TELEX

RADIO DISPATCH PRODUCTS

C-6200
Radio Control Console
Technical Manual

up to and including version 4.100

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CHAPTER 1

Introduction

The C-6200 is an 18-line communications control console that brings radio and telephone resources to dispatch operator's fingertips. It offers access to communication resources through traditional local, tone remote, and phone connections, as well as an IP network connection.

The C-6200 offers access to local devices (radio and telephone), as well as tone remote access to radio, with installed line cards. Two (2) types of line cards are available: the 6200**TCRD** (tone card) and the 6200**PCRD** (phone card).

The 6200TCRD offers local or tone remote control of two (2) radio devices with 2- or 4-wire tone or local relay control, audio crossmute and squelch control to eliminate unwanted noise, and recorder output.

Where available, the 6200PCRD supports two (2) line connections to **PSTN** (Public Switched Telephone Networks), offering per line relay closure, and recorder output.

The C-6200 can also be used without line cards as an IP console, with access to radio/telephone resources distributed over IP networks over a connection to a Telex IP-223 Remote Adapter Panel.

The C-6200 offers a gateway between the two (2) prevalent models for communication resources access. The conventional local and tone remote and the emerging IP remote. Not only can the C-6200 access resources remotely across an IP network, but its local assets can be accessed by other Telex dispatch consoles through the IP network.

Operators can control incoming selected, and unselected audio levels on a per line basis. For comfort and convenience, a choice of desk microphone, gooseneck microphone, handset, and headset are available.

The C-6200 design is based around an **ARM** (Advanced RISC Machine) processor[1] and a **DSP** (Digital Signal Processor), which allows field programmability using a web browser. Unlike other manufacturer's equipment, no additional software is required to program the C-6200 console. Modifications and enhancements can generally be made with a software change only.

1. *ARM is the industry's leading provider of 32-bit embedded RISC microprocessors. Due to their power saving features, ARM CPUs are dominant in the mobile electronics market, where low power consumption is a critical design goal.*

Features

- Half- or Full-Duplex Per Line
- Programmable Per Line Squelch Control
- Four Programmable Alert Tones
- 4 x 40 (4 lines, 40 characters) LCD Display
- TX Microphone Notch Filter
- Instant Recall Recorder
- Crosspatch
- Paging
- Web Browser Configuration
- Automatic Initial Settings
- Per Line Radio Scan Control
- RX and TX Block
- RX and TX All
- Select Call
- Group Select
- DTMF Keypad
- 5/6 Tone
- Serial/OTA FleetSync
- Phone, iDEN, and FleetSync ANI
- MDC ANI Display (IP-223)
- Clock and VU Meter
- Summed Audio Recorder Output
- Phone Line Control
- Timed Mute Unselected Audio
- Four Auxiliary Relays
- Parallel Update

Optional Hardware

Item	Model Number	Part Number
Handset with Cradle	HS-6200	HS-6200
HB-3 Plus Adapter (US)	HB-3 Plus Adapter (US)	301886001
HB-3 Plus Adapter (EU)	HB-3 Plus Adapter (EU)	301886002
HB-3 Plus Adapter (UK)	HB-3 Plus Adapter (UK	301886003
Gooseneck Microphone	GNM-18	GNM-18
Dispatcher Headset - MONO*	DH2000	302070100
Dispatcher Headset - Dual Sided MONO*	DH2200	302070200
ANR Dispatcher Headset - MONO*	DH3000	PRD000021000
ANR Dispatcher Headset - Dual Sided MONO*	DH3200	PRD000021100
Lower Cord, 15 ft.	LC1500	302068000
Lower Cord, 25 ft.	LC2500	302068001
Dispatch Headset - MONO	DISH-1	2490161
Desktop Microphone	MD-MS	0118022
Footswitch DPDT	FS-1	0108024

NOTE: All headsets require an HB-3+ Headset Adapter Panel. See the HB-3+ technical manual (PN 804138) for connection and configuration details.

* A lower cord is required to operate these headset tops.

Hardware Overview

The C-6200 is a multi-line, multi-mode console designed specifically for mid-level dispatch requirements. All functions are housed in a single console and consist of the following subassemblies:

- C-6200 Backplane Board, see drawing “C-6200 Backplane PCB Topsilk” on page 226.
- C-6200 Mainboard, drawing not included.
- C-6200 Keypad/Display Board, drawing not included.

Mainboard PCB

The **Mainboard PCB** contains two (2) distinct sections, the Ethernet circuitry and the signal processing circuitry.

Ethernet Circuitry

The **Ethernet Circuitry**, consists of an **ARM**[2] processor with an Ethernet **MAC**[3] (Media Access Control) Address, connected to the physical **NIC** (Network Interface Card) card and transformer. Various peripheral devices, including **FLASH** (non-volatile memory that can be electrically erased and reprogrammed) and **SDRAM** (Synchronous Dynamic Random Access Memory) are located around the ARM processor. This section controls all Ethernet processing, such as the web browser configuration and packet transfer for the C-6200.

Signal Processing Circuitry

The **Signal Processing Circuitry**, with DSP (TMS320VC5510), is used to process all audio for each of the 18 Full-Duplex lines, plus four (4) additional lines of user I/O audio. The DSP is a microprocessor designed to work with analog signals such as digitally encoded video or audio. The DSP controls all the keypad and device I/O, as well as the LED and display drivers. It includes **SRAM** (Static Random Access Memory) and SDRAM for the audio playback feature. The DSP is connected to the backplane by two (2) 20-pin connectors.

Keypad PCB and Backplane PCB

The **Keypad PCB** board is interfaced to the **Backplane PCB** via a 20-pin ICD ribbon cable, The Backplane PCB contains the circuitry to drive the 152 LEDs, decode the keypad matrix, and interface the DSP to the display.

Display

The **Display** is mounted to the chassis cover with four (4) screws and connected to the Keypad PCB with a 14-pin IDC ribbon cable.

Line Cards

Two (2) different line cards are available for console configuration: 6200TCRD tone card or 6200PCRD phone card. Each card supports two (2) analog lines.

The **6200TCRD Tone Card** provides tone or local radio control using either the standard tone control format or local control relay closure. The line card may be hardware configured for either 2-wire or 4-wire operation and may be factory modified to accommodate non-industry standard tone control formats if desired; this is usually a software only change.

The **6200PCRD Phone card** provides communication with up to two (2) standard analog phone lines. The phone line can be shared through the IP network, see “Network Phone Configuration” on page 101.

2. *The PHY (physical layer of the **OSI** (Open System Interconnection) and ARM combination controls Ethernet processing such as the web browser configuration and packet transfer.*
3. *The MAC Address uniquely identifies each node of a network and interfaces directly with the network media.*

Controls and Indicators

C-6200 Console Front Panel

The **C-6200 Console Front Panel**, shown in Figure 1 and Figure 3, features the user interface, a gooseneck microphone jack, speakers, volume control, intercom and monitor functions, panel PTT with indicator, paging, per line selection, mute, and InPTT. There is a **DTMF** (Dual Tone Multi-Frequency) keypad, along with supervisory, scan, menu, and functions tone buttons. The eight (8) softkeys below the display are used to select menus and options.

Common Controls and Indicators

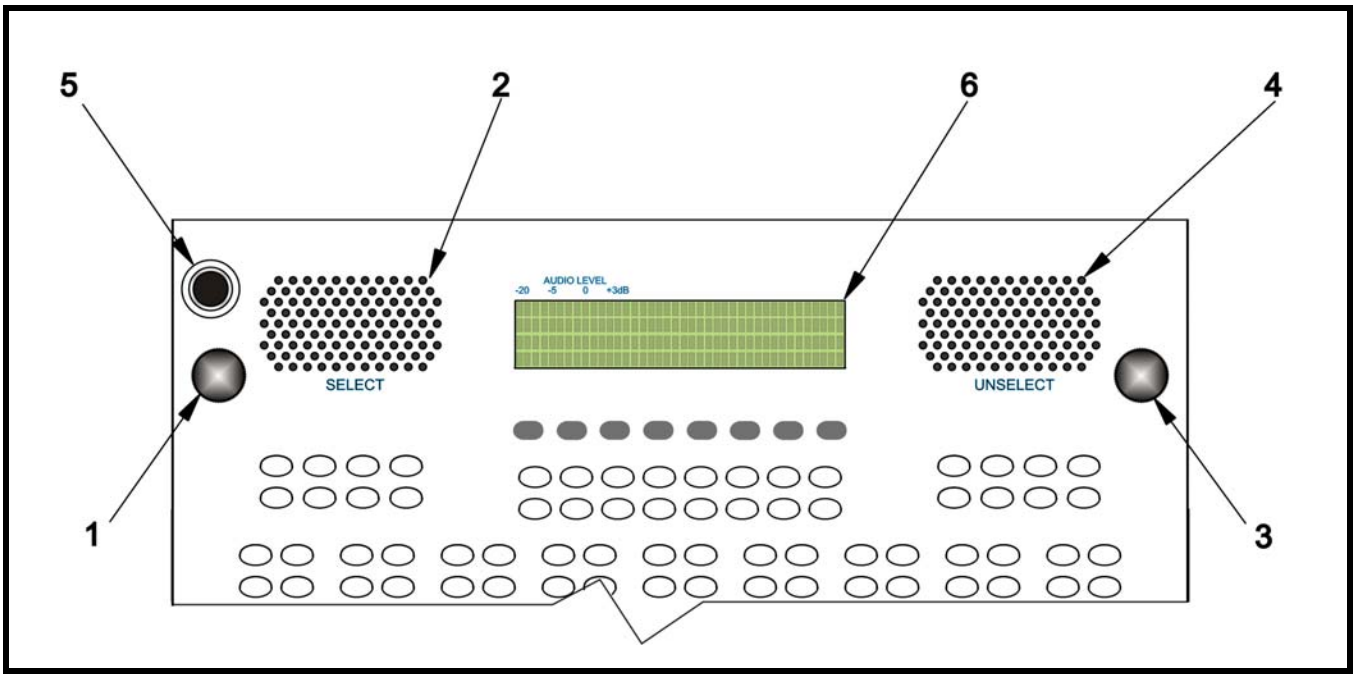


FIGURE 1. C-6200 Console Front Panel—Knobs, Speaker and Display

The numbers in the drawing correspond to the numbered list below:

1. **Volume Control Knob - Select**: Use this volume control knob to adjust the select speaker's audio level.
2. **Speaker - Select**: The speaker plays sidetone audio and audio from the selected line.
3. **Volume Control Knob - Unselect**: Use this volume control knob to adjust the unselect speaker's audio level.
4. **Speaker - Unselect -** The speaker plays crosspatch audio and audio from unselected lines.
5. **Microphone Connection -** A Telex GNM-18 gooseneck microphone may be installed for operation.

6. **Console Display -** Displays the following items:

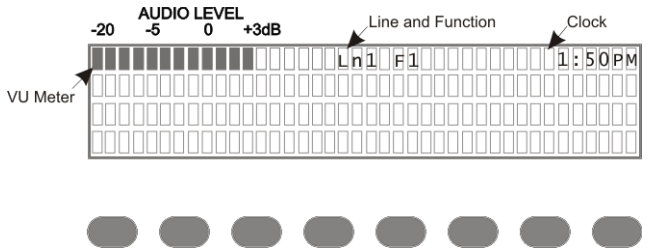


FIGURE 2. Console Display Features

VU Meter - The **VU** (Volume Unit) meter is designed to visually display the audio signal when present. The VU meter displays selected receive and microphone audio levels.

The range for this field is *-20dBm to +3dBm*.

Line and Function - The line number and function appear when a line is selected. *No SEL* appears when no line is selected. TX ALL appears when TxALL is active. Manual appears when the GRP button is active. The corresponding group label appears when G1–G3 are active.

Clock - The clock can be configured to display in either 12- or 24-hour notation. The time appears in the upper right corner of the console display.

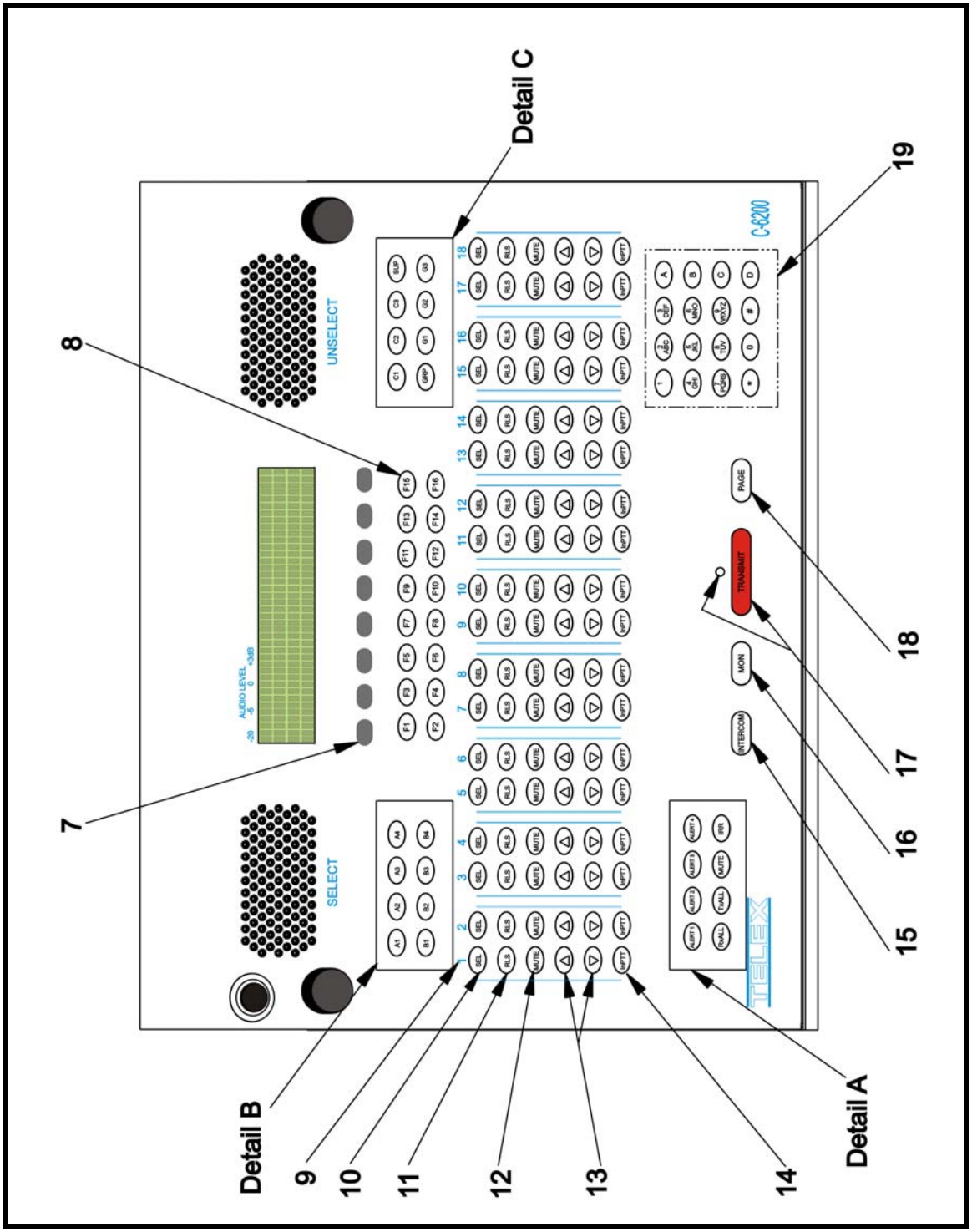


FIGURE 3. C-6200 Console Front Panel—Buttons

7. **Softkeys (1–8) -** Use the softkey buttons for initial unit programming and for access to user defined console functions. Once a menu is accessed, the function is indicated on the LCD directly above each softkey. These buttons are not backlit.
8. **Function Tone Buttons (F1–F16) -** Use the Function Tone buttons to change function tones. When a function tone is selected, the button is continuously red.
9. **Line (1–18) Labels -** There are 18 lines to choose from. Each line is labeled above the line selection buttons. The six (6) buttons available for each line are arranged below the line number.

10. **SEL Buttons -** Use the SEL (select) buttons to activate the selected line (1–18) to transmit and receive audio.
    - When a line is selected, the button is continuously green.
    - When an incoming call is received on a phone line, the button blinks green.
    - When a phone line is offhook, the button is continuously green.
    - When a phone line is on hold, the button blinks green.
    - When a line receives a Select call, the button blinks red.
    - When a line is in crosspatch, the button is continuously red.

11. **RLS Buttons -** Use the RLS (release) buttons to release a selected line from select mode or to generate a flash-hook when the selected line is a phone line.
    - When a line is receiving audio, the button blinks green.
    - When TX detect is active on the line, the button is continuously green.
    - When a TX block is occurring, the button is continuously red.
    - When a parallel console's crossmute is active, the button is continuously red.
    - When pressed for a phone hookflash or disengaging a phone call, the button is continuously red.
12. **MUTE Buttons -** Use the MUTE buttons to stop monitoring audio received through the unselected speaker for the line.
    - When MUTE is active, the button is continuously orange.
    - When momentary mute is active, the button blinks orange.
    - When RX block is active on the line, the button blinks orange.
13. **Volume Control (▲ & ▼) Buttons -** Use the ▲ and ▼ buttons to adjust the speaker and handset audio level. When adjusting the level up or down, the console display shows the selected level. These buttons are not backlit.

    NOTE: The volume remains at the last setting for each line until the console is reset.

    NOTE: A minimum volume level can be set in the web browser configuration window so the console operator cannot change the line volume to zero (0).
14. **InPTT Button -** Use the **InPTT** (Instant Push-To-Talk) buttons to immediately transmit on the specific line whether or not the line is selected. This allows the console operator to respond on a single line without having to reset a group.
    - When pressed the button is active and the InPTT button is continuously red.
    - When an Ethernet intercom is active, the button blinks red.
    - When a phone card is configured on the line but no POTS line is connected, the button remains continuously red.
15. **INTERCOM Button -** Use the INTERCOM button, on the selected line, to transmit audio without keying the radio. This is useful for communication between parallel consoles.
16. **MON Button -** Use the MON button to send out a monitor packet burst to the selected line. The MON button lights while the button is pressed.
17. **TRANSMIT Button and LED -** Use the TRANSMIT button to transmit audio from the console to all selected lines. The guard-function-hold tone sequence[4] is sent out on the line card if they are enabled in the configuration webpages–not local mode. When pressed, transmit audio is sent on the IP network. When active, the TRANSMIT LED lights, indicating audio is being sent.
18. **PAGE Button -** Use the PAGE button to open the paging system for sending a page to an individual or group. When active, the page button lights.

4. *A series of tones that occur when a PTT button is pressed: the guard tone is a 2175Hz, +10dBm burst, approximately 130ms long; followed by the selected function tone (F1–F16) at 0dBm (equal to voice level) for 40ms; the hold tone is a 2175Hz at -20dBm that transmits continuously, while the PTT button is pressed, to keep the line open for voice transmission.*

19. **DTMF Keypad** - Use the 16-key DTMF keypad to transmit DTMF digits and enter alphanumeric strings for various functions. The buttons send DTMF tones when pressed and are not backlit.

Detail A

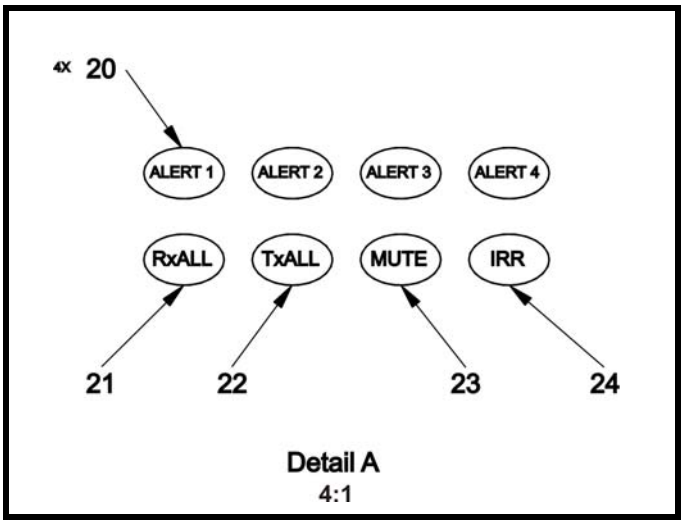


FIGURE 4. Console Front Panel—Detail A

20. **ALERT (1–4) buttons -** Use the ALERT buttons to send an alert tone to the selected line. One of three (3) possible cadences are assigned to each alert button. Cadences include: *Steady tone, Hi-Lo warble,* and *Pulsed Steady tone*. When active, the alert button lights.
21. **RxALL Button -** Use the RxALL button to unmute all lines currently muted. When active, the RxALL button lights.

    NOTE: If lines are muted with the Master Mute button, the RxALL button is disabled

22. **TxALL Button -** Use the TxALL button to select all lines to transmit on without having to select one at a time to make a group selection. When active, the TxALL button and all non-phone line's select buttons light.
23. **MUTE (Master) Button -** Use the MUTE (Master) button to mute all unselected lines at once.
24. **IRR button -** Use the **IRR** (Instant Recall Recorder) button to recall and listen to the last four (4) minutes of audio recorded for select or unselect audio held in two (2) first-in first-out buffers. The audio can be rewound or fast-forwarded in ten second increments.

Detail B

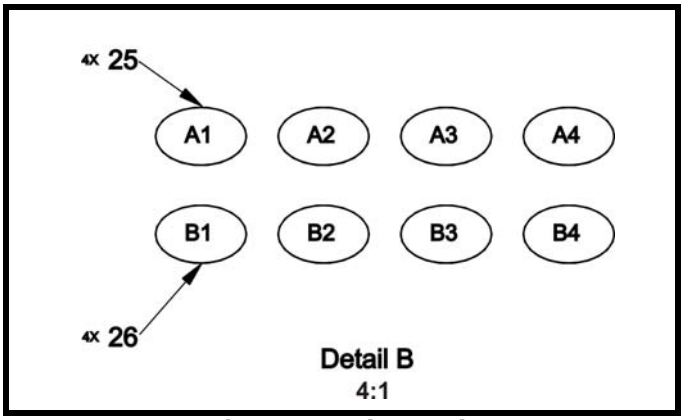


FIGURE 5. Console Front Panel—Detail B

25. **(A1–A4) Buttons -** Use the (A1–A4) buttons to activate auxiliary relays. Once pressed, the button lights and the relay is activated for a predefined amount of time as configured by the console administrator. The button light turns off when the relay is deactivated.
26. **(B1–B4) Buttons** - Use the (B1–B4) buttons to access optional user-defined menus. Once pressed, the button lights and the menu becomes available on the display. Use the softkeys to select menu options.

Detail C

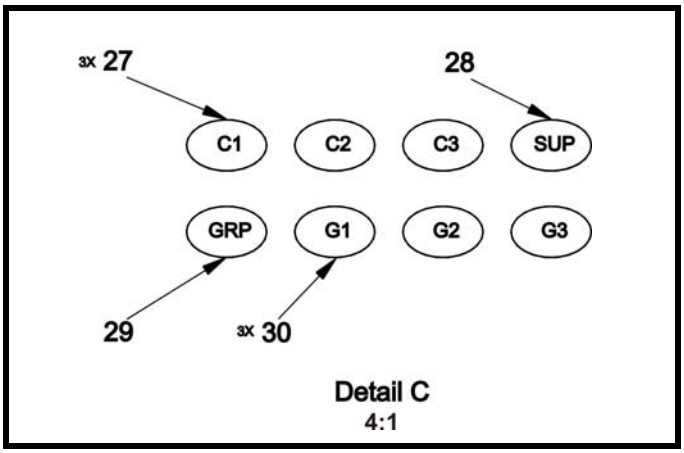


FIGURE 6. Console Front Panel—Detail C

27. **(C1–C3) Buttons** - Use the (C1–C3) buttons to open the crosspatch menu. When active, the (C1–C3) button lights and each line's SEL button for the crosspatch group also light.
28. **SUP Button -** Use the SUP button to disable all parallel consoles on a particular line by taking supervisor control. Not all consoles have supervisor capability, the SUP button is enabled per console. Once supervisor control is established the supervisor's console SUP button is lit solid. When the parallel console selects a supervised line, the SUP button blinks.
29. **GRP Button -** Use the GRP button to manually create a group of lines. When active, the GRP button lights and the console operator can begin to select lines for the desired group.
30. **(G1–G3) Buttons -** Use the (G1–G3) buttons to select a predefined group for placing calls. When active, the GRP (1–3) button lights and all line's select buttons for lines in the predetermined group light.

Back Panel Connections

The **Back Panel Connections**, shown in Figure 7 are described in the following section. See “Hardware Installation” on page 33 for installation details.

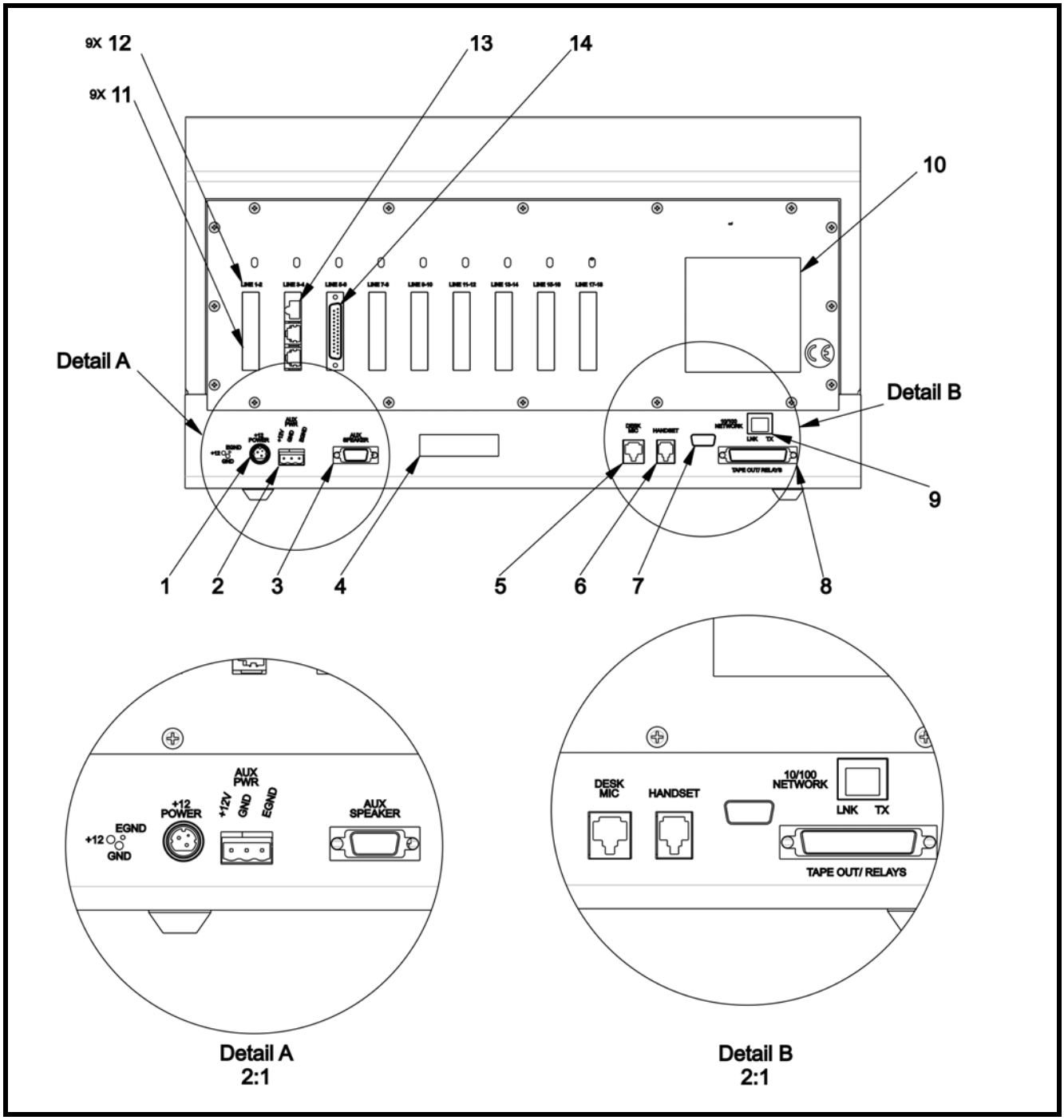


FIGURE 7. C-6200 Console Back

1. **+12 POWER Jack** - The POWER Jack is used to connect power. The power supply cord is included with the unit shipment.
2. **AUX PWR Port** - The Auxiliary Power input J18 (3-pin terminal block) is a diode protected +12V input used for battery backup. Pin EGND (Pin 3) is also connected to the chassis, allowing for earth grounding of the unit.

   CAUTION: Telex recommends the unit be tied to earth ground through the AUX power connector.

3. **AUX Speaker Port** - The auxiliary speaker port is used to connect 8 Ohm external speakers providing audio from the selected, unselected or crosspatched lines. The connector also provides footswitch and ground connections allowing for console PTT. See Table 1 for pin out information.
4. **Serial Number Label -** This is the serial number label location.
5. **DESK MIC Port** - Connect an MD-MS desk microphone at this RJ-12 modular jack.
6. **HANDSET Port** - Connect a handset or a headset adapter box (HB2 or HB3) at this 4-pin modular jack.
7. **DB-9 Serial Port** - A DB-9 serial port connection, located on the main board inside the unit, offers serial communication for initial setup and troubleshooting via a terminal emulation program such as HyperTerminal.

   NOTE: For more information, see “Alternate Method: Change IP Address and Subnet Mask” on page 60.
8. **TAPEOUT/RELAYS Port** - The TAPEOUT/RELAYS port for the auxiliary DB-25 connector is used to route audio output from an external device to pass over the network. See Table 2 for pin out information**.**
9. **10/100 NETWORK Port** - The 10/100 NETWORK port is used to connect the unit to a router or computer with a standard RJ-45 Ethernet interface. Link and TX LEDs are built into the connector. The Ethernet port connector supports a Base 10/100 CAT5E connection.
10. **Product Label** - The Product Label gives the product name, FCC compliance statement, caution, lot, PN, and contact information for factory repairs.
11. **Lines (1–2, 3–4, 5–6, 7–8, 9–10, 11–12, 13–14, 15–16, 17–18) Labels** - Each expansion slot’s associated lines are labeled here.
12. **Lines (1–2, 3–4, 5–6, 7–8, 9–10, 11–12, 13–14, 15–16, 17–18) Expansion Slots** - These nine (9) Expansion Slots may or may not contain analog tone cards (6200TCRD) or phone cards (6200PCRD) installed at the factory per customer requirement.

    NOTE: For more information about these cards, see “Line Cards” on page 19. For installation, see “Line Card Installation” on page 52.
13. **6200PCRD Phone Card Jacks** - Each 6200PCRD Phone Card contains three (3) jacks. The top jack accepts an RJ-45 connector for auxiliary devices. The bottom two (2) jacks each accept an analog phone RJ-11 connector. For pin out information, see Figure 8 and Figure 9 on page 36.

    NOTE: This type of card may be installed in any one (or more) of the nine (9) line expansion slots.
14. **6200TCRD Tone Card Connector** - Each 6200TCRD Tone Card contains one (1) DB-25 connector for analog tone signaling or local control. For pin out information, see Table 3.

    NOTE: This type of card may be installed in any one (1) or more of the nine (9) line expansion slots.

Specifications

Power Requirements:

117VAC, 60Hz, 25W, or 12VDC at 5A maximum

CAUTION: The C-6200 is NOT PoE (Power Over Ethernet) compatible. Serious damage may occur to the unit by plugging it into ports supplied by PoE.

Distortion:

10% maximum at full compression

Hum and Noise:

50dB below operating levels

Speaker (Two):

3 in., 8 Ohm, heavy-duty

Amplifier Power:

5W maximum at 3%THD into an 8 Ohm load or equivalent at knee of compression.

Audio Frequency Response:

±1.5dB, 425Hz to 3000 Hz, except at the transmit tone notch frequency

Tone Frequencies:

All function frequencies are selectable from 300Hz to 3000Hz ±1Hz.

Sequential Tone Input/Output Impedance:

2-wire: 600, 10k Ohms, jumper selectable

4-wire TX and RX: 600 or 10k Ohm jumper selectable, transformer isolated

Relay:

The relay is rated to handle 500mA at 12VDC or 250mA at 115VAC.

Input/Output Levels:

Line input level: -40dBm to +10dBm.

Line output level: -20dBm to +10dBm into a 600 Ohm line adjustable (high-level guard tone only).

Audio Compression:

Less than 3dB change in output level for a 20dB change in input above threshold.

Microphone Connection:

Handset and Headset: 4-wire

Deskmic: 6-wire

Gooseneck

Auxiliary

Operating Temperature:

0° to 50°C (32°F to 122°F)

Dimensions:

Desktop Console: 10in. H x 12in. D x 17.5in. W (254mm H x 304.8mm D x 444.5mm W)

Rackmount: See drawing “C-6200 Rackmount Model” on page 223.

Weight, excluding line cards:

Desktop Console: 17.65lbs. (8Kg)

Rackmount: 20.20lbs. (9.16Kg)

CHAPTER 2

Communications System Design

Designing a **RoIP** (Radio Over Internet Protocol) system requires an understanding of the radio network and how the various radios and other communication equipment are connected.

The first step in designing a dispatch system is to create a roadmap of the radio, console, and any other communication equipment locations. This roadmap must include the following:

- Multicast Addresses for each channel of **TX** (Transmit) and **RX** (Receive) communication.
- Port numbers for each channel of TX and RX communication.
- Base IP Addresses assigned to each console or radio on the network and the number of frequencies each radio operates on.
- The number of lines each console operates on.

Network Requirements

Bandwidth

Each **VoIP** (Voice Over Internet Protocol) channel requires 50kBit of bandwidth while active. **Full-duplex** (audio in each direction) conversation requires 100kBit of bandwidth.

Some radio systems transmit *go-ahead* beeps when it is clear to talk. In order for the console operator to hear the beeps, the system must support full-duplex communication. Full-duplex bandwidth may only be required for the first few seconds of a conversation, due to the brief nature of the go-ahead beeps at the beginning of the transmission.

When using Telex's IP-223 with a **PIB** (Phone Interface Box), **TDI** (Telephone Dispatch Interface) adapter, C-6200, or a NI-223 for a telephone connection, a full 100kBit is required since it is a full-time, full-duplex conversation.

Multicast

In general, Telex Dispatch systems require **Multicast** to function. The network must be able to create a static multicast address accessible at all times.

NOTE: When using Cisco technology, **IP PIM dense mode** is generally recommended. Generally speaking, **sparse-dense-mode** can also be implemented effectively. We recommend explicitly joining the multicast group with an **IP IGMP static-join X.X.X.X command**. For more information on Cisco and IGMP, visit www.cisco.com

IGMP (Internet Group Management Protocol)

IGMP can be used to control where multicast is allowed to propagate. This should be limited to subnets that utilize the C-Soft program as the dispatch console and only when used on an intermittent basis (when the C-Soft program is used for a period of time and then shut down).

Once an **IGMP** join message is sent out, networks typically enable multicast and then prune branches after a period of time. Due to intermittent usage patterns of two-way radios, such a system can appear to work flawlessly for a period of time and then no longer work.

IMPORTANT: When a console on the subnet is expected to be continually operational, multicast must be active for that subnet at all times.

Network Performance

Networks should perform well under any loading conditions. The default audio delay is 120ms, plus any delay added by the network. While delay alone does not cause issues, **variable delay (jitter)** does. Jitter in a network cannot exceed the maximum packet buffer of any individual product buffer. For example, the IP-223 can handle approximately 600ms of network jitter. Refer to the individual product manuals for these specifications.

NOTE: Losing more than 5% of the total packets transmitted compromises audio quality and system performance. Optimally, packet loss should be less than 1%.

CHAPTER 3

Install, Configure, and Update

Hardware Installation

The back of the C-6200 provides jacks and ports to connect power, microphone, tape, auxiliary equipment, and network cables. For locations, and pinout information, see Figure 7 on page 26.The back of the C-6200 provides power and microphone jacks and ports to connect tape, auxiliary, and network cables.

+12VDC POWER Supply

The **+12VDC POWER** supply is included in the shipment with the C-6200 console.

CAUTION: Power specifications are: *+12VDC*. Do not operate the unit outside this range.

To **connect the power supply**, do the following:

1. Insert the **receptacle end** into the back of the unit.
2. Insert the **plug** into an electrical outlet.
   The unit power is ON.

NOTE: The in-line power supply is connected at J4.

AUX PWR Port

The **AUX PWR** port is used to connect auxiliary power to the C-6200. A 3-pin screw terminal receptacle is provided on the rear of the unit. Pin 1 is the +12VDC terminal, pin 2, is the ground terminal and pin 3 is the earth ground terminal. As with all communication equipment, earth ground should be used. Earth ground is a low impedance path to earth for the purpose of discharging lighting, static and radiated energy.

CAUTION: For proper C-6200 operation, it is imperative the unit be tied to earth ground from the AUX power connector on the back of the unit to some fixed reference.

AUX Speaker Port

The **AUX Speaker** port is used to connect external 8 Ohm speakers to the console. These external outputs are in parallel with the console's speakers and the volume is controlled with the console speaker knobs. Select, unselect, and crosspatch outputs are provided for configuration. Typically this cable is built by the customer. The pin outs given in Table 1.

NOTE: The footswitch input and ground are also provided on this connector, see Figure 1.

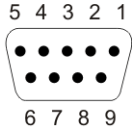
To **connect speakers to the console**, do the following:

> Connect a **DB-9 breakout cable** at this port location.

TABLE 1. DB-9 Connector Pin Out—AUX Speaker Port

Pin Number	Signal	Pin Number	Signal
1	External SPKR Unselect	6	Ground
2	External SPKR Unselect	7	External SPKR Crosspatch
3	Ground	8	External SPKR Crosspatch
4	External SPKR Select	9	Footswitch
5	External SPKR Select		

DB9 Connector



DESK MIC Port

The **DESK MIC** port is used to connect a 6-wire Telex desk mic. See Figure 7 for port locations. Consult the desk mic manufacturer's documentation for further information.

To **connect a desk mic device**, do the following:

> Insert the **end of the desk mic cable** into the DESK MIC port on the back of the C-6200 console.
> *The device transmits audio when PTT is activated.*

NOTE: When a PTT is active on either the 4- or 6-wire input, the opposite microphone input is muted.

HANDSET Port

The **HANDSET** port is used to connect an optional 4-wire handset, an HB-3+ or HB-4 Headset Adapter Panel which in used to adapt a headset connection to the unit.

IMPORTANT: Consult the HB-3+ technical manual for installation instructions.

TAPEOUT/RELAYS Port

The **TAPEOUT/RELAYS** port is used to connect auxiliary devices to the C-6200 console with a DB-25 connector. Pin outs are given in Table 2.

Available selections are: *Unselect Tape, Crosspatch Tape,* and *Aux PTT, Aux Audio and Select Tape.*

Software Settings

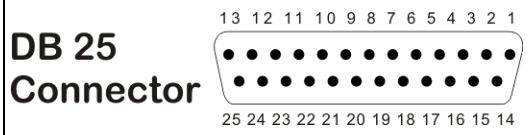
Once the port is connected, make the following software setting:

- The "Select Tape Gain Drop Down Menu" on page 80 must also be configured.

IMPORTANT: Consult the auxiliary device manufacturer's documentation for proper interface characteristics.

TABLE 2. DB-25 Connector Pin Out—TAPEOUT/RELAYS port

Pin Number	Signal	Pin Number	Signal
1	AUX Relay 1 Common	14	AUX Relay 1 N.C.
2	AUX Relay 1 N.O.	15	AUX Relay 2 Common
3	AUX Relay 2 N.C.	16	AUX Relay 2 N.O.
4	AUX Relay 3 Common	17	AUX Relay 3 N.C.
5	AUX Relay 3 N.O.	18	AUX Relay 4 Common
6	AUX Relay 4 N.C.	19	AUX Relay 4 N.O.
7	N/C	20	N/C
8	N/C	21	N/C
9	N/C	22	Crosspatch Tape Out
10	Crosspatch Tape Out	23	Unselect Tape Out
11	Unselect Tape Out	24	Select Tape Out
12	Select Tape Out	25	AUX PTT
13	AUX Audio IN	Shield	Ground



10/100 NETWORK Port

The **10/100 NETWORK** port is used to connect the C-6200 to an Ethernet network.

To **connect to a network computer,** do the following:

1. Insert **one end of an Ethernet cable** into the 10/100 NETWORK port on the back of the console.
2. Insert the **other end of the Ethernet cable** into a router or switch connected to a computer.

NOTE: Alternatively, a cross-over cable may be used to connect the C-6200 directly to a computer.

NOTE: The computer and the C-6200 must be on the same subnet. For information on how to change your computer's IP configuration, contact your system administrator.

CAUTION: The C-6200 is not PoE[5] compatible, serious damage may occur to the unit by plugging it into ports supplied by PoE.

DB-9 Serial Port

The **DB-9 Serial Port**, located on the main board inside the unit, is used to connect a cable to a computer as an alternative method for setting the console's IP Address and other parameters.

For installation and configuration instructions, see "Alternate Method: Change IP Address and Subnet Mask" on page 60.

5. *PoE (Power over Ethernet) is used to transfer electrical power, along with data, to remote devices over standard twisted-pair cable in an Ethernet network.*

Analog Line Card Connections

Line (1–18) Ports - One (1) of two (2) analog line cards, 6200TCRD tone card or 6200PCRD phone card, may be installed in any, all, or none of the expansion ports located on the back of the unit.

NOTE: There are nine (9) expansion ports allowing for phone or analog line connections.

6200PCRD (Phone Card) Connectors

Line (1–18) Ports - The 6200PCRD phone card is one (1) of two (2) analog line card options available for installation. It provides communication with any standard analog PSTN phone line.

The **6200PCRD Phone** line card supports two (2) lines of PSTN using a standard analog RJ-11 phone connector. Line relay closure and recorder out are provided via the RJ-45 connector.

See “Back Panel Connections” on page 26 for connector locations.

RJ-11 Connector

The **RJ-11** connector is used to plug a 2- or 4-wire analog phone line into the phone card.

To access phone line 2, a special cable needs to be manufactured. See Figure 8 for pin outs to create a suitable telephone line connection cable.

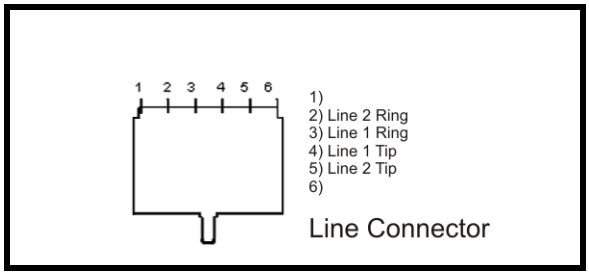


FIGURE 8. RJ-11 Connector—PDRC Phone Line Connector

RJ-45 Connector

The **RJ-45** connector is used to provide per line recorder out and relay closure. See Figure 9 for pinout information.

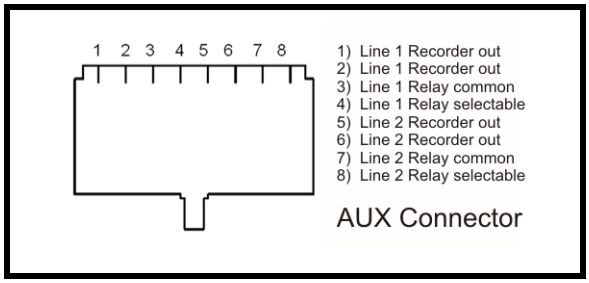


FIGURE 9. RJ-45 Connector—PCRD Auxiliary Line Connector

Learn how to configure the phone card, see “Phone Card Configuration” on page 51.
Learn how to install phone cards, see “Line Card Installation” on page 52.

6200TCRD (Tone Card) Connector

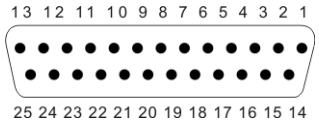
Lines (1–18) Ports - The 6200TRD tone card is one of two (2) line card options available for installation. It provides two (2) lines of communication with any standard tone remote system or local analog control.

The **6200TCRD Tone** card line card interfaces with tone remotes through a DB-25 connector. The tone card is also used for local control when analog connections to radios are required. See “Back Panel Connections” on page 26 for port location.

TABLE 3. DB-25 Connector Pin Out—6200TCRD Line Card

Pin Number	Signal	Pin Number	Signal
1	N/C	14	Line 2—Logic IN
2	N/C	15	Line 2—Local Relay Common/Ground
3	Line 2— Local Relay N.O.	16	Line 2—4-wire RX
4	Line 2—2- or 4-wire TX	17	Line 2—2- or 4-wire TX
5	Line 2—4-wire RX	18	Line 2—Supervisory/E-
6	Line 2—Crossmute/E+	19	Line 2—Recorder Out
7	Line 2—Recorder Out	20	N/C
8	Line 1—Logic IN	21	Line 1—Local Relay Common/Ground
9	Line 1—Local Relay N.O.	22	Line 1—4-wire RX
10	Line 1—2- or 4-wire TX	23	Line 1—2- or 4-wire TX
11	Line 1—4-wire RX	24	Line 1—Supervisory/E-
12	Line 1—Crossmute/E+	25	Line 1—Recorder Out
13	Line 1—Recorder Out	Shield	Ground

DB 25 Connector



Learn how to configure the line card, see “6200 TCRD Hardware Configuration” on page 38.
Learn how to install a line card, see “Line Card Installation” on page 52.0

IMPORTANT: Consult the tone remote or radio manufacturer’s documentation for proper interface characteristics.

6200 TCRD Hardware Configuration

Before installing a 6200TCRD tone card into the unit, you must make some hardware configuration changes based on your system requirements.

The following section describes hardware settings for the following features:

Local Relay Control

Crossmute

2- or 4-Wire Mode

RX and TX Impedance

TX Monitor Adjustments

DB-25 Connector Pin Out

A DB-25 connector located on the back of the unit is provided for external access. See pin outs in Table 3.

Local Relay Control

The relay is normally open and provides a dry contact closure during PTT functions. The relay closure can carry 500mA at 12VDC or 250mA at 115VAC. When using the intercom function the relay is not activated.

To **strap the local relay common lead to ground**, do the following:

> Place **J11** (line 1) or **J2** (line 2) in the B position.

TABLE 4. Local Mode Relay Jumper Settings and Pin Outs

Setting Local PTT Control				
Line Card Line Number	**Jumper**	**Jumper Setting**	**Local Relay N.O.[a]**	**Local Ground**
Line 1	J11	B position	Pin 9	Pin 21
Line 2	J2	B position	Pin 2	Pin 15

a. N.O. Normally Open

To **strap the local relay common lead to local relay**, do the following:

> Place **J11** (line 1) or **J2** (line 2) in the A position.

Setting Local PTT Control				
Line Card Line Number	**Jumper**	**Jumper Setting**	**Local Relay N.O.[a]**	**Local Relay Common**
Line 1	J11	A position	Pin 9	Pin 21
Line 2	J2	A position	Pin 2	Pin 15

a. N.O. Normally Open

Local Control Software Settings

If this relay closure is used for local control or any other case where tone bursts are not used for signaling, make the following software setting:

- The “Add Tones on PTT Check Box” on page 89 must be configured.

Tone Control

The 6200TCRD card can be configured for tone control or local control.

Tone Control Software settings

Once the mode is set to tone control, make the following software setting:

- The “Add Tones on PTT Check Box” on page 89 must be configured.

Crossmute Configuration

The **Crossmute** feature allows local parallel consoles to be muted during PTT, thus preventing audio loopback on the parallel console’s speakers. The digital I/O crossmute function for parallel consoles is configured through jumper settings on the 6200TCRD, see Table 5.

To **configure crossmute for parallel analog consoles in the same room**, do the following:

> Configure the **jumper settings** on the 6200TCRD line card using Table 5.

TABLE 5. Crossmute Jumper Settings and Pin Outs

Setting Crossmute on Parallel Consoles			
All Parallel Analog Consoles in the Same Room			
Line Card Line Number	**Jumper**		**Pin Out**
Line 1	J15	A position	Pin 12
Line 2	J14	A position	Pin 6
Ground [a]			Pin 21 (line 1) Pin 15 (line 2)

a. Ground is configured in the local relay table. One of these pins must be must be jumpered to ground.

NOTE:

- Activating PTT on a crossmuted line, grounds the crossmute pin for the line—pin 12 for line 1 or pin 6 for line 2. A console sensing ground on a crossmute pin mutes the analog receive audio of the line.
- The crossmute pins of parallel lines, to be crossmuted, must be interconnected. Pin 21 for line 1 or pin 15 for line 2 on parallel lines must also be interconnected to provide a common ground.
- Applying crossmute also has the effect of blocking intercom between consoles.

Crossmute Software Settings

Once the jumpers are set and the card is installed, make the following software settings:

- The “Cross Mute Enable Check Box” on page 90 must be configured.
- The “Local Console IP Address” on page 73 must be configured.

2-Wire and 4-Wire Mode Configuration

The 6200TCRD comes with a jumper selectable 2-wire or 4-wire option. Once the transmit and receive paths are separated, the impedance of each side must be set, see “6200 TCRD Impedance Configuration” on page 41.

NOTE: The C-6200 ships form the factory in 4-wire mode with 600 Ohm output impedance.

To **change the transmit/receive mode of the line card**, do the following:

> Configure the **jumpers** on the 6200TCRD line card using Table 6.
> *The RX and TX pair are on pins indicated in Table 7.*

TABLE 6. 2-Wire and 4-Wire Jumper Settings and Pin Outs

Setting 2-Wire or 4-Wire Mode				
Console line number	**2-Wire Mode**		**4-Wire Mode**	
	Jumper		**Jumper**	
Lines 1, 3, 5, 7, 9, 11, 13, 15, 17	J6	A position	J6	B position
Lines 2, 4, 6, 8, 10, 12, 14, 16, 18	J7	A position	J7	B position
Lines 1, 3, 5, 7, 9, 11, 13, 15, 17	J4	A position	J4	B position
Lines 2, 4, 6, 8, 10, 12, 14, 16, 18	J5	A position	J5	B position

TABLE 7. RX and TX pairs

RX pairs		**TX pairs**	
Line Card line 1	**Line Card line 2**	**Line Card line 1**	**Line Card line 2**
Pin 11 and Pin 22	Pin 5 and Pin 16	Pin 10 and Pin 23	Pin 4 and Pin 17

6200 TCRD Impedance Configuration

RX Impedance Configuration

The **RX impedance** is configured by changing jumper settings specific to the mode (2-wire or 4-wire) and number of parallel analog consoles sharing local or leased lines. The RX side is jumper selectable for 600 or 10k Ohm impedance

2-Wire RX Impedance Jumper Settings

Whether your system contains one (1) console or several consoles in parallel, operating in 2-wire mode requires one (1) jumper setting see Table 8.

To **configure the RX impedance of all 2-wire parallel C-6200 consoles**, do the following:

> Configure the **jumper settings** on the 6200TCRD line card using Table 8.

TABLE 8. 2-Wire RX Impedance Jumper Settings

Setting RX Impedance of All 2-wire parallel C-6200 Consoles		
Line Card Line Number	**Jumper (10k Ohm)**	
Line 1	J10	B position
Line 2	J8	B position

4-Wire RX Impedance Jumper Settings

If you are operating in 4-wire mode, the RX impedance is configured with jumper settings shown in Table 9 and Table 10.

To **set the RX impedance for one console in 4-wire mode**, do the following:

> Configure the **jumper settings** on the 6200TCRD line card using Table 9.

TABLE 9. 4-Wire RX Impedance Jumper Settings—One Console

Setting 4-Wire RX Impedance with One Console		
	One console (600 Ohm)	
Line Card Line Number	**Jumper**	
Line 1	J10	A position
Line 2	J8	A position

To **set the RX impedance for multiple 4-wire parallel analog connected to C-6200 consoles**, do the following:

> Configure the **jumper settings** on the 6200TCRD line card using Table 10.

TABLE 10. 4 -Wire RX Impedance Jumper Settings—Multiple Consoles

Setting 4-Wire RX Impedance with Multiple C-6200 Consoles				
	First Console (600 Ohm)		**Parallel Consoles (10k Ohm)**	
Line Card Line Number	**Jumper**		**Jumper**	
Line 1	J10	A position	J10	B position
Line 2	J8	A position	J8	B position

Audio Level Loss

Each console added to the system results in audio line loss. Table 11 gives an indication as to how much loss can be expected. The first console in the system is set for an impedance of approximately 600 Ohms out. Each console added to the system thereafter is set for an impedance of 10k Ohms.

As Figure 10 on page 44 indicates, the more consoles bridged on the line, the lower the line impedance and the greater the loss of audio level.

TABLE 11. Expected Audio Level Loss

Console #	Jumper Position	Impedance	Impedance	Loss in dB
1	A	604	604	0.0
2	B	10k	569	-0.5
3	B	10k	539	-1.0
4	B	10k	511	-1.5
5	B	10k	486	-1.9
6	B	10k	464	-2.3

Audio Level Software Settings

Once the jumpers are set and the card is installed make the following software setting:

- The “Receive Gain Drop Down Menu” on page 78 must be configured.

TX Impedance Configuration

The **TX Impedance** is configured by changing jumper settings specific to the number of consoles in the system. A **DPDT** (Double Pole Double Throw) relay is used to connect/disconnect the TX output transformer from the line depending on PTT status. This allows a large number of consoles to be attached to the line in parallel because only the transmitting unit is directly connected to the line. When not transmitting, the DPDT relay is connected to 600 Ohms or open circuit depending on the number of consoles connected in parallel to the line.

If only one (1) console is attached, configure the unit using the table in Figure 12. This configuration makes it the effective master and terminates the line with 600 Ohms.

Configure One C-6200 Console

To **set TX impedance with one (1) C-6200 console**, do the following:

> Configure the **jumper settings** on the 6200TCRD line card using Table 12.

TABLE 12. TX Impedance Jumper Settings—One Console

Setting TX Impedance with One Console		
	One console (600 Ohm)	
Line Card Line Number	**Jumper**	
Line 1	J9	A position
Line 2	J3	A position

Configure Multiple Parallel C-6200 Consoles

If more than one (1) Telex C-6200 console is attached in parallel, configure the system using the table in Figure 13. This configuration makes the first console the master and the remaining consoles the slaves. In this manner the impedance looking back into the parallel configuration of consoles is still 600 Ohms.

To **set the TX Impedance with multiple parallel analog connected C-6200 consoles**, do the following:

> Configure the **jumper settings** on the 6200TCRD line card using Table 13**.**

TABLE 13. TX Impedance Jumper Settings—Multiple Consoles

Setting TX Impedance with Multiple C6200 Consoles				
	Master C6200 Console (600 Ohm)		**Slave C6200 Consoles (10k Ohm)**	
Line Card Line Number	**Jumper**		**Jumper**	
Line 1	J9	A position	J9	B position
Line 2	J3	A position	J3	B position

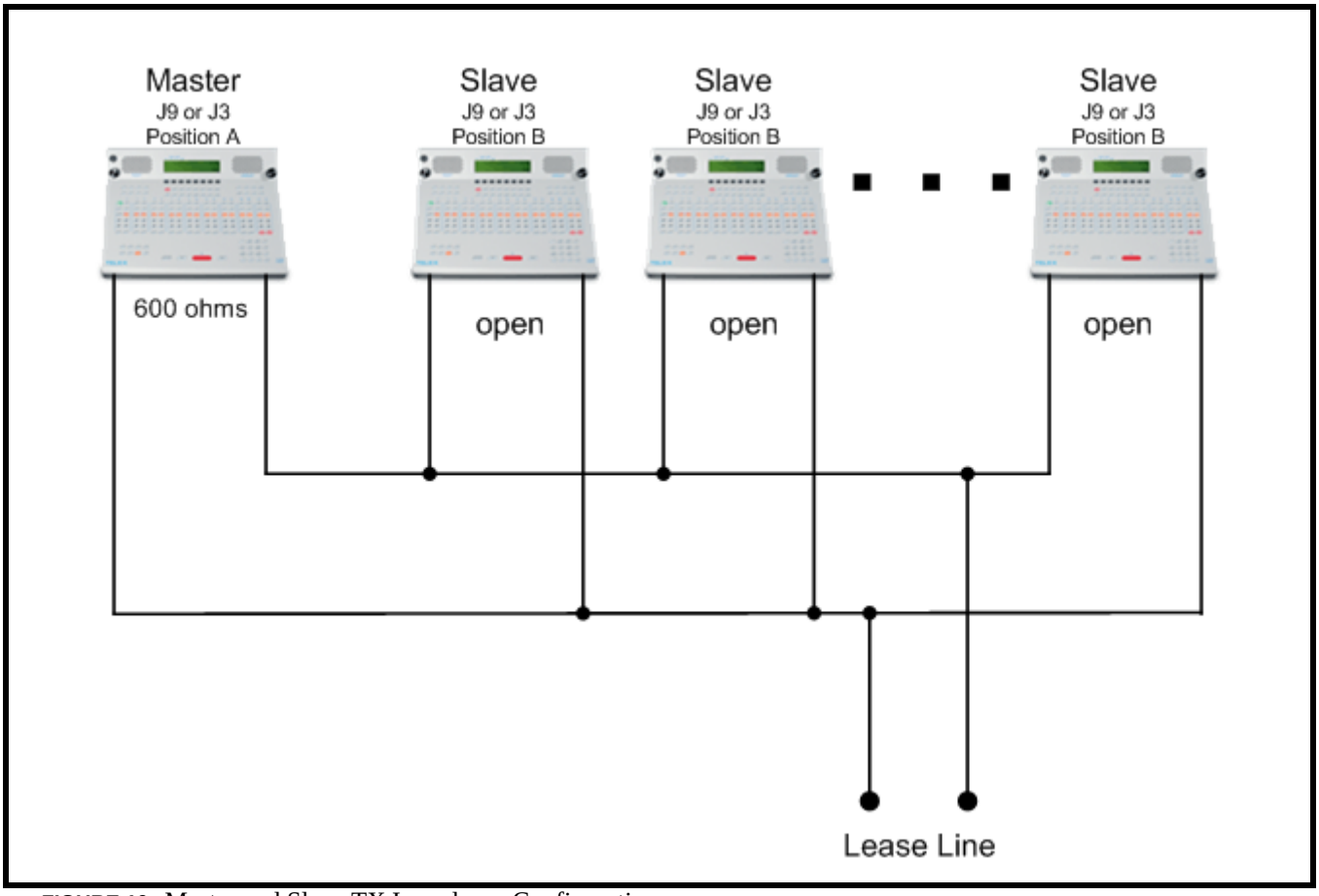


FIGURE 10. Master and Slave TX Impedance Configuration

Configure C-6200 Console(s) with Brand X Consoles

If any of the consoles connected in parallel are not C-6200s (i.e. brand other than Telex) then all C-6200s should be configured as slaves. Additionally, there are jumpers on lines 1 and 2 that should be used as a TX line impedance correction if there are consoles other than C-6200s connected in parallel. The B position adds another 600 Ohms to the TX output line. See Table 14.

To **set the C-6200 TX Impedance with other console brands connected in parallel**, do the following

> Configure the **jumper settings** on the 6200TCRD line card, using Table 14.

TABLE 14. TX Impedance Jumper Settings

Setting C-6200 TX Impedance with other console brands connected in Parallel				
Line Card Line Number	**TX Line Impedance Correction**		**TX Line Impedance on Telex C-6200 (Slave)**	
Line 1	J18	B position (adds 600 Ohms to TX output)		
Line 2	J17	B position (adds 600 Ohms TX output)		
Line 1	J18	A position (straight through)	J9	A position (10k Ohm)
Line 2	J17	A position (straight through)	J3	A position (10k Ohm)

TX Monitor Adjustment (4-wire mode only)

The **TX monitor** provides a portion of the transmit audio to the receive path. This allows the console operator to listen to parallel analog console transmissions. The transmit monitor is not needed in 2-wire mode as the transmit audio is already on the receive circuit.

NOTE: TX monitor is not available on parallel lines that are crossmuted.

To **adjust the TX monitor level once an analog C-6200 is connected in parallel**, do the following:

NOTE: This process requires a person to sit at a parallel analog console.

1. Select a **line** to transmit on.
2. Press the **INTERCOM** button of the parallel analog console.
   The microphone and speaker on each console are active.
3. Talk into the **parallel console's microphone**.
4. From the console you are setting, use the tone card's R95 (see Figure 11) to adjust **Line 1's Tx monitor audio** until a comfortable level from the speaker or handset/headset earpiece is reached.
   OR
   From the console you are setting, use the tone card's R87(see Figure 11) to adjust **Line 2's Tx monitor audio** until a comfortable level from the speaker or handset/headset earpiece is reached.
   The audio level fluctuates while the POT is turned.

TX Monitor Software Settings

Once the jumpers are set and the card is installed, make the following software setting:

- "TX Monitor Enable Check Box" on page 90 must be enabled.

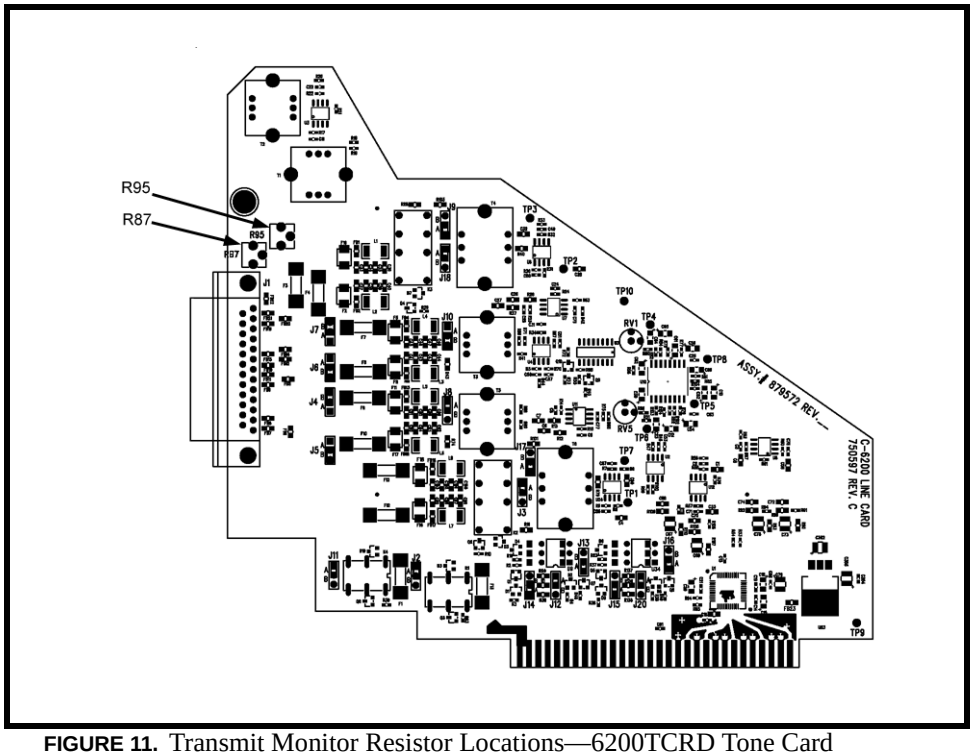


FIGURE 11. Transmit Monitor Resistor Locations—6200TCRD Tone Card

Audio Level Adjustments

To **configure the audio levels on the console**, follow these steps:

Step 1 Console Microphone Tuning, see page 47.

Step 2 Configure the Line Activity Monitor, see page 50.

Step 3 Configure the Master Recording Outputs, see page 50.

Step 1: Console Microphone Tuning

The gooseneck, handset/headset, deskmic, and auxiliary mic inputs go through dedicated preamplifier stages through the CODEC to the DSP. There is a PTT DSP input for each microphone. In setting the microphone levels, the goal is to adjust the preamps so nominal voice levels through both microphones are of equal level at the input of the CODECs.

There are four (4) microphone inputs to the C-6200 console:

Gooseneck connector -	A microphone connection, located on the front of the console, is the default microphone when the TRANSMIT button is pressed.
HANDSET -	A 4-wire input, located on the back of the console, accepts either a handset or headset connector.
DESK MIC -	A 6-wire input, located on the back of the console, accepts a desk microphone connector.
TAPEOUT/RELAYS-	A DB-25 connection, located on the back of the console, provides auxiliary microphone and auxiliary PTT.

NOTE:

- An HB-3+ or HB-4 adapter panel is required to connect a headset to the console.
- The 6-wire connector for a desktop mic is blocked when the PTT of the 4-wire connector is active.
- All connectors may be used at the same time.

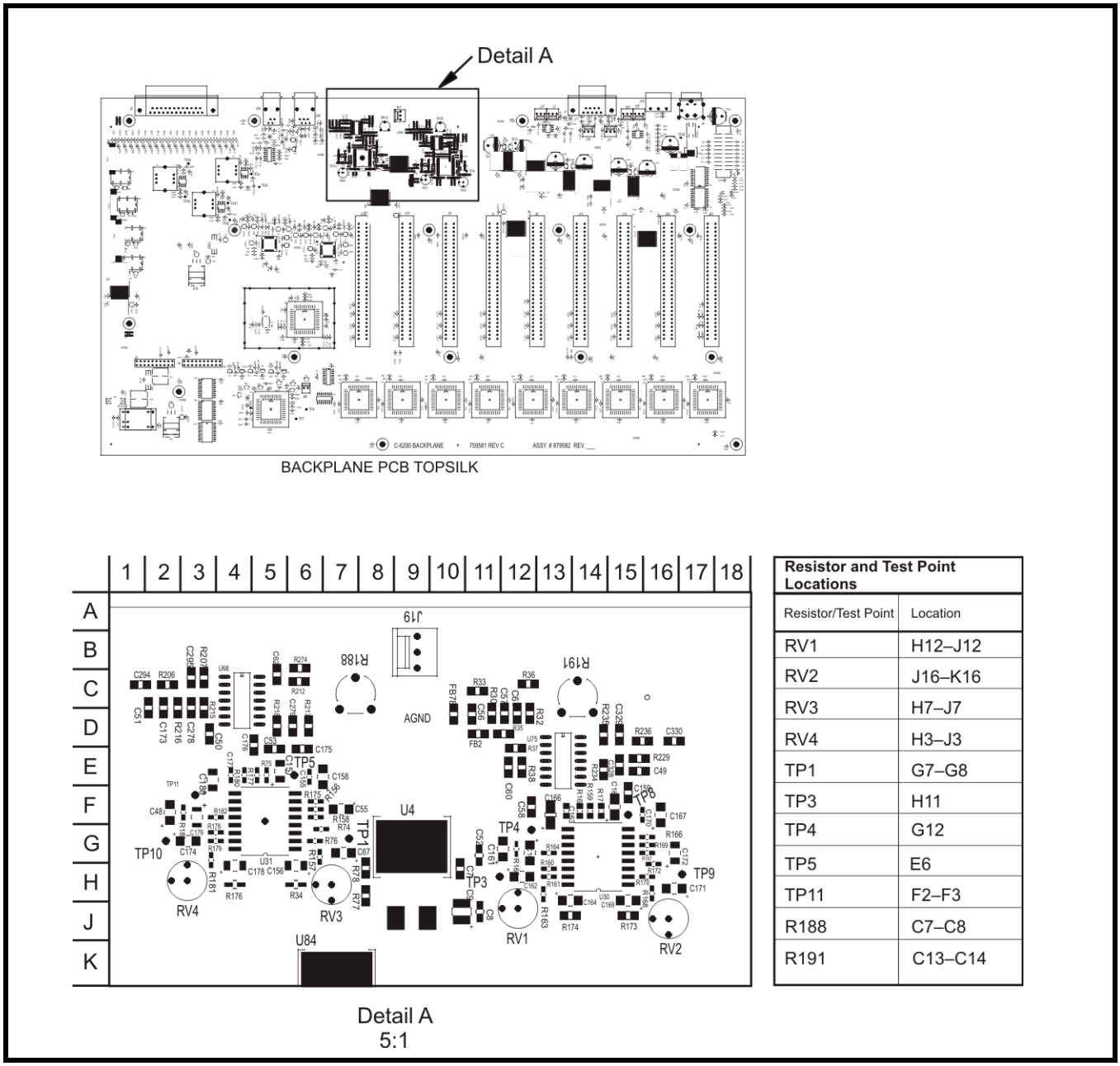
Use the following procedure to tune the microphones.

To **adjust the microphone levels for peak to peak voltage at each test point,** do the following:

1. Remove the **power cable** from the back of the unit to turn power to the unit OFF.
2. Unplug and unscrew all **connectors (DB-25, RJ-11, and RJ-45)** to existing line cards.
3. Remove the **screws** holding the back cover in place.
4. Remove the **screws** holding installed line cards in place.
5. Measure the **voltage**, using a voltmeter at indicated test points, See Figure 12 on page 49 for locations.
6. Adjust the **microphone(s)** you are tuning, use Table 15.

TABLE 15. Microphone Tuning

Microphone Tuning				
Using the Backplane PCB located inside the C-6200 console				
Adjust	**Microphone Device**	**Voltage**	**Test Point**	**Method**
RV4 (compressor adjustment POT for the AGC)	Handset/ Headset	2Vp - p	TP11	1. Make a **vocal tone** into the handset/headset. 2. Adjust the **backplane PCB resistor** for voltage at test point.
Sidetone				> Adjust **sidetone** in the web browser configuration window, see “Handset Sidetone Gain Drop Down Menu” on page 77.
R188	Desk Microphone	2Vp - p	TP1	1. Make a **vocal tone** into the desk microphone. 2. Adjust the **backplane PCB resistor** for voltage at test point.
RV3 (compressor adjustment POT for the AGC)	Desk mic Compressor Circuit	2Vp - p	TP5	> Adjust the **desk mic compressor circuit** output on the backplane PCB for voltage at test point.
R191	Gooseneck	2Vp - p	TP3	1. Make a vocal tone into the **Gooseneck micro-phone.** 2. Adjust the **backplane PCB resistor** for voltage at test point.
RV1 (compressor adjustment POT for the AGC)	Gooseneck Compressor Circuit	2Vp - p	TP4	> Adjust the gooseneck **compressor circuit output** on the **backplane PCB resistor** for voltage at test point.
RV2 (compressor adjustment POT for the AGC)	Auxiliary Microphone	2Vp - p	TP8	1. Make a **vocal tone** into the auxiliary microphone. 2. Adjust the **backplane PCB resistor** for voltage at test point.



Resistor and Test Point Locations

Resistor/Test Point	Location
RV1	H12–J12
RV2	J16–K16
RV3	H7–J7
RV4	H3–J3
TP1	G7–G8
TP3	H11
TP4	G12
TP5	E6
TP11	F2–F3
R188	C7–C8
R191	C13–C14

FIGURE 12. Backplane Resistor Locations

Transmit Audio Path

Once the microphone audio has been digitized, the DSP first routes it through a 2175Hz notch filter to remove 2175Hz components from the voice. This is done to make sure no component of the microphone audio interferes with the 2175Hz hold tone. At the output of the notch filter, the microphone audio is summed together with the signaling components. From this point, the total transmit audio mix is sent to the individual output, **DAC** (Digital to Analog Converter), of the line cards. Additionally, the transmit audio is sent out over Ethernet to parallel IP consoles.

Transmit Level Adjustment

The transmit level is setup using software potentiometers to adjust the levels of the transmit audio. Calibration of the TX lines varies depending on system variables as well as the number of consoles found in parallel on the line. The console admin can use an alert tone set to continuos as a test tone of given amplitude for this alignment.

Transmit Monitor

The 4-wire transmit monitor provides a portion of the transmit audio to the receive path. This allows the console operator to listen to the transmissions of parallel analog console. See “TX Monitor Adjustment (4-wire mode only)” on page 45.

Receive Path Adjustments

The DSP detects and compensates for most audio level variations from the line cards. Make adjustments to the receive audio by completing “Step 2: Line Activity Monitor” on page 50.

Receive Audio Path

The **Receive Audio Path** begins at the input to the line card and is played to a speaker or earpiece. Additionally, the receive audio is sent out over the Ethernet to parallel IP consoles.

Step 2: Line Activity Monitor

The **Line Activity Monitor** is used to notify the console operator when receive audio is present on a line. Also, the **LAM** (Line Activity Monitor) can be used as a squelch circuit. When the LAM threshold is exceeded, the RLS button blinks and receive audio is routed to the appropriate speaker. Additionally, the receive audio is sent out over Ethernet to parallel IP consoles.

For more information on Line Activity Monitor, see “Line Activity Level Field” and “Line Activity Time Field” on page 100.

Step 3: Master Recorder Outputs

TAPEOUT/RELAY DB-25 Port

The **Tapeout/Relay** DB-25 port is provided on the back of the unit for master recording outputs and auxiliary relay control.

For Master Recorder Outputs configuration, see “Tape Mix Setup Section” on page 157.

Auxiliary Speaker Outputs

The **Auxiliary Speaker Outputs** can be used to drive additional external speakers. Select, Unselect, Crosspatch outputs are provided.

NOTE: Earth Ground - Telex recommends the unit be tied to earth ground through the AUX power connector on the back of the unit. It is imperative that chassis ground be tied to some fixed reference for proper operation of the unit. The line filtering is dependent on a solid ground.

Phone Card Configuration

The **6200 PCRD line card** is used to provide communication with any standard analog PSTN phone line.

Auxiliary Relay Jumper Settings

The **Auxiliary Relay Jumper** settings on the phone card can be configured for normally open or normally closed. Relay activation is configured for either ring or off-hook states.

> From the 6200PCRD line card, make the following **jumper adjustments**.:

TABLE 16. Auxiliary Relay Configuration

Auxiliary Relay Configuration				
	Relay Normally Closed		**Relay Normally Open**	
Line Card Line Number	**Jumper**		**Jumper**	
1	J16	A position	J16	B position
2	J4	A position	J4	B position

Phone Line Software Settings

Once the jumpers are set and the phone card is installed, make the following software setting:

- The “Per Line Setup—Phone Card” on page 98 must also be configured.

Line Card Installation

Once configured, tone and phone line cards can be installed in the field by certified Telex technicians. Both tone and phone line card installations are accomplished in the same manner.

Tools: Phillips screwdriver and one (1) 6-32 X 1/4” buttonhead screw for each line card.

To **install a line card**, do the following:

1. Remove the **power cable** from the back of the unit to turn power to the unit OFF.
2. Unplug and unscrew all **connectors (DB-25, RJ-11, and RJ-45)** to existing line cards.
3. Using a Phillips screwdriver, remove the **screws** holding the back cover in place.
4. Remove **screws** holding installed line cards in place.
5. Remove the **back cover**.
6. Punch out the **expansion slot slug** for the line you want to install the card on.
7. Position the **card** as shown in Figure 13.
8. Carefully plug it into the connector on the **backplane PCB** located on the floor of the unit.
9. Carefully place the **back cover** onto the back of the unit.
10. Secure the **back cover** in place with screws.
11. Fasten **line cards** with one (1) screw each.

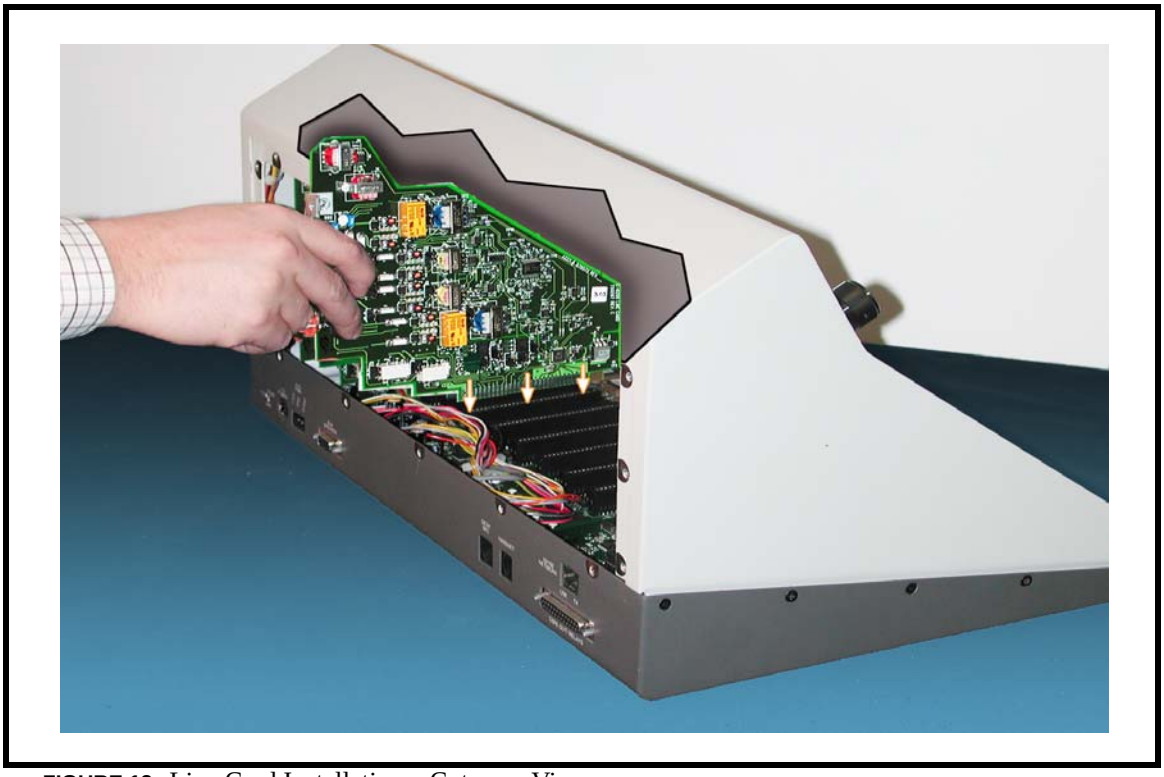


FIGURE 13. Line Card Installation—Cutaway View

Programming Mode Menu

The **Programming Mode** menu is accessed directly from the C-6200 console. If an Admin **PIN** (Personal Identification Number) has been set, it is required to enter programming mode; otherwise, no PIN is required. Once you are in the Programming Mode menu you can access the programmable menus to change the *clock*, *IP setup*, and *set a new PIN*.

To **access the Programming Mode Menu**, do the following:

> On the C-6200 keypad, press and hold the console **MUTE** button, **F16,** and the **GRP** button, in that order, see Figure 14.
> *One (1) of two (2) menus appear on the console display: PIN login screen or Console Programming Mode. See Figure 15 and Figure 16.*

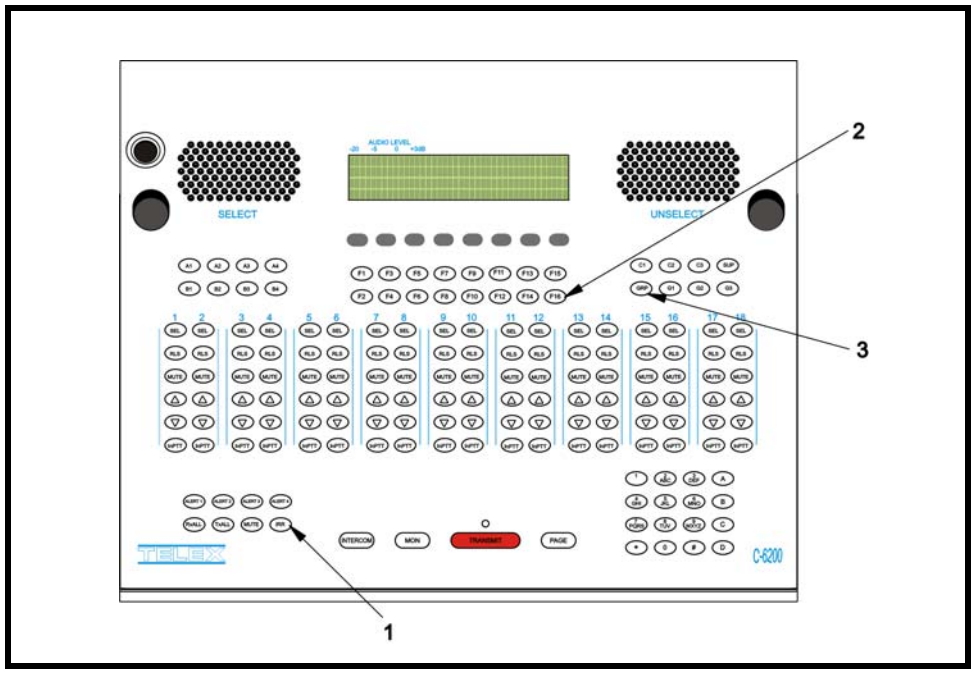


FIGURE 14. Enter Programming Mode Buttons

PIN Login Menu

The C-6200 comes with a programmable **PIN Login** menu, shown in Figure 15. Once an Admin PIN has been set, it is required to access the Programming Mode menu.

NOTE: The Admin PIN (configured on the Account Setup window) and the PIN used to access the programmable menu are the same.

To log into programming mode with a PIN, do the following:

1. On the C-6200, press and hold the **MUTE** button, the **F16** button, and the **GRP** button, in that order. *See Figure 14. The IP Address, Subnet Mask, and PIN menu appear.*
2. Using the DTMF keypad, enter the **admin PIN number**.
   Asterisks appear next to the PIN for each character you enter.

   NOTE: To clear the entry, press the **CLEAR** softkey.
   To exit without making changes, press the **CANCEL** softkey.
3. Press the **OK** softkey.

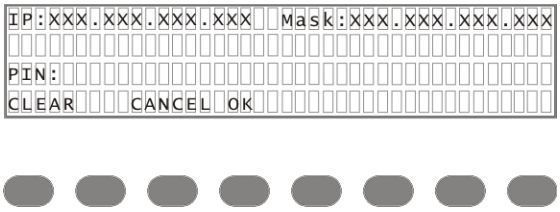


FIGURE 15. PIN Login Menu

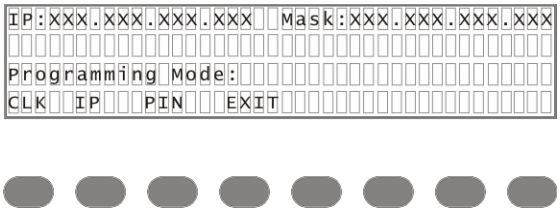


FIGURE 16. Console Programming Mode Menu

Programmable Menus

The **Programmable Menus** are used to change the clock, IP Setup and PIN.

CLK Menu

The **CLK** menu, shown in Figure 21, is used to set the console clock.

NOTE: To set the clock without a PIN, see “Set Quick Clock Mode” on page 59.

To **set the console clock**, do the following:

1. On the C-6200 keypad, press and hold the **MUTE** button, the **F16** button, and the **GRP** button, in that order.
   One (1) of two (2) menus appear on the console display: PIN Login Screen or Programming Mode, see Figure 15 and Figure 16.
2. Using the DTMF keypad, enter the **admin PIN number**, if one is required.
   Asterisks appear, on the top line, for each character you enter.
3. Press the **OK** softkey.
   The Programming Mode menu appears.
4. Press the **CLK** softkey.
   The clock menu options, Edit, A/P, 12/24, and back appear.

5. Press the **12/24** softkey until *12hr* displays.
   The 12-hour clock mode is selected and 12hr: appears above the back softkey label.
   OR
   Press the **12/24** softkey until *24hr* displays.
   The 24-hour clock mode is selected and 24hr appears above the back softkey.
6. If the 12-hour clock mode is selected, press the **A/P** softkey to set the 12-hour clock time to AM or PM.
   OR
   If the 24 hour clock mode is selected, continue to step 7.
   The time appears with AM or PM on the right.
7. Press the **Edit** softkey.
   The clock settings appear on the display.
8. Press the **Hours** menu.
   The Hours menu appears and displays the current setting.
9. Press the **12** softkey.
   The clock resets to 12 hours.
10. Press the **dwn** or **up** softkey until correct hours appear.
    The hour setting changes.
11. Once the hours are set, press the **back** softkey.
    The edit clock menu appears.
12. Press the **Mins** softkey.
    The minutes menu appears and displays the current settings.
13. Press the **0** softkey.
    The clock resets to 0 minutes.
14. Press the **dwn** or **up** softkey until correct minutes display.
    The minutes setting changes.
15. Once the minutes are set, press the **back** softkey.
    The hour and minutes setting menu appears.
16. Press the **back** softkey.
    The edit clock menu appears.
17. Press the **back** softkey.
    The Programming Menu appears.
18. Press the **EXIT** softkey.
    The console displays, RESETTING C-6200 and the time appears in the upper-right corner of the display.

IP Setup Menu

The **IP Setup** menu, shown in Figure 17, is used to set both the IP Address and Subnet Mask of the C-6200 console. This allows communication between the console and web browser configuration on the PC.

NOTE: For more information, see “Alternate Method: Change IP Address and Subnet Mask” on page 60.

NOTE: The following keys are used to enter the IP and Mask dotted quad once the IP or Mask program button is pressed.

DTMF 0–9 - The DTMF digits allow entry of the specific numbers.

*DTMF * or A* - DTMF * or *A* is the decimal point used in entering the octet.

Softkey 1 - The Clr function clears the entered value and starts over.

Softkey 2 - The < (backspace) delete function, deletes the last entered number.

Softkey 3 - The > (forward space) forward function, moves right one space to the next number.

Softkey 4 - The back softkey is pressed, once the address has been entered.

To **set or change an IP Address and Subnet Mask**, do the following:

1. On the C-6200 keypad, press and hold the **MUTE** button, the **F16** button, and the **GRP** button in that order.
   One of two (2) menus appear on the console display: PIN Login screen, Figure 15, or Programming Mode, see Figure 16.
2. Using the DTMF keypad, enter the **admin PIN number**, if one is required.
   Asterisks appear for each character you enter.
3. Press the **OK** softkey.
   The Programming Mode menu appears.
4. Press the **IP** softkey.
   The IP setup menu, shown in Figure 17, appears.

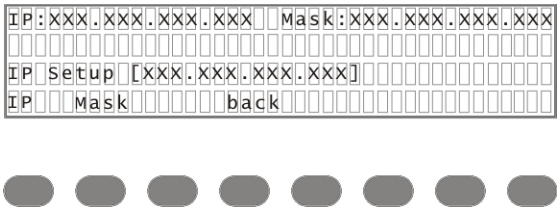


FIGURE 17. IP Setup Menu

5. Press the **IP** softkey.
   The IP menu, shown in Figure 18, appears.

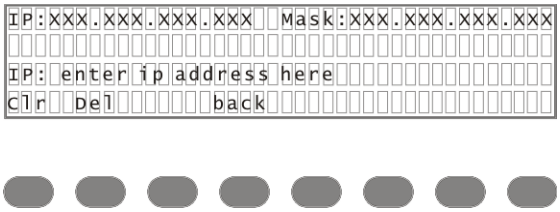


FIGURE 18. IP Menu

6. Using the console's keypad, enter the **IP Address** you want to assign to the C-6200 (use the * key for the dot between the octets).
7. Press the **back** softkey.
   The IP Setup menu appears.
8. Press the **Mask** softkey.
   The Mask Setup menu appears and the Mask field is active.
9. In the Mask field, enter the **Subnet Mask** of the network the C-6200 is connected to (Use the * key for the dot between the octets).
10. Once you are finished entering the Subnet Mask, press the **back** softkey.
    The IP Setup programming menu appears in the console display.
11. Press the **back** softkey.
    The Programming Mode menu appears in the console display.
12. Press the **EXIT** softkey.
    RESETTING C-6200, appears in the display. It is now possible to connect to the C-6200 using a web browser.

NOTE: See your network administrator if you need help determining which IP Address to use.

PIN Setup Menu

The **PIN Setup** menu, shown in Figure 19, is used to delete, set new or change the existing admin PIN number. This is the same admin PIN used in the web browser configuration. When an admin PIN is set, the C-6200 prompts for it before allowing changes.

NOTE: To set or change the admin PIN number with the web browser configuration, see "Account Setup" on page 103.

To **set a new admin PIN number**, do the following:

1. On the C-6200 keypad, press and hold the **MUTE** button, the **F16** button, and the **GRP** button in that order.
   One of two (2) menus appear on the console display: PIN Login screen, see Figure 15 or Programming Mode, see Figure 16.
2. Using the DTMF keypad, enter the **current admin PIN number**, if one is required.
   Asterisks appear for each character you enter.
3. Press the **OK** softkey.
   The Programming Mode menu appears.
4. Press the **PIN** softkey.
   The PIN Setup menu, shown in Figure 19, appears.
5. Press the **New** softkey.
   The PIN entry menu appears.
6. Using the DTMF keypad, enter a **new 4–16 digit PIN number**.
   Asterisks appear for each number you enter.

   NOTE: To delete the PIN entry from the console display, press the **CLEAR** softkey.
   To exit the menu and return to the PIN Setup menu without saving changes, press the **QUIT** softkey.
7. Press the **OK** softkey.
   The Confirm PIN menu appears
8. Using the DTMF keypad, enter the **new PIN number** again.
   Asterisks appear for each number you enter.

   NOTE: To exit the Confirm PIN menu and return to the PIN Setup menu without saving changes, press the **QUIT** softkey.

   NOTE: If you enter the wrong PIN, an *Invalid PIN* message appears. To return to the PIN Setup menu, press the **OK** softkey.
9. Press the **SAVE** softkey.
   The PIN Setup menu appears.
10. Press the **back** softkey.
    The programming mode menu appears.
11. Press the **EXIT** softkey.
    The console displays RESETTING C-6200 and a new admin PIN is set.

To **set the admin PIN to none required**, do the following:

1. On the C-6200 keypad, press and hold the **MUTE** button, the **F16** button, and the **GRP** button in that order.
   One of two menus appear on the console display PIN Login screen, see Figure 15, or Programming Mode, see Figure 19.
2. Using the DTMF keypad, enter the **admin PIN number**, if one is required.
   Asterisks appear on the top line for each character you enter.
3. Press the **OK** softkey.
   The Programming Mode menu appears.
4. Press the **PIN** softkey.
   The PIN Setup menu appears.
5. Press the **Clr** softkey.
   The message, Clear PIN? appears.
6. To exit the menu without clearing the PIN, press the **NO** softkey.
7. Press the **YES** softkey.
   The PIN is cleared.
8. Press the **back** softkey.
   The Programming Menu appears.
9. Press the **EXIT** softkey.
   The console displays RESETTING C-6200 and the admin PIN is cleared.

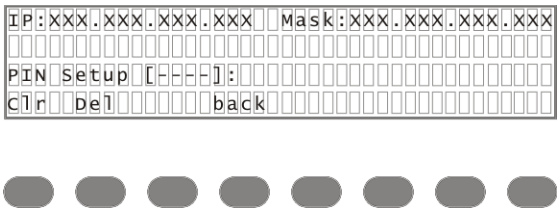


FIGURE 19. PIN Setup Menu

Quick Programming Menu

The **Quick Programming Menu** provides an alternate method to set the unit's clock or lookup the unit's IP Address and Subnet Mask with no PIN required.

Set Quick Clock Mode

The **Quick Clock Mode** is used to change the console clock without having to log into the Programming mode menu.

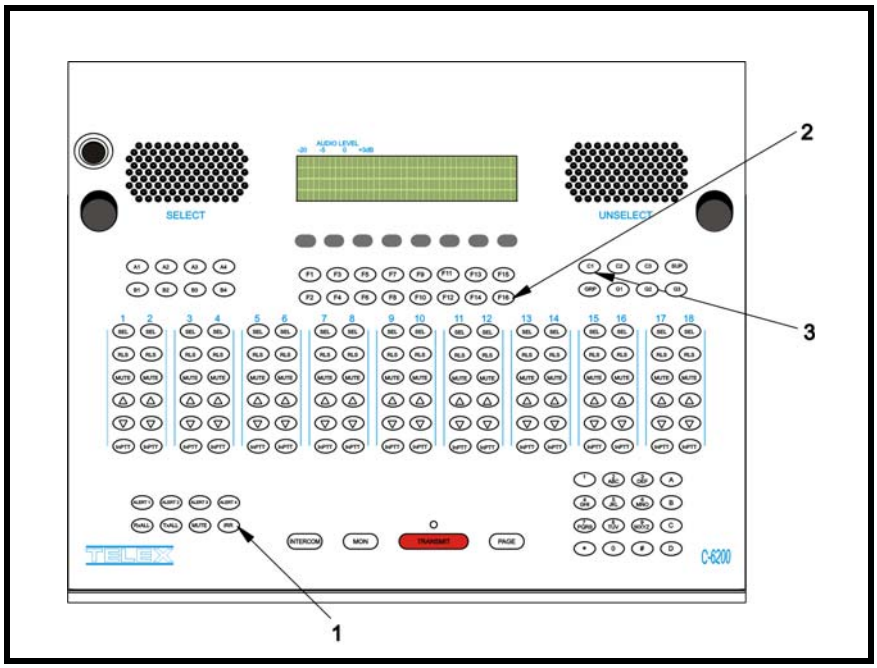


FIGURE 20. Enter Quick Clock and IP Lookup Mode

To **set the clock in quick clock mode**, do the following:

1. On the C-6200, press and hold the **MUTE** button, **F16** button, and the **C1** button in that order. See Figure 20. *The IP Address, Subnet Mask, clock and edit clock menu appear. See Figure 21.*
2. Follow steps **5–18** in "CLK Menu" on page 54.

NOTE: The quick clock edit menu does not require a C-6200 reset.

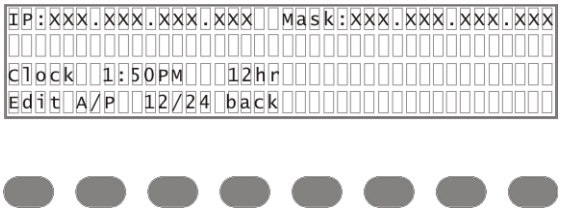


FIGURE 21. Clock Menu

To **lookup the C-6200's IP Address and Subnet Mask**, do the following:

> On the C-6200, press and hold the **MUTE** button, the **F16** button, and the **C1** button in that order. See Figure 20. *The IP Address and Subnet Mask appear on the display. See Figure 21.*

NOTE: The unit is not reset on exit.

Alternate Method: Change IP Address and Subnet Mask

An alternative to setting the IP Address and Subnet Mask for the C-6200 console is to configure the settings using **Microsoft HyperTerminal**.

NOTE: Go to www.hilgraeve.com for information about using HyperTerminal with Microsoft Vista.

DB-9 Cable

A **DB-9 Cable** (not included) is required to HyperTerminal to the C-6200. The cable connects to the computer's RS-232 port and the serial port located inside the unit.

CAUTION: Only certified technicians are authorized to complete these instructions.

To **connect the C-6200 to a computer with a DB-9 serial cable**, do the following:

1. Disconnect **power** from the C-6200.
2. Using a Phillips screwdriver, remove the C-6200 **back cover**.
3. Locate the **DB-9 connector** on the mainboard—positioned inside the unit behind the HANDSET jack.
4. Connect the **DB-9 cable** to the C-6200's DB-9 connector.
5. Connect the **other end of the cable** to the computer's RS-232 port (COM port)
6. Restore **power** to the C-6200.

To **change the IP Address and Subnet Mask Address once the serial connection from the console to the computer is established**, do the following:

1. From the Task Menu on your computer, click **Start**.
2. Click **Programs**.
3. Click **Accessories**.
4. Click **Communications**.
5. Click **HyperTerminal**.
   The Connection Description window appears, see Figure 23.

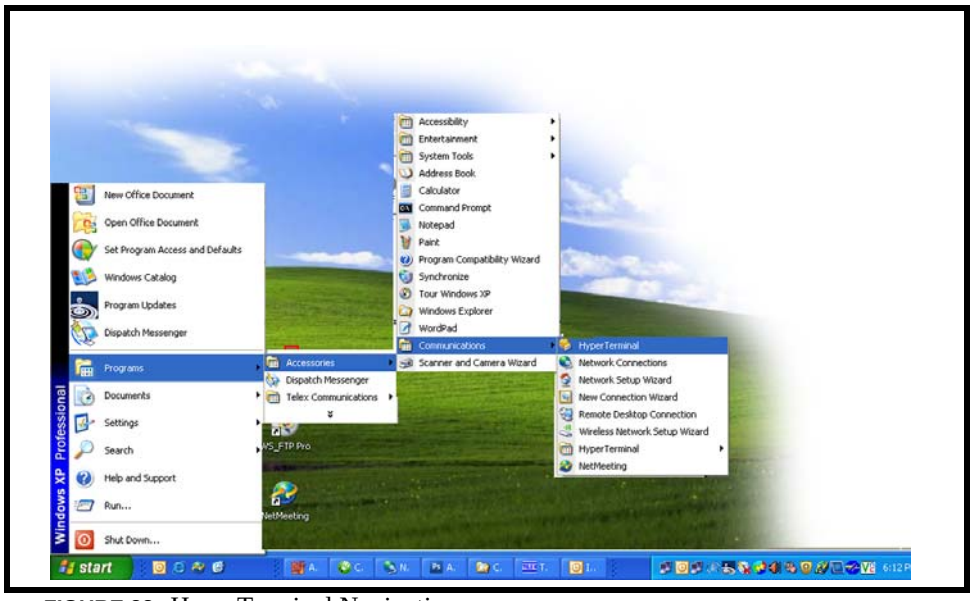


FIGURE 22. HyperTerminal Navigation

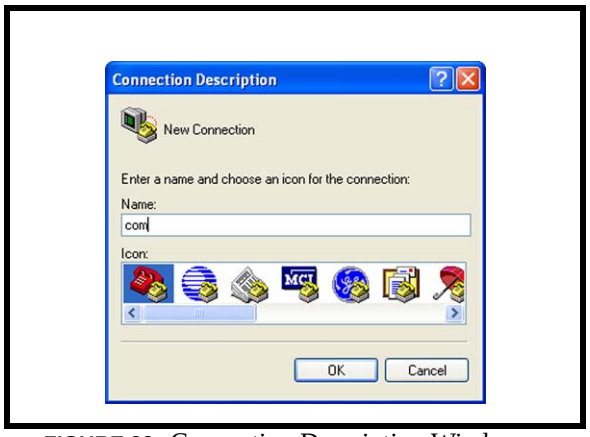


FIGURE 23. Connection Description Window

6. In the Name field, enter **com.**
7. Click **OK**.
   The Connect To window appears, see Figure 24.

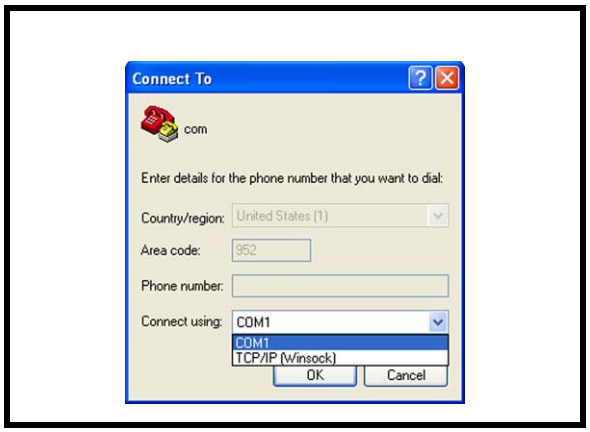


FIGURE 24. Connect To Window

8. From the Connect Using: drop down menu, select **COM1**.

9. Click **OK**.
The COM1 Properties window appears, see Figure 25.

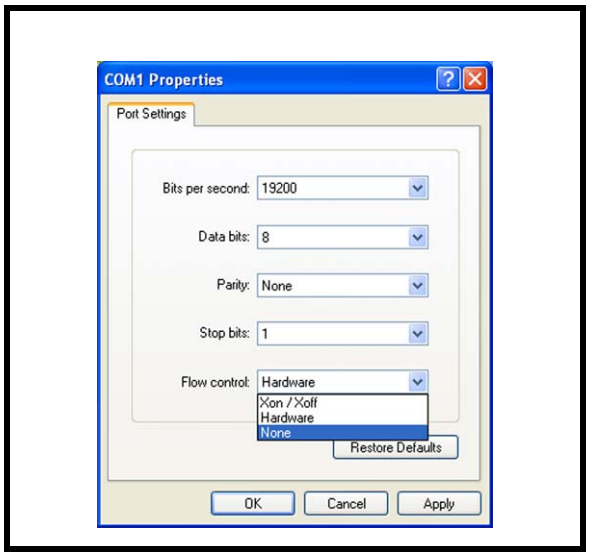


FIGURE 25. COM 1 Properties Window

10. From the Bits per second drop down menu, select **19200**.
11. From the Data bits drop down menu, select **8**.
12. From the Parity drop down menu, select **None**.
13. From the Stop bits drop down list, select **1**.
14. From the Flow Control drop down menu, select **None**.
15. Click **OK**.
The Main HyperTerminal window appears.

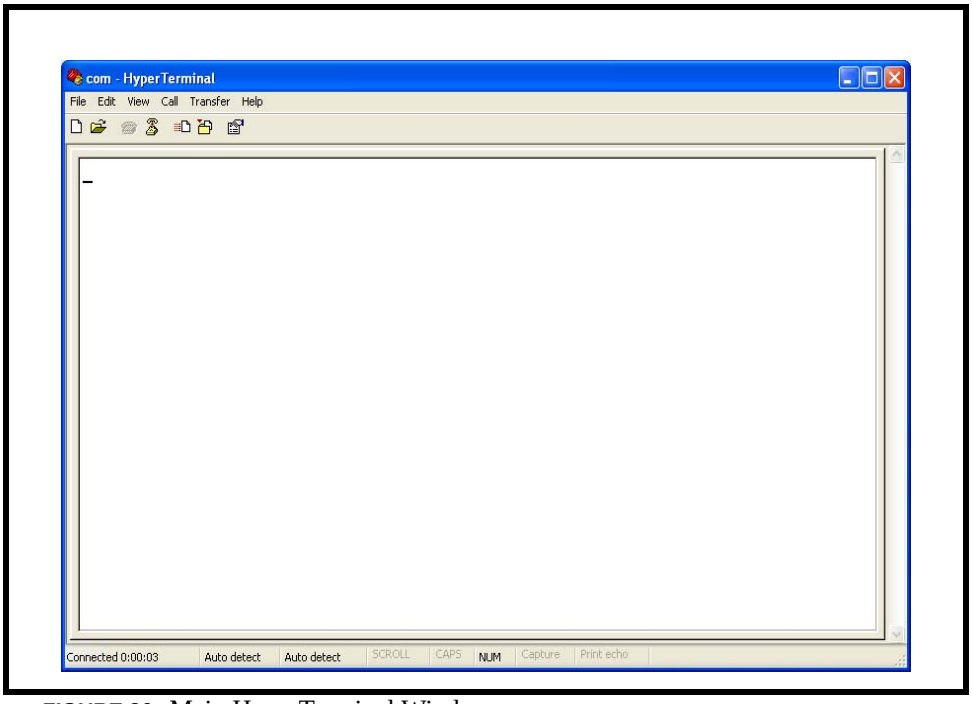


FIGURE 26. Main HyperTerminal Window

16. In the Main HyperTerminal window, type an uppercase **S**.
Enter Password for Factory Setup appears in the window.

NOTE: Scroll Lock must be off for HyperTerminal to function properly.

17. Enter **technobabble** for the factory password.
18. Press **Enter**.
The Hyperterminal window shown in Figure 27, appears.

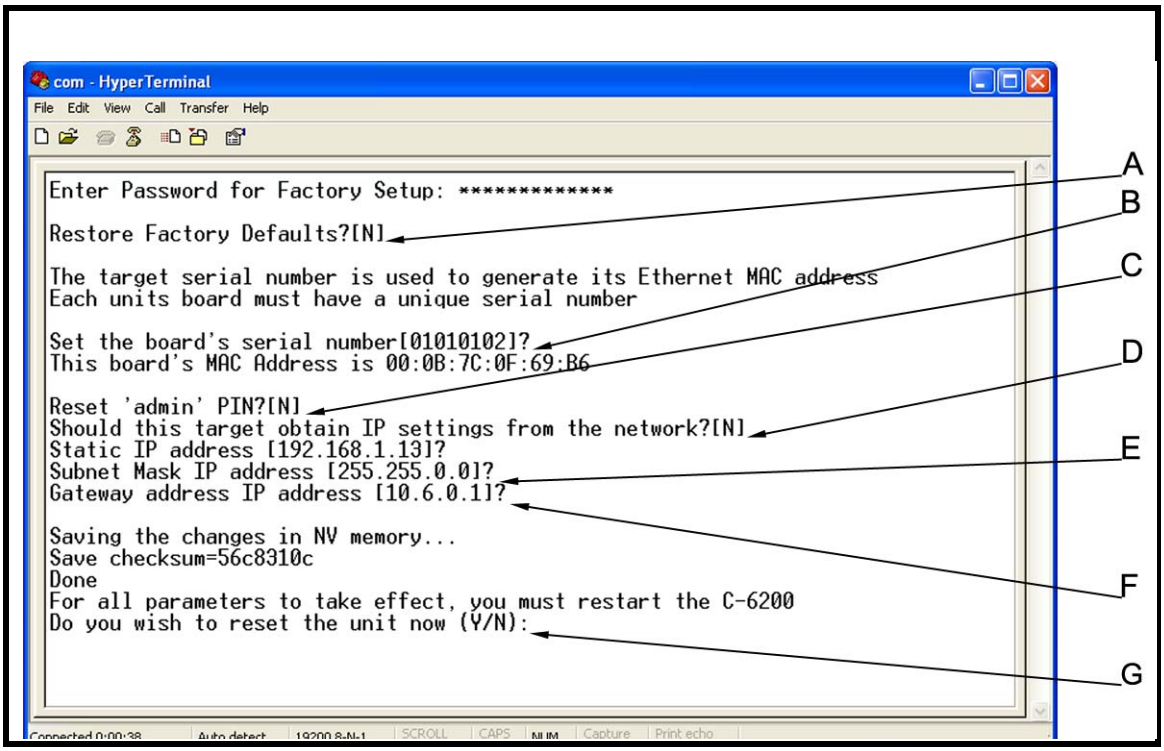


FIGURE 27. HyperTerminal Setup Window

NOTE: The HyperTerminal serial number is fixed and should match the serial number label on the back of the console. For more information about the MAC Address (B), see the footnote on page 19.

Factory Setup Options:

A - Allows the board parameters to be reset to factory default.

B - Allows the serial number to be updated.

C - Allows the PIN number to be reset.

D - Allows the unit to get an IP Address via DHCP or to manually set the IP Address.

E - Allows a Subnet Mask to be manually entered or changed.

F - Allows a Gateway Address to be manually entered or changed.

G - Provides the ability to reset the unit.

19. Reset the **C-6200**.
The message, shown in Figure 28, indicating your computer is communicating with the C-6200 appears.

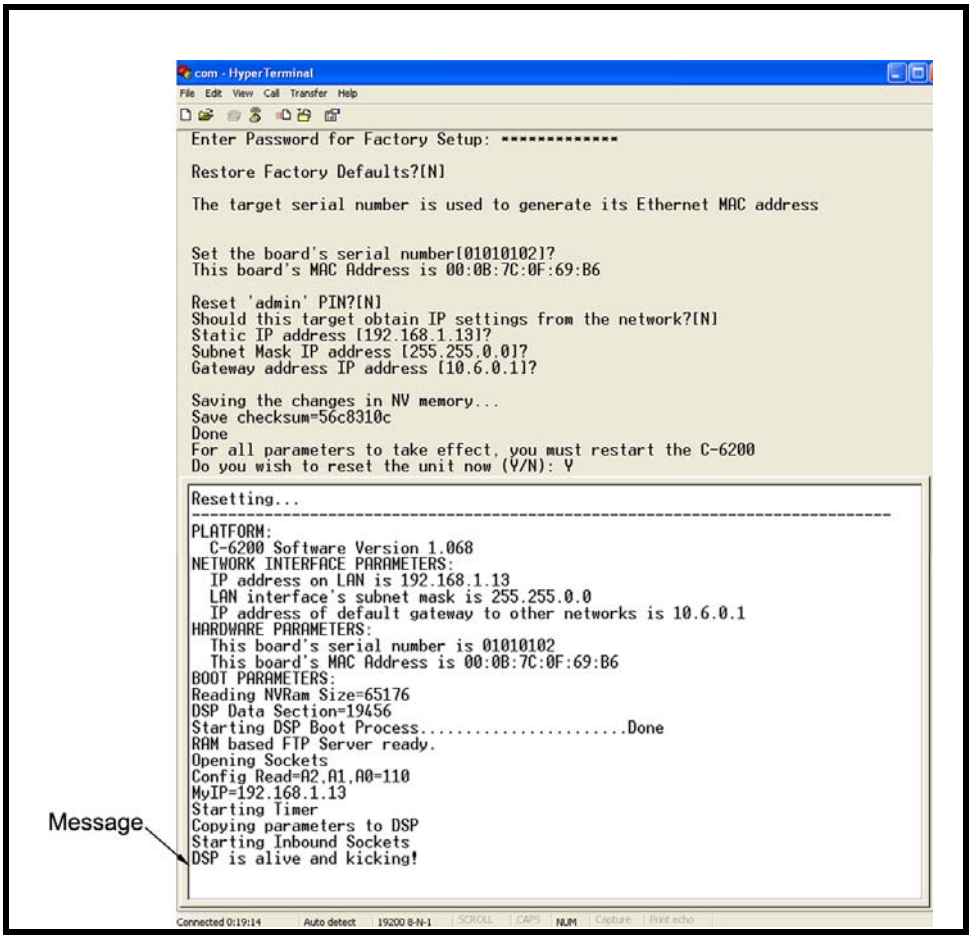


FIGURE 28. HyperTerminal Setup Window

C-6200 Web Browser Configuration

The **C-6200 Web Browser Configuration** windows are used to setup many of the system and network settings. General gain setup, per line setup, account setup, ID directory setup, paging and directory setup, as well as supervisory, intercom, monitor, and handset/headset features are configured in the individual windows. The ability to copy an existing console's configuration directly to a second console is also available. The following section describes the system configuration and network settings for the C-6200.

NOTE: A crossover cable provides for direct computer to C-6200 programming through the Ethernet port.

NOTE: To access the C-6200 via a web browser, the host computer must share the same subnet as the C-6200. See your network administrator if you need help to determine which IP Address and Subnet Mask to use.

To **begin configuring the C-6200 console with the web browser**, do the following:

1. Open a **browser window**.
2. Enter the base **IP Address** of the C-6200 in the address field, shown in Figure 29.
3. Press **Enter** on the keyboard.
   The Connect to [IP Address] window, shown in Figure 30, appears.

   NOTE: XXX.XXX.XXX.XXX refers to the octet values.

FIGURE 29. IP Address Entry

FIGURE 30. C-6200 Login Window

4. In the User Name drop down menu, select or enter **admin**.
   If this is the first time you are signing into the C-6200 Web Browser Configuration you may need to manually enter admin.
5. In the PIN number field, enter the appropriate **PIN Number**.
6. Click **OK**.
   The Welcome Window, shown in Figure 33, appears.

C-6200 Windows Standards

Links

Links provided across the top of the web browser window, shown in Figure 31, are used to access parameters to configure the C-6200. A brief description of each is provided below.

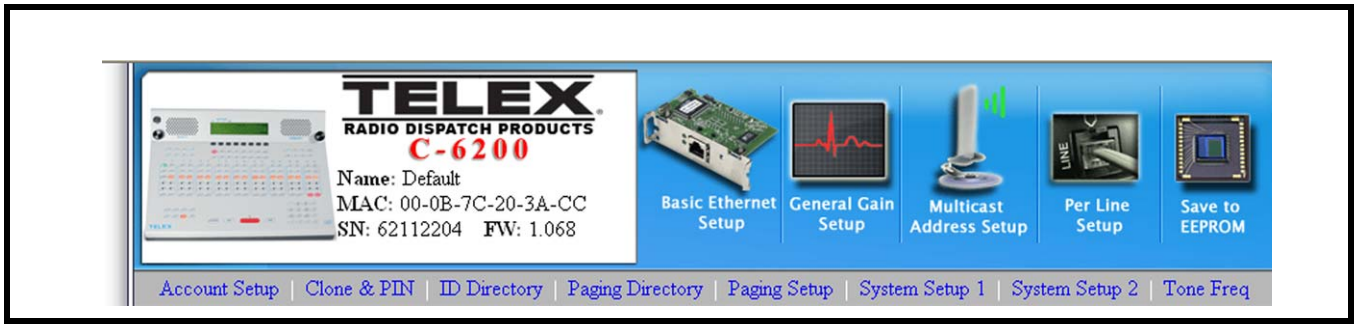


FIGURE 31. C-6200 Links

Homepage Hyperlink

The **Homepage Hyperlink**, show in Figure 32, is used to navigate to the “Welcome Window” see page 70. The (Console) Name, MAC Address, see “MAC Address” on page 73, **SN** (Serial Number) and **FW** (Firmware) version of the device connected to the configuration webpage appear on the hyperlink.

FIGURE 32. Homepage Hyperlink

	Displays the “Basic Ethernet Setup” on page 72.
	Displays the “General Gain Setup” on page 76.
	Displays the “Multicast Address Setup” on page 82.
	Displays the “Per Line Setup—Line Card” on page 89 or “Per Line Setup—Phone Card” on page 98.
	Displays the “Save to EEPROM” on page 102.
	Displays the “Account Setup” on page 103.
	Displays the “Clone & Pin” (Clone Console/PIN Change) on page 119.

ID Directory	Displays the “ID Directory” on page 122.
Paging Directory	Displays the “Paging Directory” on page 129.
Paging Setup	Displays the “Paging Encoder Setups” on page 136.
System Setup 1	Displays the “System Setup 1” on page 149.
System Setup 2	Displays the “System Setup 2” on page 159.
Tone Freq	Displays the “Tone Freq” (Tone Frequency and Durations) page 167.

Welcome Window

The **Welcome Window**, shown in Figure 33, provides a basic description of the C-6200 functions and features. You can enter a console name from either this window or in the “Console Name Field” described on page 150.

FIGURE 33. Welcome Window

Console Name Field

The **Console Name** field is used to identify the currently active console setup.

To **name the console**, do the following:

> Type a **name** for the console, up to *12 characters* are allowed.
The name appears in the Console Name field.

NOTE: The field can be left blank, if desired.

Firmware Version Field

The **Firmware Version** field displays the version for the currently loaded firmware.

Checksum Field

The **Checksum** is calculated from the firmware programmed in the unit.

This field is not editable.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save the console name**, do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.

2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.

3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

NOTE: To navigate back to the Welcome Window, click the **C-6200 photo** in the upper-left corner of the window.

Basic Ethernet Setup

The **Basic Ethernet Setup** window, shown in Figure 34, is used to configure your network connections by setting the host protocol, the C-6200 console IP Address, Subnet Mask, Gateway Address, as well as setting the network time protocol and packet delay. With the Basic Ethernet Setup window, you can IP-crossmute *up to 15 Telex Radio Dispatch VoIP consoles* on the same network. Each field on this window is discussed below.

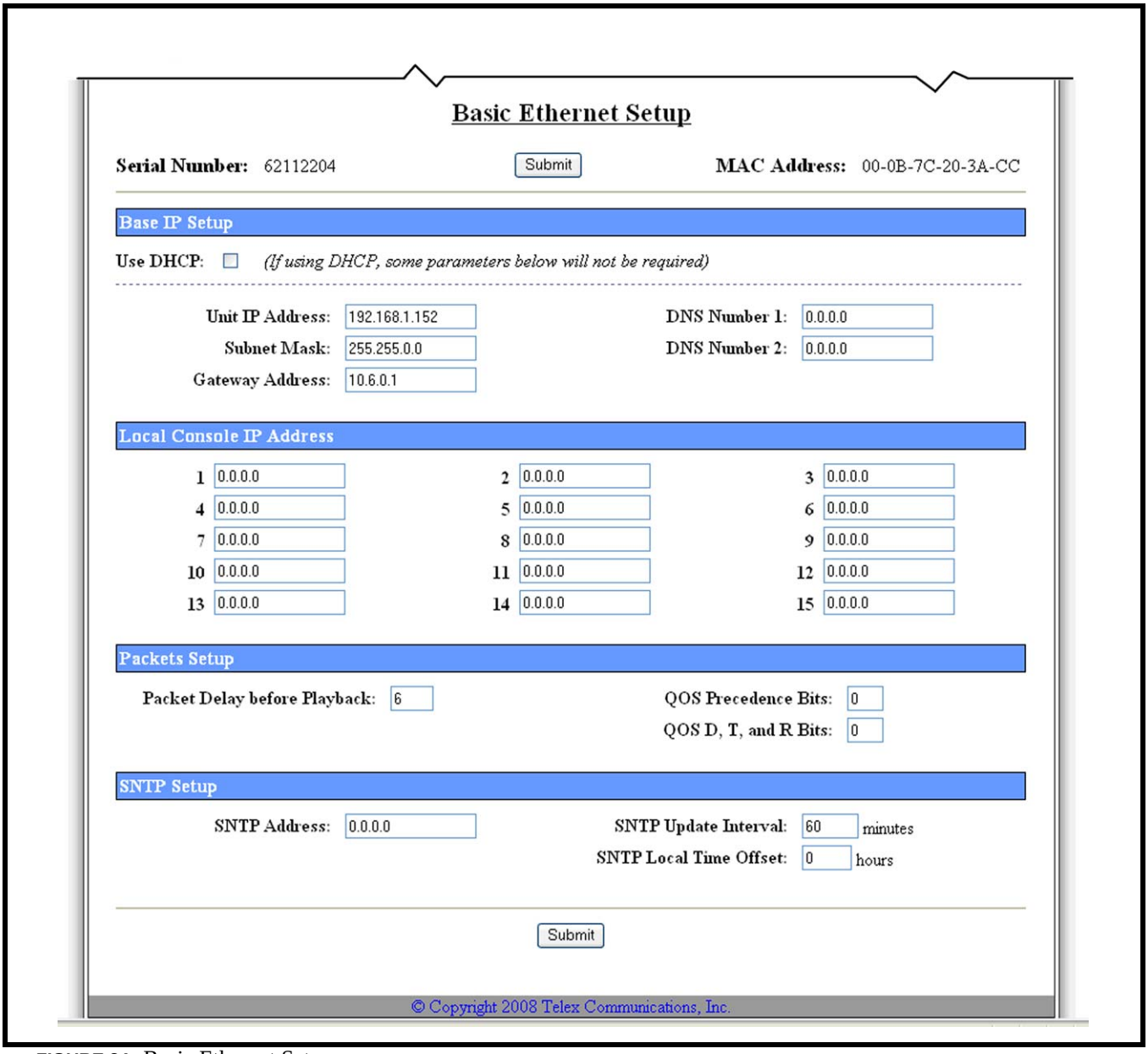


FIGURE 34. Basic Ethernet Setup

Serial Number Field

The **Serial Number** field displays the serial number of your C-6200. The serial number label located on the back of the console should match the number in this field. See “C-6200 Console Back” on page 26 for location.

MAC Address

The **MAC Address** field displays the MAC Address of the C-6200.

Base IP Setup

Use DHCP Check Box

The **Use DHCP** check box indicates whether or not **DCHP** (Dynamic Host Configuration Protocol) is used. If selected, DHCP allows the C-6200 to obtain its network address information from the network, bypassing any manual entries.

IMPORTANT: Telex does not recommend operating with DHCP running. This can cause the base IP Address to change without notice.

Unit IP Address Field

The **Unit IP Address** field is used to enter a unique base IP Address for the C-6200. The web browser configuration uses the IP Address to identify the C-6200 for such operations as setup and software upgrades.

DNS Number 1–2 Fields

The **DNS Number 1–2** fields are currently not supported.

Subnet Mask Field

The **Subnet Mask** field is used to enter the Subnet Mask Address. The Subnet Mask is used to distinguish local addresses from addresses that require the use of a gateway to reach. See your network administrator for this field value.

NOTE: A subnet is a portion of a network that shares a common address component with other nodes on the network. On a TCP/IP network, a subnet is described as all computers or devices whose IP Address have the same prefix.

Gateway Address Field

The **Gateway Address** field is used to enter the Gateway Address. The Gateway Address is the IP Address for the node used to reach other networks. See your network administrator for this field value.

Local Console IP Address

Local Console IP Addresses 1–15 Fields

The **Local Console IP Addresses 1–15** fields are used to enter the local IP Addresses of other Radio Dispatch VoIP consoles in the same network. This list is used for the Ethernet based crossmute function. The C-6200 examines the source of the audio, if the source is from another console in this list, the C-6200 then mutes the parallel transmit audio. This feature is generally used on consoles in the same room.

Up to *15 consoles* can be entered.

Packet Setup

Packet Delay Before Playback Field

The **Packet Delay Before Playback** field is used to enter a delay of audio packets before they are played. Some buffering of these packets must occur before playback, to absorb network jitter and delays. The typical value for this field is *6*. Larger values may be required for larger networks and smaller values for smaller networks.

The range for this field is *4* to *29*.

QOS Precedence Bits Field

The **QOS: Precedence Bits (Quality of Service)** field is used when differentiated services QOS is active on the network. Typically, this value is set to *0 for normal traffic* or *set to 6 for voice traffic*.

The range for this field is *0* to *7*.

QOS D, T, and R Bits Field

The **QOS D, T, and R Bits** field is used for advanced configuration purposes. These bits are typically set to 0. Contact your network administrator for proper field values.

The range for this field is *0* to *7*.

QOS D, T, and R options include the following:

Delay (D) -	an active delay bit tells the router to choose a high speed to minimize delay.
Throughput (T) -	an active throughput bit specifies high capacity links should be used.
Routing (R) -	an active routing bit, directs routing protocols and network management applications to select fault-tolerant paths.

For information on binary equivalents for QOS precedence delay, throughput, and reliability see “Precedence Field and D, T, R Binary Bits” on page 211.

SNTP Setup

SNTP Address Field

The **SNTP Address (Simple Network Time Protocol)** field is used to enter the IP Address of the time server on the network. The time server is used as a standard clock for all devices on the network. It can be a computer, a national atomic clock source available on the internet, or a local GPS or atomic clock-based network resource.

SNTP Update Interval Field

The **SNTP Update Interval** field is used to set, in minutes, the amount of time between queries to the time server for updates.

The range for this field is *1 minute* to *9999 minutes*.

SNTP Local Time Offset Field

The **SNTP Local Time Offset** field is used to enter the offset time, in hours, from UTC (Coordinated Universal Time). The Time Server always displays its time as UTC. See “UTC Offset Times” on page 213.

The range for this field is *-12 hours* to *12 hours*.

NOTE: UTC is an atomic time scale that approximates **GMT** (Greenwich Mean Time).

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes**, do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

General Gain Setup

The **General Gain Setup** window, shown in Figure 35, is used to adjust gain levels, as required. Except for handset sidetone gain, the gains are set to *0dB*, by default, and can be adjusted up or down. Each field on this window is discussed below.

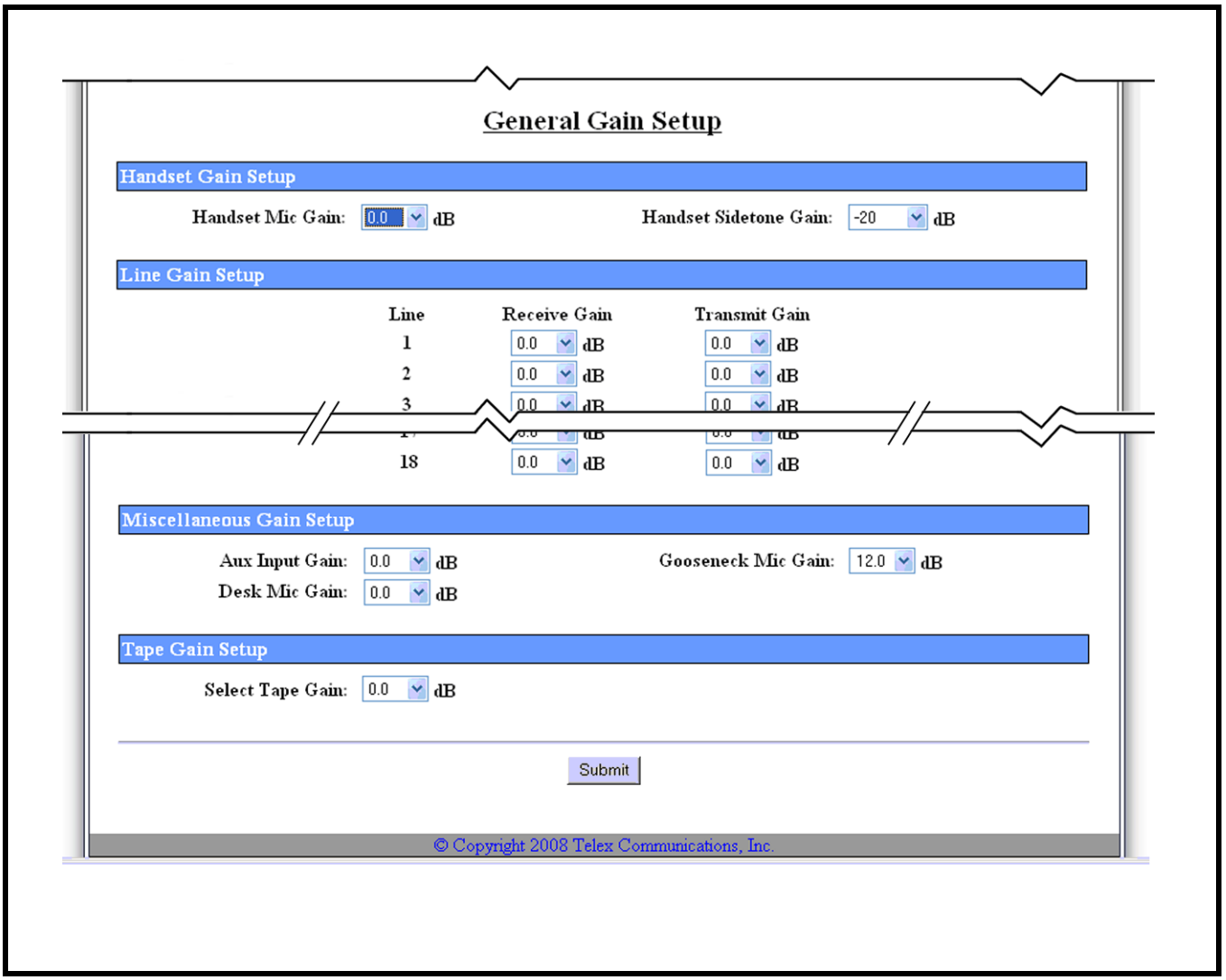


FIGURE 35. General Gain Setup

Handset Gain Setup

Handset Mic Gain Drop Down Menu

The **Handset Mic Gain** drop down menu is used to set the gain level, in dB, for the handset mic.

Available selections for this field are: *12.0, 10.5, 9.0, 7.5, 6.0, 4.5, 3.0, 1.5, 0.0 (default), -1.5, -3.0, -4.5, -10.5, -16.5, -22.5, -28.5, 34.5*.

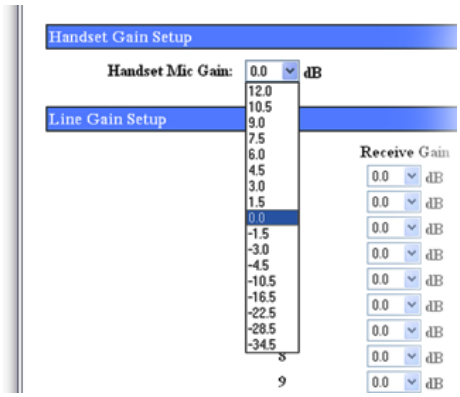


FIGURE 36. Handset Mic Gain Drop Down Menu

Handset Sidetone Gain Drop Down Menu

The **Handset Sidetone Gain** drop down menu is used to set the volume, in dB, of sidetone you hear in the handset. Sidetone is an adjustable amount of your voice signal sent back through the handset, so you can hear yourself talk.

Available selections for this field are: *-12, -14, -16, -18, -20 (default), -22, -24, MUTE*.

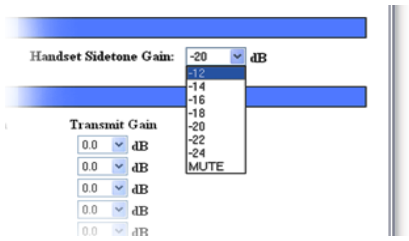


FIGURE 37. Handset Sidetone Gain Drop Down Menu

Line Gain Setup

Receive Gain Drop Down Menu

The **Receive Gain** drop down menu is used to set the gain level, in dB, for received audio.

Available selections for this field are: *12.0, 10.5, 9.0, 7.5, 6.0, 4.5, 3.0, 1.5, 0.0 (default), -1.5, -3.0, -4.5, -10.5, -16.5, -22.5, -28.5, -34.5*

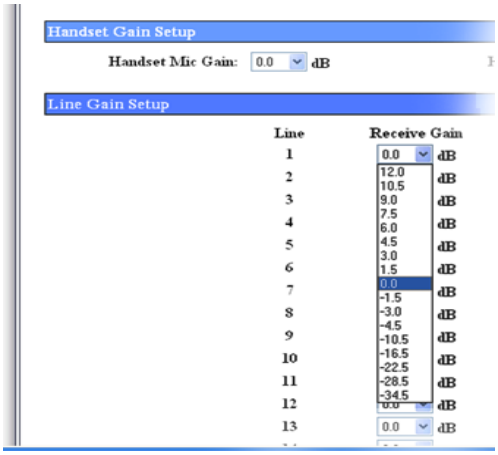


FIGURE 38. Handset Mic Gain Drop Down Menu

Transmit Gain Drop Down Menu

The **Transmit Gain** drop down menu is used to set the gain level, in dB, for transmit audio.

Available selections for this field are: *12.0, 10.5, 9.0, 7.5, 6.0, 4.5, 3.0, 1.5, 0.0 (default), -1.5, -3.0, -4.5, -10.5, -16.5, -22.5, -28.5, -34.5*.

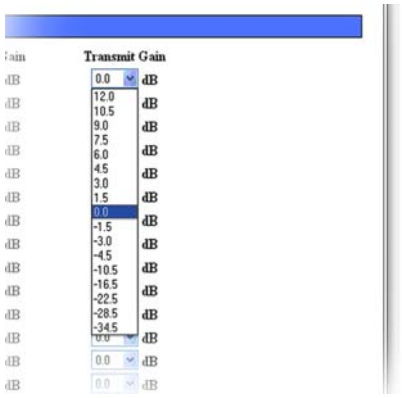


FIGURE 39. Transmit Gain Drop Down Menu

Miscellaneous Gain Setup

Aux Input Gain Drop Down Menu

The **Aux Input Gain** drop down menu is used to set the gain level, in dB, for the auxiliary input audio. The auxiliary input port takes audio output from an external device to pass over the network.

Available selections for this field are: *12.0, 10.5, 9.0, 7.5, 6.0, 4.5, 3.0, 1.5, 0.0 (default), -1.5, -3.0, -4.5, -10.5, -16.5, -22.5, -28.5, -34.5.*

FIGURE 40. Aux Input Gain Drop Down Menu

Gooseneck Mic Gain Drop Down Menu

The **Gooseneck Mic Gain** drop down menu is used to set the gain, in dB, of a gooseneck mic.

Available selections for this field are: *12.0, 10.5, 9.0, 7.5, 6.0, 4.5, 3.0, 1.5, 0.0 (default), -1.5, -3.0, -4.5, -10.5, -16.5, -22.5, -28.5, -34.5.*

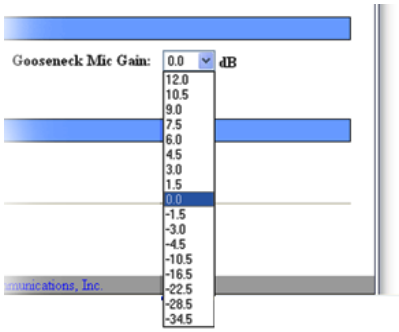


FIGURE 41. Gooseneck Mic Gain Drop Down Menu

Desk Mic Gain Drop Down Menu

The **Desk Mic Gain** drop down menu is used to set the gain level, in dB, for an external deskmic.

Available selections for this field are: *12.0, 10.5, 9.0, 7.5, 6.0, 4.5, 3.0, 1.5, 0.0 (default), -1.5, -3.0, -4.5, -10.5, -16.5, -22.5, -28.5, -34.5*.

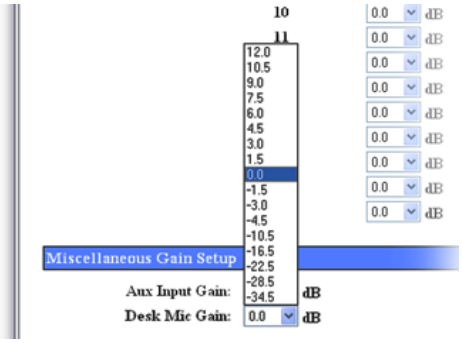


FIGURE 42. Desk Mic Gain Drop Down Menu

Tape Gain Setup

Select Tape Gain Drop Down Menu

The **Select Tape Gain** drop down menu is used to set the gain, in dB, of the tape output audio.

Available selections for this field are: *12.0, 10.5, 9.0, 7.5, 6.0, 4.5, 3.0, 1.5, 0.0 (default), -1.5, -3.0, -4.5, -10.5, -16.5, -22.5, -28.5, -34.5*.

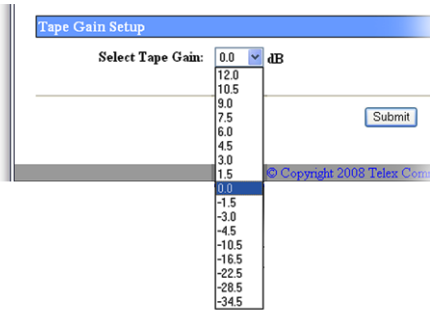


FIGURE 43. Select Type Gain Drop Down Menu

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.

2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.

3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

Multicast Address Setup

The **Multicast Address Setup** window, shown in Figure 44, is used to determine which ports the C-6200 uses to communicate information across various lines. Each field on this window is discussed below.

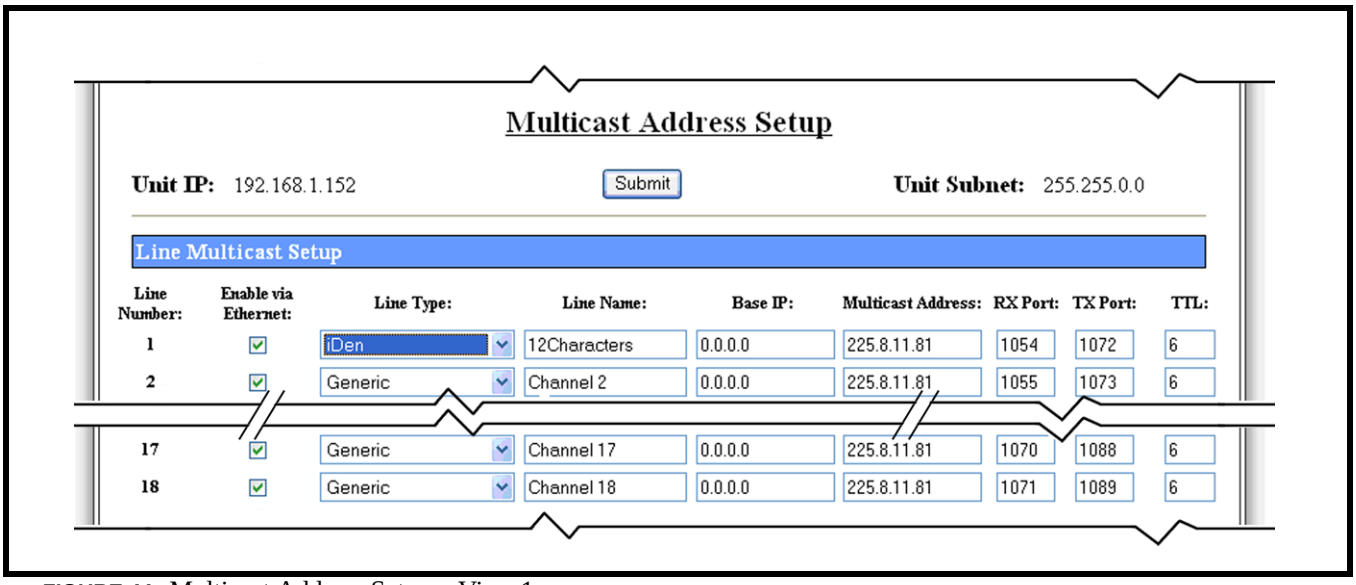


FIGURE 44. Multicast Address Setup—View 1

Unit IP Display

The **Unit IP** field displays the console's IP Address.

Unit Subnet Display

The **Unit Subnet** field displays the consoles's Unit Subnet Address.

Line Multicast Setup

Line Number (1–18)

The **Line Number (1–18)** is used to label the Multicast setup rows.

Enable via Ethernet Check Box

The **Enable via Ethernet** check box is used to turn Ethernet connectivity on or off for the specified line. Line activation to the network requires the Enable via Ethernet check box be selected for the line.

Line Type Drop Down Menu

The **Line Type** drop down menu identifies the type of device assigned to each line. The selected type also defines the configuration options available for the line.

Available selections for this field are: *Generic, Phone, iDEN, Kenwood FleetSync*.

NOTE: If configuring an iDEN as a phone resource, select **Phone**.
If configuring an iDEN as a radio resource, select **iDEN**.

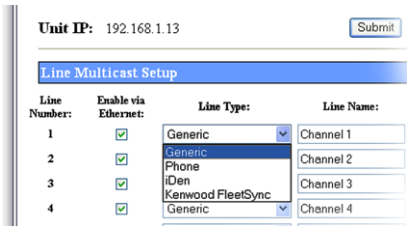


FIGURE 45. Line Type Drop Down Menu

Line Name Field

The **Line Name** field is used to enter an alphanumeric label to a particular line.

This field can contain up to *12 characters*.

Base IP Address Field

The **Base IP Address** field is used to enter the base IP Address of the IP-223 controlling a radio or phone resource.

NOTE: Each phone line must be assigned to the static IP Address of a C-6200 with phone cards installed or an IP-223 with a **TDI** (Telephone Dispatch Interface) or **PIB** (Phone Interface Box) attached.

Multicast Address Field

The **Multicast Address** field is used to enter the broadcast address for all audio traffic. This number must be between 224.0.0.2 and 239.255.255.255. With the exception of phone operation, all lines must have the same Multicast Address to allow for communication between consoles.

RX and TX Port Fields

The **RX and TX Port** fields identify the RX and TX port numbers.

The range for this field is *1054* to *65535*.

NOTE: If you want all consoles to monitor receive and transmit audio on a specific line, you must have their base Multicast Address, RX and TX port set the same.

NOTE: Phone operation also requires unique Rx and Tx ports.

TTL Field

The **TTL** (Time To Live) field identifies the number of routers the multicast audio packets pass through before being discarded. Network design dictates this value. See your network administrator for further information.

The range for this field is *1* to *128*, the default value is *6*.

Multicast Address Setup—View 2

Local/NEO-10 AUX Relay Setup

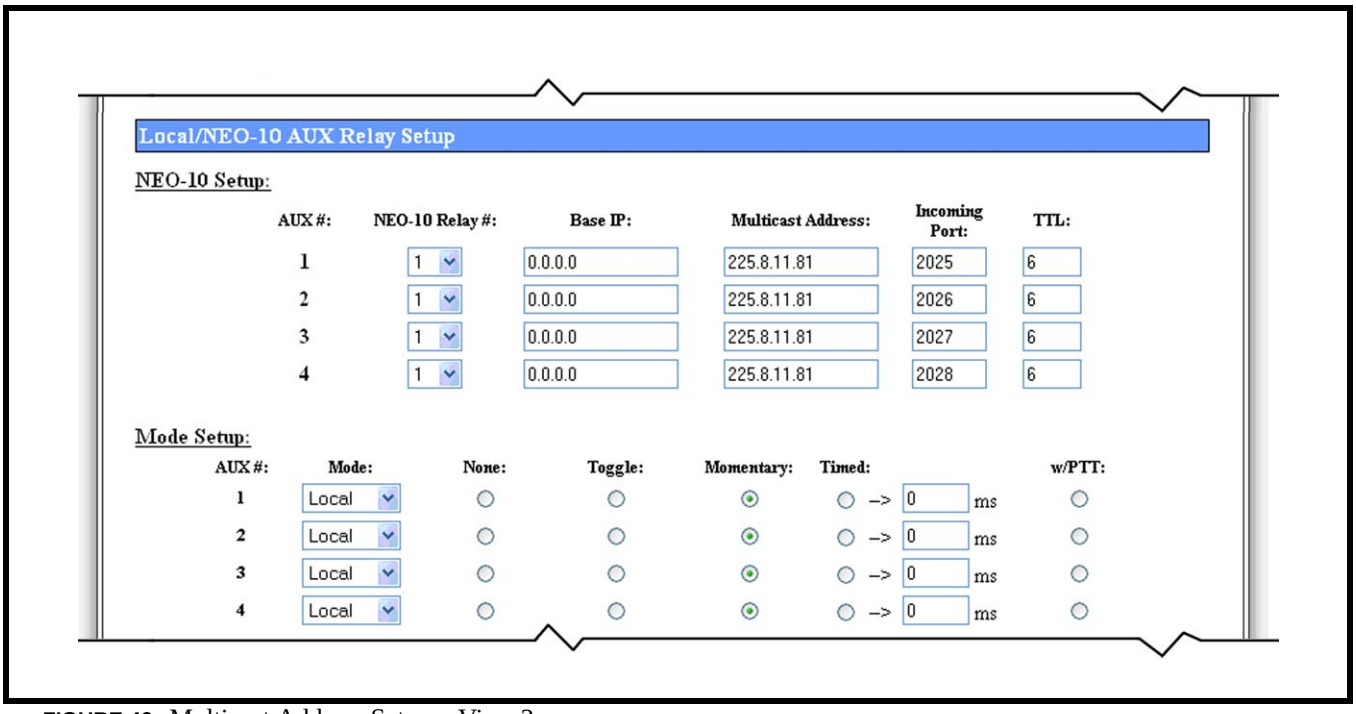


FIGURE 46. Multicast Address Setup—View 2

NEO-10 Setup:

The **NEO-10 Setup** section is used to configure network addresses for any relay that activates a NEO-10.

AUX# Display

The **AUX#** display is used to label the NEO-10 setup row. This number indicates the relay used.

NEO-10 Relay # Drop Down Menu

The **NEO-10 Relay #** drop down menu is used to select which NEO-10 relay you want to control.

Available selections for this field are *1*, *2*, *3*, *4*, *5*, *6*, *7*, *8*, *9*, and *10*.

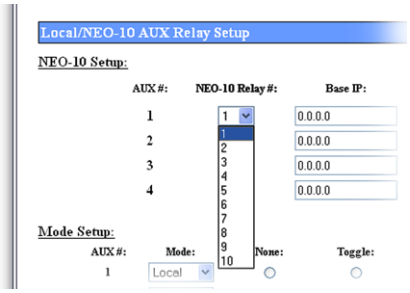


FIGURE 47. NEO-10 Relay#

Base IP Field

The **Base IP** field is used to indicate the IP address of the NEO-10.

Multicast Address Field

The **Multicast Address** field is the address used to receive current status packets from the NEO-10.

Incoming Port Field

The **Incoming Port** field is used to indicate which port the current status packets are being received.

This number must be unique per system and be between *1054* and *65535*.

TTL Field

The **TTL** field is used to indicate the number of routers the multicast audio packets pass through before being discarded. Network design dictates this value. See your network administrator for further information.

The range for this field is from *1* to *128*, the default value is *6*.

Mode Setup:

The **Mode Setup** section is used to configure the relay for local or NEO-10 mode.

AUX# Display

The **AUX#** display is used to label the Mode setup row. This number indicates the relay used.

Mode Drop Down Menu

The **Mode** drop down menu is used to select the desired mode for the auxiliary relay you are configuring. The four (4) auxiliary relays are accessed by the console operator with the (A1–A4) buttons.

Available selections for this field are:

Local - The selected auxiliary relay controls a local C-6200 relay.

NEO-10 - The selected relay controls a remote NEO-10 relay.

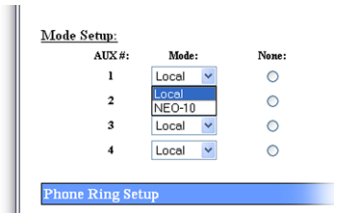


FIGURE 48. Mode Drop Down Menu

None Radio Button

The **None** radio button indicates no relay is used.

Toggle Radio Button

The **Toggle** radio button indicates the operator can toggle the relay on/off. The auxiliary device remains active until the operator presses the lighted (A1–A4) button.

Momentary Radio Button

The **Momentary** radio button indicates the relay is active while the operator presses the (A1–A4) button. Once the operator releases the (A1–A4), the relay is deactivated.

Timed Radio Button

The **Timed** radio button indicates the auxiliary relay remains active for the amount of time configured in the Timed field.

Timed Field

The **Timed** field indicates the amount of time, in ms, the selected auxiliary device is active after the button is pressed. The auxiliary relay deactivates the device once the indicated time has lapsed.

The range for this field is *0ms* to *9999ms*.

w/PTT Radio Button

The **w/PTT** radio button indicates the auxiliary device is active when any PTT button is pressed.

Multicast Address Setup—View 3

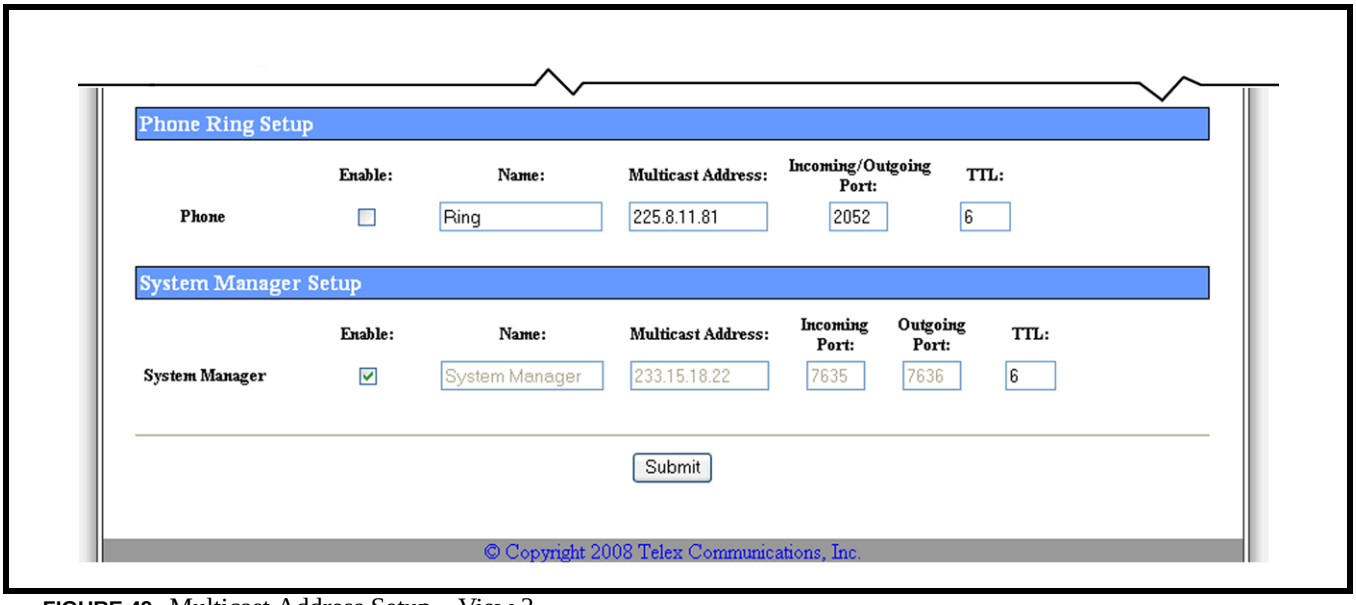


FIGURE 49. Multicast Address Setup—View 3

Phone

The **Phone** section is used to indicate the Multicast Address, port number and network packet setup for a networked phone line.

Enable Check Box

The **Enable** check box is used to configure a line to send/receive a phone ring multicast when a phone line is ringing.

Name Field

The **Name** field is used to enter an alphanumeric label for the phone ring multicast.

This field can contain up to *12 characters*.

Multicast Address Field

The **Multicast Address** field is used to enter the broadcast address for the phone ring signal.

To configure the broadcast address, do the following:

> Enter the **Multicast Address** of the C-6200 with phone cards installed.
> OR
> Enter the **Multicast Address** of an IP-223 with a TDI or PIB attached.

The range for this field is *224.0.0.2* to *239.255.255.255*.

NOTE: The Multicast Address must match the sending unit (an IP-223 with either TDI or PIB, or a C-6200 with phone line cards installed) for proper operation.

Incoming/Outgoing Port Field

The **Incoming/Outgoing Port** field identifies the port number where the phone ring signal is received.

The range for this field is *1054* to *65535*.

NOTE: The port number must match the sending/receiving unit's port number for proper operation.

TTL Field

The **TTL** field identifies the number of routers the multicast audio packets pass through before being discarded. Network design dictates this value. See your network administrator for further information.

The range for this field is *1* to *128*, the default value is *6*.

System Manager Setup

The **System Manager Setup** section is used to enable TSM for the console.

See "Update Firmware" on page 171 for more information.
See the Telex System Manager Technical Manual (LIT000259000) for more details.

CAUTION: TSM version 1.012 or later is required for updating C-6200 consoles.
Do not use TSM to update C-6200 version 1.06 or earlier.
Contact technical support for software update guidance.

Enable Check Box

The **Enable** check box is used to enable communication with TSM. If unselected, TSM can not detect the C-6200. By default, the check box is selected.

Name Field

The **Name** field is, by default, *System Manager.*

This field is not editable.

Multicast Address Field

The **Multicast Address** field is automatically populated.

This field is not editable.

NOTE: To avoid network problems, do not use the Multicast Address in this field or anywhere else on the network.

Incoming Port Field

The **Incoming Port** field identifies the port used to automatically communicate with TSM. TSM requests data from the console through this port.

This field is not editable.

Outgoing Port Field

The **Outgoing Port** field identifies the port used to automatically communicate with TSM. The console sends data back to TSM from this port.

This field is not editable.

TTL Field

The **TTL** field identifies the number of routers the multicast audio packets pass through before being discarded. Network design dictates this value. See your network administrator for further information.

The range for this field is *1* to *128*, the default value is *6.*

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

Per Line Setup—Line Card

The **Per Line Setup** window, shown in Figure 50, Figure 51, and Figure 52, is used to view and set the parameters specific to each line on the C-6200. Each field on this window is discussed below.

NAVIGATION: Click one of the **Line 1**–**18** buttons at the top of the Per Line Setup page to navigate to the line you want to configure.

NOTE: If the line has a phone card, see “Per Line Setup—Phone Card” on page 98.

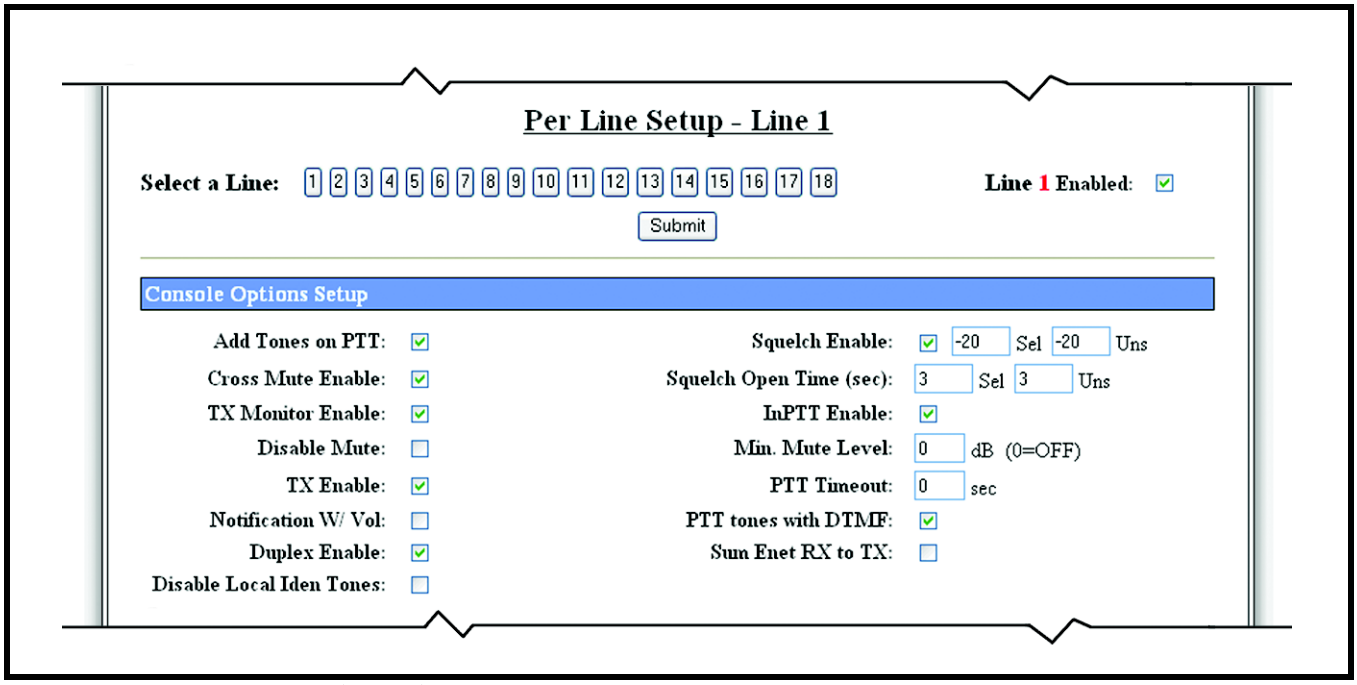


FIGURE 50. Per Line Setup (View 1)

Select a Line Buttons (1–18)

The **Select a Line (1–18)** buttons are used to navigate to the per line setup window for the line selected.

Enabled Check Box

The **Enabled** check box is used to indicate if the line is enabled. When selected, the line is enabled. If the line is disabled, transmit and receive audio is not allowed.

Console Options Setup

Add Tones on PTT Check Box

The **Add Tones on PTT** check box is used to generate standard tones out of the line card when any PTT button is pressed. If selected, the line is used for tone control, otherwise the line is used for local control.

Squelch Enable Sel Check Box

The **Squelch Enable Sel** check box is used to enable squelching of the audio. Once receive audio reaches a certain level, the squelch circuit allows audio to be played to the speakers. If disabled, receive audio is always played to the speakers regardless of the level. Ethernet squelch is not affected by this field.

Squelch Enable Sel Field

The **Squelch Enable Sel** field is used to control the SELECT speaker's playback squelch. Once receive audio reaches the set level, the squelch circuit allows audio to the SELECT speaker. Ethernet squelch is not affected by this field.

The range for this field is *-60dB* to *12dB.*

Squelch Enable Uns Field

The **Squelch Enable Uns** field is used to control the UNSELECT speaker's playback squelch. Once receive audio reaches the set level, the squelch circuit allows audio to the UNSELECT speaker. Ethernet squelch is not affected by this field.

The range for this field is *-60dB* to *12dB.*

Cross Mute Enable Check Box

The **Cross Mute Enable** check box is used to enable the line card crossmute I/O. Local console's Ethernet crossmute is not affected by this check box.

Squelch Open Time (sec) Sel Field

The **Squelch Open Time (sec) Sel** field is used to set the amount of time, in seconds, the console continues to play audio to the Ethernet and SELECT speaker once audio is below the squelch threshold.

The range for this field is *0 sec* to *60 sec*.

Squelch Open Time (sec) Uns Field

The **Squelch Open Time (sec) Uns** field is used to set the amount of time, in seconds, the console continues to play audio to the Ethernet and UNSELECT speaker once audio is below the squelch threshold.

The range for this field is *0 sec* to *60 sec*.

TX Monitor Enable Check Box

The **TX Monitor Enable** check box indicates the user can monitor TX audio from a parallel analog console.

InPTT Enable Check Box

The **InPTT Enable** check box indicates the console operator can use the per line InPTT buttons to instantly connect and respond to an incoming call. During group calls when the TRANSMIT button is pressed, the active line's InPTT button lights.

NOTE: InPTT does not work on phone lines and is used as a Local Loop Monitor indication when a phone card is installed.

Disable Mute Check Box

The **Disable Mute** check box is used to disable the mute function on the line. When selected, the operator cannot mute the line. This forces the operator to monitor the line.

Min. Mute Level Field

The **Min. Mute Level** field is used to set the minimum level, in dB, of audio heard when the mute key is selected. Setting a minimum level prevents the operator from muting the audio.

The range for this field is *-60dB* to *0 (0 = OFF).*

To **set the Min Mute level**, do the following:

> In the Min Mute level field, enter a **value**, in dB, for the lowest acceptable audio level while in mute condition. *When the console operator mutes the line audio is received at the configured level.*

TX Enable Check Box

The **TX Enable** check box is used to enable the line for transmit operations. If selected, the line is able to perform transmit operations. Otherwise, the console operator is only allowed to monitor the line.

PTT Timeout Field

The **PTT Timeout** field is used to set the transmit timeout period. Once the transmit timeout period has lapsed and you have not released the PTT button, the C-6200 automatically releases the PTT.

The range for this field is *0 (0=OFF)* to *60 seconds.*

Notification W/Vol Check Box

The **Notification W/Vol** check box is used to allow volume control of the ring volume, Nextel go-ahead and busy beeps, paging sidetone, and paging talk-time beeps. When the line is muted and the Notification W/Vol check box is selected, the rings, tones and beeps are not heard.

IMPORTANT: Emergency alerts are heard regardless of the **Notification W/Vol** check box status.

PTT tones with DTMF Check Box

The **PTT tones with DTMF** check box indicates adding standard guard-function-hold tones to the DTMF tones. If unselected, the DTMF tones are played without the guard-function-hold tones.

Duplex Enable Check Box

The **Duplex Enable** check box is used to make the selected line full-duplex (audio travels in two directions). If selected, the line is in full-duplex mode. In full-duplex mode, the console operator can receive and transmit audio at the same time.

In half-duplex mode, the console operator does not receive audio while transmitting. Learn more about full- and half-duplex modes, see “Network Requirements” on page 31.

Sum Enet RX to TX Check Box

The **Sum Enet RX to TX** check box indicates the Ethernet RX audio is summed onto the line card TX so that an analog recorder can be used.

Disable Local iDEN Tones

The **Disable Local iDEN Tones** check box indicates the iDEN tones are generated only at the iDEN radio end point and not created by the console, based on serial information of the iDEN radio.

Per Line Setup View 2

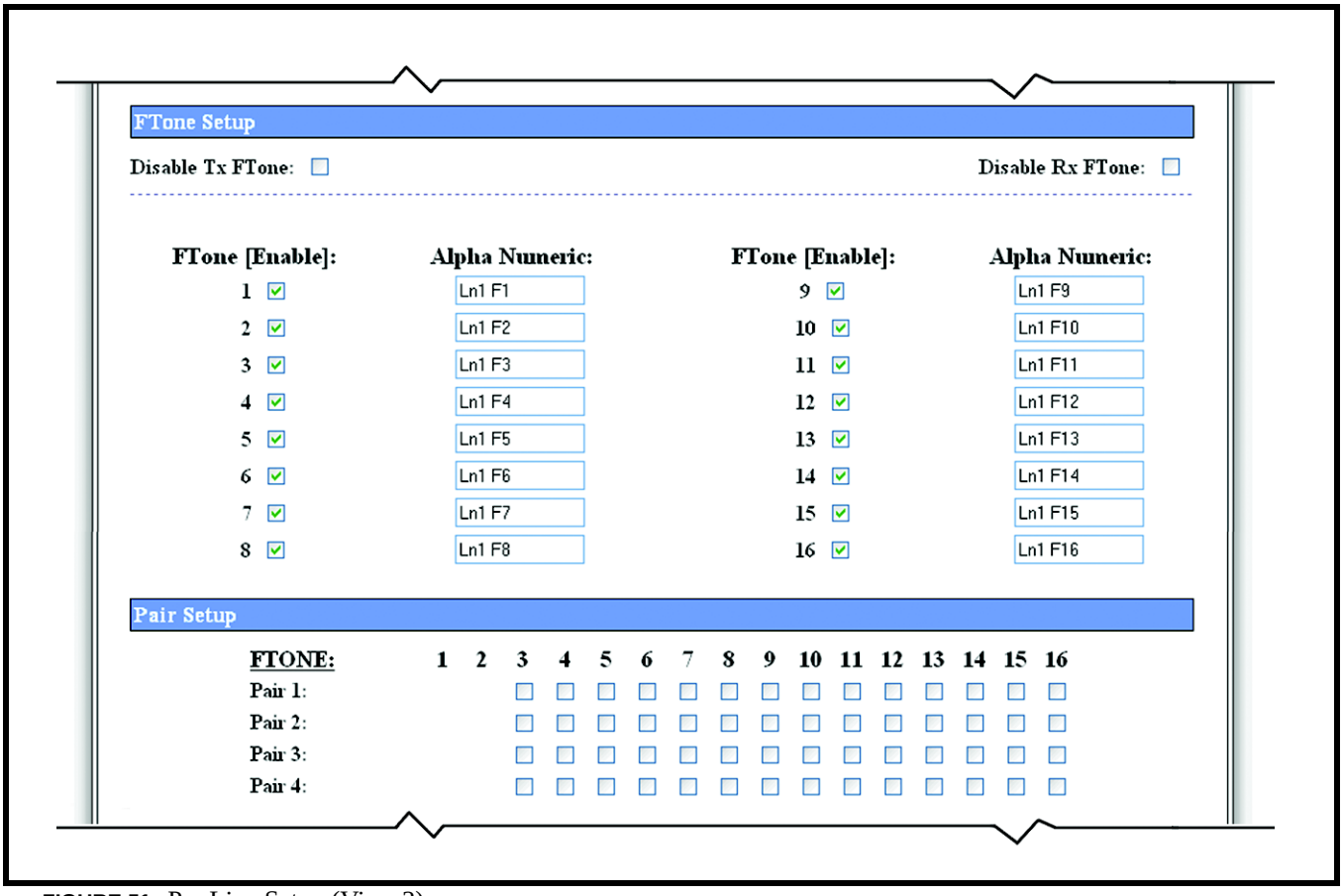


FIGURE 51. Per Line Setup (View 2)

FTone Setup

Disable TX FTone Check Box

The **Disable TX FTone** check box is used to control changing a console's function tone when a parallel console operator changes their function tone. When one of the parallel console operators change function tones, the function tones on the parallel console may or may not change depending on the setting.

- If the Disable TX FTones check box is selected for console 1, then when console 2 changes function tones on the console. When console 2 changes function tones, console 1 does not change.
- If the Disable TX FTone check box is unselected for console 1, then when console 2 changes function tones, console 1 also changes function tones.

Disable RX FTone Check Box

The **Disable RX FTone** check box is used to control changing function tones when received audio is present.

EXAMPLE: The console line is set for function tone 1 and the radio is set for function tone 3.

- If the Disable RX FTone check box is selected, the console remains on function tone 1 when received Ethernet radio traffic is present.
- If the Disable RX FTone check box is unselected, the console changes to function tone 3 when received Ethernet radio traffic.

FTone [Enable] (1–16) Check Box

The **FTone [Enable] (1–16)** check box is used to enable the function tone number for the line you are configuring.

NOTE: At least one (1) function tone must be enabled for proper operation.

FTone Alpha Numeric (1–16) Field

The **FTone Alpha Numeric (1–16)** field is used to assign an alias to the function tone that appears on the console display when selected by the operator. You can assign up to *16 function tone aliases* per line.

NOTE: It is possible to assign an alias up to *12 characters* per function tone per line.

EXAMPLE: FTone 16 could be named BOB. So, when FTone 16 is active on the C-6200, the alias *BOB* appears on the console display.

This field can contain up to *12 characters*.

Pair Setup

Pair (1–4) Check Boxes

The **Pair (1–4)** check boxes are used to allow function tones to have control functions, that are not used for actual control of the radio. There are four (4) wildcard groups available per line. Function tones 1 and 2 are not allowed in a wildcard group and a function tone may not be selected in more than one (1) group. One (1) function tone from each group can be active at a time, plus either F1 or F2.

Per Line Setup View 3

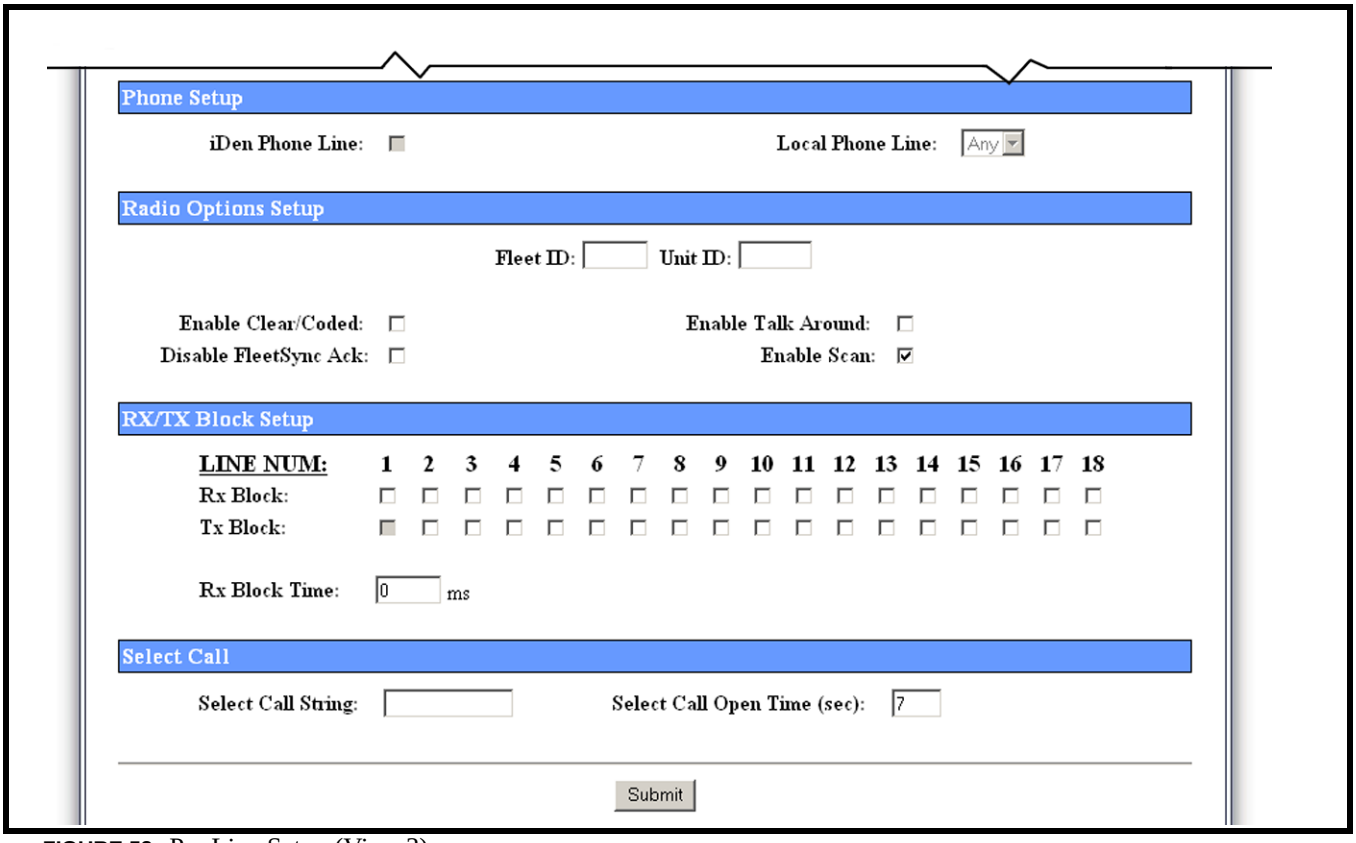


FIGURE 52. Per Line Setup (View 3)

Phone Setup

The **Phone Setup** section is used to configure a line for a network phone connection. The network phone connection can be a C-6200 with a phone card installed or an IP-223 with a TDI, PIB, or NI-223 attached.

iDEN Phone Line Check Box

The **iDEN Phone Line** check box is used to setup the line for an iDEN phone.

NOTE: Before this option can be selected, the line must be configured for phone, see “Multicast Address Setup” on page 82.

Local Phone Line Field

The **Local Phone Line** field is used to assign the line to a specific phone resource installed within the network.

Available selections for this field are: *1*, *2*, *3*, *4*, *5*, *6*, *7*, *8*, *9*, *10*, *11*, *12*, *13*, *14*, *15*, *16*, *17*, *18*, and *ANY*. The value should be the line number of the end-point device with the phone resource attached or use *ANY* for pool operation.

NOTE: Before this option can be selected, the line must be configured for Phone on the “Multicast Address Setup” on page 82.

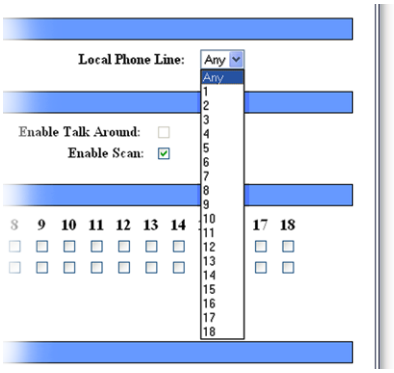


FIGURE 53. Local Phone Line Drop Down Menu

To **configure the line for phone line selection**, do the following:

> From the Local Phone Line drop down menu, select a **phone line** or **ANY**.
The phone line or pool is now assigned to the line.

NOTE: When configured for pool operation, any available phone resource connected to the base IP device may be seized by the console.

Radio Options Setup

Fleet ID Field (Kenwood FleetSync Only)

The **Fleet ID** field is used to enter the Fleet ID number of a group of FleetSync radios and is assigned per line. The Fleet ID is three (3) digits long and is added to the beginning of a 4-digit FleetSync ID from the ID directory, to form a 7-digit ID number. The per line console ID is the 7-digit FleetSync ID for that console line. The first three (3) digits are the Fleet ID and the last four (4) are the User ID. This ID appears on the radio when receiving data/audio from that console line.

The range for this field is *100* to *349*.

EXAMPLE: Fleet ID is 123 for the selected line. When the console operator selects FleetSync ID 4567, a call is made or status is sent to FleeySync ID number 1234567. When the operator presses the PTT button or sends a FleetSync data message, the receiving radios display the console ID configured for the line.

NOTE: Kenwood FleetSync must be the selected Line type on the Multicast Address Setup window for this feature to be active.

Unit ID Field (Kenwood FleetSync Only)

The **Unit ID** field is used to identify the console's Fleet ID and Unit ID to FleetSync radios programmed for Over-The-Air-Protocol. The FleetSync radio must be connected to an IP-223 through the Radio 1 or Radio 2 port.

The range for this field is *1000* to *4999.*

NOTE:

- Kenwood FleetSync must be the selected Line type on the Multicast Address Setup window for this feature to be active.
- The unit ID does not appear on serially connected radios.

Enable Clear/Coded Check Box (EF Johnson 5300 and Kenwood TK5x10 series)

The **Enable Clear/Coded** check box is used to encrypt TX audio. If selected, the console operator can choose to encrypt the transmitted audio. This feature is available only on radios that support encryption.

Enable Talk Around Check Box (Kenwood FleetSync only)

The **Enable Talk Around** check box is used to toggle the talk around feature on/off. Talk around is used to bypass a radio repeater system, permitting direct radio-to-radio communications.

The line must be configured for Kenwood FleetSync on the "Multicast Address Setup" on page 82 for this feature to be active.

Disable FleetSync Ack Check Box (Kenwood FleetSync feature)

The **Disable FleetSync Ack** check box is used to change the acknowledgement message to the console operator.

- If the FleetSync Ack Disable check box is selected, the console operator does not receive a message acknowledging a FleetSync status was sent to the field, although, the status was sent immediately.
- If the FleetSync Ack Disable check box is unselected, there is a momentary delay, and the console operator receives a message the FleetSync status was sent or not sent successfully.

The line must be configured for Kenwood FleetSync on the "Multicast Address Setup" on page 82 for this feature to be active.

Enable Scan Check Box

The **Enable Scan** check box is used to indicate the console operator can enable scan mode directly from the console. By default, the Enable Scan check box is selected.

To **scan the line**, do the following:

1. Press the **SCAN** softkey.
   An S appears on the console display. The line is being scanned.
2. Press the **SCAN** softkey again, to turn off scan mode.
   The S disappears and the line is no longer being scanned.

RX/TX Block Setup

RX Block (1–18) Check Boxes

The **RX Block (1-18)** check boxes indicate each line checked has its received audio blocked from the speaker when the line you are currently configuring is transmitted on. This allows the console operator to transmit on a radio that has overlapping coverage with other radios without getting feedback from the radios receiving the transmitted.signal. This function also operates when a parallel console is transmitting on the line

TX Block (1–18) Check Box

The **TX Block (1–18)** check boxes indicate all lines with check boxes selected cannot be grouped.

NOTE: The TX check box for the line you are configuring is grayed out and can not be selected.

EXAMPLE: Configuration: Per Line Setup—Line 1 is configured with TX check boxes selected from lines 7 & 8.
Console Operation: When the console operator selects line 1, it cannot be grouped with line 7 or line 8.

RX Block Time Field

The **RX Block Time** field is used to set the amount of time, in ms, to continue to RX Block/Mute traffic to the specified line.

The range for this field is *0ms* to *9999ms.*

Select Call

Select Call String Field

The **Select Call String** field identifies the DTMF string or code sent by the portable radio and decoded by the console to signal an incoming call. The string is a sequence of DTMF digits that open the mute to allow received audio to play through the C-6200 speakers.

This field can contain up to *12 characters*.

Select Call Open Time (sec) Field

The **Select Call Open Time (sec)** field indicates the amount of time, in seconds, mute remains open to receive audio. When the select call string is received, mute is left open to receive audio for the amount of time configured and the selected lines and an audible tones notifies the console operator which channel the select call was received on. After this time has expired, the selected line blinks. An audible tone notifies the console operator which channel the audio was received on. This continues until the console operator performs a PTT operation on the line.

The range for this field is *0 seconds* to *60 seconds*.

Submit Button

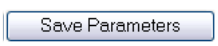
The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

Per Line Setup—Phone Card

The **Per Line Setup** window, with a Phone Card, is used to configure the line for standard phone use. This configuration requires a 6200PCRD card installed in the back of the unit allowing up to *two (2) standard phone line connections* on each card. Additional equipment can be connected to the RJ-45 port on the phone card as well. For more information see “6200PCRD (Phone Card) Connectors” on page 36. Each field on this window is discussed below.

Phone Line Setup

Configuring a standard phone line on the master console consists of the following steps:

Step 1 Ensure there is a **6200PCRD installed** on the line.

Step 2 Configure the “Line Type Drop Down Menu” on the “Multicast Address Setup” window, for **Phone**, see page 83.

Step 3 Ensure the **Line and Phone Ring Multicast Address Field, Line & Phone Ring RX Port, Phone Ring & Line TX Por**t are unique for the network. See “Line Multicast Setup” on page 82.

Step 4 Enter required per line setup **parameters** for the phone line, see “Specific Phone Card Setup” on page 99.

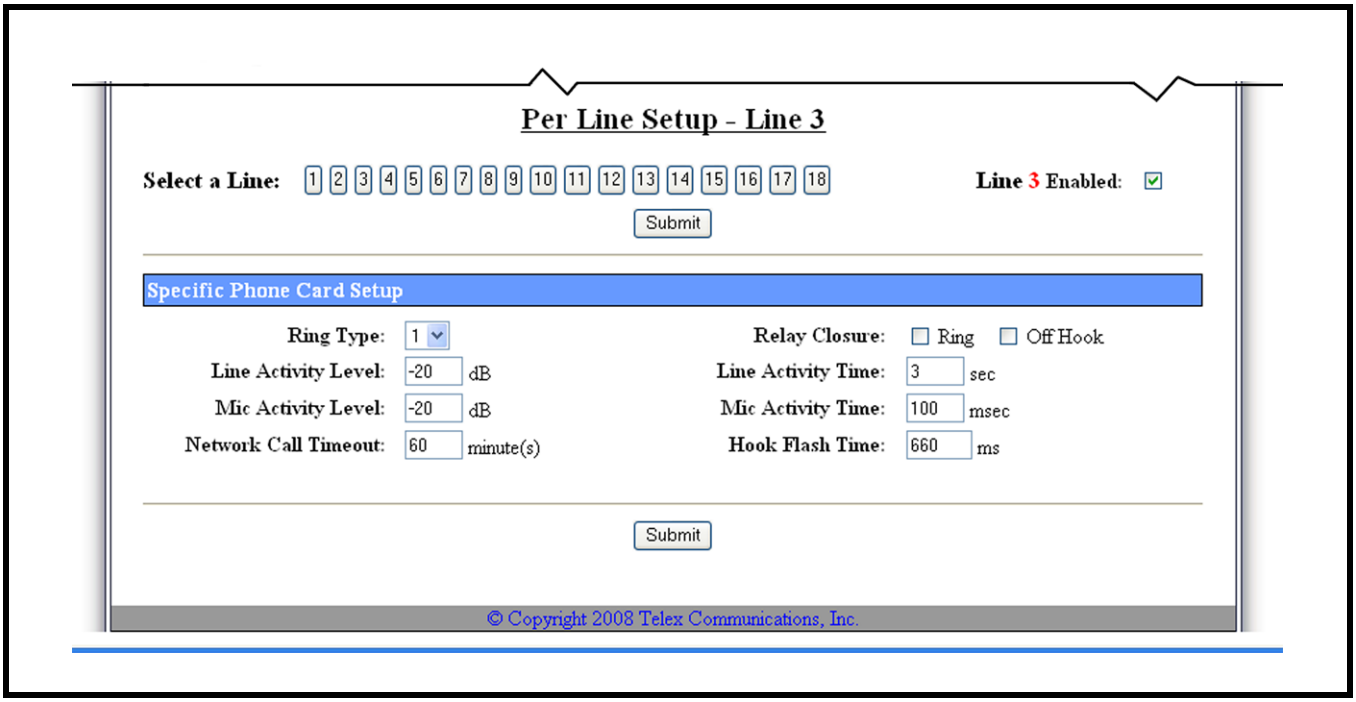


FIGURE 54. Per Line Setup—Phone Mode

Select a Line (1–18) Buttons

The **Select a Line (1–18)** buttons are used to navigate to the per line setup window for the line selected.

NAVIGATION: Click the **button** of the line you want to configure to navigate to the configuration webpage.

Line (1–18) Enabled Check Box

The **Line(1–18) Enabled** check box indicates the line is enabled for use.

Specific Phone Card Setup

Ring Type Drop Down Menu

The **Ring Type** drop down menu is used to configure one (1) of eight (8) rings consisting of multiple frequencies. Each tone is 250ms in length. The ring cadence is a 1-second on followed by a 4-second off period.

Available selections for this field are: *1, 2, 3, 4, 5, 6, 7,* and *8*.

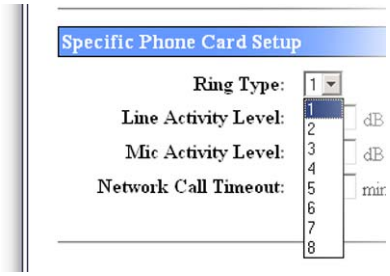


FIGURE 55. Ring Type Drop Down Menu

Ring tone frequency code letter key: A=440Hz, B=494Hz, C=523Hz, D=587Hz, E=659Hz, F=698Hz, G=784Hz., 2A=880Hz

TABLE 17. Ring Tone Frequency Code Letters

Setup Option	Tone One	Tone Two	Tone Three	Tone Four
1	E	A	E	A
2	A	E	C	G
3	F	G	A	C
4	G	D	A	D
5	A	C	E	G
6	G	E	C	A
7	G	No tone	C	No tone
8	G	2A	G	2A

Relay Closure Ring Check Box

The **Relay Closure Ring** check box indicates the relay activates when the phone line rings.

Relay Closure Offhook Check Box

The **Relay Closure Offhook** check box indicates the relay activates when the phone line is taken offhook.

Line Activity Level Field

The **Line Activity Level** field is used to set the value, in dB, that opens the squelch circuit to allow audio to route packets to the Ethernet and to the speakers.

The range for this field is *-60dB* to *12dB*.

NOTE: Setting this value too high prevents the phone line's received audio from being sent to the Ethernet port.

Line Activity Time Field

The **Line Activity Time** field is used to configure the amount of time, in seconds, the console continues to play audio to the Ethernet and speakers once audio is below the squelch threshold.

The range for this field is *0 seconds* to *60 seconds*.

Mic Activity Level Field

The **Mic Activity Level** field is used to determine if receive audio should be muted because the TX audio level, in dB, reached the Mic Activity setting.

The range for this field is *-60dB* to *12dB.*

Mic Activity Time Field

The **Mic Activity Time** field indicates the amount of time, in msec, the console continues to mute receive audio after the TX audio drops below the Mic Activity Level.

The range for this field is *0 msec* to *9999 msecs.*

Network Call Timeout Field

The **Network Call Timeout** field is used to configure the maximum amount of time, in minutes, a network phone call is allowed to be active on the console.

The range for this field is *1 minute* to *9999 minutes.*

Hook Flash Time Field

The **Hook Flash Time** field identifies the amount of time, in ms, an offhook line is temporarily placed onhook during a hook flash.

The value for this field is *50ms* to *500ms*.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

Network Phone Configuration

The **Network Phone Configuration** diagram, shown in Figure 56, demonstrates a typical setup where an analog phone line is shared from the master console to the slave console with an internet connection through either a LAN or WAN. The phone configuration for the master console drives the phone configuration of the slave console. All per line settings for phone mode, must be configured on the master console.

To **configure a shared phone line from one console to another through an internet connection**, do the following:

1. Ensure a **phone line** is configured on the master console. See “Phone Line Setup” on page 98.
2. Navigate to the slave console’s **Multicast Address Setup** window.
3. Enable the slave console’s **phone line** for internet use, see “Enable via Ethernet Check Box” on page 82.
4. Enable the slave console’s **line** for phone use, see “Line Type Drop Down Menu” on page 83.
5. Configure the slave console’s **Base IP Address** to be the same as the master console’s IP Address, see “Base IP Address Field” on page 83.
6. Enable and configure the **Phone Ring** setup to be the same as the master console’s IP Address, see “Phone” on page 86.
7. Navigate to the **Per Line Setup** window for the slave console’s shared phone line, see “Per Line Setup—Phone Card” on page 98.
8. On the slave console, change the **local phone line** to the master console’s phone line number, see “Local Phone Line Field” on page 95.

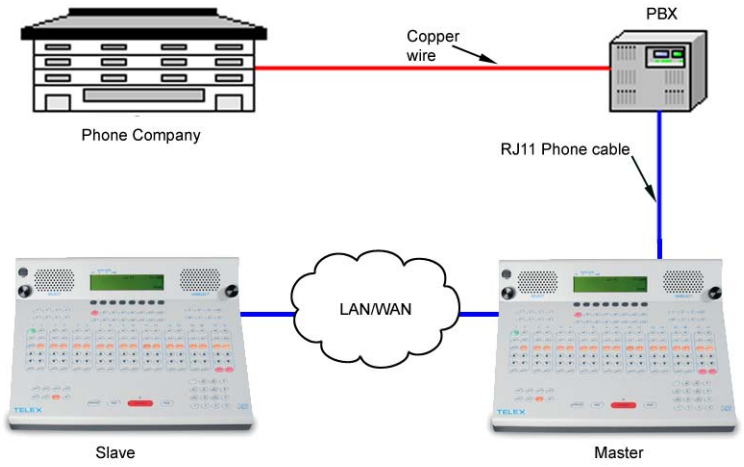


FIGURE 56. Network Phone Configuration Diagram

Save to EEPROM

The **Save to EEPROM** window, shown in Figure 57, is used to save parameters to non-volatile memory or reset the C-6200 console. Each field on this window is discussed below..

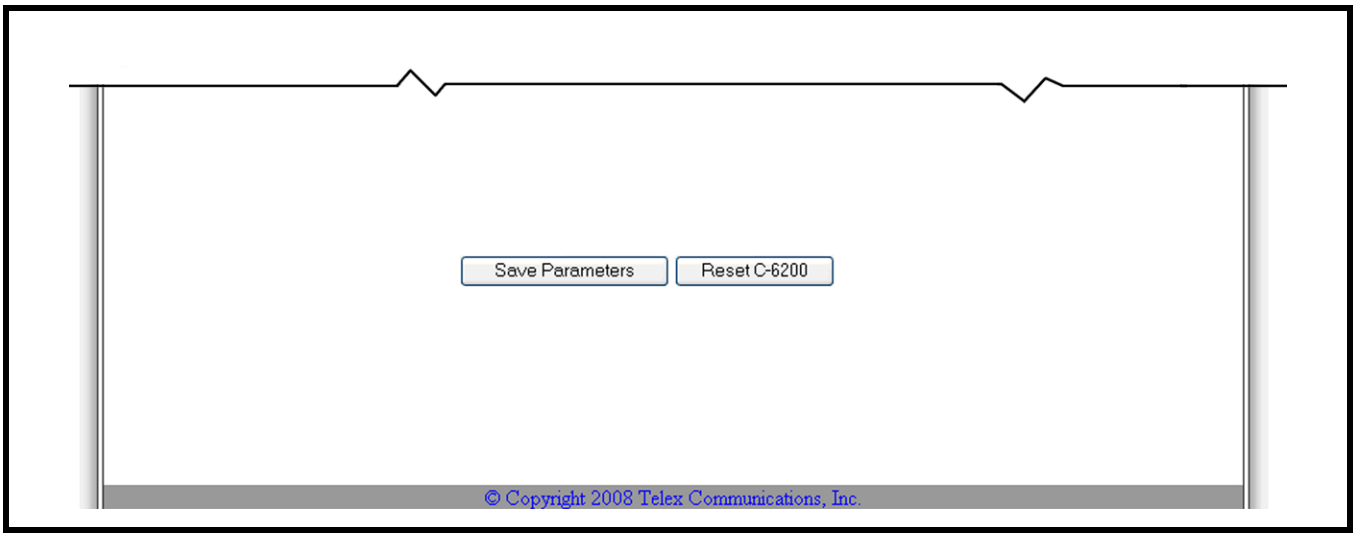


FIGURE 57. Save to EEPROM

Save Parameters Button

The **Save Parameters** button is used to store all parameters to the C-6200's non-volatile memory for permanent storage. This also resets the DSP so it can reload its configuration data in a controlled manner.

Reset C-6200 Button

The **Reset C-6200** button is used to reset the C-6200 so temporarily submitted changes get reset to the previous configuration. The previous configuration is the last configuration saved with the Save Parameters button.

To **discard changes that have been submitted, but parameters have not been saved**, do the following:

> Click **Reset C-6200**
> OR
> Cycle **power** to the unit on/off.

Account Setup

The **Account Setup** window allows you to manage system and user accounts. Each field on this window is discussed below.

NAVIGATION: Clicking **Account Setup** displays the Account Setup window shown in Figure 58.

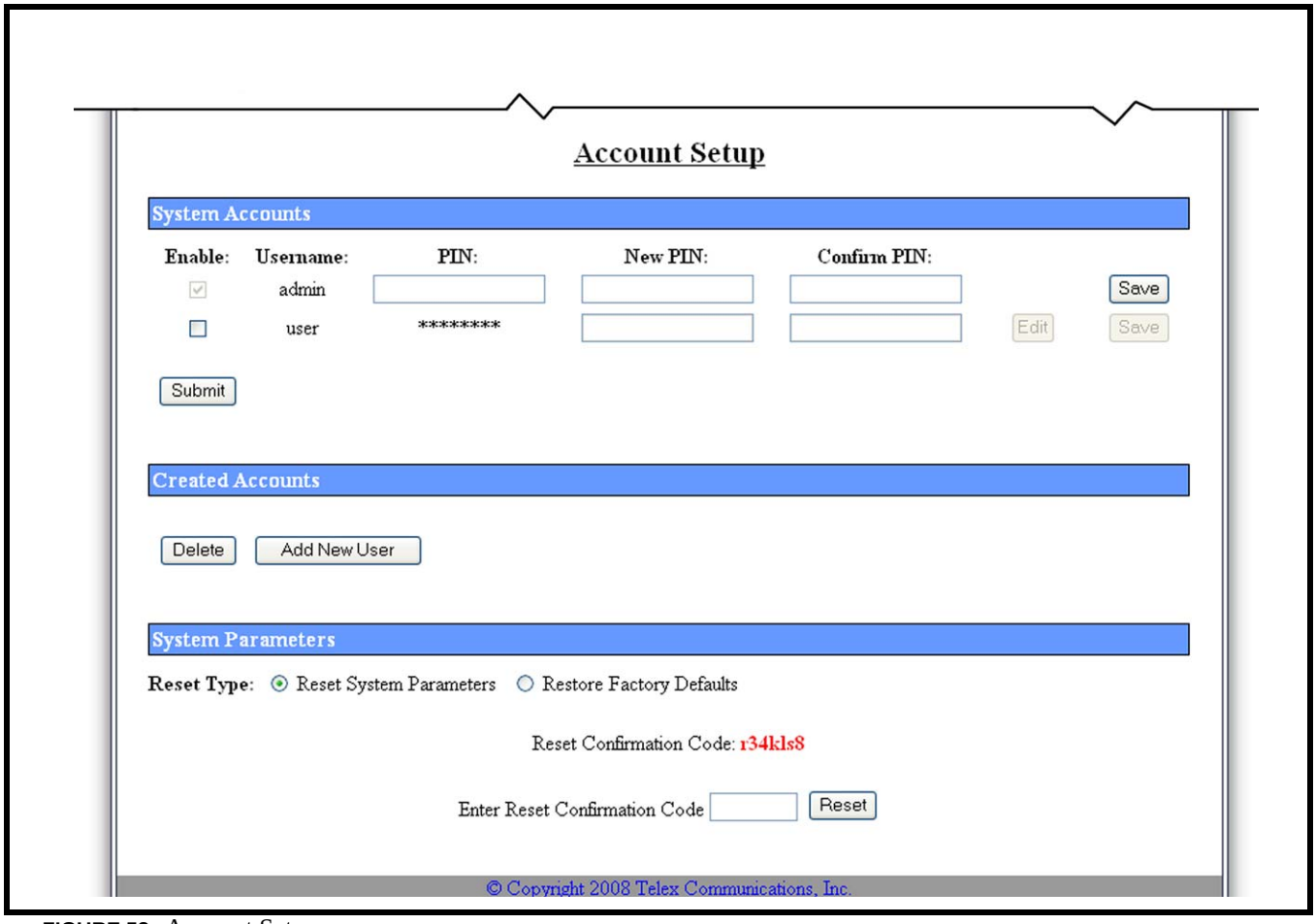


FIGURE 58. Account Setup

System Accounts

By default, the C-6200 console is setup with two (2) System Accounts created: *admin* and *user*. Upon first use, there are no PINs set for either account. You can change the PIN for both of the accounts, if desired. These are the only system accounts allowed.

Admin System Account

The **Admin System** account has privileges to change, modify, or delete anything within the C-6200 software configuration. The account rights are not configurable, except for the PIN.

User System Account

The **User System** account is used to manage the system user account PIN. The system user account is in edit mode when the username field is highlighted yellow.

Created Accounts

Created accounts are user-defined accounts that may have different defined permissions to selected areas of the C-6200 configuration software. You can create up to five (5) accounts of this type. To create a user-defined account, see “Add New User” on page 112.

System Accounts

Enable Check Box

The **Enable** check box indicates whether the username is active or not. When selected, the user name is active.

NOTE: The admin system account is always enabled.

Username Column

The **Username** column displays the username of the system account.

This field is not configurable.

PIN Field

The **PIN Field** displays the PIN number for the system admin or system user account. The PIN is shown in asterisks (*****).

The range for this field is a *4* to *16 digit number.*

NOTE: The admin PIN field is always blank, whether or not an admin PIN number is assigned.

New PIN Field

The **New PIN** field is used to enter a new PIN number for the system account.

The range for this field is a *4* to *16 digit number.*

To **set a new PIN**, do the following:

1. In the PIN field enter the **current PIN**.
   Asterisks representing the characters appear in the field.

   NOTE: If no PIN is required, leave this field blank.
2. In the New PIN field, enter the **new PIN**.
   Asterisks representing the characters appear in the field.
3. In the Confirm PIN field, re-enter the **new PIN**.
   Asterisks representing the characters appear in the field.

4. Click **Save**.
   The success message, shown in Figure 59, appears.

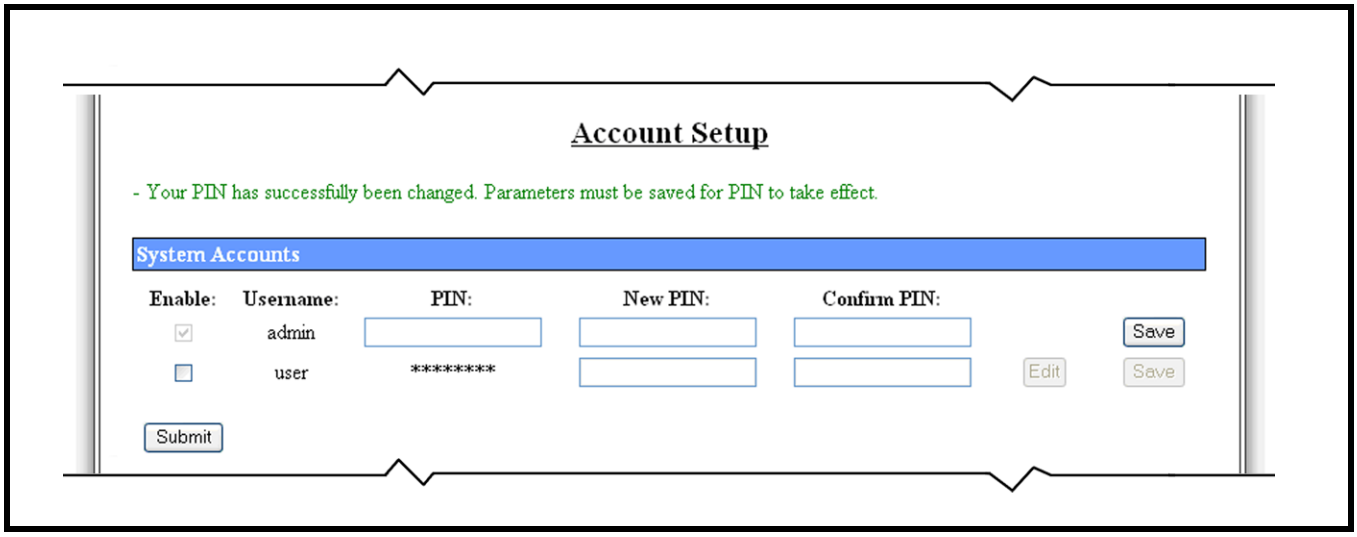


FIGURE 59. Success Message

5. Click **Submit**. 
   The changes are sent to the C-6200 in temporary storage.

6. Click **Save to EEPROM**. 
   The Save to EEPROM window opens.

7. Click **Save Parameters**. 
   Changes are now permanently saved to the C-6200 console.

   NOTE: The PIN can also be reset, see “Clone & Pin” on page 119.

Confirm PIN

The **Confirm PIN** field is used to confirm the PIN number you entered in the New PIN field. This PIN must match the PIN entered in the New PIN field.

Edit Button

The **Edit** button is used to navigate to the system user account window in edit mode to configure permissions. See “Edit User Accounts” on page 109.

NOTE: The admin account can not be modified.

To **enable the user Account**, do the following:

1. Select the **Enable** check box for the user account.
2. Click **Submit**.
   The Edit and Save buttons on the system user account are active.

   NOTE: The only configurable fields are the New PIN field and the Confirm PIN field. Also, when the Edit window is open, a Set No PIN check box appears. For more information, see “Edit User Accounts” on page 109.

Save Button

The **Save** button is used to temporarily save the PIN number, if a new one has been created.

Submit Button

The **Submit** button is used to save changes and activate the system user account. Once the system user account is active, a new PIN number can be configured for the account.

Created Accounts

Delete, Username, PIN, New PIN, Confirm PIN Display Columns

The **Delete, Username, PIN, New PIN, Confirm PIN** columns display the existing user accounts (up to 5) you have created. Each field on this window is discussed in “Set Permissions” on page 113.

To **delete an account**, do the following:

1. Select the **Delete** check box for the account you want to delete.
2. Click the **Delete** button.
3. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
4. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
5. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

NOTE: Under the **Delete** column, a check box is shown. If the check box is selected, the account is marked for deletion. Click the Delete button to delete the user account. The deletion is not complete until it is saved as explained in “Save Parameters Button” on page 102.

Delete Button

The **Delete** button is used to delete the selected user account(s). User accounts are marked for deletion by selecting the Delete check box.

Add New User Button

The **Add New User** button opens the “Add New User” window shown in page 112. From this window you can create a user profile with selectable permissions.

System Parameters

Reset System Parameters Radio Button

The **Reset System Parameters** radio button is used to reset the settings on the General Gain Setup, Per Line Setup, ID Directory, Paging Directory, System Setup 1 and 2 and the Tone Frequency Duration windows. The settings on the Multicast Address Setup and Account Setup Windows are not affected.

NOTE: Settings entered in the Base IP Setup section and the Local Console IP Address sections on the Basic Ethernet window are also reset.

To **reset the system parameters**, do the following:

1. Select the **Reset System Parameters** radio button.
2. Enter the **reset confirmation code number**, see page 107.
3. Click the **Reset** button.
4. Click **Save to EEPROM**.
5. Click **Save Parameters**.
   System settings on both the console and browser configuration windows are reset.
   OR
   Click **Reset C-6200,** to undo and restore system parameters to the last saved.
   System settings on both the console and the browser configuration windows are set to the previously saved version.

Restore Factory Defaults Radio Button

The **Restore Factory Defaults** radio button is used to restore the configuration webpages to the factory defaults settings. All previously entered settings are deleted from all browser configuration windows.

The console settings are not restored until the reset button is clicked and the changes are saved to EEPROM.

NOTE: The parameters can be restored if the settings have not been saved to the console with the Save Parameters button. An undo is accomplished by clicking the **Reset C-6200** button on the Save to EEPROM window.

To **restore the factory defaults,** do the following:

1. Select the **Restore Factory Defaults** radio button.
2. Enter the **reset confirmation code number**.
3. Click the **Reset** button.
   Parameters are reset or factory defaults restored, depending on selection.
4. Click **Save to EEPROM.**
   The EEPROM window opens.
5. Click **Save Parameters**.
   Factory default settings are restored to the browser configuration windows.
   OR
   Click **Reset C-6200,** to undo and restore system parameters to the last saved.
   System settings on both the console and the browser configuration windows are set to the previously saved version.

Reset Confirmation Code Number

The **Reset Confirmation Code Number** indicates permission to reset system parameters is granted. If the number is grayed-out you do not have permission to make these changes.

Enter Reset Confirmation Code Field

The **Enter Reset Confirmation Code** field is used to enter the reset confirmation code number. Once the code is entered, the Reset Button recognizes the user is authorized to make the change.

Reset Button

The **Reset Button** is used to send changes to the browser configuration windows.

To **permanently save the change**, do the following:

1. Select the **Reset System Parameters** radio button.
   OR
   Select the **Restore Factory Defaults** radio button.
2. Enter the **reset confirmation code number**.
3. Click the **Reset** button.
   Parameters are reset or factory defaults restored, depending on selection.
4. Click **Save to EEPROM.**
   The EEPROM window opens.
5. Click **Save Parameters**.
   Factory default settings are restored to the browser configuration windows.
   OR
   Click **Reset C-6200,** to undo and restore system parameters to the last saved.
   System settings on both the console and the browser configuration windows are set to the previously saved version.

Edit User Accounts

The **Edit User Accounts** window is used to edit the user system account. You can only change the PIN or Set no PIN from this window. Each field on this window is discussed below.

By default, the System User Account has access to only the default admin pages Tone Freqs and General Gain Setup, ID Directory, and Save to EEPROM. Selections can not be modified.

NAVIGATION: Clicking the **Edit** button displays the "Edit User Accounts" window shown in Figure 60.

NOTE: To navigate back to the Account Setup window, click **Save** to save changes, otherwise click **Cancel**.

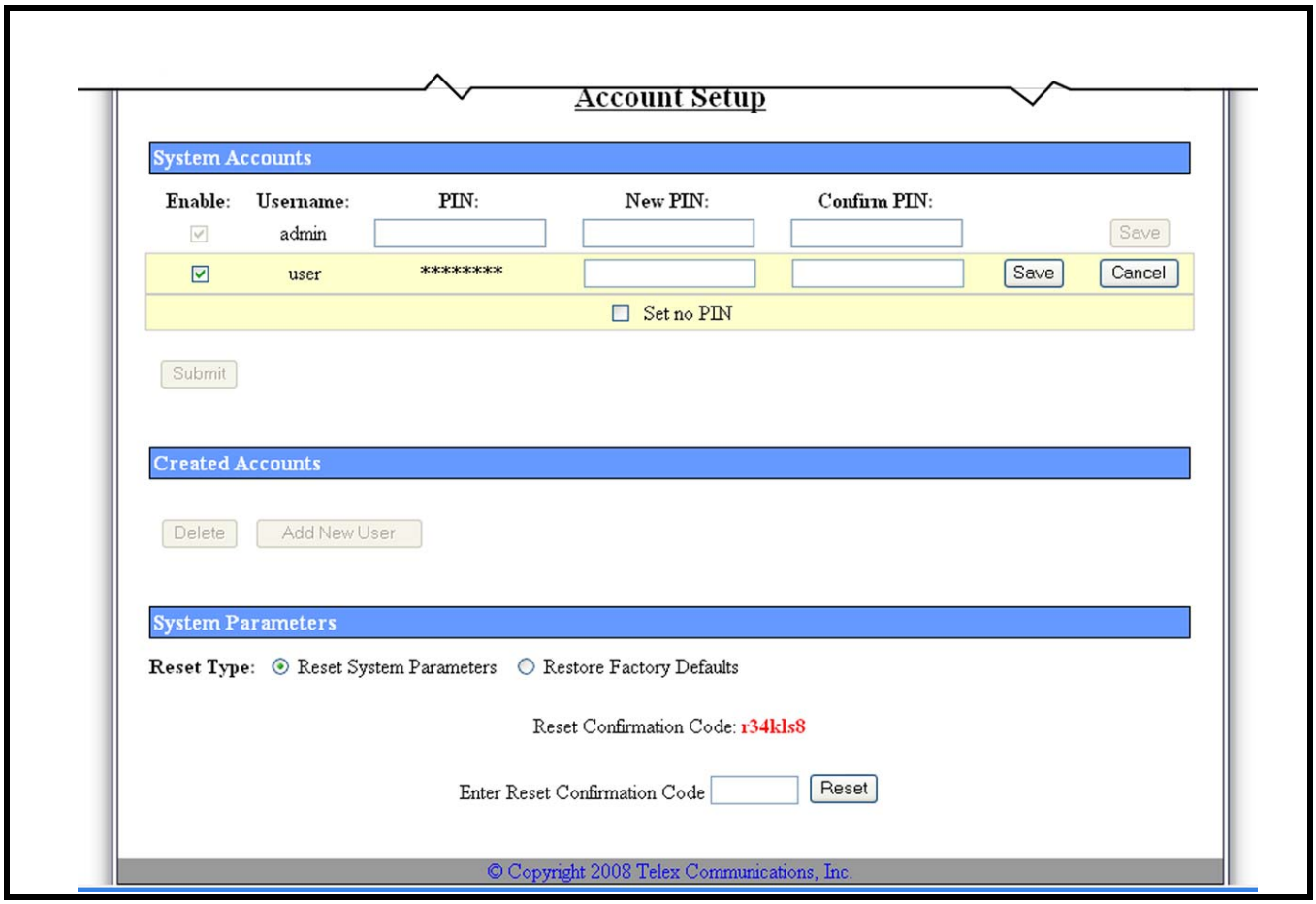


FIGURE 60. Edit User Accounts

Once you have made the changes to the user system account the following message appears at the top of the Account Setup window.

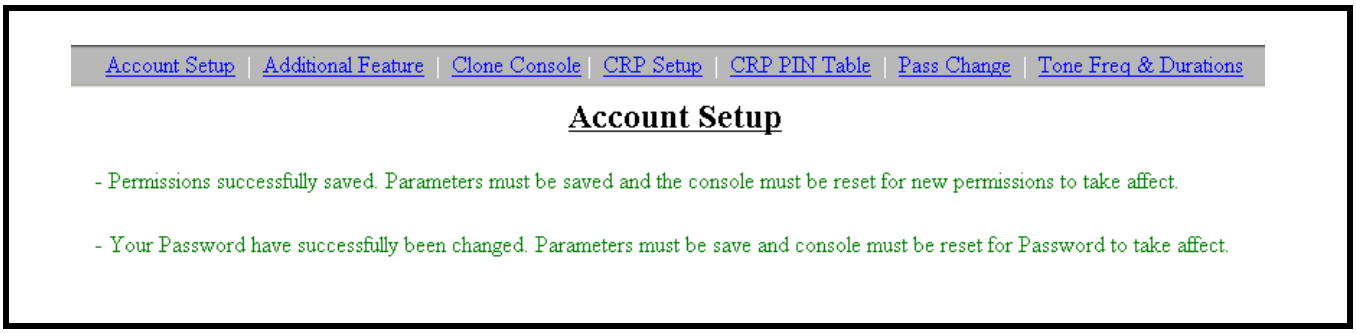


FIGURE 61. Account Setup Success Message

NOTE: The information is not stored in permanent memory until it is saved, as explained in “Save Parameters Button” on page 102.

To **change the PIN number for the System User Account**, do the following:

1. In the PIN field, enter the **current PIN number**.
   OR
   Leave **blank** if no PIN is required.
2. In the New PIN field, enter the **new PIN number** again.
   Asterisks appear for each character.
3. In the Confirm PIN field, enter the **new PIN number.**
   Asterisks appear for each character.
4. Click **Save** to save changes.
   OR
   Click **Cancel** to discard the changes.
5. Click the **Save to EEPROM** link at the top of the window.
   The Save to EEPROM window opens.
6. Click **Save Parameters** to save the changes to the C-6200.

   NOTE: To change the system account from requiring a PIN to no PIN required, leave the New PIN and Confirm PIN fields blank, then click **Save**.

To **change the user system account PIN or edit the account**, do the following:

1. Select the **Enable** check box next to the *user* username.
2. Click **Submit**.
   Once enabled, the New PIN, Confirm PIN fields, Edit and Save buttons become active.
3. In the New PIN field. enter a **new PIN**.
   The PIN can be 4–16 characters in length.
4. In the confirm PIN field, enter the **PIN** again.
5. Click **Save**.
6. Click the **Save to EEPROM** link at the top of the page.
   The Save to EEPROM window appears.
7. Click **Save Parameters** to save the changes to the C-6200.

Set No PIN Check Box

The **Set No PIN** check box is used to configure the system user account with no PIN required.

To **set no PIN for the System user account**, do the following:

1. Under the New PIN Column, select the **Set No PIN** check box.
2. Click **Save**, otherwise click **Cancel**, to save the changes,.

Once you have made the changes to the system user account and your changes have been accepted, the message shown in Figure 62, appears at the top of the Account Setup window.

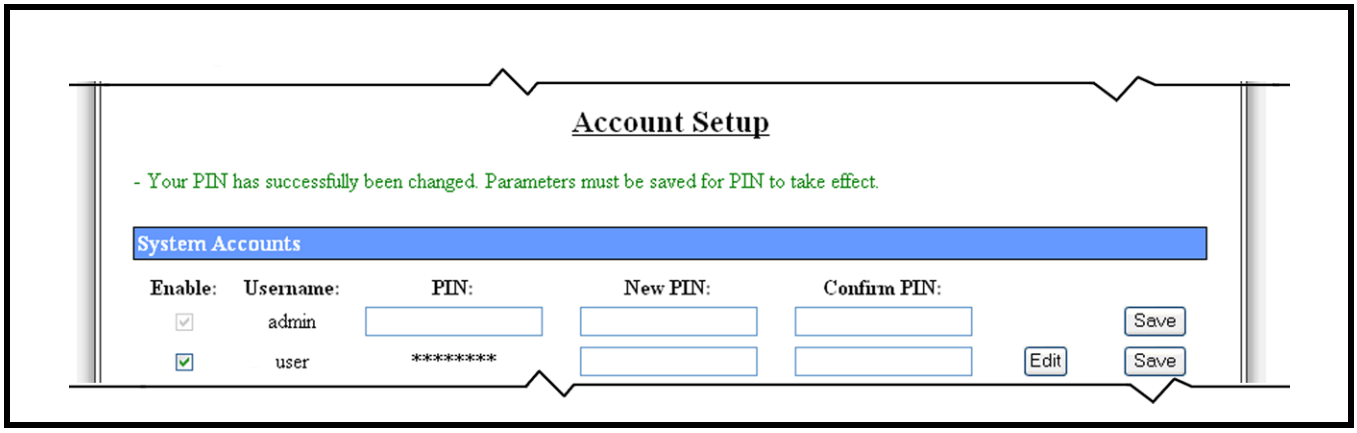


FIGURE 62. Account Setup Message

Save Button

The **Save** button is used to save the new PIN.

Cancel Button

The **Cancel** button is used to cancel the operation.

To **permanently save the new PIN to the C-6200**, do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 
The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.
4. Click **Reset C-6200**. 

Add New User

The **Add New User** window is used to create up to five (5) new user accounts. From this window, you can assign permissions to certain users. Each field on this window is discussed below.

NAVIGATION: Selecting the **Add New User** button from the Account Setup window opens the Add New User window, see Figure 63.

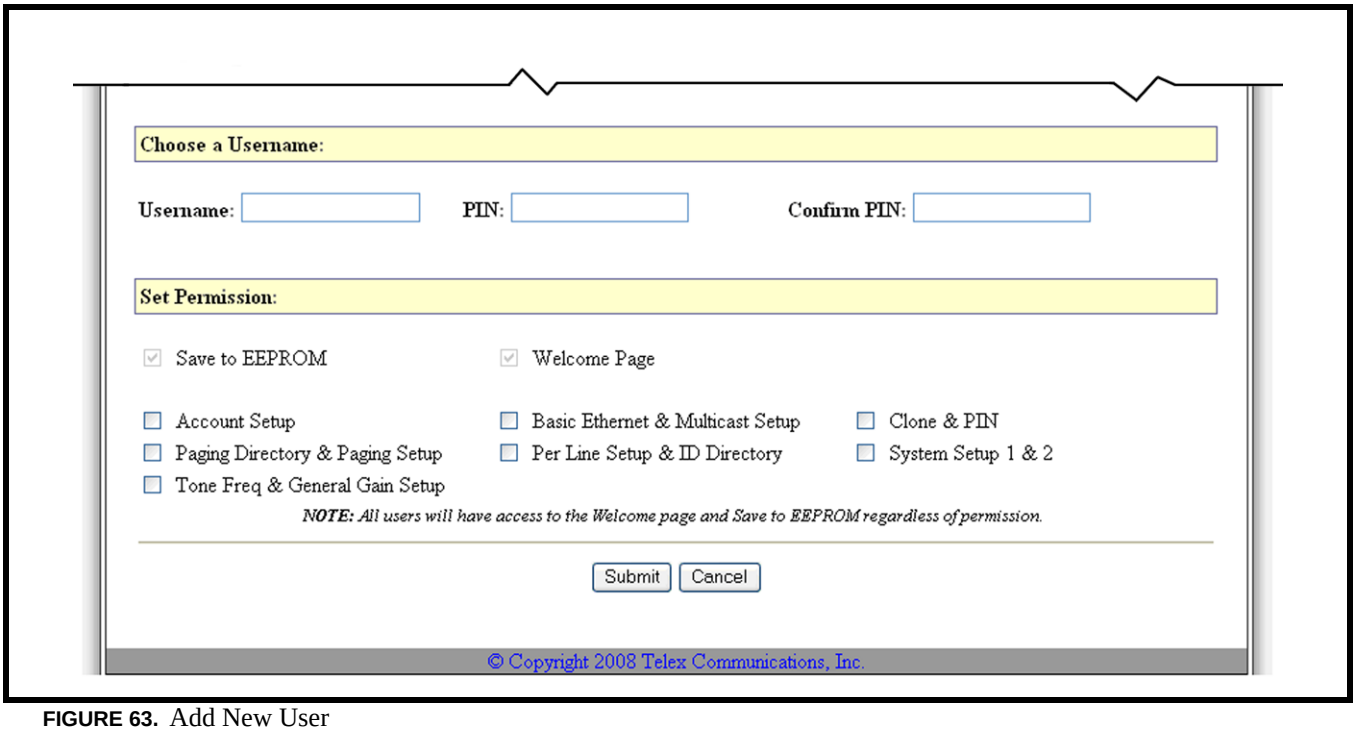


FIGURE 63. Add New User

Choose a Username

The **Choose a Username** section is used to configure the Username and PIN for the new user account you are adding.

Username Field

The **Username** field is used to enter a username for the account.

The range for this field is *4* to *16 lowercase characters*. Do not use spaces.

PIN Field

The **PIN** Field is used to configure a PIN number for the account you are adding.

The range for this field is *4* to *16 digits*.

Confirm PIN Field

The **Confirm PIN** field is used to confirm the PIN number entered in the PIN field.

Set Permissions

The **Set Permissions** section is used to configure permissions for the created account. By default, permission to access the Welcome and Save to EEPROM windows are granted for every user.

Save to EEPROM Check Box

The **Save to EEPROM** check box indicates permission is granted to use the Save to EEPROM page. By default, permission to change configurations in this window is granted on every created account. For more information, see “Save to EEPROM” on page 102.

Welcome Page Check Box

The **Welcome Page** check box indicates permission is granted to change the name of the console on the Welcome window. By default, permission to change the name of this window is granted on every created account. For more information, see “Welcome Window” on page 70.

Account Setup Check Box

The **Account Setup** check box indicates permission is granted to make changes to the Account Setup window. For more information, see “Account Setup” on page 103.

Basic Ethernet & Multicast Setup Check Box

The **Basic Ethernet & Multicast Setup** check box indicates permission is granted to the Basic Ethernet Setup and Multicast Address Setup windows where changes can be made by the user. For more information, see “Basic Ethernet Setup” on page 72.

Clone & PIN

The **Clone & PIN** check box indicates permission is granted to the Clone & PIN window where the user is able to clone parallel C-6200 consoles or change PIN numbers for any username in the system. For more information, see “Clone & Pin” on page 119.

Paging Directory & Paging Setup Check Box

The **Paging Directory & Paging Setup** check box indicates permission is granted to both the Paging Directory window and the Paging Setup window where changes can be made by the user. For more information, see “Paging Directory” on page 129.

Per Line Setup & ID Directory Check Box

The **Per Line Setup & ID Directory** check box indicates permission is granted to both the Paging Directory window and the Paging Setup window where changes can be made by the user. For more information, see “Per Line Setup—Line Card” on page 89 and “ID Directory” on page 122.

System Setup 1 & 2 Check Box

The **System Setup 1 & 2** check box indicates permission is granted to make changes to System Setup 1 and System Setup 2 windows. For more information, see “System Setup 1” on page 149 and “System Setup 2” on page 159.

Tone Freq & General Gain Setup

The **Tone Freq & General Gain Setup** check box indicates permission is granted to make changes to the Tone Frequency window.

Cancel Button

The **Cancel** button is used to discard changes and return to the Account Setup window.

Submit Button

The **Submit** button is used to save the username, PIN number, and permissions. Once you **Submit** your new account, the message in Figure 64 appears, if it is successful.

To **permanently save the new PIN number to the C-6200,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.
4. Click **Reset C-6200**. 

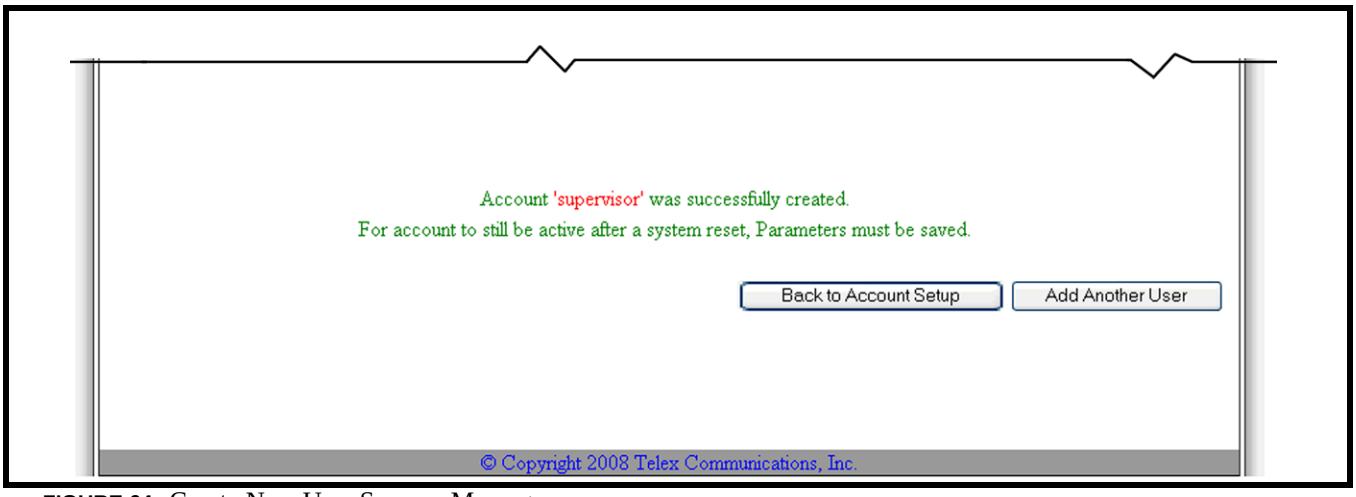


FIGURE 64. Create New User Success Message

If a mistake is made, the message shown in Figure 65, appears.

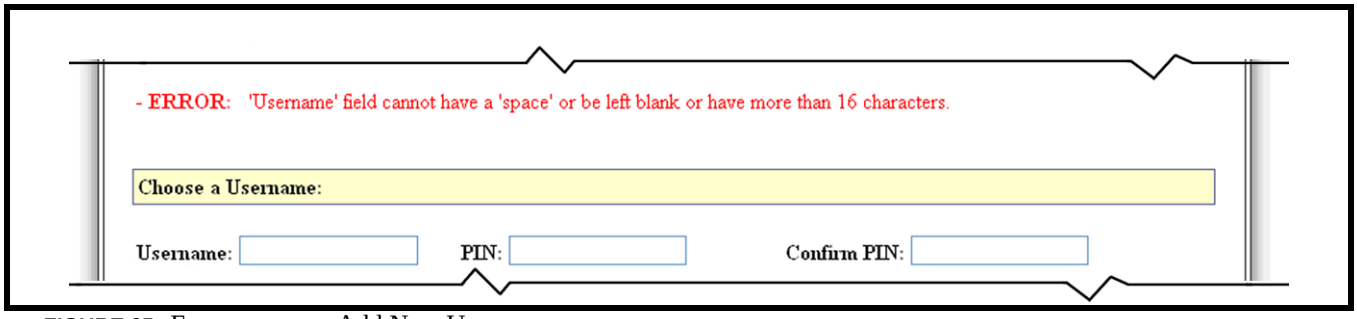


FIGURE 65. Error message–Add New User

Back to Account Setup Button

The **Back to Account Setup** button is used to navigate back to the Account Setup window.

To **return to the Account setup window**, do the following:

> Click **Back to Account Setup**.
The Account Setup window appears.

Add Another User Button

The **Add Another User** button is used to navigate back to the Add New User window.

To **add another user**, do the following:

> Click **Add Another User.**
The Add New User window appears.

Cancel Button

The **Cancel** button is used to exit the created account edit window.

> Click **Cancel** to exit without making changes.
You are now back at the Account Setup window.

Edit Created Account

The **Created Account** edit window is used to edit permissions and PIN numbers on an existing created account. Each field on this window is discussed below. By default, each created account has permission to change the Welcome Window and Save To EEPROM configuration windows. Each field on this window is discussed below.

NAVIGATION: Clicking the **Edit** button in the Created Accounts section opens the Edit Created Account window, shown in Figure 66.

NOTE: The **Edit** button is not active until an account has been created.

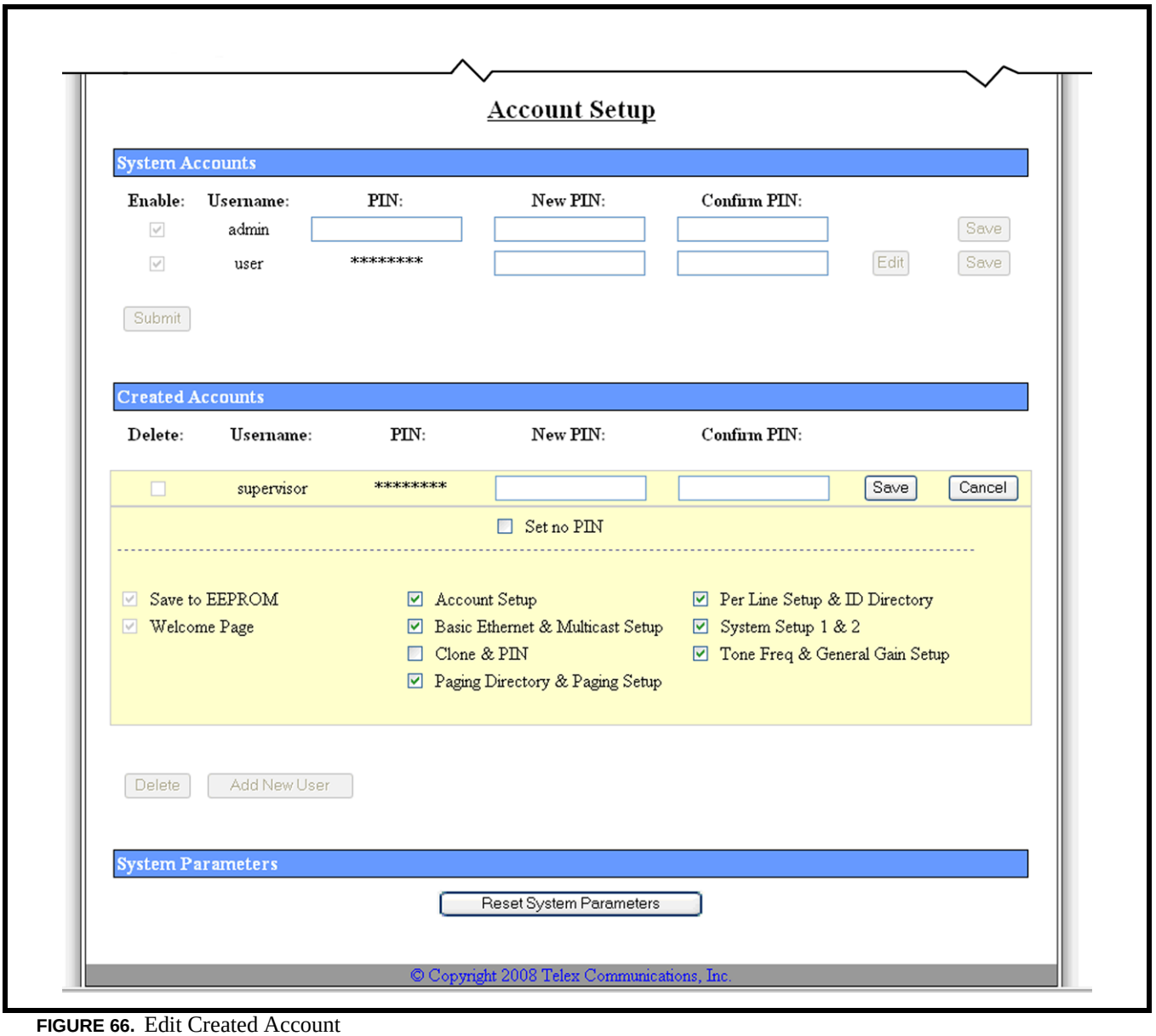


FIGURE 66. Edit Created Account

Created Accounts

To **edit a created account**, do the following:

1. From the Edit Created Accounts Window, select or unselect **check boxes** to grant or remove permissions.
   Permissions change based on selections.

   NOTE: For check box descriptions see “Set Permissions” on page 113.

2. Click **Save**. to save changes.
   The message, shown in Figure 67, appears and you are back at the Account Setup window
   OR
   Click **Cancel** to discard changes.
   .

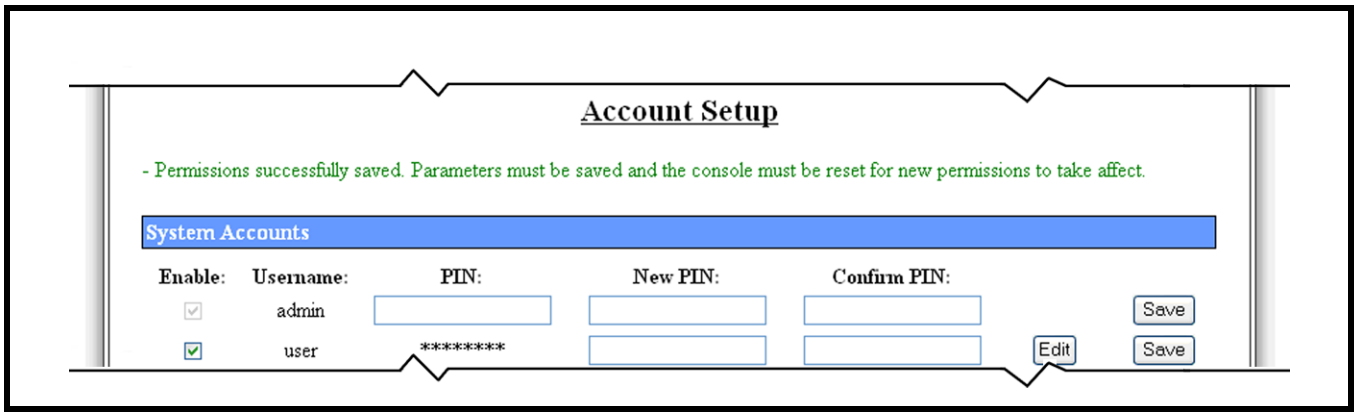


FIGURE 67. New PIN and New Permissions Successful Message

Confirm PIN Field

The **Confirm PIN** field is used to confirm the PIN number you entered in the PIN field. This PIN must match the PIN entered in the New PIN field.

Save Button

The **Save** button is used to save the changes to temporary memory.

To **permanently save changes**, do the following:

1. Click **Save to EEPROM**. 
   The Save to EEPROM window opens.

2. Click **Save Parameters**. 
   Changes are now permanently saved to the C-6200 console.

3. Click **Reset C-6200**. 

Cancel Button

The **Cancel** button is used to cancel the modification and return to the Account Setup window.

Set No PIN Check Box

The **Set No PIN** check box is used to configure the created user account with no PIN required.

To **set no PIN for the system user account**, do the following:

1. Select the **Set No PIN** check box.
2. Click **Save**, otherwise click **Cancel** to discard changes.
   The account does not require a PIN number.

Permission Check Boxes

The **Permission** check boxes indicate which permissions are granted to the current account. If selected, the current account has access to the indicated configuration window. By default, all created accounts have access to the Welcome window and Save to EEPROM window. For more information, see “Set Permissions” on page 113,.

Clone & Pin

The **Clone & PIN** window (Clone Console/PIN Change), shown in Figure 68, is used to copy the configuration settings from another, specified console. Both consoles must be connected to the Ethernet network. Each field on this window is discussed below.

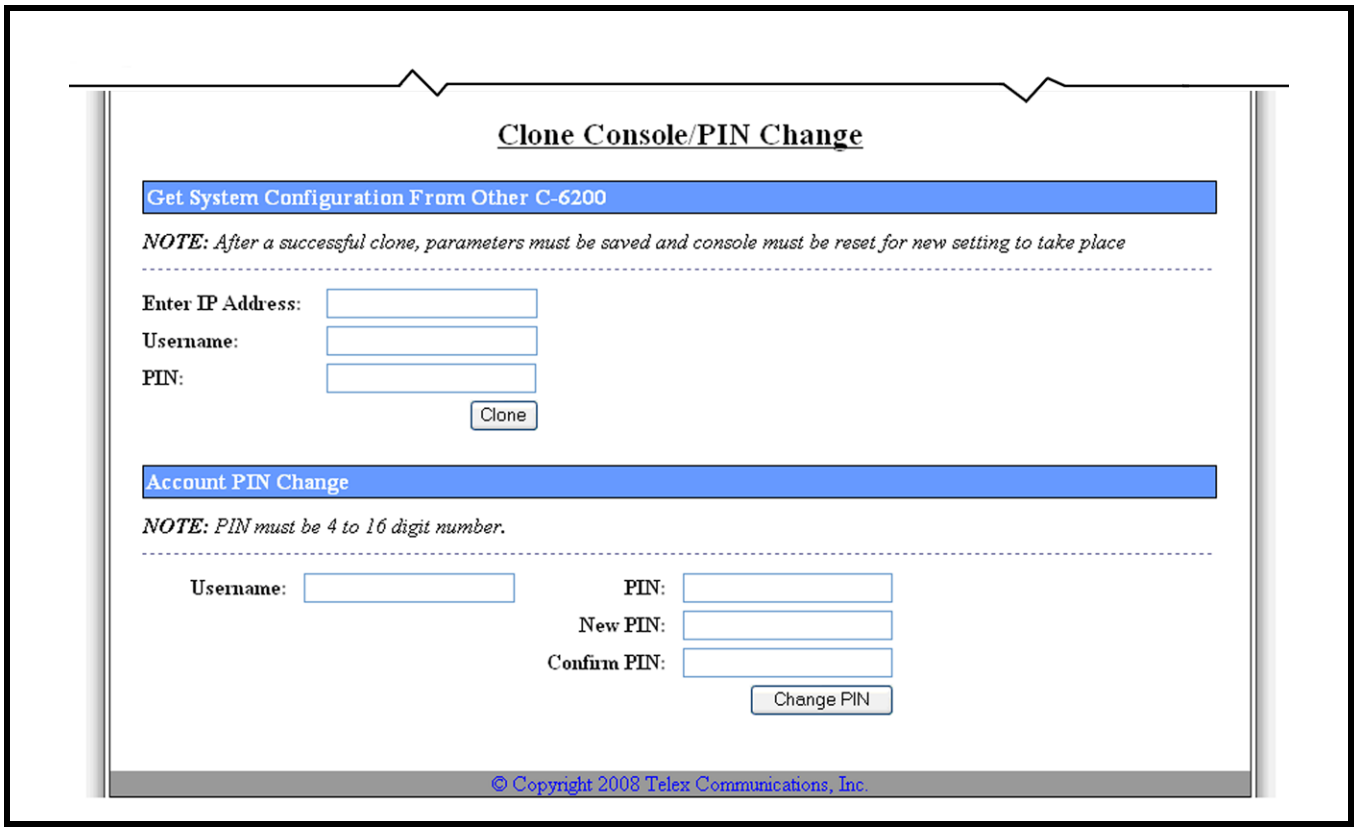


FIGURE 68. Clone Console/PIN Change

Get System Configuration From Other C-6200

Enter IP Address Field

The **Enter IP Address** field is used to identify the IP Address of the C-6200 console from which you are cloning.

Username Field

The **Username** field is used to identify the account username of the C-6200 console from which you are cloning.

The range for this field is *4* to *16 characters*. Do not use spaces.

PIN Field

The **PIN** field is used to identify the Username PIN number of the C-6200 console from which you are cloning.

The range for this field is a *4* to *16 digit number.*

Clone Button

The **Clone** button is used to pull the configuration settings from the C-6200 you want to clone from.

To **temporarily save the configuration settings**, do the following:

> Click **Clone**.
The setup information, except the serial number, base IP Address, and Mask Address are sent to the C-6200 for storage.

To **permanently save changes,** do the following:

1. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
2. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.
3. Click **Reset C-6200**. 

The C-6200 console resets.

Account PIN Change

Username Field

The **Username** field indicates the username for which you want to change the PIN number.

This field can contain *4* to *16 characters*; no spaces are allowed.

PIN Field

The **PIN** field indicates the current PIN number used to access the C-6200 configuration options.

New PIN Field

The **New PIN** field indicates the New PIN number entered for this username.

The range for this field is a *4* to *16 digit number.*

Confirm PIN Field

The **Confirm PIN** field is used to a re-enter the new PIN number.

Change PIN Button

The **Change PIN** button is used to temporarily save PIN changes.

To **change a PIN number**, do the following:

1. In the username field, enter the **username**.
2. In the PIN field, enter the **current PIN**.
   Asterisks appear for each character you enter.
3. In the New PIN field, enter the **new PIN**.
   Asterisks appear for each character you enter.
4. In the Confirm PIN field, re-enter the **new PIN**.
   Asterisks appear for each character you enter.
5. Click **Change PIN**.
   The new PIN is temporarily saved.

To **permanently save changes,** do the following:

1. Click **Save to EEPROM**. 

   The Save to EEPROM window opens.
2. Click **Save Parameters**. 

   Changes are now permanently saved to the C-6200 console.
3. Click **Reset C-6200**. 

   The C-6200 console resets.

ID Directory

The **ID Directory** window, shown in Figure 69, is used to map **ANI** (Automatic Number Identification) numbers to general alphanumeric names. This feature works in conjunction with the IP-223. Each field on this window is discussed below.

A total of 100 ID entries are allowed in the C-6200 ID Directory.

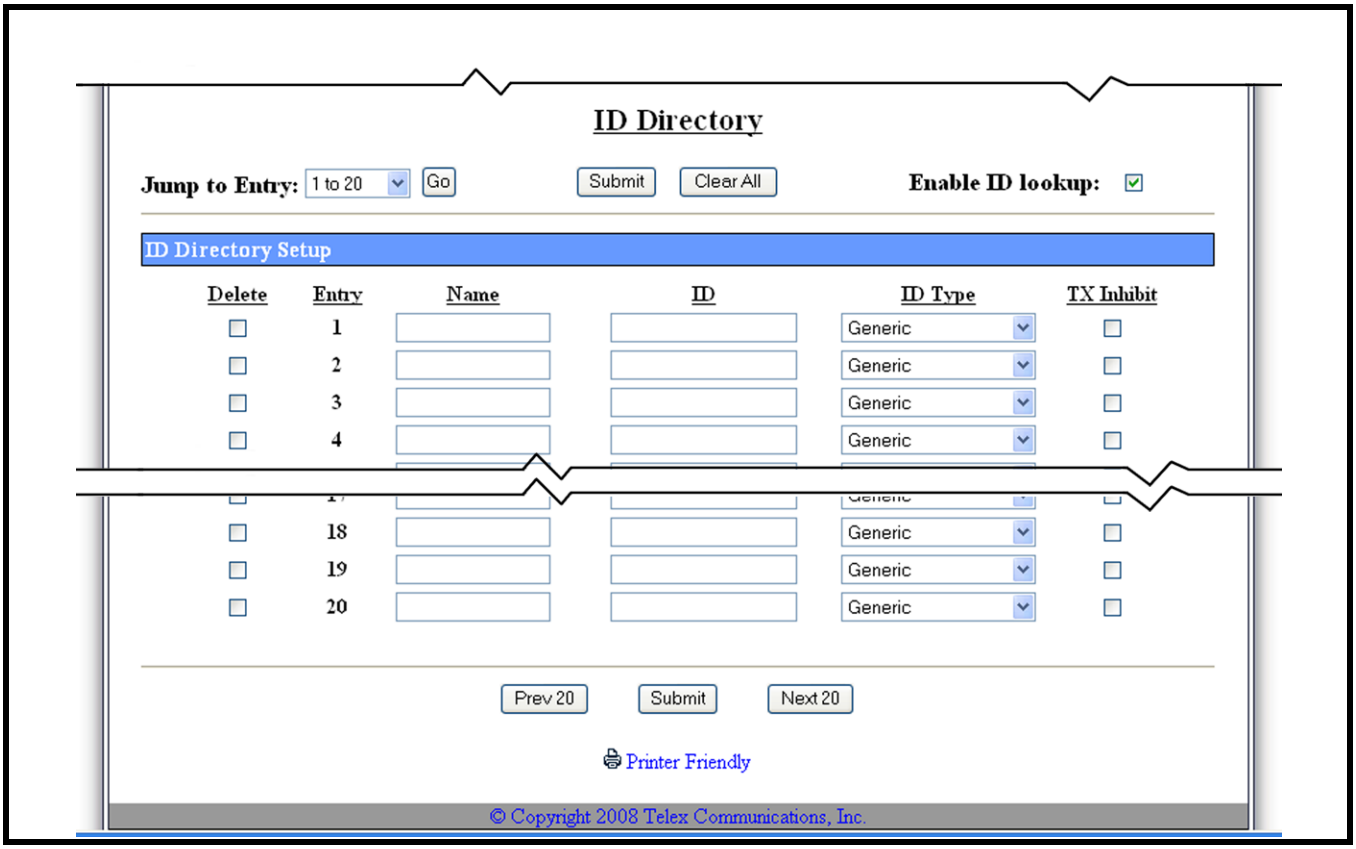


FIGURE 69. ID Directory

NOTE:

- If you leave any empty rows, the software forces the filled-in rows up into the empty rows once changes are submitted.
- After submitting settings, the name list is arranged in alphabetical order.
- If any field is left empty, the console operator is not able to access the entry.

Jump to Entry Drop Down Menu

The **Jump to Entry** drop down menu is used to select an ID directory window to navigate to. Once you have chosen the range of pages you want to display, click **GO**.

Available selections for this field are: *1 to 20, 21 to 40, 41 to 60, 61 to 80,* and *81 to 100*.

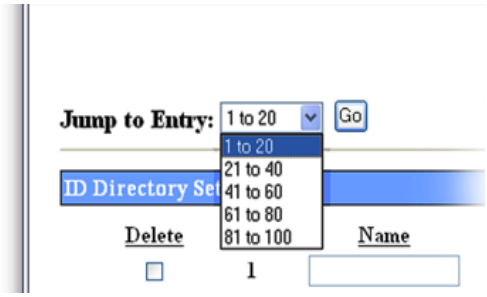


FIGURE 70. Jump to Entry Drop Down Menu—ID Directory

Clear All Button

The **Clear All** button is used to clear all entries in the ID Directory list.

IMPORTANT! The Clear All button, see Figure 71, deletes all entries (entries *1–100)* from the directory with one (1) click, no matter which page you are currently viewing.

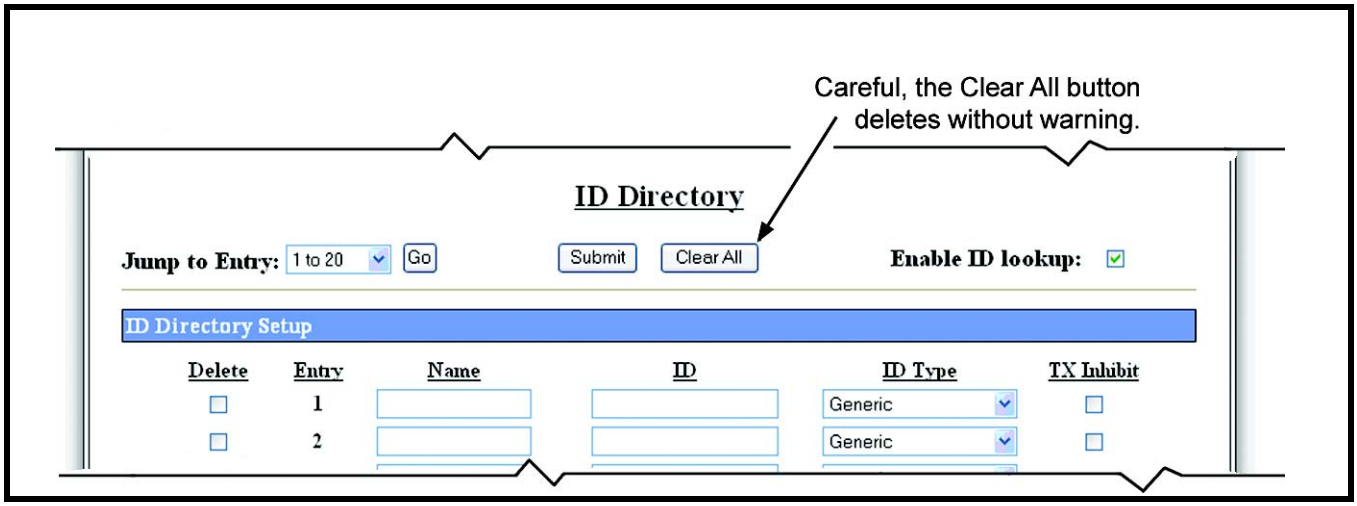


FIGURE 71. ID Directory–Clear All Button

Enable ID Look Up Check Box

The **Enable ID Look Up** check box is used to enable the use of the ID Directory. If selected, the C-6200 displays the alias name when a call is received. Otherwise, the C-6200 displays the received ID when a call is received.

ID Directory Setup

Delete Check Box

The **Delete** check box is used to delete the selected ID.

To **delete the ID**, do the following:

1. From the ID Directory window, select the **Delete** check box**.**
2. Click **Submit**.
   The ID is deleted from the directory.

Name Field

The **Name** field is used to assign an easily recognizable alphanumeric name to the ID. The name appears on the C-6200 console.

The Name field is also used to label the Status ID if Status (Kenwood FleetSync only) is chosen in the ID Type drop down menu. It is important the name given to any status describes the Status ID function entered in the Status field because this is the only field visible to the console operator is some cases.

This field can contain up to *12 characters*. Do not use spaces.

Important: If this field is left blank, the entire line in the ID Directory is invalid and not available for selection.

Example: If you enter the Status ID for an emergency you can enter EMERGENCY in the Name field. The C-6200 console displays *EMERGENCY* as well as the Status ID number.

ID Field

The **ID** field indicates the identification number (for example; 2131111) of the unit you want to associate with the ID type. See below for character lengths allowed.

The ID field is also used to enter a Status ID code for Kenwood FleetSync radios. See the manufacturer's technical documentation for Status ID code numbers. *Status* must be chosen from the drop down menu in the ID Type field.

Important: If this field is left blank, the entire line in the ID Directory is invalid and is not available for selection.

ID number format:

- No spaces or special characters (except for iDEN ID and group numbers, see below) are allowed.
- Character limits for each device are as follows:
  - *Generic* - Up to *17 Characters* allowed.
  - *Phone* - Up to *11 characters* allowed within the US. Other countries vary. Up to *17 character* allowed.
  - *iDEN* - Up to *17 characters* allowed.
  - *Motorola MDC1200* - Up to *4 characters* allowed.
  - *Kenwood FleetSync* - Up to *7 characters* allowed.
  - Status - Up to *2 characters* allowed. See manufacturer's technical documentation for Status ID code numbers.

ID Type Drop Down Menu

The **ID Type** drop down menu indicates the ID option configured.

Available list options are*: Generic, Phone, iDEN, Motorola MDC1200, Kenwood FleetSync,* and *Status.*

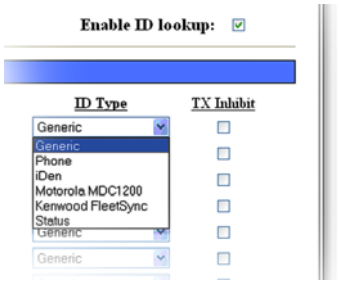


FIGURE 72. ID Type Drop Down Menu

Generic Option

The **Generic** option is used to configure the ID for any other ID Type not listed.

Phone Option

The **Phone** option is used to configure the ID as Phone type.

iDEN Option

The **iDEN** option is used to configure the ID as an iDEN type.

To **configure the iDEN ID for an individual,** do the following:

> In the ID field, enter the **ID number**.

To **configure the iDEN ID for a group**, do the following:

> In the ID field, enter **#** for the first character followed by the **group number**.

Motorola MDC 1200 Field

The **Motorola MDC1200** field is used to configure the ID as a Motorola MDC1200 type.

Kenwood FleetSync Field

The **Kenwood FleetSync** field is used to configure the ID for Kenwood FleetSync type.

Status Field

The **Status** field is used to configure the ID as a Status type. See the manufacturer's technical documentation for Status ID code numbers.

TX Inhibit Check Box

The **TX Inhibit** check box indicates an ID name cannot be selected for placing a call, but appears on the console display when receiving calls from the ID name.

Previous 20 Button

The **Previous 20** button displays the previous page of 20 IDs, if applicable.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

Next 20 Button

The **Next 20** button displays the next page of 20 IDs, if applicable.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

Printer Friendly Link

The **Printer Friendly** link is used to navigate to the Print ID List window.

Print ID List Window (ID Directory)

The **Print ID List** window, shown in Figure 74, is used to display, and print a list of ID names and numbers for a particular type. The list consists of an index number, name (alias) and ID number. Once an ID list is displayed it can be printed or copied. Each field on this window is discussed below.

Select A List Drop Down Menu

The **Select A List** drop down menu is used to select a ID type or select all IDs in the C-6200.

Available selections for this field are*: All List, Generic, Phone, iDEN, Motorola MDC1200, Kenwood FleetSync, Status, and Paging.*

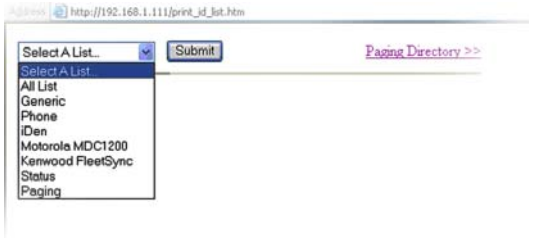


FIGURE 73. Select A List Drop Down Menu

Submit Button

The **Submit** button is used to submit the request and generate a report to display in the window. The list is now ready for printing.

To **print a list of ID numbers for an ID type**, do the following:

1. From the Select A List drop down menu, select an **ID type**.
2. Click **Submit**.
   The ID List appears.
3. From the File menu, select **Print**.
   A Print window appears.
4. From the Name drop down menu, select a **printer.**
5. Click **Print**.
   The list is sent to the printer.

   NOTE: Once the list appears in the Print ID List window, the data can be highlighted, copied, and pasted into a spreadsheet.

ID List

The **ID List** displays all IDs assigned to the C-6200, see Figure 74. This list displays the ID List Title, Index, Name, and ID # columns.

ID List Title

The **ID List Title** appears at the top of each list and identifies the type of IDs in the list

Index Column

The **Index** column identifies an index number for each entry. The index number is used to select IDs on the console and saves the operator from tedious scrolling.

Name Column

The **Name** column identifies the alias assigned to the ID.

ID Column

The **ID** column identifies the ID number.

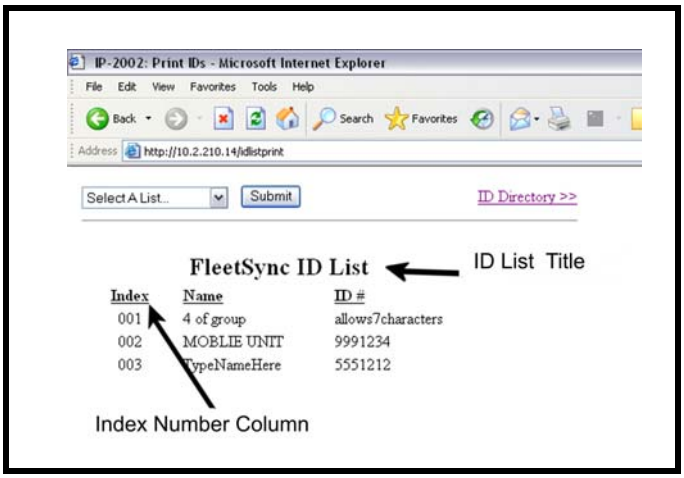


FIGURE 74. Print ID List

ID Directory >> Link

The **ID Directory** >> link is used to navigate back to the ID Directory window. Or, you can use the browser's Back button.

Paging Directory

The **Paging Directory** window, shown in Figure 75, is used to configure the lines for paging. There can be a total of 100 page entries, 20 entries per window, created in the C-6200 Paging Directory. Each field on this window is discussed below.

NOTE: Pages must be configured on the Page Setup window, see page 136, before configuring the Paging Directory.

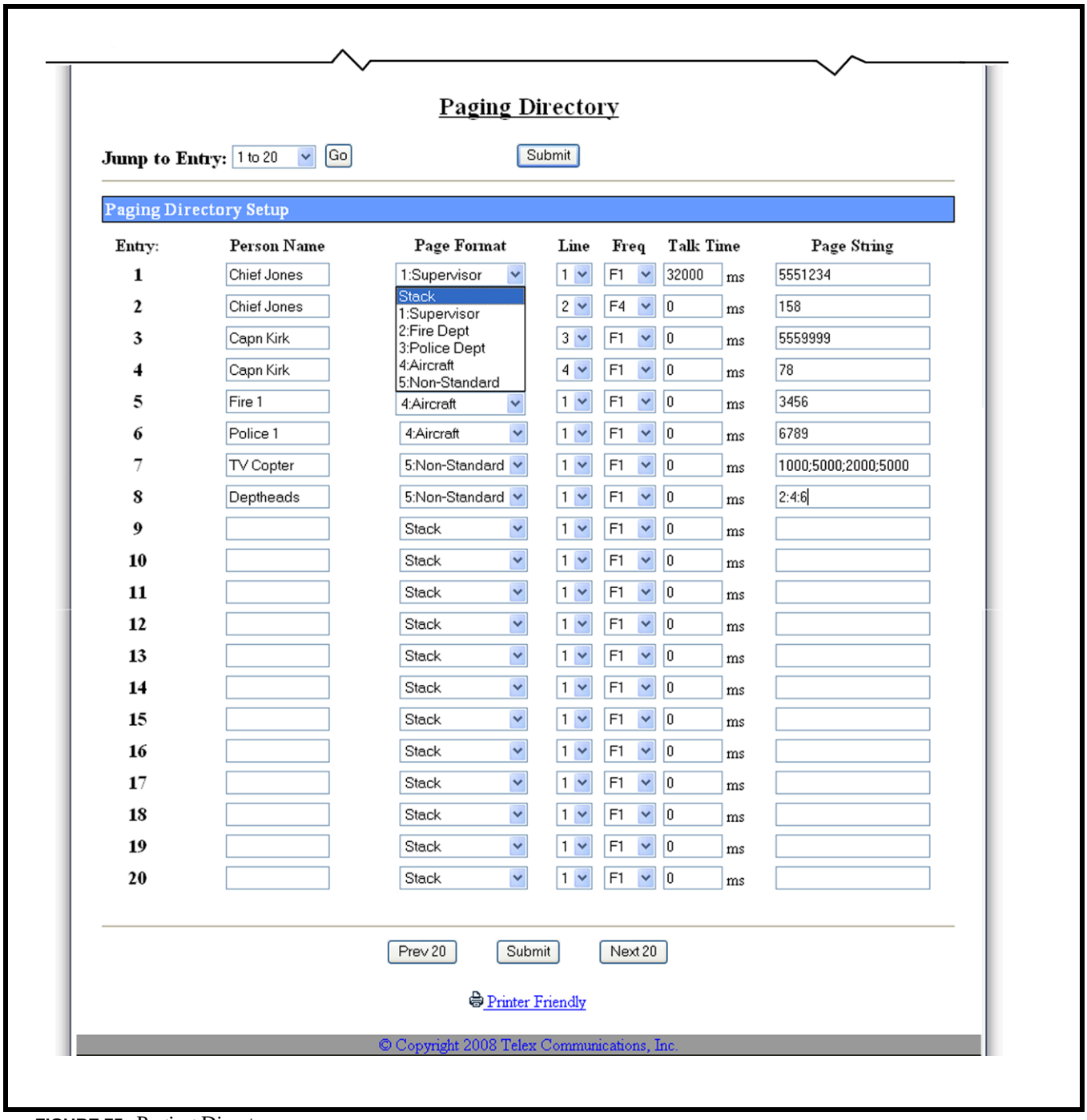


FIGURE 75. Paging Directory

Jump to Entry Drop Down Menu

The **Jump to Entry** drop down menu is used to select a Paging Directory window to navigate to. Once you have chosen the range of pages you want to display, click **GO**.

Available selections for this field are: *1 to 20, 21 to 40, 41 to 60, 61 to 80,* and *81 to 100.*

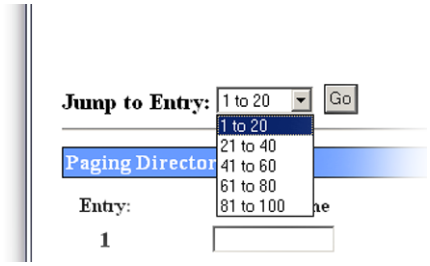


FIGURE 76. Jump to Entry Drop Down Menu—Paging Directory

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

Paging Directory Setup

Entry Field

The **Entry** field labels the configured page. Use the entry number to configure stacked page strings, see “Stack Menu Option” on page 131 and to configure console softkeys for paging, see “BKeys Button Setup” on page 164 and “BMenu - Quick Page Setup” on page 165.

Person Name Field

The **Person Name** field is used to enter the person’s name or a description of the associated page. The name displays on the console when the page is available for selection.

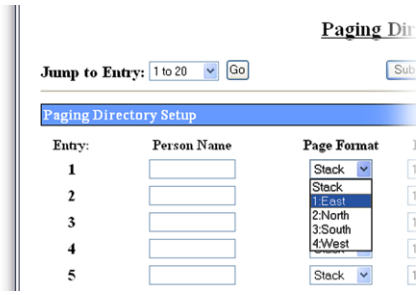
This field can contain up to *12 characters*.

Page Format Drop Down Menu

The **Page Format** drop down menu indicates the format of the page being entered into the directory. The Stack menu option is the default page format in the menu. Once page formats are created in “Paging Encoder Setups” on page 136, the name appears in the Page Format drop down menu for selection. The number corresponds to the row number on the paging setup window.

Available selections for this field are: *Stack*, and *up to 10 Custom Page Format Labels*.

EXAMPLE: Example labels shown in the figure are: East, North, South, and West.



Stack Menu Option

The **Stack** menu option is used to stack several pages to send at one (1) time.

To **stack pages**, do the following:

1. In the Person Name field, enter a **description**.
2. From the Page Format drop down menu, select **Stack**.

   NOTE: When stacking a page, the Line and Frequency drop down menus have no effect.
3. In the Talk Time field, enter a **value between 0 and 32000ms**.
4. In the Page String field, enter each **page entry number** separated by a semi-colon (;).

   Example: To stack page entries 2, 4 and 6, enter 2;4;6 in the Page Format field. See Figure 75 on page 129.

   NOTE: Stacked pages are sent to each page’s respective line. Stacked lines remain active until all pages are sent.

Line Drop Down Menu

The **Line** drop down menu indicates which line the page is sent on.

Available selections for this field are: *1*, *2*, *3*, *4*, *5*, *6*, *7*, *8*, *9*, *10*, *11*, *12*, *13*, *14*, *15*, *16*, *17*, and *18*.

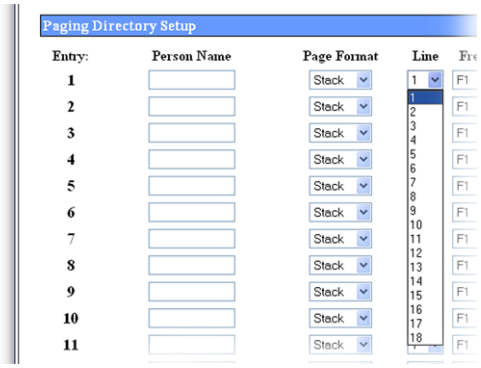


FIGURE 77. Line Drop Down Menu

Freq Drop Down Menu

The **Freq** drop down menu indicates the frequency the page is sent on.

Available selections for this field are: *F1*, *F2*, *F3*, *F4*, *F5*, *F6*, *F7*, *F8*, *F9*, *F10*, *F11*, *F12*, *F13*, *F14*, *F15*, and *F16*.

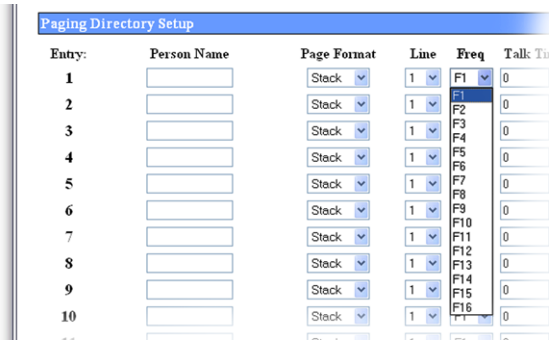


FIGURE 78. Freq Drop Down Menu

Talk Time Field

The **Talk Time** field indicates the amount of audio transmission time, in ms, the console operator has to talk after the page is sent to the radio.

The range for this field is *0ms* to *32000ms*.

Page String

The **Page String** field indicates the required string or code to send the page to. Page string formats vary depending on the page type (*2 Tone 100, 2 Tone 1000, DTMF, or Manual*). The page type is assigned to the Page Format (called *Name* on the Paging Setup window) during the paging setup process. The name you enter on the setup page displays in the Page Format drop down menu. You must know the page type for the selected page format when entering the page string.

Available selections for this field are:

2 Tone 100 Setup - Requires *2 digits*, “Tone Group Frequencies” on page 215.

2 Tone 1000 Setup - Requires *3 digits*, see “Paging Plan Table” on page 216.

DTMF - Up to *20 characters* are allowed. The entry is restricted to the Number of Total Page Digits configured on the Paging Setup window. For example, entry 1, shown in Figure 75, represents a 7-digit phone number.

Manual - Up to *20 characters* are allowed. Configure the tone and duration in the Page String field with semi-colon separated values: ([frequency in Hz];[duration in 10ms increments];[frequency in Hz];[duration in 10ms increments]).

EXAMPLE: Entry 7, shown in Figure 75 on page 129, represents a 1000Hz tone for 50000ms followed by a 2000Hz tone for 50000ms (1000:5000:2000:5000).

Stack - See “Stack Menu Option” on page 131.

Previous 20 Button

The **Previous 20** button displays the previously viewed 20 entries, if applicable.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

Next 20 Button

The **Next 20** button displays the next 20 entries, if applicable.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

Printer Friendly Link

The **Printer Friendly** link is used to navigate to the Print ID List window, see page 134.

Print ID List Window (Paging Directory)

The **Print ID List** window, shown in Figure 80 on page 135, can be used to display, and print a list of Paging IDs. The list consists of an index number, name (alias) and page string. Once a Paging ID list is displayed it can be printed or copied. Each field on this window is discussed below.

Select A List Drop Down Menu

The **Select A List** drop down menu can be used to select Paging for the ID list.

Available selections for this field are: *All List, Generic, Phone, iDEN, Motorola MDC1200, Kenwood FleetSync, Status,* and *Paging.*

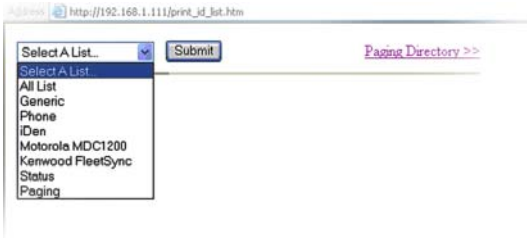


FIGURE 79. Select A List Drop Down Menu

Submit Button

The **Submit** button is used to submit the request and generate a report to display in the window. The list is now ready for printing.

To **print a list of paging IDs**, do the following:

1. From the Select A List drop down menu, select **Paging**.
2. Click **Submit**.
   The Paging ID List appears.
3. From the File menu, click **Print**.
   A Print window appears.
4. From the Print window, select a **printer.**
5. Click **Print**.
   The list is sent to the printer.

   NOTE: Once the list appears in the Print ID List window, the data can be highlighted, copied, and pasted into a spreadsheet.

ID List

The **ID List** displays all Paging names assigned to the page string, see Figure 80. The list displays the ID List Title, Index, Name, and Page String columns.

ID List Title

The **ID List Title** appears at the top of the window and identifies the type of IDs in the list.

Index Column

The **Index** column identifies an index number for each entry. The index number is used to select paging names on the console and saves the operator from tedious scrolling.

Name Column

The **Name** column identifies the name of the page string.

Page String Column

The **Page String** column identifies the page string used for paging.

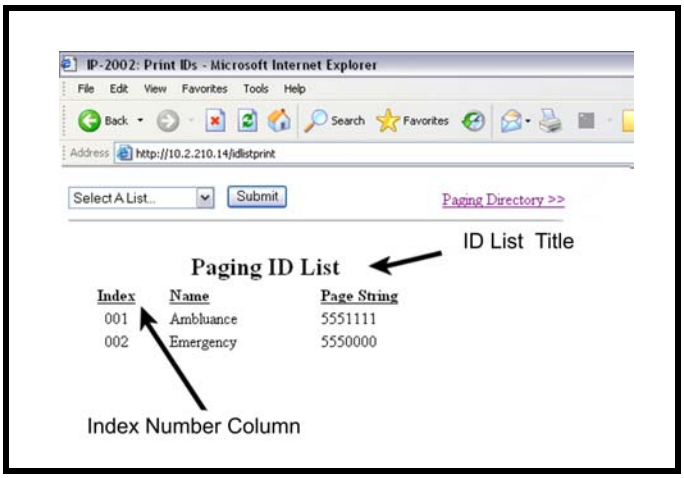


FIGURE 80. Print Paging ID List

Paging Directory >> Link

The **Paging Directory** >> link is used to navigate back to the Paging Directory window. Or you can use the browser's Back button.

Paging Encoder Setups

The **Paging Encoder Setups** window, shown in Figure 81, is used to configure up to 10 paging option groups and to navigate to the Paging Parameter Setup window for the paging option group configuration. Each field on this window is discussed below.

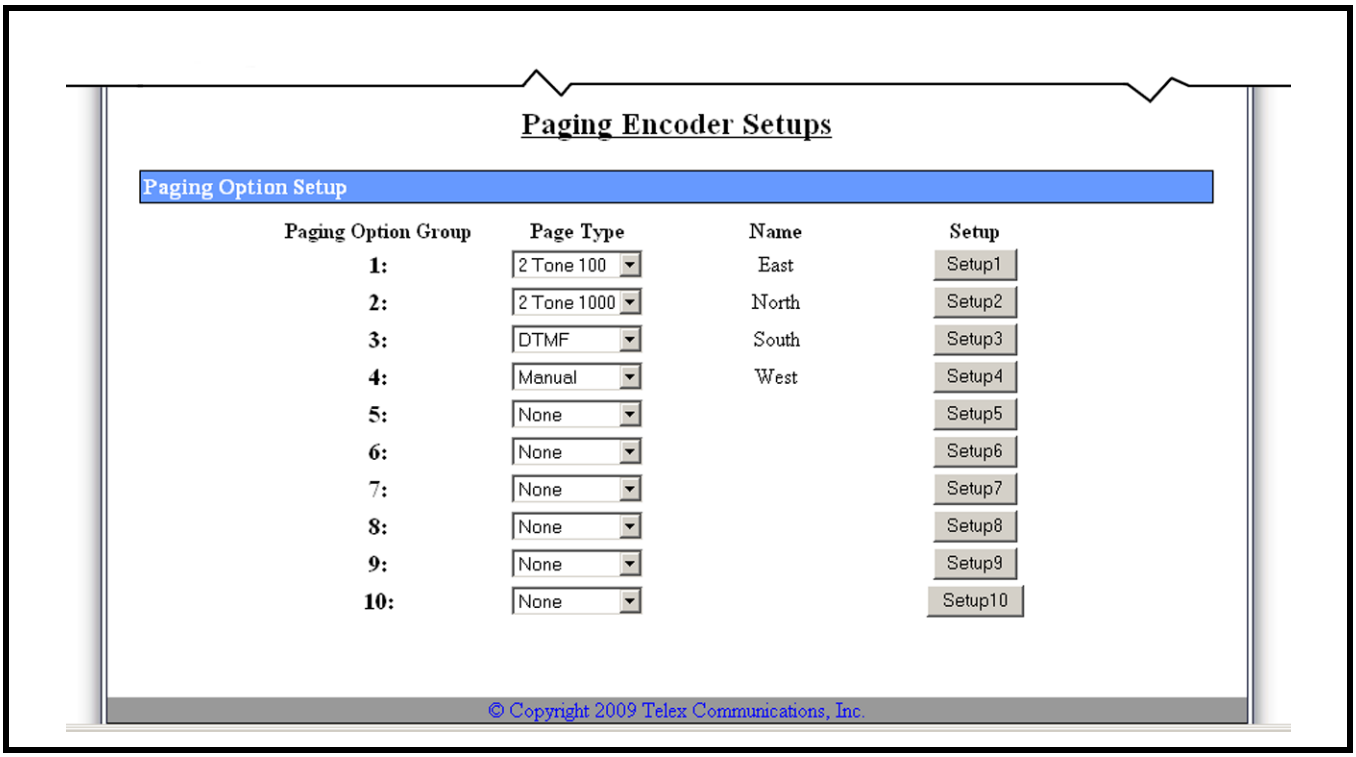


FIGURE 81. Paging Setup

Paging Encoder Setups

Paging Option Group Number

The **Paging Option Group** number indicates the group number for the paging setup.

Page Type Drop Down Menu

The **Page Type** drop down menu is used to select the paging encoder type you want to configure for the page group.

Available selections for this field are*: None, 2 Tone 100, 2 Tone 1000, DTMF, Manual*.

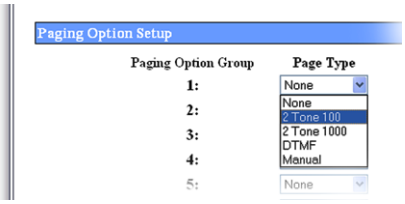


FIGURE 82. Page Type Drop Down Menu

Name Field

The **Name** field is used to display the name of the Paging Option Group you configured in the Setup (1–10) window. Once configured, the name appears in the Page Format drop down menu on the “Paging Directory” on page 129.

Setup (1–10) Button

The **Setup (1–10)** button is used to navigate to the configuration window for the paging encoder selected in the Page Type drop down menu.

To **setup each of the 10 page types**, do the following:

1. From the Page Type drop down menu, select the **paging encoder** you want to set up.
2. Click **Setup**.
   The Paging Parameters window for the paging encoder appears.

2 Tone 100 Setup Parameters

The **2 Tone 100 Setup Parameters** window, shown in Figure 83, is used to set up paging sequence parameters. This format requires a 2-digit code to generate a paging sequence. The top two (2) lines of the window give the page (encoder) type being configured and the table entry number. Each field on this window is discussed below.

NAVIGATION: Select **2 Tone 100** from the Page Type drop down menu on the Paging Encoder Setup window and then click the **Setup** button.

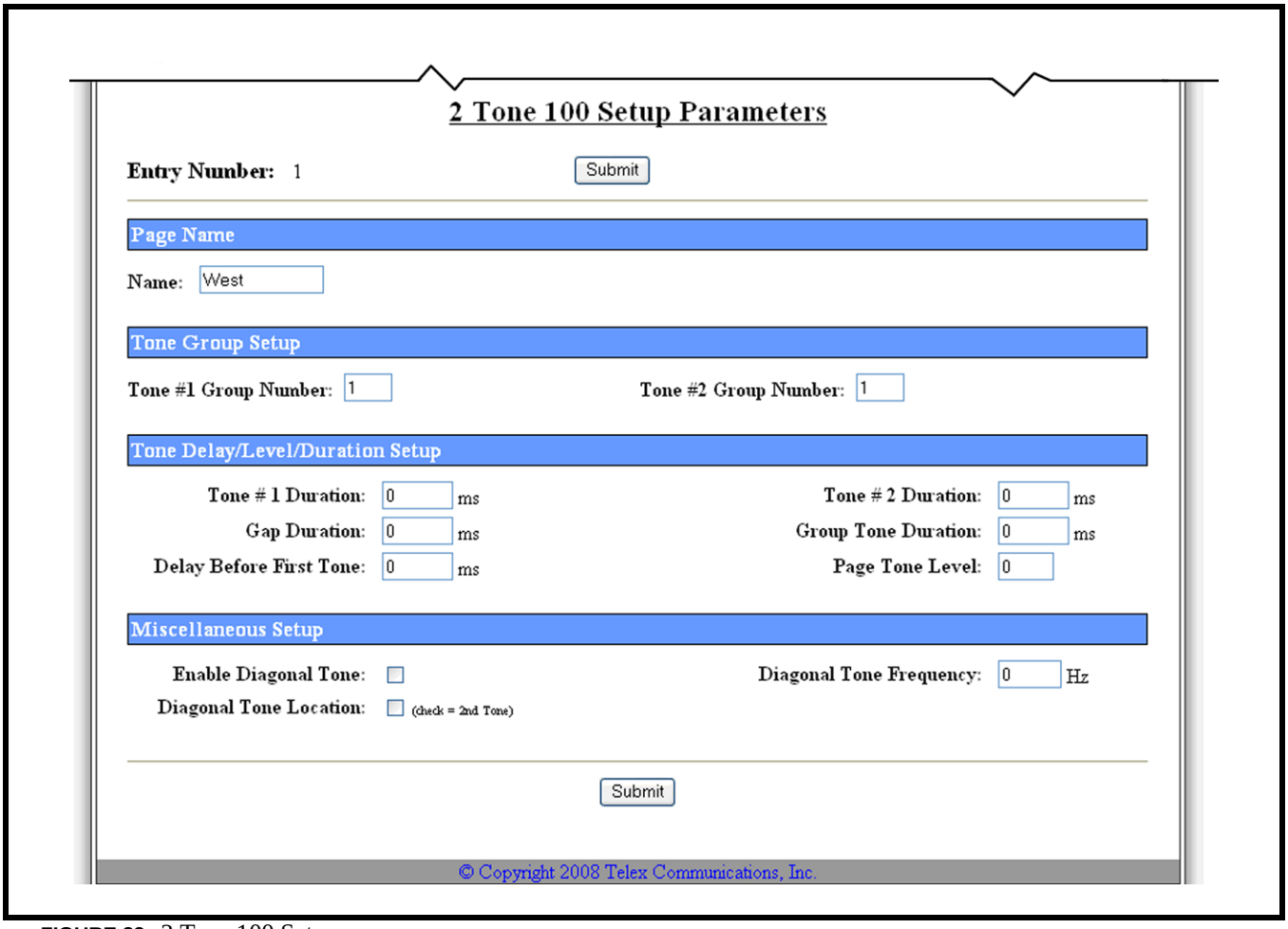


FIGURE 83. 2 Tone 100 Setup

Submit Button

The **Submit** button, located at the top and bottom of the window, is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

Page Name

Name Field

The **Name** field indicates the name associated with a particular setup for this paging encoder.

This field can contain up to *12 characters*.

Tone Group Setup

Tone #1 Group Number Field

The **Tone #1 Group Number** field is used to configure the first page tone signal.
See “Tone Group Frequencies” on page 215 for tone group numbers.

Tone #2 Group Number Field

The **Tone #2 Group Number** field is used to configure the second page tone signal.
See “Tone Group Frequencies” on page 215 for tone group numbers.

Tone Delay/Level/Duration Setup

Tone #1 Duration Field

The **Tone #1 Duration** field indicates the duration, in ms, the first tone is played.

The range for this field is *0* to *32000ms*.

Tone #2 Duration Field

The **Tone #2 Duration** field indicates the duration, in ms, the second tone is played.

The range for this field is *0* to *32000ms*.

Gap Duration Field

The **Gap Duration** field indicates the duration, in ms, between tones.

The range for this field is *0* to *32000ms.*

Group Tone Duration Field

The **Group Tone Duration** field indicates the duration, in ms, the group tone is played. Generally, group tones conform to standard paging plans listed in the “Paging Plan Table” on page 216.

The range for this field is *0* to *32000ms*.

Delay Before First Tone Field

The **Delay Before First Tone** field indicates the amount of time, in ms, allowed from PTT until the first tone is played.

The range for this field is *0* to *32000ms*.

Page Tone Level Field

The **Page Tone Level** field indicates the level, in dB, for the page.

The range for this field is *-60dB* to *12dB.*

Miscellaneous Setup

Enable Diagonal Tone Check Box

The **Enable Diagonal Tone** check box indicates if the diagonal tone overrides the group tone page.

- If selected, the tone specified tone in the Diagonal Tone Frequency field is used in place of either the first or second tone depending on the selection made in he Diagonal Tone Location field.
- If unselected, the group tone is played for the group tone duration.

Diagonal Tone Frequency Field

The **Diagonal Tone Frequency** field indicates the frequency, in Hz, at which the tone is sent. If the Diagonal Tone Frequency is set to zero then the frequency in the Tone Group Frequencies table is used, see “Tone Group Frequencies” on page 215.

The range for this field is from *0* to *3000Hz*.

Diagonal Tone Location Check Box

The **Diagonal Tone Location** check box indicates whether the diagonal tone is used in place of the first or second tone. If selected, the diagonal tone overrides the second tone.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

2 Tone 1000 Setup Parameters

The **2 Tone 1000 Setup Parameters** window, shown in Figure 84, is used to setup paging sequence parameters. This format requires a 3-digit code to generate a paging sequence. The top lines of the window give the page (encoder) type being configured and the table entry number. Each field on this window is discussed below.

NAVIGATION: Select **2 Tone 1000** from the Page Type drop down menu on the Paging Encoder Setup window and then click the **Setup** button

FIGURE 84. 2 Tone 1000 Setup Parameters

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

Page Name

Name Field

The **Name** field indicates the name associated with a particular setup for this paging encoder.

This field can contain up to *12 characters*.

Tone Plan Setup

Tone Plan Number Field

The **Tone Plan Number** field is used to configure the first and second page tones. See “Telex Code Plan and Pager Capcodes” on page 217 and “Tone Group Frequencies” on page 215 for tone group numbers and frequencies.

The range for this field is *1* to *25*.

Example: If the pager to be reached is N349, the Telex Code Plan Number would be set to 12 which corresponds to group Mot N. The Pager Capcode 3 corresponds to the line (3+3), in Group N (Tone Plan Number 12), from which the 2 Tone Group Frequencies are selected. So from using Telex Code Plan #12, Tone Group #3, and Tone Group #3, for N349 the first tone (Tone Group Number 3 and Tone Group 4) sent would be 313.0, followed by the second tone (Tone Group Number 3 and Tone Group 9) 1063.2. Described below is the breakdown of each digit in the pager number N349 and a description of the encoder parameters identified by the digit.

TABLE 18. Example Tone Plan Number Locator

Digit	Identifies	Description	Location
N	Pager	Locate the **Mot N pager capcodes** in “Telex Code Plan and Pager Capcodes” on page 217. Enter the **Telex Codeplan #** from the top row in the Tone Plan Number (12)[a].	Where the Telex Codeplan # (12) and the Pager Capcode (3xx) intersect in the table to identify the Telex Group No. (3+3). This identifies the frequencies for Tone 1 and Tone 2.
3	Pager Capcode	Locate the **Pager Capcode (3xx)** in “Telex Code Plan and Pager Capcodes” on page 217.	In the table’s left column.
4	Tone 1 Frequency	Using the first number in the Telex Group number (3), locate the **Telex Group No. 3** and **Tone Group 4** (second digit in pager number) from “Tone Group Frequencies” on page 215.	Where these two items intersect in the table identifies the frequency of tone 1 (313.0).
9	Tone 2 Frequency	Using the second number in the Telex Group number (3), locate the **Telex Group No. 3** and **Tone Group 9** (third digit in pager number) from “Tone Group Frequencies” on page 215.	Where these two items intersect in the table identifies the frequency of tone 2 (1063.2).

a. This digit can also identify the entries for the Tone 1 Time, Gap Duration, Tone 2 Time and Group Tone Time fields, see *“Paging Plan Table” on page 216.*

Tone Delay/Level/Duration Setup

Tone #1 Duration Field

The **Tone #1 Duration** field indicates the duration, in ms, the first tone is played.

The range for this field is *0ms* to *32000ms*.

Tone #2 Duration Field

The **Tone #2 Duration** field indicates the duration, in ms, the second tone is played.

The range for this field is *0ms* to *32000ms*.

Gap Duration Field

The **Gap Duration** field indicates the duration, in ms, between tones.

The range for this field is *0ms* to *32000ms.*

Group Tone Duration Field

The **Group Tone Duration** field indicates the duration, in ms, the group tone is played. Generally, group tones conform to standard paging plans listed in the “Paging Plan Table” on page 216.

The range for this field is *0ms* to *32000ms*.

Delay Before First Tone Field

The **Delay Before First Tone** field indicates the amount of time, in ms, allowed from PTT until the first tone is played.

The range for this field is *0ms* to *32000ms*.

Page Tone Level Field

The **Page Tone Level** field indicates the level, in dB, for the for the page.

The range for this field is *-60dB* to *12dB.*

Miscellaneous Setup

Enable Diagonal Tone Check Box

The **Enable Diagonal Tone** check box indicates if the diagonal tone overrides the group tone page.

- If selected, then the tone specified tone in the Diagonal Tone Frequency field is used in place of either the first or second tone depending on the selection made in the Diagonal Tone Location field.
- If unselected, the group tone is played for the group tone duration.

Diagonal Tone Frequency Field

The **Diagonal Tone Frequency** field indicates the frequency, in Hz, at which the tone is sent. If the diagonal tone frequency is set to zero then the frequency in the Tone Group Frequencies table is used, see “Tone Group Frequencies” on page 215.

The range for this field is *0Hz* to *3000Hz*.

Diagonal Tone Location Check Box

The **Diagonal Tone Location** check box indicates whether the diagonal tone is used in place of the first or second tone. If selected, the diagonal tone overrides the second tone.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.

2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.

3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

DTMF Setup Parameters

The **DTMF Setup Parameters** window, shown in Figure 85, is used to setup DTMF paging. The standard DTMF digits are allowed. The DTMF (Paging) Setup fields are described in detail below. The top two (2) lines of the window give the following information: the page (encoder) type being configured, and the table entry number. Each field on this window is discussed below.

NAVIGATION: Select **DTMF** from the Page Type drop down menu on the Paging Encoder Setup window and then click the **Setup** button.

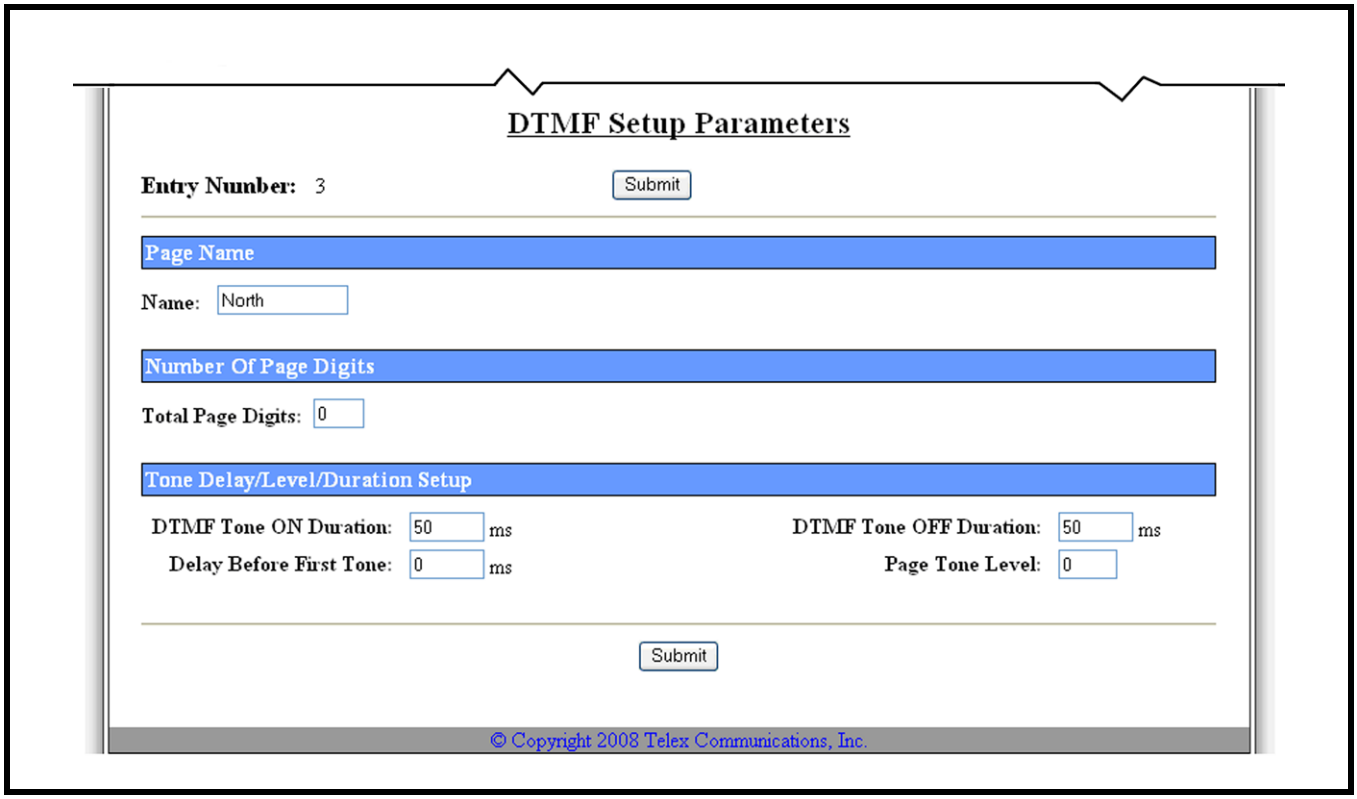


FIGURE 85. DTMF Setup Parameters

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

Page Name

Name Field

The **Name** field indicates the name associated with a particular setup for this paging encoder.

This field can contain up to *12 characters.*

Number of Page Digits

Total Page Digits Field

The **Total Page Digits** field indicates the number of digits in a standard page. All pages that use this DTMF paging setup expect this number of digits when paged.

The range for this field is *0* to *20 digits*.

Tone Delay/Level/Duration Setup

DTMF Tone ON Duration Field

The **DTMF Tone ON Duration** field indicates the amount of time, in ms, the DTMF tone is played.

The range for this field is *0ms* to *500ms*.

DTMF Tone OFF Duration Field

The **DTMF Tone OFF Duration** field indicates the amount of time, in ms, allowed between the DTMF tones.

The range for this field is *0ms* to *500ms*.

Delay Before First Tone Field

The **Delay Before First Tone** field indicates the amount of time, in ms, allowed from PTT until the first tone is played.

The range for this field is *0ms* to *32000ms*.

Page Tone Level Field

The **Page Tone Level** field indicates the level, in dB, for the page.

The range for this field is *-60dB* to *12dB*.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

Manual Paging Setup Parameters

The **Manual Paging Setup Parameters** window, shown in Figure 86, is used to create tone pages using tones that are not included in the paging tables. The top two (2) lines of the window give the paging encoder type being configured and the entry number. Each field on this window is discussed below.

NAVIGATION: Select **Manual** from the Page Type drop down menu on the Paging Encoder Setup window and then click the **Setup** button

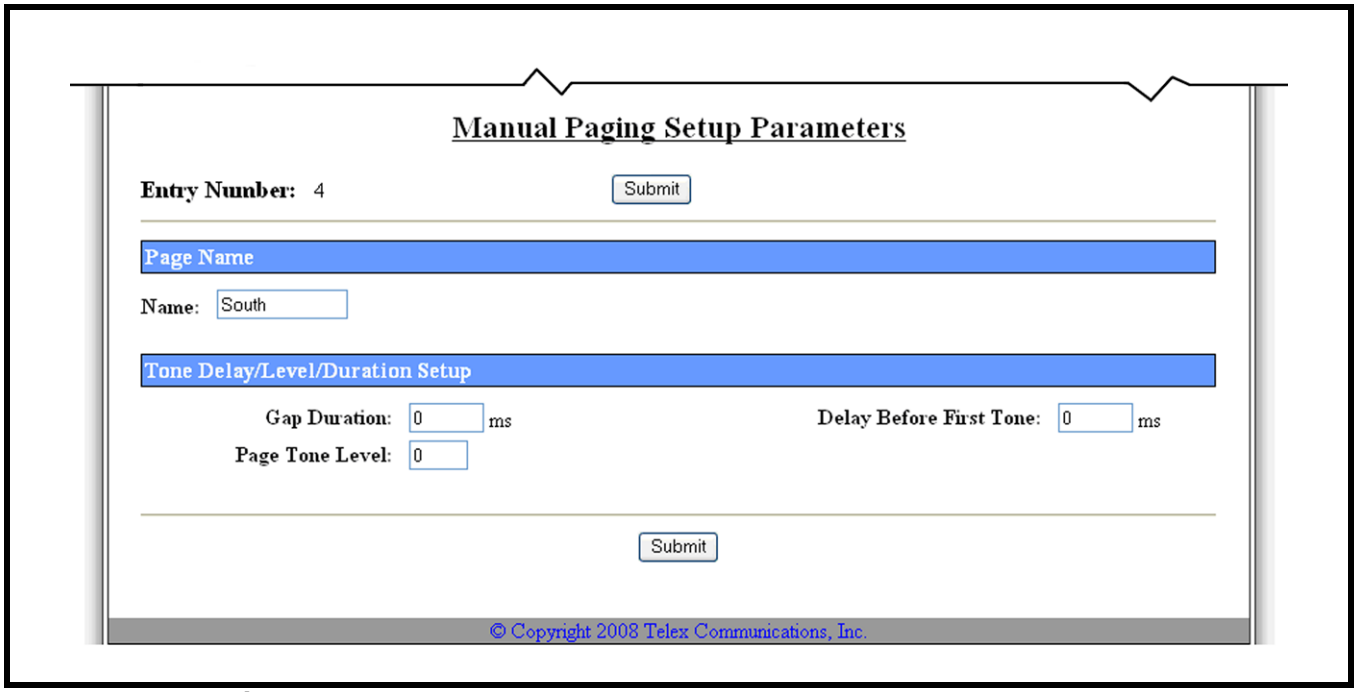


FIGURE 86. Manual Paging Setup Parameters

Submit Button

The **Submit** button, located at the top and bottom of the window, is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

Name Field

The **Name** field indicates the name associated with a particular setup for this paging encoder.

This field can contain up to *12 characters*.

Tone Delay/Level/Duration Setup

Gap Duration Field

The **Gap Duration** field indicates the amount of time, in ms, between tones.

The range for this field is *0ms* to *32000ms*.

Delay Before First Tone Field

The **Delay Before First Tone** field indicates the amount of time, in ms, allowed from PTT until the first tone is played.

The range for this field is *0ms* to *32000ms*.

Page Tone Level Field

The **Page Tone Level** field indicates the tone level, in dB, for the page.

The range for this field is *-60dB* to *12dB.*

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

System Setup 1

The **System Setup 1** window, shown in Figure 87, is used to configure miscellaneous functions not specific to a line. Each field on this window is discussed below.

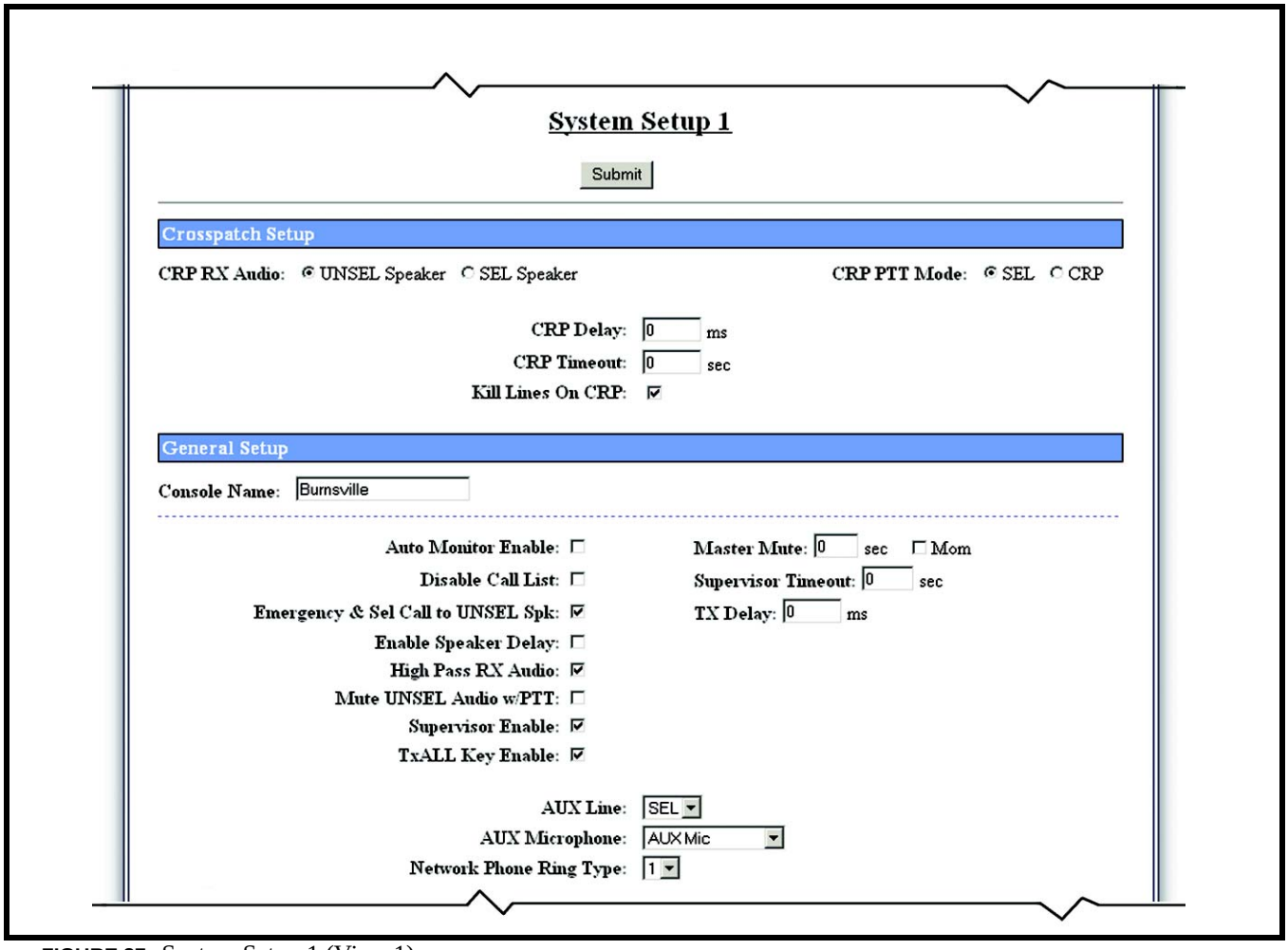


FIGURE 87. System Setup 1 (View 1)

Crosspatch Setup

CRP RX Audio UNSEL Speaker Radio Button

The **CRP RX Audio Unsel Speaker** radio button indicates when the crosspatch menu is active, the crosspatch audio is routed to the UNSELECT speaker.

CRP RX Audio SEL Speaker Radio Button

The **CRP RX Audio SEL Speaker** radio button indicates when the crosspatch menu is active, the crosspatch audio is routed to the SELECT speaker.

CRP PTT Mode SEL Radio Button

The **CRP PTT Mode SEL** radio button indicates while in crosspatch menu the currently selected line(s) is keyed when the TRANSMIT button is pressed.

CRP PTT Mode CRP Radio Button

The **CRP PTT Mode CRP** radio button indicates while in the crosspatch menu, the currently selected crosspatch lines are keyed when the TRANSMIT button is pressed.

CRP Delay Field

The **CRP Delay** field indicates the delay, in ms, for the crosspatch audio. By setting this value greater than the radio system channel acquisition time, the crosspatch receive audio is delayed until the system is able to transmit.

The range for this field is *0ms* to *1000ms*.

CRP Timeout Field

The **CRP Timeout** field indicates the amount of time, in seconds, a crosspatch is allowed to be inactive before it is automatically dropped.

The range for this field is *0 seconds* to *3600 seconds*. *0* is disabled.

Kill Lines on CRP

The **Kill Lines on CRP** check box indicates while in the crosspatch menu, audio does not play. Otherwise, the crosspatch audio plays through the speaker while the console is in any mode or menu.

General Setting

Console Name Field

The **Console Name** field, shown in Figure 87, displays the name assigned to the console and is displayed in the web browser configuration header. The console name can also be configured on the Welcome window.

This field can contain up to *12 characters*.

Auto Monitor Enable Check Box

The **Auto Monitor Enable** check box indicates a monitor packet is sent out when the handset or headset has been taken offhook. This function is used with the handset/headset option.

Master Mute sec Field

The **Master Mute sec** field is used to configure the length of time, in seconds, all unselected lines remain muted after the operator presses the Master Mute button.

The range for this field is *0 seconds* to *60 seconds.*

Available configurations for the Master Mute button are as follows:

Toggle - If this field is set to *0*, the Master Mute button is set to toggle.

Timed mute - If this field is set to any value from *0* to *60 sec*, the Master Mute is active for the configured time.

NOTE: The Master Mute Mom check box must be selected for timed mute.

Master Mute Mom Check Box

The **Master Mute Mom** check box indicates the Mute button is used to momentarily mute all lines. This check box must be selected for the timed mute option configured in the “Master Mute sec Field” .

Disable Call List Check Box

The **Disable Call List** check box indicates the operator can access the call list. If selected the call list does not appear on the display.

Supervisor Timeout Field

The **Supervisor Timeout** field indicates the amount of time, in seconds, the supervisor button is active. If the field value is set to 0, once the supervisor function is activated, it can only be turned off by pressing the SUP button again.

The fields ranges from *0 seconds* to *3600 seconds.*

Emergency & Sel Call to UNSEL Spk Option Check Box

The **Emergency & Sel Call UNSEL Spk Option** check box indicates emergency and select call tones are played to the Select or UNSELECT speaker. If selected the emergency and select call tones are played to the UNSELECT speaker.

TX Delay Field

The **TX Delay** field indicates the amount of delay, in ms, for microphone audio. By setting this value greater than the radio system channel acquisition time, the console operator can begin speaking after the PTT button is pressed. The audio is delayed until the system is able to transmit.

The range for this field is *0ms* to *1000ms*.

Enable Speaker Delay Check Box

The **Enable Speaker Delay** check box indicates audio received on TCRD lines is delayed to the speakers. This delay is used to synchronize parallel console’s Ethernet receive audio with receive audio on the console that has the TCRD installed.

High Pass RX Audio Check Box

The **High Pass RX Audio** check box indicates a 300Hz RX high pass filter is inserted to block sub-audible and **DPL** (Direct Private Line) tones from the speaker.

The range for this field is *0 seconds* to *3600 seconds*.

Mute UNSEL Audio w/PTT Check Box

The **Mute UNSEL Audio w/PTT** check box indicates received audio from any channel not selected during a PTT is muted. When selected, the audio received from an unselected line during PTT is muted.

Supervisor Enable Check Box

The **Supervisor Enable** check box indicates the console operator can take control of any selected line. If selected, the console SUP button lights red. The console sends a SUP packet and turns on the supervisor output on a TCRD so other consoles are not able to transmit or monitor receive audio on the line. Otherwise, the console can be supervised at any time, but cannot be the supervisor.

TxALL Key Enable Check Box

The **TxALL Key Enable** check box indicates the TxAll button on the console is active. If selected, the console operator can select all lines for audio transmission by pressing the TxALL button.

AUX Line Drop Down Menu

The **AUX Line** drop down menu is used to route the rear panel AUX input through the selected or a predefined line.

Available selections for this field are:

SEL - The rear auxiliary input is routed to the selected lines.

1–18 - The rear auxiliary input is routed to the indicated line.

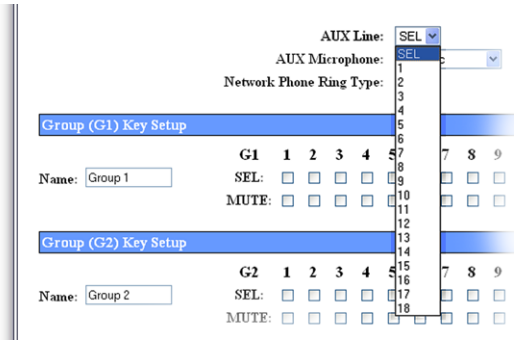


FIGURE 88. AUX Line Drop Down Menu

AUX Microphone Drop Down Menu

The **AUX Microphone** drop down field is used to indicate which microphone is used when auxiliary PTT is activated.

Available selections for this field are:

AUX Mic - The AUX microphone is used when auxiliary PTT is activated.

Gooseneck Mic - The Gooseneck microphone is used when auxiliary PTT is activated.

Desk Mic - The desk microphone is used when the auxiliary PTT is activated.

Handset Mic- The handset mic is used when auxiliary PTT is activated.

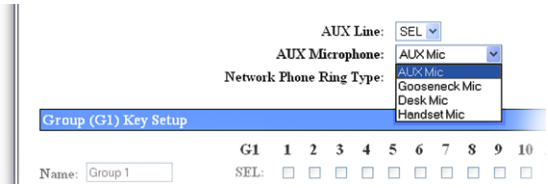


FIGURE 89. AUX Microphone Drop Down Menu

Network Phone Ring Type Drop Down Menu

The **Network Phone Ring Type** drop down menu is used to select the type of annunciation (ring) the console plays when a networked phone line is ringing. There are eight (8) different rings to select from, see Table 19 on page 153. Each tone is 250ms in length. The ring cadence is one (1) second on and four (4) seconds off.

Available selections for this field are: *1*, *2*, *3*, *4*, *5*, *6*, *7*, and *8*.

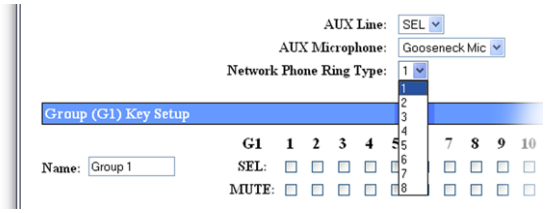


FIGURE 90. Network Phone Ring Type

Frequencies in Table 19 are represented as follows*: A=440Hz, B=494Hz, C=523Hz, D=587Hz, E=659Hz, F=698Hz,G=784Hz, 2A= 880Hz.*

TABLE 19. Annunciation Types

Setup Option	Note One	Note Two	Note Three	Note Four
1	E	A	E	A
2	A	E	C	G
3	F	G	A	C
4	G	D	A	D
5	A	C	E	G
6	G	E	C	A
7	G	No Tone	C	No Tone
8	G	2A	G	2A

System Setup 1 (View 2)

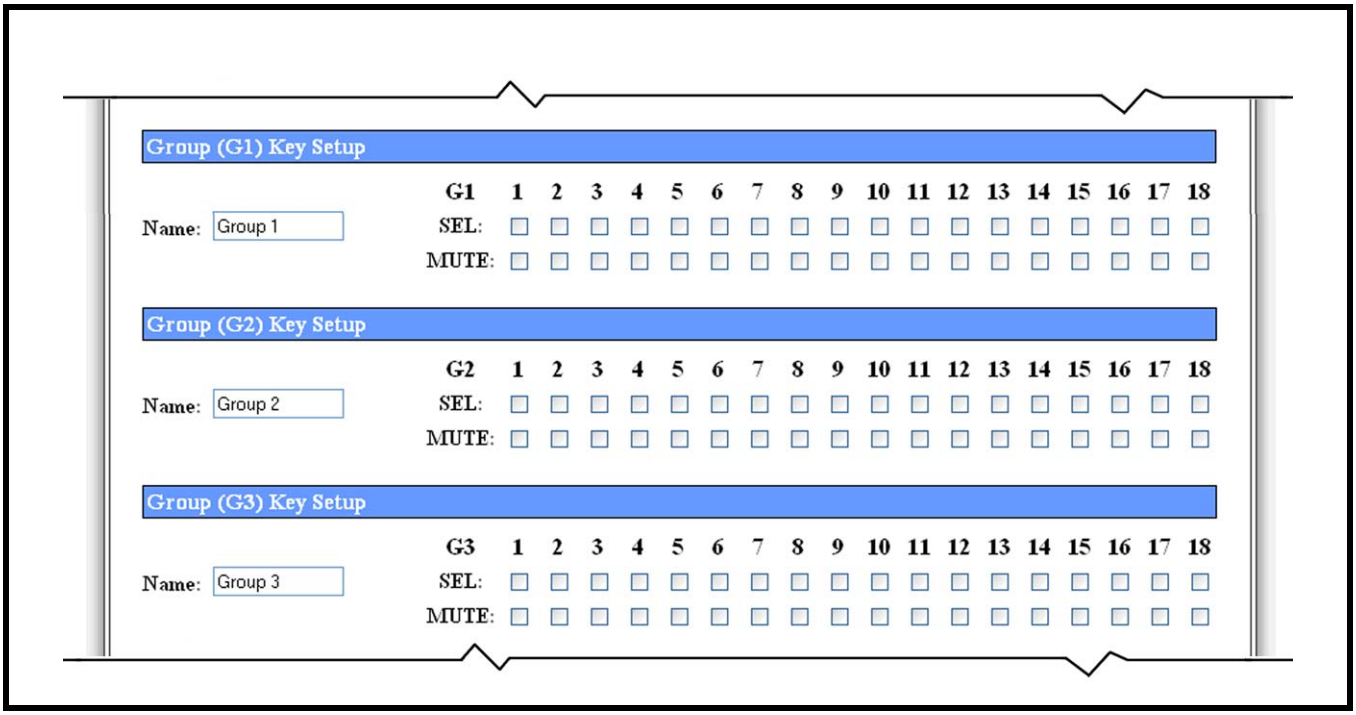


FIGURE 91. System Setup 1 (View 2)

Group (G1–G3) Key Setup

Group (G1–G3) Key Setup Section

The **Group (G1–G3) Key Setup** section is used to configure three (3) predefined groups for instant selection of lines with one (1) button press.

Name Field

The **Name** field is used to label the group G1–G3 buttons. Once the G1–G3 button is selected, the name appears on the display.

This field can contain up to *12 characters.*

G1, G2, and G3 (1–18) SEL Check Boxes

The **G1, G2, and G3 (1–18) SEL** check boxes indicate which lines are selected as part of the group when the assigned (G1, G2 or G3) button is pressed.

G1, G2, and G3 (1–18) MUTE Check Boxes

The **G1, G2, and G3 (1–18) MUTE** check boxes indicate which lines are muted when the assigned (G1, G2 or G3) button is pressed.

System Setup 1 (View 3)

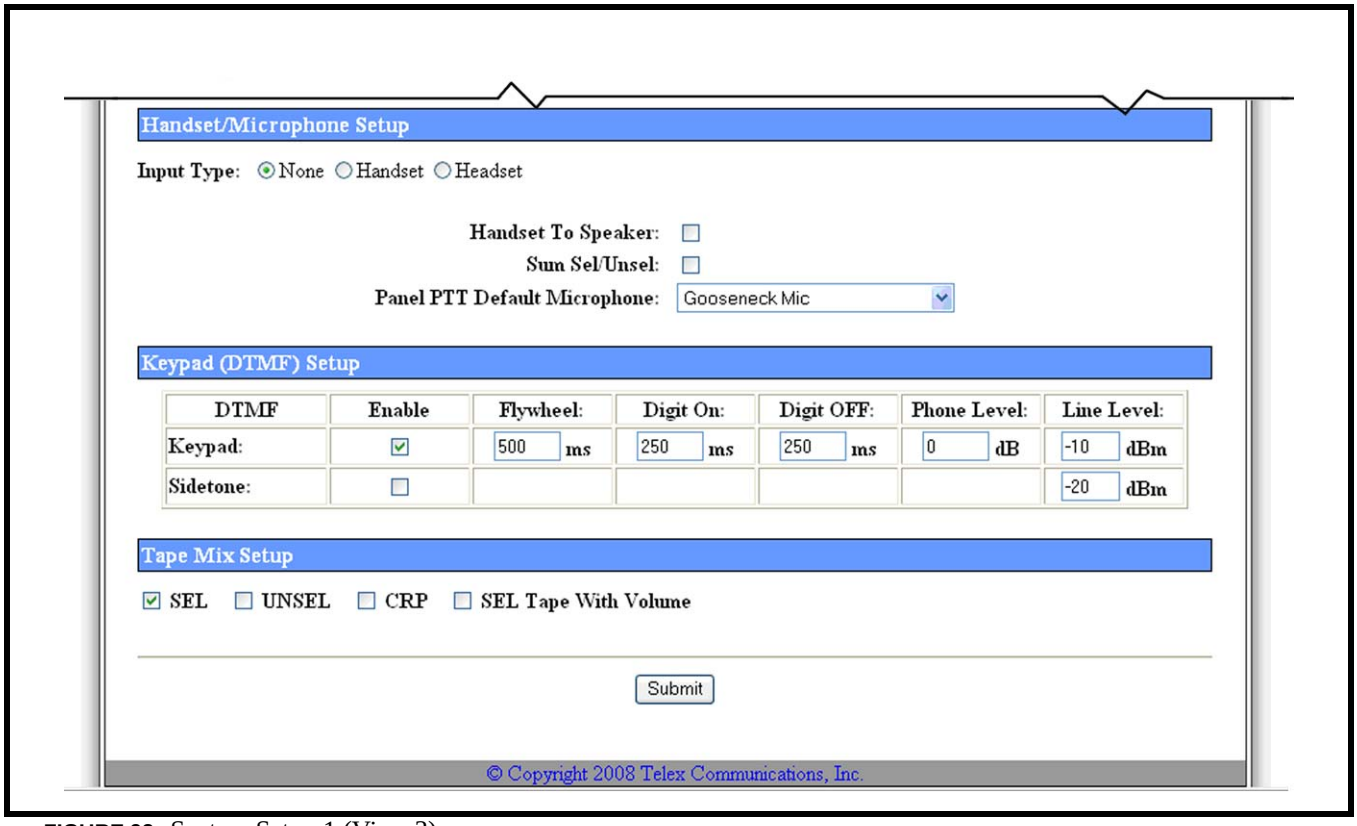


FIGURE 92. System Setup 1 (View 3)

Handset/Microphone Setup

Input Type Radio Buttons

The **Input Type** radio buttons are used to select the input source to route selected receive audio based on hookswitch position.

Available selections for this field are:

None - received audio is not routed to the SELECT speaker.

Handset - received audio is routed to the handset if it is offhook.

Headset - received audio is routed to the headset if it is offhook.

Handset to Speaker Check Box

The **Handset to Speaker** check box indicates to play audio, when the handset is offhook, from the selected line through the SELECT speaker and handset at the same time.

Sum Sel/Unsel Check Box

The **Sum Sel/Unsel** check box indicates all received audio is sent to an offhook handset or headset earpiece. When selected, the console sends SELECT and UNSELECT received audio to the earpiece.

Panel PTT Default Microphone Drop Down Menu

The **Panel PTT Default Microphone** drop down menu is used to select the microphone source when the front panel TRANSMIT button is pushed.

Available selections for this field are:

Gooseneck Mic - The gooseneck mic is active when the front panel PTT is pressed.

Desk Mic - The desk microphone is active when the front panel PTT is pressed.

Handset/Headset-Gooseneck - The handset/headset is the active source, if offhook. Otherwise, the gooseneck microphone is active (handset/headset onhook).

Handset/Headset-Deskmic - The handset/headset is the active source, if offhook. Otherwise, the desk mic is active (handset/headset onhook).

NOTE: If the handset/headset PTT or desk mic PTT are activated, then their respective microphone is active.

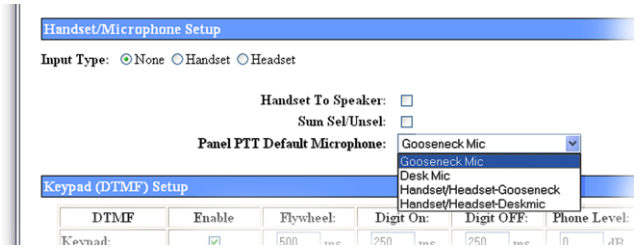


FIGURE 93. Panel PTT Default Microphone Drop Down Menu

Keypad (DTMF) Setup

DTMF Keypad Enable Check Box

The **DTMF Keypad Enable** check box indicates the DTMF keys on the C-6200 are enabled or disabled. If selected, the DTMF keys on the unit are enabled.

DTMF Keypad Flywheel Field

The **DTMF Keypad Flywheel** field is used to set the time, in ms, the console remains keyed up after a DTMF key has been released.

The range for this field is *0ms* to *2000 ms*.

DTMF Keypad Digit ON Field

The **DTMF Keypad Digit ON** field is used to set the minimum amount of time, in ms, a DTMF digit (tone) is active.

The range for this field is *0ms* to *500ms*.

DTMF Keypad Digit OFF Field

The **DTMF Keypad Digit OFF** field is used to set the minimum amount of time, in ms, between DTMF digits (tones).

The range for this field is *0ms* to *500ms*.

DTMF Keypad Phone Level Field

The **DTMF Keypad Phone Level** field is used to set the approximate level, in dB, of DTMF digits (tones) for phone lines.

The range for this field is *-60dB* to *12dB*.

DTMF Keypad Line Level Field

The **DTMF Keypad Line Level** field is used to set the approximate level, in dB, of the DTMF digits (tones) for the lines.

The range for this field is *-60dB* to *12dB*.

DTMF Sidetone Enable Check Box

The **DTMF Sidetone Enable** check box is used to enable the DTMF sidetone to play on the SELECT speaker or handset/ headset earpiece. If the handset/headset is enabled and offhook, the sidetone is played to the earpiece.

DTMF Sidetone Line Level Field

The **DTMF Sidetone Line Level** field is used to set, in dBm, the DTMF sidetone level played on the SELECT speaker or handset/headset earpiece. If the handset/headset is enabled and off, the sidetone is played to the earpiece.

The range for this field is *-60dBm* to *12dBm*.

Tape Mix Setup

Tape Mix Setup Section

The **Tape Mix Setup** section, shown in Figure 92, is used to record the selected audio source using the DB-25 TAPEOUT/RELAYS connection on the back of the C-6200.

SEL Check Box

The **SEL** check box indicates TX and RX audio is summed from the selected line to the Select Tape Output.

UNSEL Check Box

The **UNSEL** check box indicates TX and RX audio is summed from the unselected line to the Select Tape Output.

CRP Check Box

The **CRP** check box indicates TX and RX audio is summed from the crosspatched lines to the Select Tape Output.

SEL Tape With Volume Check Box

The **SEL Tape With Volume** check box indicates the select tape output level is based on the Per Line volume settings.

NOTE: When SEL Tape with Volume is enabled, a muted line's audio is muted on the Select Tape Output.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.

2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.

3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

System Setup 2

The **System Setup 2** window, shown in Figure 94, is used to configure the four (4) alert tones, the A Menu and B Menus for the console. Each of the options on this window are discussed below.

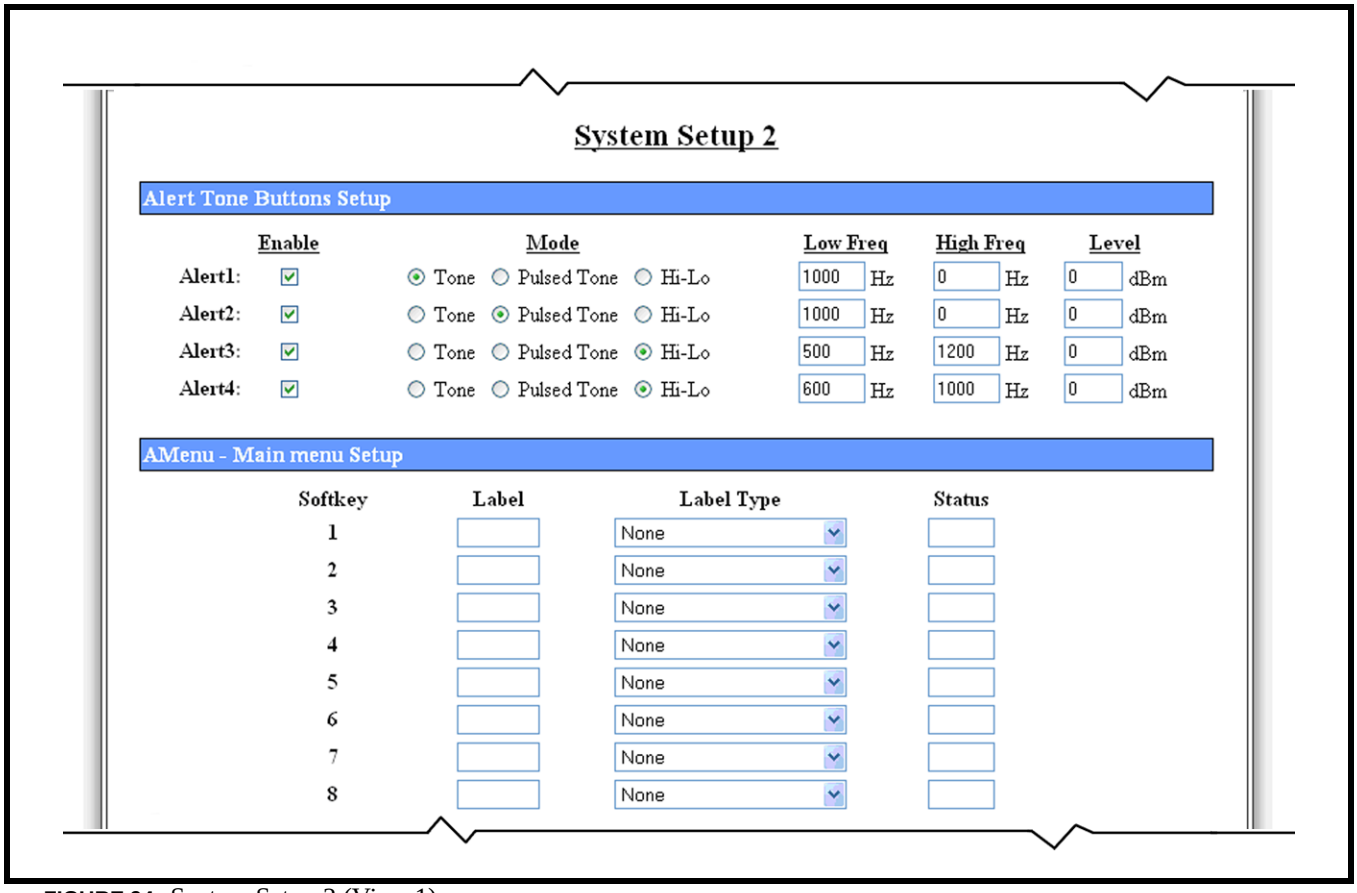


FIGURE 94. System Setup 2 (View 1)

Alert Tone Setup

Alert 1–4 Enable Check Box

The **Alert 1–4 Enable** check box is used to indicate which alert button you want to make active. If selected, the alert is active.

Alert 1–4 Mode Radio Buttons

The **Alert 1–4 Mode** radio buttons are used to indicate what mode you want the alert to use. *Tone (Single)*, *Pulsed Tone*, and *Hi-Lo warble* are all supported. The Tone (Single) and Pulsed Tone use the Low Freq setting only.

Alert 1–4 Low Freq Field

The **Alert 1–4 Low Freq** field is used to set, in Hz, the frequency used by Tone (Single) and Pulsed Tone modes. In the Hi-Lo warble mode, it is used to set the first frequency.

The range for this field is *0Hz* to *3000Hz*.

Alert 1–4 High Freq Field

The **Alert 1–4 High Freq** field is used to set, in Hz, the second frequency used by the Hi-Lo warble mode.

The range for this field is *0Hz* to *3000Hz*.

Alert 1–4 Level Field

The **Alert 1–4 Level** field is used to set the relative audio level, in dB, for the alert tones.

The range for this field is *-60dB* to *12dB*.

AMenu - Main menu Setup

The **AMenu,** shown in Figure 94, is used to assign up to eight (8) FleetSync commands to each of the console softkeys. This menu is used to setup and send FleetSync calls.

NOTE: Once the AMenu setup is complete, assign a (B1–B4) button to the AMenu for console access to the AMenu (FleetSync) commands. See “BKeys Button Setup Section” on page 164.

Softkeys 1–8 Label

The **Softkeys 1–8** label indicates the softkey you are configuring. Once an (B1–B4) button is selected, the operator chooses a command by pressing a softkey (1–8) below the label on the display.

Label Field

The **Label** field is used to assign a four (4) letter description of the command configured in the Label Type menu and Status field. The FleetSync menu label appears on the console above softkey (1–8). The label is a user-defined four (4) character label that adequately describes the status code or call type you setup for the softkey. This is the (XXXX) label often referred to in this manual.

For more information, see “Status Field (Kenwood FleetSync only)” on page 163.

Example: If you set up softkey 1 for FleetSync Status with Status ID code 99 (emergency) you might enter *EMER* in the label field, see Figure 95, to indicate the status ID code is an emergency.

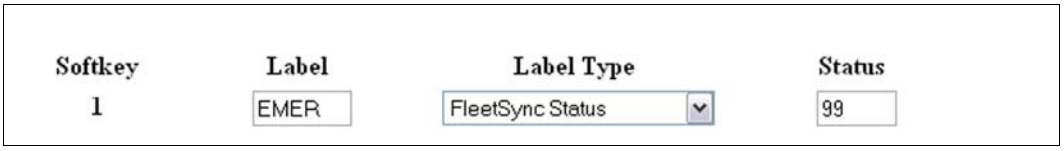


FIGURE 95. FleetSync Status Label Example

Once configured, when the operator selects a (B1–B4) button, the *EMER* label appears on the console display, above softkey 1, shown in Figure 96.

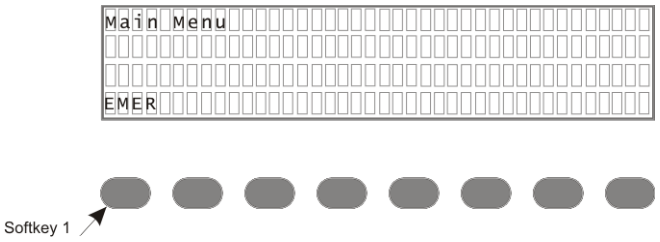


FIGURE 96. FleetSync Display Example

Label Type Drop Down Menu

The **Label Type** drop down menu is used to configure the menu you want to assign to the softkey. Select one of the following options from the drop down menu.

Available selections for this field are: *None, FleetSync Status, FleetSync Manual Status,* and *FleetSync Select Call.*

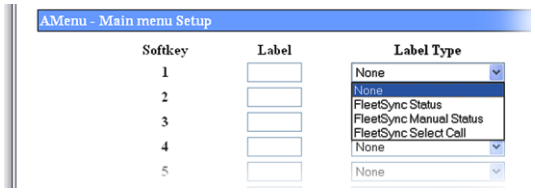


FIGURE 97. Label Type Drop Down Menu

FleetSync Status Label Type Option (Kenwood Fleetsync only)

The **FleetSync Status Label Type** option configures the softkey to allow sending the assigned status ID code to a Kenwood FleetSync radio. The operator scrolls and selects a FleetSync ID from the directory or enters an index number and sends the status call.

To **configure the softkey for FleetSync**, do the following:

1. In the Label field, type a **four (4) character label *(XXXX)*** to describe the softkey's purpose. See example on page 160.
2. From the Label Type drop down menu, select **Fleetsync Status**.
3. In the Status field**,** enter a **two-digit Status ID code**. See the manufacturer's technical documentation for Status ID code numbers.
   The Status ID code chosen is Status ID for the softkey and cannot be changed by the operator.

FleetSync Manual Status Label Type Option (Kenwood FleetSync only)

The **FleetSync Manual Status Label Type** option configures the softkey to allow sending a Status ID code to a Kenwood FleetSync radio. The operator can either manually enter a FleetSync Status ID or leave the FleetSync Status ID as set in the default Status field. The operator can then either manually enter a FleetSync ID number, select from the ID Directory, or enter an index number and send the status call.

To **configure the softkey for FleetSync manual status**, do the following:

1. In the Label field, type a **four (4) character label *(XXXX)*** to describe the softkey's purpose. See example on page 160.
2. From the Label Type drop down menu, select **Fleetsync Manual Status**.
3. In the Status field**,** enter a **2-digit Status ID code**. See the manufacturer's technical documentation for Status ID code numbers.
   The Status ID code chosen is the default Status ID for the softkey and can be changed by the operator.

FleetSync Select Call Label Type Option (Kenwood FleetSync only)

The **FleetSync Select Call Label Type** option configures the softkey for placing a call to a Kenwood FleetSync radio. The operator can either manually enter a FleetSync ID number, select from the ID directory, or enter an index number and send the call.

To **configure the softkey for FleetSync select call**, do the following:

1. In the Label field**,** type a **four (4) character label *(XXXX)*** to describe the softkey's purpose. See Figure 98.
2. From the Label Type drop down menu, select **Fleetsync Select Call**.

Example: If you set up softkey 1 for FleetSync Select Call you enter LIST in the label field, see Figure 98, to indicate the softkey opens the list of FleetSync IDs.

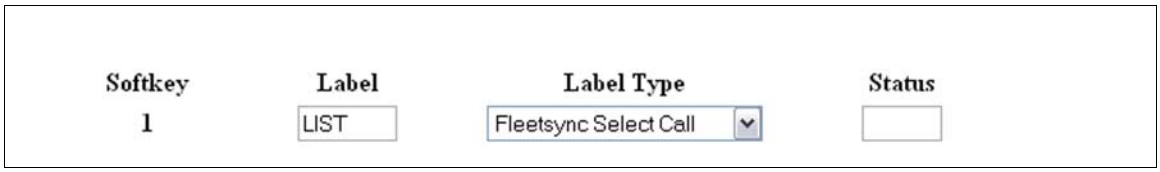


FIGURE 98. FleetSync Call Label Example

When the operator presses the FleetSync configured (B1–B4) button, LIST appears on the console display, above softkey 1, shown in Figure 99.

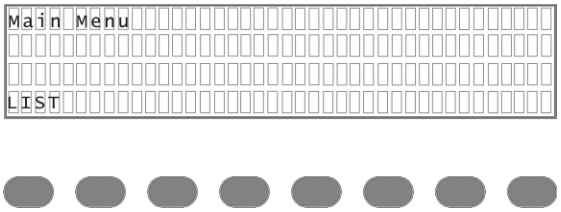


FIGURE 99. FleetSync Call Display Example

NOTE: For more on FleetSync configuration and operation, see the following:
"Multicast Address Setup" on page 82.
"Per Line Setup—Line Card" on page 89.
"ID Directory" on page 122.
"B1–B4 Menus" on page 198.

Status Field (Kenwood FleetSync only)

The **Status** field is used to assign a default status ID code to the softkey. The status ID applies when FleetSync Status or FleetSync Manual Status is selected as the Label Type. See the manufacturer's technical documentation for Status ID code formats.

To **configure a Status ID for the softkey**, do the following:

> In the Status field, enter a **2-digit Status ID** code.
See the manufacturer's technical documentation for Status ID code numbers.

NOTE: Additionally, you can configure a Status ID code alias name in the ID directory. See "ID Directory" on page 122

System Setup 2 (View 2)

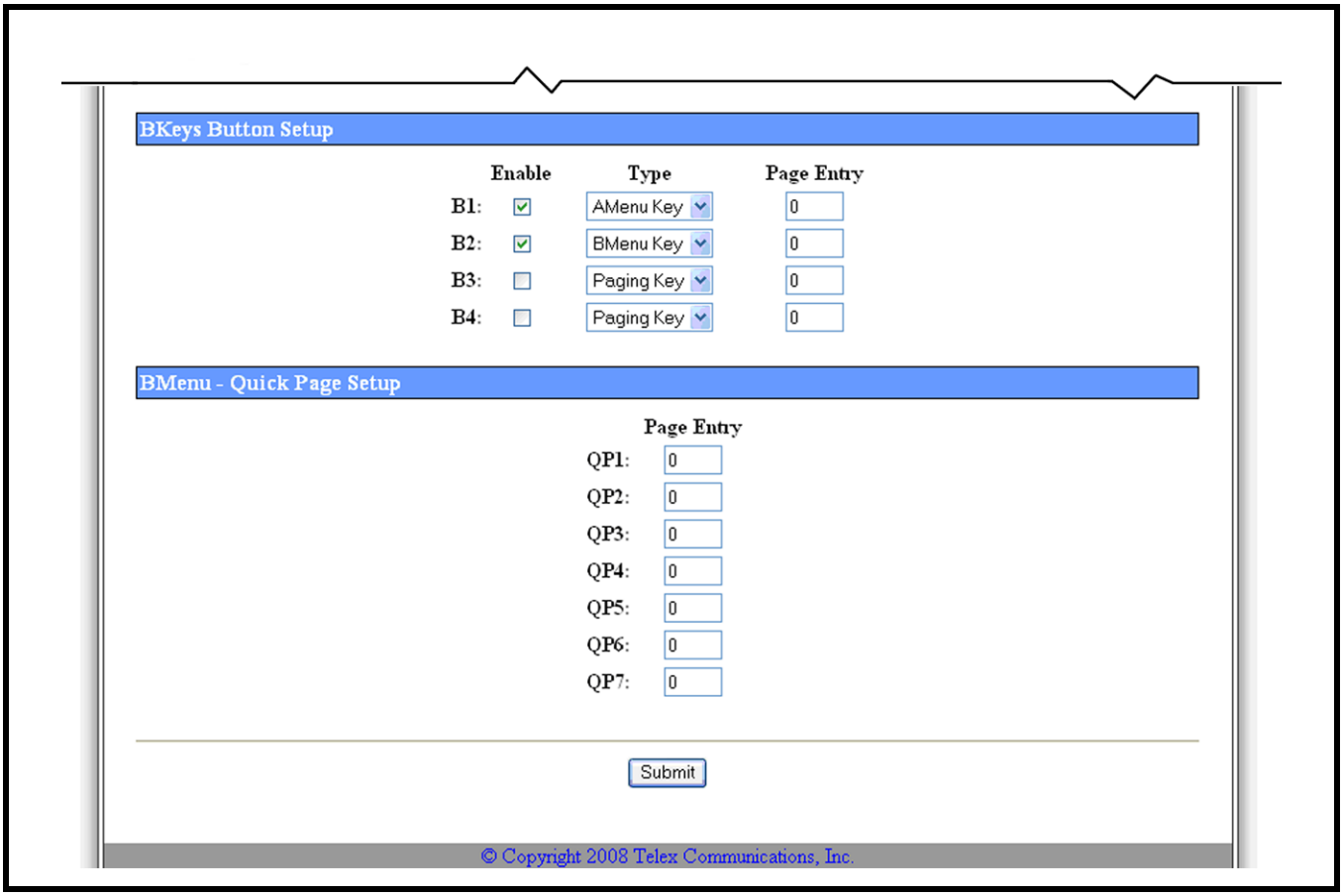


FIGURE 100. System Setup 2 (View 2)

BKeys Button Setup

BKeys Button Setup Section

The **BKeys Button Setup** section is used to assign a Quick Page menu, FleetSync Menu, or a single page, to a (B1–B4) button. Once the (B1–B4) button is pressed, the menu options are available for selection or the page is sent.

Enable Check Box

The **Enable** check box indicates the selected (B1–B4) button is available for selection on the console.

Type Drop Down Menu

The **Type** drop down menu is used to assign the Amenu (FleetSync Menu), BMenu (Quick Page Menu), or a paging function to the (B1–B4) buttons.

Available selections for this field are: *AMenu Key, BMenu Key, and Paging Key.*

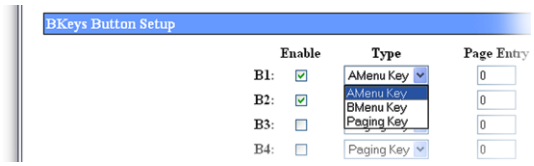


FIGURE 101. Type Drop Down Menu

NOTE: The AMenu and Paging Keys require further configuration. See “AMenu - Main menu Setup” on page 160 and “BMenu - Quick Page Setup” on page 165.

Page Entry Field

The **Page Entry** field indicates the page number assigned to the B key. The page entry number corresponds to a paging number in the paging directory.

Learn about the page entry number, see “Entry Field” on page 130.

BMenu - Quick Page Setup

The **BMenu - Quick Page Setup** section is used to configure up to seven (7) softkey quick pages. Before you set up the BMenu you must already have the “Paging Encoder Setups” and “Paging Directory” windows configured for paging.

NOTE: Once the quick page setup is complete, assign a (B1–B4) button to the BMenu for console access to the quick page menu, see “BKeys Button Setup Section” on page 164.

(QP1–QP7) Labels

The **(QP1–QP7)** labels indicate which softkey is used to access the page entry. The Q1–Q7 labels appear on the display above softkeys 1–7.

NOTE: The eighth button on the console is used to exit the Quick Page menu.

Page Entry Field

The **Page Entry** field is used to identify the page entry number assigned to the quick page. The page entry number corresponds to the paging number in the paging directory. For more information, see “Paging Directory” page 129.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.

2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.

3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

Tone Freq

The **Tone Freq** (Tone Frequency and Durations) window, shown in Figure 102, is used to configure function tones, hold tones, and monitor tones for tone control. The settings on this page have no affect on lines configured for local or phone mode. Each field on this window is discussed below.

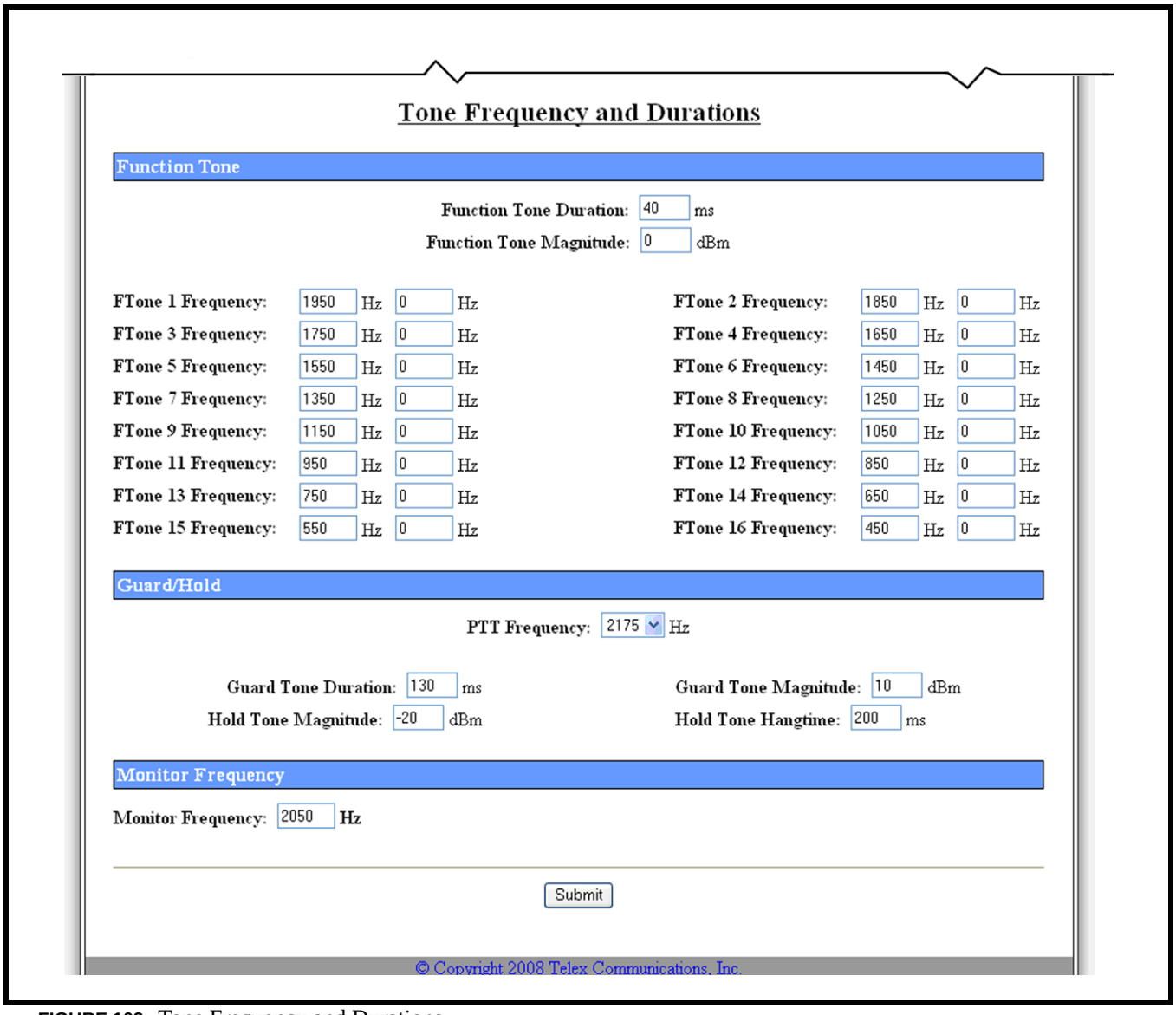


FIGURE 102. Tone Frequency and Durations

Function Tone

Function Tone Duration Field

The **Function Tone Duration** field indicated the duration, in ms, of the function tone. When dual function tones are set, both tones are set to this duration, In most cases, this value is set to *40ms*.

The range for this field is *0ms* to *999ms*.

Function Tone Magnitude Field

The **Function Tone Magnitude** field indicates the level, in dBm, of the function tone.

The range for this field is *-60dBm* to *-12dBm*.

FTone (1–16) Frequency Fields

The **FTone (1–16) Frequency** fields identify the value, in Hz, associated with each function tone burst. If the second value is set at zero (0), no second function tone is sent. The standard function tones and the frequencies are shown in Figure 103.

TABLE 20. Standard Function Tone Frequencies

Function Tone Number	Frequency (Hz)	Function Tone Number	Frequency (Hz)
F1	1950	F9	1150
F2	1850	F10	1050
F3	1750	F11	950
F4	1650	F12	850
F5	1550	F13	750
F6	1450	F14	650
F7	1350	F15	550
F8	1250	F16	450

Guard/Hold

PTT Frequency Drop Down Menu

The **PTT Frequency** drop down menu identifies the PTT frequency, in Hz, the console uses.

Available selections for this field are: *2100Hz*, *2175Hz*, *2300Hz*, *2325Hz*, *2600Hz*, *2800Hz*, and *2970Hz*.

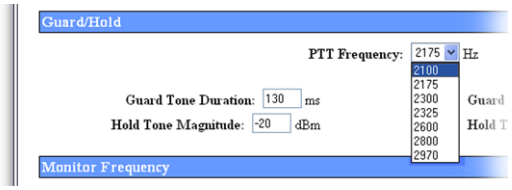


FIGURE 103. PTT Frequency Drop Down Menu

Guard Tone Duration Field

The **Guard Tone Duration** field identifies the amount of time, in ms, the guard tone plays before the function tone.

The range for this field is *0ms* to *999ms*.

Guard Tone Magnitude Field

The **Guard Tone Magnitude** field identifies the level, in dBm, of the guard tone.

The range for this field is *-60dBm* to *-12dBm*.

Hold Tone Magnitude Field

The **Hold Tone Magnitude** field identifies the level, in dBm, of the hold tone summer with TX audio to keep the radio in a transmit state.

The range for this field is *-60dBm* to *-12dBm*.

Hold Tone Hangtime Field

The **Hold Tone Hangtime** field identifies the amount of time in, ms, the hold tone continues after the release of the PTT button. Pressing the PTT button again during this hangtime continues the transmission without resending the guard and function tones.

The range for this field is *0ms* to *999ms*.

Monitor Frequency

Monitor Frequency Field

The **Monitor Frequency** field indicates the frequency, in Hz, the monitor functions detects activity on a monitored line.

The range for this field is *0Hz* to *3000Hz*.

Submit Button

The **Submit** button is used to temporarily save changes to the C-6200.

IMPORTANT: **Submit** changes before navigating away from this window, otherwise changes are lost.

To **permanently save changes,** do the following:

1. Click **Submit**. 

The changes are sent to the C-6200 in temporary storage.
2. Click **Save to EEPROM**. 

The Save to EEPROM window opens.
3. Click **Save Parameters**. 

Changes are now permanently saved to the C-6200 console.

CHAPTER 4

Update Firmware

Update Firmware

Telex VoIP firmware can be updated using **TSM** (Telex System Manager). A copy of TSM is available on the CD included in the shipment with the VoIP hardware or can be downloaded from the Telex website at www.telex.com/RadioDispatch/.

NOTE: VoIP hardware includes the following Telex devices: IP-223, IP-1616, IP-2002, C-6200, and NEO-10.

NOTE: TSM uses.tfb (Telex Firmware Binary) files to update VoIP firmware.

Install TSM

To **install TSM**, do the following:

1. Locate the **setup.exe file** on the Telex CD.
   OR
   Download **TSM** from www.telex.com/Downloads/, see “Download Telex Firmware” on page 173.
2. Double-click **setup.exe**.
   The Telex System Manager install window appears.
3. Click **Next**.
   The Select Installation Folder window appears, see Figure 104.

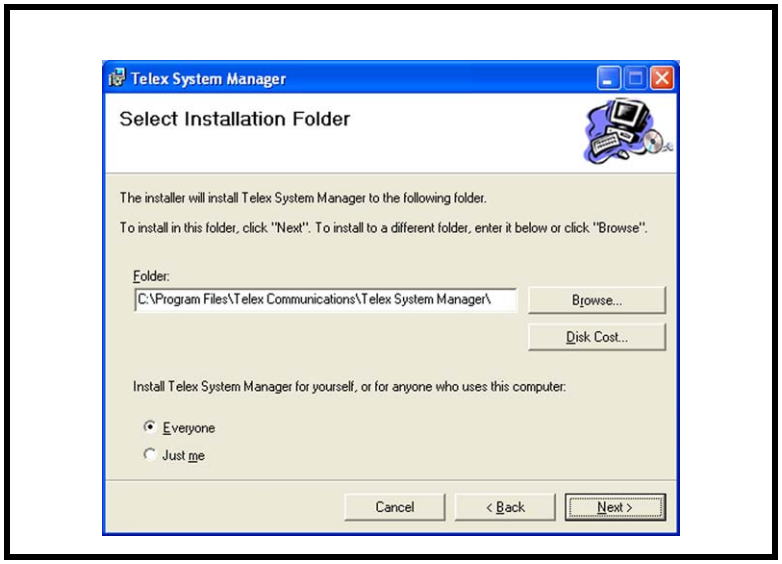


FIGURE 104. Select Installation Folder

4. Click **Browse** to specify an installation path for TSM.
   OR
   Leave the **path** entered in the Folder field to accept the default folder location,
   By default, TSM is installed at **C:\Program Files\Telex Communications\Telex System Manager**.
5. Select **Everyone**, to allow any user to access TSM.
   OR
   Select **Just Me** to allow only one (1) user to access TSM.
6. Click **Next**.
   The Confirm Installation window appears, see Figure 105.
7. Click **Next**.
   A Please Wait message appears. Once TSM is installed, a success message appears on the Confirm Installation window.
8. Click **Close**.
   The Confirm Installation message, shown in Figure 105, appears.

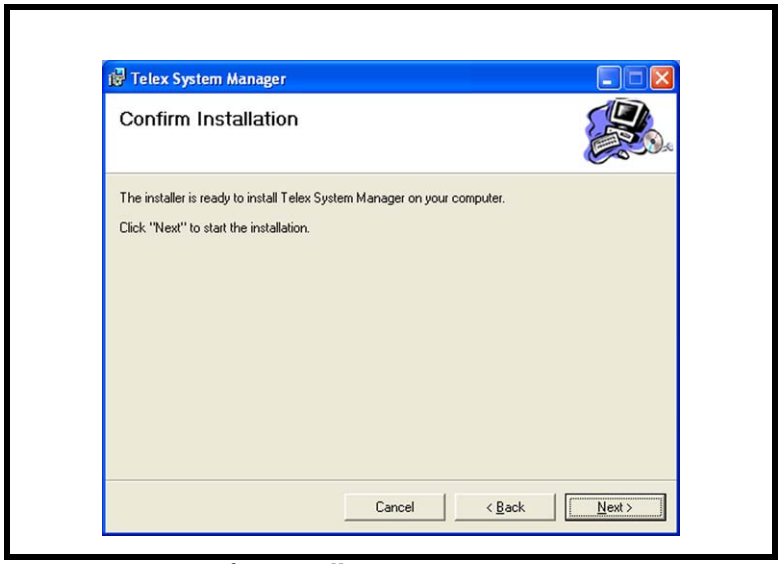


FIGURE 105. Confirm Installation

Download Telex Firmware

When new firmware becomes available it is posted to our website. It can be downloaded at www.telex.com/Downloads/. Check the website periodically for updated firmware.

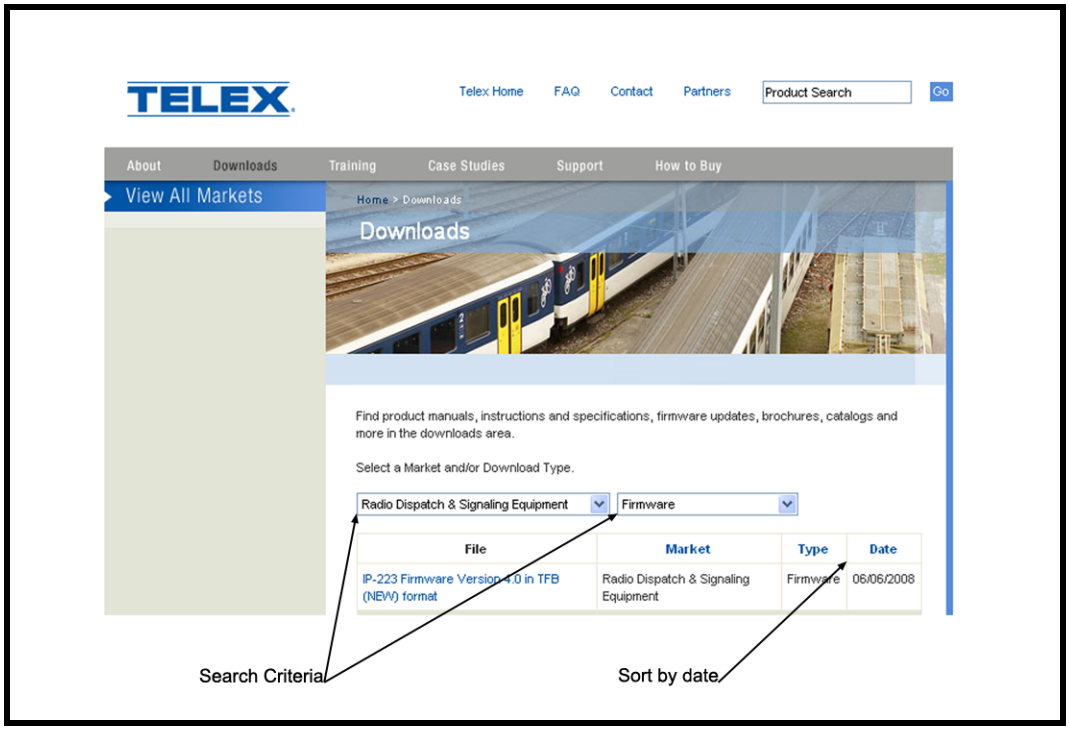


FIGURE 106. Telex Website Firmware Downloads.

To **download updated firmware**, do the following:

1. Set the first column's search criteria to **Radio Dispatch & Signaling Equipment**, see Figure 106.
2. Set the second column's search criteria to **Firmware**, see Figure 106.
3. Click the **Date column heading**, to sort the files by date.
4. Locate the **updated firmware file** for the device you want.
5. Click the **filename**.
   The File Download window opens.
6. Save the **.zip file** to your computer.
7. Navigate to the **Telex System Manager.zip file**.
8. Right-click the **Telex System Manager.zip file**.
9. From the menu, select **Winzip**.
10. Select a location for the **TSM files**.
    Files located in the zip file are saved to the selected location.

To **open Telex System Manager**, do the following:

> Double-click the **System Manager.exe file**.
  Telex System Manager opens.

Firmware Update Tool Window

NAVIGATION: Selecting *Firmware Update Tool* from the Tools menu opens the Firmware Update Tool window, shown in Figure 107.

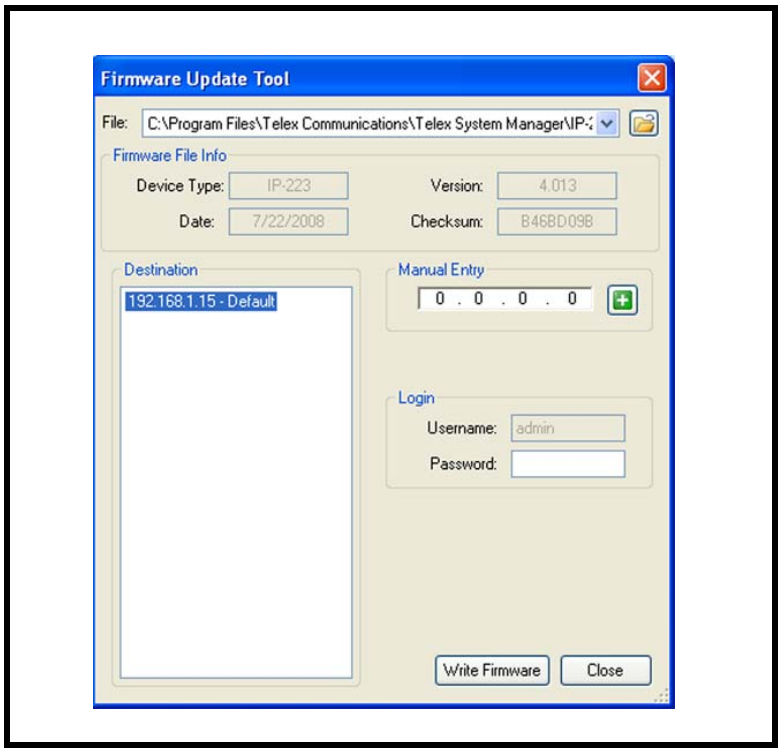


FIGURE 107. Firmware Update Tool

File Drop Down Menu

The **File** drop down menu is used to select a firmware file to upload to the VoIP hardware.

Firmware File Info Group Box

NOTE: None of these fields are editable except for the Manual Entry field.

Device Type Field

The **Device Type** field displays the type of device supported by the currently selected file in the File field.

Version Field

The **Version** field displays the currently selected file's firmware version.

Date Field

The **Date** field displays the date the currently selected firmware was created.

The Checksum Field

The **Checksum** field is used to display the currently selected file's checksum.

Destination Pane

The **Destination** pane displays devices based on the currently selected firmware file. Once the device is added, it appears in the list and is available for selection.

NOTE: If the device you want to update does not appear in the Destination pane, manually enter the IP Address in the Manual Entry field.

Manual Entry Field

The **Manual Entry** field is used to enter the VoIP hardware's IP Address to add to the Destination pane.

Login Group Box

Username Field

The **Username** field is used to enter the administrator's username.

This field can contain up to *16 lowercase characters*.

Password Field

The **Password** field is used to enter the administrator's password, if one is required.

The range for this field is a *4–16 digit* number.

Write Firmware Button

The **Write Firmware** button is used to begin the upload process. Once the button is selected, the file specified in the File field is uploaded to the VoIP hardware.

Close Button

The **Close** button is used to close the window.

Upload VoIP Hardware Firmware

Once TSM is installed and your new .tfb file is downloaded, you are ready to upload the VoIP hardware's firmware.

To **upload the VoIP hardware's firmware**, do the following:

1. Click the **TSM shortcut** on your desktop.
   OR
   From your taskbar, click **Start|Programs|Telex Communications|Telex System Manager**.
   The Telex System Manager window opens.
2. Click **Tools|Firmware Update**
   The Firmware Update Tool opens.
3. Click the **folder icon**, to locate the .tfb file.  .
   The Open window appears.
4. Select the.**tfb file** you want to upload.
   The file is highlighted.
5. Click **Open**.
   The selected file appears in the File field.

6. In the left navigation pane, select the device's **IP Address**.
   The Write Firmware button is active.

   NOTE: If the device does not appear in the list, enter the **VoIP hardware's IP Address** in the Manual Entry field and click the **Add** button  . *The IP Address appears in the left navigation pane.*

7. Click the **Write Firmware** button.
   Firmware update messages are shown in the Status column which provides feedback on the firmware update progress. Once the progress reaches 100%, the firmware is updated.

   NOTE: If an error occurs, the Progress column is reset and an error message appears in the Status column.

   NOTE: Once the firmware is uploaded, the device resets.

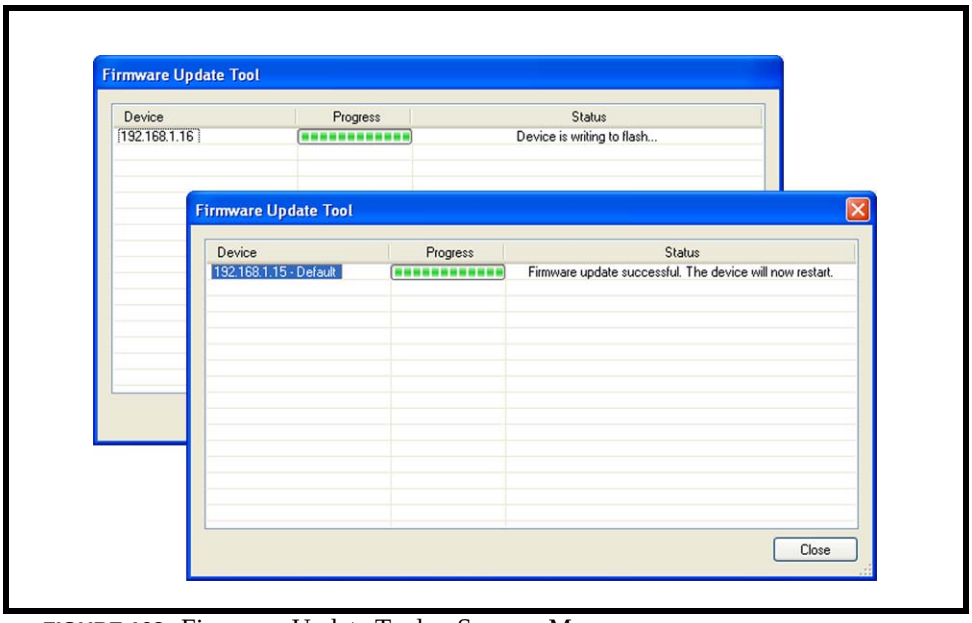


FIGURE 108. Firmware Update Tool— Success Messages

8. Click **Close**.
   The dialog window closes.
9. Click **Close**.
   The Update Firmware window closes.

To **access the webpage directly from the Firmware Update Tool window**, do the following:

1. Right-click the device's **entry**.
   The Flyout menu appears.
2. From the context menu, click **Webpage**.
   The Connect To window opens.
3. In the User Name field, enter a **username**.
4. In the Password field, enter a **password**.
5. Click **OK**.
   The Web Browser's Configuration Welcome window opens.

CHAPTER 5

C-6200 Console Operation

Console Display

General Display and LED Indications

The C-6200 displays general events per line, such as FTone number or FTone ID, clock, VU meter, softkey labels. These indications appear as text in the top row of the C-6200 console display. When a line is selected, the VU indication for receive audio is shown in the console display as well.

LEDs light to indicate activity assigned to individual buttons located on the console front panel. For LED indications specific to a button, see “Common Controls and Indicators” on page 20.

Volume Control Knobs (Select and Unselect)

The **Volume Control** knobs are used to turn the volume up (clockwise) or down (counterclockwise). Each knob controls the speaker next to it.

Speaker (Select and Unselect)

Speakers are labeled SELECT or UNSELECT to indicate which line(s) the audio is coming from. The select speaker’s audio is all the received audio present on selected lines. The unselect speaker’s audio is all received audio on unselected lines.

Microphone Options

Microphones are connected to the console in a number of ways. A gooseneck microphone can be connected to the microphone jack located above the selected speaker’s knob. Connect desk, headset, handset, or auxiliary microphones to the back panel. Press any console InPTT or the TRANSMIT button to open the microphone for audio transmission. See “Back Panel Connections” on page 26 for port locations.

DTMF Keypad

The **DTMF Keypad** is a standard 16-key alphanumeric keypad. The 16-digit keypad allows direct digit/alpha entry of phone numbers, IDs, or index numbers. The keypad buttons are not backlit.

Index Number

The **Index Number** is used to recall a specific ID from the ID directory or specific page entry from the Paging directory. A list of index numbers associated with IDs and paging IDs is accessible from the configuration webpage. Use the index number in call list menus, FleetSync menus, paging menus or when placing a phone call.

NOTE: If you enter an index number not assigned to a status code, *ERROR, Invalid Index Number* appears on the display.

To get a list of index numbers and their assigned IDs, see “Printer Friendly Link” on page 126.
To get a list of paging IDs, see “Printer Friendly Link” on page 133.

Call Lists

Call History

The **Call History** list is used to view up to 50 previous caller IDs. By default, the current caller’s ID appears on the display. To view previously received ID numbers, scroll the list with the UP or DOWN softkeys.

NOTE: Press **softkey 3**, to toggle between the caller’s ID and the alias.

CLST Menu

The **CLST** (call list) menu is used to navigate to and view a list of IDs setup in the ID directory. Select an option from the menu, and then scroll the list of IDs or enter an index number. The CLST menu is either *enabled* or *disabled*. When the CLST menu is enabled, *CLST* appears above softkey 8, see Figure 109.

Available selections for the CLST menu are: *GENE, FLTS, IDEN, MDC, PHN, STAT.* Details for each type are given below.

NOTE: The GENE, FLTS, MDC, and STAT call lists are used for reference only. The iDEN, and PHN call lists can be used to place a call to the ID on the display.

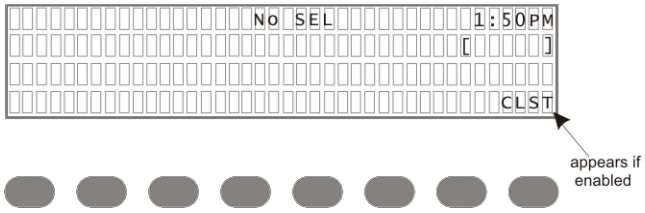


FIGURE 109. CLST Enabled

To **enter the CLST menu,** do the following:

1. Press the **SEL** button to select a line.
   The SEL button lights.
2. Press the **CLST** softkey.
   The call list types appear on the display.

NOTE: To exit the call list menu, press the **EXIT** softkey.

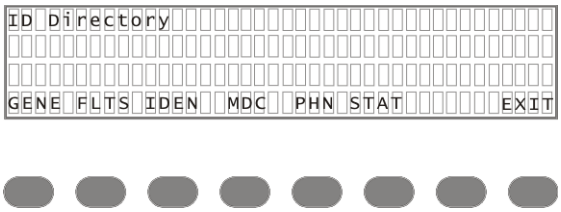


FIGURE 110. Call List Menu

GENE Call List Menu

The **GENE** (generic) call list menu is used to view a list of generic IDs. This list is used for reference only.

To **view the Generic call list**, do the following:

1. Press the **SEL** button to select a line.
   The SEL button lights.
2. Press the **CLST** softkey.
   The CLST options display.
3. Press the **GENE** softkey.
   The first generic ID name appears on the console display.
4. Using the UP or DOWN softkey, scroll the **list of generic IDs**.
   Each generic ID and its index number appear as you scroll.
   OR
   Using the DTMF keypad, enter a **three-digit index number**.
   Once the entire index number is entered, the index number and assigned ID appear on the console display.

To **exit the GENE call list menu**, do the following:

1. Press the **BACK softkey**.
   The CLST menu appears.
2. Press the **EXIT** softkey.

FLTS Call List Menu (Kenwood FleetSync only)

The **FLTS** call list menu is used to view the list of Kenwood FleetSync IDs. This list is used for reference only.

To **view the Kenwood FleetSync call list**, do the following:

1. Press the **SEL** button to select a line.
   The SEL button lights.
2. Press the **CLST** softkey.
   The CLST options display.
3. Press the **FLST** softkey.
   The first FleetSync ID appears on the display.
4. Using the UP or DOWN softkey, scroll the **list of Kenwood FleetSync IDs**.
   A FleetSync ID and its index number appear as you scroll.
   OR
   Using the DTMF keypad, enter an **index number**.
   Once the entire index number is entered, the index number and assigned ID appear on the console display.

To **exit the FLTS call list menu**, do the following:

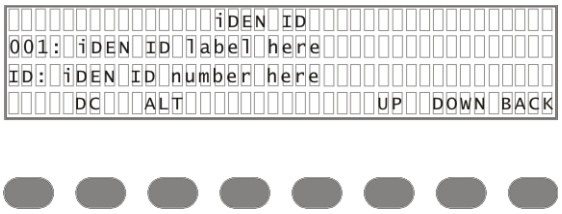
1. Press the **BACK** button.
   The FLTS call list menu appears.
2. Press the **EXIT** button.

iDEN Call List Menu

The **iDEN** call list menu is used to view and select an ID from a directory of iDEN IDs. From this menu, the console operator can place a Direct Connect call, send an Alert call, or Group Connect call.

Available selections for the iDEN call list menu are: *DC, ALT, GRP, UP DOWN* and *BACK*.

iDEN Direct Connect ID Menu



iDEN Group Connect ID Menu

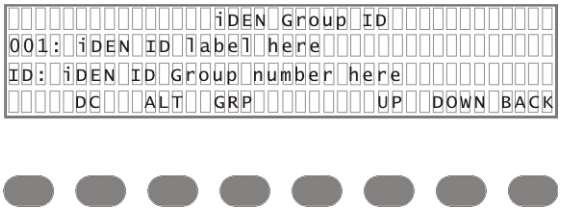


FIGURE 111. iDEN ID Call List Menus

To **place a call to an iDEN phone**, do the following:

1. Press the **SEL** button to select a line.
   The SEL button lights.
2. Press the **CLST** softkey.
   The CLST options display.
3. Press the **iDEN** softkey.
   The first iDEN ID in the directory appears on the top line of the console display. See example in Figure 111.
4. Using the UP or DOWN softkey, scroll the **list of iDEN IDs**.
   An iDEN ID and its index number appear on the top line as you scroll the directory. One (1) of two (2) menu options, depending on the type of iDEN ID, appear on the bottom line. See Figure 111 on page 180.
   OR
   Using the DTMF keypad, enter an **index number**.
   Once the entire index number is entered, the index number and assigned ID appear on the console display. One (1) of two (2) menu options, depending on the type of iDEN ID, appear on the bottom line. See Figure 111.

   NOTE: If your directory is set up for both individual and group calling, then, as you scroll the directory, the bottom line of the console display, shown in Figure 111, changes.
5. Choose from the following commands:
   - Press the **DC** softkey and press the **TRANSMIT** button to place a direct call to the iDEN ID on the display.
     A call is placed to the iDEN Direct Connect ID shown on the console display and the microphone is active.
   - Press the **ALT** softkey and press the TRANSMIT button to send an alert to the iDEN ID on the display.
     An alert is sent to the iDEN Direct Connect ID shown on the console display.
   - Press the **GRP** softkey and press the **TRANSMIT** button to place a call to the iDEN group ID on the display.
     A call is placed to the iDEN Group Connect ID shown on the console display and the microphone is active.

To **exit the iDEN call list menu**, do the following:

1. Press the **BACK** softkey.
   The CLST menu appears.
2. Press the **EXIT** softkey.

MDC Call List Menu

The **MDC** call list menu is used to view the list of MDC IDs. This list is used for reference only.

To **view the MDC call list**, do the following:

1. Press the **SEL** button to select a line.
   The SEL button lights.
2. Press the **CLST** softkey.
   The CLST options display.
3. Press the **MDC** softkey.
   The first MDC ID in the list appears on the display.
4. Using the UP or DOWN softkey, scroll the **MDC IDs**.
   An MDC ID and its index number appear as you scroll.
   OR
   Using the DTMF keypad, enter an **index number**.
   Once the entire index number is entered, the index number and assigned ID appear on the console display.

To **exit the MDC call list menu**, do the following:

1. Press the **BACK** softkey.
   The CLST menu appears.
2. Press the **EXIT** softkey.

PHN Call List Menu

The **PHN (phone)** call list menu is used to dial a phone ID from the directory, see Figure 113.

To **place a phone call,** do the following:

1. Press the **SEL** button to select a line.
   The SEL button lights.
2. Press the **CLST** softkey.
   The CLST options display.
3. Press the **PHN** softkey.
   The first phone ID in the directory appears on the top line of the console display. DIAL and REDIAL commands appear on the bottom line.
4. Using the UP or DOWN softkey, scroll the **list of phone IDs**.
   A phone ID and its index number appear as you scroll.
   OR
   Using the DTMF keypad, enter an **index number**.
   Once the entire index number is entered, the index number and assigned ID appear on the console display.
5. Press the **DIAL** softkey.
   The phone call is placed.

   NOTE: To call the last phone ID dialed on the line, press the **REDIAL** softkey.

To **exit the PHN call list menu**, do the following:

1. Press the **BACK** softkey.
   The CLST menu appears.
2. Press the **EXIT** softkey.

STAT Call List Menu (Kenwood FleetSync only)

The **STAT (Status)** call list menu is used to view status codes in the ID Directory. The status call list is for reference only. You can also lookup status codes using the index number of the status code you want to view.

To **lookup a status ID**, do the following:

1. Press the **SEL** button to select a line.
   The SEL button lights.
2. Press the **CLST** button.
   The CLST options display.
3. Press the **STAT** button.
   The Status ID menu appears.
4. Press the **UP** or **DOWN** softkey to scroll the list of status IDs.
   The index number and description appear on the top line and a status ID and its code number appear underneath it as you scroll the directory.

To **exit the STAT call list menu**, do the following:

1. Press the **BACK** softkey to exit the status ID list.
2. Press the **EXIT** softkey.
   The CLST menu closes.

Emergency Calls

Emergency Calls

When the C-6200 receives an emergency call, an audible hi-lo warble is emitted from the speaker. The emergency menu, shown in Figure 112, appears.

Available selections for the Emergency menu are: *ACK* and *Resolve*.

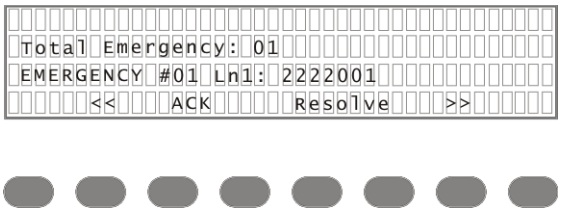


FIGURE 112. Emergency Menu

To **acknowledge or resolve the emergency**, do the following:

> Press the **ACK** softkey to acknowledge the emergency.
> OR
> Press the **Resolve** softkey to resolve the emergency,

To **view the active emergency calls**, do the following:

> Press the **<< softkey**.
> *The previous emergency call displays.*
> *OR*
> Press the **>> softkey**.
> *The next emergency call appears.*

Phone Lines

Phone Lines can be configured for use on the C-6200. Additionally, a line can be configured for both radio phone and normal phone calling.

Placing a Phone Call

Placing a call is accomplished in one of two (2) ways, manually from the DTMF keypad or from a preprogrammed directory accessed from the call list menu, see Figure 113.

Available selections for the Phone menu are: *REDIAL, DIAL, UP DOWN* and *BACK*.

To **manually place a phone call**, do the following:

1. Press the **SEL** button for a phone line.
   The SEL button lights.
2. Using the DTMF keypad, enter the **phone number** you want to call.
   The numbers entered appear on the console display.

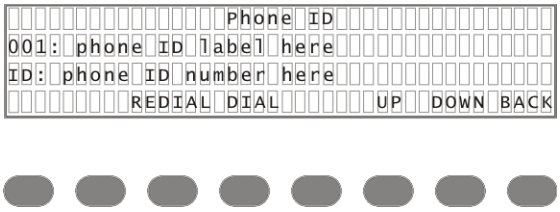


FIGURE 113. Phone ID Call List Menu

To **place a phone call using the Phone ID call list menu**, do the following:

1. Press the **SEL** button for a phone line.
   The SEL button lights.
2. Press the **CLST** softkey and then press the **PHN** softkey.
3. Using the UP and DOWN softkeys, scroll the **ID directory** until you see the phone ID you want to call.
   OR
   Using the DTMF keypad, enter the **index number** of the phone ID you want to call.
4. Press the **DIAL** softkey to place a call to the phone ID on the display.
   The selected phone ID is called.

   NOTE: To call the last phone ID dialed on the line, press the **REDIAL** softkey.

Answering a Phone Call

The SEL button blinks green and an audible ring tone is heard when an incoming phone call is on the line. When answering a phone call, the phone line goes offhook and the received audio is then routed to the handset or headset earpiece.

To **answer an incoming phone call**, do the following:

- Press the **SEL** button for the phone line that is ringing.
  The phone call is answered.

Putting a Phone Line On Hold

To **put a phone line on hold**, do the following:

> After the call is initiated, press the **SEL** button.
The phone line's SEL button blinks and the phone line audio is routed to the unselect speaker.

To **release a line on hold**, do the following:

> Press the **SEL** button for the line on hold.
The SEL button is lit solid and the audio is routed to the select speaker.

NOTE: To talk on a phone line already on hold, press the **SEL** button for the desired line to release the hold.

Muting a Phone Line

The **MUTE** button is used on phone lines to mute received audio. Mute is most often used to set the received audio to -6*0dBm*, however, a minimum mute can be set by the console admin.

NOTE: Phone lines on hold are, by default, played through the console's unselect speaker.

To **mute undesired audio**, do the following:

> Press the **MUTE** button for the line you want to mute.
The MUTE button lights to indicate the muted condition.

Sending a Hook Flash

A **Hook Flash** simulates a quick offhook/onhook/offhook cycle and is used for call-waiting.

To **switch from an engaged line to a caller waiting on the same line**, do the following:

1. Press and quickly release the **RLS** button.
The incoming call is received.
2. Momentarily press and release the **RLS** button to switch back to the first call.

Releasing (Hanging Up) a Phone Line

To **release a phone line when the call is done**, do the following:

> Press and hold the **RLS** button for one second.
The phone call is terminated.

Per Line Selection

SEL Button

The **SEL** (Select) button is used to select a specific line. Once the desired line's select button is pressed, the audio received on the line is placed on the select speaker and the previously selected line is disengaged. If the handset or headset is taken offhook, the audio is transferred to the earpiece.

If the default label is associated to the selected line's selected function tone, see Figure 114, it appears on the top line of the display.

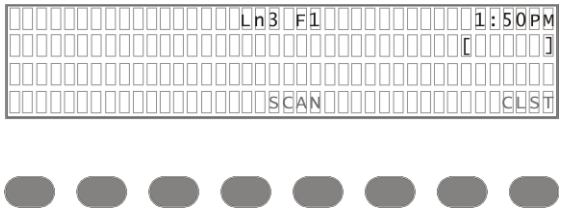


FIGURE 114. Selected Line—Default Function Tone Label

If a customized label is associated to the selected line's selected function tone, see Figure 115, it appears on the top line of the display.

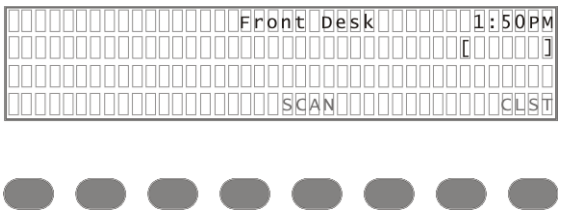


FIGURE 115. Selected Line—Customized Function Tone Label

Encryption Softkey

The **ENCRPT** (encrypt) softkey is used to toggle encryption in a Kenwood FleetSync or EF Johnson radio. This feature must be enabled by the console admin.

To **toggle the encryption feature ON/OFF**, do the following:

1. Press the **SEL** button to select a FleetSync line.
   ENCRPT appears on the display.
2. Press the **ENCRPT** softkey.
   An E appears in brackets in the upper-right corner of the display.

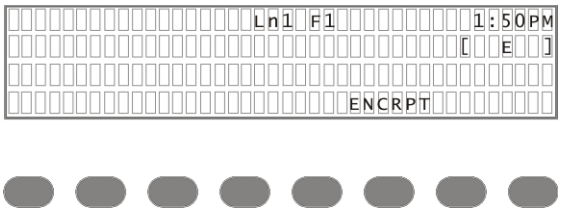


FIGURE 116. FleetSync Encryption Enabled

Talk Around Softkey (Kenwood FleetSync Only)

The **TA** (Talk Around) softkey is used to enable direct FleetSync radio-to-radio communication. This feature must be enabled by the console admin.

To **toggle the talk around feature ON/OFF**, do the following:

1. Press the **SEL** button to select a FleetSync line.
   TA appears on the display.
2. Press the **TA** softkey.
   T appears in brackets in the upper-right corner of the display and direct radio-to-radio contact is established.

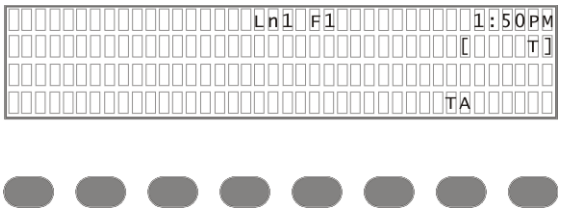


FIGURE 117. FleetSync Talk Around Enabled

Scan Softkey

The **Scan** softkey is used to toggle the scan feature in the radio. If the scan feature is enabled for the selected line, *SCAN* appears on the console above softkey 5, see Figure 118.

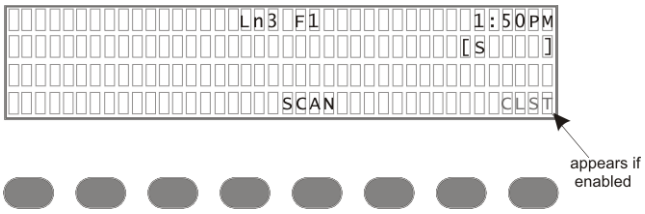


FIGURE 118. Scan

To **turn on scan**, do the following:

1. Press the **SEL** button for the line you want to scan.
   The SEL button lights and if the line is enabled to scan, SCAN appears on the display.
2. Press the **SCAN** softkey.
   The radio scan is turned on as indicated by the S in the brackets in the upper-right corner of the display.
3. Press the **SCAN** softkey, to turn off scanning in the radio.
   The radio scan is turned off and the S in the bracket on the upper-right corner of the display disappears.

RLS Button

The **RLS** (release) button is used to release a line from select mode. Once pressed, the release button deselects the line. For LED indications see “Common Controls and Indicators” on page 20.

NOTE: When no line is currently selected *NO SEL* appears in the display, see Figure 119.

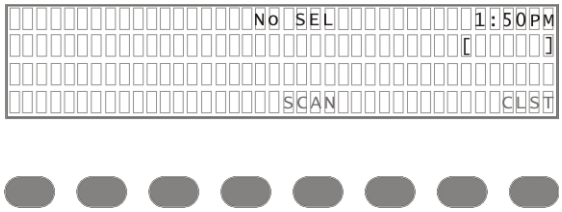


FIGURE 119. No Line Selected

MUTE Button

The **MUTE** button is used to mute unselected lines. Once pressed, the Mute button lights and the volume meter, shown in Figure 120, momentarily displays to indicate the predefined volume level in muted/unmuted mode. A minimum volume of unselected audio level can be configured by your console admin.

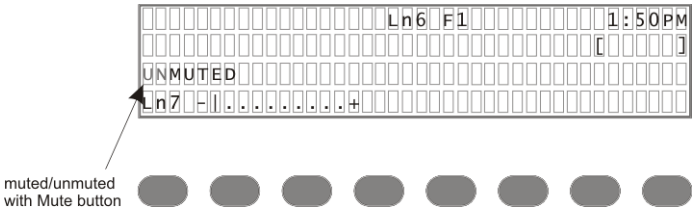


FIGURE 120. Muted and Unmuted

To **mute an unselected line**, do the following:

> On an unselected line, press the **Mute** button.
The Mute button lights and the volume meter (MUTED) momentarily appears on the display.

NOTE: Once the line is muted the volume ▼ and ▲ buttons are disabled.

To **unmute the line**, do the following:

> On an unselected line, press the lighted **Mute** button.
The Mute button's LED turns off and the volume meter (UNMUTED) momentarily appears on the display.

NOTE: Once the line is unmuted, the volume is adjustable with the volume ▼ and ▲ buttons.

▼ and ▲ Buttons

The ▼ and ▲ (volume control) buttons are used to increase ▲ or decrease ▼ the volume of the selected or unselected line. Once pressed, the volume meter appears and the indicator moves left to indicate decreasing volume or right to indicate increasing volume.

InPTT Button

The **InPTT** button is used to open the microphone for a specific line. Other selected lines are ignored. This allows you to be able to respond to a single line without having to reset a group, if one is selected. Once pressed and held down, the InPTT button lights and audio is transmitted through the microphone. When the button is released, the microphone is disengaged.

NOTE: The InPTT button can be disabled per line by your console administrator.

Group Selection

GRP button

The **GRP** button is used to manually select a group of lines. Once pressed, the GRP button lights and lines can be selected to add to the group. The GRP console display is shown in Figure 121.

NOTE: Lines that are TX blocked cannot be grouped.

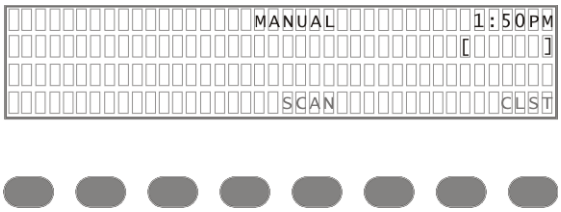


FIGURE 121. Group Select

To **manually select a group**, do the following:

1. Press the **GRP** button.
   The GRP button lights and MANUAL appears on the display.
2. Press the **SEL** buttons for lines you want to add to the group.
   Each selected line's select button lights.
3. Press the **RLS** button, to remove lines from the group.
   The line is deselected
4. Press and hold the **TRANSMIT** button to talk on all lines in the group.
   The TRANSMIT button LED lights, all selected line's InPTT buttons lights, and the microphone is open for transmission.
   OR
   Press a line's **InPTT** button to talk on a single line while in group mode.
   The line's InPTT button lights and the microphone is open for transmission.
5. Press the **GRP** button again to disable manual grouping.

To **disengage the group**, do the following:

> Press a **SEL** or **RLS** button for any line in the group, to disengage it.
  All selected lines are disengaged

G1–G3 Button

The **G1–G3** buttons are used when a predetermined group is setup by the console admin. Once pressed, the (G1–G3) button lights and SEL buttons light for each member of the group.

NOTE: Normal phones can not be selected as part of a group.

NOTE: When transmit is engaged, the function tone currently active on each line is sent.

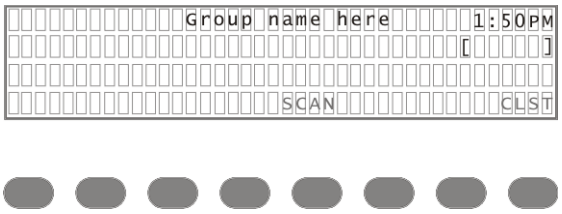


FIGURE 122. Group (G1–G3)

To **call the predefined group**, do the following:

1. Press the **(G1–G3)** button.
   Select buttons for each line in the group light and the name of the group appears on the display.
2. Press and hold the **TRANSMIT** button to talk on all lines in the group.
   The TRANSMIT button LED lights, all selected line's InPTT buttons light, and the microphone is open for transmission.
   OR
   Press a line's **InPTT** button to talk on a single line while in group mode,
   The line's InPTT button lights and the microphone is open for transmission.

   NOTE: If an InPTT button does not light when pressed, it is disabled for the line.

To **disengage the group**, do the following:

> Press a **SEL** or **RLS** button of any enabled line, to disengage it.
> *All selected lines are disengaged*

Transmit

Function (F1–F16) Tone Buttons

The **Function (F1–16) Tone** buttons are used to select up to 16 different function tones assigned to each line. Once a line is selected, the last-used function tone button is selected as indicated by the lighted function tone button(s). The line must be selected to change the function tone. A function tone label appears on the top line of the display represented by the default *Ln(1–18) F(1-16)*label, see Figure 114, or an alphanumeric name assigned by your console admin, see Figure 115.

NOTE: If a manual or predefined group is active and the TRANSMIT button is pressed, the current active function tone for each line in the group is sent out. Therefore, verify the function tone for each line in the group before transmitting.

NOTE: If a manual group or predefined group is active and a function tone button is pressed it changes all the lines in the group function tones.

To **change the function tone**, do the following:

1. Press the **SEL** button to select a line.
2. Press a **function tone button F1–F16.**
   The selected function tone (1–16) button lights the corresponding function tone label, see Figure 114 and Figure 115, appears on the console display.

TRANSMIT Button

The **TRANSMIT** button is used as PTT. Once pressed and held, the LED above the TRANSMIT button lights, indicating the microphone is open for sending audio to the selected line(s).

To **transmit audio on selected line(s)**, do the following:

1. Press the **SEL** button for the desired line.
   OR
   Press the **TxALL** button to select all lines.
   TxALL appears on the display.
   OR
   Select a **group** with the (G1–G3) button.
   The assigned group name appears on the display.
   OR
   Press the **GRP** button and **SEL** button for each desired line.
   MANUAL appears on the display.
2. Press the **TRANSMIT** button.
   The TRANSMIT button's LED indicator lights and the selected line's InPTT button lights. Audio is transmitted to the selected line(s).
3. **Speak** into the microphone.
   The VU meter appears in the C-6200 console display and fluctuates as you talk.
4. Release the **TRANSMIT** button to stop transmitting.

Alert (1–4) buttons

The **Alert (1–4)** buttons are used to send an alert tone to a selected line. Once a line has been selected, an alert can be sent with one of the Alert (1–4) buttons.

To **send an alert tone,** do the following:

1. Press the **SEL** button to select a line(s).
   The SEL button(s) lights.

2. Press an **Alert (1–4)** button.
   The InPTT button lights and the alert is sent to the selected line.

INTERCOM Button

INTERCOM is considered a non-PTT based audio stream. Once the INTERCOM button is pressed and held down, the console transmits audio without activating the radio push-to-talk. The INTERCOM button is used for communication between parallel consoles.

To **intercom to a parallel console**, do the following:

1. Press the **SEL** button to select a line(s).
   The SEL button(s) lights.
2. Press the **INTERCOM** button.
   The intercom and InPTT buttons for the selected line(s) light.

MON Button

The **MON** (Monitor) button is used to send a packet burst, similar to a frequency change, to a remote radio, instructing the radio to open squelch or ignore **CTCSS** (Continuous Tone-Coded Squelch System) for monitoring line activity.

To **monitor a call**, do the following:

1. Press the **SEL** button to select a line(s)
   The select button(s) light.
2. Press the **MON** button.
   The MON button lights and the selected line is monitored.

Global Functions

RxALL Button

The **RxALL** (Receive All) button is used to turn off all per line mutes.

NOTE: This button is disabled if the Mute Master is active.

TxALL Button

The **TxALL** (Transmit All) button is used to select all lines. Once selected, the TxALL button and all selected line's buttons light.

To **disengage the selection**, do the following:

> Press any **SEL** or **RLS** button.
> OR
> Press the **TxALL** button again.

NOTE: Phone lines and crosspatched lines can not be included in the TxALL command.

NOTE: GRP and G1-G3 buttons are disabled while TxALL is active.

MUTE Master Button

The **MUTE Master** button is used to mute all unselected lines. The Mute Master button can be programmed as momentary, timed mute (up to one [1] minute), or toggle on/off. Once the Mute Master button is press the button lights and all unselected lines are muted.

NOTE: Selected lines can not be muted.

To **mute and unmute all**, do the following:

1. Press the **MUTE Master** button.
   All unselected lines are muted and each line's MUTE buttons lights.
2. Press the **MUTE Master** button again.
   All unselected lines are unmuted and the button turns off.

IRR Button

The **IRR** button is used to playback audio received/transmitted. Once the IRR button is selected, the IRR buttons light and the IRR menu appears on the display. You can listen to up to the last four (4) minutes of recorded audio. You can choose whether to listen to select or unselect audio, as well as the time frame from which to begin or end playing.

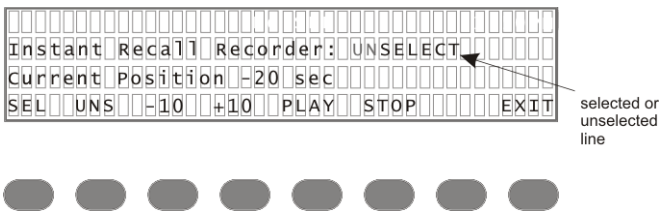


FIGURE 123. IRR Menu

To **playback audio using the IRR menu option**, do the following:

1. Press the **IRR** button.
   The IRR menu appears on the display.
2. Press the **SEL** or **UNS** softkey to change the audio source for playback to select.

   NOTE: *SEL* recalls the selected line's audio for playback.
   UNS recalls the unselected line's audio for playback.
3. Press **PLAY**.
   The recording plays back.
4. Press the **IRR** button.
   The IRR menu disappears.
   OR
   Press the **EXIT** softkey.
   The IRR menu disappears.

To **fast forward or rewind the recorded audio**, do the following:

1. Press the **IRR** button.
   The IRR menu appears on the display. By default, the current position time is -20.
2. Press the **-10 or +10** softkey.
   The current position time (in seconds) changes, up or down, as you press the buttons.
3. Press the **Play** softkey to listen to the recording.
   The current position time begins to count down, and audio is played through the speaker.

C1–C3 Buttons

The **C1–C3** buttons are used to setup a crosspatch. Up to three (3) crosspatches can run simultaneously. Any given line can only be included in one (1) crosspatch at a time.

Once the crosspatch is established, it remains active until the crosspatched lines are disengaged or the DRPALL softkey is pressed. When the crosspatch is engaged and no audio traffic is present, the crosspatch function can be disengaged after a predefined amount of time, up to one (1) hour. This predefined amount of time is set by the console admin.

Available selections for this field are *BLOCK, PTT,* and *DRPALL*.

NOTE: Phone lines can only be added to a crosspatch group once the phone call is received or placed.

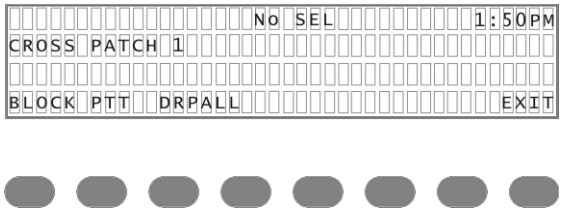


FIGURE 124. Crosspatch Menu

To **crosspatch lines**, do the following:

1. Press a **(C1–C3)** button.
   The (C1–C3) button lights.
2. Press the **SEL** button for each line you want to crosspatch.
   The select buttons light red.
   OR
   Press the **RLS** button to release unwanted crosspatched lines.
   The line's select button turns off.
3. Press the **EXIT** softkey.
   The lines are in crosspatch as indicated by the red select button lights and the blinking red (C1–C3) button.

To **disengage a crosspatch**, do the following:

1. Press the blinking **(C1–C3)** button.
   The crosspatch menu appears.
2. Press the **DRPALL** softkey.
   The selected lines disengage and the button lights turn off.
3. Press the **SEL** button for each line you want to crosspatch, to establish a new crosspatch.
   OR
   Press the **EXIT** softkey.
   The (C1–C3) buttons turn off.

BLOCK Softkey

The **BLOCK** softkey is used to quickly drop the current line that has control to engage the crosspatch. The console then waits for another line to take control of the crosspatch. This means the dropped line cannot take control until another line has taken control. Blocking is used to block a line from engaging a crosspatch, if the line is noisy or to terminate an offending user's line.

To **block a crosspatched line, while in the crosspatch menu**, do the following:

1. Press the **BLOCK** softkey.
   Audio from the blocked line no longer causes a crosspatch.
2. Press the **EXIT** softkey.
   The C1–C3 button blinks, indicating the lines are still in crosspatch.

PTT Softkey

The **PTT** softkey opens the microphone to transmit audio from the console to all lines selected in the crosspatch.

To **talk on a crosspatch group**, do the following:

1. Press a **(C1–C3)** button.
   The (C1–C3) button lights.
2. Press and hold the **PTT** softkey while speaking into the microphone or headset.
   The InPTT button for each crosspatched line lights and the microphone is open to transmit audio.

DRPALL Softkey

The **DRPALL** softkey is used to disengage a crosspatch group. Once the DRPALL softkey is selected, all lines in the crosspatch are disengaged. The crosspatch menu is still available for a new crosspatch group as indicated by the lighted (C1–C3) button.

NOTE: To continue crosspatching, select **desired lines**.
To exit the crosspatch menu, press the **EXIT** softkey or press the (C1–C3) button.

SUP Button

The **SUP** button is used to take control of the line. Parallel consoles are not able to key up lines under supervisor control. The SUP button blinks on a parallel console to indicate the line is being supervised. The SUP button is steady red on the console that initiated the supervisor control.

NOTE:

- Supervisor control can be configured by your console administrator to timeout, up to 1 hour, after it is initiated.
- If not configured to time out, supervisor control must be manually disengaged. If the console does not have supervisor capability, the message: *Supervisor button is disabled* appears on the display when the SUP button is pressed.

To **supervise a line**, do the following:

1. Press the **SEL** button for the line you want to supervise.
   The line's SEL button lights.
2. Press the **SUP** button.
   The SUP button lights and the line is being supervised.
3. To deactivate supervisor control, press the **SUP** button again.
   Supervisor control is disengaged.

To **supervise a group**, do the following:

1. Press the **GRP** button.
2. Select the **lines** for the group.
   The line's select button lights.
3. Press the **SUP** button.
   The SUP button lights.
4. Press the **SUP** button to deactivate supervisor control.
5. Press the **GRP** button to release the group selection.
6. Press any **SEL** or **REL** button to deselect the group.
   All lines in the group are deselected.

B1–B4 Menus

The **B1–B4** buttons are used to access a Quick Page menu, FleetSync menu or a page configured by your console administrator. If a B button is not configured, pressing a (B1–B4) button has no effect and the display does not change.

For FleetSync operation see “B1–B4 Buttons (Kenwood FleetSync menu)” on page 199.

For paging operation see “PAGE Button” on page 205.

B1–B4 Buttons—Quick Page Menu

Quick Page Menu

The **Quick Page** menu can be accessed by pressing a (B1–B4) button configured for quick paging. When a (B1–B4) button with an assigned quick page menu is pressed, the console displays softkeys (QP1–QP7). If the page is improperly configured, *Invalid Page Number Please!! Enter New Page Number* appears when the softkey is pressed.

Available selections for this menu are: *QP1, QP2, QP3, QP4, QP5, QP6, QP7,* and *Exit*.

To **send a quick page**, do the following:

1. Press a **softkey (QP1–QP7)**.
2. See **“PAGE Button” on page 205** for paging operation detail.

   NOTE: To quit the Quick Page menu without sending a page, press the **Exit** softkey.

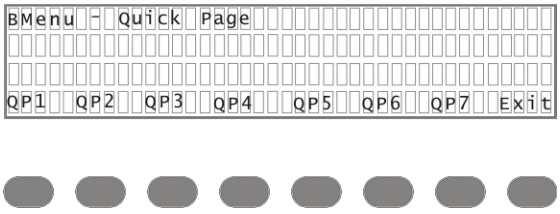


FIGURE 125. Quick Page Menu

B1–B4 Buttons (Kenwood FleetSync menu)

The **B1–B4 Buttons** can be used to access a FleetSync menu configured for Kenwood FleetSync features. When a (B1–B4) button is pressed, the FleetSync menu selections appear above the softkeys. Up to eight (8) FleetSync menus can be configured.

Important: The (B1–B4) menu selections are predefined by your console admin with a four (4) letter description for the command and are referred to as (*XXXX*) in the following descriptions.

Available selections for the FleetSync menu are determined by the user.

(XXXX) Softkey

The **(*XXXX*)** softkey is used to select a FleetSync menu. Once a softkey is pressed, the FleetSync Status, FleetSync Manual Status, or FleetSync Select Call menu appear.

Available selections for this menu are: *UP*, *DOWN*, *SEND*, and *BACK*.

Example: **Admin programs the console:** The softkey is labeled STUN. FleetSync IDs for RADIO 101 through RADIO 110 are configured. The default Status ID code is set to 91 (disables the radio from further use in case of loss or theft).
Console operator decides to send stun status to radio 109: The STUN softkey is pressed and the FleetSync Status menu appears. The first FleetSync ID to appear on the console is RADIO 101. The operator scrolls the list of IDs until RADIO 109 appears on the console display. The operator presses the SEND softkey.
Result: RADIO 109 is disabled with the Status ID code sent by the console operator.

Main Menu - FleetSync Status (Kenwood FleetSync only)

The **FleetSync Status** menu, shown in Figure 126, is used to send the default Status ID code to the FleetSync ID you select from the directory or recall using the FleetSync ID's index number. Once a FleetSync Status softkey is pressed, *Main Menu - FleetSync Status* appears on the top row of the display. The first FleetSync ID in the directory appears next to the index number for the ID.

Available selections for this menu are *UP*, *DOWN*, *SEND*, and *BACK*.

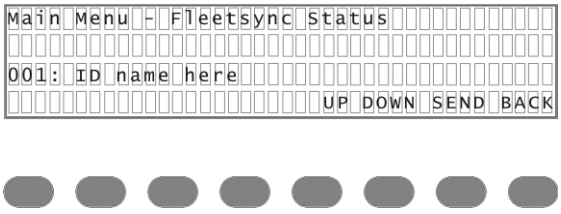


FIGURE 126. FleetSync Status Menu

To **send a FleetSync Status ID code, while in the FleetSync Status menu,** do the following:

1. Using the UP and DOWN softkeys, scroll the **list of FleetSync ID number**s.
   A FleetSync ID and its index number appear as you scroll.
   OR
   Using the DTMF keypad, enter an **index number**.
   Once the entire index number is entered, the index number and assigned ID appear on the console display.
2. Press the **SEND** softkey to send the Status ID.
   Sending Status... appears on the display. The status ID code is sent and the Fleetsync Status menu appears.

NOTE: To return to the main FleetSync menu, press the **BACK** button.
To exit the all FleetSync menus, press the **active (B1–B4)** button.

Main Menu - FleetSync Manual Status (Kenwood FleetSync only)

The **FleetSync Manual Status** menu, shown in Figure 127, is used to manually select a Status ID code and FleetSync ID. Once a FleetSync Manual Status softkey is pressed, *Main Menu - FleetSync Manual Status* appears on the top row of the display. The ID field is blank and the default status code is selected.

Available selections for this menu are: *LIST, STAT, MSTAT, DEL, CLEAR, SEND,* and *BACK*.

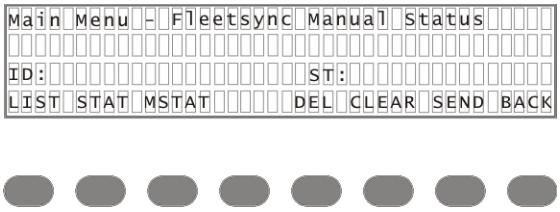


FIGURE 127. FleetSync Manual Status Menu

ID Field

The **ID** field is used to display the FleetSync ID number to send the call to. Initially, this field is blank. The ID can be entered either manually or selected from a list.

To **manually enter an ID number to send default status to, while in the FleetSync Manual Status menu,** do the following:

1. Using the DTMF keypad, enter the **ID number**.
   The ID number appears in the ID field. The default status ID appears in the ST field.

   NOTE: If you want to change the status code, press the **MSTAT** softkey then enter a **Status** code and press the **OK** softkey.

2. Press the **SEND** softkey.
   Sending Status appears in the display.

   NOTE:

   - To delete the last character entered, press the **DEL** button.
   - To delete the entire entry, press the **CLEAR** softkey.
   - To return to the main menu, press the **BACK** softkey.

LIST Menu

The **LIST** menu is used to view and select from the list of FleetSync ID numbers and alias names. Initially, the ID field is blank. The status ID code can be changed manually or selected from the ID directory.

To **select an ID number from the list**, **while in the FleetSync Manual Status menu,** do the following:

1. Press the **LIST** softkey**.**
   The ID's index number, alias, and ID number appear on the display.
2. Using the UP or DOWN softkeys, scroll the **list of FleetSync numbers**.
   A FleetSync ID and its index number appear as you scroll.
   OR
   Using the DTMF keypad, enter an **index number**.
   Once the entire index number is entered, the index number and assigned ID appear on the console display.
3. Press the **OK** softkey to select the ID number on the console display.
   Main Menu - FleetSync Manual Status appears: the ID field contains the selected ID and the ST field contains the selected status ID.

   NOTE: To return to the main FleetSync menu, press the **BACK** button.
   To exit the all FleetSync menus, press the **active (B1–B4)** button.

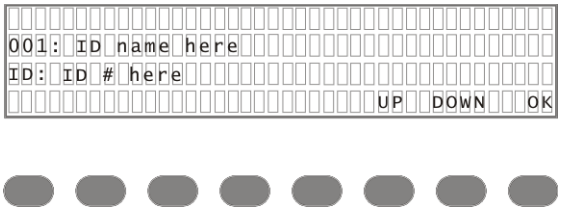


FIGURE 128. FleetSync Manual LIST Menu

STAT Menu

The **STAT** (status) menu is used to select a status ID code from the directory. The ST:XX field displays the status ID code being sent. Initially, the *ST* field displays the softkey's default status ID code. The status ID code can be manually entered or selected from a list of predefined status IDs.

To **select a Status ID code from the directory, while in the FleetSync Manual Status menu**, do the following:

1. Press the **STAT** softkey**.**
   The Status ID's index number, alias, and ID number appear on the display.
2. Using the UP or DOWN softkeys, scroll the **list of Status ID codes**.
   A FleetSync Status ID and its index number appear as you scroll.
   OR
   Using the DTMF keypad, enter an **index number**.
   Once the entire index number is entered, the index number and assigned ID appear on the console display
3. Press the **OK** softkey to select the Status ID number on the console display.
   The Status ID code you just selected, overwrites the default Status ID code and appears next to ST: on the display. You are back at the FleetSync Manual Status menu.

   NOTE: The Status ID alias is visible only while in the STAT menu.

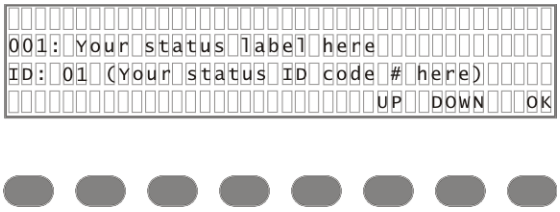


FIGURE 129. FleetSync Manual STAT Menu

MSTAT Menu

The **MSTAT** menu is used to manually enter a status ID code and send it to the selected FleetSync radio.

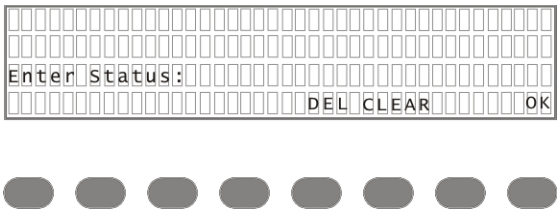


FIGURE 130. FleetSync Manual MSTAT Menu

To **send a Status manually while in the FleetSync Manual Status menu**, do the following:

1. Press the **MSTAT** softkey.
   Enter Status: appears.
2. Enter a **two-digit status ID code**.
   The status code you enter displays.
3. Press the **OK** softkey.
   Main Menu - FleetSync Manual Status appears and the ST field contains the status ID code you just manually entered.
4. Press the **SEND** softkey.
   The Status ID is sent.

   NOTE:

   - To clear the entire entry, press the **CLEAR** softkey.
   - To clear the last entered digit, press the **DEL** softkey.
   - For more information about status ID codes, see Kenwood's Fleetsync technical documentation.

DEL Command

The **DEL** command is used to delete unwanted digits.

CLEAR Command

The **CLEAR** command is used to clear the entire entry from the display.

To **clear ID numbers from the console display,** do the following:

> Press the **CLEAR** softkey.
  The ID number is cleared from the console display.

SEND Command

The **SEND** command is used to send the Status ID code to the ID shown on the display.

To **send a Status ID code**, do the following:

> Press the **SEND** softkey.
  The status ID code is sent and Sending Status... appears on the display.

  NOTE: If *ERROR: Invalid Entry* appears on the console display, then you have left the ID field blank or entered an invalid ID. Enter an ID Number in the **ID field** manually or press the **LIST** softkey to scroll through the ID directory list.

BACK Command

The **BACK** command is used to navigate back to the main menu.

Main Menu - FleetSync Select Call (Kenwood FleetSync only)

The **FleetSync Select Call** menu, shown in Figure 132, is used to place a call to a FleetSync radio by manually entering an ID or by selecting an ID from the directory. Once a FleetSync Select Call softkey is pressed, *Main Menu - FleetSync Select Call* appears on the top row of the display.

Available selections are *LIST, DEL, CLEAR, SEND,* and *BACK* and are discussed below.

NOTE: Initially, the ID field is blank.

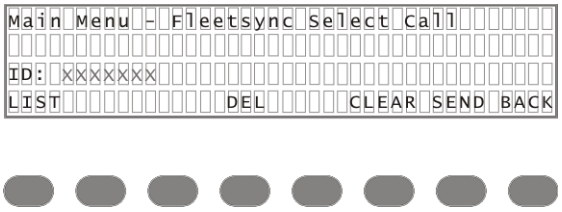


FIGURE 131. FleetSync Select Call Menu

ID Field

The **ID** field is used to display the FleetSync ID number to send the call to. Initially this field is blank. The ID can be entered either manually or selected from a list.

To **manually enter an ID number to call, while in the FleetSync Select Call Menu,** do the following:

1. Using the DTMF keypad, enter the **FleetSync ID number**.
   The numbers you enter appear on the console display.
2. Press the **SEND** softkey.
   Sending Select Call... appears on the display.

   NOTE:

   - To delete the last character entered, press the **DEL** button.
   - To delete the entire entry, press the **CLEAR** softkey.
   - To return to the main menu, press the **BACK** softkey.

LIST Menu

The **LIST** menu, see Figure 132, is used to view and select an ID from the FleetSync directory. The alias and index number also appear.

To **choose an ID number from the directory and send a call while in the FleetSync Select Call menu,** do the following:

1. Press the **LIST** softkey**.**
   The ID's index number, alias, and ID number appear on the display.
2. Using the UP and DOWN softkeys, scroll the list of **FleetSync ID numbers**.
   A FleetSync ID and its index number appear as you scroll.
   OR
   Using the DTMF keypad, enter an **index number**.
   Once the entire index number is entered, the index number and assigned ID appear on the console display.
3. Press the **SEND** softkey to place a call to the ID number on the console display.
   Sending Sel Call... appears on the console display and your call has been sent.

To **manually enter an ID number while in the FleetSync Select Call menu**, do the following:

1. Using the DTMF keypad, enter an **ID number**.
   The ID number appears in the ID field.
2. Press the **SEND** softkey to place a call to the ID number on the console display.
   Sending Sel Call... appears on the console display and your call has been sent.

NOTE:

- Press the (**B1–B4)** button to exit the main menu without sending a call.
- Press the **DEL** softkey to clear the last digit entered.
- Press the **CLEAR** softkey to clear all digits entered.

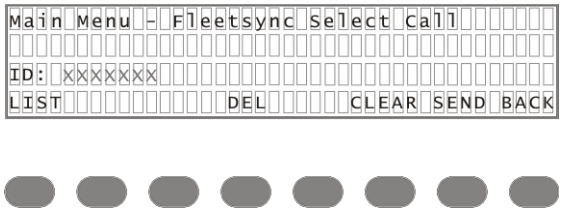


FIGURE 132. FleetSync Select Call List Menu

CLEAR Command

The **CLEAR** command is used to clear the Fleetsync ID number from the console display.

SEND Command

The **SEND** command is used to place a call to the FleetSync ID listed on the console display.

To **send a Select Call to a radio,** do the following:

> Press the **SEND** softkey.
  Sending Select Call... appears on the display. The Select Call is sent and the Fleetsync menu exits.

PAGE Button

The **PAGE** button opens the paging menu configured by your console admin. Once pressed, the PAGE button lights and the Page menu, see Figure 133, appears on the display. The softkeys are used to select the person(s) or group to send a page.

Available selections are *LAST, STACK* (stack), *CLR* (clear), *SEND,* or discard the page.

The talk time allowed after a page is sent, up to *32 seconds*, is configured by your console admin. If no talk time is configured, you must press the TRANSMIT button to open the microphone to send audio.

The following page commands are discussed in detail below:

LAST - Recalls the last page sent.

STACK - Stacks the page to send to multiple users.

CLR - Clears the currently stacked pages.

UP - Navigates to the previous Page ID in the list

DOWN - Navigates to the next Page ID in the list.

SEND - Sends a page to the selected page entry.

EXIT - Navigates back to the Page menu.

Last Command

To **recall and resend the last page sent**, do the following:

1. Press the **PAGE** button.
   The PAGE button light and the page menu with the first three pages in the paging directory appear.
2. Press the **LAST** softkey.
   A page is sent. A confirmation, see Figure 136, appears on the display.

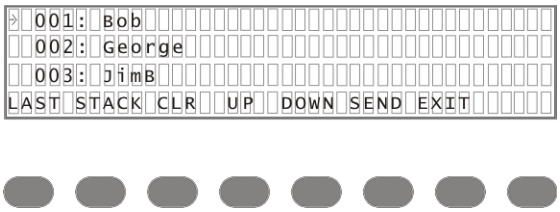


FIGURE 133. Page Menu

Send Command

To **select and send a page**, do the following:

1. Press the **PAGE** button.
   The PAGE button lights and the first three (3) pages in the paging directory appear.
2. Press the **UP** or **DOWN** softkey to scroll the list of page entries.
   OR
   Press the **DTMF A** (scroll up) or **DTMF B** (scroll down) button to scroll the list of page entries.
   The first three (3) page entries (up to 100 total) appear as you scroll. An arrow to the left of the page entry indicates the selected page.
   OR
   Enter the **index number** with the DTMF keypad to directly access a specific page entry.
   The page entry for the index number you enter is selected as indicated by the arrow to the left of the page entry.

   NOTE: To exit the page menu without sending a page, press the **EXIT** button.
3. Press the **SEND** softkey, **PAGE** softkey or the **DTMF C** button.to send the page.
   The page is sent.
   OR
   If talk time is setup for the page, the microphone is open for a predefined amount of talk time. A confirmation, shown in Figure 136, appears on the display. A beep indicates when the talk time begins.

   NOTE: Once a page is sent it must complete the sending of tones and transmit audio cycle before the page menu is available for selection again.

   NOTE: After the page menu appears on the display, you can send another page or press the **EXIT** softkey or **DTMF D** button.

To **discard the line selection and return to the Page menu**, do the following:

> Press the **STOP** softkey to skip the page.
  OR
  Press the **SKIP** softkey to skip the page.

  NOTE: If the selected line is a phone line, an error message, shown in Figure 134, appears.

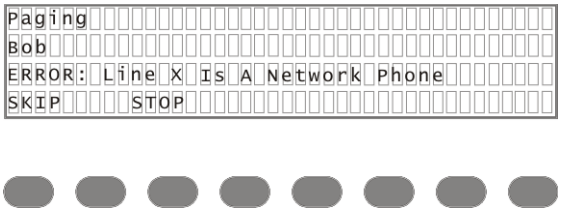


FIGURE 134. Paging Error

Stack Command

To **stack and send a page**, do the following:

1. Press the **PAGE** button.
   The PAGE button lights and the page menu with the first three (3) pages in the paging directory appear.
2. Press the **UP** or **DOWN** softkey to scroll the list of page entries.
   The page entries (up to 100) appear as you scroll. An arrow to the left of the page entry indicates the selected page.
   OR
   Enter the **index number** with the DTMF keypad to directly access a specific page entry.
   Once all digits have been entered, the page entry for the index number you enter is selected as indicated by the arrow to the left of the page entry.
3. Press the **STACK** softkey to add the page entry to the stack.
   An asterisk appears between the left arrow and page entry, see Figure 133.

   NOTE: To clear a page from the stack, select the **page** and press the **STACK** softkey again.
4. Repeat **steps 3** until all page entries you want to stack are included.

   NOTE: To clear the entire stack without exiting, press the **CLR** softkey.
5. Once the stack is established, press the **SEND** softkey.
   A page is sent to the members of the stack.
   OR
   If talk time is setup for the page, the microphone is open for a predefined amount of talk time. A confirmation, shown in Figure 136, appears on the display. A beep indicates when the talk time begins.

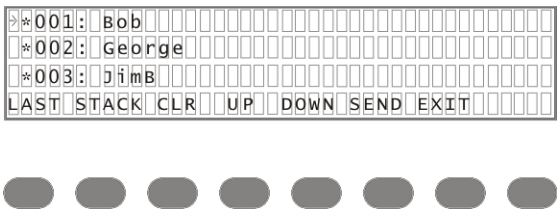


FIGURE 135. Stacked Page

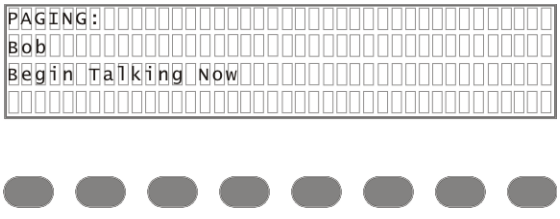


FIGURE 136. Send Page

Important: Once a page is sent, it must complete the send and transmit cycle before the page menu is available for selection. After the page menu reappears on the display, you can press the **LAST** softkey to recall and send the last page entry or press the **EXIT** button.

NOTE: If talk time is setup for the page, the microphone is open for a predefined amount of talk time. A confirmation, shown in Figure 136 appears on the display. A beep indicates when the talk time begins.

6. Once you are done paging, press the **EXIT** softkey.

NOTE:

- If the selected line is a phone line an error message, *ERROR: Line X Is A Network Phone*, appears. See Figure 134.
- If no page entry is associated with a softkey (QP1–QP7), *No Paging Parameters* appears when the softkey is pressed.
- Press the **SKIP** softkey, to remove the selected line from the stack.
- Press the **STOP** softkey to clear all pages from the stack.

Auxiliary Relays

A1–A4 Buttons

The **A1–A4** buttons are used to toggle the auxiliary relays on the back of the C-6200 and NEO-10. Once the equipment is installed, your console administrator can configure local relay or NEO-10 relay selection to *toggle, momentary, timed,* or W/*PTT* (relay is active during PTT).

Toggle - If toggle is enabled, pressing an (A1–A4) button toggles the relay ON/OFF. Once pressed, the selected button lights and the relay remains activated until the (A1–A4) button is pressed again.

Momentary - If momentary is enabled, pressing and holding the (A1–A4) button activates the relay to ON State. Once pressed, the selected button lights and the relay remains active until the button is released.

Timed - If timed is enabled, pressing the (A1–A4) button activates the relay to ON state. Once the button is pressed, the selected button lights and remains active for the predefined time configured by the console admin.

W/PTT - If W/PTT is enabled, pressing a PTT button activates the relay and the corresponding (A1–A4) button lights. Once the PTT button is released, the relay is deactivated.

APPENDIX A

Precedence Fields and D, T, R Bits Reference Table

Precedence Fields and D, T, R, Bits Reference

TABLE 21. Precedence Field and D, T, R Binary Bits

Precedence Field					D, T, and R bits				
Binary				Traffic Type	Binary				
0	0	0	(0)	Best Effort	D	T	R		
0	0	1	(1)	Background	0	0	0	(0)	Normal (Best Effort), minimal cost
0	1	0	(2)	Standard	0	0	1	(1)	Maximize Reliability
0	1	1	(3)	Excellent Load	0	1	0	(2)	Maximize Throughput
1	0	0	(4)	Controlled Load	1	0	0	(4)	Minimize Delay
1	0	1	(5)	Video					
1	1	0	(6)	Voice					
1	1	1	(7)	Network Control					

APPENDIX B

UTC Offset Values

UTC Offset Times

Summer Time Offsets

TABLE 22. Summer Time UTC Offset Values

Time/Location:	Offset:	Time/Location:	Offset:
Baker Islands, Howland Islands, Marshall Islands, (International Date Line)	-12	Norfolk Island Time NFT, Fuji, Kiribati, Marshall Islands, Nauru, New Zealand, Russia (zone 11), Tuvalu, Wake Island, Wallis and Futuna	12
	-11.5		11.5
American Samoa, Jarvis Island, Kingman Reef, Midway Islands, Niue, Palmyra Atoll, Samoa	-11	Eastern Daylight Time EDT (Eastern Australia), Micronesia, New Caledonia, Russia (zone 10), Solomon Islands, Vanuatu	11
	-10.5	Central Daylight Time CDT (Central Australia)	10.5
Cook Islands, French Polynesia, Johnston Atoll, Tokelau	-10	Guam, Micronesia, Northern Mariana Islands, Papua New Guinea, Russia (zone 9)	10
French Polynesia (Marquesas Islands)	-9.5		9.5
Hawaii-Aleutian Daylight Time HADT, French Polynesia (Gambier Islands)	-9	Western Daylight Time WDT (Western Australia), East Timor, Indonesia, Japan, N. Korea, S. Korea, Palau, Russia (zone 8)	9
Alaska Daylight Time AKDT (Alaska), Mexico	-8	China (Beijing, Shanghai), Hong Kong, Indonesia, Macau, Malaysia, Mongolia, Philippines, Russia (zone 7), Singapore, Taiwan	8
Pacific Daylight Time PDT (US, Canada), Mexico	-7	Christmas Island Time CXT	7
Mountain Daylight Time MDT (US-Canada), Mexico	-6		6
Central Daylight Time CDT (US-Canada),	-5		5
Eastern Daylight Time EDT (US, Canada), Caribbean, Argentina, Brazil, Uruguay	-4		4
	-3.5		3.5
Atlantic Daylight Time ASDT (Canada), Greenland	-3	Eastern European Summer Time EEST	3
Newfoundland Daylight Time NST	-2.5		2.5
Brazil, South Sandwich Islands	-2	Central European Summer Time CEST	2
	-1	Western European Summer Time WEST, Irish Summer Time IST, British Summer Time BST (United Kingdom)	1
Coordinated Universal Time, UTC Greenwich Meantime, GMT (United Kingdom and Ireland), Canary Islands, Ghana, Iceland, Liberia, Morocco, Portugal, Senegal, Sierra Leone, Western Sahara	0		0

Winter Time Offsets

TABLE 23. Winter Time UTC Offset Values

Time/Location:	Offset:	Time/Location:	Offset:
Baker Islands, Howland Islands, Marshall Islands, (International Date Line)	-12	Norfolk Island Time, NFT	12
American Samoa, Jarvis Island, Kingman Reef, Midway Islands, Niue, Palmyra Atoll, Samoa	-11	Micronesia, New Caledonia, Russia (zone 10), Solomon Islands, Vanuatu	11
	-10.5		10.5
Hawaii-Aleutian Standard Time, HASK, Cook Islands, French Polynesia, Johnston Atoll, Tokelau	-10	Eastern Standard Time, AEST (Eastern Australia)	10
	-9.5	Central Standard Time, CST (Central Australia)	9.5
Alaska Standard Time, AKST	-9	East Timor, Indonesia, Japan, N. Korea, S. Korea, Palau, Russia (zone 8)	9
Pacific Standard Time, PST (US, Canada,) Mexico	-8	Western Standard Time, WST (Western Australia) China (Beijing, Shanghai), Hong Kong, Indonesia, Macau, Malaysia, Mongolia, Philippines, Russia (zone 7), Singapore, Taiwan	8
Mountain Standard Time, MST (US, Canada)	-7	Cambodia, Christmas Island Time, Indonesia, Laos, Russia (zone 6), Thailand, Vietnam	7
		Cocos, Burma	6.5
Central Standard Time, CDT (US, Canada)	-6	Bangladesh, Bhutan, Kazakhstan, Russia (zone 5)	6
		India, Sri Lanka, Nepal (+5.75)	5.5
Eastern Standard Time, EST (US, Canada)	-5	Kazakhstan, Maldives, Pakistan, Russia (zone 4), Tajikistan, Turkmenistan, Uzbekistan	5
	-4.5	Afghanistan	4.5
Atlantic Standard Time, AST, (US-Canada) Puerto Rico	-4	Armenia, Azerbaijan, Georgia, Mauritius, Oman, Reunion, Russia (zone 3), Seychelles, UAE	4
Newfoundland Standard Time, NST	-.3.5	Iran	3.5
Atlantic Daylight Time Argentina, Brazil, Uruguay, Greenland	-3	Bahrain, Comoros, Djibouti, Ethiopia, Eritrea, Iraq, Kenya, Kuwait, Madagascar, Mayotte, Katar, Russia, Saudi Arabia Somalia, Sudan, Tanzania, Uganda, Yemen	3
	-2.5		2.5
Brazil, South Sandwich Islands	-2	Eastern European Time, EET	2
Cape Verde, Greenland, Azores	-1	Central European Time, CET	1
Coordinated Universal Time, UTC Western European Time, WET Greenwich meantime, GMT (United Kingdom and Ireland) Canary Islands, Ghana, Iceland, Liberia, Morocco, Portugal, Senegal, Sierra Leone, Western Sahara	0		0

APPENDIX C

Tone Group Frequencies and Paging Plans

Tone Group Frequencies

TABLE 24. Tone Group Frequencies (1–7)

Tone Groups No.	1	2	3	4	5	6	7
Tone Group	**Mot 1**	**Mot 2**	**Mot 3**	**Mot 4**	**Mot 5**	**Mot 6**	**Mot A**
0	330.5	569.1	1092.4	321.7	553.9	1122.5	358.9
1	349.0	600.9	288.5	339.6	584.8	1153.4	398.1
2	368.5	634.5	296.5	358.6	617.4	1185.2	441.6
3	389.0	669.9	304.7	378.6	651.9	1217.8	489.8
4	410.8	707.3	313.0	399.8	688.3	1251.4	543.3
5	433.7	746.8	953.7	422.1	726.8	1285.8	602.6
6	457.9	788.5	979.9	445.7	767.4	1321.2	668.3
7	483.5	832.5	1006.9	470.5	810.2	1357.6	741.3
8	510.5	879.0	1034.7	496.8	855.5	1395.0	822.2
9	539.0	928.1	1063.2	524.6	903.2	1433.4	912.0
Diagonal	569.1	979.9	569.1	569.1	979.9	979.9	979.9

TABLE 25. Tone Group Frequencies (8–16)

Tone Group No.	8	9	10	11	12	13	14
Tone Groups	**Mot B**	**Mot Z**	**GE A'**	**GE B'**	**GE C'**	**Mot 10**	**Mot 11**
0	371.5	346.7	682.5	652.5	667.5	1472.9	1930.2
1	412.1	384.6	592.5	607.5	712.5	1513.5	1989.0
2	457.1	426.6	757.5	787.5	772.5	1555.2	2043.8
3	507.0	473.2	802.5	832.5	817.5	1598.0	2094.5
4	562.3	524.8	847.5	877.5	862.5	1642.0	2155.6
5	623.7	582.1	892.5	922.5	907.5	1687.2	2212.2
6	691.8	645.7	937.5	967.5	952.5	1733.7	2271.7
7	767.4	716.1	547.5	517.5	532.5	1781.5	2334.6
8	851.1	794.3	727.5	562.5	577.5	1830.5	2401.0
9	944.1	881.0	637.5	697.5	622.5	1881.0	2468.2
Diagonal	979.9	979.9	742.5	742.5	742.5	None	None

TABLE 26. Standard Paging Plans

Tone #1 (ms)	Gap (ms)	Tone #2 (ms)	Group Call (ms)	Type
1000	0	3000	8000	GE std, Mot std Tone and Voice
400	0	800	8000	Mot Tone Only
1000	0	3000	6000	NEC-B
1000	300	3000	6000	NEC-A
1000	0	1000	4000	NEC-C
400	0	800	4000	NEC-M
500	0	500	3000	NEC-L
400	0	400	3000	NEC-D

APPENDIX D

Telex Group Numbers

Telex Code Plan and Pager Capcodes

TABLE 27. Telex Group Numbers (1-9)

Telex Code Plan #	1	2	3	4	5	6	7	8	9
Pager Capcodes	**Mot A**	**Mot C**	**Mot D**	**Mot E**	**Mot F**	**Mot G**	**Mot H**	**Mot J**	**Mot K**
0xx	2+4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1xx	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1	1+1
2xx	2+2	2+2	2+2	2+2	1+3	1+3	1+3	1+4	1+4
3xx	3+3	1+2	1+2	1+2	3+3	3+3	3+3	4+1	4+1
4xx	1+2	4+4	1+5	2+1	4+4	3+1	3+1	4+4	4+4
5xx	1+3	1+4	5+5	1+6	3+1	5+5	1+6	5+5	1+6
6xx	2+1	2+1	2+1	6+6	1+4	1+5	6+6	1+5	6+6
7xx	3+1	4+1	5+1	6+1	4+1	5+1	6+1	4+5	6+1
8xx	2+3	2+4	2+5	2+6	3+4	3+5	3+6	5+4	4+6
9xx	3+2	4+2	5+2	6+2	4+3	5+3	6+3	5+1	6+4

TABLE 28. Telex Group Numbers (10–17)

Telex Code Plan #	10	11	12	13	14	15	16	17
Pager Capcodes	**Mot L**	**Mot M**	**Mot N**	**Mot P**	**Mot Q**	**Mot R**	**Mot S**	**Mot T**
0xx	N/A	4+2	4+2	4+2	4+2	4+2	4+2	4+2
1xx	1+1	2+3	2+3	2+3	2+4	2+4	2+5	3+4
2xx	1+5	2+2	2+2	2+2	2+2	2+2	2+2	4+3
3xx	5+1	3+3	3+3	3+3	4+2	4+2	5+2	3+3
4xx	1+6	4+4	3+2	3+2	4+4	4+4	2+6	4+4
5xx	5+5	3+2	5+5	2+6	5+5	2+6	5+5	5+5
6xx	6+6	2+4	2+5	6+6	2+5	6+6	6+6	3+5
7xx	6+1	4+2	5+2	6+2	4+5	6+2	6+2	4+5
8xx	5+6	3+4	3+5	3+6	5+4	4+6	5+6	5+4
9xx	6+5	4+3	5+3	6+3	5+2	6+4	6+5	5+3

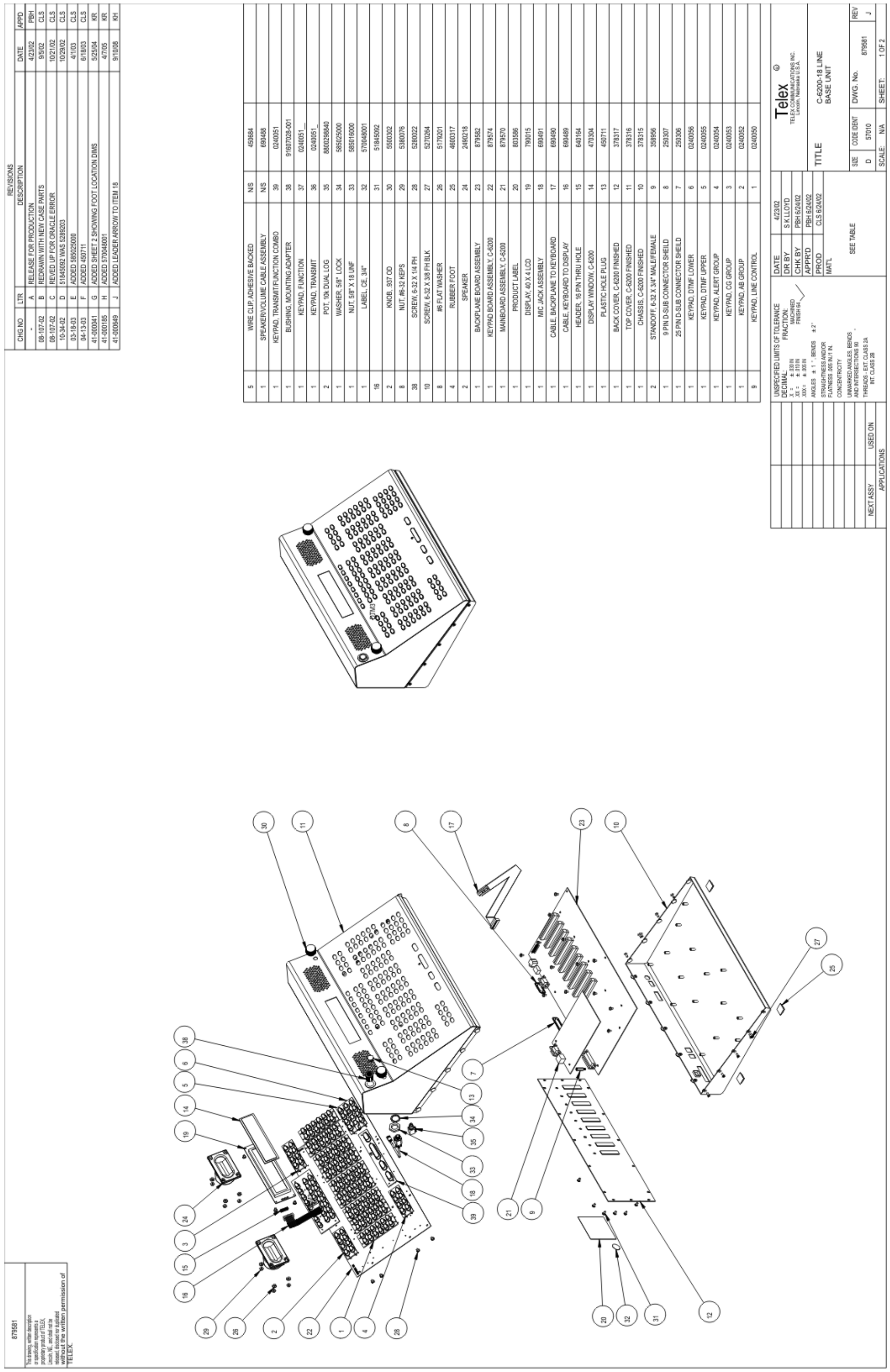
TABLE 29. Telex Group Numbers (18–25)

Telex Code Plan #	18	19	20	21	22	23 GE X	24 GE Y	25 GE Z*
Pager Capcodes	**Mot U**	**Mot V**	**Mot W**	**Mot Y**	**Mot MT**	**GE X**	**GE Y**	**GE Z**
0xx	4+2	4+2	4+2	N/A	4+2	10+10	11+11	10+10
1xx	3+4	3+5	4+6	7+7	1+1	11+10	12+11	12+10
2xx	4+3	5+3	6+4	8+8	2+2	11+11	12+12	12+12
3xx	3+3	3+3	5+6	9+9	1+2	10+11	11+12	10+12
4xx	4+4	3+6	4+4	7+8	4+4	12+12	N/A	N/A
5xx	3+6	5+5	5+5	7+9	5+5	12+10	N/A	N/A
6xx	6+6	6+6	6+6	8+7	2+1	12+11	N/A	N/A
7xx	6+3	6+3	4+5	9+7	4+5	10+12	N/A	N/A
8xx	4+6	5+6	5+4	8+9	5+4	11+12	N/A	N/A
9xx	6+4	6+5	6+5	9+8	2+4	N/A	N/A	N/A

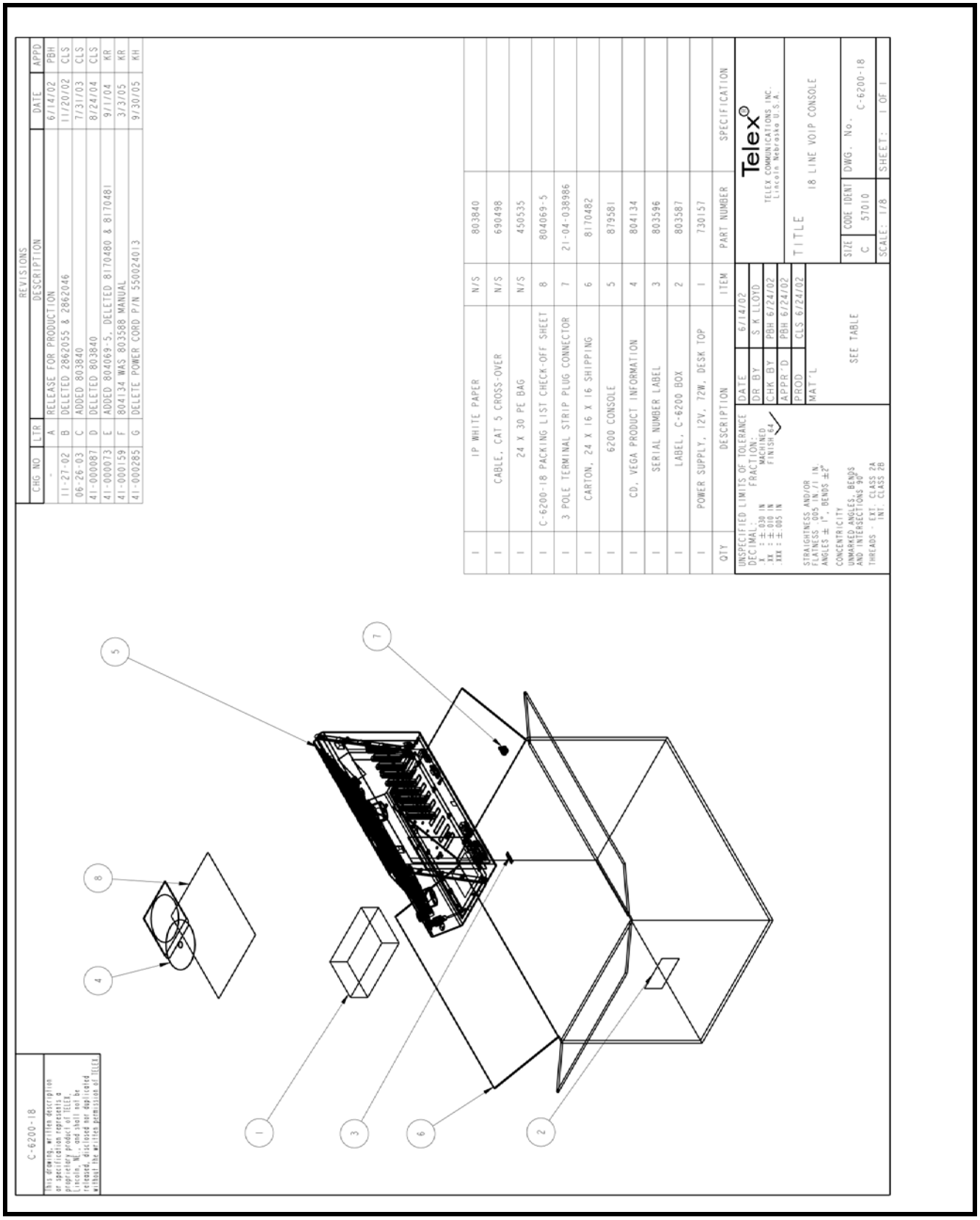
APPENDIX E

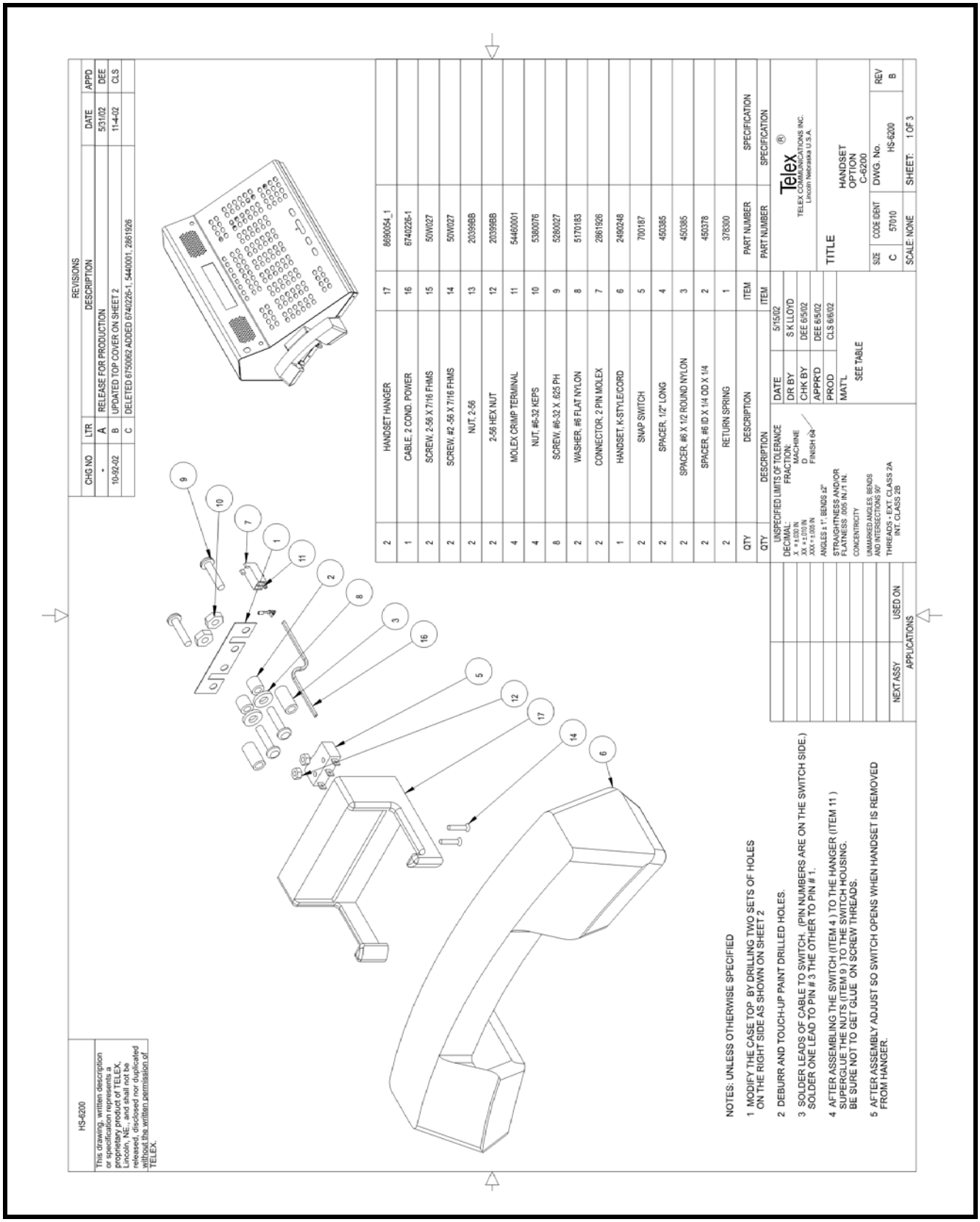
Drawings

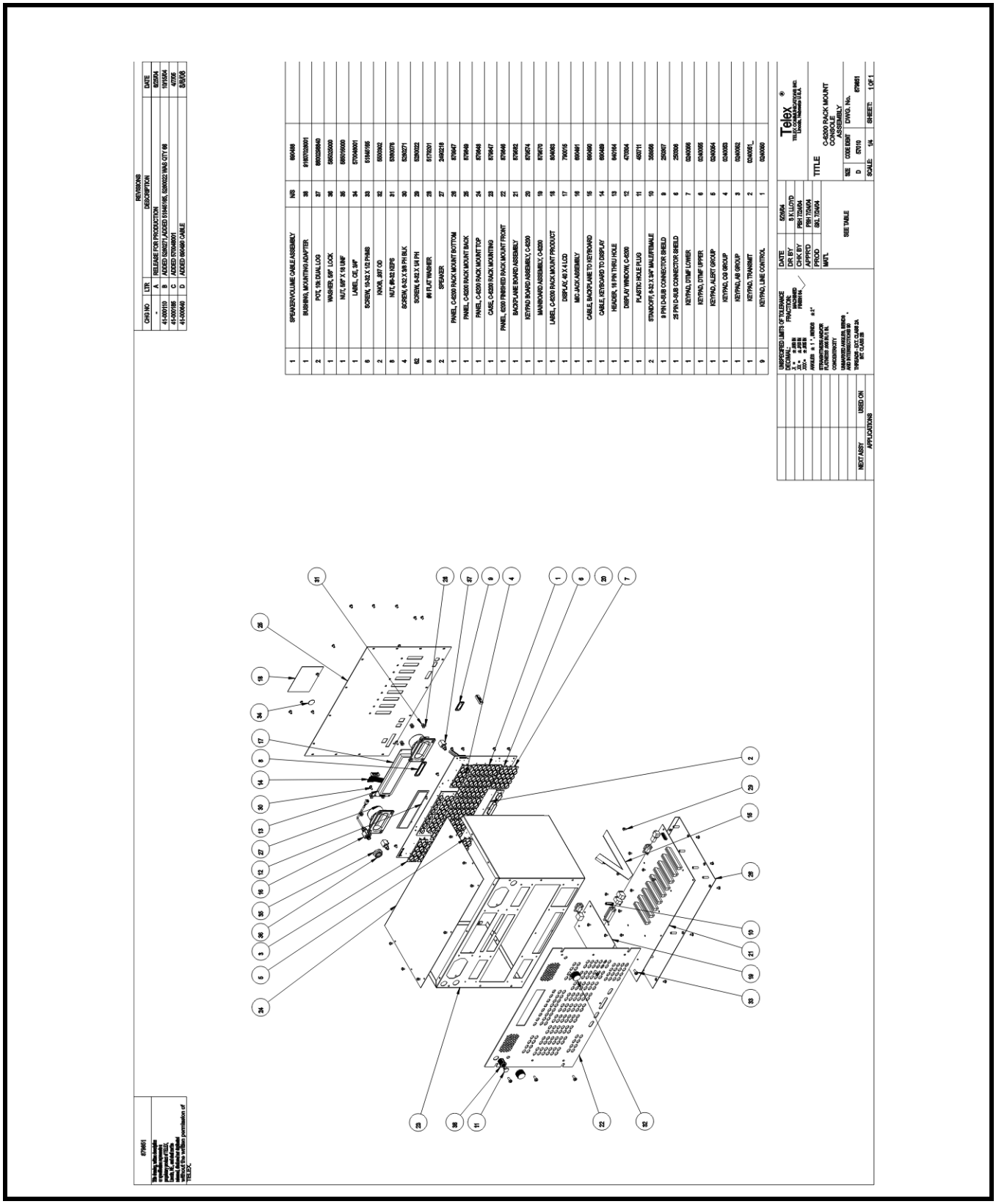
C-6200 Drawings


WIRE CLIP, ADHESIVE BACKED N/S 450684
SPEAKER/VOLUME CABLE ASSEMBLY N/S 690488
KEYPAD, TRANSMIT/FUNCTION COMBO 39 0240051
BUSHING, MOUNTING ADAPTER 38 91607028-001
KEYPAD, FUNCTION 37 0240051
KEYPAD, TRANSMIT 36 0240051
POT, 10k DUAL LOG 35 8800298840
WASHER, 5/8" LOCK 34 585025000
NUT, 5/8" X 18 UNF 33 585018000
LABEL, CE, 3/4" 32 570048001
31 518450092
KNOB, .937 OD 30 5500302
NUT, #6-32 KEPS 29 5380076
SCREW, 6-32 X 1/4 PH 28 5280022
SCREW, 6-32 X 3/8 FH BLK 27 5270294
#6 FLAT WASHER 26 5179201
RUBBER FOOT 25 4600317
SPEAKER 24 2490218
BACKPLANE BOARD ASSEMBLY 23 879582
KEYPAD BOARD ASSEMBLY, C-6200 22 879574
MAINBOARD ASSEMBLY, C-6200 21 879570
PRODUCT LABEL 20 803586
DISPLAY, 40 X 4 LCD 19 790015
MIC JACK ASSEMBLY 18 690491
CABLE, BACKPLANE TO KEYBOARD 17 690490
CABLE, KEYBOARD TO DISPLAY 16 690489
HEADER, 16 PIN THRU HOLE 15 640164
DISPLAY WINDOW, C-6200 14 470304
PLASTIC HOLE PLUG 13 450711
BACK COVER, C-6200 FINISHED 12 378317
TOP COVER, C-6200 FINISHED 11 378316
CHASSIS, C-6200 FINISHED 10 378315
STANDOFF, 6-32 X 3/4" MALE/FEMALE 9 359956
9 PIN D-SUB CONNECTOR SHEILD 8 250307
25 PIN D-SUB CONNECTOR SHEILD 7 250306
KEYPAD, DTMF LOWER 6 0240056
KEYPAD, DTMF UPPER 5 0240055
KEYPAD, ALERT GROUP 4 0240054
KEYPAD, CG GROUP 3 0240053
KEYPAD, AB GROUP 2 0240052
KEYPAD, LINE CONTROL 1 0240050
Telex
C-6200-18 LINE BASE UNIT
DWG. No. 879581
REV J
SHEET 1 OF 2

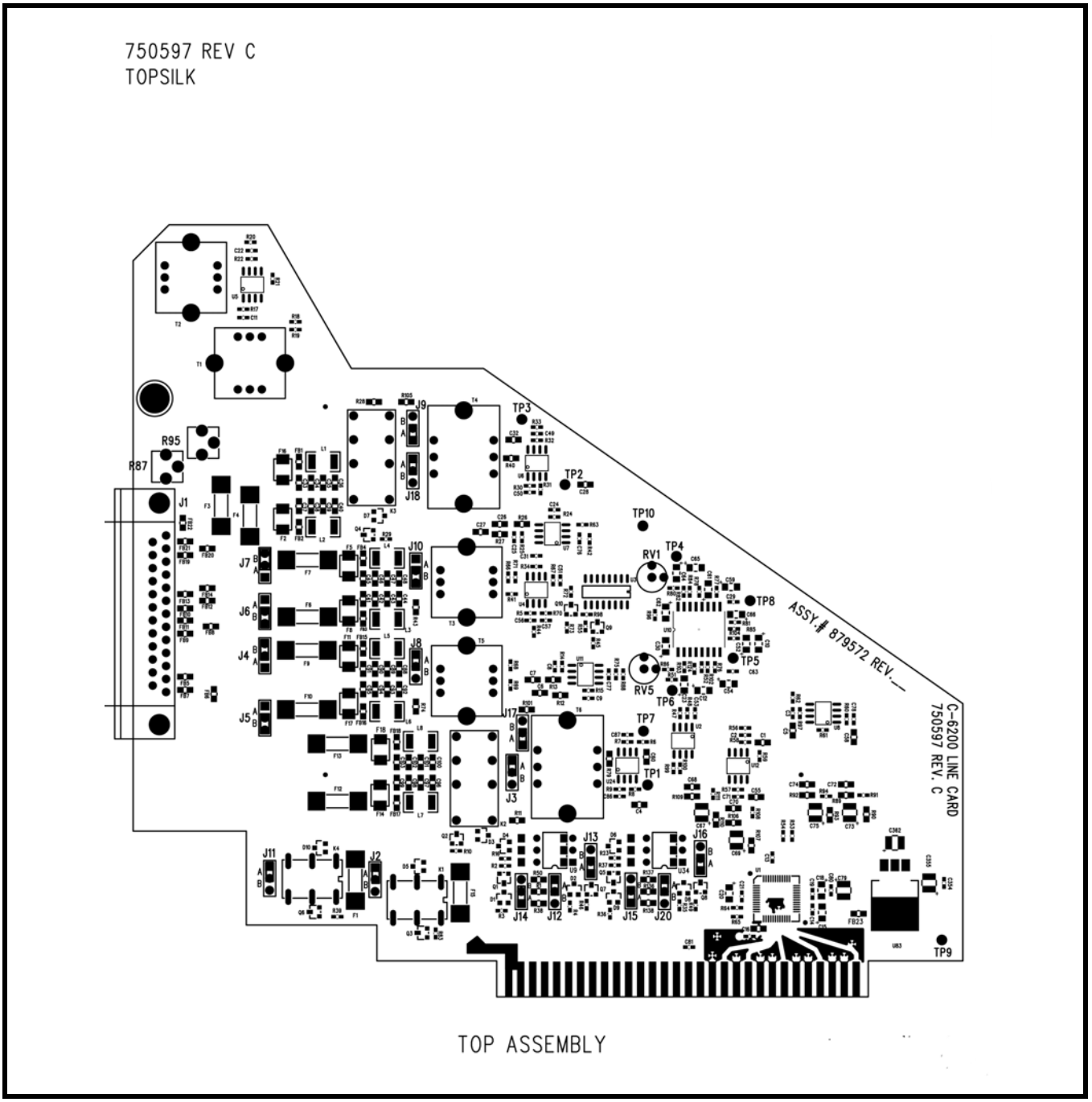
C-6200 Desktop As Shipped



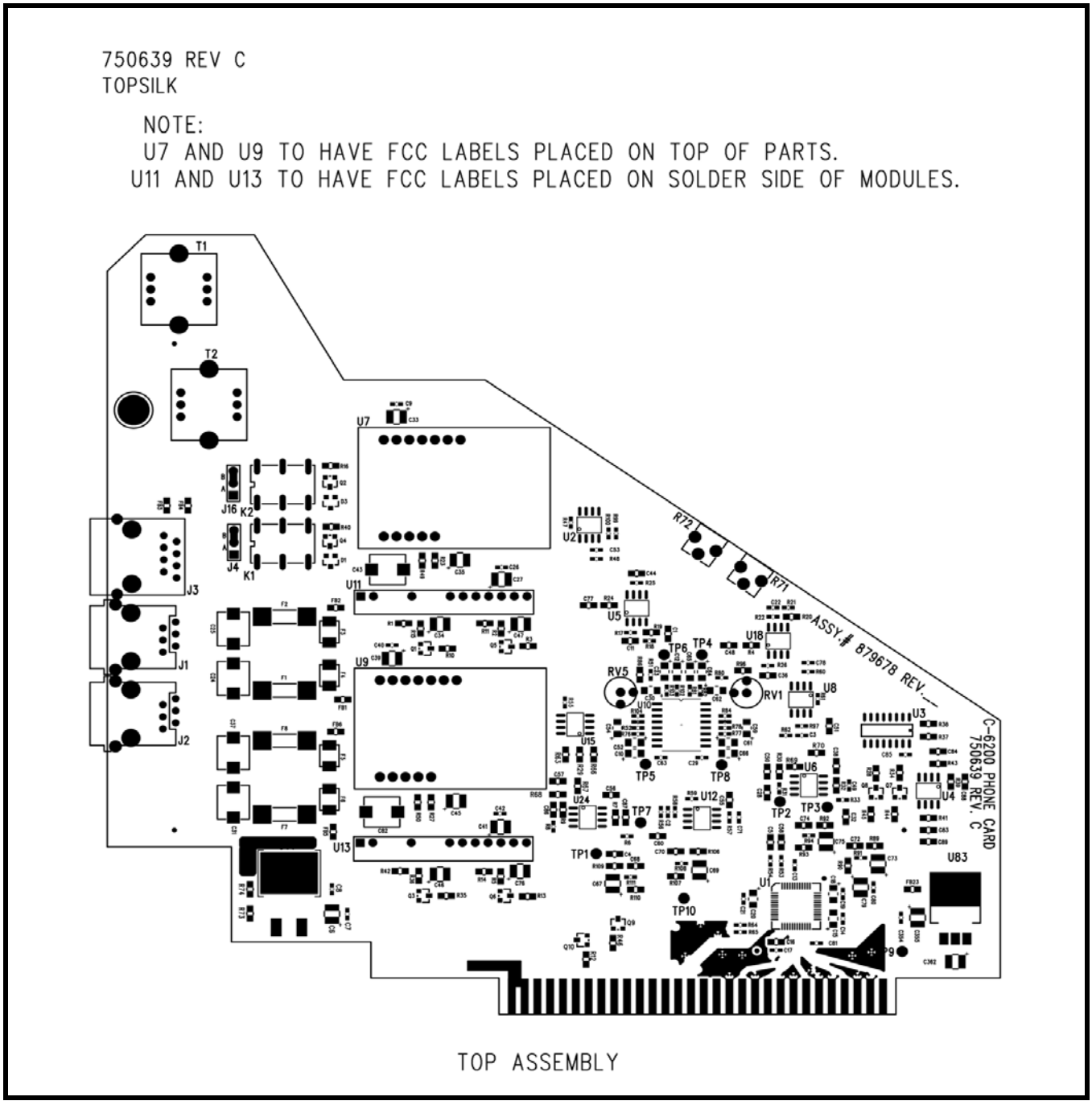

REVISIONS
CHG NO | LTR | DESCRIPTION | DATE | APPD
- | A | RELEASE FOR PRODUCTION | 5/31/02 | DEE
10-92-02 | B | UPDATED TOP COVER ON SHEET 2 | 11-4-02 | CLS
C | DELETED 67500062 ADDED 6740226-1, 5440001, 2861926
HS-6200
This drawing, written description or specification represents a proprietary product of TELEX, Lincoln, NE., and shall not be released, disclosed nor duplicated without the written permission of TELEX.
2 | HANDSET HANGER | 17 | 8690054_1
1 | CABLE, 2 COND. POWER | 16 | 6740226-1
2 | SCREW, 2-56 X 7/16 PHMS | 15 | 50W027
2 | SCREW, #2 -56 X 7/16 PHMS | 14 | 50W027
2 | NUT, 2-56 | 13 | 2039BB
2 | 2-56 HEX NUT | 12 | 2039BB
4 | MOLEX CRIMP TERMINAL | 11 | 54460001
4 | NUT, #6-32 KEPS | 10 | 5380076
8 | SCREW, #6-32 X .625 PH | 9 | 5280027
2 | WASHER, #6 FLAT NYLON | 8 | 5170183
2 | CONNECTOR, 2 PIN MOLEX | 7 | 2861926
1 | HANDSET, K-STYLE/CORD | 6 | 2480248
2 | SNAP SWITCH | 5 | 700187
2 | SPACER, 1/2" LONG | 4 | 450385
2 | SPACER, #6 X 1/2 ROUND NYLON | 3 | 450385
2 | SPACER, #6 ID X 1/4 OD X 1/4 | 2 | 450378
2 | RETURN SPRING | 1 | 378300
QTY | DESCRIPTION | ITEM | PART NUMBER | SPECIFICATION
NOTES: UNLESS OTHERWISE SPECIFIED
1 MODIFY THE CASE TOP BY DRILLING TWO SETS OF HOLES ON THE RIGHT SIDE AS SHOWN ON SHEET 2
2 DEBURR AND TOUCH-UP PAINT DRILLED HOLES.
3 SOLDER LEADS OF CABLE TO SWITCH. (PIN NUMBERS ARE ON THE SWITCH SIDE.) SOLDER ONE LEAD TO PIN # 3 THE OTHER TO PIN # 1.
4 AFTER ASSEMBLING THE SWITCH (ITEM 4) TO THE HANGER (ITEM 11) SUPERGLUE THE NUTS (ITEM 9) TO THE SWITCH HOUSING. BE SURE NOT TO GET GLUE ON SCREW THREADS.
5 AFTER ASSEMBLY ADJUST SO SWITCH OPENS WHEN HANDSET IS REMOVED FROM HANGER.
UNSPECIFIED LIMITS OF TOLERANCE
DECIMAL: FRACTION:
X = ±.020 IN MACHINE
XX = ±.010 IN
XXX = ±.005 IN FINISH 64
ANGLES ± 1°, BENDS ±2°
STRAIGHTNESS AND/OR FLATNESS .0005 IN/1 IN.
CONCENTRICITY
UNMARKED ANGLES, BENDS AND INTERSECTIONS 90°
THREADS - EXT. CLASS 2A INT. CLASS 2B
DATE | 5/15/02
DR BY | S K LLOYD
CHK BY | DEE 6/5/02
APPR'D | DEE 6/5/02
PROD | CLS 6/6/02
MAT'L
SEE TABLE
Telex®
TELEX COMMUNICATIONS INC.
Lincoln Nebraska U.S.A.
TITLE
HANDSET OPTION C-6200
SIZE | CODE IDENT | DWG. No. | REV
C | 57010 | HS-6200 | B
SCALE: NONE | SHEET: 1 OF 3
NEXT ASSY | USED ON
APPLICATIONS



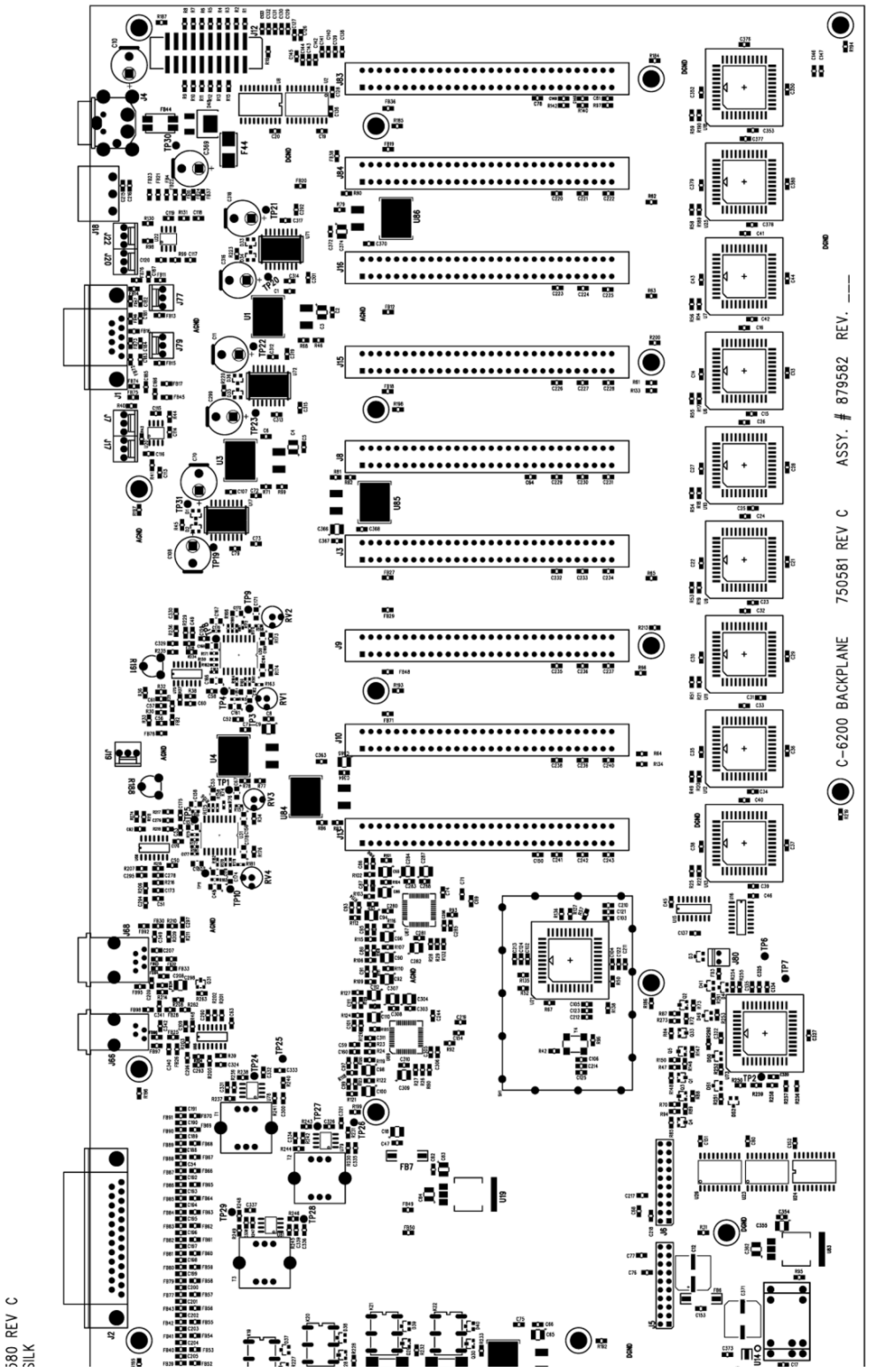
C-6200 Tone Card PCB Topsilk



C-6200 Phone Card PCB Topsilk



C-6200 Backplane PCB Topsilk



Speaker Cable Schematic