Changes to speakerphone volume levels are retained after a call is completed.

## Adjusting the Ringer Volume ───────────

The *Vol▲* and *Vol▼* keys adjust the ringer volume while you are <u>not</u> on a call.

The telephone will ring once with the new ringer volume setting, and the new setting will be shown briefly in the display.

When the volume is at the lowest setting, the phone will display "RINGER OFF" instead of the date and time when idle. Press the *Vol▲* key while you are <u>not</u> on a call to enable the ringer.

```
┌─────────────────────────────────┐
│      RINGER OFF                  │
│                     REDIAL       │
└─────────────────────────────────┘
```
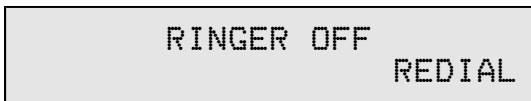
# Installation

## Ordering ISDN Service ─────────────

ISDN ordering forms may be supplied by your service provider. You can also print forms using the PC-based Configuration Wizard. Please refer to Appendix A in this manual.

Consult your service provider to plan your service installation. Allow adequate time after cutover for testing of all call appearances and programmed features. <u>Ask your service provider for your alias and H.235 password, and confirm the installation date</u>.

## 7210/7220 Installation ──────────────

### Network Connection

Connect the **NET** jack on the phone to the LAN switch using a Category 5 or better cable. Route the cable under the guide tabs in the phone base.

### PC Connection

If you want to use a PC on the same network connection, connect the PC network interface card to the phone's **PC** jack switch using a Category 5 or better cable. Route the cable under the guide tabs in the phone base.

The PC port device's speed must match that of the device connected to NET port (LAN switch or hub). If the NET port is connected to a 100Mbps device (either dual or single speed), a 10Mbps device connected to the PC port will not work properly. If the NET port is connected to a 10Mbps device, a 10Mbps device (or 10/100Mbps dual-speed device) connected to the PC port will communicate properly at 10Mbps.

### Handset/Headset

Plug the supplied handset or a compatible headset into the jack on the left side of the telephone.

## Power

Power must be provided by the Tone Commander 901034 power supply. Connect power after all other connections are complete. The 7210 and 7220 are not compatible with IEEE LAN-based power.

Plug the power supply barrel connector into the round jack on the bottom of the phone (under the speaker). Connect the power supply to a standard 120 VAC, 60 Hz grounded power outlet.

# Wall Mounting ────────────────────

Robust handset retainer clips for wall mount use are available on request from Tone Commander.

## Rotating the Base

The phone base must be rotated for wall mounting.

- Disconnect power, PC, and network cables.

- Remove the retaining screw in the center of the base.

- Press the top of the tall edge of the base to disengage the snap tabs, then lift the base from the telephone body.
  *Make sure the cable from the base remains fully seated in the connector on the phone.*

- Turn the base 180°, insert the tabs on the short edge of the base into the holes near the display end of the telephone, and then snap the tall side of the base onto the telephone.

- Replace the retaining screw (required for UL compliance).

## Attaching to a wall mount jack

- Plug an 8", 10/100BaseT network cable into the **NET** jack on the telephone. Route the cord under the guide tabs on the base.

- Hold the telephone next to the wall mount jack. Plug the network cable into the jack.

- Hang the telephone on the wall plate mounting studs. Press down firmly to lock in place.

- Push any excess network cable into the base.

# Configure the Set ─────────────────────────

ISDN configuration is performed automatically in many cases. The telephone set will detect the switch type, set the SPID number, and download other setup parameters when these features are available from the central office.

You will be prompted for any required setup information that cannot be set automatically.

## Initialization

A self-test is performed upon power up, followed by terminal initialization. Initialization begins after a short random time interval. This delay prevents multiple terminals at a site from initializing simultaneously after a power outage.

The display will show progress while establishing the communication layers. When all communication layers are established, the IP connection speed and switch type will be shown for several seconds.

```
PHY:100MBPS IP:LINKED
L3:OK   SWITCH=5ESS NI-X
```

IP addresses are normally assigned via DHCP server. In the case where there is no DHCP server or no server response, the following display will be shown:

```
DHCP ERROR, RETRYING
PRESS SETUP TO CONFIGURE
```

If the IP address, default gateway, or subnet mask have changed, the following will be shown:

```
RESTART WITH NEW VALUES?
  YES
```

Select YES to restart the phone using the new addresses or subnet mask.

## Alias

If the alias is rejected by iMerge or there is no stored alias, the following will be shown:

```
ALIAS=
←BKSP          CLEAR
```

| JKL 5 | Enter the correct alias as supplied by your service provider, then press the *Done* key. |

`Done`

## H.235 Password

If H.235 password is rejected by iMerge or there is no stored password, the following will automatically be shown:

```
H235 PW=
←BKSP          CLEAR
```

| JKL 5 | Enter the correct password as supplied by your service provider, then press the *Done* key. If passwords are not used, press the *Done* key with no entry. |

`Done`

To change the existing H.235 password and iMerge alias after the phone is registered, select CHANGE from the Alias entry menu (*Setup* → INSTL → ALIAS → CHANGE).

When the phone's initialization is complete, a time and date display will be shown.

```
JAN 10, 2002     12:42 PM
```

## SPID Entry
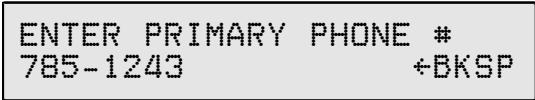
The SPID number may be assigned automatically if the network supports National ISDN AutoSPID, or a generic format SPID is used.

If AutoSPID is not supported, the phone will attempt to "guess" the correct SPID based on the alias. If the network does not accept this "guessed" SPID, you will be prompted to enter the phone's primary telephone number, which is used by the phone to generate a SPID

number. Enter the number with the dial pad, then press the ***Done*** key. BKSP (backspace) deletes the previous digit.

> *National ISDN* — enter your full <u>10-digit</u> telephone number (including area code)
>
> *5ESS Custom ISDN* — enter your <u>7-digit</u> telephone number
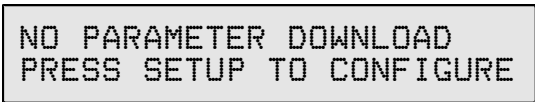
```
ENTER PRIMARY PHONE #
785-1243          ←BKSP
```

## Parameter Download *(National ISDN only)*

Parameter Download is a network feature that identifies Call Appearance and Feature Activator keys that are assigned to your line so that your phone may be configured automatically.

> *Note*: Speed Dial and DSS keys are <u>not</u> configured by Parameter Download, as well as other features listed on page 22 (Customize your Phone).

If Parameter Download is not supported, the following screen may appear momentarily, prompting you to manually configure the telephone at a later time (see page 24).

```
NO PARAMETER DOWNLOAD
PRESS SETUP TO CONFIGURE
```

## Automatic Button Detection *(5ESS Custom ISDN only)*

Press each multifunction key. The phone will discover the key's network assignment. Keys that have no network assignment may be used for speed dialing – please refer to page 37.

# Firmware Updates

Call Tone Commander Engineering at (800) 524-0024 to get information on firmware updates.

## Using Local Inspect to Verify Keys

Local Inspect allows you to identify the call appearance or feature assignment of each configured key, directory number bearer capabilities, and the feature indicator assignment for the Message Indicator. Please refer to page 47.

# Customize your Phone ————————————

You can set the following options on your phone.

**DSS** – converts Call Appearance keys to Direct Station Selection keys with busy lamp indication for one-button speed dialing of stations that are monitored by your phone (page 36).

**Clock** – sets the time-of-day clock. The clock is used for the time and date display, and for time stamping calls in the call log (page 58).

**Speed Dial** – sets up spare keys for one-button speed dialing of frequently-called numbers (page 58).

**Feature Activators with Speed Dial** – sets up spare keys for one-button dialing of features such as Call Forward or Directed Call Pickup, with a preselected destination (page 37).

**Call Directory** – sets up the display-based speed dialing directory (page 60).

**Personal Ringing**

> **Ringing Tone** – selects a distinct ringing tone for your telephone, to distinguish it from other nearby ringing telephones (page 62).

> **Off-hook Ringing** – selects single burst or normal ringing when you are on a call (page 62).

> **Ringing Control** – controls audible ringing for individual call appearances (page 63).

**Call Preference** – controls automatic call appearance selection and automatic call answering when you go off-hook (page 64).

**Voice Mode**

> **Handset/Headset Mode** – selects handset or headset operation (page 65).

> **Preset Volume Levels** – sets handset and headset volume levels, and speakerphone transmit level (page 65).

**Display Contrast** – adjusts the contrast of the display for best visibility (page 67).

**Call Log Password** – sets or removes a password to control entry into the call log (page 68).

**Voice Announce** – enables or disables automatic call answering by the speakerphone (page 39).

# Label the Set  ⸺⸺⸺⸺⸺⸺⸺⸺⸺⸺⸺

Label the multifunction keys with the telephone number, feature name, speed dial party name, or other appropriate designation. A perforated label sheet is provided with the telephone.

An ISDN Telephone Setup Wizard for Windows 95/98/NT/XP can be downloaded from Tone Commander's web site. This program prints key labels and service ordering forms. A Microsoft Word template for key labels only is also available. Please refer to Appendix A on page 72.

If you want to manually create labels, use paper strips 5" wide x ¼" high. Label text is on 1" centers, with 0.9" text space for each key.

To install the labels, remove the plastic overlay surrounding the multifunction keys. Peel off the protective strips from the adhesive in the grooves beneath the keys. Insert the label strips in the grooves, then replace the overlay.

# Installation Options

Options in this section are typically set at the time of installation. Many options can be set automatically by the DHCP, TFTP, AutoSPID, Automatic Switch Detect, and Parameter Download features, if supported on the network.

The following options can be changed from the Installation Options menu:

- IP Addresses
- Alias
- SPID
- Configuration Updates
- Key Configuration
- Terminal Mode
- Voice Announce
- Parameter Download
- Quality of Service
- Installation Password
- Reset to Default Settings

## Installation Options Menu ──────────────

You can enter the Installation Options menu when the phone is idle.

`Setup`  Press the *Setup* key.

```
        SETUP  MENU
INSTL ADMIN   USER
```

`▲`  Select INSTL.

```
INSTALLATION  OPTIONS    →
   IP   ALIAS   SPID UPDATE
```

`More ▶`  When → appears in the top line of the display, you can press the *More▶* key to see additional menu selections.

```
INSTALLATION  OPTIONS    →
 KEYS  MODE    VA    PARAM
```

```
INSTALLATION  OPTIONS    →
 QoS  PASSWD RESET
```

*Note*: The MODE option is only available with National ISDN.

> A password may be set to prevent unauthorized entry into the Installation Options menu.
>
> When prompted for a password, enter your 4-digit password with the dial pad. Press the *Done* key after entering the password.
>
> To change or remove the password, please refer to page 43.

# IP Addresses ────────────────────────

IP address entries are required for the phone, subnet mask, gateway/router, iMerge, and optional TFTP and SNTP servers. The default setting uses DHCP to automatically set the phone address, subnet mask, TFTP server address, SNTP server address, time offset, and gateway/router address. The phone can obtain the iMerge address, as well as software updates, and QoS settings from a TFTP server. Please refer to the 7210/7220 Network Administration Guide.

*Note: you must restart the phone after any IP address changes have been made for the changes to take effect*
(*Setup* → ADMIN → *More* ▶ → RESTART)*.*

## Disabling IP Configuration via DHCP  *(not recommended)*

▲   From the Installation Options menu, select UPDATE.
(*Setup* → INSTL → UPDATE)

```
IP CONFIGURATION UPDATE
 DHCP   TFTP FLASH TELNET
```

▲   Select DHCP.

```
DHCP=ENABLED
ENABLE DISABLE
```

▲  If DHCP is currently enabled, select DISABLE.

```
DHCP=DISABLED
ENABLE DISABLE
```

Done  Press the *Done* key to return to the IP Configuration Update menu or the *Setup* key to exit Setup Mode.

## Manual IP Configuration

DHCP should be disabled if manual IP configuration is used; IP addresses configured via DHCP will overwrite manually entered values.

▲  From the Installation Options menu, select IP.
(*Setup* → INSTL → IP)

```
IP ADDRESSES            ÷
PHONE GATEWY TFTP iMERGE
```

```
IP ADDRESSES            ÷
 SNTP SUBNET
```

▲  Select PHONE, TFTP, GATEWY, iMERGE, SNTP, or SUBNET.

JKL 5  Using the dial pad, enter the IP addresses. Address format is four groups of 1-3 digits. You must enter leading zeroes for each group of digits. Periods are automatically displayed.
*If you need to make corrections, select ←BKSP (backspace) to delete the previous digit.*
CLEAR *removes all digits, allowing you to start over.*

```
PHONE=192.169.073.104
       ←BKSP CLEAR  PING
```

The subnet mask is entered in a similar manner; the default value of 255.255.255.0 will suffice in most cases.

For SNTP, select OFFSET to specify the time offset (in hours) from UTC for your local time zone.

▲  To test the phone, gateway/router, TFTP server, SNTP server, or iMERGE address, select PING. If you have entered a new phone IP address, the phone must be restarted before ping will work properly.

```
PINGING IP ADDRESS...
```

If a response is received, indicating a valid address, "PING SUCCESSFUL" will be displayed.

```
PING SUCCESSFUL
PRESS ANY KEY
```

If no response is received, the entered address is invalid. "PING FAILED" will be displayed.

```
PING FAILED
PRESS ANY KEY
```

Press any key to return to the previous menu.

## Alias Entry ─────────────────────────────

A unique iMerge alias is required for operation of the 7210/7220. Contact your network service provider for your telephone's alias.

▲  From the Installation Options menu, select ALIAS.
(**Setup** → INSTL → ALIAS)

```
ALIAS=3094770185
←BKSP              CLEAR
```

*If the phone is currently registered with an iMerge alias, select CHANGE, then YES to restart the phone and clear the existing alias. The existing SPID and H.235 password will also be cleared.*

| | |
|---|---|
| **JKL 5** | Using the dial pad, enter the alias supplied by your network service provider. |
| | *If you need to make corrections, select ←BKSP (backspace) to delete the previous digit.* |
| | CLEAR *removes all digits, allowing you to start over.* |
| **Done** | When all digits have been entered, press the *Done* key to return to the Change Password menu or the *Setup* key to exit Setup Mode. |

## SPID Entry ─────────────────────────────

A unique SPID (Service Profile IDentifier) is required for operation of the 7210/7220. If the network supports AutoSPID, a SPID that is assigned to your ISDN line can be automatically selected. If generic SPID assignments are used by your service provider, your SPID will consist of your primary telephone number followed by "0101" for National ISDN (e.g., 52534910000101). Contact your network service provider for your telephone's SPID.

The alias value, if correctly entered, will be copied to the SPID entry. You can edit this SPID entry if necessary.

| | |
|---|---|
| **▲** | From the Installation Options menu, select SPID. (*Setup* → INSTL → SPID) |

```
ID=42534910000101
        ←BKSP   CLEAR
```

| | |
|---|---|
| **JKL 5** | Using the dial pad, enter the SPID number supplied by your network service provider. |
| | *If you need to make corrections, select ←BKSP (backspace) to delete the previous digit.* |
| | CLEAR *removes all digits, allowing you to start over.* |
| **Done** | When all digits have been entered, press the *Done* key to return to the Installation Options menu or the *Setup* key to exit Setup Mode. |
| | *If the phone is currently initialized with a SPID, select CHANGE, then YES to restart the phone and clear the existing SPID. The iMerge alias and H.235 password will also be cleared.* |

# IP Configuration and Software Updates ───

Telephone operating software and configuration parameters can be automatically updated daily from the TFTP server at a preset time, manually updated from the phone using files on the TFTP server, or updated from a client PC.

## Automatic Update

A properly configured network TFTP server is required for automatic updates. Please refer to the 7210/7220 Network Administration Guide.

▲   From the Installation Options menu, select UPDATE.
    (*Setup* → INSTL → UPDATE)

```
IP CONFIGURATION UPDATE
 DHCP   TFTP FLASH TELNET
```

▲   Select TFTP.

```
TFTP CONFIG UPDATE
START   AUTO
```

▲   Select AUTO.

```
TFTP UPDATE=DISABLED
ENABLE
```

▲   If TFTP updates are currently disabled, select ENABLE.

```
TFTP UPDATE TIME=03:26AM
DISABLE      ←BKSP  AM/PM
```

**5** *JKL*   Enter new digits for the update time with the dial pad. The cursor will advance automatically as each digit is entered.

Time must be entered in 12-hour format. AM/PM is changed with a softkey.

The minutes value is calculated based on the MAC address of the phone, to minimize the possibility of multiple phones

simultaneously requesting updates. You may manually enter the minutes digits, but it is recommended that you use the default calculated value.

*If you need to make corrections, select ←BKSP (backspace) to delete the previous character.*

`Done` When all changes have been made, press the *Done* key to return to the IP Configuration Update menu or the *Setup* key to exit Setup Mode.

## Manual Update

To perform a manual update, the phone must have the TFTP server's IP address entered manually or downloaded via DHCP.

▲ From the Installation Options menu, select UPDATE. (*Setup* → INSTL → UPDATE)

```
IP CONFIGURATION UPDATE
 DHCP   TFTP FLASH TELNET
```

▲ Select TFTP.

```
TFTP CONFIG UPDATE
START   AUTO
```

▲ Select START to initiate the manual update.

```
READING CONFIGURATION
FROM TFTP SERVER...
```

"Restarting" indicates that new operating software is being loaded into the phone. When complete, the phone will restart.

```
RESTARTING FOR NEW
SOFTWARE DOWNLOAD...
```

If a new version program is not found, the following screen will be shown. Press any key to return to the previous menu.

```
TFTP VERS SAME AS PHONE
PRESS ANY KEY
```

If phone configuration files are missing from the TFTP server, or the correct TFTP server address has not been entered or set via DHCP, the following screen will be shown.

```
NO TFTP SERVER RESPONSE
  EDIT
```

▲

▲     Select EDIT.

```
TFTP=216.122.043.234
        ←BKSP CLEAR  PING
```

Enter the correct TFTP server address. You can verify the address by selecting PING. When finished, press the ***Done*** key.
*If you need to make corrections, select* ←BKSP *(backspace) to delete the previous digit.*
CLEAR removes all digits, allowing you to start over.

## Update from a Client PC

Telephone software can also be updated from a network client PC running Tone Commander's Flash Update program.

To enable flash updates:

▲     From the Installation Options menu, select IP.
(***Setup*** → INSTL → UPDATE)

```
IP CONFIGURATION UPDATE
 DHCP   TFTP FLASH TELNET
```

▲    Select FLASH.

```
FLASH UPDATE=DISABLED
ENABLE DISABLE
```

▲    Select ENABLE.

```
FLASH UPDATE=ENABLED
ENABLE DISABLE
```

After updating, you can disable flash updates to prevent inadvertent changes to the phone configuration.


## Telnet

This option allows a telnet client to connect to the phone for troubleshooting purposes.

▲    From the Installation Options menu, select UPDATE.
(*Setup* → INSTL → UPDATE)

```
IP CONFIGURATION UPDATE
 DHCP   TFTP FLASH TELNET
```

▲    Select TELNET.

```
TELNET ACCESS=DISABLED
ENABLE DISABLE
```

▲    Select ENABLE.

```
TELNET ACCESS=ENABLED
ENABLE DISABLE
```

When telnet capability is no longer needed, disable it to prevent inadvertent changes to the phone configuration.

# Configuring Keys ──────────────────

If the network does not support ISDN Parameter Download, you must assign call appearances, directory numbers and feature activators using this option.

▲   From the Installation Options menu, select KEYS.
(**Setup** → INSTL → KEYS)

The status indicator for each key will indicate the current setting.

    **Green** – Call Appearance or DSS.
    **Red** – Feature Activator.
    **Off** – Unused or Speed Dial.

▯   On the phone or expansion module, press the multifunction key to be programmed.

The selected key's indicator will alternately flash red and green.

```
12=CA/DN                ÷
CA/DN    FA    DSS   SPDIAL
```

```
12=CA/DN                ÷
UNUSED
```

▲   Select CA/DN (Call Appearance /Directory Number), FA (Feature Activator), DSS (Direct Station Select), SPDIAL (Speed Dial), or UNUSED from the menu.

```
12=CA/DN# 555-789-4251
÷BKSP        ORIG   RESERV
```

Programming procedures for each key type are described below.

# Call Appearance / Directory Number Keys

These "line" keys are used to place and answer calls. If you have BASIC service, each **directory number** key is assigned a unique directory number. If you have CACH EKTS service, one directory number may be assigned to multiple **Call Appearance** keys; multiple calls can be handled on one directory number.

| JKL 5 | Enter the assigned directory number with the dial pad. |

*If you need to make corrections while entering numbers, select ←BKSP (backspace) to delete the previous digit.*

*You can press the **Done** key to return to key selection.*

```
12=CA/DN# 555-789-4251
←BKSP        ORIG  RESERV
```
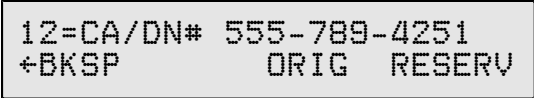
## Automatic Call Appearance Selection

A call appearance is automatically selected when originating a new call, answering an incoming call, or conferencing or transferring a call. Three configuration options determine how call appearances are selected:

**Call Preference** (page 64) – determines whether a new call is originated when you lift the handset or press the *Spkr* key. If set to NONE, you must manually press a Call Appearance key to originate a call.

**Originating DN** – only call appearances with this option set to YES will be automatically selected for call origination.

**CA Reservation** – within the group of originating DNs, call appearances set for NOT RESERVED are selected first, followed by OUTGOING ONLY, followed by OUT/PRIORITY call appearances (OUTGOING ONLY call appearances are selected first for conferencing and transferring). Within each subgroup, call appearances are selected in ascending order. INCOMING ONLY call appearances are never selected for an outgoing call. If an idle CA is not found, "SELECT AN IDLE LINE" is displayed.

To change the Originating DN assignment:

▲  Select ORIG.

▲  Select YES or NO from the Originating DN menu.

`Done`  Press the *Done* key to return to the CA/DN menu.


To change call appearance reservation:

▲  Select RESERV.

▲  Select the call appearance reservation for this CA/DN.
> **OUT** – Originate (outgoing calls) only.
> **IN** – Terminate (incoming calls) only.
> **PRI** – Outgoing or priority incoming or calls only.
> **NOT** – Not Reserved – *default value for all keys.*

`Done`  Press the *Done* key to return to the CA/DN menu.


## Feature Activator Keys

Feature Activator keys must be configured to match network feature
activator codes that have been assigned to your line.

`JKL 5`  Using the dial pad, enter the feature activator code assigned
by your network service provider.
*If you need to make corrections while entering numbers,
select ←BKSP (backspace) to delete the previous digit.*

```
10=NETWORK FA#59   (CALL)
←BKSP              CALL
```

▲  Select CALL if a call needs to be originated when the feature
is activated. When enabled, (CALL) will appear in the top line
of the display as shown above.

With CALL enabled, the feature is always activated within the
context of a call. Features that need to originate a call include
Call Forward (on Siemens EWSD), ICM intercom (on Nortel
DMS-100), and Call Pickup. The CALL feature is not used
with Lucent 5ESS Custom ISDN.

If the phone is on-hook when a Feature Activator key with CALL enabled is pressed, a new call will be originated. If the phone is already off-hook when the feature key is pressed, the feature will be activated within the context of the current call.

`Done` Press the *Done* key twice to return to the key selection menu or the *Setup* key to exit Setup Mode.

## DSS Keys

DSS keys are a special type of Call Appearance/Directory Number keys that are programmed with speed dial numbers to provide Direct Station Selection. When the call appearance is idle or busy, DSS keys act like Speed Dial keys, to call a station. When ringing, DSS keys act like CA/DN keys, to answer a call. The LED indicator on the key shows the status of the station's call appearance (idle, ringing, hold, busy).

Shared call appearances for stations you wish to monitor must be configured on your ISDN line. You must program the DSS number to dial the monitored station on your phone (even if Parameter Download is provided).

`JKL 5` If the Call Appearance/Directory Number is not shown in the top line of the display, you can enter a reference directory number for the monitored station with the dial pad. This number is not required for operation.
*If you need to make corrections while entering numbers, select ←BKSP (backspace) to delete the previous digit.*

```
08=DSS/DN# 425-349-1001
←BKSP   DSS#
```

`▲` Select DSS#.

```
1001
←BKSP CLEAR   PAUSE
```

`JKL 5` Using the dial pad, enter the number you would dial to call the monitored station.
*If you need to make corrections while entering numbers, select ←BKSP (backspace) to delete the previous digit.*
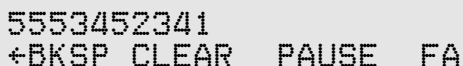CLEAR *removes all digits, allowing you to start over.*

| Done | Press the **Done** key three times to return to the key selection menu or the **Setup** key to exit Setup Mode. |

## Speed Dial Keys

Keys not assigned for call appearances or feature activators may be used as Speed Dial keys. Dial strings can include network feature activator codes, to simplify the use of features such as Directed Call Pickup and Call Forwarding. Speed Dial keys may also be programmed from the User Options menu.

```
5553452341
←BKSP CLEAR   PAUSE   FA
```

The currently programmed dial string, if any, will be shown in the display.

| JKL 5 | Enter digits (24 maximum) with the dial pad. |

| ▲ | Pauses are entered with the PAUSE softkey, and are shown in the display as a **P** character. The first pause in a dial string will wait until the call is answered; additional pauses delay dialing for one second. Enter multiple pauses to increase the delay time. |

```
←BKSP              PAUSE   FA
```

▲

```
5551234P1P12
←BKSP   CLEAR  PAUSE
```

Feature Activator (FA) numbers are entered with the FA softkey, and are shown in the display as an **F** character. *It must be the first character in the dialing string; the two numeric digits immediately following the F indicate the network feature activator code. The FA softkey is only available when no digits have been entered*. In the example above, the Speed Dial key sends feature code '57' (Call Forward) followed by the directory number '987-1234'.

*If you need to make corrections while entering numbers, select ←BKSP (backspace) to delete the previous digit.*

CLEAR *removes all digits, allowing you to start over. A Speed Dial key will revert to 'Unused' if saved with a cleared dial string.*

```
F579871234
←BKSP  CLEAR PAUSE
```

| Done | When digits have been entered, press the ***Done*** key twice to return to the key selection menu or the ***Setup*** key to exit Setup Mode.

## Terminal Mode ─────────────────────
*(National ISDN only)*

If the network does not support Parameter Download, you must manually select the terminal mode.

| ▲ | From the Installation Options menu, select MODE.
(***Setup*** → INSTL → ***More▶*** → MODE)

```
TERMINAL MODE=CACH EKTS
 CACH  BASIC
```

| ▲ | Select the terminal mode based upon the type of service that was ordered from your network service provider.

    **CACH** – CACH EKTS.

    **BASIC** – Voice or Basic EKTS.

In most cases, your phone service should be configured for CACH EKTS.

| Done | Press the ***Done*** key to return to the Installation Options menu or the ***Setup*** key to exit Setup Mode.

# Voice Announce ─────────────────────────

This option allows certain incoming calls to be answered automatically by the speakerphone. Voice Announce calls are restricted to calls on selected Call Appearance/Directory Number keys. In addition, calls from specified directory numbers, and/or calls of a selected type determined by the ringing pattern, can be restricted. The microphone can be automatically disabled for announcing only, or enabled to allow two-way conversations. Voice Announce can be enabled or disabled by the user at any time.

▲  From the Installation Options menu, select VA.
   (*Setup* → INSTL → *More▶* → VA)

```
VOICE ANNOUNCE OPTIONS
 KEYS  DNs  ALERT  MUTE
```
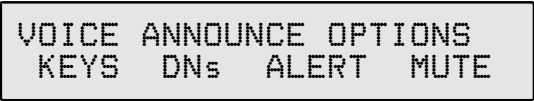
## Selecting CA/DN Keys

▲  Select KEYS to designate individual call appearances that will accept Voice Announce calls. Use this setting to restrict Voice Announce calls to specific dialed directory numbers (e.g. non-listed private numbers).

```
      SELECT VA KEYS
GREEN=VA, RED=AVAILABLE
```

▭  All available CA/DN keys will light red, Voice Announce enabled keys will light green; all other keys will be off. Press desired call appearance keys to enable or disable the Voice Announce feature for selected keys.

   ***Set all appearances of a directory number to the same Voice Announce setting.***

Done  Press the *Done* key when all Voice Announce keys have been selected.

Voice Announce configuration is not affected by Parameter Download, except when CA/DN key allocations change. The default Voice Announce setting for new CA/DN keys identified in a download is *disabled*.

## Selecting Incoming Directory Numbers

CA/DN keys must be configured for Voice Announce before selecting incoming DNs.

▲  Select DNs to restrict Voice Announce calls to specific callers (or groups of callers). The Calling DN templates are matched to the incoming caller ID to identify Voice Announce calls. You can enter up to three Calling DN templates.

```
CALLING DN#1=4253491*
←BKSP CLEAR  ALL
```

▲  Select ALL if you want to accept all incoming calls.

JKL 5  To restrict Voice Announce calls to specific callers or groups, use CLEAR or ←BKSP to delete the current entry, then enter a combination of wild cards (∗ matches any group of characters, # matches a single character) and numeric digits with the dial pad to allow individual callers or blocks of callers.

For example, 4253491∗ matches 425-349-1000 through 425-349-1999; 42534910#0 matches 425-349-1010, 425-349-1020, etc. Non-numeric characters (such as hyphens) in the incoming caller ID are ignored. Up to 10 digits (including wild cards) may be programmed in each template.

***Enter all digit positions as shown in the display for an incoming call; in most cases, this will include the area code.***

More▶  Press the *More▶* key to enter additional Calling DN templates.

Done  When all Calling DN templates have been entered, press the *Done* key.

# Selecting Alerting Patterns

Use the Alert option to allow only specific types of incoming calls (e.g. internal, external, intercom, etc.).

CA/DN keys must be configured for Voice Announce before selecting alerting patterns.

▲     Select ALERT to define a specific alerting pattern required to validate incoming Voice Announce calls.

```
ALERTING=ANY              ÷
 ANY   NORMAL DIST INTCOM
```

```
ALERTING=ANY              ÷
 PRI
```

**ANY**       – Accept any type of alerting (default value)

**NORMAL** – normal alerting (pattern 0); typically used for internal calls.

**DIST**       – distinctive alerting-intergroup (pattern 1); typically used for external calls

**INTCOM** – EKTS intercom (pattern 3); used for intercom calls

**PRI**        – distinctive alerting-special/priority (pattern 2); used for designated priority calls

Done    Press the **Done** key after selecting the alerting pattern.

# Automatic Muting

▲     Select MUTE.

```
AUTOMATIC MUTE=ON
 ON    OFF
```

▲   Select ON to automatically mute the microphone during a Voice Announce call, or OFF to enable two-way conversations.

Done   Press the **Done** key after selecting the muting option.


# ISDN Parameter Download ⎯⎯⎯⎯⎯⎯⎯⎯
*(National ISDN only)*

ISDN Parameter Download is an automated feature for configuring Call Appearance and Feature Activator keys. If configured for auto download, a Parameter Download is executed when the phone initializes with a new SPID, or when requested by the network, due to a line configuration change.

> *Note*: Speed Dial and DSS keys are not configured by Parameter Download.

▲   From the Installation Options menu, select PARAM.
(**Setup** → INSTL → **More ▶** → PARAM)

```
ISDN PARAMETER DOWNLOAD
START  AUTO
```

## Starting a Download

▲   Select START to manually initiate a Parameter Download.


## Enabling/Disabling Automatic Download

▲   Select AUTO.

```
AUTO DOWNLOAD=ENABLED
ENABLE DISABLE
```

▲   Select ENABLE or DISABLE.

## Quality of Service ———————————

Quality of Service settings should not be changed unless required by your network administrator to optimize IP network performance. Please refer to the 7210/7220 Network Administration Guide.

## Installation Password ———————————

You can set a password to prohibit unauthorized entry into the Installation Options menu.

If a password is currently set, the display will prompt you to enter your password prior to making changes.

▲   From the Installation Options menu, select PASSWD.
     (*Setup* → INSTL → *More*▶ → *More*▶ → PASSWD)

```
INSTALLATION PASSWORD
 SET  CLEAR
```

▲   Select SET.

```
NEW PASSWORD:____
←BKSP
```

5   Enter a new 4-digit password with the dial pad.
     *If you need to change a password digit after entering it, select*
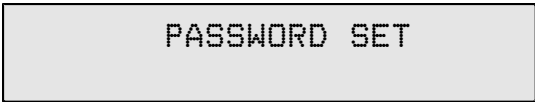     ←BKSP *(backspace) to delete the previous digit.*

Done   Press the *Done* key.

```
VERIFY PASSWORD:____
←BKSP
```

5   Repeat the password when prompted to verify the new entry.

Done   Press the *Done* key.

     "PASSWORD SET" will be displayed to confirm the new password.

```
            PASSWORD SET
```
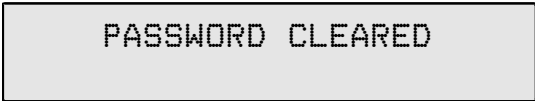
**Record your password for future reference.**

`Done`  Press the *Done* key to return to the Installation Options menu
or the *Setup* key to exit Setup Mode.

## Removing the Password

`▲`  Select CLEAR.
"PASSWORD CLEARED" will be displayed to confirm that the
password has been removed.

```
         PASSWORD CLEARED
```

`Done`  Press the *Done* key to return to Change Password menu or
the *Setup* key to exit Setup Mode.

## What to do if you lose your password

Contact your system administrator or call Tone Commander technical
support at (800) 524-0024 in the event you misplace your password.
You will need to report the serial number of your telephone to receive a
new password.

You can use the RESET option described below to remove all
passwords. *This option will clear all programmed numbers and settings
in your phone.*

# Reset to Factory Default Settings  ───────

Reset returns all settings to the factory defaults, and clears the SPID, alias, all speed dial numbers, logs, and passwords. This option is useful when moving the telephone to a new user or location.

Default values are listed in the table on page 80.

▲  From the Installation Options menu, select RESET.
    (*Setup* → INSTL → *More*▶ → RESET)

```
RESET ALL SETUP OPTIONS?
  YES   NO
```

▲  Select YES to confirm the reset operation.

```
      ALL SETTINGS CLEARED
```

*Done*  Press the *Done* key to return to Installation Options menu or the *Setup* key to exit Setup Mode. The phone will restart.

# Administration Options

The following test and diagnostic options are available from the Administration Options menu:

- Local Inspect
- Hardware Version
- Software Version
- Serial Number
- MAC Address

- Test Functions
- Diagnostics
- Terminal Restart
- Error Log

## Administration Options Menu ─────────────

You can enter from the Administration Options menu when the phone is idle or during an active call.

| Setup | Press the *Setup* key.

```
         SETUP MENU
INSTL ADMIN  USER
```

| ▲ | Select ADMIN.

```
ADMINISTRATION OPTIONS →
INSPCT VERS  TEST  DIAG
```

| More ▶ | When → appears in the top line of the display, you can press the *More*▶ key to see additional menu selections.

```
ADMINISTRATION OPTIONS →
RESTART LOG
```

# Local Inspect ━━━━━━━━━━━━━━━━━━━━━━━

Local Inspect allows you to identify the call appearance/directory number or feature assignment of each configured key, directory numbers, and the feature indicator assignment for the Message Indicator. You can use Local Inspect after a Parameter Download to verify call appearance and feature assignments.

▲     From the Administration Options menu, select INSPCT.
       (*Setup* → ADMIN → INSPCT)

```
      LOCAL  INSPECT
 KEYS    DNs       MESSAGE
```
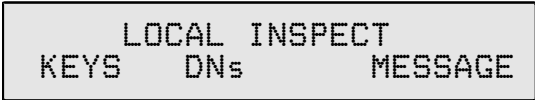
▲     Select KEYS, DNs (Directory Numbers), or MESSAGE
       (Message Indicator). Each option is described below.

## Keys

▲     Select KEYS.

▯     Press the key that you want to inspect.
       The key's indicator will alternately flash red and green.

       Displays will vary depending upon the key type, as shown
       below.

Done  When you are finished inspecting keys, press the *Done* key to
       return to the Local Inspect menu or the *Setup* key to exit
       Setup Mode.

### Call Appearance/Directory Number Key

The display will show for the selected key:
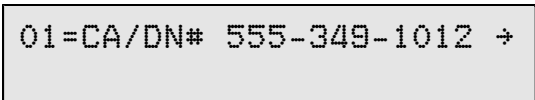
- Key number, directory number

```
01=CA/DN#  555-349-1012  →
```

`More ▶`  Press the **More ▶** key to view:

- Originate usage
- Call appearance reservation

```
ORIGINATING DN? YES     ⇥
RESERVED=OUT/PRIORITY IN
```

## DSS Key

The display will show for the selected key:

- Key number, directory number
- DSS number

```
05=DSS/DN# 555-789-4251⇥
4251
```

`More ▶`  Press the **More ▶** key to view:

- Originate usage
- Call appearance reservation

```
ORIGINATING DN? NO      ⇥
RESERVED=NOT RESERVED
```

## Feature Activator, Conference, Transfer, or Drop Key

The display will show the key number, network feature
activator number, and service description for the selected key.

```
07=NETWORK FA#56   (CALL)
Call Pickup
```

(CALL) is displayed if the feature has been locally
programmed to originate a call when activated (see page 35).

**Speed Dial Key**

The display will show the key number and programmed autodial string for the selected key.

```
08=SPEED DIAL
5553452341
```

# Directory Numbers

▲  Select DNs to view the list of directory numbers on this phone. The first line on the display will show the directory number, and 'ORIG' if this is an originating DN.

```
DN#555-345-8952    ORIG →
```

*More ▶*  Press the *More ▶* key to view additional directory numbers.

*Done*  Press the *Done* key to return to the Local Inspect menu or the *Setup* key to exit Setup Mode.

# Message Waiting Indicator

▲  Select MESSAGE.

The Message indicator will light.

The display will show the feature indicator number and the service description, if available. If the service description on line 2 is blank after a Parameter Download, this feature has not been provisioned on your line.

```
MESSAGE=NETWORK FI#63
Message Waiting
```

*Done*  Press the *Done* key to return to the Local Inspect menu or the *Setup* key to exit Setup Mode.

# Version  ——————————————————————————

Use this option to view the telephone's hardware version, software
version, and serial number.

▲    From the Administration Options menu, select VERS.
    (*Setup* → ADMIN → VERS)

```
              VERSION         →
     H/W   S/W   SERIAL   MAC
```

```
              VERSION         →
6030X
```

## Hardware Version

▲    Select H/W.

```
MODEL: 7220
TOP: -01A      PCB: -03A
```

## Software Version

▲    Select S/W.

```
APPL VERS:01.02.05
BOOT VERS:01.02.05
```

## Serial Number

▲    Select SERIAL.

```
SERIAL#:0031210Z002
```

## MAC Address

▲    Select MAC.

```
ETHERNET MAC ADDRESS:
00:04:8D:00:00:51
```

Done    Press the *Done* key to return to the Administration Options menu or the *Setup* key to exit Setup Mode.

## Optional Equipment Version

▲    Select 6030X or other installed option (if displayed).

```
MODEL:6030X BUTTON EXPAN
VERSION: 01.01.04
```

Done    Press the *Done* key to return to the Administration Options menu or the *Setup* key to exit Setup Mode.
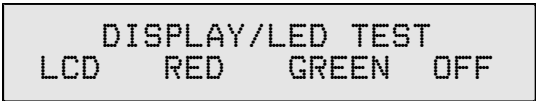
# Test ───────────────────────────────────

Select this option to test the LCD display, LED indicators, and keys.

▲  From the Administration Options menu, select TEST.
    (*Setup* → ADMIN → TEST)

```
        TERMINAL TEST
DISPLY KEYS 6030X
```

## Display and LED Indicators

▲  Select DISPLY.

```
      DISPLAY/LED TEST
LCD    RED    GREEN   OFF
```

### LCD Display

▲  Select LCD.
    All pixels (picture elements, or dots) on the display should turn
    dark.

```
██████████████████████████████
██████████████████████████████
```
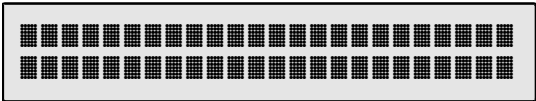
☐  Press any key to return the display to normal operation.

### LED Indicators

▲  Select RED to turn on all red indicators, and turn all others off.

▲  Select GREEN to turn on all green indicators, and turn all
    others off.

▲  Select OFF to turn off all indicators.

Done  Press the *Done* key to return to the Test menu or the *Setup*
       key to exit Setup Mode.

## Keys

▲  Select KEYS.

```
PRESS EACH KEY TO TEST
OR GO OFF-HOOK TO EXIT
```

Press each key on the telephone, including the dial pad keys, one at a time.

A letter should appear in the display for each pressed key.

*On 7210 models, 10 additional letters will appear after the first keypress, representing the 10 "missing" multifunction keys.*

```
ABCDEFGHIJKLMNOPQRSTUVWX
abcdefghijklmnopqrstuvwx
```

If all keys are operational, the following display will be shown. Press key to return to the Test menu.

```
    KEY TEST PASSED
PRESS ANY KEY TO EXIT
```

If any key fails, or to exit before testing all keys, go off-hook with the handset or unplug the phone.

## 6030X Expansion Module

This option tests the keys and LED indicators on a 6030X Expansion Module. It is only available if an Expansion Module is connected to the phone.

▲  Select 6030X.

```
PRESS EACH KEY ON 6030X
   PRESS DONE TO EXIT
```

Press each key on the Expansion Module, one at a time.

The key's LED indicator should flash alternately red and green, and a number should appear in the display for each pressed key.

```
123456789012345678901234
567890
```

After all keys have been tested, press any key to exit the test.

*Done*   You can also exit the test at any time by pressing the *Done*
key to return to the Test menu or the *Setup* key to exit Setup
Mode.

## Diagnostic Display ─────────────────────

▲   From the Administration Options menu, select.
(*Setup* → ADMIN → DIAG)

```
DIAGNOSTIC OPTIONS
 LINK PACKET PING
```

▲   Select LINK to view the status of the connection to iMerge.

The display will show the Ethernet physical layer data rate, IP
layer status, ISDN Layer 3 state, and the ISDN network switch
type.

```
PHY:100MBPS IP:LINKED
L3:OK   SWITCH=5E CUSTOM
```

▲   Select PACKET to view packet reception statistics for an
active call or the last call by call appearance. Refer to the
7210/7220 Network Administration Guide for a detailed
description of packet statistics.

Press the *More* ▶ key to view additional packet types.

```
CONCEALED=27        <1%→
 CA1                ←BACK
```

▲  Select PING to initiate a ping message to a selected IP
address.

```
SELECT DEVICE TO PING   →
PHONE GATEWY TFTP iMERGE
```

```
SELECT DEVICE TO PING   →
 SNTP  DHCP OTHER
```

▲  Select a device to ping.

```
iMERGE PING DELAY=20ms
                    PING
```

The delay time is shown. Select PING to initiate additional
ping messages.

Done  Press the *Done* key to return to the Administration Options
menu or the *Setup* key to exit Setup Mode.


## Restart ────────────────────────────────

Select Restart to reset the phone. If you are on an active call you will
be disconnected. The call log will be cleared. No configuration
parameters will be altered.

▲  From the Administration Options menu, select RESTART.
(*Setup* → ADMIN → *More▸* → RESTART)

```
RESTART/CLEAR CALL LOG?
YES     NO
```

▲  Select YES to restart the phone.

# Viewing the Error and Download Logs ───

⬆  From the Administration Options menu, select LOG.
   (*Setup* → ADMIN → *More* ▶ → LOG)

```
VIEW LOG ENTRIES
ERROR PARAM        CLEAR
```

⬆  Select ERROR to view the error log or PARAM *(National ISDN only)* to view the Parameter Download log.

   The most recent log entry will be shown.

*More* ▶  Press the *More* ▶ key to view previous entries.

*Done*  Press the *Done* key to return to the View Log Entries menu or the *Setup* key to exit Setup Mode.

## Clearing Logs

⬆  Select CLEAR to remove all entries from the error log.

*Done*  Press the *Done* key to return to the Administration Options menu or the *Setup* key to exit Setup Mode.

The Parameter Download log is re-written each time a new download is performed.

# User Options

The following personal preference options can be changed from the User Options menu:

- Time and Date
- Speed Dial Keys
- Call Directory
- Personal Ringing
- Call Preference

- Handset/Headset Mode
- Preset Volume Levels
- Display Contrast
- Call Log Password

## User Options Menu

You can enter the User Options menu when the phone is idle or during an active call.

`Setup`    Press the *Setup* key.

```
        SETUP  MENU
INSTL ADMIN   USER
```

`▲`    Select USER.

```
USER OPTIONS            →
CLOCK SPDIAL   DIR  RING
```

`More▶`    When → appears in the top line of the display, you can press the *More▶* key to see additional menu selections.

```
USER OPTIONS            →
PREF VOICE DISPLY PASSWD
```

*Note*:  The PREF option is only available with National ISDN.

# Setting the Time and Date

⬆️  From the User Options menu, select CLOCK.
(***Setup*** → USER → CLOCK)

The current time and date will be displayed, with the cursor flashing on the first digit.

```
04-27-01 11:16AM
←BKSP          AM/PM
```

**5** ᴶᴷᴸ  Enter new digits for the date and time with the dial pad. The cursor will advance automatically as each digit is entered.

Time must be entered in 12-hour format. AM/PM is changed with a softkey.

*If you need to make corrections, select ←BKSP (backspace) to move the cursor to the left.*

*The **More**▶ key moves the cursor to the right.*

Done  When all changes have been made, press the ***Done*** key to return to the User Options menu or the ***Setup*** key to exit Setup Mode.

> If a network time server is available, the clock will be set during telephone initialization or restoration of power and updated once an hour.

# Setting Up Speed Dial Keys

**Speed Dial** keys facilitate dialing for voice mail, auto attendant and similar applications. Pressing a Speed Dial key with no active call will originate a call on an idle call appearance and dial the selected number. If a Speed Dial key is pressed while connected on an active call, the speed dial number is dialed on that call. Speed dialing can be used in conjunction with manual dialing. Any unused multifunction key can be designated as a Speed Dial key. Speed Dial keys can also include network feature activator codes – this feature is explained on page 37.

Speed Dial keys can be programmed with up to 24 digits including 0-9, #, * and "Pause". The keys must be programmed at the terminal; they are not set by a Parameter Download.

To add or change DSS keys, use the KEYS option in the Installation Options menu (see page 36).

## Speed Dial Programming

▲    From the User Options menu, select SPDIAL.
(*Setup* → USER → SPDIAL)

The current state of each multifunction key is shown by its status indicator.

> **Green** – unused key, available for speed dial use.
> **Red** – Speed Dial key that has already been programmed.
> **Off** – key set up for a call appearance, feature activator, or DSS.

▯    Press a lit key to program it for speed dialing.

The selected key's indicator will alternately flash red and green.

The currently programmed dial string, if any, will be shown in the display.
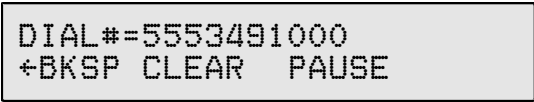
```
DIAL#=5553491000
←BKSP CLEAR  PAUSE
```

*JKL* **5**    Enter digits (24 maximum) with the dial pad.

*Done*    When all digits have been entered, press the *Done* key to return to key selection or the *Setup* key to exit Setup Mode.

*If you need to make corrections while entering numbers, select ←BKSP (backspace) to delete the previous digit.*

CLEAR *removes all digits, allowing you to start over. A Speed Dial key will revert to 'Unused' if saved with a cleared dial string.*

### Pauses

The first pause in a dial string will wait until the call is answered; additional pauses delay dialing for one second. Enter multiple pauses to increase the delay time. Pauses are entered with the PAUSE softkey, and are shown in the display as a **P** character.

# Setting Up the Call Directory _____

Up to 36 numbers can be stored in the Call Directory. Directory entries are similar to Speed Dial keys, but are accessed from a display menu. Place your most frequently-dialed numbers on Speed Dial keys, if available, and put other numbers in the directory.

Directory entries are displayed on nine screen pages, with four entries per page. The current directory page number (1-9) will be shown at the upper right corner of the display.

▲     From the User Options menu, select DIR.
    (***Setup*** → USER → DIR)

*JKL* **5** / **More▶**     Select a directory page by pressing a dial pad key (1-9), or press the ***More▶*** key to cycle through the nine pages until the desired page is displayed.

▲     Select a directory entry by pressing the softkey below the name display.

You can edit an existing entry, or add a new one by pressing a softkey below a blank entry.

```
SELECT A SOFTKEY   PAGE1→
Jim G  Home
```
▲

*JKL* **5**     Using the dial pad, enter a name (5 characters max.) to identify the directory entry. Press the dial pad key repeatedly until the desired upper case letter, lower case letter, or number appears in the display. For example, to enter the letter 'L', press the ***5*** key 3 times. Spaces and punctuation can be entered with the **#** and **✳** keys.

Press the ***More▶*** key to move to the next character.

*If you need to make corrections while entering the name, select ←BKSP (backspace) to delete the current character and move back to the previous one.*

```
DIRECTORY NAME:Steve
←BKSP CLEAR  MOVE NUMBER
```

▲     Select NUMBER.

*JKL 5*     Enter the number to dial with the dial pad. Dialing pauses are entered with the PAUSE softkey – see page 59.

*If you need to make corrections while entering numbers, select ←BKSP (backspace) to delete the previous digit.*

CLEAR *removes all digits, allowing you to start over.*

```
DIAL#=3491212
←BKSP CLEAR  PAUSE NAME
```

*Done*     When all digits have been entered, press the *Done* key to return to the Select A Softkey menu or the *Setup* key to exit Setup Mode.

```
SELECT A SOFTKEY  PAGE1→
Jim G  Home Steve
```

## Moving a Directory Entry

▲     Select MOVE from the Name screen if you want to move a directory entry to a new location.

```
PICK NEW SOFTKEY  PAGE1→
Jim G  Home Steve
```
                           ▲

▲     Press the softkey for the new location; select a new page first with the dial pad or the *More▶* key if moving to a different directory page.

## Deleting a Directory Entry

▲     Select CLEAR from the Name screen to delete a directory entry. The entry's name and number will be deleted immediately.

# Personal Ringing Options ────────────

## Ringing Tone

Your telephone has eight distinct ringing tones available. In environments with multiple terminals, unique ringing tones can help identify ringing stations. The selected ringing tone is used for all call appearances.

▲  From the User Options menu, select RING.
(***Setup*** → USER → RING)

▲  Select the TONE option.

```
RINGING TONE=5
USE KEYPAD KEYS 1-8
```

JKL
5  Press a dial pad key (1-8) to select a ringing tone and hear a sample of the tone.

Done  When you have chosen a ringing tone, press the ***Done*** key to return to the Personal Ringing menu or the ***Setup*** key to exit Setup Mode.

## Off-Hook Ringing Options

Incoming calls ring at a muted volume level when you are off-hook on another call. You can select normal ringing or a single burst of the ringing pattern.

▲  From the User Options menu, select RING.
(***Setup*** → USER → RING)

▲  Select the OFFHK option.
The current off-hook ringing setting will be displayed.

```
OFFHOOK RING=SINGLE
NORMAL          SINGLE
```

▲  Select NORMAL or SINGLE to change the setting.

Done  Press the ***Done*** key to return to the Personal Ringing menu or the ***Setup*** key to exit Setup Mode.

# Ringing Control for Individual Call Appearances

You can control the audible ringing at your telephone for each call appearance.

Call appearances set to **Always** will ring immediately. Use this setting for your primary call appearances.

**Never** completely disables ringing on the call appearance. Use this selection for monitored call appearances that are normally answered elsewhere.

**Wait** delays ringing at your telephone for 2 to 7 ringing cycles (6 seconds per cycle). Use this option for backup answering on call appearances that are primarily answered on other terminals.

Calls that do not ring, due to the ringing control selection, do not display call information and are not recorded in the call log.

▲   From the User Options menu, select RING.
(*Setup* → USER → RING)

▲   Select CONTROL.
All multifunction keys that are programmed for call appearances or DSS will have a steady green indication.

▯   Press a lit key to view its current ring control setting.

```
KEY01=ALWAYS RING      ÷
ALWAYS NEVER WAIT2 WAIT3
```

```
KEY01=ALWAYS RING      ÷
WAIT4 WAIT5 WAIT6  WAIT7
```

▲   If you want to change the setting for the selected key, select ALWAYS, NEVER, or WAIT2-WAIT7.

Done   Press the *Done* key to return to the Personal Ringing menu or the *Setup* key to exit Setup Mode.

# Call Preference Options ─────────
## *(National ISDN only)*

Call Preference determines what happens when you lift the handset or press the *Spkr* key. For Lucent 5ESS Custom ISDN service, Call Preference is controlled by the network.

**RING** preference will automatically select the oldest audibly ringing call appearance; if there is no ringing call appearance, an idle one is automatically selected. Call appearances that are in an alerting state, but are not audibly ringing (refer to the Ringing Control setting above) are not selected.

**IDLE** preference always automatically selects an idle call appearance, even if another one is ringing.

**NONE** disables automatic call appearance selection; you must manually press a Call Appearance key to originate a call.

Idle call appearances are always automatically selected for transfer and conference operations, and when initiating calls with a Speed Dial, DSS, REDIAL, dial pad, or UNANS key.

Call Preference must be programmed at the terminal; it is not set by a Parameter Download.

▲    From the User Options menu, select PREF.
(*Setup* → USER → *More* ▶ → PREF)

```
CALL PREFERENCE=RINGING
 RING   IDLE   NONE
```

▲    Select RING, IDLE, or NONE**.**

Done    Press the *Done* key to return to the User Options menu or the *Setup* key to exit Setup Mode.

# Voice Configuration ───────────────

## Handset/Headset Mode

Select handset or headset operation with this option. Speakerphone mode and the hookswitch are disabled in headset mode; the *Spkr* key is used in place of the hookswitch.

▲     From the User Options menu, select VOICE.
       (*Setup* → USER → *More*▶ → VOICE)

```
VOICE MODE=HEADSET
 HAND  HEAD VOLUME SPKR
```

▲     Select HAND or HEAD to select handset or headset mode.

Done    Press the *Done* key to return to the User Options menu or the *Setup* key to exit Setup Mode.

## Handset/Headset Preset Volume Levels

Preset volume levels for handset and headset operation may be set to match a particular handset or headset environment, or provide higher preset volume levels for hearing impaired users. Preset speakerphone receive volume level is set when the volume is changed during a call, and is not changed between calls.

The telephone is set to preset volume levels whenever a call is originated or answered. Handset and headset receive volume levels set with the *Vol* keys are used only for the duration of a call.

This option sets preset volume levels for the current mode, handset or headset. Separate preset receive levels are stored for handset and headset modes. Transmit volume level is not adjustable for the handset.

▲     Select VOICE.
       The selected Voice Mode is shown.

```
VOICE MODE=HEADSET
 HAND  HEAD VOLUME SPKR
```

▲    Select VOLUME.

The display will show the current preset volume settings for the selected voice mode.

```
VOLUME:RCV=04 XMT=05
 RCV+   RCV-   XMT+   XMT-
```

▲    Select RCV- or RCV+ to adjust the default receive volume level.

The new setting will be shown in the display. The factory default setting is **03**.

▲    Select XMT- or XMT+ to adjust the transmit volume level (headset only).

The new setting will be shown in the display. The factory default setting of **06** is sufficient in most cases; only change this setting if required by line conditions or your headset characteristics.

Confirm that the level is properly set by placing a call to another party. If they report that your voice level is too low, increase the transmit level one step at a time. If the remote party hears an echo of their voice, reduce the level.

Done    Press the *Done* key to return to the voice mode menu or the *Setup* key to exit Setup Mode.

## Speakerphone Transmit Level

The speakerphone transmit level may be increased or decreased. The factory default setting of **04** is sufficient in most cases; only change this setting if required by line conditions.

Using the speakerphone, place a call to another party. If they report that your voice level is too low, increase the transmit level one step at a time. If the remote party hears an echo of their voice, reduce the level.

▲    After you have placed a call, select VOICE from the User Options menu (*Setup* → USER → *More* ▶ → VOICE).

▲    Select SPKR.

The display will show the current transmit level setting.

```
SPEAKERPHONE:XMT=04
 XMT+   XMT-
```

▲     Select XMT- or XMT+ to adjust the speakerphone transmit level.

The new setting will be shown in the display.

*Done*     Press the *Done* key to return to the Voice Mode menu or the *Setup* key to exit Setup Mode.

The new setting is stored for future calls when you exit Setup Mode.

# Adjusting the Display Contrast ─────────────

This setting adjusts the contrast of the display to compensate for viewing position and lighting conditions. You can also tilt the display for best visibility.

▲     From the User Options menu, select DISPLY.
(*Setup* → USER → *More* ▶ → DISPLY)

▲     Select (**-**) to lighten the display (less contrast), or (**+**) to darken the display (more contrast).

The display contrast will change, and a bar graph will show the new contrast setting.

```
CONTRAST [■■■■■    ]
  (-)     (+)
```
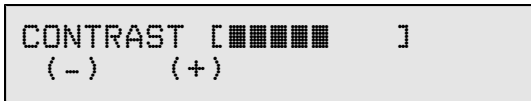
*Done*     Press the *Done* key to return to the User Options menu or the *Setup* key to exit Setup Mode.

# Setting a Call Log Password

You can set a password to prohibit unauthorized entry into your Call Log.

▲   From the User Options menu, select PASSWD.
(*Setup* → USER → *More* ▶ → PASSWD)
If a password is currently set, the display will prompt you to enter your password prior to making changes.

```
CALL LOG PASSWORD
 SET  CLEAR
```

## Creating/Changing Your Password

▲   Select SET.

```
         NEW PASSWORD:----
←BKSP
```

⌨ JKL 5   Enter a new 4-digit password with the dial pad.
*If you need to make corrections, select ←BKSP (backspace) to delete the previous digit.*

Done   Press the *Done* key.

```
VERIFY NEW PASSWORD:----
←BKSP
```

⌨ JKL 5   Repeat the password when prompted to verify the new entry.

Done   Press the *Done* key.

"PASSWORD SET" will be displayed to confirm the new password.

```
        PASSWORD SET
```

**Record your password for future reference.**

`Done`   Press the **Done** key to return to the User Options menu or the **Setup** key to exit Setup Mode.

## Removing the Password

`▲`   Select CLEAR.
"PASSWORD CLEARED" will be displayed to confirm that the password has been removed.

```
        PASSWORD CLEARED
```

`Done`   Press the **Done** key to return to User Options menu or the **Setup** key to exit Setup Mode.

## What to do if you lose your password

Contact your system administrator or call Tone Commander technical support at (800) 524-0024 in the event you misplace your password. You will need to report the serial number of your telephone to receive a new password.

You can use the RESET option (page 45) to remove all passwords. *This option will also clear all programmed numbers and settings in your phone.*

## No Network Connection

If the network connection is missing, the following display will be shown:

```
NO ETHERNET CONNECTION
```

Connect the Net jack on the phone to the LAN using a Category 5 or better cable.

## DHCP Error

If a connection to your DHCP server could not be established, the following display may be shown:

```
DHCP ERROR, RETRYING
PRESS SETUP TO CONFIGURE
```

Verify that your DHCP server is running correctly and is accessible by the phone over your network. If you are using manually-entered IP addresses, press **Setup** → INSTL → IP and enter each IP address.

## Network Error

If your phone fails to register with the iMerge server, the following display will be shown until registration is successful:

```
REGISTERING WITH iMERGE
(diagnostic messages)
```

Enter the Installation Options menu and verify your IP addresses and subnet mask (**Setup** → INSTL → **More ▶** → IP).

# IP Lease Expiration

Your phone's IP address, if obtained via DHCP (see page 25), expires after a preset timeout period. The lease for the IP address is normally renewed automatically.

If the lease expires, the following display will be shown if the phone is idle:

```
L1:OK        IP:DHCP FAIL
L3:DOWN SWITCH=UNKNOWN
```

When the lease expires the phone will attempt to negotiate a new IP address lease at preset intervals. If the same IP address is offered by the DHCP server, the phone returns to operation without restarting, otherwise the phone will restart after receiving a new IP address.

# Appendix A
# Ordering ISDN Service

## Setup Wizard

The ISDN Telephone Setup Wizard simplifies ordering ISDN service. This Windows 95/98/NT/XP program prompts you for all required information, and prints the service order forms and key designation labels. You can download the Setup Wizard from Tone Commander's Web site at **www.tonecommander.com** or call Tone Commander at **(800) 524-0024** to order the program on floppy disks.

## Ordering Manually

Your service provider may have its own process and forms for ordering ISDN service. Contact them for instructions before you create your order.

### Key Assignments

The 7210 and 7220 are compatible with all NIUF terminal packages and many other standard line configurations. If Parameter Downloading is available, the phone will automatically assign Feature Activator keys and codes to match almost any line configuration. Call appearances are always assigned in ascending order, starting with button #1. Feature activators are assigned in descending order, starting with button #10 on the 7210 or #20 on the 7220, or the last button (#40 or #50) on the 6030X.

Use the table on the following page as a guide when assigning custom feature activators and indicators.

## Where to Go for Help

If you need assistance ordering service, call Tone Commander Customer Technical Support at **(800) 524-0024**.

# Recommended Button Assignments

| Network Button # | Assignment |
|---|---|
| 1 | Call Appearance (PDN) |
| 2 | Call Appearances |
| 3 | |
| . . . | ↓ |
| . . . | ↑ |
| 58 | |
| 59 | Additional Feature Keys |
| 60 | Conference * |
| 61 | Transfer * |
| 62 | Drop * |
| 63 | Message Waiting Indicator |

**\*** National ISDN only; DO NOT assign these keys for 5ESS Custom ISDN.

With Parameter Downloading, the phone will automatically remap feature activators (other than Conference, Transfer, Drop, and Message Waiting) in descending order, starting with key 20 on the 7220 or key 10 on the 7210. For example, network feature key #59 will be assigned to key 10 on a 7210, #58 to key 9, etc.

# Appendix B
# Setup Menu Tree

**INSTL**  *(Installation Options)*

# ADMIN  (Administration Options)

# USER  *(User Options)*

# Appendix C
# Warranty and Service

## Tone Commander Product Warranty

For a period of one year from date of dealer purchase, but not to exceed 16 months from date of manufacture, Tone Commander Systems, Inc. (Tone Commander) warrants its products to be free from defects in material and workmanship under conditions of normal use and service. Tone Commander shall, at its option, repair or replace any defective product which, in its opinion, has not been misused, damaged, or improperly installed.

Repair or replacement under this warranty will be performed at Tone Commander's factory. Authorization must be obtained from Tone Commander prior to returning a product for repair. Freight must be prepaid for all units returned to Tone Commander. Units repaired under warranty will be shipped UPS Ground (or equivalent), freight prepaid by Tone Commander.

Products that are older than the warranty period, but less than 7 years old, or still manufactured by Tone Commander may be repaired at the factory for a flat rate charge. Repaired out-of-warranty units are warranted for 90 days from the date of repair.

The repair or replacement of a product under this warranty represents the entire obligation of Tone Commander; Tone Commander shall not be liable for any special or consequential damages resulting from or caused by any defect, failure, incapacity or malfunction of any of its products.

*The foregoing express warranty is in lieu of all other warranties, express or implied, including but not limited to any implied warranty of merchantability, fitness, or adequacy for any purpose or use, quality, productiveness or capacity; Tone Commander, to the extent permitted by law, hereby disclaims all such other warranties.*

# Appendix D
## Specifications

### Contents of Shipping Container

Modular handset coil-cord
Category 5 line cord
Label Sheet
Handset
Manual
Quick Reference Card

### Standards Compliance

IEEE Standard 802.3
National ISDN, Lucent 5ESS Custom ISDN
FCC Part 15
Hearing Aid Compatible
FCC Part 68 Volume Control Requirements
UL, cUL 60950

### Network Switch Compatibility

Lucent 5ESS National ISDN, Custom ISDN
Nortel DMS-100 National ISDN
Siemens EWSD National ISDN
AG Communication Systems GTD-5 National ISDN

### Power Requirements

37 to 57 VDC @ 5 W max. per terminal (excluding wiring losses)

### Physical Dimensions

8.25" W x 8.5" D x 4.75" H, including handset

### Weight

2.5 lbs.

### Environmental

Operating temperature: 32° to 104° F (0° to 40° C)
Storage temperature: 32° to 122° F (0° to 50° C)
Humidity: 5% to 95% non-condensing

# Factory Default Settings

| Parameter | Default Value (National ISDN) | Default Value (5ESS Custom ISDN) |
|---|---|---|
| **802.1Q Signal Priority** | 6 | 6 |
| **802.1Q Tagging** | Off | Off |
| **802.1Q VLAN ID** | 0000 | 0000 |
| **802.1Q Voice Priority** | 6 | 6 |
| **Alias** | None | None |
| **Auto Parameter Download** | Enabled | *N/A* |
| **CA Reservation** | Not Reserved | Not Reserved |
| **Call Log Password** | None | None |
| **Call Preference** | Ring | (Network Controlled) * |
| **Clock** | Time of the last error log entry | Time of the last error log entry |
| **Conference** | FA/FI=60 | *N/A* |
| **DHCP** | Enabled | Enabled |
| **DiffServ Data DSCP** | 46 | 46 |
| **DiffServ Voice DSCP** | 46 | 46 |
| **Display Contrast** | Level 5 | Level 5 |
| **Drop** | FA/FI=62 | *N/A* |
| **Flash Update** | Disabled | Disabled |
| **Gateway IP Address** | 0.0.0.0 | 0.0.0.0 |
| **Handset/Headset Rcv Volume** | Level 3 | Level 3 |
| **Handset/Headset Xmt Volume** | Level 6 | Level 6 |
| **iMerge IP Address** | 0.0.0.0 | 0.0.0.0 |
| **Install Menu Password** | None | None |
| **JTR G.711/10ms (ave/max)** | 20/40ms | 20/40ms |
| **JTR G.711/20ms (ave/max)** | 35/80ms | 35/80ms |
| **JTR G.711/30ms (ave/max)** | 45/90ms | 45/90ms |
| **JTR G.723/30ms (ave/max)** | 45/90ms (disabled) | 45/90ms (disabled) |
| **JTR G729A/20ms (ave/max)** | 35/80ms (disabled) | 35/80ms (disabled) |
| **Message Waiting** | FI=63 | FI=63 |

**\*** fixed setting for 5ESS Custom ISDN

*(continued on the following page)*

| Parameter | Default Value (National ISDN) | Default Value (5ESS Custom ISDN) |
|---|---|---|
| **Multifunction Keys 1-3** | CA/DN | CA/DN |
| **Multifunction Keys 4+** | Unused | Unused |
| **Off-hook Ring** | Single | Single |
| **Originating DN** | Yes, PDN | Yes, Keys 1-3 |
| **Phone IP Address** | 0.0.0.0 | 0.0.0.0 |
| **Ringer Volume** | Level 3 | Level 3 |
| **Ringing Control** | Always | Always |
| **Ringing Tone** | #5 (of 8) | #5 (of 8) |
| **SNTP IP Address** | 0.0.0.0 | 0.0.0.0 |
| **SNTP Time Offset** | 0 hours | 0 hours |
| **Speakerphone Rcv Volume** | Level 3 | Level 3 |
| **Speakerphone Xmt Volume** | Level 4 | Level 4 |
| **Subnet Mask** | 255.255.255.0 | 255.255.255.0 |
| **Telnet** | Disabled | Disabled |
| **Terminal Mode** | CACH | *N/A* |
| **TFTP Auto Update** | Enabled | Enabled |
| **TFTP IP Address** | 0.0.0.0 | 0.0.0.0 |
| **TFTP Update Time** | 3:00-4:00 AM (random time) | 3:00-4:00 AM (random time) |
| **Transfer** | FA/FI=61 | *N/A* |
| **Voice Announce Alert** | Any | Any |
| **Voice Announce DNs** | All | All |
| **Voice Announce Keys** | All Disabled | All Disabled |
| **Voice Announce Muting** | On | On |
| **Voice Mode** | Handset | Handset |

## Important Safety Instructions

1.  Never install telephone wiring during a lightning storm.

2.  Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.

3.  Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.

4.  Use caution when installing or modifying telephone lines.

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

5.  Read and understand all instructions.

6.  Follow all warnings and instructions marked on the product.

7.  Unplug the line cord before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

8.  Do not use this product near water, for example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

9.  Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

10. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.

11. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it.

12. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.

13. Never push objects of any kind into this product through any openings as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on this product.

14. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.

15. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    A. When the power supply cord or plug is damaged or frayed.

    B. If liquid has been spilled into the product.

    C. If the product has been exposed to rain or water.

    D. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

    E. If the product has been dropped or the case has been damaged.

    F. If the product exhibits a distinct change in performance.

16. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.

17. Do not use the telephone to report a gas leak in the vicinity of the leak.

# SAVE THESE INSTRUCTIONS

# FCC Requirements

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**TONE COMMANDER®**