Operating/Reference Manual

Optimod-DAB 6200
PC Remote Control

Version 2.0 Software

orban

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Section 1 Introduction

How to Use This Manual

Quick Installation versus Complete Installation

This manual provides Quick Installation steps (located on page 1-1) and a complete detailed Installation (Section 2). If you are unsure which to use, we recommend you go to page 2-1 and follow the complete Installation steps. Otherwise, if you do use the Quick Installation and a problem occurs (e.g., an unsuccessful 6200 PC connection to OPTIMOD-DAB 6200), refer to Section 2. If necessary, repeat all steps using complete Installation. For further help, refer to "Section 4: Troubleshooting."

Manual Documentation and 6200 PC Remote On-Screen Help

Much of the operation information provided in Section 3 of this manual is also provided directly in 6200 PC, via its HELP menu. This means that when you need information on 6200 PC's menus, commands and buttons, you don't have to consult the manual. For quick on-screen Help, simply select HELP: CONTENTS or click the HELP button — this button is identified by a yellow question mark — and choose topics from the "OPTIMOD Application Help" dialog box.

In addition, you can refer to the README.DOC file located on the 6200 PC "Installation Diskette" for software information that was unavailable at the time this document was published.

The Adobe pdf form of this manual contains numerous hyperlinks and bookmarks. A reference to a numbered step or a page number (except in the Index) is a live hyperlink; click on it to go immediately to that reference.

> If the bookmarks are not visible, click the "Bookmarks" tab on the left side of the Acrobat Reader window.

This manual has a hyperlinked table of contents. To search for a specific word or phrase, you can also use the Adobe Acrobat Reader's text search function.

Quick Installation

If you are familiar with OPTIMOD-DAB 6200 and Windows™, Quick Installation is all you should need to get 6200 PC Remote Software installed and running. Refer to Section 2 for complete Installation steps.

1. **Check hardware requirements.**

   To connect your PC to your 6200, regardless of the method you choose, you will need the following:

- **Orban 6200 Optimod-DAB** with version 2.0 or higher software. Version 1 software does not support 6200 PC Remote.
- **If connecting by serial cable:** a null modem cable (also called a "reverse" cable). This cable has DB9 female connectors at both ends for connecting the 6200 to the serial port on your computer. If your computer has a DB25 connector, you will need to obtain an adapter.
- **If connecting by modem:** *On the computer side*—any modem (internal or external) supported by Windows and having V.42 error correction. *On the 6200 side*—a 3Com/U.S. Robotics® 56kbps fax modem EXT and normal (not null) modem cable for the 6200 side of the connection. Note that Orban Customer Service does not support any other type of modem for connecting to the 6200, but other modems will often work OK.
- **PC** running Windows® 98 (any version), 2000 (SP3 or higher) or XP (any version).

Recommended Components

Computer..... Pentium II or higher
Available Disk Space 25MB
RAM .....128MB (Windows 98, 2000); 256MB (Windows XP)
Display.....SVGA or higher
Microsoft Windows..... 98, 2000 SP3 (or higher) or XP (any version)
COM Port .....16550 (or compatible) UART



When connecting your 6200, use shielded cable to protect the pins in the RS-232 connector from electrostatic discharge.

2. **Complete hardware connections: direct connection of computer to 6200 or modem connection of computer to 6200:**

   - **For direct connection of computer to 6200:** Use a null modem cable (sometimes called a "reverse" cable), DB9 male at 6200 end, as required at computer end. *A regular computer-to-modem cable will not work.* Make cable connections at the computer's COM port and the 6200's rear panel RS-232 interface. (See page 4-4 for a schematic of this cable.)
   - **For modem connection of computer to 6200:** *On the computer side*—use any modem (internal or external) supported by Windows and having V.42 error correction. *On the 6200 side*—use a 3Com/U.S. Robotics® 56kbps fax modem EXT or equivalent.

     Use computer-to-modem serial cables, DB9 male at 6200 end, as required at modem interfaces and computer end. Make one cable connection from another modem to the 6200's rear panel RS-232 interface, and, if you are

using an external modem on the computer side, one connection from the computer's COM port to a modem's RS-232 interface.

3. Install 6200 PC Remote Software on your computer.

A) Insert the installer CD into your computer's CD drive.

The installer should start up automatically and ask you if you wish to install the PC Remote application on your computer. If it fails to do so, navigate to Start / Run on your computer, and type `X:setup` (where "X" is the drive letter of your CD drive).

B) Follow the prompts on your screen to install the PC Remote software automatically on your computer.

You might have obtained the automatic installer application from some other source than Orban's CD, like Orban's ftp site or another computer on your network. If so, run the application and follow the on-screen instructions.

The installer application installs the necessary files and adds an Orban/Optimod 6200 folder to your computer's Start Menu. This folder contains shortcuts to the PC Remote application and to the documentation. If you accepted the option during installation, there is also a shortcut to the PC Remote application on your desktop.

4. Configure 6200 PC Remote Software for a particular Optimod.

A) Open 6200 PC from Windows by double-clicking the Optimod 6200 PC Remote icon.

B) From the main menu, choose MANAGE: CONNECTION SETTINGS.

C) Fill in the "Facility Name" box with the name of your station or facility.

This is the name for the computer running 6200 PC. It could be "Master Control," "KABC," etc. This name will appear on the 6200 PC main window title bar when the software is running and on the 6200 front panel (PC ONLINE: [Facility Name]) when 6200 PC is connected to the 6200.

Note that changing the Facility Name for one Optimod, changes the Facility Name for all Optimods.

D) In the "OPTIMOD Name" box, enter the name the Optimod whose connection you are setting up.

E) In the "Passcode" box, enter the passcode of the Optimod whose connection you are setting up. Make sure the passcode entered in the 6200 PC "Connection Settings" dialog box matches the passcode previously set on the 6200 front panel (using SET PASSCODE).

You may leave the passcode field blank. In this case, the user will be prompted for a valid passcode when connecting to 6200 PC.

F) You can add as many Optimods to the list as you like by clicking *New* and filling out the properties for that Optimod. For example, if you have four serial

ports on your computer, you can specify four different Optimods for Direct Connection. You can specify a virtually unlimited number of Optimods for Modem connection as long as each Optimod has its own phone number.

G) When you are finished, click OK.

5. Connect 6200 PC to an OPTIMOD.

A) Select MANAGE: CONNECT command or click the CONNECT button — this button is identifiable by a small OPTIMOD ready to connect to a white box (representing the remote computer).

This opens the "Select OPTIMOD" dialog box.

B) Choose an OPTIMOD from the "Select OPTIMOD" dialog box, and click OK.

6. Experiment with 6200 PC.

To recall a preset, click the RECALL button, choose a preset and click RECALL.

To view controls, click the VIEW KNOBS button.

To toggle between control views, click the LESS-MORE, FULL CONTROL or EQUALIZATION button.

To modify a control, click a control name, then click its left/right arrows to adjust the control.

To save settings, click the SAVE button, choose a user preset and click SAVE.

Introduction

6200 PC Software provides broadcasters with the ultimate OPTIMOD-DAB tool — full control of a station's processing from any location. Make adjustments to any 6200 preset remotely, or do most anything else that can be done from the 6200's front panel software controls.

6200 PC displays all of the 6200's meters and preset processing controls on the computer screen to aid remote adjustment.

6200 PC can run on Pentium or compatible computer systems using SVGA color or better displays and running Windows 98, 2000, or XP; the computer system must control a Hayes- or US Robotics-compatible modem, or establish a direct connection between the computer and the 6200 through their RS-232 serial ports.

Applications

Changing the Listening Environment

Many OPTIMODs are located at the transmitter to maximize loudness and sound quality. However, transmitter sites usually are an inadequate environment for mak-

ing critical listening decisions because they are notoriously noisy. This is one reason why OPTIMODs are often located at the studio. With 6200 PC, and its immediate access to the 6200's controls, stations can listen and make changes to broadcast material from their studio, their home, or anywhere else conducive to making critical listening decisions, while leaving OPTIMOD 6200 at the transmitter.

Group Stations — Stations with Multiple OPTIMODs

6200 PC provides program directors and program managers (or anyone else with authority and security clearance to 6200) with a tool to make comprehensive changes across the entire group. Using 6200 PC's Backup feature, a program director who creates the perfect processing for one station format, can now copy it, and then load it to as many other stations in the group as desired.

Making 6200s Located at the Transmitter More Accessible

Transmitter sites are often far away from the studio, or even inaccessible. With OPTIMOD-DAB 6200 located at the transmitter site, a station may be restricted when it wants to make changes to the OPTIMOD. Is anyone at the transmitter site? How long does it take to get to the site? 6200 PC relocates the 6200's controls, placing them wherever a computer has access to a phone line. Processing heard over the air can be modified or replaced quickly and easily, without returning to where the 6200 is located.

New Installations — 6200 PC, an Impetus to Install OPTIMOD at the Transmitter

New stations must weigh different factors when deciding what type of STL setup to install. Particularly if your STL path uses lossy digital compression, you will get far better results if you locate the 6200 at the transmitter and use the STL to carry unprocessed audio. With the 6200 PC installed at the studio and OPTIMOD installed at the transmitter, 6200 control can be maintained and sound can be improved.

Chapter 1 of your 6200 Manual has a complete discussion of STLs.

Features

- Intuitive and Logical Controls: The software operates similarly to a 6200, but is designed to be easy-to-use for anyone with a basic knowledge of Microsoft Windows™. Changes can be accomplished using a mouse or via the computer's keyboard.
- Archiving: Backup saves the entire contents of a 6200's settings — an entire catalog of presets including their processing settings, I/O Calibration settings, and Remote Interface settings — for future restoring. Settings can be copied to other 6200 units. Presets can be copied as a complete set or individually.
- Real-time adjustment of processing and test presets, as well as setup controls (I/O Calibration and Remote Interface) are made on the computer and update the 6200 immediately.
- User-configurable OPTIMOD Directory: 6200 PC software keeps a list of OPTIMODs that can be accessed and controlled at any time. There is no limit to the number of OPTIMODs, and the list can include OPTIMODs located at different sites. Each OPTIMOD entered in the list can be configured with its own OPTIMOD name, user/station name, modem settings and passcode.
- Security Maintenance: 6200 PC software observes the simple passcode security of the 6200. The passcode entered into the 6200 (with the 6200's front panel SET PASSCODE command) is used to determine access via the PC software. Additionally, using 6200 PC to connect to or disconnect from OPTIMOD-DAB 6200 will always maintain the unit’s lockout status.
- Sophisticated Control Graphics: 6200 PC software provides a larger view of all the OPTIMOD's meters and controls — limited only by the size of the monitor and type of graphics card in use. All the meters for the current preset are visible at the same time on 6200 PC's main window. Additionally, all the controls for a given preset can be accessed to appear on the computer screen concurrently.
- Color-Highlighted Status Information: 6200 PC software uses color to highlight the status of a preset. For example, when a processing control is changed, “MODIFIED” is shown to the right of the control in red. Another example is when a processing preset is gated; “Gated” is displayed to the right of the AGC meter in red.

Help

From the 6200 PC window, select HELP: CONTENTS or click the HELP button — this button is identified by a yellow question mark — and choose topics from the “OPTIMOD Application Help” dialog box.

Maintaining System Security

Maintaining Security from a PC Computer

6200 PC can be configured to not store OPTIMOD passcode information on the computer. Simply leave the Passcode field blank (in 6200 PC's MANAGE: SETTINGS "Edit Settings" dialog box) when configuring 6200 PC for each OPTIMOD. This ensures that all users will be prompted for a valid passcode when trying to connect. Note that even if you do insert a passcode in the Passcode field, they are never visible in the "Edit Settings" dialog box.

Important: *The security of your station's processing may be threatened if it is not standard policy for each 6200 PC user to disconnect from the OPTIMOD when finished with 6200 PC operation.*

The last successful 6200 PC connection defines the current security level. Until 6200 PC is disconnected, subsequent PC users will have access to the OPTIMOD, even if they do not have a valid passcode.

Therefore, we recommend that each PC user disconnect from the OPTIMOD when finished with normal operation. Disconnecting from 6200 PC ensures that each subsequent user must enter a valid passcode.

To disconnect from 6200 PC:

a) Click the DISCONNECT button, or select the MANAGE: DISCONNECT command from the 6200 PC window. Respond to the prompt — "Are you sure you want to disconnect?" — by clicking OK.

   The DISCONNECT button is identifiable by a small OPTIMOD connected to a white box (representing the remote computer).

OPTIMOD-DAB 6200's Front Panel Lockout Feature

Important: Although 6200 PC enables and maintains 6200 front panel lockout, the security of your station's program processing may be threatened if the front panel Lockout feature is set to Off.

To re-enable lockout from the 6200 front panel, complete the following steps:

a) Press *Setup*.

b) Press REMOTE & SECURITY soft button.

c) Press and hold the LOCKOUT soft button, then turn the control knob to set a lockout time.

   You can program the lockout delay time (in hours:minutes), from 5 minutes to 8 hours, or off. This is the time delay between the last access to a local front panel control and when the front panel automatically locks itself out, requiring the passcode to re-establish communication with 6200.

More Security Tips

In general, the following will help you maintain system security:

- Assign a passcode using OPTIMOD's front panel SET PASSCODE, before you enter a passcode in 6200 PC's MANAGE: SETTINGS "Edit Settings" dialog box.
- Use passcodes that are not obvious. For example, don't use birth dates, social security numbers, license plate numbers, etc.
- Set LOCKOUT to 5 min.

  When setting passcodes in the SET PASSCODE screen (from the front panel of the 6200), set LOCKOUT to 5 min.

  Timeout automatically locks the system when it is left unattended for the period of time set by this control. We strongly recommend that you set timeout to a reasonable time, so that if it is left unattended, it will enter Lockout mode.

Section 2
Installation

Complete Installation

These instructions will guide you through the hardware and software installation steps to implement 6200 PC.

Before You Begin . . .

You should have a general understanding of OPTIMOD-DAB 6200 and know how to use Microsoft Windows.

We recommend that you read the installation instructions in full before proceeding. Once you begin the installation, make sure all steps are completed and done in order.

In addition, refer to the README.DOC file located on the 6200 PC "Installation CD" for software information that was unavailable at the time this document was published.

1. Check Hardware Requirements.

You will need the following:

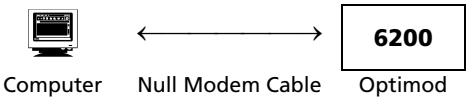
- Orban OPTIMOD-DAB 6200 Digital Audio Processor (running Software Version V2.0 or higher)

To check the version number of the software running on your 6200:

A) Press and hold the *Setup* button, and check the second line of text: "6200 V2.00."

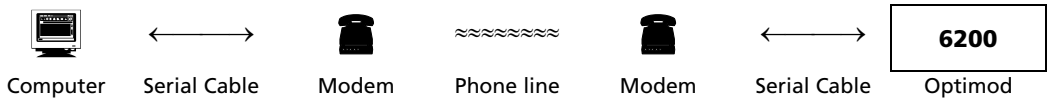
B) If the software is not V2.0 or higher, you must install a V2.0 or higher software module, before continuing. (Refer to the Installation Instructions provided with 6200 firmware upgrade kit.)

- 6200 PC Software CD (shipped with this manual)
- Pentium, 80486, or compatible computer
- Null modem cable (if connecting computer directly to 6200)



(Refer to page 4-7 for null modem cable schematic.)

- 2 Hayes- or US Robotics-compatible modems and 2 computer-to-modem serial cables (if connecting computer to 6200 via modem)



2. Check System Requirements.

Your computer, system software, and modem (if used) must meet the following minimum requirements to run 6200 PC Remote Software. This software will work best with the recommended requirements.

Recommended Components

Computer..... Pentium II or higher
Available Disk Space 25MB
RAM .....128MB (Windows 98, 2000); 256MB (Windows XP)
Display.....SVGA or higher
Microsoft Windows..... 98, 2000 SP3 (or higher) or XP (any version)
COM Port .....16550 (or compatible) UART

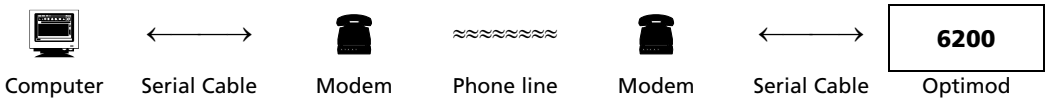
3. Complete Hardware Connections.

There are two serial ports on the 6200. Use the one labeled Port 1 (PC Remote) RS-232. For 6200 PC operation, you can connect this port to most modems designed to interface with an IBM PC or compatible using a computer-to-modem serial cable. You can also establish connection between the 6200 and an IBM PC or compatible by connecting the computer's COM port to the 6200's Port 1 (PC Remote) RS-232 port through a null modem (“reverse”) cable.



When connecting your 6200, use shielded cable to protect the pins in the RS-232 connector from electrostatic discharge.

A) Complete modem connection of computer to 6200.



[Skip this step if you are connecting your 6200 directly to an IBM PC or compatible computer.]

a) Verify your computer is connected to a Hayes- or US Robotics-compatible internal or external modem.

If a modem is not installed, refer to your modem and computer manuals for correct installation instructions. Follow all instructions, accordingly. You will need to connect one end of a computer-to-modem serial cable to an open COM port on your computer and the other end of the cable to the modem's RS-232 interface. For this connection, do not use a null modem ("reverse") cable.

Refer to *Table 4-1: Modems Tested With 6200 PC Remote* on page 4-8 for a listing of Hayes- and US Robotics-compatible modems that have been tested for use with 6200 PC and OPTIMOD 6200.

b) Connect OPTIMOD-DAB 6200 to a Hayes- or US Robotics-compatible modem.

Connect one end of a computer-to-modem serial cable to the modem's RS-232 interface and the other end of the cable to the RS-232 interface on the rear panel of the 6200. The 6200 RS-232 interface is a DB9 male connector labeled "Port 1 (PC Remote) RS-232." For this connection, do not use a null modem ("reverse") cable.

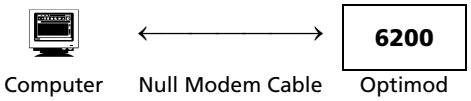
Additional 6200s can be connected to other modems, using the same steps. This includes modems connected directly to other computers accessible over the network.

Continue to step 4.

B) Connect the 6200 directly to an IBM PC or compatible computer.

[Skip this step if you are connecting your 6200 to a modem.]

a) Using a null modem cable (also called a reverse cable or crossover cable), connect the Port 1 (PC Remote) RS-232 connector on the rear panel of the 6200 to a COM port on your computer. (The 6200 RS-232 interface is a DB9 male connector.)



(Refer to page 4-7 for null modem cable schematic.)

4. Install 6200 PC Remote Software on your computer.

Note: 6200 PC remote can be operated while other Windows are open. However, we recommend you have no other Windows applications running while performing software installation.

Refer to the Microsoft Windows User's guide for specific Windows information.

A) Insert the 6200 PC CD-ROM into your computer's CD or DVD drive.

If you have "autorun" activated on your computer, the installer should open automatically. Otherwise, use Windows Explorer to navigate to the drive containing the install disk and double click
`Setup_6200_2-02_PC_Remote.exe`

B) Follow the instructions in each "Install" dialog box.

a) Verify Directory for 6200 PC files. Click Continue.

Unless you specify otherwise, the install program creates the directory `C:\Program Files\Orban\9200PC` on your hard drive.

b) Allow the installer to run to completion, which should take only a few seconds.

c) Once the files have been copied, the next dialog box will pop up and ask you to press FINISH.

d) Hit the *Enter* key on your computer's keyboard when the "Installation Complete" message appears.

5. Configure 6200 PC Software for a Particular OPTIMOD.

A) Double-click the OPTIMOD 6200 PC Remote icon from the Windows desktop.

The 6200 PC window opens.

B) From 6200 PC, select MANAGE: SETTINGS.

This accesses the "Edit Settings" dialog box.

C) From "Edit Settings" dialog box, configure the 6200 PC software for an OPTIMOD 6200.

Edit settings in order, as presented below.

Press the keyboard's *Tab* key to toggle to each field and list, or use the mouse. Use the computer's keyboard to type text in entry fields; use the keyboard's arrow keys or the mouse to make selections in button lists.

Facility Name: Type in the facility's name.

This is your name for the computer. It could be "Master Control," "Karen's Portable," etc. This name will appear on the 6200 PC main window title bar when the software is running and on the 6200 front panel when 6200 PC is connected to the 6200.

Note that changing the Facility Name for one OPTIMOD, changes the Facility Name for all OPTIMODs.

OPTIMOD Name: Type in a name to identify a specific OPTIMOD unit. Example: "KORB OPTIMOD 1."

The OPTIMOD Name entry updates the OPTIMOD List in both the "Select OPTIMOD" and "Edit Settings" dialog boxes:

The OPTIMOD list occupies the left side of the "Edit Settings" dialog box. Selecting a "named OPTIMOD" in the OPTIMOD list allows you to configure the OPTIMOD's settings (i.e., its Name, Phone Number, Passcode, Port, Connection, etc.). To create new OPTIMOD entries, click NEW and change the default name — "My OPTIMOD" — as desired.

The "Select OPTIMOD" box appears whenever a user attempts to connect 6200 PC to an OPTIMOD-DAB 6200; this box provides a directory of all previously configured OPTIMODs. (Refer to step 6 on page 2- 8.)

When an OPTIMOD is successfully connected to 6200 PC, its OPTIMOD Name will also appear on the 6200 PC's main window status bar.

6200 PC allows for managing an unlimited number of OPTIMODs. If configuring multiple OPTIMODs, make sure each time a new OPTIMOD is entered, other parameters (e.g., passcode, phone number, etc.) are reset as well.

Comm Port: Enter the number of the communications port that you will use to communicate with the 6200. (6200 PC supports COM ports numbered 1 through 99.)

For direct connections, this is the computer port the OPTIMOD 6200 is connected to. (Example: COM2.) For modem connections, this is the computer port that an external or internal modem is connected to.

Passcode: Type in a 1 to 8 digit passcode (all numbers between 0 and 9 are valid) or you can leave this field blank (see note directly below).

Note: If the Passcode entry field is left blank, users will be prompted for a valid passcode when trying to connect 6200 PC to an OPTIMOD-DAB 6200.

If an invalid passcode is entered in this field, 6200 PC access will be denied when attempting to connect. (Valid passcodes are passcodes previously set on 6200's front panel SET PASSCODE screen);

For successful connections:

Each OPTIMOD 6200 must have a passcode. 6200 PC cannot connect to a 6200 that cannot be locked out (i.e., 6200s that do not have passcodes). If necessary, set a 6200 at this time with a passcode using its front panel SET PASSCODE controls;

and

Passcodes entered in the 6200 PC "Edit Settings" dialog box must match passcodes set on the 6200 front panel (using SET PASSCODE).

See "More Security Tips," in Section 1, for suggestions concerning passcode selection.

Connection [Direct, Modem]: Choose DIRECT if the computer is connected directly to the 6200. Choose MODEM if the computer will communicate with the 6200 via modem.

Phone Number: [This field is only available for Modem connections.] Enter the phone number associated with this 6200.

Valid dial modifiers are listed below: These tell the modem what, when and how to dial.

Valid Dial Modifiers	Description
0-9 * #	Numbers and symbols the modem uses when dialing.
,	Pauses before continuing to dial the rest of the dialing string. Ordinarily placed after a number (typically '9') used to access an outside line in PBX systems. Because the outside dial tone usually takes a few seconds to appear after '9' is dialed, the pause can prevent the phone number from being dialed before the outside line dial tone appears.
$	Waits for "bong" tone (for calling card number entry).
@	Waits for quiet answer.
!	Issues hook flash.
;	Returns to command state after dialing and maintains the connection.

Important: Do not use slashes, periods, brackets or letters of the alphabet.

Table 2-1: Valid Dial Modifiers

D) Open "Advanced Modem Settings" dialog box and configure the modem settings.

[Skip this step if you are connecting your 6200 directly to a computer or if you intend to use 6200 PC's default modem settings.]

a) Verify MODEM button is selected in "Edit Settings" dialog box.

b) From "Edit Settings" dialog box, click ADVANCED.

This opens the "Advanced Modem Settings" dialog box.

Advanced: [This command is only available for Modem connections.] Pressing this command opens the "Advanced Modem Settings" dialog box. For most PCs, 6200 PC will operate properly if the "Advanced Modem Settings" are left at their default values. However, if connection problems persist, change these settings, as required.

Press the keyboard's *Tab* key to toggle to each field and list, or use the mouse. Use the computer's keyboard to type text in entry fields; use the mouse to click selections in button lists.

Line Options: These options are always available from the "Advanced Modem Settings" dialog box.

Ignore Dial Tone: sets modem to ignore dial tone and begin dialing immediately; e.g., to override a dial tone signal that your modem cannot recognize.

Ignore Busy Signal: sets modem to ignore busy signal.

Wait For Carrier [50, 120, 180, 240 seconds]: sets how long the PC takes to timeout if it does not detect a modem carrier at the other end.

Dialing [Tone or Pulse]: sets modem for different types of telephone systems. Select TONE for touch-tone telephone systems. Select PULSE for rotary dial systems.

Modem Options: The "Modem Type" and "Init String Type" options are always available from the "Advanced Modem Settings" dialog box; when "Init String Type" is set to "Custom," you can enter in a custom modem string in the "Modem Init String" field.

Modem Type [US Robotics, Hayes, or Other]: Set this field according to the type of modem connected to your PC.

Init String Type [Default, Custom]: Choose DEFAULT to set modem to use default modem init string. Choose CUSTOM to set modem to use customized modem init string (see below).

Modem Init String: [This field is only available if CUSTOM is selected in the "Advanced Modem Settings" dialog box.] If your 6200 PC modem does not work with the factory default init string (i.e., it is not dialing out correctly), a new custom init string should be entered.

Before you enter in the new string for the modem connected to your PC, consider the following information.

Select LAPM error correction with no compression to ensure data integrity. Make sure V.42 is enabled.

Your modem must not be allowed to fall back to a communication protocol that doesn't support error correction. This must be avoided; set control on modem to hang up if it is unable to communicate at V.42 protocol. This is how the default string is set, so that it will work with a wide range of Hayes AT-set and S-register compatible modems.

If you are still having problems connecting, you may also want to consider using an init string that works with another modem.

c) Click OK when you have completed the "Advanced Modem Settings" dialog box.

E) Configure additional OPTIMODs (optional).

[Skip this step if you are not configuring 6200 PC for more than one OPTIMOD at this time.]

To create new OPTIMOD entries, click the NEW button, change the default name — "My OPTIMOD" — as desired, then configure 6200 PC for

the OPTIMOD using the "Edit Settings" dialog box (refer to step 5-C and D).

F) Click OK when you have completed the "Edit Settings" dialog box.

6. Connect 6200 PC to an OPTIMOD.

A) Open the "Select OPTIMOD" dialog box.

This can be accomplished in two different ways:

a) Select MANAGE: CONNECT command from the 6200 PC window,

or

b) Click the CONNECT button. This button is identifiable by a small OPTIMOD ready to connect to a white box (representing the remote computer).

B) From the "Select OPTIMOD" dialog box, select the OPTIMOD that you named and configured in step 5.

C) Click OK.

Note: You may be prompted for a valid passcode (if Passcode field in "Edit Settings" dialog box was left blank. Simply enter a valid passcode at this time.

If the connection does not negotiate successfully, refer to the next step.

D) Troubleshoot unsuccessful connections.

[Skip this step if connection was successful.]

[Note: For unsuccessful 6200-to-computer modem connections: Verify 6200 and computer communication by reconnecting the 6200 directly to the computer (be sure to use a null modem or "reverse" cable) and then connecting to an OPTIMOD (be sure you change 6200 PC's "Edit Settings" Connection parameter to Direct).]

a) Check that all hardware and software steps were completed correctly (e.g., cables are fully connected, passcodes were valid, COM port is correct, etc.).

For direct 6200 to computer connections, make sure you are using a null modem ("reverse") cable.

b) If your 6200 PC is not communicating correctly with the OPTIMOD, you may need to change the default modem init string. (Refer to step 5-D.)

c) If your OPTIMOD-DAB 6200 does not answer, verify on the 6200 that the modem init is set correctly:

Use the 6200 front panel to access the SET MODEM INIT screen: Press the *Setup* button, then REMOTE and SET MODEM INIT soft buttons. Now verify that the modem init is set for its default: AT&FE0S0=4. If it is not, change the setting and press the SAVE INIT STR soft button.

With the modem connected to the 6200 (modem plugged into the 6200's RS-232 connector), its AA light comes on within 10 seconds and stays on.

If the AA light doesn't come on and/or the received data light (often labeled RD or RX) flashes at regular intervals, something is wrong with the init string.

In this case, open the SET MODEM INIT screen, and reset the modem init string for the following parameters: recall factory preset, echo off, and auto-answer (Refer to the modem's manual).

d) If the modem init string is set correctly, and 6200 PC and the OPTIMOD-DAB 6200 still do not negotiate successfully, make sure the modem is set for V.42 operation only.

7. Experiment with 6200 PC.

After the software has established a connection and the presets have been loaded, the 6200 PC main window will display the meters for the current preset.

To recall a preset, select RECALL button, choose a preset from the scrollbar list, and click RECALL from the dialog box.

To view controls, select VIEW KNOBS button, or select MODIFY: VIEW KNOBS from the 6200 PC window. The single Less-More control or all the Full Control or Equalization knobs appear in the center of the OPTIMOD-DAB 6200 PC main window.

To toggle between control views, click the LESS-MORE, FULL CONTROL or EQUALIZATION button.

To modify a control, click a control name, then click its left/right arrows to adjust the control (e.g., to decrease/increase a level, or toggle a switch off/on).

To save a setting, click the SAVE button, choose a user preset from the scrollbar list, and click SAVE from the dialog box.

Most 6200 PC controls have more than one way of accessing features and adjusting parameters. For more information, refer to "Section 3: Operation."

For quick on-screen Help, simply click the HELP button — this button is identified by a yellow question mark — and choose topics from the "OPTIMOD Application Help" dialog box.

Installation is Completed.

Reinstalling or Upgrading 6200 PC

Before you reinstall 6200 PC software, first uninstall the program, as described in "Uninstalling 6200 PC" below.

To reinstall or upgrade 6200 PC software, follow the "Quick Installation" or "Complete Installation" steps, except as noted directly below.

Retaining Manage: Settings Configuration

The SNGL6200.INI file, located in your 6200 PC directory, contains your 6200 PC's MANAGE: SETTINGS configuration, including your facility name, OPTIMOD list, etc. This file is created the first time you run 6200 PC software. If installing 6200 PC software to the same directory that was used with the old installation, your settings will be retained. However, if you install 6200 PC to a new directory, you will need to copy the SNGL6200.INI file (from the old 6200 PC directory) to the new 6200 PC directory to retain your old configuration. You can copy this file before or after installation.

Uninstalling 6200 PC

A) From Windows, click START.

B) Click SETTINGS.

C) Click CONTROL PANEL.

D) Double-click the "Add/Remove Programs" icon.

E) Select "OPTIMOD 6200 PC REMOTE" from the list.

F) Click ADD/REMOVE.

G) Answer "Yes" to the "Confirm File Deletion" message.

Note: Any 6200 PC file you previously created will not be deleted. This includes the SNGL6200.INI configuration file and any .d2b files. You can delete these files manually, or retain them, as desired.

Section 3
Operation

Operation

Before you start, you should have a general understanding of OPTIMOD-DAB 6200 and know how to use Microsoft Windows. Consult the manuals for both 6200 and Windows, as necessary.

We recommend you read this section before you attempt to operate the 6200 via 6200 PC software controls.

This section will familiarize you with the operation of the components of the 6200 PC main window, as well as how the PC software interacts with the OPTIMOD-DAB 6200 unit.

6200 PC Main Window

The 6200 PC main window is where you connect to an OPTIMOD 6200 and control it remotely. Everything you need for OPTIMOD remote control is either on the screen or a few mouse clicks away.

The 6200 PC main window consists of six sections: Title Bar, Menu Bar, Button Bar, Meters Window, Controls Section, and the Status Bar.

Title Bar

The Title Bar displays "OPTIMOD 6200 PC Remote," followed by the facility name and OPTIMOD name (when connected), as entered in "Edit Settings" dialog box.

Menu Bar

The Menu Bar provides instant access to six drop down menus and their related sub-menu commands. The six menus are FILE, MANAGE, PRESET, MODIFY, SETUP and HELP. Each menu has one or more submenu commands. For example, MANAGE menu has five submenus: CONNECT, DISCONNECT, SETTINGS, BACKUP 6200, and RESTORE 6200.

Detailed descriptions of each menu and its submenu commands are provided below.

Submenus are listed in gray and black. Gray submenus are currently unavailable for selection; black submenus are available.

Some submenus execute as soon as you select them. MODIFY: VIEW KNOBS and HIDE KNOBS are examples of this type of submenu. Other command-type submenus

prompt you to click a button (e.g., to ok an action). MANAGE: CONNECT and DISCONNECT are examples of this type. Many submenus, however, require you to specify additional information before executing. Whenever you select a submenu of this type (indicated by three periods after the submenu name), a dialog box displays on the screen. Under the MANAGE menu, SETTINGS… and RESTORE 6200… are examples of this type of submenu.

Button Bar

The Button Bar located directly below the menu bar, features one row of buttons, each representing a submenu. These buttons provide quick access (with just one click of the mouse) to a few of the most used 6200 functions: Recall a preset, View/Hide Knobs, switch to Less-More, Full Control or Equalization knob views, Save a preset, Connect/Disconnect 6200PC and 6200 (shown as a graphical representation of the connection status) and Help (represented by a question mark).

To choose a button, click the mouse on the desired button. Buttons that are unavailable during current operation will be "grayed out." Note that some buttons are commands, while others open a dialog box, much like the button's equivalent submenu command.

Meters Window

The meters replicate the 6200's front panel meters. Meters appear in blue.

If the preset's processing is gated, the word "GATED" appears in red to the right of the AGC meter.

Modify Controls Window

The Modify Controls Window provides clearly labeled control knobs for quick and easy assessment and adjustment. Use submenus or buttons to choose one of the following display views: Less-More, Full Control or Equalization. If Less-More is the current active view, only one knob will be shown. For Full Control or Equalization view, the available parameters match the controls available from the OPTIMOD's front panel controls. The Modify Controls Window will be empty if knobs are currently hidden, via HIDE KNOBS command.

> Note that when 6200 PC is initially connected to an OPTIMOD, the Modify Controls Window is empty; View Knobs is disabled and no knobs are currently displayed.

To modify a Full Control or Equalization knob, its control name must first be highlighted. When Full Control or Equalization view is initially selected, the last control knob is highlighted.

Selecting a Full Control or Equalization knob: There are three ways to select a control knob:

a) Use the keyboard's *Tab* key to toggle through the entire palette of control knobs;

or

b) Use the mouse to click a control knob;

or

c) Use the keyboard's arrow keys

Use the left/right arrow keys to move through a row of control knobs (left-to-right or right-to-left).

Use the up/down arrow keys to move through a column of control knobs (upwards or downwards).

Note: If *Num Lock* is active on your keyboard, the "Num Locked" keypad will function differently: Up/down arrow keys will function as *+/–* keys (changing the value or on/off status of a control), and left/right arrow keys will be inoperative.

Modifying a Control: Modifications to the Less-More knob and Full Control or Equalization processing controls can be made three different ways:

a) Use the mouse and the control's on-screen left/right arrow button.

Ranges: Click the left arrow button to decrease values; click the right arrow button to increase values.

ON/OFF switches (e.g., AGC ON/OFF): Click the left arrow button to turn control off; click the right arrow button to turn control on;

or

b) Use the mouse and the on-screen control knob.

Place the mouse pointer on a control, hold the mouse button down (for a Full Control or Equalization knob, the control's name will highlight), move the mouse pointer to the right to make the control increase a range value or turn a control on, or move the mouse pointer to the left to decrease a range value or turn a control off. Release the mouse button to end modification;

or

c) Use the keyboard's *+/–* keys or "Num Locked" up/down arrow keys.

Use minus (–) key to decrease a value in a range or toggle a switch off; use plus (*+*) key to increase a value in a range or toggle a switch on.

With the keyboard's *Num Lock* control active, up/down arrow keys will function as *+/–* keys. Use the down arrow key to decrease a value in a range or toggle a switch off; use up arrow key to increase a value in a range or toggle a switch on.

Whenever a control is modified, the word "modified" appears next to the control, in red. Whenever a value is returned to its original setting, "modified" disappears.

Status Bar

The Status Bar provides some of the information that appears in the top three lines of the 6200 front panel display: current processing preset and a modified notifica-

tion if the preset has been changed. The bar also displays the connection status, input type (digital or analog) and the OPTIMOD name (as assigned in the "Edit Settings" dialog box).

Using 6200 PC Software

Using Help

6200 PC offers extensive on-screen help that is always available and just a mouse click away. To access Help:

Click the HELP button — this button is identified by a yellow question mark;

or

Press *F1* key on the keyboard;

or

Select the HELP menu command from the 6200 PC window, then select the HELP: CONTENTS submenu command.

Any of these actions opens the Adobe .pdf form of this manual in Adobe Reader (get it at www.adobe.com). The .pdf contains numerous hyperlinks and bookmarks. A reference to a numbered step or a page number is a live hyperlink; click on it to go immediately to that reference.

> If the bookmarks are not visible, click the "Bookmarks" tab on the left side of the Acrobat Reader window.

This manual has a table of contents, which is hyperlinked. To search for a specific word or phrase, you can also use the Adobe Acrobat Reader's text search function.

Working with Microsoft Windows

6200 PC software can be operated while other Windows are open. In fact, if you are working in another Windows program (e.g., a text program), and 6200 PC is in the background, 6200 PC software will continue to control the connected 6200.

6200 PC software will discontinue controlling an OPTIMOD-DAB 6200 if:

- 6200 PC is disconnected (using MANAGE: DISCONNECT command or DISCONNECT button);
- the 6200 (or if applicable, the modem) are physically disconnected from the computer running 6200 PC software (e.g., the cable is disconnected);
- the computer running 6200 PC software is turned off;
- the END PC CONTROL soft button is pressed on 6200 front panel.

Opening and Exiting 6200 PC

To open 6200 PC: from the Windows desktop, double-click the OPTIMOD 6200 PC Remote icon.

To close 6200 PC: from the 6200 PC main window, select FILE: EXIT.

If 6200 PC is currently connected, you will be prompted to disconnect. Click OK to disconnect, or click CANCEL to keep 6200 PC open.

Connect 6200 PC to an OPTIMOD-DAB 6200

A) Click the CONNECT button;

or

Select the MANAGE: CONNECT command from the 6200 PC window.

The CONNECT button is identifiable by a small OPTIMOD ready to connect to a white box (representing the remote computer). Clicking this button opens the "Select OPTIMOD" dialog box.

Note: You can only connect to an OPTIMOD that has previously been initialized in "Edit Settings" dialog box. Also, if you are currently connected to an OPTIMOD, CONNECT will not be available; you must first disconnect (see below).

B) From the "Select OPTIMOD" dialog box, choose an OPTIMOD from the displayed list and click OK.

After the software has established a connection and the presets have been loaded, the 6200 PC main window will display the meters for the current preset.

If the passcode field is blank for the selected OPTIMOD, you will be prompted to enter a valid passcode at this time.

Disconnect 6200 PC from an OPTIMOD-DAB 6200

A) Click the DISCONNECT button;

or

Select the MANAGE: DISCONNECT command from the 6200 PC window.

The DISCONNECT button is identifiable by a small OPTIMOD ready to disconnect from a white box (representing the remote computer).

B) Click OK in response to the prompt: "Are you sure you want to disconnect?"

Backing Up OPTIMOD System Information (User Presets, I/O Calibrate and Remote Interface Settings)

Backup stores all user settings for the online 6200 to a disk file for archival purposes. Using 6200 PC's BACKUP and RESTORE commands you can copy any or all settings from one 6200 and restore the settings to other 6200s.

A) From the 6200 PC main window, select MANAGE: BACKUP 6200.

This opens the "Backup All Data To" dialog box.

B) From the "Backup All Data To" dialog box, back up current system settings to a disk file.

Press the keyboard's *Tab* key to toggle to each field and list, or use the mouse. Use the computer's keyboard to type text in entry fields; use the keyboard's arrow keys or the mouse to make button selections.

Save In: lists the available folders and files. To see how the current folder fits in the hierarchy on your computer, click the down arrow. To see what's inside a folder, click it.

Up One Level Icon: opens the folder one level above the active folder.

Create New Folder Icon: creates a new folder.

List Icon: shows the names of the files in large icon format.

Details: displays additional information about the files (Name/Size/Type/Modified Date).

File Name: saves a backup file with a name. To save a backup file with a new name, type a new file name. To save a backup file with an existing name, select the name in the list or type in the current name.

Save As Type: specifies the type of file you are saving as OPTIMOD-DAB Backup Files (*.d2b).

C) Click OK to save backup file (or click CANCEL if you decide not to create a backup file).

If the file already exists, 6200 PC asks if you want to replace the existing backup file. Choose YES to overwrite, or NO to return to "Backup All Data To" window.

The backup file can be retrieved at a future date, via the RESTORE 6200 command (see below).

Restoring OPTIMOD System Information (User Presets, I/O Calibrate and Remote Interface Settings)

A) From the 6200 PC main window, select MANAGE: RESTORE 6200.

This opens the "Restore OPTIMOD Data From Backup File" dialog box.

B) From the "Restore OPTIMOD Data From Backup File" dialog box, click SELECT BACKUP FILE.

This opens the "Select Backup File" dialog box.

C) Select a file name from the file name list and click OK.

D) Restore multiple items or individual User Presets.

To restore multiple items, use the "Multiple Item Restore" dialog box. Select which data to restore, and click RESTORE to send the data to the 6200. You will be asked to confirm your selection. Click OK to continue, or click CANCEL if you decide to not restore data. The following data choices can be restored: All 32 User Presets, I/O Calibrate Settings, Remote Interface Settings.

If you want to restore individual User Presets, use the "Individual Preset Restore" dialog box. Highlight the User Preset to be sent to the 6200 in the "Backup" box. Highlight the 6200 User Preset to be overwritten in the "OPTIMOD" box and press the RESTORE ------> button located between the two boxes. You will be asked to confirm your selection. Click OK to restore, or CANCEL to not restore the preset.

E) Click DONE when finished.

Recalling a Preset

A) Click the RECALL button;

or

Select the PRESET RECALL command from the 6200 PC window.

This opens the "Recall Preset" dialog box.

Note: If a Test preset is currently on-air, pressing RECALL will place the previous preset on-air, instead of opening the "Recall Preset" dialog box.

B) From the "Recall Preset" dialog box, select a preset from the scrollbar list.

C) From the "Recall Preset" dialog box, click RECALL to put the selected (highlighted) preset on the air.

Note: If the selected preset is the same as the preset already on the air, the sound of the station will not change. When you click RECALL, the previous preset is remembered. To return to it, click RECALL NEXT.

D) Click DONE to close "Recall" dialog box.

Recalling Previous Preset

A) Select the PRESET: RECALL NEXT command.

This puts the previously selected preset on the air. When you recall a preset, the preset that was on the air previously is remembered. The number and name of the previous preset is shown in the "Next Is:" box.

A previous preset can also be recalled from within the "Preset Recall" dialog box (after selecting the RECALL button).

Viewing Less-More, Equalization or Full Control Knobs

A) Click the VIEW KNOBS button;

or

Select the MODIFY: VIEW KNOBS command from the 6200 PC window.

Either the single Less-More control, or a palette of Full Control or Equalization control knobs, appears in the center of the OPTIMOD-DAB 6200 PC main window, whichever view was last active.

To toggle between control views, click the current control button (on the button bar) or select the ungrayed view command — LESS-MORE, EQUALIZATION, FULL CONTROL.

Modifying a Preset

A) If modifying a preset, via one of its control knobs, select (highlight) a control.

[Skip this step if modifying a preset via its Less-More control.]

a) Use the keyboard's *Tab* key to toggle through the entire palette of control knobs;

or

b) Use the mouse to click a control knob;

or

c) Use the keyboard's arrow keys.

Use the left/right arrow keys to move through a row of control knobs (left-to-right or right-to-left).

Use the up/down arrow keys to move through a column of control knobs (upwards or downwards).

Note: If *Num Lock* is active on your keyboard, the "Num Locked" keypad will function differently: Up/down arrow keys will function as *+/–* keys (changing the value or on/off status of a control), and left/right arrow keys will be inoperative.

B) Modify the preset.

a) Use the mouse and the control's on-screen left/right arrow button.

Ranges: Click the left arrow button to decrease values; click the right arrow button to increase values.

ON/OFF switches (e.g., AGC ON/OFF): Click the left arrow to turn control off; click the right button to turn control on;

or

b) Use the mouse and the on-screen control knob.

Place the mouse pointer on a control, hold the mouse button down, move the mouse pointer to the right to make the control increase a range value or turn a control on, or move the mouse pointer to the left to decrease a range value or turn a control off. Release the mouse button to end modification;

or

c) Use the keyboard's *+/–* keys or "Num Locked" up/down arrow keys.

Use minus (–) key to decrease a value in a range or toggle a switch off; use plus (+) key to increase a value in a range or toggle a switch on.

With the keyboard's *Num Lock* control active, up/down arrow keys will function as *+/–* keys. Use the down arrow key to decrease a value in a range or toggle a switch off; use up arrow key to increase a value in a range or toggle a switch on.

Note: Whenever a control is modified, the word "modified" appears next to the control, in red. Whenever a value is returned to its original setting, "modified" disappears.

Saving a Modified Preset

A) Click the SAVE button;

or

Select the MODIFY: SAVE command from the 6200 PC window.

This opens the "Save Preset" dialog box.

B) From the "Save Preset" dialog box, rename the current preset in the "Edit Name" field (optional).

Note: If you do not assign a new name, the name in the "Edit Name" box will be used.

C) From the "Save Preset" dialog box, select a User Preset number to name and save in the "Select Preset to Save Into" list.

D) Click SAVE.

This opens the "Overwrite User Preset?" dialog box.

E) Click OK to save the new settings in the selected User Preset, or CANCEL to return to the "Save Preset" dialog box.

Changing I/O Calibrate Settings

Refer to Section 2 of the 6200 Manual for detailed information on I/O Calibrate parameters.

A) Select the SETUP: I/O CALIBRATE command from the 6200 PC window.

This opens the "I/O Calibrate" dialog box.

B) From "I/O Calibrate" dialog box, reconfigure I/O parameters as necessary.

There are three sections of adjustable parameters: Analog, Miscellaneous, and AES/EBU.

Note: Although modifications are not saved until you press DONE (step C), adjustments are implemented to air as you modify them.

C) When finished adjusting I/O Calibrate, click DONE to save the settings.

Or choose CANCEL to open the "Cancel I/O Calibrate" dialog box. From this box you can choose NO to return to the "I/O Calibrate" dialog box or YES to close the "I/O Calibrate" dialog box and return all previous I/O settings to air. Note that choosing YES could cause an abrupt change to the on-air audio.

Configuring Remote Interface

A) Select the SETUP: REMOTE INTERFACE command from the 6200 PC window.

This opens the "Remote Interface" dialog box.

B) From the "Remote Interface" dialog box, click one of the eight remote interfaces (e.g., #1), and scroll to a desired preset or function.

C) Repeat step B, for additional remote interfaces, as required.

D) When finished setting remote interface presets, click UPDATE OPTIMOD from the "Remote Interface" dialog box to implement the new settings (or click CANCEL to ignore the settings).

Viewing System Info

The System Information screen notes the firmware version of the online 6200.

A) Select the SETUP: SYSTEM INFORMATION from the 6200 PC window.

B) Click OK to return to the 6200 PC main window.

Recalling Test Presets (Bypass or Tone)

A) Select the SETUP: TEST command from the 6200 PC window.

This opens the "Test" dialog box.

B) From the "Test" dialog box, click one of the test presets to place it on-air. Choose from Bypass and Tone.

If required, change settings.

Exiting Test Presets (Bypass or Tone)

A) From the "Test" dialog box, click the OPERATE button;

or

Select OK to close the "Test" dialog box, then select the EXIT TEST or RECALL button to bring the previous preset back on-air. You can also use any of the following menu commands: RECALL, or RECALL NEXT.

Checking 6200 PC Software Version

A) Select the HELP: ABOUT PC REMOTE command from the 6200 PC window.

B) Click OK to return to the 6200 PC main window.

Quick-Access Function Buttons

Recall Button

The RECALL button opens a dialog box to select a factory or User Preset and put it on the air, unless a Test preset (Tone or Bypass) is currently on-air; in the latter case, pressing RECALL will immediately replace the Test preset with the previous on-air preset.

This button is only available if 6200 PC is connected to a remote 6200.

With a factory or User Preset on-air, press the RECALL button to see a list of all stored presets. You can then select a preset from the list and recall that preset on the air.

Recalling a processing preset puts the preset on the air, while 6200 PC displays the preset name in the status bar and its specific meters in the meters window. If the single Less-More control or the Full Control or Equalization knobs were shown with the previous preset, the screen updates to the new preset's knob settings.

You can also recall a preset by doing the following:

- Click the RECALL command in the PRESET menu.

Recall Preset Dialog Box

If a factory or User Preset is on-air, choosing the RECALL command opens a dialog box with the following options:

Recall Preset scrollbar: selects which preset will be put on the air when you click RECALL.

Recall: puts the selected (highlighted) preset on the air. If the selected preset is the same as the preset already on the air, the sound of the station will not change. When you click RECALL, the previous preset is remembered. To return to it, click RECALL NEXT.

Recall Next: puts the previously selected preset on the air. When you recall a preset, the preset that was on the air previously is remembered. The number and name of the previous preset is shown in the "Next Is:" box. (A previous preset can also be recalled using the PRESET: RECALL NEXT submenu command).

Done: closes "Recall" dialog box.

View Knobs/Hide Knobs Button

The VIEW KNOBS/HIDE KNOBS button switches between whether the display shows or hides the knob controls that adjust the processing on-air.

The VIEW KNOBS button is only available if 6200 PC is connected to a remote 6200 and knobs are currently not displayed on the screen.

The HIDE KNOBS button is only available if 6200 PC is connected to a remote 6200, and either the single Less-More knob or the Full Control or Equalization set of control knobs is currently displayed on the screen.

Click the VIEW KNOBS button to see the preset's controls and their current settings, and if desired, make modifications.

Clicking VIEW KNOBS will display the current preset's Less-More control or its Full Control or Equalization palette, depending on the situation.

If 6200 PC has just connected to an OPTIMOD, all knobs are initially hidden and clicking VIEW KNOBS will display the single Less-More control, or the Full Control or Equalization knobs, depending on the last display state of the selected preset.

If VIEW KNOBS is selected multiple times in a session (i.e., controls are viewed, hidden, then viewed again), clicking VIEW KNOBS will display the level of viewing that was active most recently.

Modifications to presets can only be made when controls are shown on the 6200 PC screen. To adjust a control, refer to "Full Control, Equalization, and Less-More Buttons" directly below.

You can also view knobs by doing the following:

- Click the VIEW KNOBS command in the MODIFY menu.

You can also hide knobs by doing the following:

- Click the HIDE KNOBS command in the MODIFY menu.

Full Control, Equalization and Less-More Buttons

The FULL CONTROL, EQUALIZATION, and LESS-MORE buttons allow you to toggle between Full Control/Equalization/Less-More views, and provide a means to modify control settings.

The LESS-MORE button is only available if 6200 PC is connected to a remote 6200 and either the Full Control or Equalization set of control knobs is displayed on the screen.

The FULL CONTROL button is only available if 6200 PC is connected to a remote 6200 and either Less-More or the Equalization set of control knobs is displayed on the screen

The EQUALIZATION CONTROL button is only available if 6200 PC is connected to a remote 6200 and either Less-More or the Full Control set of control knobs is displayed on the screen

You can also view the control knobs by doing one of the following:

- Click the VIEW KNOBS command from MODIFY menu.
- Click LESS-MORE, EQUALIZATION, or FULL CONTROL from MODIFY menu.

To modify a control knob, its control name must first be highlighted. When either the Full Control or Equalization view is initially selected, the last control knob is highlighted.

Selecting a control knob: There are three ways to select a control knob:

a) Use the keyboard's *Tab* key to toggle through the entire palette of control knobs;

or

b) Use the mouse to click a control knob;

or

c) Use the keyboard's arrow keys.

Use the left/right arrow keys to move through a row of control knobs (left-to-right or right-to-left).

Use the up/down arrow keys to move through a column of control knobs (upwards or downwards).

Note: If *Num Lock* is active on your keyboard, the "Num Locked" keypad will function differently: Up/down arrow keys will function as +/– keys (changing the value or on/off status of a control), and left/right arrow keys will be inoperative.

Modifying a Control: Modifications to the Less-More, Full Control and Equalization processing controls can be made three different ways:

a) Use the mouse and the control's on-screen left/right arrow button.

Ranges: Click the left arrow button to decrease values; click the right arrow button to increase values.

ON/OFF switches (e.g., AGC ON/OFF): Click the left arrow to turn control off; click the right button to turn control on;

or

b) Use the mouse and the on-screen control knob.

Place the mouse pointer on a control, hold the mouse button, move the mouse pointer to the right to make the control increase a range value or turn a control on, or move the mouse pointer to the left to decrease a range value or turn a control off. Release the mouse button to end modification;

or

c) Use the keyboard's +/– keys or "Num Locked" up/down arrow keys.

Use minus (–) key to decrease a value in a range or toggle a switch off; use plus (+) key to increase a value in a range or toggle a switch on.

With the keyboard's *Num Lock* control active, up/down arrow keys will function as +/– keys. Use the down arrow key to decrease a value in a range or toggle a switch off; use up arrow key to increase a value in a range or toggle a switch on.

Whenever a control is modified, the word "modified" appears next to the control, in red. Whenever a value is returned to its original setting, "modified" disappears.

Less-More Control Not Available

When you click the LESS-MORE button after modifying a parameter from the Full Control view, a message appears telling you that Less-More is unavailable. To access Less-More, either undo your Full Control changes or recall a preset.

Save Button

The SAVE button opens a dialog box to name and save the current preset and modifications made to it (if any) to one of 32 User Preset locations.

This button is only available if 6200 PC is connected to a remote 6200.

From the "Save Preset" dialog box, rename the current preset in the "Edit Name" field (optional), select a User Preset number to name and save in the "Select Preset To Save Into" list, click SAVE and then OK to save it (or press CANCEL at any time if you decide not to save it).

You can also open the "Save Preset" dialog box by doing the following:

- Click the SAVE command in the MODIFY menu.

Save Preset Dialog Box

When you click the SAVE button, a dialog box opens with the following options:

Edit Name: allows you to rename current preset, before it is saved to a User Preset number. If you do not assign a new name, the name in the "Edit Name" box will be used.

Select Preset to Save Into: selects User Preset number to name and save.

Save: saves the new settings in the selected User Preset. Pressing SAVE initially brings up the "Overwrite User Preset?" box, which allows you to OK the save, or CANCEL.

Cancel: closes "Save Preset" dialog box, without renaming current preset.

Connect/Disconnect Button

The CONNECT button has a graphical representation of an OPTIMOD ready to connect to a white box (representing the remote computer).

Use the CONNECT button to begin the connection process and control with the remote 6200.

Use DISCONNECT button to end communications and control with the remote 6200.

The CONNECT button is only available if 6200 PC is not connected to a remote 6200. The DISCONNECT button is only available if 6200 PC is connected to a remote 6200.

Using Connect:

Before attempting a connection, 6200 prompts you to choose an OPTIMOD from the "Select OPTIMOD" dialog box. Select an OPTIMOD and then click OK (or click CANCEL if you decide not to connect).

If the OPTIMOD entry was not configured with a passcode in the "Edit Settings" dialog box, you will be prompted to enter a valid passcode at this time. (Valid passcodes are passcodes that have previously been assigned to OPTIMOD using OPTIMOD's front panel SET PASSCODE (Refer to the 6200 Owner's Manual.)

To configure 6200 PC for an OPTIMOD (so that the OPTIMOD appears in the "Select OPTIMOD" dialog box), see the MANAGE menu SETTINGS command.

When connection is attempted, the "Connection Status" box acts as a gauge of the information flow between 6200 PC and an OPTIMOD. Connection is successful when the gauge is 100% full. At this time, the box closes, and the current preset and meters appear on the screen.

Connection will only be successful if the following conditions are met:

- OPTIMOD has passcodes, as previously set with its front panel SET PASSCODE.
- Hardware installation is completed (e.g., all cable connections are secure).
- Software installation is completed (i.e., 6200 PC is installed in your computer).
- Software configuration is completed (i.e., information entered in the "Edit Settings" dialog box is accurate).

You can also connect by doing the following:

- Click the CONNECT command in the MANAGE menu.

Using Disconnect:

Before disconnecting, 6200 PC prompts you to click OK (or click CANCEL if you decide not to disconnect).

You can also disconnect by doing one of the following:

- Click the DISCONNECT command in the MANAGE menu
- Press the 6200 front panel END PC CONTROL soft button. In this case, 6200 PC will not prompt you to disconnect, but will inform you that "6200 Has Ended Connection." Click OK to return to the 6200 PC main window.

You can also disconnect by doing the following:

- Click the DISCONNECT command in the MANAGE menu,

Help

The HELP button opens the .pdf version of this manual in Adobe Reader. See *Using Help* on page 3-4.

Menus and Commands

(**Note:** Use standard Windows keyboard and mouse conventions to choose menus or command buttons, select items in list boxes, option buttons and check boxes, and to make entries in text boxes.)

File Menu

The FILE menu offers the following command.

Exit: ends a 6200 PC session.

This command is always available.

If 6200 PC is currently connected, it prompts you to disconnect before it closes. Click OK to disconnect and close 6200 PC software (or click CANCEL if you decide not to end your session).

You can also exit 6200 PC by doing one of the following:

- Double-click the application Control menu box, located in the screen's upper left-hand corner.
- Open the application Control menu by pressing *Alt*+Spacebar and then choose Close.
- Press *Alt+F4* on the keyboard.

Manage Menu

The MANAGE menu offers the following commands to configure 6200 PC to remotely control an OPTIMOD, connect or disconnect 6200 PC and an OPTIMOD 6200 and archive an OPTIMOD's settings for future retrieval.

Connect: initiates connection with the remote 6200.

This command is only available if 6200 PC is not connected to a remote 6200.

Before attempting a connection, 6200 prompts you to choose an OPTIMOD from the "Select OPTIMOD" dialog box. Select an OPTIMOD and then click OK (or click CANCEL if you decide not to connect).

If the OPTIMOD entry was not configured with a passcode in the "Edit Settings" dialog box, you will be prompted to enter a valid passcode at this time. (Valid passcodes are passcodes that have previously been assigned to OPTIMOD using OPTIMOD's front panel SET PASSCODE — refer to the 6200 Owner's Manual.)

To configure 6200 PC for an OPTIMOD (so that the OPTIMOD appears in the "Select OPTIMOD" dialog box), see the MANAGE menu SETTINGS command, below.

When connection is attempted, the "Connection Status" box acts as a gauge of the information flow between 6200 PC and an OPTIMOD. Connection is successful when the gauge is 100% full. At this time, the box closes, and the current preset and meters appear on the screen.

Connection will only be successful if the following conditions are met:

- OPTIMOD has passcodes, as previously set with its front panel SET PASSCODE.
- Hardware installation is completed (e.g., all cable connections are secure).
- Software installation is completed (i.e., 6200 PC is installed in your computer).

- Software configuration is completed (i.e., information entered in the "Edit Settings" dialog box is accurate).

You can also connect by doing the following:

- Click the CONNECT button. This button has a graphical representation of an OPTIMOD ready to connect to a white box (representing the remote computer).

Disconnect: stops communicating with and controlling the remote 6200.

This command is only available if 6200 PC is connected to a remote 6200.

Before disconnecting, 6200 PC prompts you to click OK (or click CANCEL if you decide not to disconnect).

You can also disconnect by doing one of the following:

- Click the DISCONNECT button. This button has a graphical representation of an OPTIMOD connected to a white box (representing the remote computer).
- Press the 6200 front panel END PC CONTROL soft button. In this case, 6200 PC will not prompt you to disconnect, but will inform you that "6200 Has Ended Connection." Click OK to return to the 6200 PC main window.

Settings: opens a dialog box to configure 6200 PC for remote control of any number of OPTIMODs, by entering a passcode, Comm port number, modem settings (if any), and whether the PC talks to a 6200 via modem or directly, with a null modem ("reverse") cable.

This command is only available if 6200 PC is not connected to a remote 6200.

Settings Dialog Box

When you choose the SETTINGS command, a dialog box opens with the following options:

Facility Name: [Type in the facility's name].

Sets the name that appears on the 6200 PC's main window title bar when the software is running and on the 6200 front panel (PC ONLINE: [Facility Name]) when 6200 PC is connected to the 6200.

Type in the organization name entered during installation, or a different name.

Note: The Facility Name is common to all entries in the "OPTIMOD" list box.

OPTIMOD Name: [Type in a name to identify a specific OPTIMOD].

Updates the OPTIMOD list in both the "Select OPTIMOD" and "Edit Settings" dialog boxes.

OPTIMOD list occupies the left side of the "Edit Settings" dialog box. Clicking a "named OPTIMOD," followed by clicking OK, in the OPTIMOD list allows you to configure an OPTIMOD's settings (i.e., its

Name, Phone Number, Passcode, Port, Connection, etc.) in the "Edit Settings" dialog box.

The "Select OPTIMOD" box appears whenever a user attempts a connection, providing a directory of all previously-configured OPTIMODs. (Clicking a "named OPTIMOD" in the "Select OPTIMOD" box, will start the connection.)

When an OPTIMOD is successfully connected to 6200 PC, its OPTIMOD Name will also appear on the 6200 PC's main window status bar.

Phone Number: [Type in the phone number of the modem that is connected to OPTIMOD 6200].

Sets the phone number used when 6200 PC communicates with OPTIMOD, via modem.

This entry should be left empty if the 6200 connects directly to a computer via a null modem ("reverse") cable.

Valid dial modifiers are listed below. These tell the modem what, when and how to dial.

Valid Dial Modifiers	Description
0-9 * #	Numbers and symbols the modem uses when dialing.
,	Pauses before continuing to dial the rest of the dialing string. Ordinarily placed after a number (typically '9') used to access an outside line in PBX systems. Because the outside dial tone usually takes a few seconds to appear after '9' is dialed, the pause can prevent the phone number from being dialed before the outside line dial tone appears.
$	Waits for "bong" tone (for calling card number entry).
@	Waits for quiet answer.
!	Issues hook flash.
;	Returns to command state after dialing and maintains the connection.

Important: Do not use slashes, periods, brackets or letters of the alphabet.

Passcode: [1] to [99999999].

Sets 6200 PC with passcodes to maintain OPTIMOD's security. Assign passcodes so that users have same passcodes as they did from OPTIMOD's front panel. This ensures that users have same security access.

If the OPTIMOD Name was previously given a passcode, asterisks will be shown here. Otherwise the parameter will be blank.

If Passcode entry field is left blank, user will be prompted for a valid passcode when trying to connect.

Note: For successful connections, the following conditions must be met:

(1) Passcodes entered in 6200 PC "Edit Settings" dialog box must match passcodes set on the 6200 front panel (using SET PASSCODE).

and

(2) The 6200 must have passcodes. For security, 6200 PC will not communicate with 6200s that cannot be locked out (i.e., 6200s that do not have passcodes). If necessary, set 6200 with passcodes using front panel SET PASSCODE.

Comm Port: [1] to [99].

Sets the computer communications port that is sending and receiving messages to and from the 6200.

For direct connections, this is the computer port the OPTIMOD 6200 is connected to. For modem connections, this is the computer port that an external or internal modem is connected to.

Connection: [Direct, Modem].

Sets 6200 PC for direct or modem connections.

Choose Direct if the computer is connected directly to the 6200. Choose Modem if the computer will communicate with the 6200 via modem.

Advanced: provides an additional level of modem controls.

This button is only available if Modem is selected in the Connection field.

Pressing the ADVANCED button opens a dialog box, which allows you to set additional modem parameters.

For 100% US Robotics-compatible modems, 6200 PC will operate properly if "Advanced Modem Settings" are left at their default values. However, if connection problems persist, consider changing these settings, as necessary.

Modem Advanced Settings Dialog Box

When you choose ADVANCED from the "Edit Settings" dialog box, another dialog box opens with the following options:

Line Options: These options are always available from "Advanced Modem Settings" dialog box; they can be set when either Default or Custom (Modem Init String) is selected.

Ignore Dial Tone: sets modem to ignore dial tone and begin dialing immediately (e.g. to override a dial tone signal that your modem cannot recognize).

Ignore Busy Signal: sets modem to ignore busy signal.

Wait For Carrier: [50, 120, 180, 240 seconds]: sets how long the PC takes to time-out if it does not detect a modem carrier at the other end.

Tone or Pulse: sets modem for different types of telephone systems. Select TONE for touch-tone telephone systems. Select PULSE for rotary dial systems.

Modem Options: The "Modem Type" and "Init String Type" options are always available from the "Advanced Modem Settings" dialog box; when "Init String Type" is set to "Custom," you can enter in a custom modem string in the "Modem Init String" field.

Modem Type [US Robotics, Hayes, or Other]: Set this field according to your modem type.

Init String Type [Default, Custom]: Choose Default to set modem to use default modem init string. Choose Custom to set modem to use customized modem init string (see directly below).

Modem Init String: If your 6200 PC modem does not work with the factory default init string (i.e., it is not dialing out correctly), a new custom init string should be entered.

(Refer to the manual for the modem connected to your PC for init string codes. Also, refer to *Table 4-1: Modems Tested With 6200 PC Remote* on page 4-8 for a listing of modems and init strings that have been tested for use with 6200 PC and OPTIMOD 6200.)

Before you enter the new string for the modem connected to your PC, consider the following information:

Select LAPM error correction with no compression to ensure data integrity. Make sure V.42 is enabled.

Your modem must not be allowed to fall back to a communication protocol that doesn't support error correction. Set control on modem to hang up if it is unable to communicate at V.42 protocol. This is how the default string is set, so that it will work with a wide range of Hayes AT-set and S-register compatible modems.

If you are still having trouble connecting, you may also want to consider using an init string that works with another modem.

Backup 6200: opens a dialog box to save all the data from a connected 6200 as a backup file for future retrieval, via RESTORE 6200 command.

This command is only available if 6200 PC is connected to a remote 6200.

The "Backup 6200" dialog box allows you to specify a backup file name and what drive and directory to save it to. When these fields are completed, click SAVE to create backup file (or click CANCEL if you decide not to create a backup file).

The backup file can be retrieved at a future date, via the RESTORE 6200 command.

Backup 6200 Dialog Box

When you choose the BACKUP 6200 command, a dialog box opens with the following options:

Save In: lists the available folders and files. To see how the current folder fits in the hierarchy on your computer, click the down arrow. To see what's inside a folder, click it.

Up One Level Icon: opens the folder one level above the active folder.

Create New Folder Icon: creates a new folder.

List Icon: shows the names of the files in large icon format.

Details: displays additional information about the files (Name/Size/Type/Modified Date).

File Name: saves a backup file with a name. To save a backup file with a new name, type a new file name. To save a backup file with an existing name, select the name in the list or type in the current name.

Save As Type: specifies the type of file you are saving as OPTIMOD-DAB Backup Files (*.d2b).

Restore 6200: opens a dialog box to load an online 6200 with individual presets or multiple items from a backup file, as previously saved with BACKUP 6200 command.

This command is only available if 6200 PC is connected.

Choose an available 6200 backup file. To restore multiple items, use the "Multiple Item Restore" dialog box. Select which data to restore, and click RESTORE to send the data to the 6200. You will be asked to confirm your selection. Click OK to continue, or click CANCEL if you decide to not restore data.

If you want to restore individual User Presets, use the "Individual Preset Restore" dialog box. Highlight the User Preset to be sent to the 6200 in the "Backup" list box. Highlight the 6200 User Preset to be overwritten in the "OPTIMOD" list box and press the arrow button between the two list boxes. You will be asked to confirm your selection. Click OK to restore, or CANCEL to not restore the preset.

Restore 6200 Dialog Box

When you choose the RESTORE 6200 command, a dialog box opens with the following options:

Select Backup File: Select a file name from the file name list box and click OK

Select Backup File Dialog Box

Look In: lists the available folders and files. To see how the current folder fits in the hierarchy on your computer, click the down arrow. To see what's inside a folder, click it.

Up One Level Icon: opens the folder one level above the active folder.

Create New Folder Icon: creates a new folder.

List Icon: shows the names of the files in large icon format.

Details: displays additional information about the files (Name/Size/Type/Modified Date).

File Name: restores a backup file with a name. Select the name in the list or type in the name.

Files Of Type: specifies the type of file you are restoring as OPTIMOD-DAB Backup Files (*.d2b).

Multiple Item Restore: selects which groups to restore. Items are only available after a backup file has been selected (via SELECT BACKUP FILE command). Click any combination of multiple items, as desired, then click the RESTORE button to restore the preset. There are three choices: All 32 User Presets, I/O Calibrate Settings and Remote Interface Settings.

Individual Preset Restore: selects a specific preset to be restored.

This control is only available after a backup file has been selected (via the SELECT: BACKUP FILE command).

To choose a preset to restore, click a preset from the "Backup" list box. To select which preset to replace, click a preset in the far right-hand box (identified by the current OPTIMOD name). To restore the preset, click the RESTORE ------> button, located between the two boxes.

Done: closes the "Restore 6200" dialog box.

Preset Menu

The PRESET menu offers the following commands to recall any 6200 factory preset or User Preset.

Recall: opens a dialog box to select a factory or User Preset and put it on the air, unless a Test preset (Tone or Bypass) is currently on-air; in the latter case, pressing RECALL will immediately replace the Test preset with the previous on-air preset.

This command is only available if 6200 PC is connected to a remote 6200.

With a factory or User Preset on-air, press the RECALL button to see a list of all stored presets. You can then select a preset from the list and recall that preset on the air.

Recalling a processing preset puts the preset on the air, while 6200 PC displays the preset name in the status bar and its specific meters in the meters window. If the single Less-More control or the Full Control or Equalization knobs were shown with the previous preset, the screen updates to the new preset's knob settings.

You can also recall a preset by doing the following:

- Click the RECALL button to access "Recall" dialog box.

Recall Preset Dialog Box

When you choose the RECALL command, a dialog box opens with the following options:

Recall Preset list box: selects which preset will be put on the air when you click RECALL.

Recall button: puts the selected (highlighted) preset on the air. If the selected preset is the same as the preset already on the air, the sound of the station will not change. When you click RECALL, the previous preset is remembered. To return to it, click RECALL NEXT.

Recall Next: puts the previously selected preset on the air. RECALL NEXT lets you toggle between the current and previous preset.

Done: closes "Recall" dialog box.

Next Is: indicates the previous preset.

This menu item is always grayed and does not perform a command.

The Next Is: "Preset Name" can be put on the air with the RECALL NEXT command.

Recall Next: puts the previously selected preset on the air. RECALL NEXT lets you toggle between the current and previous preset.

This command is only available if 6200 PC is connected to a remote.

You can also recall a previous preset by doing the following:

- Use "Preset Recall" dialog box: Click the RECALL button to open dialog box, then click the RECALL NEXT button.

Modify Menu

The MODIFY menu offers the following commands to select between Less-More, Full Control and Equalization knob displays, and save presets.

These commands are only available if 6200 PC is connected to an Optimod.

View Knobs/Hide Knobs: switches between whether the display shows or hides the knob controls that adjust the processing on-air.

The VIEW KNOBS command is only available if 6200 PC is connected to a remote 6200 and knobs are currently not displayed on the screen.

The HIDE KNOBS command is only available if 6200 PC is connected to a remote 6200 and either the single Less-More knob or the Full Control or Equalization set of knobs is currently displayed on the screen.

Select VIEW KNOBS to see the preset's controls and their current settings, and if desired, make modifications.

Clicking VIEW KNOBS will display the current preset's Less-More control or its Full Control or Equalization set of knobs, depending on the situation.

If 6200 PC has just connected to an OPTIMOD, all knobs are initially hidden and clicking VIEW KNOBS will display the single Less-More control, or

Full Control or Equalization set of knobs, depending on the last display state of the selected preset.

If VIEW KNOBS is selected multiple times in a session (i.e., controls are viewed, hidden, then viewed again), clicking VIEW KNOBS will display the level of viewing that was active most recently.

Modifications to presets can only be made when controls are shown on the 6200 PC screen. To adjust a control, refer to LESS-MORE, FULL CONTROL, or EQUALIZATION command.

You can also view knobs by doing the following:

- Click the VIEW KNOBS button.

  Select HIDE KNOBS to clear the window of any controls.

You can also hide knobs by doing the following:

- Click the HIDE KNOBS button.

Less-More: displays the Less-More control, providing the means to modify the selected preset.

This command is only available if 6200 PC is connected to a remote 6200, and either the Full Control or Equalization set of control knobs is displayed on the screen.

To toggle between Less-More, Full Control and Equalization views, click the current control button (on the button bar) or select the ungrayed view command — LESS-MORE, EQUALIZATION, or FULL CONTROL.

You can adjust the Less-More control knob by doing one of the following:

- Use the mouse and the control's on-screen left/right arrow button. Click the left arrow to decrease values; click the right button to increase values.
- Use the mouse and the on-screen control knob. Place the mouse pointer on the control, hold the mouse button down and move the mouse pointer to the right to increase the Less-More setting, or move the mouse pointer to the left to decrease the Less-More setting. Release the mouse button to end modification.
- Use the keyboard's *+/–* keys: Use (*–*) key to decrease Less-More setting; use (*+*) key to increase Less-More setting.
- If *Num Lock* is active on your keyboard, the keypad's up/down arrow keys will function as *+/–* keys.

Whenever the Less-More control is modified, the word “Modified” appears next to the control, in red. Whenever Less-More is returned to its original setting, “Modified” disappears.

You can also view the Less-More control knob by doing one of the following:

- Click VIEW KNOBS — as long as the last level of knob display was Less-More.
- Click the LESS-MORE button — as long as no Full Control knobs are shown as modified (see "Less-More Control Not Available" directly below).

Less-More Control Not Available

When you click the LESS-MORE button after modifying a parameter from the Full Control view, a message appears telling you that LESS-MORE is unavailable. To access LESS-MORE, either undo your Full Control changes or recall a preset.

Equalization/Full Control: display individual parameter controls, providing the means to modify the selected preset.

Equalization and Full Control knob displays are only available if 6200 PC is connected to a remote 6200, VIEW KNOBS has been selected, and the knob's respective view is not displayed.

Full control allows you to adjust advanced controls that are not available from the 6200's front panel.

To toggle between control views, click the current control button (on the button bar) or select the ungrayed view command — LESS-MORE, EQUALIZATION, or FULL CONTROL.

You can select a specific control knob by doing one of the following:

- Click the mouse on the desired control.
- Use the keyboard's left/right arrow keys to move through a row of control knobs (left-to-right or right-to-left) and use the keyboard's up/down arrow keys to move through a column of control knobs (upwards or downwards). Then click the desired control.

  Note: If *Num Lock* is active on your keyboard, the keypad will function differently: Up/down arrow keys will function as *+/–* keys, and left/right arrow keys will be inoperative.

You can adjust a control knob by doing one of the following:

- Use the mouse and the control's on-screen left/right arrow button.

  Ranges: Click the left arrow button to decrease values, click the right arrow button to increase values.

  ON/OFF switches (e.g., AGC ON/OFF): Click the left arrow button to turn control off, click the right arrow button to turn control on.

- Use the mouse and the on-screen control knob.

  Place the mouse pointer on a control, hold the mouse button down, move the mouse pointer to the right to make the control increase a range

value, or turn a control on, or move the mouse pointer to the left to decrease a range value or turn a control off. Release the mouse button to end modification.

- Use the keyboard's arrow keys and +/– keys: Use + key to increase a value in a range or toggle a switch on; use – key to decrease a value in a range or toggle a switch off.

  Note: If *Num Lock* is active on your keyboard, the keypad will function differently: Up/down arrow keys will function as +/– keys, and left/right arrow keys will be inoperative.

Whenever a control is modified, the word "Modified" appears next to the control, in red. Whenever a value is returned to its original setting, "Modified" disappears.

Save: opens a dialog box to name and save the current preset and modifications made to it (if any) to one of 32 User Preset locations.

This command is only available if 6200 PC is connected to a remote.

From the "Save Preset" dialog box, rename the current preset in the "Edit Name" field (optional), select a User Preset number to name and save in the "Select Preset To Save Into" list, click SAVE and then OK to save it (or press CANCEL at any time if you decide not to save it). Saving a preset overwrites the previous settings for that preset location.

You can also save a preset by doing the following:

- Click the SAVE button and complete the "Save.Preset" dialog box entries.

Save Preset Dialog Box

When you choose the SAVE command, a dialog box opens with the following options:

Edit Name: allows you to rename current preset, before it is saved to a User Preset number. If you do not assign a new name, the name in the "Edit Name" box will be used.

Select Preset to Save Into: selects User Preset number to name and save.

Save: saves the new settings in the selected User Preset. Pressing SAVE initially brings up the "Overwrite User Preset?" box, which allows you to OK the save, or CANCEL.

Cancel: closes "Save Preset" dialog box, without saving.

Setup Menu

The SETUP menu offers the following commands to edit functions in the 6200 system.

These commands are only available if 6200 PC is connected to a remote 6200.

I/O Calibrate: opens a dialog box to 6200 system operating parameters.

Clicking I/O CALIBRATE opens a dialog box with three sections of adjustable parameters: Analog, Miscellaneous, and AES/EBU.

When finished adjusting I/O Calibrate, click DONE in the dialog box to implement the new settings. Or choose CANCEL to open the "Cancel I/O Calibrate" dialog box. From this box you can choose NO to keep to the "I/O Calibrate" dialog box open or YES to close the "I/O Calibrate" dialog box and return all previous I/O settings to air. Note that choosing YES could cause an abrupt change to the on-air audio.

Refer to Section 2 of the 6200 Manual for additional information on each parameter.

I/O Calibrate Dialog Box

The I/O Calibrate dialog box provides three sections of adjustable controls: Analog, Miscellaneous and AES/EBU.

Analog Section

The following Analog parameters can be changed:

Input Clip Level: [+5 dBu to +27 dBu] or [-17 dBu to +5 dBu], jumper-selectable; in 0.5dB steps.

Calibrates the level at which the OPTIMOD's A/D (Analog-to-Digital) converter clips to the absolute maximum peak level that your installation supplies to the OPTIMOD's analog input.

(**Note:** This parameter is equivalent to AI CLIP on OPTIMOD's I/O CALIB: ANLG IN CALIB screen.)

Input Ref VU and Input Ref PPM: Analog Input Reference VU in two ranges, [–9dBu to +13.0dBu] or [–31.0dBu to –9.0dBu], jumper-selectable, in 0.5dB steps. Analog Input Reference PPM, in two ranges, [–1.0dBu to +21.0dBu] or [–23.0dBu to –1.0dBu], jumper-selectable, in 0.5dB steps.

Sets the center of OPTIMOD's gain reduction range to the level to which your studio operators peak their program material on the studio meters. This assures that OPTIMOD's processing presets will operate in their preferred range.

(**Note:** These parameters are equivalent to AI REF VU and AI REF PPM on OPTIMOD's I/O CALIB: ANLG IN CALIB screen.)

Input Right Chan Bal: [–2dB to +2dB] on right channel only, 0.1dB steps.

Changes gain of the right channel only. Use this control if the right analog input to the 6200 is not exactly the same level as the left input.

(**Note:** This parameter is equivalent to R CH BAL on OPTIMOD's I/O CALIB: ANLG IN CALIB screen.)

Monitor Output: [pre-limit, post-limit].

Sets the monitor source of the analog output to either before or after the look-ahead limiter.

(**Note:** This parameter is equivalent to MON OUT on OPTIMOD's I/O CALIB ANLG OUT CALIB screen.)

Miscellaneous Section

The following Miscellaneous parameters can be changed:

Max Lowpass: [4.0 kHz] to [20.0 kHz].

Determines the *highest* 6200 bandwidth available. 6200's audio bandwidth can be set in three places: in Setup, with EQ knobs, and by remote control. The 6200's bandwidth is always the *lowest* of these three settings. Set this parameter to be congruent with the sample rate of the digital system being driven by the 6200 (e.g., when driving a system with a 32kHz sample rate, set the Max Lowpass to 15.0 kHz).

(**Note:** This parameter is equivalent to MAX LPF on OPTIMOD's SETUP screen.)

Input: [Analog, Digital].

Sets the analog inputs or the AES/EBU digital input as the audio source.

Input Mode: [normal, J-17].

Sets the 6200's digital input source for subsequent audio processing as with J.17 pre-emphasis or normal (without J.17 pre-emphasis).

(**Note:** This parameter is equivalent to DI MODE on OPTIMOD's I/O CALIB: DIG IN CALIB screen.)

Studio Chassis: [No, Yes].

Tells the OPTIMOD if you have a studio chassis (e.g., an Orban 8200ST OPTIMOD-Studio, or similar AGC) installed at your studio feeding the studio-to-transmitter link.

(**Note:** This parameter is equivalent to ST CHASSIS on OPTIMOD's SETUP screen.)

Output Sync To: [Internal, External].

Determines whether the digital output sample rate is locked to the digital input sample rate, or whether internal sync (clock) is provided for 32, 44.1 and 48kHz output sample rates.

(**Note:** This parameter is equivalent to DO SYNC on OPTIMOD's I/O CALIB: DIG OUT CALIB screen.)

Mono/Stereo: [Stereo, Mono L, Mono R, Mono S].

Sets which input channel drives the 6200 processing. Normal operation is Stereo. However, You can also drive both channels with the left input channel, the right input channel, or the mono sum of both channels.

(**Note:** This parameter is equivalent to MONO/ST on OPTIMOD's SETUP screen.)

AES/EBU Section

The following AES/EBU parameters can be changed:

Input Ref VU and Input Ref PPM: Digital Input Reference VU [–30.0dBFS to –10.0dBFS], in 0.5dB steps; Digital Input Reference PPM [–22.0dBFS to –2.0dBFS], in 0.5dB steps.

References the incoming audio from –20dBu to 0dBu of the maximum allowable digital word.

(**Note:** These parameters are equivalent to DI REF VU and DI REF PPM on OPTIMOD's I/O CALIB: DIG IN CALIB screen.)

Input Right Chan Bal: [–2dB to +2dB] on right channel only, 0.1dB steps.

Changes gain of the right channel only. Use this control if the right digital input to the 6200 is not exactly the same level as the left input.

(**Note:** This parameter is equivalent to R CH BAL on OPTIMOD's I/O CALIB: DIG IN CALIB screen.)

Output 100% Level: [–20.0 to 0dB], in 0.1dBFS steps.

Adjusts the level of the digital output, corresponding to 100% modulation, in dB below digital full-scale.

(**Note:** This parameter is equivalent to DO 100% on OPTIMOD's I/O CALIB: DIG OUT CALIB screen.)

Sync Delay: [off], [24 ms], [30 fps], [29.97 fps], [25 fps], [24 fps], and [96 ms].

Sets amount of time delay to add in order to make 6200 input/output delay one frame, using a variety of different standards. The selections are: off (approximately 14 ms delay), 24 milliseconds, 30 frames per second, 29.97 fps (NTSC color video), 25 fps (most PAL video), 24 fps (film) and 96 milliseconds.

Samp Rate Out: [32kHz, 44.1kHz, 48kHz].

Sets the data rate of OPTIMOD's digital output to 32kHz, 44.1kHz, or 48kHz.

(**Note:** This parameter is equivalent to DO RATE on OPTIMOD's I/O CALIB: DIG OUT CALIB screen.)

Word Length: [16, 18, 20].

Sets the word length of the 6200's digital output to 16, 18 or 20 bits, limited only by the sample rate converters. (Internal word length is 24 bit.) If the input material is insufficiently dithered for lower word lengths, the 6200 can also add dither (see below).

User Bits: [pass] or [block].

Determines whether the 6200 transparently passes incoming user bits through to the digital output.

Dither: [on] or [off].

Determines if the 6200 adds "high-pass" dither before any truncation of the output word.

Status Bits: [AES/EBU] or [SPDIF].

Determines whether the status bits supplied at the digital output are in Consumer (SPDIF) of Professional (AES/EBU) mode.

Remote Interface: opens a dialog box for programming the 6200's remote control interface and its eight (8) opto-isolated inputs.

This command is only available if 6200 PC is connected to a remote.

When finished setting remote interface presets, click UPDATE OPTIMOD from the "Remote Interface" dialog box to implement the new settings (or click CANCEL to ignore the settings).

Remote Interface Dialog Box

When you choose the REMOTE INTERFACE command, a dialog box opens that features eight boxes to set 6200 PC's eight opto-isolated inputs. These allow you to direct the 6200 to perform certain functions when a voltage (6-24V) is presented to the input.

Choose from the following functions:

 # PRESET NUMBER AND NAME: switches that preset on the air. Any test preset, factory or user programming preset may be recalled by the control interface.

test: bypass: switches the 6200 into bypass mode.

test: tone: switches the 6200's test tone on.

exit test: If a test preset is on the air, exit test terminates the test mode and reverts to previous preset.

do rate 32, 44.1, or 48 kHz: sets the digital output sample rate to 32, 44.1, or 48 kHz.

stereo, mono-left, mono-right, or mono-sum: selects the input routing to the processing.

analog input: selects the analog inputs as the audio source.

digital input: Selects the AES/EBU digital input as the audio source.

LPF 4.0 kHz, to LPF 20.0 kHz (21 different steps): Sets the system audio bandwidth (low-pass filter) from 4.0 to 20.0kHz. (Choices higher than the Max LPF frequency in Setup are locked out.

dither on or off: Sets dither status.

word length 16, 18, or 20: Selects 16, 18, or 20-bit output words.

no function: ignores input at the Remote Interface connector. If you do not use a Remote Interface, it is recommended to program it with no function. This is the default for all eight Remote Interface inputs, as shipped from the factory.

System Information: Use this command to open a dialog box — labeled

"Processor Information" — that contains configuration information about the 6200 currently connected.

This command is only available if 6200 PC is connected to a remote 6200.

Click OK when finished viewing "Processor Information" dialog box.

System Information Dialog Box

When you choose the SYSTEM INFORMATION command, a dialog box opens with the following information:

Software Version: The software version actually notes the firmware version running on the remote 6200. Firmware V2.0 or higher modules support 6200 PC Remote Software V2.00 (shown in the "About PC Remote" dialog box.

Test: opens a dialog box to select bypass or a test tone and put it on the air.

This command is only available if 6200 PC is connected to a remote 6200.

Clicking TEST opens a dialog box divided into three modes: Operate, Bypass and Tone. Bypass and Tone have adjustable parameters, as described below.

Click on Bypass or Tone to place the test preset on-air. Note that any changes to settings are implemented immediately. Press Cancel or Operate to take the Test preset off-air. Or, select OK to close the "Test" dialog box, then select the EXIT TEST or RECALL button when you're ready to bring the previous preset back on-air. You can also use any of the following menu commands: RECALL, or RECALL NEXT.

Refer to Section 2 of the 6200 Manual for detailed information on each Test parameter.

Test Dialog Box

The Test controls are divided into three sections: Operate, Bypass and Tone.

Operate

Select Operate to use 6200 processing.

Bypass

Select Bypass to bypass 6200 processing.

The following Bypass parameter can be changed:

Bypass Gain: [–18dB to +15dB], in 1dB steps.

Sets the level of signal passed through the 6200 in Bypass Mode.

(**Note:** This parameter is equivalent to BYPASS GAIN on OPTIMOD's TEST screen.)

Tone

Select Tone to put a test tone on-air.

The following Tone parameters can be changed:

Tone Frequency: [20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 15000, 16000, 20000], logarithmic steps for DO RATE of 44.1 or 48kHz; [20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 15000], logarithmic steps for DO RATE of 32kHz.

Sets the frequency of the built-in tone generator, relative to 100% modulation.

(**Note:** This parameter is equivalent to TONE FREQ on OPTI-MOD's TEST screen.)

Tone Level: [0.0 to 100.0%], in 1% steps.

Changes the level of the built-in tone generator, relative to 100% modulation.

(**Note:** This parameter is equivalent to TONE LVL on OPTI-MOD's TEST screen.)

Tone Channel: [L+R, L–R, left, right].

Sets the output channel of the test tone.

(**Note:** This parameter is equivalent to TONE CHAN on OPTI-MOD's TEST screen.)

Help Menu

The HELP menu offers the following commands that provide assistance with 6200 PC.

These commands are always available from the 6200 PC main window (as long as a dialog box isn't open).

Contents: offers a list of 6200 PC topics on which help can be obtained.

About PC Remote: displays the version number of 6200 PC software that is currently running.

Section 4
Maintenance

Troubleshooting

Unsuccessful Connection

1. **Check that all hardware and software steps were completed correctly.**

   A) Verify that your OPTIMOD 6200 is password-protected with a passcode.

   B) Verify that the passcode is valid.

   C) Make sure that cables are fully connected and that you are using 6200 RS-232 Port1. (Port2 will not work.)

   D) For direct connections of computer to 6200, make sure you use a null modem ("reverse") cable. A regular cable will not work.

   E) Be sure that the CONNECTION field in the 6200 is set correctly to either DIRECT or MODEM as appropriate.

2. **Note any 6200 PC error messages that appear when attempting to connect, then check if they are listed in "Screen Messages" (on the following page); If listed, consider the information and solutions, then proceed as necessary.**

3. **If your 6200 PC is not communicating correctly with the OPTIMOD, you may need to change the default Modem Init string. (Refer to step 5 on page 2-4.)**

   If your OPTIMOD-DAB 6200 does not answer, verify on the 6200 that the Modem Init is set for the appropriate string for your modem:

   For 100% Hayes-compatible modems, use the 6200 front panel to access the SET MODEM INIT screen: Press the *Setup* button, then REMOTE and SET MODEM INIT soft buttons. Now verify that the Modem Init is set for its default: AT&FE0S0=4. For other modems, do not use the default; reset the Modem Init string (Refer to the modem's manual).

   With the modem connected to the 6200 (i.e., the modem is plugged into the 6200's Port 1 [PC Remote] RS-232 connector) its AA (Auto Answer) light comes on within 10 seconds and stays on. If the AA light doesn't come on and/or the received data light (often labeled RD or RX), flashes

at regular intervals, something is wrong with the init string.

In this case, access the SET MODEM INIT screen, and reset the Modem Init string for the following parameters: recall factory preset, echo off, and auto-answer (Refer to the modem's manual).

4. **If the Modem Init string is set correctly, and 6200 PC and the OPTIMOD-DAB 6200 still do not negotiate successfully, make sure the modem is set for V.42 operation only.**

5. **If your serial ports do not support buffering features, you may need to disable the FIFO buffer for the COM port you will be using.**

   A) In Windows XP, navigate to START / CONTROL PANEL / SYSTEM / HARDWARE / DEVICE MANAGER / PORTS (COM & LPT).

   B) Right click to choose PROPERTIES for the COM port you are using.

   C) Navigate to PORT SETTINGS / ADVANCED.

   D) Uncheck USE FIFO BUFFERS (REQUIRES 16550 COMPATIBLE UART). This is *only* required if you are using a very old computer that does not have a 16550 UART. Otherwise, unchecking the box will just slow down your system.

6. **If you are attempting a Direct Connection in Windows 2000 or XP, you may have to defeat "Communications cable between two computers" in your computer's device manager.**

   To successfully connect to a 6200 through a direct serial connection, 6200PC Remote must be able to communicate with your computer's serial ports via Windows. If you already have one or more Windows Networking connections of type DIRECT, you may have to Disable them in Windows to allow 6200PC Remote to communicate with a 6200 via a direct serial connection.

   If you are connecting via modems, you do not have to do this.

   A) On your computer, navigate to the Device Manager. (START / CONTROL PANEL / SYSTEM / HARDWARE / DEVICE MANAGER.)

   B) Expand the item called "Modems." If you see an item labeled "Communications cable between two computers," right-click it and choose "Disable."

   C) Test 6200PC to determine if it can now connect to your 6200. If it cannot, restart your computer to fully release the COM port.

   D) If you still cannot connect, carefully review the setup instruction in Section 2 of this Manual for more hints.

Invalid Security Access

If an invalid passcode is entered in the "Passcode" field of the "Edit Settings" dialog box, 6200 PC access will be denied. In this case, you will see

a message box on the screen that asks you if it is OK to disconnect. Press OK to disconnect and try connecting again with a valid passcode.

Valid passcodes are passcodes previously set on 6200's front panel SET PASSCODE screen (accessible by pressing the *System* button and then the SECURITY and SET PASSCODE soft buttons).

Note that if the Passcode entry field is left blank in the PC "Edit Settings" dialog box, users will be prompted for a valid passcode when trying to connect.

For successful connections:

The OPTIMOD 6200 must have a passcode. 6200 PC does not connect to 6200s that cannot be locked out (i.e., 6200s that do not have passcodes). If necessary, program each 6200 with a passcode in the SET PASSCODE screen;

and

Passcodes entered in 6200 PC "Edit Settings" dialog box must match passcodes set on the 6200 front panel (using SET PASSCODE).

Screen Messages

Are you sure you want to disconnect?

This appears whenever you prompt a disconnection, in one of the following manners:

- Click on FILE: EXIT, when connected
- Click on MANAGE: DISCONNECT
- Click on DISCONNECT button.

You will be presented with two choices:

[OK]: Click on OK if you are ready to disconnect.

[Cancel]: Click on CANCEL if you are not ready to disconnect.

Canceling IO Calibrate settings may cause an abrupt change to the audio on-air.

This appears when you choose CANCEL from the "I/O Calibrate" dialog box (whether you have made changes or not).

You will be presented with two choices:

[Yes]: Click on OK if you want to cancel any changes made within the "I/O Calibrate" dialog box, close the "I/O Calibrate" dialog box and revert to previous on-air sound.

[No]: Click on NO if you want to keep the "I/O Calibrate" dialog box open and retain current on-air sound.

Communications Error, "Problem Description," OK to Disconnect.

This error will happen if a problem occurs with the connection between the computer and the 6200. The "Problem Description" in the message may be useful by Orban's customer service department for diagnosing a recurring problem.

This message can appear if an invalid passcode was previously entered in the "Passcode" field of the MANAGE: SETTINGS "Edit Settings" dialog box, or an invalid passcode has just been entered in the "Enter Passcode" dialog box (which appears when attempting to connect to an "OPTIMOD Name" that was not assigned a passcode in the MANAGE: SETTINGS "Edit Settings" dialog box).

In either case, press OK to close the message box and return to the appropriate dialog box to enter in a valid passcode.

COM Port Initialization Failed

The software was unable to establish communication with the COM port hardware on the computer. Check to make sure no other software is using the Communications port or the Communications port is correctly configured in the "Edit Settings" dialog box.

6200 Has Ended Connection

This means that a person has pressed the END PC CONTROL soft button on the 6200 front panel while it was connected to 6200 PC software. This is unavoidable if a person does this at the 6200.

Otherwise, OPTIMOD 6200 software probably has corruption. In this case, uninstall 6200 PC software using the Windows' Control Panel Add/Remove Programs feature, then reinstall it: Refer to *Uninstalling 6200 PC* on page 2-10.

Negotiation Failed

This may occasionally happen when the 6200 attempts to make a direct connection. Try connecting again.

You must enter a Facility Name in the Manage Settings dialog before connecting.

Press OK, then return to the MANAGE: SETTINGS "Edit Settings" dialog box and enter a Facility Name in the "Facility Name" field.

Technical Support

If you require technical support, contact Orban customer service. Be prepared to describe the problem accurately. Know the software version of your 6200 PC software (refer to the HELP menu's ABOUT PC REMOTE submenu command), as well as the software version of your Optimod-AM 6200 software module (refer to SYSTEM INFORMATION command in the SETUP menu).

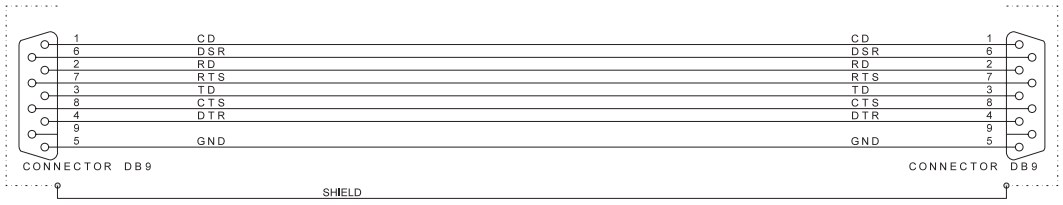
Please check Orban's website, www.orban.com, for Frequently Asked Questions and other technical tips about 6200 that we may post from time to time. Manuals (in

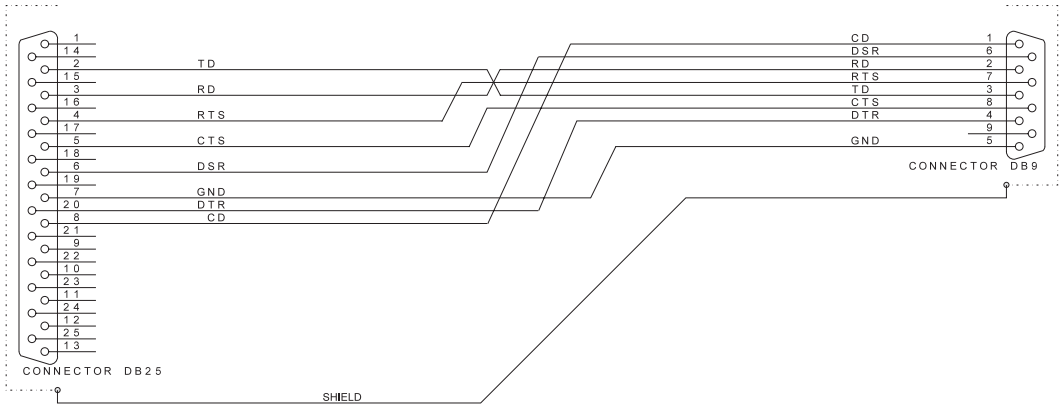
.pdf form) and 6200 PC Remote software upgrades will be posted there too—click "Downloads" from the home page.

Telephone:	+1 480 403-8300
Write:	Customer Service Orban 7970 South Kyrene Tempe, AZ 85284 USA
Fax:	+1 480 403-8301
E-Mail	custserv@orban.com

Cables

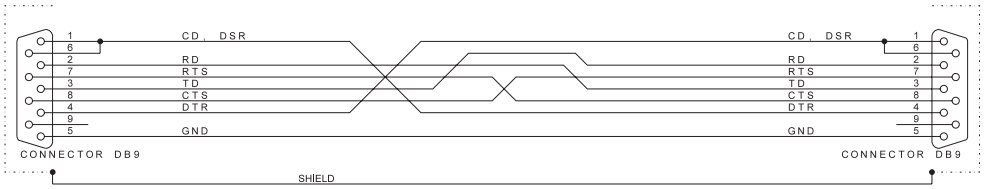
Normal Serial Cable Wiring

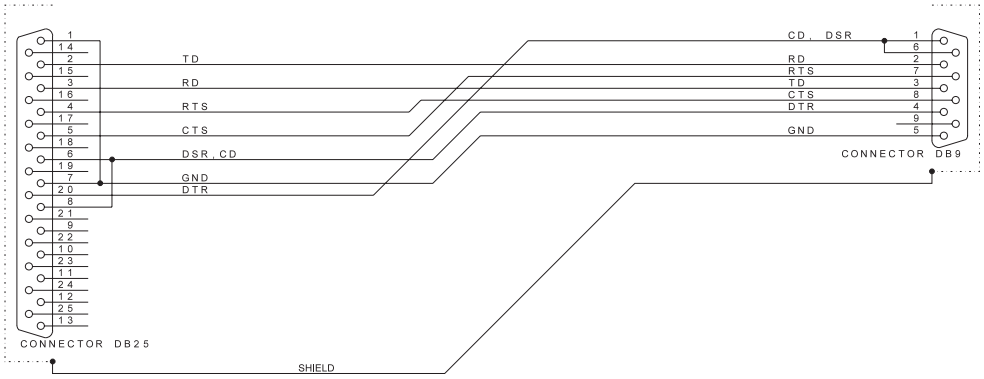




Normal Serial Cable Wiring:	Signal	Name
	CD	(Data) Carrier Detect
	DSR	Data Set Ready
	RD	Receive Data
	RTS	Request to Send
	TD	Transmit Data
	CTS	Clear to Send
	DTR	Data Terminal Ready
	GND	(Signal) Ground

Null Modem Cable Wiring





Modems

Choosing Modems

The following modems have been tested for use with 6200 PC and OPTIMOD-DAB 6200. The second column refers to the 6200 PC SETTINGS "Advanced Modem Settings" dialog box and the recommended Modem Type field settings.

Modem Name	*6200 PC Settings Modem Type Field*
Boca	Hayes
Hayes Accura 144	Hayes
US Robotics Sportster 28800	US Robotics
US Robotics Courier HST Dual Standard	US Robotics
Zyxel	Hayes

Table 4-1: Modems Tested With 6200 PC Remote

Please feel free to call us at +1 480 403-8300 if you have any questions in regards to running 6200 PC and OPTIMOD-DAB 6200 with any modem.

If you are having problems negotiating software connections with any of these modems, or a different modem, refer to the following text (and to related sections in the manual).

Customizing Your PC Modem String

When configuring 6200 PC Software for a particular OPTIMOD (Installation step 5) you are provided with the option of using 6200 PC's default modem settings or customizing the modem settings via 6200 PC's "Advanced Modem Settings" dialog box. 6200 PC will operate properly with most modems if its "Advanced Modem Settings" are left at their default values. If your 6200 PC modem is not communicating correctly with the OPTIMOD, a new custom init string should be entered.

> **Note:** The following steps deal specifically with changing your PC's Modem Init String. For information on other "Advanced Modem Settings," refer to Section 2 and 3.

1. **Open 6200 PC's "Advanced Modem Settings" dialog box and activate Modem Init String field from your computer.**

   a) Open 6200 PC's MANAGE: SETTINGS "Edit Settings" dialog box.

   b) Verify all settings in the "Edit Settings" dialog box are correct. (Refer to Installation step 5 on page 2-4.)

   c) Click on ADVANCED to open "Advanced Modem Settings" dialog box (this dialog box is only available if Modem is selected in "Edit Settings" dialog box).

   d) Click on CUSTOM button.

2. **Enter in a new Modem Init String.**

   Before you enter in the new string for the modem connected to your PC, consider the following information.

   (Refer to the modem's manual for its AT commands. Refer to the list above of modems and init strings that have been tested for use with 6200 PC and OPTIMOD 6200.)

   Select LAPM error correction with no compression to ensure data integrity. Make sure V.42 is selected.

   Your modem must not be allowed to fall back to a communication protocol that doesn't support error correction. Set control on modem to hang up if it is unable to communicate at V.42 protocol. This is how the default string is set, so that it will work with a wide range of Hayes AT-set and S-register compatible modems.

You can also consider using an init string that works with another modem.

3. **Click on OK when you have completed the "Advanced Modem Settings" dialog box.**

4. **Click on OK in the "Edit Settings" dialog box.**

5. **Connect 6200 PC to an OPTIMOD from your computer.**

   [Refer to Installation step 6 on page 2-8.]

   If your 6200 PC modem is not dialing out correctly, make sure you correctly executed step 2 (at the top of this page).

   If your OPTIMOD-DAB 6200 does not answer, open the OPTIMOD's front panel SET MODEM INIT screen (accessible by pressing *Setup* button, then pressing the REMOTE and SET MODEM INIT soft buttons), verify the default string is AT&FE0S0=4 (reset it, if necessary), then press *Escape* repeatedly until you return to the IDLE screen. If your 6200 still does not answer, refer to the manual for the modem connected to the 6200 to determine how to set this modem for the following: recall factory preset, echo off, and auto-answer.

   If you require technical support or assistance, contact Orban Customer Service: Telephone: (1) 510/351-3500 or Fax: (1) 510/351-0500.