6220-TSG-DD
ISDN Telephone
User Guide
Contents

Introduction .................................................................................................................. 1
General Features ........................................................................................................ 1
Models/Options .......................................................................................................... 1
Controls and Indicators ............................................................................................ 3

Operation ..................................................................................................................... 5
Placing a Call ............................................................................................................ 5
Answering a Call ...................................................................................................... 7
Bridging a Shared Call Appearance ......................................................................... 7
Displaying Call Appearance Information .................................................................. 8
Holding Calls ............................................................................................................ 8
Transferring Calls ................................................................................................... 9
Conferencing Calls ................................................................................................. 9
Using Network Features ......................................................................................... 11
Using the Call Log ................................................................................................... 12
Using the Call Directory ......................................................................................... 15
Muting the Microphone ......................................................................................... 16
Adjusting the Receive Volume ............................................................................. 16
Adjusting the Ringer Volume ................................................................................. 16

User Options ............................................................................................................. 17
Labeling Keys .......................................................................................................... 17
User Options Menu ................................................................................................. 17
Setting the Time and Date ..................................................................................... 18
Setting Up Multifunction Keys .............................................................................. 19
Setting Up the Call Directory ................................................................................ 25
Personal Ringing Options ....................................................................................... 27
Call Preference Options ......................................................................................... 30
Handset Configuration ............................................................................................ 31
Adjusting the Display Contrast ............................................................................ 32
Setting a Call Log Password .................................................................................. 33
<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A</td>
<td>User Options Menu Tree</td>
<td>35</td>
</tr>
<tr>
<td>Appendix B</td>
<td>Warranty and Service</td>
<td>37</td>
</tr>
<tr>
<td>Appendix C</td>
<td>UL/FCC Statements</td>
<td>38</td>
</tr>
</tbody>
</table>
Introduction

General Features

Tone Commander 6220-TSG-DD ISDN Telephones are easy to use multiline terminals with advanced automatic setup capabilities. These models have been TSG-6 certified by the National Telecommunications Security Working Group (NTSWG) to ensure on-hook security measures. In addition, the speakerphone circuitry has been removed and all automatic call origination and answering functions have been disabled. The phones do not provide voice encryption on an active call.

S/T and U interface models are available with 20 call appearances. An external NT1 Network Termination, such as Tone Commander’s NT1B-300TC, is required for S/T models. The phones support Lucent 5ESS Custom ISDN and National ISDN on a variety of network platforms.

Features of the 6220T-TSG-DD include:

- TSG-6 Certified for use in SCIF areas
- AutoSPID and Parameter Download
- Call Log
- Call Timer
- Last Number Redial
- Speed Dial
- Direct Station Select
- Call Directory
- Automatic Switch Type Detection
- Message Waiting Indication
- Flexible Ringing Options
- Ringing Control for Shared Lines
- Desktop or Wall Mounting
- Tilt Display

Models/Options

Two 6220-TSG-DD ISDN telephone models are available; they differ in the type of ISDN connection. Models are identified on the bar code/serial number label on the bottom of the phone.

The 6220T-TSG-DD model requires an external NT1 Network Termination, such as Tone Commander’s NT1B-300TC. Two S/T telephones can share a single ISDN line in a multi-point arrangement.

The 6220U-TSG-DD model includes a built-in NT1, allowing direct connection to the ISDN line without an external NT1.
Options include the **6030X Button Expansion Module**, which adds 30 multifunction keys, and the **6002TA Analog Port Terminal Adapter** for interfacing with an analog telephone device, such as an STU-III telephone.

Both models are supplied with the **TSG-DD1 Disconnect Device**, which completely disconnects the ISDN line from the phone when power is not applied.

**TSG-6 Certification Numbers**

- 6220T-TSG-DD .................. TSG-5S0605-2TC
- 6220U-TSG-DD .................. TSG-5S0605-1TC
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 (page 32).

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

3) **Call Key** – selects the Call Identification Display, Call Log, and Call Directory modes (pages 8, 12, and 15).

4) **Setup Key** – enters Setup Mode (page 17).

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 Waiting Indicator** – a bright red indicator is lit when messages are waiting, controlled by the network (page 11).

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. The optional 6030X Button Expansion Module provides 30 additional multifunction keys.

<table>
<thead>
<tr>
<th>Call Appearance State</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idle</td>
<td>OFF</td>
</tr>
<tr>
<td>Call Ringing</td>
<td>Green – flashing</td>
</tr>
<tr>
<td>In Use by You</td>
<td>Green – on steady</td>
</tr>
<tr>
<td>On Hold by You</td>
<td>Green – winking</td>
</tr>
<tr>
<td>In Use at Another Terminal or an Activated Feature</td>
<td>Red – on steady</td>
</tr>
<tr>
<td>On Hold at Another Terminal</td>
<td>Red – winking</td>
</tr>
</tbody>
</table>

9) **Vol (Volume) Keys** – adjust the receiver volume when on a call; adjust the ringer volume when on-hook (page 16).

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

11) **Spkr (Speaker) Key** – disabled.

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

13) **Tran (Transfer) Key** – places the current call on hold, and selects an idle call appearance for transferring the call. A second press completes a transfer (page 9).

14) **Conf (Conference) Key** – adds other parties to a conference call (page 9).

15) **Drop Key** – removes the last party added to a conference call, or disconnects you from a call and returns new dial tone when not in conference mode (page 10).

16) **Hold Key** – places a call on hold (page 8).

17) **Handset Jack** – a jack on the side of the telephone connects to the handset.
Operation

Placing a Call

Selecting a Call Appearance

If the Call Preference option (page 30) is set to *Idle* or *Ringing*, your telephone will automatically select an idle call appearance when you go off-hook, if the phone is not ringing.

**Automatic Call Appearance Selection**

Lift the handset to select an idle call appearance.

**Manual Call Appearance Selection**

Press an idle (unlit) call appearance key.

Dialing

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.

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.
Dialing from the Call Log — refer to page 12.

Dialing from the Call Directory — refer to page 15.

Using Speed Dial Keys

Speed Dial keys automatically dial a series of up to 24 digits when pressed, if you are off-hook on an idle line. 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 22.

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.

Lift the handset to answer the ringing call shown in the display.

Call Preference

If the Call Preference option (page 30) is set to Ringing, your telephone will automatically answer the ringing call shown in the display when you lift the handset.

Ringing Control

The Ringing Control option (page 29) 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.

Lift the handset.

Press the busy (red) Call Appearance key for the call you want to bridge.

The call duration timer begins when you are connected to the call.

To disconnect from the call, replace the handset. The other parties will remain connected.
Displaying Call Appearance Information

Press the Call key.

Select ID (Shortcut – you can skip this step and immediately press Call Appearance keys).

Press Call Appearance keys.
Network call information will be displayed for currently active keys.
"NO CALL INFORMATION" and the assigned directory number, if available, will be displayed for idle keys.

Press the Call or Done key when finished.

Holding Calls

Press the Hold key or another Call Appearance key to place the currently connected call on hold.
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.

Press the **Tran** key while in an active call.

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).

Dial the party you want to transfer the call to with the dial pad or a Speed Dial key.

Wait until the called party answers to announce the call, or transfer it immediately before the called party answers.

Press the **Tran** key again to complete the transfer.

DSS Transfer

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

Press the DSS key for the destination party.

Press the **Tran** key to complete the transfer.

Conferencing Calls

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

Conferencing a New Call

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.

Dial the party you wish to add to the conference.

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

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.

Press the **Conf** key to conference all parties together.
Repeat the above steps to add another party.

Dropping the Last Party

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

Terminating a Conference

Replace the handset 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 Waiting Indicator on your telephone when you have a voice mail message. Voice mail services are provided by your telephone company; consult your service provider for the access number and operation instructions.
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

Press the Call key. Select LOG.

A password may be set to prevent unauthorized entry into your call log. When prompted for a password, enter your password with the dial pad. Press the Done key after entering the password.

To change or remove the password, please refer to page 33.

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
```

*Note:* DIAL is displayed only when off-hook.

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
*(Does not work when on-hook)*

Lift the handset to go off-hook.

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

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

```
9 1 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

(Does not work when on-hook)

Lift the handset to go off-hook.

Press the Call key.

Select DIR (Shortcut – you can skip this step and press a dial pad key to select a directory page).

Press the More key to cycle through the nine pages until the desired page is displayed.

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.

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

To add or change directory entries, see page 25.
Muting the Microphone

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

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.

Adjusting the Receive Volume

The Vol↑ and Vol↓ keys adjust the receive volume level for the handset while you are on a call.

The telephone stores preset volume settings for the handset. Volume settings return to the programmed preset levels after a call is completed. See page 31 to change the preset values.

Adjusting the Ringer Volume

The Vol↑ and Vol↓ keys adjust the ringer volume while you are not 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 not on a call to enable the ringer.

RINGER OFF (VOL^ = ON)

REDIAL
User Options

Labeling Keys

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.

The ISDN Telephone Setup Wizard for Windows can be downloaded from [www.tonecommander.com](http://www.tonecommander.com). This program prints key labels and service ordering forms. A Microsoft Word template for key labels only is also available. 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.

User Options Menu

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

- Time and Date
- DSS and Speed Dial Keys
- Call Directory
- Personal Ringing
- Call Preference
- Preset Volume Level
- Display Contrast
- Call Log Password

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

Press the **Setup** key.
Select USER.

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

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

For a list of all selections available from the User Options menu, see the User Options Menu Tree (page 35).

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.

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.

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

From the User Options menu, you can set up Speed Dial and DSS keys, and enable call origination for Feature Activator keys.

*Call Appearance and Feature Activator keys must be assigned by a parameter download or from the Installation Options menu.*

From the User Options menu, select KEYS.

(Setup → USER → 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 Button Expansion Module, press the multifunction key to be programmed.

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

The following key settings can be changed from the User Options menu:

- **Call Appearance/DSS** – select CA/DN or Direct Station Selection mode, enter a dialing string for DSS.

- **Feature Activator** – add a CALL option to originate a call when sending the Feature Activator code.

- **Speed Dial** – enter a dialing string for one-button speed dialing.

Programming procedures for each key type are described below.
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).

The Call Appearance number, key mode (CA or DSS), and Directory Number will be shown in the top line of the display. If the key is not currently set up as a DSS key, the DSS softkey option will appear.

Select DSS to enable the DSS option on this CA/DN key. You can change the key back to standard CA/DN operation (no DSS) by selecting CA/DN.

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.*
“Smart” Pauses

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 delay dialing until the call is answered; additional pauses delay dialing for one second. Enter multiple pauses to increase the delay time.

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

Feature Activator Keys

Feature Activator keys must be assigned by your telephone installer. You can change the call origination feature from the User Options menu.

The CALL feature is not used with Lucent 5ESS Custom ISDN and Avaya Definity Custom ISDN.

```
10=NETWORK FA#59 (CALL) 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.

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.

Press the Done key twice to return to the key selection menu.
Speed Dial Keys

**Speed Dial** keys facilitate dialing for voice mail, auto attendant and similar applications. Pressing a Speed Dial key while on an idle line will 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.

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.

Dialing strings can include network feature activator codes, to simplify the use of features such as Directed Call Pickup and Call Forwarding.

Enter digits (24 maximum) with the dial pad.

After entering the first digit, pause, or feature activator, the FA softkey will be replaced by CLEAR.

If you need to make corrections while entering numbers, select \( \leftarrow \text{BKSP} \) (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.

**“Smart” Pauses**

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 delay dialing until the call is answered; additional pauses delay dialing for one second. Enter multiple pauses to increase the delay time.
Feature Activator Codes

Feature activator codes are assigned by your network service provider. Consult with your network service provider for the required codes.

Feature Activator (FA) numbers are entered with the FA softkey, and are shown in the display as an F character. F 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.

After entering F, the FA softkey will be replaced by CLEAR. In the example below, the Speed Dial key sends feature code ‘57’ (Call Forward) followed by the directory number ‘987-1234’.

When all digits have been entered, press the Done key to return to the key selection menu.
Unused Keys

Any Speed Dial key can be changed to an Unused key by clearing the dialing string.

Any Unused key can be changed to a Speed Dial key by adding a dialing string – see page 22.

Select CLEAR to remove the dialing string. The key is converted to an Unused key.

Press the Done key to return to the key selection menu.
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)

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.

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.

After a short delay, the flashing cursor will advance to the next character. Press the More key if you want to manually 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.
Select NUMBER.

Enter the number to dial with the dial pad. Dialing pauses are entered with the PAUSE softkey – see page 22.

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.

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

Moving a Directory Entry

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

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. A single unique ringing tone can be assigned to each terminal, or individual unique ringing tones can be assigned to each call appearance. In office environments with multiple terminals, unique ringing tones for each terminal can help identify ringing stations. Individual unique ringing tones for each call appearance are useful for vision-impaired users, or for users that handle call answering for multiple clients.

From the User Options menu, select RING.

(Setup → USER → RING)

Select the TONE option.

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

‘ALL KEYS’ will be shown in the top line of the display if all keys are currently set to use the same ringing tone.

If individual call appearances are using unique ringing tones, the setting for the first call appearance key will be shown in the top line, and the call appearance key’s indicator will alternately flash red and green.

To use the same ringing tone for all call appearance keys, select ALL (if shown in the display), then press a dial pad key (1-8) to select a ringing tone and hear a sample of the tone.
To use individual ringing tones, press a lit call appearance key, then press a dial pad key (1-8) to select a ringing tone for the call appearance and hear a sample of the tone. Repeat for other call appearance keys.

<table>
<thead>
<tr>
<th>RINGING TONE=4     KEY02</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEYPAD 1-8 OR       ALL</td>
</tr>
</tbody>
</table>

When finished, press the Done key to return to the Personal Ringing menu or press 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.

<table>
<thead>
<tr>
<th>OFFHOOK RING=SINGLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORMAL SINGLE</td>
</tr>
</tbody>
</table>

▲ Select NORMAL or SINGLE to change the setting.

Press the Done key to return to the Personal Ringing menu or press 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.

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

Press the Done key to return to the Personal Ringing menu or press the Setup key to exit Setup Mode.
Call Preference Options

(National ISDN only)

Call Preference determines what happens when you lift the handset. 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.

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.

Press the Done key to return to the User Options menu or press the Setup key to exit Setup Mode.
Handset Configuration

Preset Volume Levels

The preset handset receive volume level may be set to provide higher preset levels for hearing impaired users. The telephone is reset to preset volume levels whenever a call is originated or answered. Receiver volume levels set with the Vol keys are used only for the duration of a call.

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

**VOICE MODE=HANDSET VOLUME**

Select VOLUME.  
The display will show the current preset volume settings.

**VOLUME:RCV=04**
**RCV+ RCV-**

Select RCV- or RCV+ to adjust the receiver volume level.  
The new setting will be shown in the display.
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.

Press the Done key to return to the User Options menu or press 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.

Creating/Changing Your Password

Select SET.

Enter a new 4 to 11 digit password with the dial pad.
*If you need to make corrections, select ←BKSP (backspace) to delete the previous digit.*

Press the **Done** key.

Repeat the password when prompted to verify the new entry.
Press the Done key.

“PASSWORD SET” will be displayed to confirm the new password.

Record your password for future reference.

Press the Done key to return to the User Options menu or press 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.

Press the Done key to return to User Options menu or press 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.

Your telephone installer or system administrator can use the RESET option in the Installation Options menu to remove all passwords. The Installation Options menu may be password protected. This option will clear all programmed numbers and settings in your phone.
Appendix A
User Options Menu Tree

USER (User Options)

CLOCK (Set Time and Date) ........................................ page 18

KEYS ........................................................................ page 19

CA/DN Keys:
   DSS (Direct Station Select) .................................... page 20
   DSS# (Enter/Edit DSS Dialing String)
   CLEAR (Remove Dialing String)
   PAUSE (Dialing Pause)

CA/DN (No DSS)

Feature Activator Keys: ............................................. page 21

CALL (Originate a Call – National ISDN only)

Speed Dial Keys: .................................................. page 22
   PAUSE (Dialing Pause)
   FA (Feature Activator)
   CLEAR (Remove Dialing String)

Unused Keys ......................................................... page 24

DIR (Call Directory) .................................................. page 25

RING (Personal Ringing) ............................................. page 27
   TONE (Ringing Tone) ............................................. page 27
      ALL (All Keys use the same Ringing Tone)
   OFFHK (Off-Hook Ringing) .................................. page 28
      NORMAL
      SINGLE (Single Burst)

CONTROL (Ringing Control) ...................................... page 29
   ALWAYS (Ring Immediately)
   NEVER (Never Ring)
   WAIT2 (Wait 2 Ring Cycles / 12 seconds)
   WAIT3 (Wait 3 Ring Cycles / 18 seconds)
   WAIT4 (Wait 4 Ring Cycles / 24 seconds)
   WAIT5 (Wait 5 Ring Cycles / 30 seconds)
   WAIT6 (Wait 6 Ring Cycles / 36 seconds)
   WAIT7 (Wait 7 Ring Cycles / 42 seconds)
PREF  (Off-hook Call Preference – National ISDN only)  page 30
RING  (Answer Ringing Call)
IDLE  (Select Idle Call Appearance)
NONE  (Manual Call Appearance Selection)

VOICE  (Voice Mode) ............................................................... page 31

VOLUME
  RCV+-  (Receive Volume Up/Down)

DISPLY  (Display Contrast) .................................................... page 32
  +  (Increase Contrast)
  -  (Decrease Contrast)

PASSWD  (Call Log Password) .................................................. page 33
  SET, CLEAR
Appendix B
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.*
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

The Tone Commander Models 6220T-TSG-DD and 6220U-TSG-DD comply with Part 68 of the FCC Rules. The label affixed to this equipment contains, among other information, the FCC Registration for this equipment. You must, upon request, provide this information to your telephone company.

The following jacks must be ordered from the telephone company in order to interconnect this product with the public communication network: RJ49C.

If your 6220T-TSG-DD or 6220U-TSG-DD causes harm to the telephone network, the Telephone Company may discontinue your service temporarily, if possible, they will notify you in advance. But if advance notice is not practical you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

The 6220T-TSG-DD and 6220U-TSG-DD are hearing-aid compatible (HAC) per Section 68.316, FCC Rules and Regulations.

If you have trouble with the 6220T-TSG-DD or 6220U-TSG-DD, please refer to the Troubleshooting section in this manual, or contact us at the address listed on the back of this manual for information on obtaining service or repairs. The telephone company may ask that you disconnect the telephone from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

NOTE: 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.