AUTOPATCH

Precis Remote
X/Y Control Panel
Installation &
Operation Guide

precis®

900-852 8/24 /04

ESD Warning

To avoid ESD (Electrostatic Discharge) damage to sensitive components, make sure you are properly grounded before touching any internal materials.

When working with any equipment manufactured with electronic devices, proper ESD grounding procedures must be followed to ensure people, products, and tools are as free of static charges as possible. Grounding straps, conductive smocks, and conductive work mats are specifically designed for this purpose.

Anyone performing field maintenance on AutoPatch equipment should use an appropriate ESD field service kit complete with at least a dissipative work mat with a ground cord and a UL listed adjustable wrist strap with another ground cord. These items should not be manufactured locally, since they are generally composed of highly resistive conductive materials to safely drain static charges, without increasing an electrocution risk in the event of an accident. ESD protective equipment can be obtained from 3M™, Desco®, Richmond Technology®, Plastic Systems®, and other such vendors.

Important Safety Information and Instructions

When using and installing your AutoPatch product, adhere to the following basic safety precautions. For more information about operating, installing, or servicing your AutoPatch product see your product documentation.

➤ Read and understand all instructions before using and installing AutoPatch products.

➤ Use the correct voltage range for your AutoPatch product.

➤ There are no user serviceable parts inside an AutoPatch product; service should only be done by qualified personnel.

➤ If you see smoke or smell a strange odor coming from your AutoPatch product, turn it off immediately and call AutoAssist.

➤ Turn off and unplug an enclosure before adding or removing boards, unless otherwise specified in that product's documentation.

➤ To avoid shock or potential ESD (Electrostatic Discharge) damage to equipment, make sure you are properly grounded before touching components inside an AutoPatch product.

➤ For products with multiple power supplies in each unit, make sure all power supplies are turned on simultaneously.

➤ Use surge protectors and/or AC line conditioners when powering AutoPatch products.

➤ Only use a fuse(s) with the correct fuse rating in your enclosure.

➤ Make sure the power outlet is close to the product and easily accessible.

➤ Make sure the product is on or attached to a stable surface.

➤ Turn off equipment before linking pieces together, unless otherwise specified in that product's documentation.

➤ For safety and signal integrity, use a grounded external power source and a grounded power connector.

Information et directives
de sécurité importantes

Veuillez vous conformer aux directives de sécurité ci-dessous lorsque vous installez et utilisez votre appareil *AutoPatch*. Pour de plus amples renseignements au sujet de l'installation, du fonctionnement ou de la réparation de votre appareil *AutoPatch*, veuillez consulter la documentation accompagnant l'appareil.

➤ Lisez attentivement toutes les directives avant d'installer et d'utiliser les appareils *AutoPatch*.

➤ Le voltage doit être approprié à l'appareil *AutoPatch*.

➤ Les appareils *AutoPatch* ne contiennent aucune pièce réparable par l'usager; la réparation ne doit être effectuée que par du personnel qualifié.

➤ Si de la fumée ou une odeur étrange se dégagent d'un appareil *AutoPatch*, fermez-le immédiatement et appelez le Service de soutien technique (*AutoAssist*).

➤ Fermez et débranchez le boîtier avant d'ajouter ou d'enlever des plaquettes, à moins d'indication contraire fournie dans la documentation du appareil.

➤ Pour éviter les chocs ou les dommages éventuels causés à l'équipement par une décharge électrostatique, veillez à ce le dispositif oit bien relié à la terre avant de toucher les composantes se trouvant à l'intérieur d'un appareil *AutoPatch*.

➤ Veillez à ce que tous les blocs d'alimentation des appareils dotés de blocs d'alimentation multiples dans chaque unité soient allumés simultanément.

➤ Servez-vous de protecteurs de surtension ou de conditionneurs de lignes à courant alternatif lorsque vous mettez les appareils *AutoPatch* sous tension.

➤ Placez uniquement des fusibles de calibre exact dans les boîtiers.

➤ Veillez à ce que la prise de courant soit proche de l'appareil et facile d'accès.

➤ Veillez à ce que votre appareil *AutoPatch* soit installé sur une surface stable ou qu'il y soit fermement maintenu.

➤ Fermez toutes les composantes de l'équipement avant de relier des pièces, à moins d'indication contraire fournie dans la documentation de l'appareil.

➤ Par mesure de sécurité et pour la qualité des signaux, servez-vous d'une source d'alimentation externe mise à la terre et d'un connect d'alimentation mis à la terre.

Notices

Further, this publication and features described herein are subject to change without notice. The United States Federal Communications Commission (in 47CFR 15.838) has specified that the following notice be brought to the attention of the users of this product.

Federal Communication Commission Radio Frequency Interference Statement:

"This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturers instructions, may cause interference to radio and television reception. It has been type-tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However there is no guarantee that interference will not occur in a particular installation. If this equipment causes interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

➤ *Reorient the receiving antenna*

➤ *Relocate the matrix with respect to the receiver*

➤ *Move the matrix away from the receiver*

➤ *Plug the matrix into a different outlet so that computer and receiver are on different branch circuits*

Notices

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Introducing
the Precis Remote Panel

Welcome to the *Precis Remote X/Y Control Panel Installation & Operation Guide*. This guide contains quick easy-to-follow instructions for using the Precis Remote Panel to operate Precis Matrix Switchers and other X^NNet compliant switchers.

Like the Precis Front Control Panel, the Precis Remote Panel is available in two configurations: 8x4 or 12x8, each with or without digital volume control.

The Precis Remote works the same as the Precis Series Front Control Panel. Operations are performed in three basic modes: Switch (default), Status, and Macro. See Chapter 3 for details on using these modes.

See Chapter 4 for details on locking the Precis Remote Panel. If your system was ordered with optional Volume Control, see Chapter 5 for details on using the Volume Adjust mode.

This document does not include any detailed information about serial control or SBCs (Single Bus Controllers). For more information about these controller types, contact your authorized AutoPatch dealer or AutoAssist (see *Technical Support* on page 1-4).
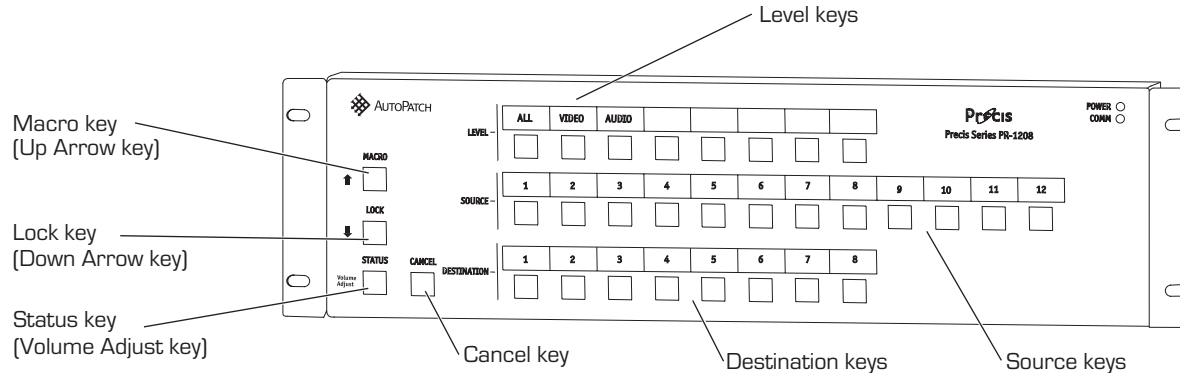
1.1 Front of Panel

Figure 1: Front view of a 12x8 Precis Remote (37-282) with Volume Control

A Precis Remote Panel operates in three standard modes: Switch
(default), Status, and Macro. Use Switch mode to execute switches,
Status mode to verify signal status, and Macro mode to execute macros
(local presets). An additional mode, Lock mode, enables the panel to be
locked. An optional fifth mode, Volume Adjust, is also available on
some panels.

Switch mode is the default mode. It can be accessed at any time by
pressing the Cancel key.

Cancel Key

Returns the Remote Panel to Switch mode from any other mode.
Pressing the Cancel key also cancels an incomplete operation before
returning the system to Switch mode.

Macro Key

Places the Remote Panel in Macro mode, ready to execute macros (see
page 3-5).

Lock Key

Places the Remote Panel in Lock mode, ready to lock (or unlock). This
limits access to the system to prevent accidental switching. A password
number is required to lock and unlock the panel (see page 4-1).

Status Key

Places the Remote Panel in Status mode, ready to verify switching status
(see page 3-3).

Level Keys

Activate levels for switches, status inquiries, or macros. In addition, while in Lock mode the Level keys are used for entering the password.

Source & Destination Keys

Select a source (input) or destination (output) on the specified level for executing switches, verifying status, and other operations. In addition, while in Macro mode these keys are used for entering macros. When used for selecting macros, the destination keys continue the numbering of the source keys. For example on an 8x4 panel, the Destination 1 key is used as the Macro 9 key when in Macro mode. See page 3-4 for more information on macro-to-key correspondence.

Volume Adjust Keys (Optional)

Change volume settings on systems equipped with the optional volume feature while in Volume Adjust mode.
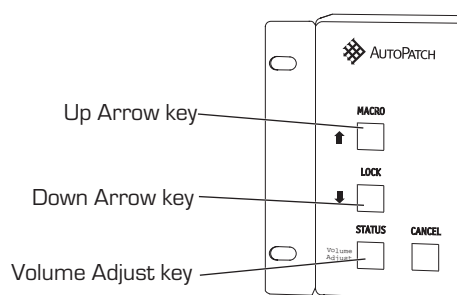

Figure 2: Volume Adjust keys

➤ **Volume Adjust** (Status key) – Places the Remote Panel in Volume Adjust mode. (This key must be held down until it flashes to place the system in Volume Adjust mode, see page 5-2.)

➤ **Down Arrow** (Lock key) – Decreases volume while in the Volume Adjust mode.

➤ **Up Arrow** (Macro key) – Increases volume while in the Volume Adjust mode.

Introduction

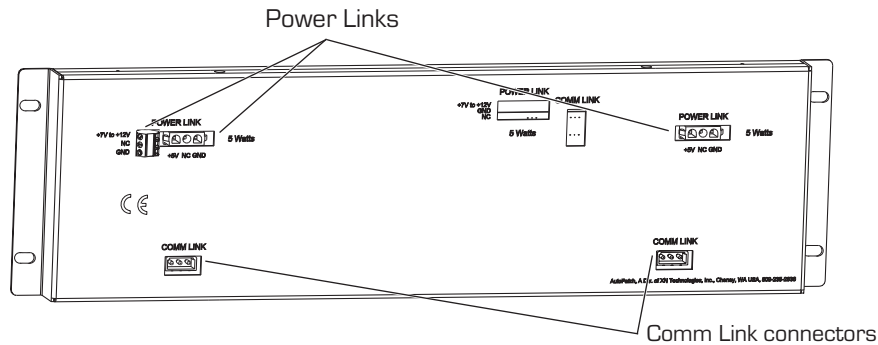## 1.2 Rear of Panel

Power Links

Comm Link connectors

Figure 3: Rear view of a Precis Remote

On the rear of the panel you will find the following:

Power Links

Attachment points for a power cable. The left connector is rated for 7 to 12 volt DC with at least 500 mA. The middle and right connectors are rated for 5 volt DC with at least 500 mA.

Comm Link Connectors

Two connection points which can be used for connecting to an AutoPatch switcher or for connecting multiple Precis Remote Panels using X^N Net link cables.

1.3 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 guide. If this guide cannot fully answer your question, *have your serial number ready* (located on the rear of the Precis Remote) 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**

Installing the
Precis Remote Panel

This chapter covers rack installation for the Precis Remote Panel, as well as instructions for linking multiple panels. When the installation is complete, a test switch should be executed (see page 3-2).

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

❏ Precis Remote X/Y Control Panel

❏ Precis Remote X/Y Control Panel Installation & Operation Guide

❏ X^{N}Net link cable(s)

❏ Wall transformer (optional)

General specifications that may be useful before installation include:

Approvals	CE
Communications Cable	General Purpose Grade / 16 AWG Distance: 1312.34 ft. (400 m) between remote & switcher Distance: 1640.42 ft. (500 m) total for linking purposes
Power	7 volt – 12 volt @ ≥500 mA **or** 5 volt @ ≥500 mA
Humidity	0 to 90% non-condensing
Dimensions	1.64 in. (4.17 cm) depth 18.92 in. (48.06 cm) width with mounting ears 5.2 in. (13.21 cm) height (3 RU)
Weight	Approximately 2 lbs. (0.9 kg) per panel

Full specifications for all AutoPatch products are located on the AutoPatch web site (www.autopatch.com).

Features and specifications described in this publication are subject to change without notice.

Precis Remote X/Y Control Panels are designed to fit in a standard EIA 19 in. (48.26 cm.) rack. We recommend connecting the Remote Panel to the switcher and power source before placing in the rack.

2.1 Connecting to an AutoPatch Switcher

To connect the Precis Remote to an AutoPatch switcher:

1. Plug the X^NNet link cable into either Comm Link on the back of the panel.
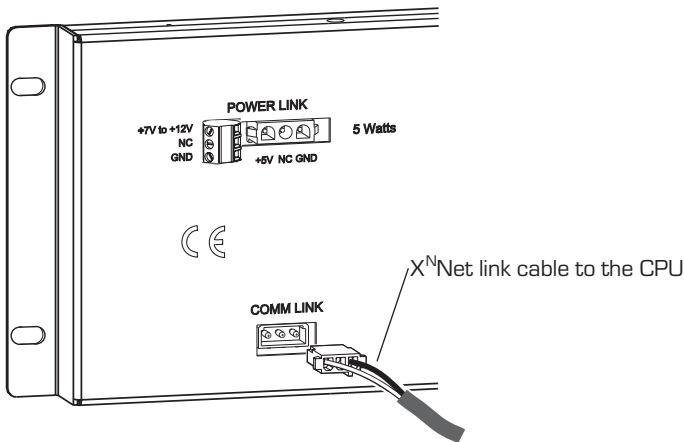
Figure 4: Plug the X^N Net link cable into a Comm Link

2. On the switcher's CPU, loosen the screws on the X^NNet connector (for X^NNet connector location, see the switcher documentation).

3. Insert the wires of the X^NNet link cable from the Remote Panel into the X^NNet connector (see Figure 5).

Figure 5: Insert the wires into the X^NNet connector on the CPU

4. Tighten the screws.
    The Remote Panel is ready to communicate with the switcher as soon as power is applied.

2.2 Applying Power

Power can be applied to the Precis Remote using either of the two power connectors, the 7 to 12 volt DC or the 5 volt DC. The AutoPatch wall transformer can *only* be used with the 7 to 12 volt DC connector (see the instructions below).
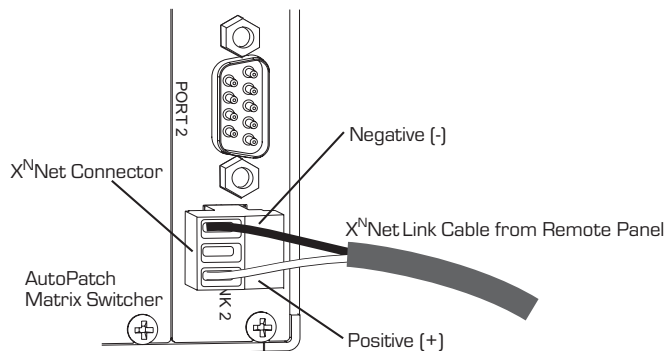
If using a transformer other than the AutoPatch wall transformer or a centralized power source, the acceptable power for the Precis Remote using the left connector is 7 to 12 volt DC with at least 500 mA. Acceptable power for using the right connector is 5 volt DC with at least 500 mA. See the transformer or power source documentation for wiring information.

Installing

▶ **To apply power to the Precis Remote using the AutoPatch wall transformer:**

1. Unplug the 7 to 12 V power connector from the back of the panel.

2. Connect power wires to the power connector by loosening the top and bottom screws, inserting the wires as show in Figure 6, and tightening the screws.
    The side of the wire with the white stripe is positive, and the other side is ground.
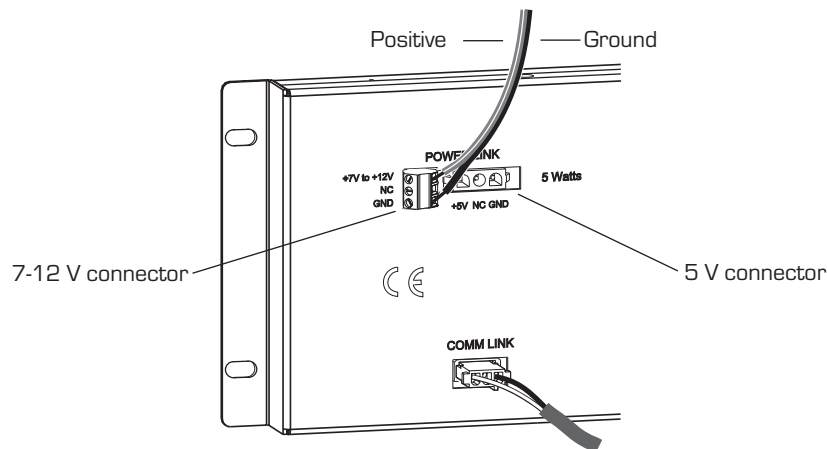

Figure 6: Plug the wired connector back into the panel

3. Plug the connector back into the panel (see Figure 6).

4. Plug the wall transformer into the power source.

Note: After applying power to the panel, make sure the Power LED in the upper right-hand corner on the front of the panel is illuminated. If it is *not* illuminated, check the power link on the back of the panel.

Installing

2.3 Rack Installation

Once the Remote Panel is wired, place it into the rack.

▶ **To install the Precis Remote in a rack**:

1. Insert the wired panel through the rear of the rack.

2. Align the Precis Remote with the rack screw holes and fasten firmly with the mounting screws.
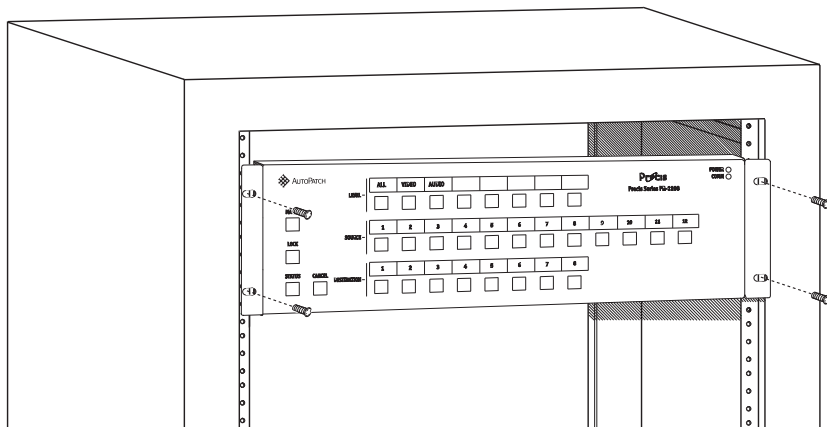

Figure 7: Place in rack and fasten with mounting screws

Make sure the Precis Remote is working properly by executing a test switch (see *Executing and Disconnecting Switches* on page 3-2).

If the panel is not working properly, check all system connections and retry the test switch before contacting AutoAssist (see *Technical Support* on page 1-4).

2.4 Linking Multiple Panels

Precis Remote Panels can be linked together to control large systems. See the X^NConnect Help file for information on remapping keys and adding control panels to an existing system's configuration.

▶ **To link Precis Remote Panels to each other,** connect the panels in a daisy chain using X^NNet link cables. The connection can be made from either Comm Link on a panel to either Comm Link on the next panel (see Figure 8 on page 2-5).

7-12 V connector   5 V connector

X^N Net link cable to CPU

X^N Net link cable

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

▶ **To connect one of the Remote Panels to an AutoPatch Switcher,** see page 2-2.

Power must be applied to each panel separately.

▶ **To apply power to linked Remote Panels,** use a transformer for each panel or wire each panel separately into a centralized power source. If using AutoPatch wall transformers, see the instructions on page 2-3.

If using a different transformer or a centralized power source, note that the acceptable power for each controller using the left connector is 7 to 12 volt DC with at least 500 mA. Acceptable power for using the right connector is 5 volt DC with at least 500 mA. See the transformer or power source documentation for wiring information.

> **Note:** If experiencing difficulties, insert a 120 ohm resistor in the outer contacts of the Comm Link on the last remote of a large daisy chain and tighten the screws. If problems persist, call AutoAssist (see *Technical Support* on page 1-4.)

Operating the Precis Remote Panel

A Precis Remote Panel operates in three standard modes: Switch (default), Status, and Macro. This chapter covers the following operations that can be performed in these modes:

➤ Executing and Disconnecting Switches

➤ Verifying Signal Routing Status

➤ Executing Macros

Operations involving additional modes are covered elsewhere. For detailed information on Lock mode, see Chapter 4. For detailed information on Volume Adjust mode, see Chapter 5.

Operating

3.1 Executing and Disconnecting Switches

A switch is an active connection between a source signal and one or more destination devices. Before executing or disconnecting a switch on the Precis Remote, make sure the panel is in Switch mode. If you are unsure which mode the Precis Remote is in, press the Cancel key — all the lights on the panel turn off, and the panel reverts to Switch mode. Follow the instructions below to execute and disconnect switches.

Note: When executing or disconnecting switches, make sure the Comm LED in the upper right-hand corner of the panel blinks. If it does not, check the Comm Link connection on the back of the panel and the connection at the switcher.

Operating

▶ **To execute or disconnect a switch:**

1. Press a Level key to select a level.
   The Level key illuminates.
   If you do not select a level, the system executes or disconnects the switch on the level associated with the All Level key. (The default level for that key is video and audio.)

2. Press a Source key to select a source.
   The Source key flashes, and after a moment, any destinations that signal is already routed to illuminate. The flashing key is the "hot" key; all other commands center around that source until you select a different source or change the mode or level.

3. Press a Destination key(s) to select a destination(s).
   Selecting (illuminating) a disconnected (unlit) Destination key executes a switch; deselecting a connected (illuminated) Destination key disconnects a switch.

Note: Although our instructions direct you to select a source first, you may execute and disconnect switches by selecting the destination first, making that Destination key the "hot" key (see step 2 above). Only one source signal at a time can be routed to a single destination.

3.2 Verifying Signal Routing Status

Signal status can be verified to confirm that a switch has executed properly or to confirm correct routing to multiple destinations.

You can put the Precis Remote in Status mode by pressing the Status key. The panel remains in Status mode (with the Status key illuminated) until you press the Cancel key.

While in Status mode, you can select different levels, sources, and destinations at any time without affecting signal routing.

▶ **To verify signal status:**

1. Press the Status key to put the Precis Remote in Status mode.
    The Status key illuminates and all other lights on the panel turn off.

2. Press a Level key to select a level.
    The Level key illuminates.
    If you do not select a level, the system uses the level associated with the All Level key. (The default level for that key is video and audio.)

3. Press a Source or Destination key to select a source or destination.

    If you press a Source key, that key illuminates and the Destination key(s) receiving the source signal also illuminates to show the routing status of the signal.
    If no Destination keys illuminate, the signal is not routed or is not available on that level.

    If you press a Destination key, that key illuminates and the Source key routed to it also illuminates, showing which source is currently routed to that destination.
    If no Source key illuminates, the signal is not routed or is not available on that level.

Checking the status of a destination does not show other destinations connected to the same source. To check the status of a signal routed to multiple destinations, select the source first.

Operating

3.3 Executing Local Presets (Macros)

A local preset is a predetermined set of switches (on the same level) that always route simultaneously. Local presets are defined in X^NConnect and can be executed using the Macro key.

To program new local presets, use X^NConnect (see page 6-5) or contact your authorized AutoPatch dealer.

Note: For the purposes of this publication, the terms Macro and Local Preset are interchangeable.

Macro-to-Key Correspondence

The number of macros a Remote Panel can execute equals the number of source keys plus the number of destination keys. This is the number of macros available for *each* configured level.
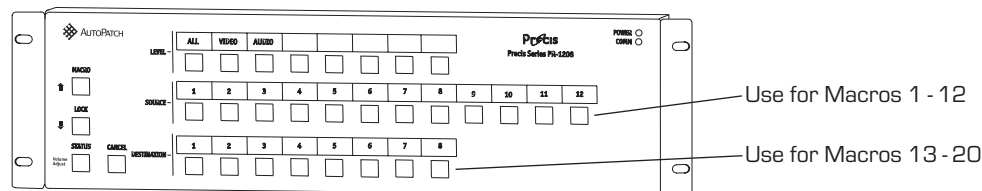
12x8 Precis Remote X/Y Control Panel

Figure 9: Macro keys on an 12x8 Precis Remote

◧ Execute up to 20 Macros per configured level

◧ Use Source keys 1 through 12 to execute Macros 1 through 12

◧ Use Destination keys 1 through 8 to execute Macros 13 through 20
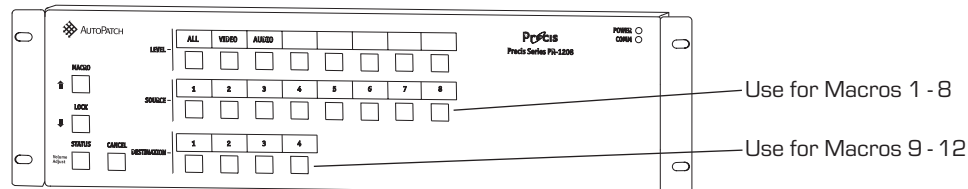
8x4 Precis Remote X/Y Control Panel

Figure 10: Macro keys on an 8x4 Precis Remote

◧ Execute up to 12 Macros per configured level

◧ Use Source keys 1 through 8 to execute Macros 1 through 8

◧ Use Destination keys 1 through 4 to execute Macros 9 through 12

The Remap PushButton keys dialog box in X^NConnect shows the macro numbers associated with each key. When the key is selected, the macro information appears at the bottom of the dialog box. The macro designations for the keys cannot be remapped. See the X^NConnect Help File for more information on remapping keys.

Executing a Local Preset (Macro)

The Precis Remote must be in Macro mode to execute a local preset (macro). Once you have executed a macro, the panel returns to Switch mode. Put the panel in Macro mode again to execute another macro.

► **To execute a macro:**

1. Press the Macro key to put the Precis Remote in Macro mode.
    The Macro key flashes, and all other lights on the panel turn off.
    When the Macro key starts flashing, you have 10 seconds to enter
    the sequence for the macro before the panel reverts to Switch mode.

2. Press a Level key to select the level where the macro resides.
    The Level key illuminates.

3. Press a Source or Destination key to select a macro. (Each key is
    assigned a different macro, see page 3-4.)
    The Macro key stops flashing, the macro is executed, and the panel
    returns to Switch mode.

4. Repeat steps 1 through 3 for each macro you want to execute.

Operating

Locking the
Precis Remote Panel

You can limit access to the system to prevent accidentally executing switches and presets by selecting a password number for the Precis Remote.

For a Precis Remote, the numbers in the password correspond to its Level keys (in order from left to right, the Level keys represent the numbers "0" to "7"). The Level keys are used to enter the password for locking and unlocking the Remote Panel when it is in Lock mode. The factory default password is 0 1 2 3 4.

To change your password, use X^NConnect (see page 6-4) or contact your authorized AutoPatch dealer.

When the panel is locked, the Lock key is illuminated, and you are unable to use the panel for any operations other than unlocking it. While the Remote Panel is locked, BCS commands still work; however, BCS commands cannot lock or unlock the Remote Panel.

After you press the Lock key, you have 10 seconds to enter the password before the Remote Panel reverts to its previous mode, i.e., to Switch mode if not already locked or to Lock mode if previously locked. If you enter the wrong password, press the Lock key again and enter the correct password.

▶ **To lock the Precis Remote Panel:**

1. Press the Lock key to put the Precis Remote in Lock mode.
    The Lock key flashes (for 10 seconds only), and all other lights on the panel turn off.

2. While the Lock key is flashing, enter the panel's password using the Level keys. (The default password is the first five Level keys, going from left to right.)

3. Press the Lock key again.
    The Lock key light stops flashing and shines constantly; all other lights on the panel turn off.

▶ **To unlock the Precis Remote Panel:**

1. Press the Lock key to put the Precis Remote in Unlock mode.
    The Lock key flashes (for 10 seconds only).

2. While the Lock key is flashing, enter the panel's password using the Level keys. (The default password is the first five Level keys, going from left to right.)

3. Press the Lock key again.
    The Lock key light turns off, and the panel returns to Switch mode.

Locking

Adjusting Volume

For systems equipped with the Volume Control option, volume can be adjusted from the following:

➤ Remote or Local Control Panel with volume control

➤ An external controller (computer, AMX, Crestron, etc.) via BCS (Basic Control Structure) commands

The Precis Remote must be in Switch mode before it can be placed into Volume Adjust mode. If you are unsure which mode the Remote Panel is in, press the Cancel key — all the lights on the Control Panel turn off, and the Remote Panel reverts to Switch mode.

The status of a destination's volume can be verified only from an external controller via BCS commands. See the system's documentation or visit the AutoPatch web site (**www.autopatch.com**) for information on BCS commands and external serial control.

When the volume is lower than -30 dB, an increase or decrease of 1 dB occurs each time the up arrow or the down arrow is pressed and released. When the volume is higher (louder) than -30 dB, the incremental change is 0.5 dB.

▶ **To adjust volume:**

1. Press and hold the Volume Adjust (Status) key until it illuminates and then flashes to indicate that the Remote Panel is in Volume Adjust mode.

2. Press a Destination key(s) to select the destination(s) that requires volume adjustment.
    The Destination key(s) illuminates, along with the Up Arrow (Macro) and Down Arrow (Lock) keys.

3. Press and release the Up Arrow (Macro) key to increase the volume or the Down Arrow (Lock) key to decrease the volume.
    The pressed key flashes and then stays illuminated.

4. Repeat step three until the desired volume level is reached.

5. Select another destination to adjust.
    Or press the Cancel key to return to Switch (default) mode.

Note: Pressing the Cancel key does *not* cancel any of the volume adjustments that were just entered.

Managing Configuration Files

A configuration file is a text file that contains system configuration information that has been previously downloaded to the CPU in your matrix switcher before shipment. Each switcher's CPU references this information during any type of switching operation. X^NConnect is a graphic software program designed to handle all of your AutoPatch configuration needs.

Caution: Use X^NConnect *only* if you need to modify your system's configuration from the original specification. We *strongly* recommend making a duplicate copy every time the file is modified.

Complete coverage of X^NConnect is provided in its Help file.

This chapter provides information for common configuration tasks encountered when using the Precis Remote Panel:

➤ Installing X^NConnect

➤ Opening a configuration file

➤ Setting the Remote Panel password

➤ Creating local presets (macros)

X^NConnect can also be used for redefining or adding levels (virtual matrices) to the system. If you need to reconfigure the system, see "Modifying Groupings" or "Modifying Virtual Matrices" in your product documentation, or refer to the X^NConnect Help file for more information. If you have a Precis switcher, see "Redefining Levels" in your product documentation.

6.1 XNConnect

System Requirements

Before installing X^{N}Connect, you need the following:

➤ Windows 95/98/2000®, Windows NT 4.0®, or XP Professional®

➤ 233 MHz processor

➤ one serial port or Ethernet port

➤ 4 MB of RAM

➤ 5 MB of available hard disk space

➤ ≥ 800×600 screen resolution (1024×768 is recommended)

➤ **To install X^{N}Connect:**

1. Close all other applications currently running on your PC.

2. Insert the AutoPatch Software & Documentation CD into your
   CD-ROM drive to start automatically.
   If the CD does not autorun, explore the CD folders and double-click
   on the setup.exe file.

3. Follow the directions in the subsequent dialog boxes.

4. Review the READme.txt file* in the main installation folder at
   C:\AutoPtch\Configuration Software<Version>

*Before installation, the READme file can be found at its default
location, CD:\Configuration\APConfig\

➤ **To launch X^{N}Connect:**

1. From the Start menu, select Programs.

2. Select AutoPatch Applications (or other specific file group selected
   during the install).

3. Select the Connect folder.

4. Select Connect.exe.
   X^{N}Connect opens.

5. From the Communication menu, select your computer's
   communication link (Serial Port or Ethernet).

6. Open the Communication menu again and select Change Comm
   Settings. Make the necessary changes in the dialog box; click OK.

6.2 Opening and Downloading a Configuration File

Start the process of modifying a configuration file by opening it in X^{N}Connect. After the modifications to the file are completed, the new configuration information *must* be downloaded to the switcher to implement the changes.

If you have not already attached a serial controller to your system, see the installation section of your product documentation to do so.

Caution: Use X^{N}Connect *only* if you need to modify your system's configuration from the original specification. We *strongly* recommend making a duplicate copy every time the file is modified.

▶ **To open a configuration file in X^{N}Connect:**

1. Launch X^{N}Connect (see page 6-2).

2. From the Getting Started dialog box, click Open Configuration File. If the dialog box does not appear, from the File menu select Open.

3. Using the standard Open dialog box, locate and open your configuration (.xcl) file. The default location* is in the C:\AutoPtch\Configuration Software<Version>\MyXCL folder.

4. Using Save As, make a duplicate copy of the file with a new name. (We strongly recommend making a duplicate copy every time the file is modified.)

5. Enter the desired modifications to the file copy.

*If you have not installed X^{N}Connect from the CD, the configuration file can be found at:
CD:\AutoPtch\Configuration Software<Version>\MyXCL folder.

▶ **To download the modified configuration file from X^{N}Connect to the switcher's CPU,** from the Configure menu, select the appropriate configuration option (see the Help file for an explanation of Configuration menu options).

Caution: Depending on the modification, downloading the configuration information may *not* be possible while the matrix switcher is operating. See "Configure Menu Commands" in the Help file.

Managing Configuration Files

6.3 Modifying a Configuration File

Modifying a configuration file with X^{N}Connect involves entering information in one or a series of dialog boxes. A brief look at the contents in the Help file provides an overview of the possible modifications.

Note: If you have questions regarding an open dialog box, X^{N}Connect provides a context-sensitive Help file that can be accessed by pressing the F1 key.

Setting the Password

Locking the Precis Remote Panel can prevent accidental switching by disabling control access. Using X^{N}Connect, you can customize a password consisting of five digits between 0 and 7 that are entered on the Precis Remote using the Level keys. For information on using the password number to lock and unlock the Precis Remote, see page 4-1.

The default password from the factory is the first five Level keys (corresponding to the digits 0, 1, 2, 3, and 4), going from left to right. Follow the instructions below to set your password.

▶ **To set a Precis Remote Panel password:**

1. Follow the steps for launching X^{N}Connect (see page 6-2) and opening a configuration file (see page 6-3).

2. In the Hardware view, right click the appropriate control panel icon.*
    The Shortcut menu appears.

3. Select Set Password from the Shortcut menu.
    The Set Front Panel Password dialog box opens.

4. Enter a single digit between zero and seven in each field.

5. Check the box for Configure Password Immediately.

6. Click OK.
    The updated password information is immediately downloaded to the system, and the new password sequence *must* be used to lock and unlock the Remote Panel.

*If the control panel icon is not visible from the Hardware view, click the plus sign (+) next to the switcher icon to expand the hardware component list for the switcher.

Creating Local Presets to Execute as Macros

A local preset is a predetermined set of switches (on the same level) that always route simultaneously. Local presets are defined in X^NConnect and are executed on the Precis Remote by placing the Remote Panel in Macro mode and using the Source and Destination keys.

The number of macros a Remote Panel can execute, as well as which keys are used to execute them, depends on the system. For more information on executing local presets (macros) and macro-to-key correspondence, see pages 3-4 and 3-5.

Although each Precis Remote has a maximum number of macros that can be executed using the Precis Remote, your system may be able to execute more macros by entering BCS commands. See the system's documentation or visit the AutoPatch web site (**www.autopatch.com**) for more information on BCS commands and external serial control.

The Preset number (located at the top-center of the Modify Preset dialog box, see page 6-6) corresponds to the Macro key used to execute the preset.

The following example creates Preset #1 (ConfRm1) that connects Source 1 to Destination 4 and Source 2 to Destinations 2 and 3 on Level 0. This preset is executed on the Precis Remote by using Macro key 1 (Source key 1).

▶ **To add preset (macro) information to the configuration file:**

1. Follow the steps for launching X^NConnect (see page 6-2) and opening a configuration file (see page 6-3).

2. In the Virtual Matrices tab view, right click the Level 0 (first) virtual matrix icon and select Manage Local Presets.
    The Manage Local Presets dialog box appears.

Name New

Modify Preset
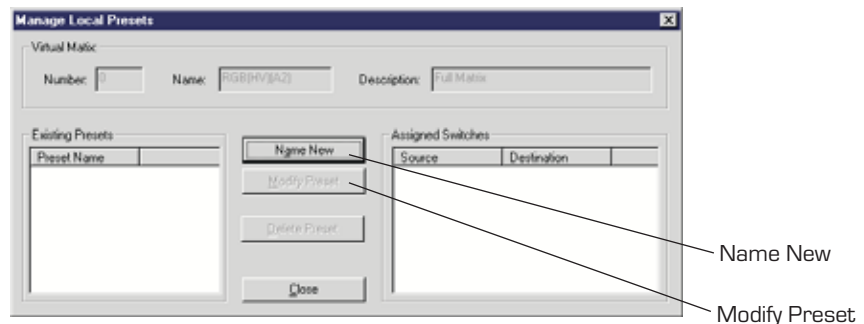
3. Click the Name New button.
    The Name New Preset dialog box appears.

4. In the Name field, enter the name ConfRm1 (entering a description is optional) and click OK.
   The Manage Local Presets dialog box appears again.

5. Select the newly named preset and click the Modify Preset button.
   The Modify Preset dialog box appears.

6. Select Source Channel 1 on the left and Destination Channel 4 on the right; click the Assign Switch button.
   Source Channel 1 appears in the Assignment column (under Destination Channels) for Destination 4.
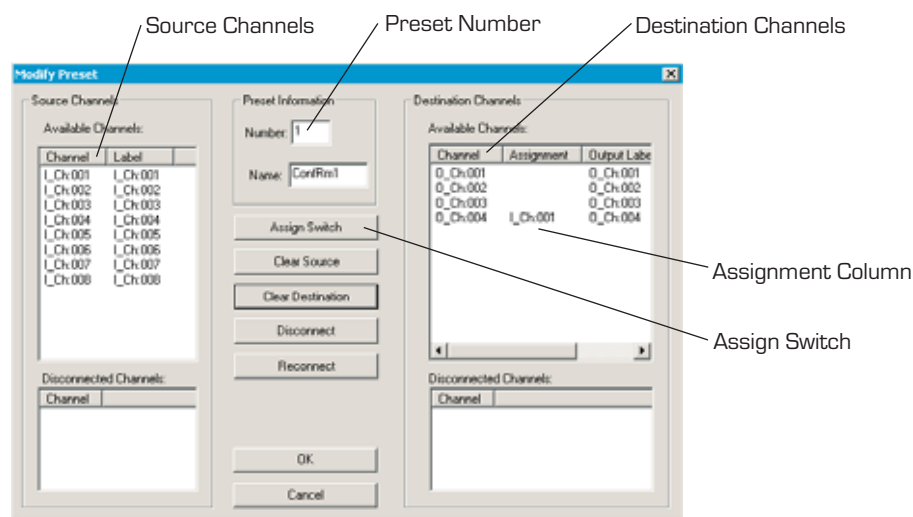
7. Select Source Channel 2 and Destination Channels 2 and 3 (hold the Ctrl key when multi-selecting); click Assign Switch.
   Source Channel 2 appears in the Assignment column for Destinations 2 and 3.

8. Click OK.
   The Modify Preset dialog box closes.

9. Click Close to exit the Manage Local Presets dialog box.

10. From the Configure menu, expand the Configure Special menu and select Configure All VM Local Presets.
    The new local preset information is downloaded to the switcher's CPU.

After the download is complete, the Precis Remote can execute Preset #1 using Macro key 1. See page 3-4 for information on macro-to-key correspondence.

AutoPatch
Statement of Warranty

AutoPatch, a division of X^N Technologies, Inc., Cheney, Washington, warrantees that the products manufactured by AutoPatch will be free of defects in materials and workmanship for the lifetime of the product, subject to the following terms and conditions.

Terms and Conditions

1. AutoPatch products are under warranty for a period of five (5) years following the original sales invoice date. The warranty period may be extended to the life of the product provided the warranty card is filled out and returned to AutoPatch. TO VALIDATE THE LIFETIME WARRANTY: THE AutoPatch WARRANTY CARD MUST BE FILLED OUT BY THE DEALER AND RECEIVED BY AutoPatch WITHIN THIRTY (30) DAYS OF THE INSTALLATION OF EQUIPMENT BUT NO LATER THAN ONE (1) YEAR FROM THE ORIGINAL SALES INVOICE DATE. A warranty certificate will be returned to the dealer to verify the warranty period.

2. This Limited Lifetime warranty covers AutoPatch products shipped on or after October 1, 1997. The Limited Lifetime warranty applies to products in the original installation only. If the product is moved to a different installation, the Limited Lifetime warranty will no longer apply and the product warranty will revert to the original warranty which covers a period of five (5) years following the original sales invoice date.

3. The product lifetime is defined as the period of time from the original sales invoice date to ten (10) years after AutoPatch ceases manufacturing the product model.

4. Warranty repairs are accomplished by returning the subassembly to AutoPatch for repair. If conditions do not permit this procedure, AutoPatch will invoice new or reconditioned (at AutoPatch's option) replacement parts and ship them to the dealer or to the customer if so directed by written order from the dealer. In that case the replacement will be billed to the customer and the customer may return the failed subassembly within 30 days for credit. See "AutoPatch Returns Policy" in this manual for replacement policies and procedures.

Warranty

5. **AutoPatch's liability and Buyer's remedies under this warranty shall be limited solely to repair, replacement, or credit, at AutoPatch's option.**

6. The AutoPatch warranty does not apply to any AutoPatch product that has been modified, repaired by an unauthorized agent, or improperly installed, used, or maintained. AutoPatch shall not be liable under any circumstances for consequential or incidental damages including, but not limited to, labor costs or loss of profits arising in connection with the use of or inability to use AutoPatch products.

7. AutoPatch will not be responsible for items damaged during shipment to or from AutoPatch. The shipping carrier is responsible for items damaged during shipment.

8. This warranty is exclusive and in lieu of any other warranty, expressed or implied, including but not limited to any implied merchantability or fitness for a particular purpose. The terms of this warranty are governed by the laws of the state of Washington; certain other states restrict warranty limitations. You may have rights that are not defined herein.

9. This warranty may not be modified except in writing by an authorized AutoPatch officer.

AutoPatch
Service and Returns Policy

B.1 Service

AutoPatch Precis Remote X/Y Control Panels are to be serviced only by AutoPatch authorized service agents.

Return Authorizations

Except for warranty claims, merchandise will not be accepted for return or exchange after the first thirty (30) days following the invoice date.

Returned items must be shipped prepaid and insured in their original packing containers (if possible). When returning merchandise, clearly show the Return Materials Authorization (RMA) number on the outside of each carton. Merchandise will not be accepted for any reason without an RMA number.

Products and parts returned or exchanged for any reason other than warranty purposes are subject to a restocking fee not greater than twenty percent (20%) of the invoiced price, if returned in unused condition.

Claims for Shipping Damages

Unless otherwise specified, merchandise is normally shipped by Federal Express Economy service; however, AutoPatch reserves the right to select the final method and carrier for any shipment.

Although we take special care to ensure the safe arrival of all orders, shipping accidents and damage can occur. Shipments are transferred to the appointed carrier in good condition, and AutoPatch's liability for the product ceases when the transfer to the carrier is complete. Therefore, claims for damages and shortages must be filed with the transporting company by the receiving company within fifteen (15) days of receipt.

Visible damage and shortages must be noted on the freight bill; packaging and contents must be retained for inspection.

B.2 Replacement Policies and Procedures

During the warranty period:

1. Describe the problem to an AutoPatch dealer, regional representative, or the AutoPatch customer service department.

2. Upon verification of a problem that requires factory repairs, an AutoPatch customer service representative will issue a Return Materials Authorization (RMA) number, and we will, at no cost, repair or replace the part(s) returned to the factory and return the part(s) to the sending party. If conditions do not permit this procedure, we will invoice new or reconditioned (at AutoPatch's option) replacement part(s) to the dealer and ship the part(s) to the dealer or to the consumer if so directed by written order from the dealer. Unless otherwise instructed in writing by an AutoPatch customer service representative, part(s) replaced under this warranty must be returned to the factory:

    a) within thirty (30) days;

    b) with shipping and insurance costs prepaid;

    c) with the RMA number clearly indicated on the outside of each container;

    d) in the original shipping container(s), if possible

    e) with a written description of the problem.

    If the replaced part(s) is returned within thirty (30) days, we will apply credit to the dealer's account for the total value of part(s) determined defective, plus return shipping costs. Any part(s) received after thirty (30) days or otherwise not in compliance with these requirements may be refused, and credit will not be issued.

3. Repaired or replaced part(s) will be warranted for the remainder of the original system warranty period for the first thirty (30) days following the invoice date, or we will extend the original warranty period by the period of verifiable downtime, whichever provides the greatest benefit.

Following warranty expiration:

1. Call your AutoPatch dealer, area representative, or the AutoPatch customer service department with a description of the problem.

2. Upon verification of a problem that requires factory repairs, an AutoPatch customer service representative will issue a Return Materials Authorization (RMA) number. We will, at nominal cost, invoice the sending party, repair or replace the part(s) returned to the factory, and return those part(s) to the sending party. If conditions do not permit this procedure, we will invoice and ship new or reconditioned (at AutoPatch's option) replacement part(s) to the dealer or to the consumer if so directed by written order from the dealer.

3. Post warranty repairs and replacements are warranted for the first thirty (30) days following the invoice date.

B.3 Special Notice

AutoPatch reserves the right to modify or discontinue designs, specifications, warranties, and policies without notice. All data with regard to model numbers series, specifications, and prices in our literature have been thoroughly reviewed and edited. Although we cannot assume responsibility for inadvertent omissions or errors, we sincerely apologize if misunderstandings occur, and we appreciate your criticism, corrections, and suggestions.

Service & Returns

AutoPatch Glossary

A

AutoPatch Routing System

A collection of AutoPatch components including a Distribution Matrix or Matrices with appropriate controller(s) and accessories. The components of this system interact to provide a single routing solution.

B

BAUD

The speed at which communications travel through the serial connector. AutoPatch systems accept 9600 (default), 19200, 38400, and 57600 BAUD.

BCS (Basic Control Structure)

A set of alphanumeric characters that combine to form command lines. BCS command lines can be used to control a system from any serial device with a serial interface that allows you to enter characters, such as a PC (personal computer).

breakaway

The act of switching any level other than Level 0 (default level) independent of the rest of the logical set.

C

Command Line

A set of BCS command characters that constitutes a command recognized by the CPU.

D

Distribution Matrix (DM)

The hardware and software necessary to route any one of multiple source signals to one or more destination devices. Multiple sources (inputs) cannot be routed to a single destination (output). Distribution matrices are also known as routing switchers, routing matrices, and switching matrices.

E

ESD (Electrostatic Discharge)

An electrical charge (such as static electricity) that can damage sensitive components inside an enclosure. ESD damage can occur if you are not properly grounded or not handling components correctly (see the *ESD Warning* page at the front of this supplement for more details about ESD).

G

grouping

The process of defining an ordered set of literals to form a logical set. This process includes defining levels and breakaways.

L

level

A subset of a logical set formed to facilitate the switching of a portion of the logical set. For example, if a logical set is defined by grouping literal inputs and outputs for video components R, G, B, H, V and stereo audio components Al, Ar (audio left and right), then the video components could be defined as Level 1 and the audio components as Level 2 to switch them separately if desired. Moreover, additional levels can be defined and each component can be included in multiple definitions. In the example above, Al (audio left) could be defined as Level 3 and Ar (audio right) as Level 4. This would allow for separate breakaway of the two audio components. If the level is not defined in the switch command, it defaults to Level 0 (or the lowest level available), which switches the entire logical set.

literal input or output

A physical input, output, or control that is connected to the system by a cable, wire, or other means.

logical input

A logical set that consists entirely of literal inputs.

logical output

A logical set that consists entirely of literal outputs.

logical set

An ordered set of literals that are grouped together in order to be considered a single entity and to be switched as a unit. The logical set may consist of input, output, or control literals.

M

macro

A sequence of control and/or configuration commands stored by the system, which can be invoked by the use of the Execute Macro command. The command sequence may include timing between commands.

P

preset

A snapshot of the characteristics (e.g., volume, configuration state) of an arbitrary set of logical inputs or outputs. The states of these characteristics can be recalled by the use of the preset command. Logical inputs and outputs that are not included in the preset definition will not change state. Presets are defined within the context of a virtual matrix.

V

virtual matrix (VM)

A collection of logical sets and their level definitions. Certain constraints apply to the ways in which logical sets and/or their level definitions can be combined to form virtual matrices. A virtual matrix allows multiple enclosures to be treated as a single routing system. It also allows a single enclosure to be treated as though it contained multiple independent routing systems.

X

X^NConnect

A graphical software program that can display your most recent configuration and allows easy addition of local presets and modification of other configuration information (see the X^NConnect Help file for assistance).

Precis Remote X/Y Control Panel

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