



CP-20 Front Panel Operation

900-846 9/19/03

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Introduction to the CP-20

An AutoPatch Distribution Matrix is composed of one or more enclosures. Enclosures are the structural basis of a matrix switcher. Since AutoPatch Distribution Matrices are custom built for each installation, factors such as control method and signal types affect the appearance and weight of each enclosure.

An enclosure may have either a blank front panel or one of various control panels (local front or remote panels produced by AutoPatch for controlling the system's switches and system attributes). Although control panels are optional, we recommend one per system for system verification, redundant control, and troubleshooting. Local control panels can be removed or attached as needed; note, however, that the enclosure's power *must* be off during removal and installation of a front panel.

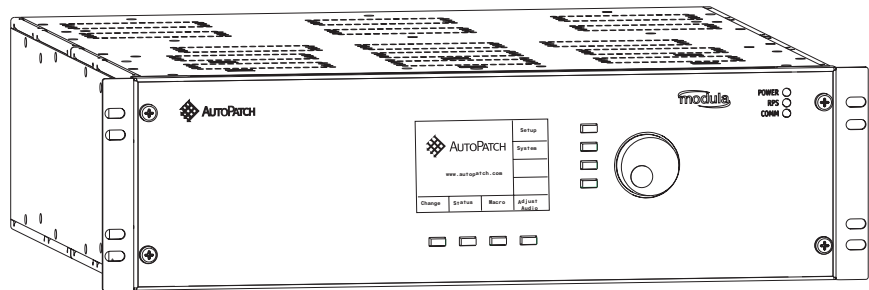


Figure 1: Front view of a Modula enclosure with a CP-20 Control Panel

This chapter describes the CP-20 Control Panel and its basic functions.

CP-20 Control Panel

A CP-20 Control Panel has a graphic LCD, dynamic menu area, dynamic menu keys, and a control dial.

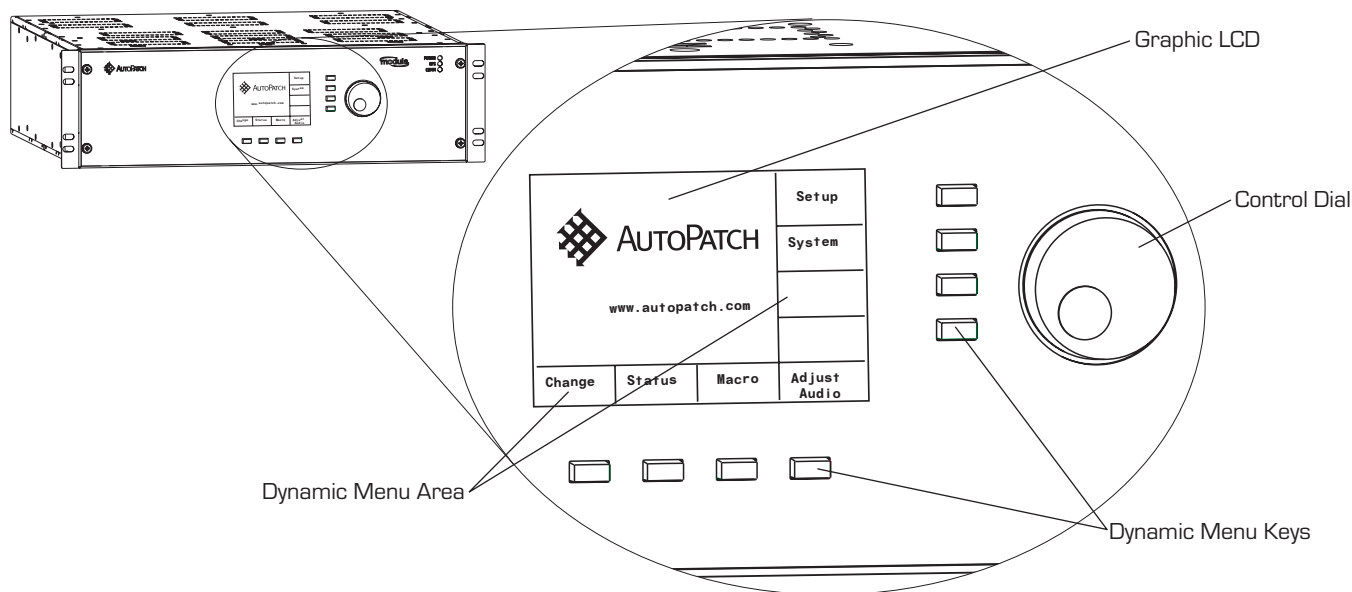


Figure 2: Close up view of a CP-20 Control Panel

Graphic LCD

The LCD displays instructions and selection entry fields.

Dynamic Menu Area

The menu displays different command and setting options across the bottom and on the right of the LCD, depending on which screen is active. The menu options are multilevel with the ability to display custom source and destination descriptions (labels) defined by the configuration file. Use X^NConnect, the graphical software program that can display your system's configuration, to define custom descriptions (see Chapter 8 of the *Installation & Setup* section of this binder). If source or destination labels are modified, clear the current labels and allow the system to load the new ones (see page 7-1).

Dynamic Menu Keys

The keys select commands and settings. Each menu key lines up with a different section of the dynamic menu area. The four keys across the bottom allow selections from commands across the lower part of the screen. The four keys on the right side allow for some command selection and also work in conjunction with the control dial.

Control Dial

The control dial interacts with the dynamic menu keys to choose commands and values from the dynamic menu area on the LCD. The dial scrolls vertically through lists and moves sliders for adjustments. When you turn the control dial, left (counterclockwise) is down; right (clockwise) is up. Press the dial to enter final selections.

CP-20 Control Panel operations combine the following three basic tasks:

- ▶ **To choose a command**, push the key that corresponds with the command you want to choose.
- ▶ **To select values for fields (such as level, source, destination, and preset values)**, use a combination of the dynamic menu keys and the control dial. You can adjust the value by using the control dial to scroll to your final value selection.
- ▶ **To enter a selection**, press the control dial.

Technical Support

AutoPatch provides technical support 24 hours a day, 7 days a week (except for U.S. holidays). Before calling technical support with a question, please review the information in this binder. If this binder cannot fully answer your question, *have your serial number ready* (for serial number location see Chapter 1 in the *Installation & Setup* section of this binder) and call your authorized AutoPatch dealer or call AutoPatch AutoAssist at: U.S. and Canada **800-622-0246** (toll free) or International **509-235-2636**. You can also reach us through our web site: **www.autopatch.com**, or e-mail our AutoPatch Technical Support Specialists at: **support@autopatch.com**



Executing Switches

A switch is an active connection between a source signal and one or more destination devices. The signals connected in a switch command are individual signals or groups of individual signals coming through the connectors on the rear of an enclosure. When executing a switch, you must specify a level that has all the signals you want to route. Level definitions reside in the configuration information in each enclosure's CPU.

You can execute switches from the CP-20 Control Panel using the steps on the following pages or by executing a macro (local preset). For information on macros (local presets), see page 5-1.

If you need to change the level, see “Changing Levels” on page 2-4.

If you decide to change the default level, see “Choosing the Default Level” on page 2-6.

You can return to the Main Menu screen at any time by choosing the Main Menu command.

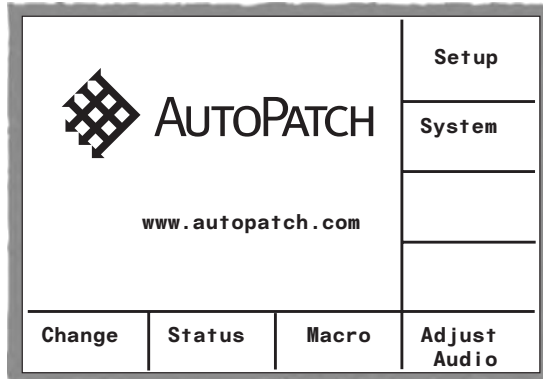
The example on page 2-2 routes source (input) **32: Satellite Dish** to destination (output) **4 : VCR #4 Auditorium** on level 0 (the default level). This example selects a source first; switches may also be executed by selecting a destination(s) first.

Note: In each switch command, you can enter multiple output signals, but only one input signal and only one level.

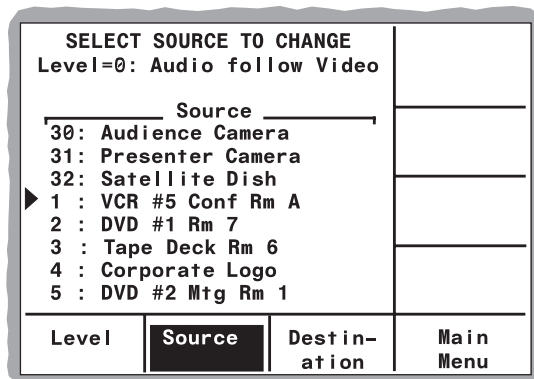
Executing Switches

To execute a switch:

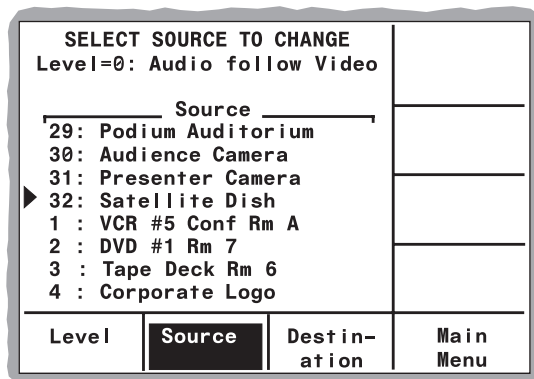
1. At the Main Menu screen, choose the Change command.



The Select Source to Change screen appears, displaying the current level and the source options.



2. Select source **32: Satellite Dish** by scrolling through the list with the control dial (left is down; right is up).



- Press the dial to enter.

The Change to Destination(s) screen appears, displaying the current level and source, along with the available destination options.

CHANGE TO DESTINATION(S)			
Level=0: Audio follow Video			
Source=32: Satellite Dish			
Destination			
30: Left Monitor Rm B			
31: Rt Monitor Rm B			
32: Main Training Rm			
▶ 1 : Projector Exec Conf			
2 : Codec Mtg Rm A			
3 : VCR #3 R&D Lab			
4 : VCR #4 Auditorium			
5 : Codec Mtg Rm B			
Level	Source	Destination	Main Menu

- Select destination **4 : VCR #4 Auditorium** by scrolling through the list with the control dial (left is down; right is up).

CHANGE TO DESTINATION(S)			
Level=0: Audio follow Video			
Source=32: Satellite Dish			
Destination			
1 : Projector Exec Conf			
2 : Codec Mtg Rm A			
3 : VCR #3 R&D Lab			
▶ 4 : VCR #4 Auditorium			
5 : Codec Mtg Rm B			
6 : Security Monitor 1			
7 : Security Monitor 2			
8 : Security Monitor 3			
Level	Source	Destination	Main Menu

- Press the dial to enter.

The switch to **4 : VCR #4 Auditorium** occurs as soon as the dial is pressed (when the line is dark, the switch is active).

CHANGE TO DESTINATION(S)			
Level=0: Audio follow Video			
Source=32: Satellite Dish			
Destination			
1 : Projector Exec Conf			
2 : Codec Mtg Rm A			
3 : VCR #3 R&D Lab			
▶ 4 : VCR #4 Auditorium			
5 : Codec Mtg Rm B			
6 : Security Monitor 1			
7 : Security Monitor 2			
8 : Security Monitor 3			
Level	Source	Destination	Main Menu

Note: The control dial functions as a toggle switch, activating and deactivating destinations in the list each time it is pressed.

6. Choose the Source command to return to the Select Source to Change screen to make additional switches.
Or choose the Main Menu command to return to the Main Menu screen.

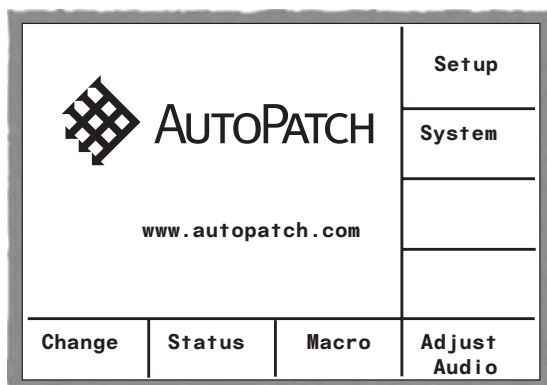
Changing Levels

Occasionally you may need to execute switches (or other operations) on a level other than the current level. Changing levels does not change the default level. For information on changing the default level, see page 2-6. The directions below give the steps for changing from routing signals on the 0 level (default), “Audio follow Video,” to routing on level 2 which switches the audio signal only. Although the example accesses the Level option from the Change menu, this option can be accessed from any of the command menus along the bottom of the screen.

Note: The first time a new level is accessed, the front panel loads the names (labels) for that level. This can take several seconds depending on the size of the level.

To change the level:

1. At the Main Menu screen, choose the Change command.



The Select Source to Change screen appears, displaying the current level in the upper left corner.

SELECT SOURCE TO CHANGE			
Level=0: Audio follow Video			
Source			
30: Audience Camera			
31: Presenter Camera			
32: Satellite Dish			
▶ 1 : VCR #5 Conf Rm A			
2 : DVD #1 Rm 7			
3 : Tape Deck Rm 6			
4 : Corporate Logo			
5 : DVD #2 Mtg Rm 1			
Level	Source	Destination	Main Menu

- Choose the Level command.

The Change Level screen appears, displaying the current level, default level, and a list of available levels.

CHANGE LEVEL			
Default=0: Audio follow Video			
Current=0: Audio follow Video			
0: Audio follow Video			
1: Video			
2: Audio, Stereo			
Level			Main Menu

- Select **2 : Audio, Stereo** by scrolling through the list with the control dial (left is down; right is up).

CHANGE LEVEL			
Default=0: Audio follow Video			
Current=0: Audio follow Video			
0: Audio follow Video			
1: Video			
▶ 2: Audio, Stereo			
			Back
Level			Main Menu

- Press the dial to enter your selection.

Level 2 displays in the Current field.

CHANGE LEVEL		
Default=0: Audio follow Video		
Current=2: Audio, Stereo		
0: Audio follow Video		
1: Video		
▶ 2: Audio, Stereo		
		Back
Level		Main Menu

- Choose the Main Menu command to return to the Main Menu screen where you can choose the command to execute on the new level.

Choosing the Default Level

You may choose to change the factory default level for your system. When you choose a new default level, the system will revert to that level each time the system is powered up, even if you change levels (see page 2-4).

The example below selects Level 2 as the default level.

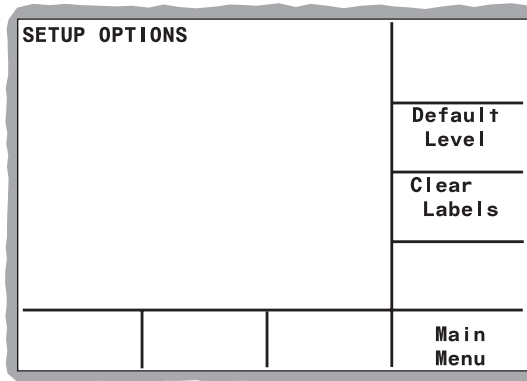
Note: The first time a new level is accessed, the front panel loads the names (labels) for that level. This can take several seconds depending on the size of the level.

▶ To choose the default level:

- At the Main Menu screen, choose the Setup command.

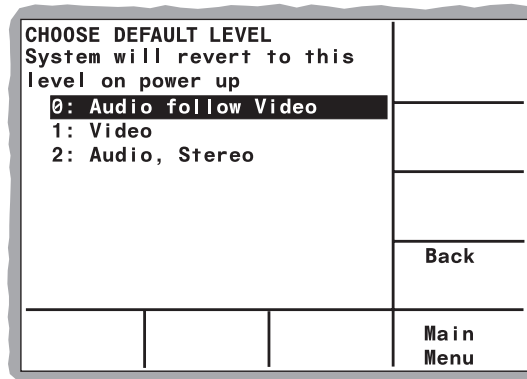
 AUTOPATCH www.autopatch.com		Setup	
		System	
Change	Status	Macro	Adjust Audio

The Setup Options screen appears.

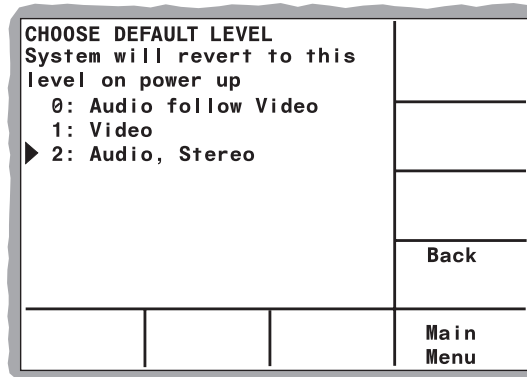


- Choose the Default Level command.

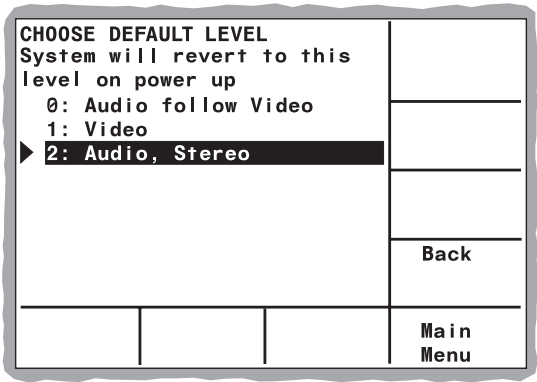
The Choose Default Level screen appears, displaying all the levels with the current default level selected.



- Select **2 : Audio, Stereo** by scrolling through the list with the control dial (left is down; right is up).



- 4. Press the dial to enter the selection.
Level **2 : Audio, Stereo** is now the default level.



- 5. Choose the Main Menu command to return to the Main Menu screen.

Disconnecting Switches

Disconnecting a switch deactivates the connection between a source signal and one or more output devices. You can disconnect a single switch on one level with one command; however, you cannot disconnect all signals on a single level with one command.

You can disconnect switches from the CP-20 Control Panel by using the steps on the following pages.

If you need to change the level, see “Changing Levels” on page 2-4.

If you decide to change the default level, see “Choosing the Default Level” on page 2-6.

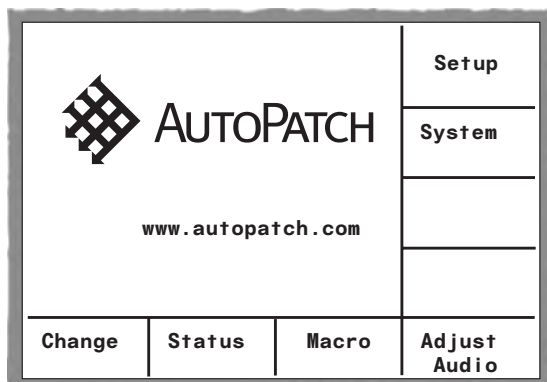
You can return to the Main Menu screen at any time by choosing the Main Menu command.

The example on page 3-2 disconnects destination (output)

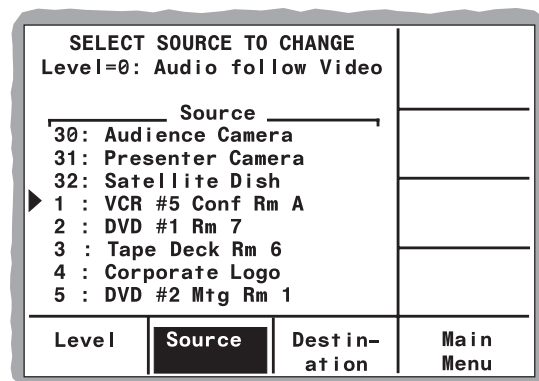
2 : Codec Mtg Rm A from its source (input), **32: Satellite Dish**, on level 0 (the default level).

To disconnect a switch:

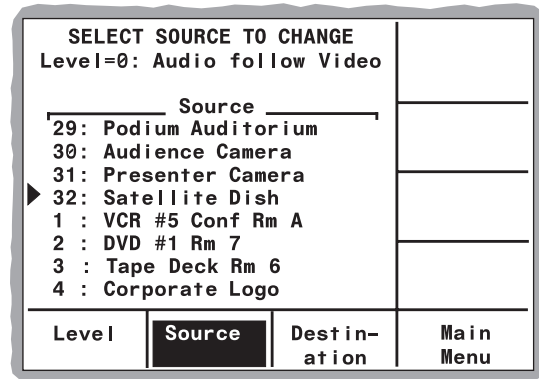
1. At the Main Menu screen, choose the Change command.



The Select Source to Change screen appears, displaying the current level and the source options.



2. Select source **32: Satellite Dish** by scrolling through the list with the control dial (left is down, right is up).



- Press the dial to enter the selection.

The Change to Destination screen appears, displaying the current level, the source, and the active destinations.

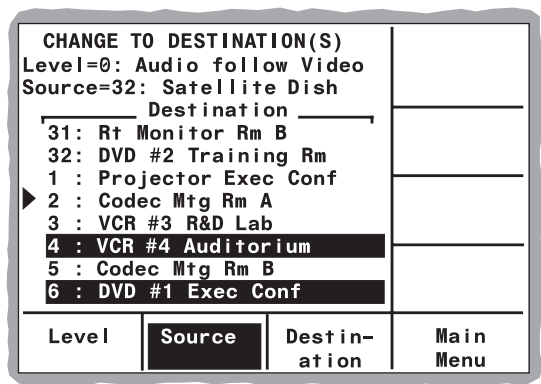
CHANGE TO DESTINATION(S)			
Level=0: Audio follow Video			
Source=32: Satellite Dish			
Destination			
30: Left Monitor Rm B			
31: Rt Monitor Rm B			
32: DVD #2 Training Rm			
▶ 1 : Projector Exec Conf			
2 : Codec Mtg Rm A			
3 : VCR #3 R&D Lab			
4 : VCR #4 Auditorium			
5 : Codec Mtg Rm B			
Level	Source	Destination	Main Menu

Note: Destination lines are dark when the source is routed to them. Scroll to see additional active destinations.

- Select destination **2 : Codec Mtg Rm A** by scrolling through the list with the Control Dial (left is down; right is up).

CHANGE TO DESTINATION(S)			
Level=0: Audio follow Video			
Source=32: Satellite Dish			
Destination			
31: Rt Monitor Rm B			
32: DVD #2 Training Rm			
1 : Projector Exec Conf			
▶ 2 : Codec Mtg Rm A			
3 : VCR #3 R&D Lab			
4 : VCR #4 Auditorium			
5 : Codec Mtg Rm B			
6 : DVD #1 Exec Conf			
Level	Source	Destination	Main Menu

5. Press the Control Dial to disconnect destination **2 : Codec Mtg Rm A**.
It is disconnected from its source as soon as the control dial is pressed.



Note: The Control Dial functions as a toggle switch, activating and deactivating destinations in the list each time it is pressed.

6. Choose the Main Menu command to return to the Main Menu screen.

Verifying Signal Status

Signal status verification can be executed to confirm that a switch has executed properly or to confirm correct routing to multiple destinations. A destination can only be connected to one source; therefore, verifying the status of a destination will display only the one source it is currently connected to. Source (input) status and destination (output) status both function on the CP-20 Control Panel.

If you need to change the level, see “Changing Levels” on page 2-4.

If you decide to change the default level, see “Choosing the Default Level” on page 2-6.

You can return to the Main Menu screen at any time by choosing the Main Menu command.

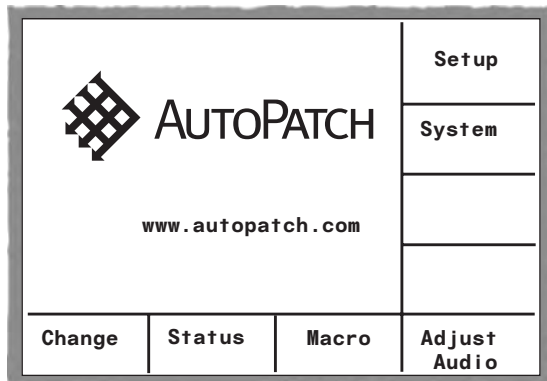
The example on page 4-2 verifies signal status for destination (output) **2 : Main Projector Rm 9** on level 0 (the default level).

The example on page 4-4 verifies the signal status for source (input) **32: Satellite Dish** on level 0 (the default level).

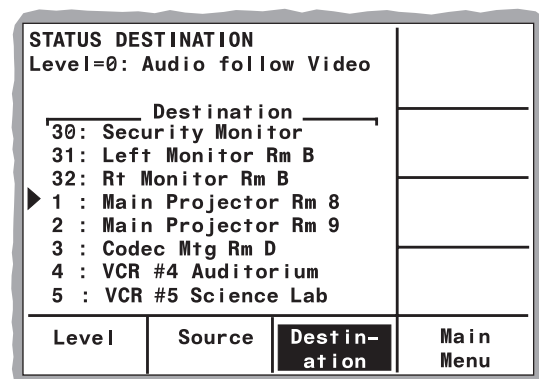
Verifying Destination Status

► To verify the signal status of a destination (output):

1. At the Main Menu screen, choose the Status command.



The Status Destination screen appears, displaying the current level and the available destinations.



2. Select destination **2 : Main Projector Rm 9** by scrolling through the list with the control dial (left is down; right is up).

STATUS DESTINATION			
Level=0: Audio follow Video			
Destination			
31: Left Monitor Rm B			
32: Rt Monitor Rm B			
1 : Main Projector Rm 8			
▶ 2 : Main Projector Rm 9			
3 : Codec Mtg Rm D			
4 : VCR #4 Auditorium			
5 : VCR #5 Science Lab			
6 : Codec Mtg Rm B			
Level	Source	Destin- ation	Main Menu

3. Press the dial to enter the selection.
- The Status Results screen appears, displaying the destination, **2 : Main Projector Rm 9**, and its source, **30: Audience Camera**.

STATUS RESULTS			
Level=0: Audio follow Video			
2 : Main Projector Rm 9			
Source			
▶ 30: Audience Camera			
Level	Source	Destin- ation	Main Menu

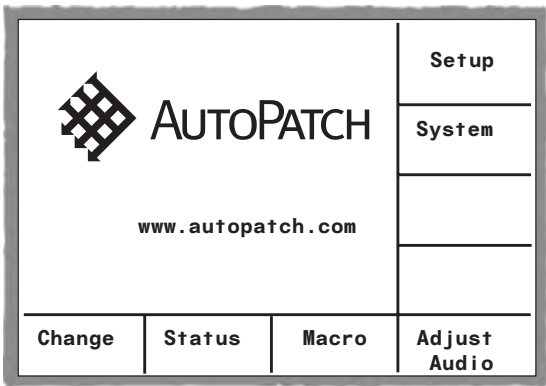
4. Choose the Destination command to return to the Status Destination screen to verify the status of additional destination signals.
- Or choose the Main Menu command to return to the Main Menu screen.

Verifying Source Status

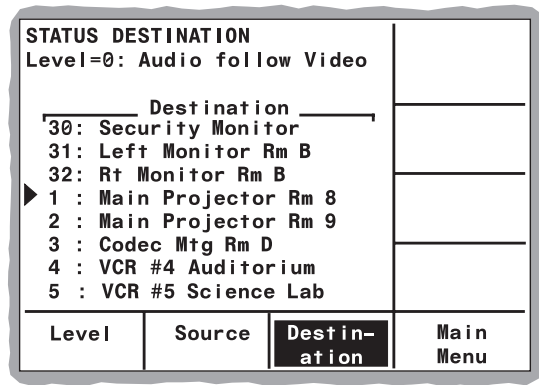
Note: If you choose to check the status of a source, *all* the destinations that are connected to it will be listed.

► To verify the signal status of a source (input):

- 1. At the Main Menu screen, choose the Status command.



The Status Destination screen appears, displaying the current level and the available destinations.



2. At the Status Destination screen, choose the Source command.
The Status Source screen appears, displaying the current level and the available sources.

STATUS SOURCE			
Level=0: Audio follow Video			
Source			
30: Audience Camera			
31: Presenter Camera			
32: Satellite Dish			
▶ 1 : VCR #5 Conf Rm A			
2 : DVD #1 Rm 7			
3 : Tape Deck Rm 6			
4 : Corporate Logo			
5 : DVD #2 Mtg Rm 1			
Level	Source	Destin- ation	Main Menu

3. Select source **32: Satellite Dish** by scrolling through the list with the control dial (left is down; right is up).

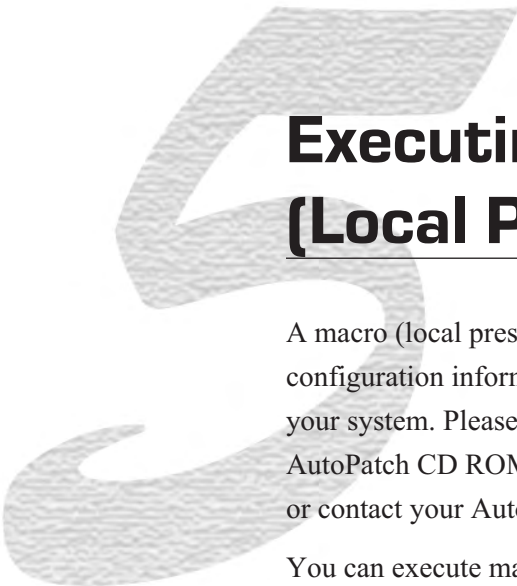
STATUS SOURCE			
Level=0: Audio follow Video			
Source			
29: Podium Auditorium			
30: Audience Camera			
31: Presenter Camera			
▶ 32: Satellite Dish			
1 : VCR #5 Conf Rm A			
2 : DVD #1 Rm 7			
3 : Tape Deck Rm 6			
4 : Corporate Logo			
Level	Source	Destin- ation	Main Menu

4. Press the dial to enter the selection.
The Status Results screen appears, displaying the source, **32: Satellite Dish**, and its destination: **4: VCR #4 Auditorium**.

STATUS RESULTS			
Level=0: Audio follow Video			
32: Satellite Dish			
Destination			
▶ 4 : VCR #4 Auditorium			
Level	Source	Destin- ation	Main Menu

Note: If the screen is full, more destinations than the ones displayed may be active. Use the dial to scroll to check for possible additional destinations.

5. Choose the Source command to return to the Status Source screen to verify the status of additional source signals.
Or choose the Main Menu command to return to the Main Menu screen.



Executing Macros (Local Presets)

A macro (local preset) is a set of switches stored in each enclosure's configuration information. Macros are not programmed when we ship your system. Please use the X^NConnect software located on the AutoPatch CD ROM in the front pocket of this binder to program them, or contact your AutoPatch dealer.

You can execute macros (local presets) from the CP-20 Control Panel at any time using the steps on the following pages.

If you need to change the level, see “Changing Levels” on page 2-4.

If you decide to change the default level, see “Choosing the Default Level” on page 2-6.

You can return to the Main Menu screen at any time by choosing the Main Menu command.

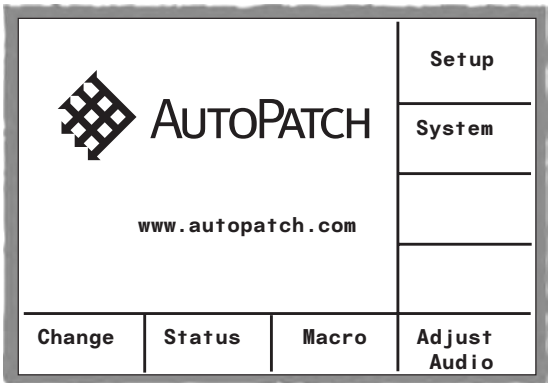
The example on page 5-2 executes local preset 12 on level 0 (the default level).

Note: If the macro (local preset) you are looking for is not available, check the level to make sure you are on the level where the macro resides.

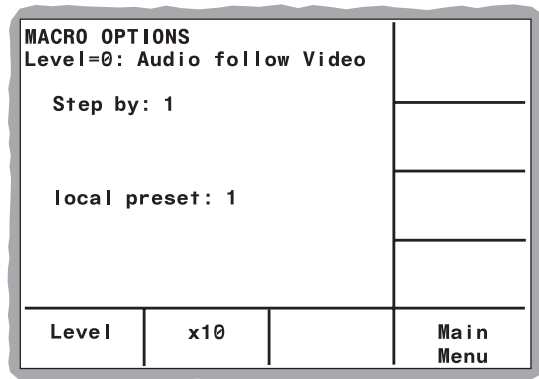


To execute a local preset:

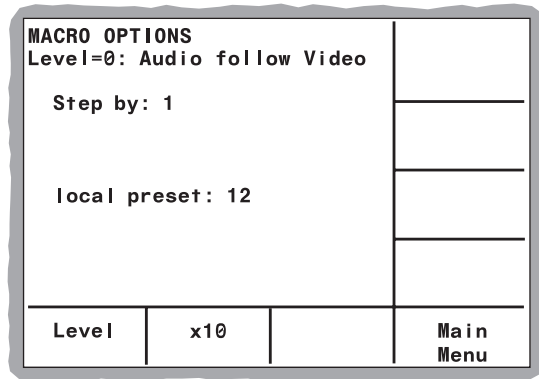
1. At the Main Menu screen, choose the Macro command.



The Macro Options screen appears displaying the current level and the first available preset.



2. Select preset 12 by scrolling through the local preset numbers with the control dial (left is down; right is up).

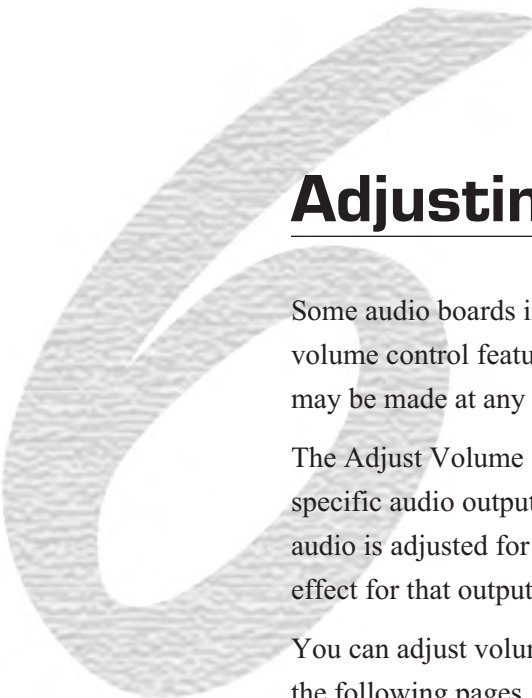


3. Press the dial to enter the selection.
A message will appear verifying the successful macro switch.

MACRO OPTIONS			
Level=0: Audio follow Video			
Step by: 1			
local preset: 12			
Macro Successful			
Level	x10		Main Menu

4. Choose the Main Menu command to return to the Main Menu screen.

Note: If a large number of macros (local presets) have been programmed into the system, choose “**x10**” from the options along the bottom of the screen to access them quickly. As you turn the control dial, the number of the available local preset will change in increments of ten. Choose “**x1**” to change back to the view that allows access to a single preset at a time.



Adjusting Volume

Some audio boards in AutoPatch Distribution Matrices offer an optional volume control feature. If your system has volume control, adjustments may be made at any time during normal operation.

The Adjust Volume screen displays the volume range available for the specific audio output board that has been selected for adjustment. When audio is adjusted for an output on one level, the adjustment remains in effect for that output on all levels switching audio signals.

You can adjust volume from the CP-20 Control Panel using the steps on the following pages.

If you need to change the level, see “Changing Levels” on page 2-4.

If you decide to change the default level, see “Choosing the Default Level” on page 2-6.

You can return to the Main Menu screen at any time by choosing the Main Menu command.

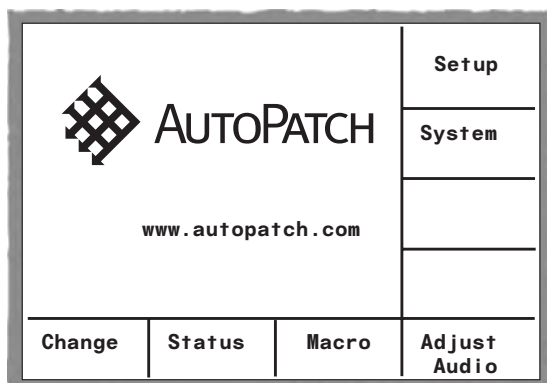
The example on page 6-2 adjusts the volume for destination (output)

2 : Training Rm 1.

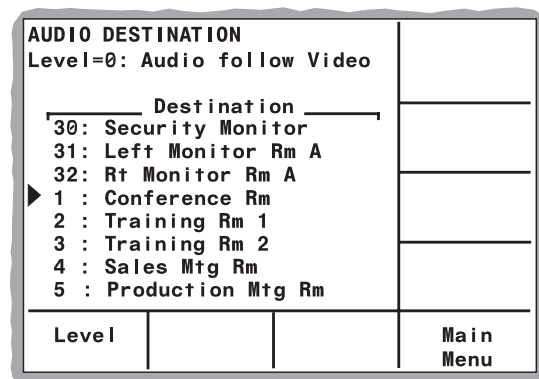
Note: If your system contains audio boards with the digital input gain option, they can be adjusted using BCS commands (see the *Serial Control Operation* section of this binder).

To adjust the volume:

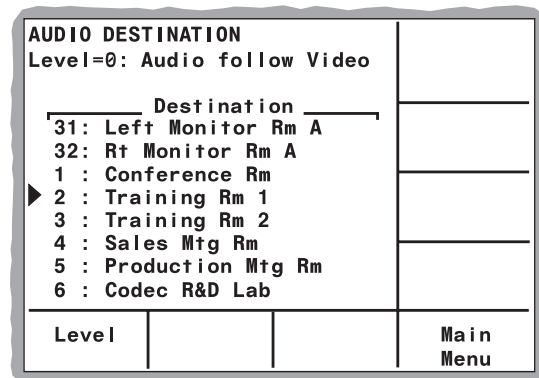
1. At the Main Menu screen, choose the Adjust Audio command.



The Audio Destination screen appears, displaying the current level and the destination options.

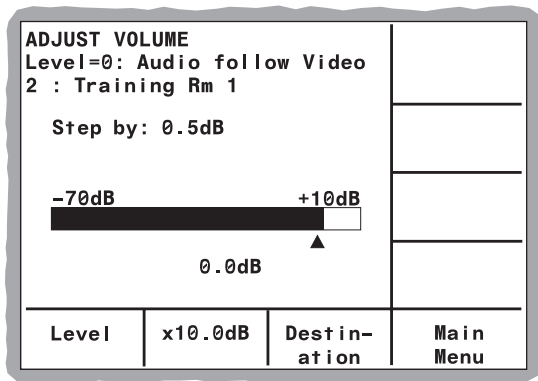


2. Select destination **2 : Training Rm 1** by scrolling through the list with the control dial (left is down; right is up).

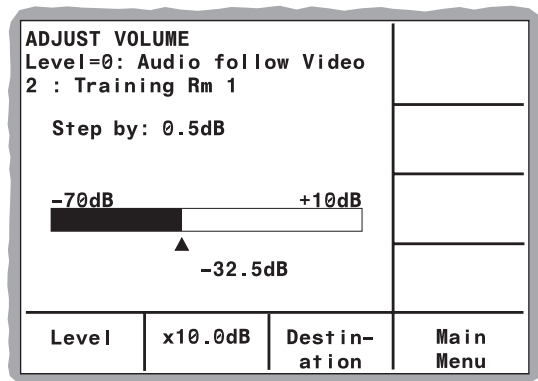


3. Press the dial to enter the selection.

The Adjust Volume screen appears displaying the current volume setting.



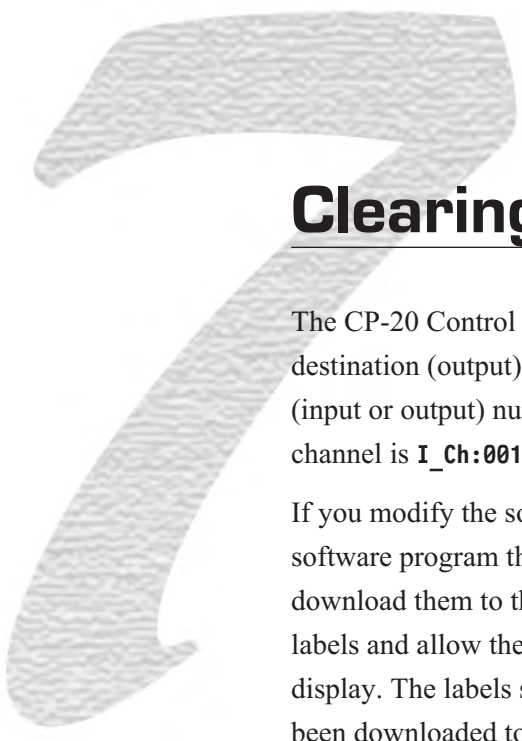
4. Adjust the volume by turning the control dial left (counterclockwise) to decrease the volume or right (clockwise) to increase the volume.



5. Press the dial to enter the desired adjustment.

Note: To change the volume in steps of 10.0 dB as you turn the control dial, choose the “**x10.0dB**” command from the options along the bottom of the screen. Choose the “**x0.5dB**” command to switch back to changing volume in steps of 0.5 dB.

6. Choose the Destination command to return to the Audio Destination screen to adjust the volume of additional destination signals.
Or choose the Main Menu command to return to the Main Menu screen.



Clearing Labels

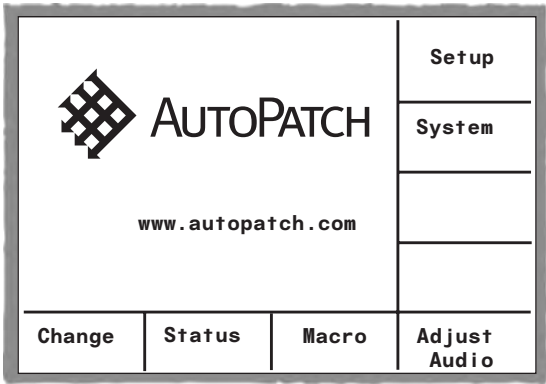
The CP-20 Control Panel stores label information for source (input) and destination (output) names. The default label for a name is the channel (input or output) number. For example, the default label for the first input channel is **I_Ch:001**.

If you modify the source or destination labels in X^NConnect (the graphical software program that can display your system's configuration), you must download them to the system. You will then need to clear the current labels and allow the system to load the new labels for control panel display. The labels should be cleared *after* the new configuration file has been downloaded to the system's CPU.

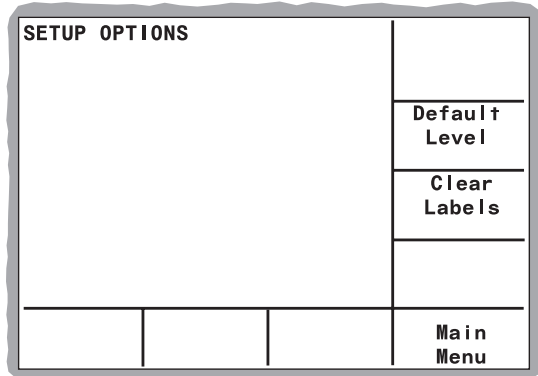
To modify labels see Chapter 8 in the *Installation & Setup* section of this binder.

To clear current labels to allow the new labels to load:

1. At the Main Menu screen, choose the Setup command.

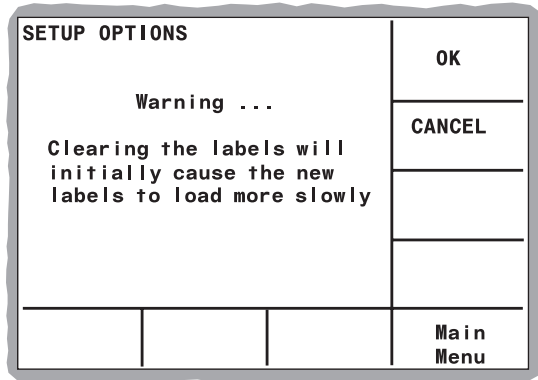


The Setup Options screen appears.

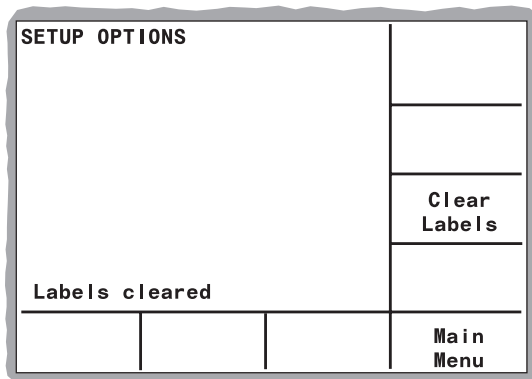


2. Choose the Clear Labels command.

A “Warning” appears.



3. Choose the OK command to clear the current labels.
A message appears saying that the labels have been cleared.



4. Choose the Main Menu command to return to the Main Menu screen.

The system automatically loads the new labels the next time a command option is selected from the Main Menu. This may take a few moments.

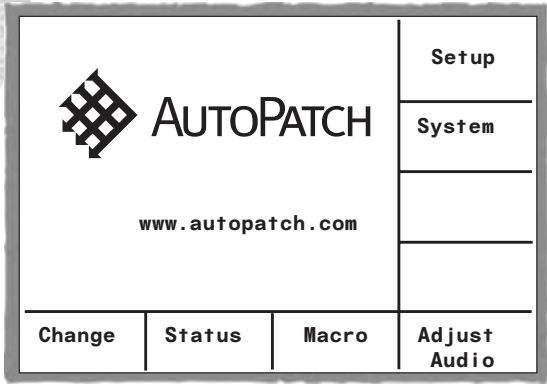
Note: If the labels have been changed in multiple VMs (virtual matrices), allow time for the new labels to load the first time each VM is used for executing commands.

Checking Software Version

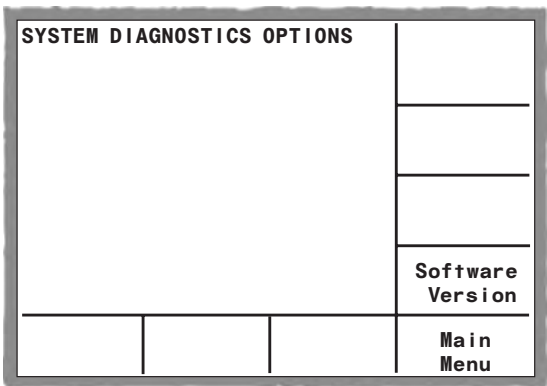
Use the following steps to check the software version of the CP-20 Control Panel.

To check the software version:

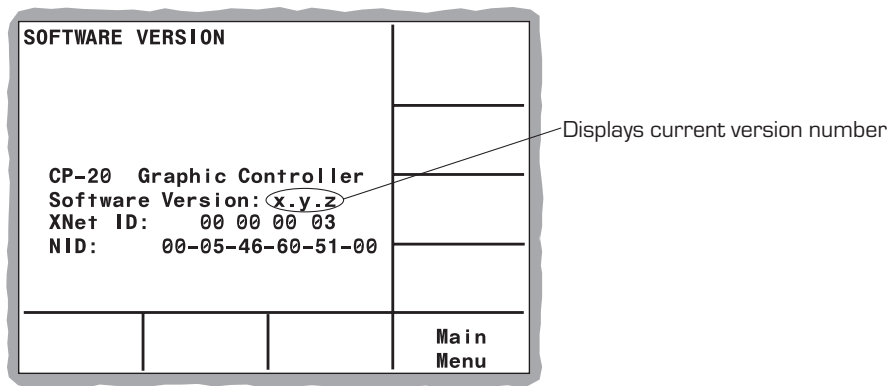
- At the Main Menu screen, choose the System command.



The System Diagnostics Options screen appears.



- 2. Choose the Software Version command.
The software information appears, including the version number.



- 3. Choose the Main Menu command to return to the Main Menu screen.

Installing a Remote CP-20

This chapter covers steps for installing a Remote CP-20 Control Panel in a rack, as well as instructions for linking multiple panels.

Each remote panel order comes with the following items in the shipping box:

- Remote CP-20 Control Panel
- X^NNet cable and connector kit (custom option)
- Wall transformer (optional)

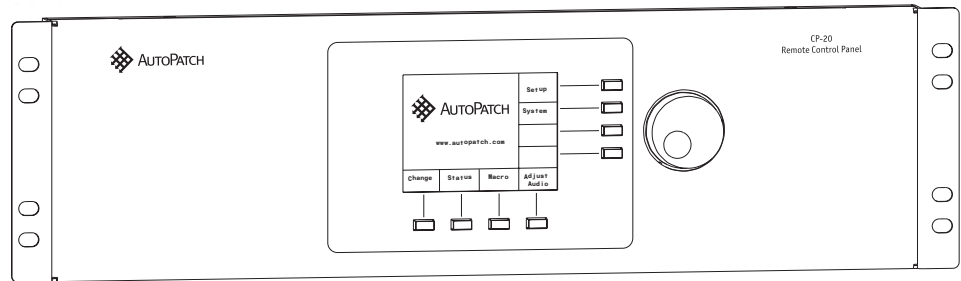


Figure 3: Front view of a Remote CP-20 Control Panel

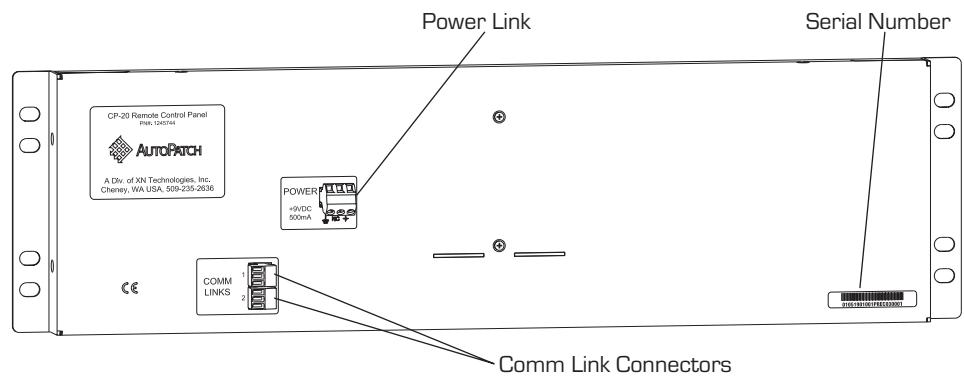


Figure 4: Rear view of a Remote CP-20 Control Panel

Rack Installation

Remote CP-20 Control Panels are designed to fit in a standard EIA 19 in. (48.26 cm) rack.

Note: For ease of use, mount the controller in the rack at eye level. Viewing the screen at extreme angles makes it hard to see the screen messages; the optimum viewing angle for the LCD screen is +15°.

To install a Remote CP-20 Control Panel in a rack:

1. Place the Remote CP-20 Control Panel in the rack and attach with front mounting screws to hold it firmly in place (repeat for each panel in a multi-panel system).

Tip: You may find it easiest to install the top panel first and move down from there.

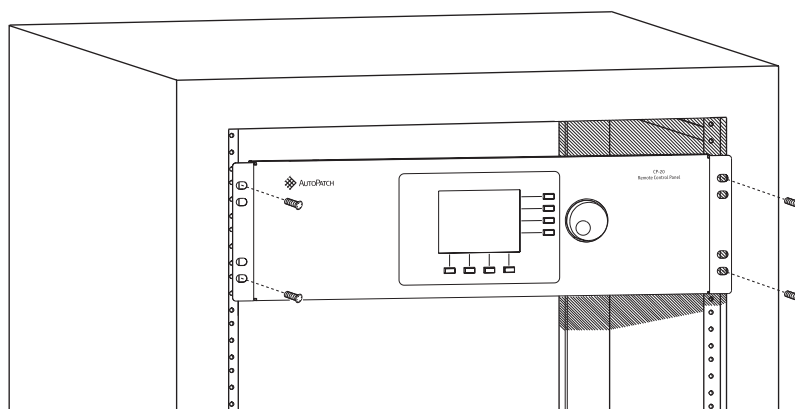


Figure 5: Place in the rack and fasten with mounting screws

Note: If you have a centralized 5 volt power source you would like to use for multiple panels, call AutoAssist (see *Technical Support* on page 1-3) for linking instructions.

2. Connect the power wires to the power connector by loosening the ground and positive screws, inserting the ground and positive wires, and tightening the screws.

(Unplugging the power connector before wiring may be helpful.)

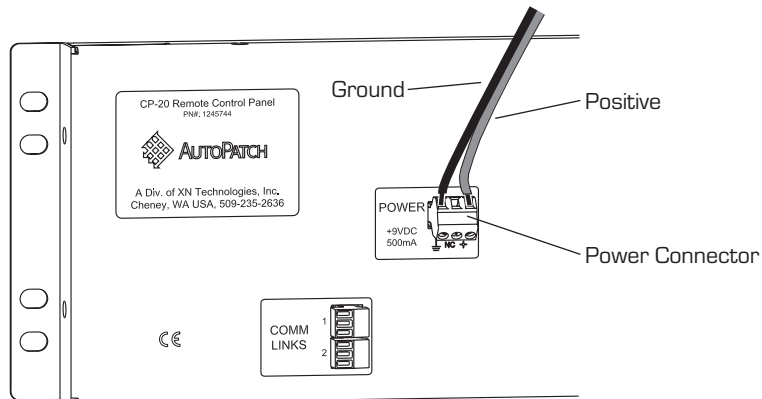


Figure 6: Loosen screws, insert wires, and then tighten screws

Note: If you use the (optional) wall transformer, the side of the wire with the white stripe is positive and the other side is the ground. Acceptable power for the controller is +7 to +9 VDC @ 500 mA.

3. Connect the X^NNet CPU wires to either Comm Link by loosening the top and bottom screws, inserting wires (either wire can be inserted in the top or the bottom slot of the Comm Link; be sure to leave the center slot empty), and tightening the screws. (Unplugging the Comm Link connector before wiring may be helpful.)

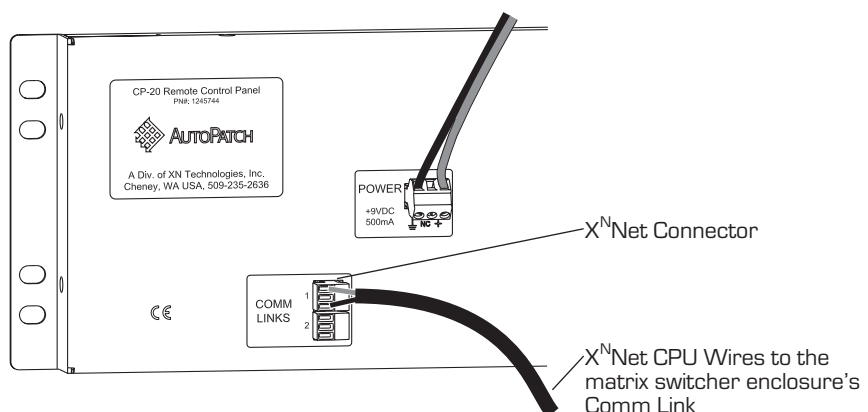


Figure 7: Loosen screws, insert X^NNet CPU wires, and then tighten screws

4. Connect the other ends of the X^NNet CPU wires into the corresponding X^NNet Comm Link on your matrix switcher enclosure. These wire ends must be inserted in the same positions (i.e., top to top) as they are in the Comm Link on the remote panel.
5. Perform a test switch to ensure the panel and the matrix switcher are working properly (see Chapter 2).

Linking Remote CP-20 Control Panels

To link Remote CP-20 Control Panels:

Link the panels in a daisy chain using X^NNet linking cables. Connections can be made from either Comm Link on a panel to any Comm Link on the next panel. Be sure that all of the wire ends are inserted in the same positions on all panels and on the matrix switcher).

Note: A 120 Ohm resistor may be needed and is included for the Comm Link on the last remote of a large daisy chain.

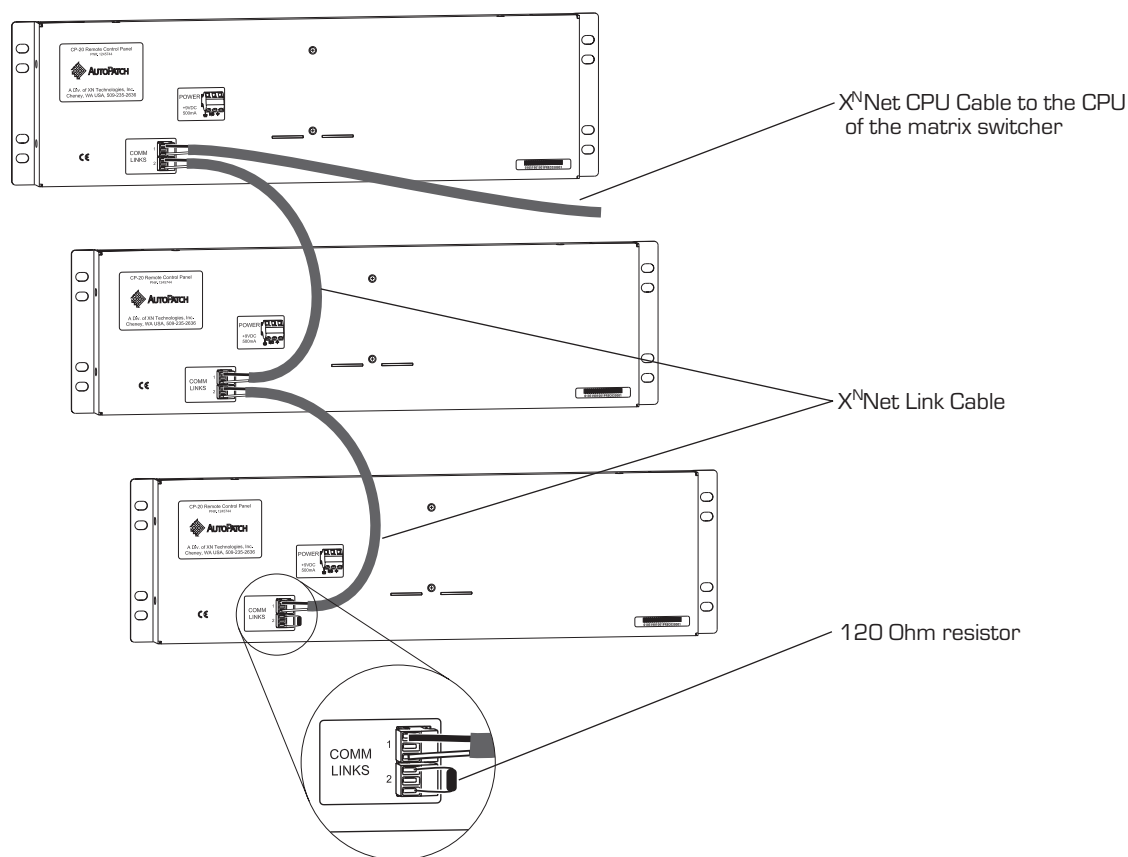


Figure 8: Connect from Comm Link to Comm Link in a daisy chain

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► BCS Command Line Format

You can enter BCS (Basic Control Structure) commands from terminal emulation software or custom control software.

To generate commands, enter them using the following formats in which “#” represents any valid level, local preset, input, or output number and “^^^” represents a decimal number to the tenth place without the decimal marker (for example 100 = 10.0 and 35 = 3.5).

For multiple outputs or multiple local prests, enter a space between each number.

O is the letter O, not the number zero (0).

- ▣ To execute a switch:

CL#I#O#T or CL#O#I#T

- ▣ To verify switch status:

SL#O#T or SL#I#T

- ▣ To execute a local preset:

RL#P#T

- ▣ To disconnect a switch:

DL#O#T or DL#I#T

- ▣ To adjust absolute volume*:

CL#O#VA^^^T

- ▣ To adjust relative volume*:

CL#O#VR^^^T

- ▣ To adjust increment/decrement volume*:

CL#O#VS+T or CL#O#VS-T

To cancel an incomplete BCS command, enter the “X” command at any time.

*To use these commands your system must contain audio boards with the Volume Adjustment feature and the decimal number must fall within the adjustment range for the specific type of audio board.

► BCS Command Set

Use a combination of the following characters (keys) to generate commands.

Keys	Function	Description
C	Change	Initiates an execute switch command
L	Level	Flags the next 1-3 digit number as a level number
“0” - “9”	Number	Identifies inputs, outputs, local presets, and levels; combine the digits to form larger numbers
I	Input	Flags the next 1-3 digit number as an input specification
O	Output	Flags the next 1-3 digit number as an output specification
“ ”	Space	Separates numbers in multiple number entries
T	Take	Executes a command
X	Exit	Exits, or cancels, the command being entered
S	Status	Verifies status of input and output connections
R	Global Preset	Initiates an execute global preset command. Also required to execute a local preset
P	Local Preset	Flags the next 1-3 digit number as a local preset number
D	Disconnect	Initiates a disconnect switch command
VA	Volume Absolute	Flags the next 1-3 digit as the volume adjustment to a specific decibel level
VR	Volume Relative	Flags the next 1-3 digit as the volume adjustment of a specific decibel amount
VS+ or VS-	Volume Increment/Decrement	Adjusts volume of a specified output up or down a step



CP-20
Control Panel
& BCS Commands

Visit the AutoPatch web site at www.autopatch.com



Document Version A1
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Please keep this guide close to the system for quick reference.

► CP-20 Control Panel
Command Screens

 AUTO PATCH www.autopatch.com			Setup
			System
Change	Status	Macro	Adjust Audio

SYSTEM DIAGNOSTICS OPTIONS			
			Software Version
			Main Menu

The **System Diagnostics Options** screen displays the *Software Version* menu option. Select by pressing the corresponding key.

SOFTWARE VERSION			
			CP-20 Graphic Controller Software Version: x.y.z XNet ID: 00 00 00 03 NID: 00-05-46-60-51-00
			Main Menu

The **Software Version** screen displays the software version.

SELECT SOURCE TO CHANGE Level=0: Audio follow Video			
Source			
30: Audience Camera			
31: Presenter Camera			
32: Satellite Dish			
► 1: VCR #5 Conf Rm A			
2: DVD #1 Rm 7			
3: Tape Deck Rm 6			
4: Corporate Logo			
5: DVD #2 Mtg Rm 1			
Level	Source	Destination	Main Menu

The **Select Source to Change** screen displays the current level and available sources. Scroll with the Control Dial to select the source. Press the dial to enter.

CHANGE LEVEL Default=0: Audio follow Video Current=0: Audio follow Video			
0: Audio follow video			
1: Video			
2: Audio, Stereo			
Level			Main Menu

The **Change Level** screen displays the current level and a list of available levels. Scroll with the Control Dial to change the level. Press the dial to enter.

STATUS DESTINATION Level=0: Audio follow Video			
Destination			
30: Left Monitor Rm B			
31: Rt Monitor Rm B			
32: Main Training Rm			
► 1: Projector Exec Conf			
2: Codec Mtg Rm A			
3: VCR #3 R&D Lab			
4: VCR #4 Auditorium			
5: Codec Mtg Rm B			
Level	Source	Destination	Main Menu

The **Status Destination** screen displays available destinations. Scroll with the Control Dial to select the destination for which you need to check the status. Press the dial to enter.

AUDIO DESTINATION Level=0: Audio follow Video			
Destination			
30: Security Monitor			
31: Left Monitor Rm A			
32: Right Monitor Rm A			
► 1: Conference Rm			
2: Training Rm 1			
3: Training Rm 2			
4: Sales Mtg Rm			
5: Production Mtg Rm			
Level			Main Menu

The **Audio Destination** screen displays available destinations. Scroll with the Control Dial to select the destination for which you need to adjust volume. Press the dial to enter.

ADJUST VOLUME Level=0: Audio follow Video 4: Sales Mtg Rm			
Step by: 0.5dB			
-70dB +10dB			
-32.5dB			
Level	x10.0dB	Destination	Main Menu

The **Adjust Volume** screen displays a slider. Scroll with the Control Dial to select the decibel level you need. Press the dial to enter.

CHANGE TO DESTINATION(S) Level=0: Audio follow Video Source= 1: VCR #5 Conf Rm A			
Destination			
30: Left Monitor Rm B			
31: Rt Monitor Rm B			
32: Main Training Rm			
► 1: Projector Exec Conf			
2: Codec Mtg Rm A			
3: VCR #3 R&D Lab			
4: VCR #4 Auditorium			
5: Codec Mtg Rm B			
Level	Source	Destination	Main Menu

The **Change to Destination(s)** screen displays the current level, your Source selection, and available destinations. Scroll with the Control Dial to select the destination. Press the dial to enter.

STATUS RESULTS Level=0: Audio follow Video 16: Rt Monitor Rm B			
Source			
► 6: Audience Camera			
Level	Source	Destination	Main Menu

The **Status Results** screen displays the chosen destination and the source that is connected to it.

MACRO OPTIONS Level=0: Audio follow Video			
Step by: 1			
local preset: 12			
Level	x10		Main Menu

The **Macro Options** screen displays the available macros (local presets). Scroll with the Control Dial to select the macro. Press the dial to enter.

Quick Reference Guide

This guide contains a map of the main screens on the CP-20 Control Panel and has BCS (Basic Control Structure) command information. A list of command lines for BCS procedures and a chart of the BCS command set are on the reverse side of this guide.