

Digidesign ProControl

User's Guide

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chapter 1

Introduction to ProControl

Welcome to ProControl™, Digidesign's dedicated mixing and editing controller for TDM-equipped Pro Tools systems.

Its dedicated controls allow easy navigation through Pro Tools functions, including recording, mixing, editing, grouping, Plug-In control, and automation. Through the use of motorized faders and data encoders (rotary knobs), automation and mixing can be handily performed and given visual reference. Controller movements from ProControl are immediately reflected in Pro Tools on-screen controls, and vice versa.

About This Guide

This guide assumes you have already installed Pro Tools, and that you already have an understanding of its features and operating conventions as explained in the *Pro Tools Reference Guide*.

Conventions Used in This Guide

This guide uses the following conventions to indicate Pro Tools on-screen menu choices and key commands:

Convention	Action
File > Save Session	Choose Save Session from the File menu
Control+n	Hold down the Control key and press the <i>n</i> key
Option-click	Hold down the Option key and click the mouse button
Right-click (Windows)	Click with the right mouse button

ProControl features a SHORTCUTS section, which provides the following modifier-key equivalents:

Modifier (Mac/Win)	ProControl SHORTCUT
Shift	SHIFT/ADD
Option (Mac) Alt (Windows)	OPT(ALT)ALL
Command (⌘ Mac) Ctrl (Windows)	⌘ (CTL)
Control (Mac) Start (Windows)	CTL/CLUTCH

The following symbols are used to highlight important information:

* *User Tips* are helpful hints for getting the most from ProControl.

▲ *Important Notices* include information that could affect Pro Tools session data or the performance of Pro Tools.

☞ *Cross References* point to related sections in the Pro Tools Guides.

System Requirements

To use ProControl with a Pro Tools system, you will need the following:

Macintosh

- ◆ Pro Tools 24 MIX/MIXPlus, Pro Tools 24 or Pro Tools III system, with Pro Tools software version 5.0 or higher.
- ◆ The ProControl Personality file (a DAE extension), included with Pro Tools.
- ◆ An available Ethernet connection in the host CPU.
- ◆ Audio cables for ProControl monitoring

Connecting Expanded ProControl Systems

Core ProControl systems (a single Main Unit only) can be connected directly to the built-in Ethernet port on all qualified Macintosh or Windows NT computers. Each ProControl Main Unit comes supplied with one Ethernet “Crossover” cable, which is a special cable required when connecting a ProControl core system

▲ Do not use the included Crossover Cable with expanded systems — this cable (identifiable by its red end labels) is for core systems only).

Expanded ProControl systems require an Ethernet hub (not included) and an RJ 45 Ethernet cable for each unit (included).

If a ProControl-equipped system is to be connected to an Ethernet network (be it for e-mail or file transferring), optimal performance can be obtained by use of an Ethernet card dedicated to ProControl communications.

Audio cables for ProControl monitoring

Three standard DB-25 wiring harnesses are needed if you plan on utilizing ProControl’s analog Control Room monitoring features.

About Fader Pack Expansion Units

If you purchased one or more Fader Pack Expansion Units in addition to a main ProControl unit, installation requirements will be slightly different. For convenience, all the instructions you need are included in Chapter 2 of this guide.



A Fader Pack Expansion Unit, left, and a Main Unit, right

ProControl System Contents

Main Unit

- ◆ ProControl Main Unit
- ◆ Pro Tools 5.0 (or later) software upgrade package, containing ProControl firmware
- ◆ ProControl Users Guide
- ◆ ProControl Tutorial CD-ROM
- ◆ 15' Ethernet crossover cable
- ◆ 15' Standard Ethernet cable
- ◆ Ethernet loopback connector (for Ethernet testing)
- ◆ AC power cable
- ◆ Registration card

Fader Pack

ProControl Fader Pack Expansion Units include:

- ◆ ProControl Fader Pack Expansion Unit
- ◆ Fader Pack Installation Guide
- ◆ 15' Standard Ethernet cable
- ◆ Ethernet loopback connector (for Ethernet testing)
- ◆ Pair of chassis connection brackets/instructions
- ◆ Spare screws for connection brackets
- ◆ AC power cable
- ◆ Registration card

chapter 2

Installing ProControl

This chapter covers ProControl installation and setup:

- Installing software
- Assembling an Expanded System
- Connecting ProControl
- Starting up your system
- Configuring Pro Tools for ProControl
- Testing your system
- Troubleshooting

Installation and Maintenance Guidelines

ProControl can be mounted in studio furniture or set on a table top. Wherever you decide to put ProControl, be sure to observe the following guidelines:

- Do not block the front and back vents
- Do not remove the feet

Cleaning a ProControl unit

If you need to clean the ProControl top surface, apply a non-bleach cleaning solution to a cloth or paper towel, then carefully wipe the surface. *Do not* use abrasives or any cleaning solution that contains bleach.

Moving ProControl units

To avoid damage, never set a unit on its face or rear panel. When moving expanded systems, never attempt to turn the units upside down as this can put undue stress on the mounting brackets.

Software Installation

Basic Instructions (All systems)

The Pro Tools Installer automatically installs all ProControl software as part of the Easy Install option. If you have not yet installed Pro Tools, stop here and refer to the Pro Tools System Installation Guide. Follow the instructions there to do an Easy Install of Pro Tools.

With each Pro Tools release, any new ProControl firmware is included in the ProControl personality file so you can update ProControl easily. See “ProControl Firmware” on page 24.

If you have already installed Pro Tools but performed a Custom Install, do the following to make sure the ProControl software is correctly installed:

To install ProControl software:

- 1 Insert the Pro Tools Installer disc into the CD-ROM drive and launch the Pro Tools Installer.
- 2 Choose Custom Install.
- 3 Select ProControl and click Install.

On Macintosh

The Installer places the ProControl Personality file in the Controllers folder. The Controllers folder is located within in the DAE Folder, which is inside the System Folder.

On Windows NT

The Installer puts the following files in the Digidesign\DAE\Controllers\Procontrol directory.

- DigiNet.sys
- DigiNet32.dll
- oemsetup.inf
- Procontrol.dll
- Procontrol.dll.rsr
- Procontrol_M.dll

Additional software instructions for Windows NT

Windows NT requires an additional software installation for ProControl.

Before you can perform this installation, the computer's Ethernet port (either built-in or expansion card) must already be enabled and running. Consult the documentation that came with the Ethernet card (if any), the Windows NT documentation or the documentation that came with the CPU if you have not yet enabled an Ethernet port.

To install the Digi Driver for ProControl Ethernet communication:

- 1 Open the Network Control Panel (Start > Settings > Control Panels > Network).
- 2 Display the Protocols tab
- 3 Click Add, then select Have Disk.
- 4 Enter the full pathname to the DigiDriver (for example, C:\Program Files\Digidesign\DAE\Controllers\Procontrol)
- 5 Assuming you enter the correct path name, Windows will select and display "NDIS 3.0 Packet Driver v3.5".
- 6 Click OK to choose, then close the Network control panel.
- 7 At the Windows prompt, click Yes to restart the computer.

To remove the ethernet driver:

- 1 Open the Network Control Panel.
- 1 Display the Services tab.
- 2 In the list of Services, select DigiNet.
- 3 Click Remove, then click Yes to confirm that you want to remove the driver.
- 4 Close the Network Control Panel and restart the computer.

To change the ethernet port:

- 1 In the Network Control Panel, select Bindings tab.
- 2 Select and expand DigiNet.
- 3 Select Ethernet port and enable the port to which ProControl is connected.
- 4 Disable other ports.
- 5 Click OK and then click Yes at the prompt to restart.

Assembling an Expanded System

Attaching Fader Packs to a Main Unit

Expanded systems can be bracketed together or left free-standing, depending on your preference.

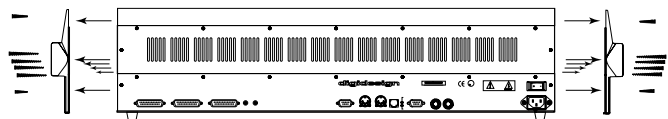
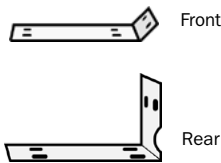
You can arrange units in any physical order; putting one Fader Pack at the far left, the Main Unit in the middle, and Fader Packs 2 and 3 to the right, or place the main unit at the far left. The most common arrangement is one where the main unit remains centered, as close to the “sweet spot” of the mix environment as possible.

If you decide to leave the units free-standing, you can skip this section and proceed to “Hardware Connections” on page 9.

If you want to bracket the units together for greater stability or flush mounting, do the following:

To attach a Fader Pack to a Main Unit using the included mounting brackets:

- 1 Locate the two mounting brackets included with the Fader Pack.
- 2 Make sure the units are NOT plugged in or powered on.
- 3 Remove the appropriate side panel from the main unit by removing the six screws (four longer screws, and two shorter ones—extras were included with the unit). Note where the longer screws are used. If you plan to reattach the side panel to your system, set the screws aside.



Removing the side panels

- 4 Place the ProControl main and Fader Pack units on a table and position the units so their front or rear panels hang over the edge of the table. If necessary, prop the unit up to gain access to the brackets.

5 Remove the bracket screws from the underside and back panels of the Main Unit and Fader Packs.

6 Align the rear bracket with the holes in either the Main Unit or a Fader pack, and use the same screws to attach the rear bracket to both units.

▲ Use care if you reposition the units while only one bracket is attached.

7 At the front panel mounting location, remove the six mounting screws (three on the Main Unit, three on the Fader Pack).

8 Align the front bracket with the holes in the Main Unit and Fader Pack, and use the six screws you removed to attach the front bracket to both units.

9 After attaching both mounting brackets, be very careful when moving the units. *Do not* carry an expanded ProControl system face down.

10 You can reattach the side panel (removed from the main unit) to the outside of the Fader Pack. If you do, be sure to put the long screws and the short screws in their proper locations when reattaching the side panels

Dimensions (w x d x h)

ProControl Main Unit with Side Caps:

30.71"w x 25.04"d x 7.10"h

78cm w x 63.6cm d x 18cm h

ProControl Main Unit without Side Caps:

28.16"w x 25.04"d x 7.10"h

71.5cm w x 63.6cm d x 18cm h

ProControl Fader Expansion Pack:

15.13"w x 25.04"d x 7.10"h

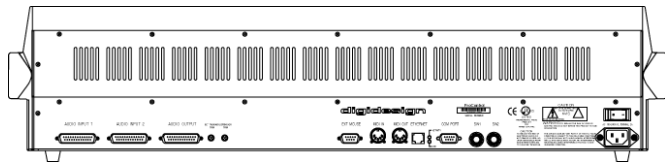
38.4cm w x 63.6cm d x 18cm h

* Detailed dimension drawings are available on the Digidesign website.

Hardware Connections

This section begins with a description of ProControl back panel connectors, followed by instructions for making all the necessary connections between ProControl and the CPU/Pro Tools system.

ProControl Main Unit Back Panel



1 2 3 4 5 6 7 8
Back panel connectors of a Main Unit

1. Audio Input 1

This DB-25 connector carries the following input signals:

- External Listenback Mic In
- External Talkback Mic In
- Aux in, right and left

2. Audio Input 2

This DB-25 connector carries the following input signals:

- Source 3 In, right and left
- Source 2 In, right and left
- Source 1 In, right and left
- Main In, right and left

3. Audio Output

This DB-25 connector carries the following ProControl output signals:

- Aux Out, right and left
- Control Room Alt Out, right and left
- Slate/Dub Out, right and left
- Control Room Out, right and left

4. Ext Talkback and Ext Listenback Trim

These two trim pots are used to adjust the input level of the optional External Talkback/Listenback mic inputs. Be very careful when moving ProControl to avoid breaking these knobs—do not stand the unit up on its back panel without making sure the trim pots are out of harm's way.

5. Ext Mouse, MIDI and Com Port

The Ext Mouse connector lets you use a standard Windows-compatible mouse instead of the built-in ProControl Trackpad. Any “Microsoft Mouse” (3-byte)-compatible mouse can be attached to this connector.

The MIDI In/Out and Com ports are provided to support future features of ProControl/Pro Tools, as well as for certain factory diagnostics. You should not connect anything to these ports.

6. Ethernet

Each ProControl unit contains a single Ethernet port.

7. SW 1 and SW 2

These two 1/4" jacks provide footswitch-control for Pro Tools play/stop, record (punch in/out), and remote talkback on/off. Polarity is selectable for these switch ports, allowing you to use virtually any momentary footswitch to control these functions.

8. Power

This connector accepts a standard AC power cable. ProControl and Fader Packs are auto power-selecting (100V to 240V) and will automatically work with a standard modular cable to connect to AC power receptacles in any country.

Making the Necessary Connections

Step 1. Power Connection

The ProControl back panel provides an IEC standard AC receptacle. This connector accepts a standard AC power cable.

- Plug one end of a power cord (included with ProControl) into the ProControl AC receptacle and plug the other end into a power source such as a power strip or wall outlet.

Step 2. Ethernet Connections

ProControl communicates with Pro Tools using Ethernet. This connection uses a standard RJ45, 10Base-T connector. Ethernet connection requirements differ for core systems (one Main Unit only) and for expanded systems (one Main Unit with one or more Fader Packs):

Ethernet Connection for Core ProControl Systems

The Ethernet cables supplied with ProControl include the red-labeled “crossover” cable for Main Unit-only systems.

To make Ethernet connections for a ProControl Core System:

- 1 With ProControl positioned, take the included crossover Ethernet cable (with the red heat-shrink labels) and connect one end to the Ethernet port on the back panel of ProControl.
- 2 Connect the other end of the cable to the appropriate Ethernet port on the CPU.

Ethernet for Expanded ProControl Systems

▲ If you have an expanded ProControl system, you need one standard RJ45 cable (included with each Main unit and Fader Pack) and an Ethernet hub (not included, but available from most electronic supply and computer stores).

To connect an expanded ProControl System:

- 1 Install the Ethernet hub according to its instructions, and verify that it is functioning properly before proceeding.
 - 2 Connect one end of a standard RJ45 cable to a port on the Ethernet hub (do not use any ports labelled/intended for Uplink functions). Do not use the crossover cable supplied by Digidesign with ProControl (it has red heat-shrink at both ends)—this cable will not function in an expanded system.
 - 3 Connect the other end of the RJ45 to the ETHERNET port on the back of the Main Unit.
 - 4 For each Fader Pack, use another RJ45 cable to make a connection between another hub port and the Fader Pack’s ETHERNET port. Cabling sequence does not matter, as it can be configured from within Pro Tools.
- The supplied red-wrapped cable will not function (and should not be used) with expanded systems.

About ProControl and Ethernet Performance

This section presents some general Ethernet concepts that can help you optimize system performance.

ProControl, Ethernet and Network Traffic

If the system is already connected to an Ethernet network, moderate network traffic (such as basic email) should not impact ProControl/Pro Tools communication. For optimal performance, create a dedicated Ethernet network for ProControl (do not share the Ethernet port between ProControl and other active network functions such as email, file transfers or other). Refer to the documentation that came with the CPU or Ethernet hub for more information about Ethernet networks.

Most times you can use the built-in Ethernet in your computer. For better performance, you might want to use an additional Ethernet 10baseT card (which takes up an additional slot in the CPU). There are combined 10/100 BaseT hub/bridges readily available that, when properly configured, can support ProControl over 10baseT and other network traffic over 100baseT simultaneously.

ProControl then acts as an Ethernet “server.” Pro Tools acts as an Ethernet “client,” and Pro Tools clients can “listen” to servers.

Ethernet Descriptions

ProControl uses Ethernet phase 1, Type 0x885F packets, and can co-exist with TCP/IP (and other) networking protocols used on standard Mac/PC Ethernet networks. The included Crossover Cable (red heat shrink ends) provides a dedicated “network” for a core system.

Remote Control

ProControl can “see” any Ethernet client (card) connected to a network.

Because of this Ethernet implementation, you can set up a wide range of creative and practical configurations such as the use of a single ProControl system controlling different Pro Tools systems (though not simultaneously) without reconnecting.

Separate Zone Recommended for Optimal Performance

ProControl and its Ethernet implementation are designed to operate while you are performing general purpose tasks such as email. If you are using additional Ethernet ports for network tasks while using ProControl, performance will be improved by creating a dedicated server zone for ProControl. Refer to the operating system and Ethernet documentation for details.

Step 3. Audio Connections

ProControl offers a great deal of flexibility for routing audio in the studio. While audio connections to and from ProControl are not necessary for ProControl to operate Pro Tools functions, they are required to use the extensive analog control room monitoring features of ProControl.

All mixing, recording and digital signal processing always takes place in the Pro Tools mix environment. The ProControl Control Room section is capable of handling virtually all control room audio needs, including A/B speaker selection, mono/confidence, talkback/listenback, and more.

Analog audio connections to ProControl are made through three 4-40 American-standard, male panel-mount DB-25 connectors on the rear of the Main Unit (labeled Audio Input 1, Audio Input 2, and Audio Output).

For wiring pinout diagrams for ProControl AUDIO INPUT 1, AUDIO INPUT 2 and AUDIO OUTPUT ports, see *Appendix B: Audio Wiring Pinout Diagrams*.

Input/Output Overview

Two eight-channel input connectors supply ProControl with Pro Tools audio interface output signals, additional sources and external signal busses.

One eight-channel output connector supplies ProControl output for speakers/monitors, alternate speakers, cue mix systems, mastering decks/machines, Pro Tools inputs (for recording for slating/dub and record), a patchbay or any other destination.

DB-25 cables (or “harnesses”) are available through many vendors (contact your Digidesign dealer for information). When considering the connector format, think about which audio interfaces you will be dedicating to ProControl I/O (888-series interfaces have XLR, while the 882-series are hi-z 1/4” inputs and outputs). To bring the signal to a patchbay, have it wired with no connector “pigtails” and terminate this snake to the patchbay. For maximum flexibility, buy appropriate DB-25 connectors and the necessary cables (multi-pair snake or individual “pairs”) and wire from scratch.

About Stereo and Surround Modes

ProControl can operate in *stereo* or *surround* mode. The mode you choose will determine the I/O connections. The following tables list the suggested input and output connections for Stereo and Surround monitor mode.

Stereo Monitor Mode Input and Output

Audio Connector	Channels	Signal/bus	Input Source/ Output Destination	Control Room access
Input 1	1 & 2	LB/TBMICIN Listenback Talkback	from an external Listenback (ch1) and or Talkback (ch2)	TALKBACK
	3 & 4	n/a		
	5 & 6	n/a		
	7 & 8	AUX IN L/R	cue mix	AUX (5-6); MIX TO AUX
Input 2	1 & 2	SRC3 IN L/R Source 3 In	from CD, DAT, VCR or other source	SRC 3
	3 & 4	SRC2 IN L/R Source 2 In	from CD, DAT, VCR or other source	SRC 2 (5-6)
	5 & 6	SRC1 IN L/R Source 1 In	from CD, DAT, VCR or other source	SRC 1 (3-4)
	7 & 8	MAIN IN L/R	Pro Tools stereo mix	MAIN (1-6); STEREO MIX
Output	1 & 2	AUX OUTL/R	headphones/cue system	AUX (5-6); MIX TO AUX
	3 & 4	CRAOUTL/R Control room Alt Out	to control room alternate speakers	ALT (3-4); ALT
	5 & 6	SLOUTL/R Slate/dub out	to Slate/dub bus (Pro Tools inputs/channels) or other	TALKBACK
	7 & 8	CRM OUT L/R Control room Main Out	to control room main speakers	MAIN (1-6)z

Surround Monitor Mode Input and Output

Audio Connector	Channel	Signal/bus	Input Source / Output Destination	Control Room access
Input 1	1 & 2	LB/TBMICIN Listenback Talkback	from an external Listenback (ch1) and or Talkback (ch2)	TALKBACK
	3 & 4	n/a		
	5 & 6	n/a		
	7 & 8	AUX IN L/R	cue mix	AUX (5-6); MIX TO AUX
Input 2	1 & 2	n/a		
	3 & 4	SRC2 IN L/R Source 2 In	Center/Sub	SRC 2 (5-6)
	5 & 6	SRC1 IN L/R Source 1 In	Surround/Satellite channels	SRC 1 (3-4)
	7 & 8	MAIN IN L/R	front L/R	MAIN (1-6); STEREO MIX
Output	1 & 2	AUX OUTL/R	to Center/Sub	AUX (5-6); MIX TO AUX
	3 & 4	CRAOUTL/R Control room Alt Out	to surround Ls/Rs	ALT (3-4); ALT
	5 & 6	SLOUTL/R Slate/dub out	to Slate/dub bus (Pro Tools inputs/ channels) or other	TALKBACK
	7 & 8	CRM OUT L/R Control room Main Out	to front left/right speakers	MAIN (1-6)z

Connections for Stereo Mode

Main Inputs from Pro Tools

To connect Pro Tools main L/R mix (Stereo Mix mode):

- Connect Pro Tools main stereo outputs (usually audio interface Outputs 1 & 2) to the ProControl MAIN IN Left/Right inputs (Audio Input 2, channels 7 & 8).

Alternate Source Inputs

In addition to the main L/R input bus, ProControl provides three pairs of alternate “source” inputs. (Cue/headphone mixes can be accommodated in a different way, as explained in “Connecting Cue Mix systems” on page 16.)

For alternate source input in Stereo Monitoring mode from tape machines, CD players, or other:

- Connect alternate source outputs to the ProControl SOURCE 1, 2 or 3 inputs. These input signals are carried on the Audio Input 2, on channels 1/2, 3/4 and 5/6, respectively. They can then be selected for monitoring using the ProControl SRC 1, SRC 2 and SRC 3 switches.

When in Stereo monitor mode, you can listen to any of these sources at anytime, and you can configure ProControl for “single” or “multi” source input monitoring.

About Multi-source Stereo and “Single”-source Stereo Monitor Modes

ProControl can operate in either of two Stereo monitor modes, Multi or (single source) Stereo. The latter (single source) is the default Stereo operation mode. In Single-Source Stereo monitoring mode, only one source input can be auditioned at a time.

In Multi-Source Stereo monitoring mode (selectable from the UTILITY menus) ProControl lets you listen to one, two or three Source inputs simultaneously with the main input sources (all inputs remain active until disengaged).

Connecting Cue Mix systems

In Stereo Monitoring mode, the ProControl AUX OUT output bus and AUX (5-6) level control are intended to be used for talent/cue mix outputs.

- 1** Connect the appropriate Pro Tools outputs (the output pair which you have designated as the cue mix bus) to the ProControl AUX IN left/right input (Audio Input 1, channels 1 & 2).
- 2** Connect the ProControl AUX OUT L/R outputs (Audio Output channels 1 & 2) to the studio headphone (cue) monitoring system. This signal’s level can be controlled from the ProControl AUX (5-6) level control.

Pro Tools Cue Mix considerations

One way to set this up is to use a Pro Tools Send bus (mono or stereo) as the cue mix feed and route the send to a Pro Tools output pair. By patching that Pro Tools output to the ProControl AUX IN Left/Right bus, the overall level of the cue mix can be controlled directly from the ProControl Control Room section.

While in Stereo monitoring mode, you can also use the MIX TO AUX switch in the ProControl control room section to send the main stereo signal (Pro Tools main stereo output bus or whatever signal is patched to the ProControl MAIN IN L/R bus) to AUX OUT.

* If you plan to use ProControl in stereo monitoring mode and expect to be setting up cue mixes, you will definitely want to learn about ProControl FLIP mode, MUTE/DIM switches, Control Room preferences, and Slate/Dub/Rerecord capabilities.

Talkback/Listenback Input connections

Talkback and Listenback options are provided in ProControl, including a built-in Talkback mic.

Talkback Allows those in the control room to be heard in the cue mix or any output destination (live room speakers, machine room communication line, or other). You can use the internal talkback mic or an external mic for this purpose.

Listenback An option that is very useful when overdubbing talent in the studio that does not use an open mic for recording (for example, a synthesizer overdub that is be-

ing recorded directly, or a guitar overdub where the cabinet is mic'd but nobody needs a vocal mic for singing). By setting up a microphone in the tracking room and routing it to the ProControl Listenback bus input, direct two-way communication between the control room and the talent is ensured. The Listenback bus can be slaved to follow Talkback (meaning, pressing the TALKBACK switch also opens the Listenback channel).

In addition, the Talkback signal can be fed to the ProControl Slate/Dub (Rerecord) bus. This capability makes it very easy to not only record basic slate information using Talkback, but also makes it possible to quickly record reference vocals or other spur-of-the-moment ideas without having to first set up a microphone and adjust levels.

Using external Talkback or Listenback

ProControl provides +15V in a standard phantom power arrangement to power condenser mics. While this voltage rating does not match the industry standard of +48V, it is adequate to power most any popular condenser microphone. In addition, this phantom power is always on (you can't disable it). This should not be a cause for concern; dynamic microphones will work fine, and will not be damaged by inserting them into the Talkback or Listenback microphone inputs.

▲ Do not connect ribbon microphones to these powered inputs, as ribbon microphones may be damaged by connecting them to any phantom power source.

To connect an external Talkback or Listenback mic:

- Connect your external Listenback mic signal to the ProControl External Listenback Mic In (found on the Audio Input 1 connector, channel 1).
- For an external Talkback mic, connect the appropriate signal to the ProControl External Talkback Mic In (Audio Input 1, channel 2).

EXT TALKBACK and LISTENBACK TRIM

There are also trim pots labeled “EXT TALKBACK TRIM” and “LISTENBACK TRIM” which may be used to trim the levels of either an external talkback mic or listenback mic.

Because ProControl includes a Slate/Dub (Rerecord) bus, you can route and record the signals from the Talkback bus to Pro Tools audio interface inputs, where the audio signals can be recorded to a disk track (or any appropriate destination). For details about connections for Slate/Dub/Rerecord, see “Slate/Dub (Rerecord) Output Connection” on page 18.

Output Connections for Stereo Mode

Main and Alternate Speaker Connections

- Connect your main (primary) control room monitor/amp to the ProControl CONTROL ROOM OUT left/right outputs (Audio Output, channels 7 & 8). These speakers will now be under the control of the MAIN (1-6) level control.

- Connect your secondary reference monitors/amp (if any) to the CONTROL ROOM ALT OUT left/right outputs (Audio Output, channels 3 & 4). This will allow you to select and adjust the level of this set of speakers using the ProControl ALT (3-4) source switch and level control.

☞ For cue/headphone systems, use the AUX OUT L/R bus as explained in “Connecting Cue Mix systems” on page 16.

Slate/Dub (Rerecord) Output Connection

The SLATE/DUB left/right output bus (Audio Output, channels 5 & 6) carries the signal from the ProControl Slate/Dub (Rerecord) bus. Slate/Dub (Rerecord) lets you record Talkback audio in Pro Tools (or any recording device). Once you’ve connected the Slate/Dub output to a Pro Tools audio interface input, any ProControl input source (Talkback, Listenback, Main stereo mix, source 1, 2 or 3) can be routed to the Slate/Dub bus. This makes it very simple to record slates, for example.

To use the Slate/Dub bus:

- To bus Slate/Dub (Rerecord) to Pro Tools, connect ProControl Slate/Dub Out Left/Right (Audio Output channels 5 & 6) to an available input pair of a Pro Tools audio interface (or a DAT machine or other recording device). If you only plan to record mono Talkback Slate audio, you can connect one of the Slate/Dub outputs (this saves one Pro Tools input for other purposes).

For even greater flexibility, wire the SLATE/DUB OUTPUT to a patch bay. This will make it easier to switch between Pro Tools and, for example, a DAT machine for recording the Slate/Dub output signals.

Configuring this bus for Talkback/Listen-back bus recording can be done from the ProControl switches “live” or using the UTILITY menus. Slate/Dub/Rerecord features are explained in *Chapter 5: Recording*.

Surround Monitoring Mode Connections

About Surround Mode

ProControl offers a multi-channel surround monitoring mode to feed four- or six-channel monitoring systems.

While Pro Tools itself does not yet support multi-channel/surround panning, you can mix and monitor in LCRS, 5.1 or other formats with ProControl. You can achieve multi-channel output by utilizing Pro Tools send busses as described in the following sections.

Multi-channel/Surround Monitoring in Pro Tools

You can monitor and mix in a type of multi-channel surround mode directly within Pro Tools using Sends.

In this setup, Send level/pan determine the “placement” of an audio track. This technique works best for static mix elements (meaning, tracks that stay in one position in the surround mix field and do not need to be pan automated).

The next section provides possible LCRS and 5.1 setups.

Four-channel Pro Tools mix

Example four-channel/LCRS Pro Tools mixer setup

- 1 Insert one stereo and two mono pre-fader sends on every track in the surround mix.
- 2 Use the stereo send to bus or “pan” audio to a pair of Pro Tools audio interface outputs. This bus will carry the front left/right channels.
- 3 Use one mono send to bus/pan audio to a single Pro Tools audio interface output, for the (mono) surround channel.
- 4 Use the other mono send to bus/pan audio to another mono Pro Tools audio interface output, to carry the center channel signal.
- 5 For a discrete two-channel stereo mix, use the Track Output selectors to bus tracks to a pair of Pro Tools outputs.

ProControl Input Connections: 4ch/LCRS

- Connect the front left/right bus outputs to ProControl Main In Left/Right (Audio Input 2, channels 7 & 8).
- Connect the surround bus output to ProControl Source 1 In Left (Audio Input 2, channel 5).
- Connect the center bus output to ProControl Source 2 In Left.

* It is not necessary to create/use stereo Aux Input tracks and configure them to control the surround channel outputs (stems) though it may seem logical to do so. This is because Aux Input fader and mute controls would be duplicating ProControl Control Room monitor level and source selection controls. See “Using the Control Room Monitoring Section” on page 41.

ProControl Output Connections: 4ch/LCRS

- Control Room Main Out Left/Right (Audio Output channels 7 & 8) to the front left/right channel monitor amp/speaker inputs.
- Control Room Alt Out Left (Audio Output channel 3) to the surround channel monitor system input.
- Aux Out Left (Audio Output channel 1) to the center channel monitor input.

When configured in this way, master control room monitoring level is controlled using the MAIN (1-6) rotary knob in the Control Room section. Surround channel monitoring level is controlled using ALT (3-4), and center channel monitoring level by AUX (5-6). These are monitoring levels only.

If you use the same pair of speakers for both stereo-mix left/right and surround-mix front left/right (or Dolby Lt/Rt), it might seem practical to use the Track Output Selector to get all tracks to the front left/right surround bus. While you can certainly do this (and may need to, depending on available DSP resources) the combination of pre-fader sends *and* the channel fader provides additional level control and flexibility.

You can assign all four (or six) Pro Tools Sends to all channels and use Send Level or Send Bypass/mute to control the mix. Alternatively, since often times there are elements that will only appear in certain channels (LFE signals being the most obvious example) you can conserve mixer DSP by inserting “surround sends” on an as-needed basis.

Six-channel (5.1) Pro Tools mix

To configure Pro Tools for a six-channel, send-based mix:

- 1** Insert two stereo sends and two mono sends on each track (or, as needed depending on the audio material and where it needs to be placed).
- 2** Use one stereo send to bus to a pair of audio interface output channels. This bus will carry the front left/right channels.
- 3** Use the other stereo send to bus to another pair of audio interface output channels. This bus will carry the surround left/right channels.
- 4** Use one of the mono sends to bus to a discrete Pro Tools audio interface output channel. This will carry the center channel.
- 5** Use the other mono send to bus to a discrete Pro Tools output, for the sub or LFE channel.

ProControl Input Connections

- Connect the front left/right outputs to ProControl Main In Left/Right (Audio Input 2, channels 7 & 8).
- Connect the surround left/right channel outputs to ProControl Source 1 In Left/Right (Audio Input 2, channels 5 & 6).
- Connect the center and sub channel outputs to ProControl Source 2 In Left/Right (Audio Input 2, channels 3 & 4, respectively).

ProControl Output Connections

- Connect Control Room Main Out Left/Right to the front left/right monitor input channels.
- Connect Control Room Alt Out Left/Right to your surround left/right monitor input channels.
- Connect Aux Out Left/Right to your center and sub monitor input channels.

When properly configured and connected, ProControl will give you monitoring level and in/out control over each pair of surround stems using the control room section.

About Source 1, 2 and 3 in Surround Mode

In Surround mode, the SOURCE 1 and SOURCE 2 inputs are used for surround and center/sub channel inputs. Source 3 In is not used. To integrate other devices while working in Surround mode, patch the output of the device (DAT deck, or other) to available inputs on your Pro Tools audio interfaces.

Optional Connections

(All Modes)

Headphone

ProControl provides a stereo headphone jack on the front panel. A discrete feed of the main stereo ProControl mix, headphone level is set from the Headphone knob in the Control Room section.

To connect headphones in a fixed installation (custom cabinets), you can use a right-angle stereo phone plug.

Headphone output follows Control Room MONO, but not control room MUTE or DIM functions. This jack is not meant to feed a cue system, but to allow a single pair of headphones to be connected directly to ProControl to monitor in private.

Footswitch

The SW 1 and SW 2 jacks can be assigned to any of three available Footswitch functions:

- Play/stop
- Record (punch-in/punch out)
- Remote Talkback on/off

Both footswitch inputs' polarity is selectable to support virtually any available momentary footswitch.

The function and polarity of the footswitch jacks SW 1 and SW 2 are configured using the ProControl UTILITY menus. Press UTILITY > PREFS > SWITCH 1 (or SWITCH 2) and configure the polarity and functions. (See *Appendix A: UTILITY Settings* for more information on UTILITY.)

External Mouse

The EXT MOUSE port can be used to attach a Windows-compatible mouse directly to ProControl. You can then use a mouse instead of the built-in Trackpad (you can not use both an external mouse and the Trackpad simultaneously).

Unused Ports

COM Port

The COM PORT connectors on the back of ProControl is used only for factory diagnostics.

MIDI Connections

ProControl uses Ethernet for all communications to and from the host CPU. The MIDI ports are currently not supported.

Fader Pack Connections

Fader Packs only require power and Ethernet connections.

Power Connections

- 1 Plug one end of a power cord (included) into the Fader Pack AC receptacle.
- 2 Plug the other end into a power source such as a power strip or wall outlet.

Ethernet Connections

- With ProControl positioned, use a standard RJ-45 cable and connect the Fader Pack Ethernet port to an available port on your Ethernet hub.

The rest of the ports on Fader Packs are inactive and should be left unused.

Starting Up and Shutting Down a System

Pro Tools consists of several components that have to be turned on and off individually. For these devices to communicate properly, start up and shut down your system in the following order:

Start your Pro Tools System in this order:

- 1 Turn on external hard drives first. Wait 10 to 15 seconds for them to come up to speed.
- 2 Turn on ProControl, then any Fader Packs.
- 3 If you plan to work with MIDI equipment, turn on MIDI interface and other MIDI devices.
- 4 Turn on Audio Interfaces.
- 5 Turn on computer.
- 6 Turn on monitoring speakers/system.

Shut down Pro Tools in this order:

- 1 Turn off monitoring speakers/system.
- 2 Turn off Audio Interfaces.
- 3 Shut down computer.
- 4 If using MIDI equipment, turn off MIDI interfaces, controllers, or other.
- 5 Turn off ProControl (its outputs mute during power-up/down).
- 6 Turn off external hard drives.

* ProControl features many system diagnostics and recalibration tests that you can perform at startup using special key commands. Refer to the Appendix of this manual for complete information on all of these utility functions.

Software Configuration

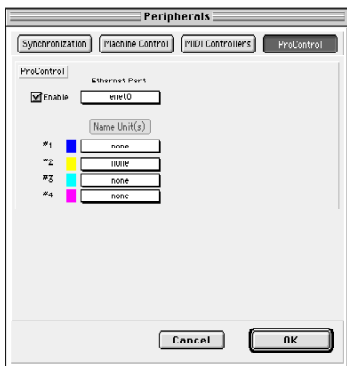
Establishing Communication between ProControl and Pro Tools

Communication between ProControl (and Fader Packs) and Pro Tools is easily configured from within the ProControl window of the Pro Tools Peripherals dialog.

Double-check that any Ethernet hub or other related devices are installed and verified according to the manufacturer's instructions.

To configure Pro Tools for ProControl:

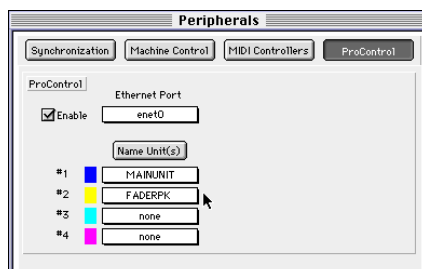
- 1 Open the ProControl page of the Pro Tools Peripherals dialog.
- 2 Click enable. Pro Tools scans the Ethernet connection for any ProControl units connected to the system.



ProControl page of the Pro Tools Peripherals dialog

- 3 If the CPU has multiple Ethernet ports (built-in, a bridge or other add-on) do the following:

- Macintosh: Use the Ethernet port pop-up menu to select which Ethernet port you want to connect to. Ports are identified by (CPU) name.
 - Windows NT: Use the Windows Network Control Panel to change the binding (refer to your Windows NT documentation for more information).
- 4 Use the Unit pop-up to select which ProControl unit is on-line at each position—#1, #2 and so on. Placing a Main Unit between two Fader Packs, for example, lets you keep the main work area in the “sweet spot” of your mix environment. If you have one Main Unit with a single Fader Pack to its right, settings would be similar to the following example.



Configuration for main unit at far left, one fader pack to the right.

You can designate any unit (Main or Fader Pack) to be “1st” “2nd” “3rd” and so on using the Unit pop-ups.

If ProControl does not appear in the Peripherals > ProControl menus, check the following:

- Ethernet port settings and connections.
- If in a networked ProControl/Pro Tools installation, you might be connected to a different zone or not bridged to the correct zone. Bridges must be configured as routers.

5 To rename a unit, see “Naming ProControl Units” on page 24. By default, units are named either MAINUNIT or FADERPK.

6 Click OK to close the Peripherals dialog and save your configuration settings.

7 Pro Tools may ask if you want to download new firmware to update ProControl. Pro Tools will always contain the most recent firmware, so you should probably click to Download new firmware (see “ProControl Firmware” on page 24).

If communication is established (or, after downloading new firmware), the appropriately colored outline colors for each unit will appear around the current bank of channel strips in Pro Tools Mix window.

If problems persist after power-cycling and checking connections, refer to “Troubleshooting” on page 28.

Once ProControl units have been enabled, choices are stored and you will not have to re-open the Peripherals dialog again unless changes to the configuration are necessary.

Display of Unit Status in the Peripherals Window

MAINUNIT or FADERPCK

Bold type indicates connected units.

MAIN UNIT or *FADERPCK*

Italics indicate lost/disconnected units.

MAINUNIT or FADERPCK

Underlined names indicates that the selected units are in use by another Pro Tools system.

ProControl Firmware

Each release of Pro Tools includes the most current ProControl firmware. After enabling ProControl units in the Peripherals dialog, Pro Tools compares the firmware of all connected units to the version available in the Pro Tools software. If a discrepancy is found, Pro Tools will suggest that you download new firmware to your units.

In networked environments, be careful not to accidentally select remote (other) ProControl units. Also, firmware downloading resets all ProControl preferences (UTILITY settings) to their factory defaults, listed in “Reset (Factory Default) Page” on page 202.

Naming ProControl Units

By default, Fader Packs are all named “FADERPK.” If, for example, the system includes one Main Unit two Fader Packs, the pop-up window will list MAINUNIT, FADERPK, FADERPK. Naming units uniquely can avoid confusion in networked systems also.

* You can rename ProControl units individually using Local Mode. See “Remote (Local) UTILITY Mode” on page 193.

To rename a unit from the Peripherals dialog:

- Choose Setups > Peripherals and click ProControl.
- Click the Name Unit(s) button and enter the unit name in the dialog that appears, then OK the dialog (or cancel).

If there is any confusion about which unit is which, OK the Peripherals dialog, move a Pro Tools fader on-screen and check if ProControl faders follow.

QuickStart System Test and Configuration

It is assumed that you have completed the ProControl installation and setup instructions contained in this chapter.

* For a video guided tour of ProControl, use the ProControl Tutorial CD-ROM (included with your Main Unit).

To begin:

- Launch Pro Tools and open the Demo Session.

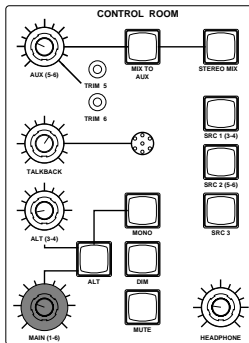
To play the Demo Session

- 1 Adjust the monitor output level from the CONTROL ROOM section using the Main (1-6) pot so that the volume is relatively low to start.
- 2 Press PLAY on the ProControl Transport.
- 3 Adjust the main volume using the MAIN (1-6) knob.

As the demo plays, feel free to grab a fader and give it a shove, or solo/mute some tracks and track groups.

- 4 To stop the Demo Session, press STOP (or press the Space bar of your computer keyboard—both Pro Tools and ProControl switches and controls are “live” at all times, so you can work from either environment).

If for some reason you weren’t able to play and hear the Demo Session, you may have skipped a step in your installation or software configuration. To find the problem, refer to the Troubleshooting section that follows.



Setup and Configuration Options

Audio Monitoring Defaults

ProControl provides the following monitoring modes and options, along with a description of their default (factory) settings:

Stereo, single-source input/monitoring In this mode, one single stereo input source (ProControl Main In, Source 1, 2 or 3 In) can be monitored through ProControl at a time. Also known as X-Or selection. (For instructions on how to configure source monitoring mode, see “Single Source (“X-OR”) and Multiple Input Source Monitoring” on page 43).

Mute > Control Room Only This mode causes only the Control Room Main and Alt outputs to mute using the MUTE switch in the Control Room section. The Aux outputs (intended for cue/headphones) do not mute.

Internal Talkback (built-in TB mic) In this mode, the built-in Talkback mic supplies input to the ProControl talkback bus.

Basic Configuration Options

Stereo and Surround Monitoring

ProControl provides stereo and surround monitoring modes. When patched correctly, up to six channels of Pro Tools audio can be monitored through six discrete ProControl outputs, with stem (pair) level and on/off control. (See “Using the Control Room Monitoring Section” on page 41.)

To monitor in surround mode:

1 Press the UTILITY switch on your Main Unit. The DSP EDIT/ASSIGN section changes to display several choices, with illuminated red switches next to each.

SYSTEM

MONITOR

TEST

RESET

PREFS

< >

< >

ESCAPE

2 Press the switch next to MONITOR. Now, monitor options are displayed.

3 Press the switch for MODE, which displays choices for Stereo and Surround.

4 To enable surround mode, press the switch next to SURROUND. To switch back to stereo mode, press the STEREO switch.

Fader Resistance

Fader pull back, or resistance, determines the “feel” of fader travel. To optimize fader response/feel, each ProControl unit has adjustable fader resistance to provide looser or tighter fader response.

Fader resistance can be applied globally (to all Main and Fader Pack units) from the Main Unit. Fader Packs can also be adjusted individually.

To adjust Fader Resistance:

Main Unit

- 1 Press UTILITY > PREFS > FADER.
- 2 Use the Scrub/Shuttle wheel to raise/lower fader resistance. You can move any faders on the main unit while adjusting the wheel to feel the change.

Fader Pack:

- 1 Press and hold SHIFT/ADD + OPT(ALT)ALL + F4. The top row of data displays (above the pan knobs) display:
SYSTEM | TEST | PREFS
- 2 Press the flashing red switch to select PREFS. From the next list of choices, select FADER.
- 3 Rotate any data encoder (knob) to raise or lower fader resistance. Check the effect of various settings by moving a fader while turning the encoder to adjust resistance.

Fader Pack Options

Local and Global SELECT/ASSIGN control

In expanded ProControl systems, Fader Packs can be configured to function in global or local SELECT/ASSIGN.

- In global mode, all connected ProControl units respond as one to channel-specific mode selections including pan, input/output assignment, and channel send assignment, send level and so on (referred to as SELECT/ASSIGN settings).
- In local mode, each unit (Main or Fader Pack) functions independently in regards to these channel-specific parameters. For example, local mode lets the Main Unit

be displaying and controlling pan of channels 1-8, while a Fader Pack is simultaneously displaying and controlling Send B level on channels 9-16.

By default, ProControl units operate in global SELECT/ASSIGN. You can switch between global and local at any time to match the needs of your project.

To select local or global SELECT/ASSIGN:

- Press and hold the OPT (ALT) ALL switch, then press the FLIP switch.

The displays above the unit's rotary encoders (pan knobs) will display:

SELECT | ASSIGN | SWITCHES | ARE | NOW | IN |
LOCAL | MODE | < > |

Repeat the above step to return a unit to global mode (the display will read "...Now In Global Mode").

Control Room Default Settings

There are additional set up options available for the Control Room Monitor features, including:

- Monitor Mode, including Stereo/Surround and Multi-/X-Or source monitoring))
- Mute/Dim
- Talkback/Listenback, including slate/dub and rerecord

Instructions for these and all Control Room options can be found in "Using the Control Room Monitoring Section" on page 41.

Troubleshooting

Communication Problems

If communication is ever lost, Pro Tools posts a dialog explaining that this has occurred and suggests that you check connections or power-cycle the units. ProControl automatically attempts to recover communication until it is reestablished or you cancel the warning dialogs.

Pro Tools “Lost Communication” Message

If Pro Tools loses communication with ProControl because power or a cable connection has been cut off, for example, the main unit will display “OFFLINE” in the Time Counter Display. A message will appear on-screen in Pro Tools.

If this happens, power down ProControl, wait a few seconds, and then power up ProControl again. If communication problems persist, make sure cable connections are properly configured and secured.

If ProControl is not in use, disable it in Pro Tools Peripherals dialog.

Lost unit names are listed in italics and networked units are underlined in the Peripherals dialog. (Disable ProControl in the Peripherals dialog, to make it available to other networked systems.)

If communication does not resume, or if error messages continue to appear, click Enable (in the Peripherals window).

Once ProControl units have been enabled, you do not have to re-configure the Peripheral Dialog again unless changes to the setup are necessary.

Modal Dialog Messages

Before you begin working with ProControl, you should become familiar with some modal dialog messages which may appear:

Pro Tools On-screen Dialog Warning

If a modal dialog message appears in Pro Tools, ProControl will display the following message in the DSP EDIT/ASSIGN section displays:

```
PRO TOOLS  
HAS A  
DIALOG  
ON  
SCREEN!
```

This message will continue to be displayed until the dialog is closed on-screen in Pro Tools or by using ProControl (press ENTER or ESCAPE).

Active in Background Message

If Pro Tools displays the following message:

“ProControl is currently inactive because Active in Background is disabled in Pro Tools”

- Choose Operations > Active in Background to restore communication.

Resetting and Calibrating

ProControl provides numerous self-diagnostic tests, recalibration routines and customizable parameters. These options are in the Utility pages, described in the Appendix of this guide.

chapter 3

ProControl Basics

This chapter takes you on a guided tour through each section of the ProControl surface, and includes sections dedicated to the Transport and Control Room Monitoring features.

Some ProControl Terms

bank A group of controls that are the same and that are arranged in discrete channel strips. ProControl Main Units consist of banks of eight faders. An expanded system with one Main and one Fader Pack (two total ProControl units) would comprise banks of 16 faders.

bank selecting The process of switching from one bank of channel strip faders to another. For example, on-screen channel strips 1-8 will be bank #1, channel strips 9-16 will be bank #2, and so on. (Expanded systems bank 16, 24, or 32 channels at a time.) This is also called *bank swapping*.

global controls Controls that affect all Main and Fader Pack Expansion units in a system. “Local” controls only affect the unit on which they are invoked.

data encoders Rotary data encoders are virtual knobs, with LED ring lights that represent values for parameters such as pan position and send level.

dedicated controls These controls perform single functions that never change. These controls are not “banked” or “paged”. For example, the transport switches and the jog/shuttle wheel never change their function.

Meter section

- Eight LED meters for Input/Channel/Track level indication
- Time Counter Display
- Six LED meters for master output level

The Fader Section

Channel SELECT/ASSIGN section

- Twelve SELECT/ASSIGN switches to select data encoder function
- Pan, send level, input and output, and Flip mode controls

Channel AUTOMATION section

- Eight automation MODE switches
- Eight automation ENABLE switches
- AUTO SUSPEND switch

KEYBOARD SHORTCUTS section

- Computer key command equivalent switches

Faders and channel controls

- Eight 100 mm., touch-sensitive DigiFaders™ for channel volume or send level
- Eight single-row 8-segment LED displays for channel name and headroom display
- DISPLAY MODE switch to toggle name, group, dB values and channel numbers
- Eight data encoders with 15-LED indicator rings for pan, send and I/O control
- Eight single-row 8-segment LED dot-style displays for encoder data display
- Eight SOLO, MUTE and SELECT switches
- Eight ASSIGN/MUTE switches for sends and I/O, and for selecting pre/post for sends
- Eight REC/RDY record-arming switches
- Eight dedicated EQ and DYN IN/EDIT switches
- Eight INS/SEND select switches
- Eight AUTO Mode switches LED labels
- INS/BYP switch for INS/SEND switch row
- AUTO SUSPEND switch to suspend automation playback
- Master SOLO clear and indicator switch
- Four Master Function Switches and four “F-key” function switches

Time Counter Display

- LED time counter display for viewing current session time
- COUNTER MODE switch toggles SMPTE, Min/Sec, Feet/Frames

The Main Section

DSP EDIT/ASSIGN section

- Eight data encoders for Plug-In/Insert parameters
- Eight LED displays for Plug-In parameters
- 24 insert assignment and editing switches
- INSERTS/PARAM switch for Plug-In editing
- MASTER (Plug-In) BYPASS switch
- COMPARE switch (Plug-Ins)
- LED display for CHANNEL/GROUP

CONTROL ROOM analog monitoring section

- Three stereo OUTPUT level controls
- TALKBACK level control
- Built-in TALKBACK microphone
- HEADPHONE level control (for front-panel headphone jack)
- Four MONITOR SELECT switches (input source)
- ALT speaker select switch
- Switches for MUTE, DIM, and MONO monitoring
- Two TRIM pots for use in a surround monitoring configuration
- Slate/Dub capability

Numeric Keypad

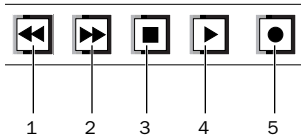
Trackpad

Main Section

- TRANSPORT controls, AUDITION switches
- SCRUB/SHUTTLE wheel with 2 mode switches
- TALKBACK switch
- Fourteen dedicated Pro Tools EDIT switches, SAVE and UNDO switches
- Dedicated WINDOW switches to select active Pro Tools window
- Seven Global STATUS select switches
- Five GROUP switches
- MASTER FADERS switch
- Two BANK SELECT switches, with NUDGE function switch
- ZOOM/SELECT switches, w/ one cursor quadrant-mode switch
- CHANNEL MATRIX for status, navigation, group functions, Plug-In paging
- Four BANK switches
- GO TO, VIEW, UTILITY and ALPHA mode switches for the CHANNEL MATRIX
- ESCAPE switch

Transport Switches

Primary Transport Switches



The Transport switches correspond to transport functions in Pro Tools. These switches are:

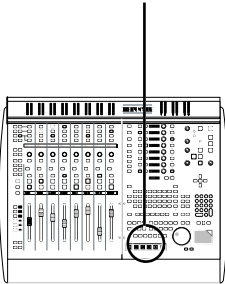
1 REWIND Rewinds through the session beginning from the current cursor position.

2 FAST FORWARD Fast-forwards through the session beginning from the current cursor position.

3 STOP Stops playback.

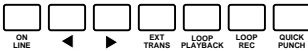
4 PLAY Begins playback from the current Timeline or Edit location.

5 RECORD Arms Pro Tools for recording. Exact function is determined by the current Pro Tools record mode (QuickPunch, Wait for Note, Pause).



Control Section

Directly above the main transport buttons are seven additional transport function switches:



Online Toggles Pro Tools online/offline (LED is lit when Pro Tools is online)

RTZ (Return-To-Zero) Sets playback cursor to the beginning of the session

END (Go-To-End) Sets playback cursor to the end of the session

EXT TRANS (External Transport) Enables machine control of a single external transport

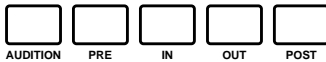
LOOP PLAYBACK Toggles Loop Playback on/off (LED is lit when Loop Playback is enabled)

LOOP RECORD Toggles Loop Record on/off (LED is lit when Loop Record is enabled)

QUICKPUNCH Toggles QuickPunch recording mode state (LED is lit when QuickPunch is enabled)

In addition to the above, there are several modifier short-cuts for transport function:

- CTL/CLUTCH + PLAY: engages Pro Tools Pause mode
- SHIFT/ADD + PLAY: initiates half-speed playback
- SHIFT/ADD + STOP: cancels the current record pass
- SHIFT/ADD + FAST FORWARD: Go-To-End
- SHIFT/ADD + REWIND: returns to zero (RTZ)
- CTL/CLUTCH + RECORD: cycles through the various record modes (normal, QuickPunch, Loop)
- CTL/CLUTCH + EXT TRANS: cycles through available machine master choices, (such as Pro Tools, Serial Machine, and ADAT).
- OPT (ALT) ALL + IN or OUT: centers the left or right side of any current on-screen waveform selection in the Edit Window.



AUDITION, PRE/POST, IN/OUT Switches

Directly above the seven special function Transport switches (ONLINE, RTZ, etc.) are the ProControl audition controls.

PRE, IN, OUT and POST function in two available modes:

- Standard mode (AUDITION switch is off): activate pre/post roll (PRE and POST) and define in/out points during playback (IN and OUT).
- Audition mode (AUDITION switch is lit) PRE, POST, IN and OUT each “audition” a unique range of audio in/around the current Edit selection (see “Example of AUDITION Mode Playback Options” on page 34 for details).

Pre and Post-roll

To toggle Pre- or Post-roll on/off:

- 1 Make sure AUDITION is off.
- 2 Press PRE or POST to toggle each on or off.

Setting Pre- and Post-Roll Amounts

To enter a Pre/Post-Roll Time:

- 1 Hold down ⌘ - (CTL) and then press PRE or POST. The appropriate switch LEDs (PRE or POST) will flash, indicating that PRE/POST entry mode is active.
- 2 Type values for PRE/POST using the numeric keypad. Press the ProControl PREVIOUS or NEXT switches to tab through the numeric fields.
- 3 Press ENTER to set the time values. Press ESCAPE to cancel changes.

Defining in/out points

To define selection in and out points during playback:

- 1 Make sure AUDITION is off.
- 2 While Pro Tools is playing, press IN to define selection start, then press OUT at the desired selection end.

AUDITION Mode and PRE, IN, OUT, POST

The AUDITION switch toggles Audition mode on and off. When on/lit, playback can be controlled from the PRE, IN, OUT and POST switches (detailed below) to quickly listen to the either selection start or end, with or without pre- and post-roll as described below.

Example of AUDITION Mode Playback Options

To understand what PRE, IN, OUT and POST let you do while in Audition mode, let's assume you currently have a four bar selection spanning bars four through 8, with one bar of pre-roll and one bar of post-roll already defined:

PRE Plays audio starting at the pre-roll point up to the beginning of the selection. In our 4 bar selection example, this would play from bar 3 to bar 4.

IN Plays audio starting at the selection start through the length of the post-roll amount. In our example, this would play from bar 4 to bar 5.

OUT When in AUDITION mode the OUT button plays audio back-timed from the selection end by the pre-roll amount. In our example, this would play from bar 7 to bar 8.

POST Plays audio from the end of a selection by the post-roll amount. In our example, this would play from bar 8 to bar 9.

Additional ProControl Transport Shortcuts

To listen to the edit/selection start point with both pre and post roll:

- Hold down ⌘ (CTL) + OPT (ALT) ALL then press PRE or IN

To play edit/selection end with pre-and post-roll:

- Hold down ⌘ (CTL) + OPT (ALT) ALL, then press OUT or POST

Transport Mode for NUMERIC KEYPAD

For additional flexibility, the NUMERIC KEYPAD can be configured for Transport command.

To engage Transport Mode for the Numeric Keypad:

- 1 In Pro Tools, choose Setups > Preferences, and click Operations.
- 2 Enable Transport mode.
- 3 Click OK.

The following table lists NUMERIC KEYPAD functions when Transport mode is enabled:

Task	NUMERIC KEYPAD
Play/Stop	0
Rewind	1
Fast Forward	2
Record (Punch In/Out)	3
Loop Play	4
Loop Record	5
QuickPunch	6
Metronome (MIDI) on/off	7
Count on/off (MIDI)	8
Merge Record (MIDI) on/off	9
Enter Main Counter	Asterisk (*)
Enter/Edit Time Fields	Backslash (/)
Capture Time Code	=
Create Memory Location	Enter
Nudge fwd/bwd	+/-

For other modes/shortcuts, see the *Pro Tools Reference Guide*.

Commands Focus Transport Shortcuts

When the Pro Tools Commands Focus is engaged, several transport commands become available from the Alpha keys in the ProControl CHANNEL MATRIX.

To engage Commands focus:

- Press ⌘ (CTL) + OPT (ALT) ALL + 0 (numeric zero). The Commands toggle lights in Pro Tools Edit window.

For a listing of single-key Command shortcuts in Pro Tools, see *Appendix C: ProControl Shortcuts and Equivalents*.

Transport Control of External Devices

Using the EXT TRANS switch, ProControl can toggle between Pro Tools or your external device as the transport master or slave.

To toggle/select the Transport Master:

- 1 Hold down CTL/CLUTCH while you press the EXT TRANS switch. This cycles through all currently available choices for machine transports:



Selecting the Transport master

As you change the transport master, the ProControl DSP EDIT/ASSIGN display posts the message, “Transport now controls ADAT” or “Transport now controls Serial Machine” as relevant.

- 2 When the desired transport is selected, release the CTL/CLUTCH switch to save the setting.
- 3 Now, pressing only the EXT TRANS switch toggles between the selected device and Pro Tools as the transport master.
- 4 To select a different alternate device, use CTL/CLUTCH + EXT TRANS again.

Display of EXT TRANS modes

Pause mode When Machine (serial) is transport master and the remote system is in PAUSE mode, the ProControl PLAY switch will blink and the STOP switch will light.

Cueing While the remote system is cueing, the ProControl PLAY and SCRUB switches blink, and the STOP switch illuminates. (Scrub/Shuttle remain available for scrubbing, jogging or shuttling the deck. See the sections on SCRUB and SHUTTLE later in this chapter for information.)

Record The ProControl RECORD switch LED always tracks the state of the device under control. Keep in mind, however, that this is distinct from the remote track-arming capabilities provided by the MachineControl option for Pro Tools (available separately from your Digidesign dealer).

Footswitch Control

There are two general-purpose footswitch inputs (for momentary footswitches) on the rear panel (SW1 and SW2) that are used for general transport control. Either footswitch can control Play/Stop, Punch in/out, or Talkback. In addition, the polarity of each switch can be reversed.

To configure the Footswitch (SW1, SW2) parameters:

- On your Main Unit, press UTILITY>PREFS>SWITCH1 or SWITCH2 (the options are the same for both). Now select the Polarity (+ or -) and function for the selected switch (PLAY/STOP, RECORD or TALKBACK).

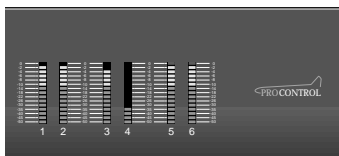
When either footswitch is employed, the following shortcuts are available:

To cancel a record pass:

- Hold down SHIFT/ADD and press Footswitch #1 to cancel the recording without saving the most recent recording.

To initiate half-speed playback:

- Hold down SHIFT/ADD and press Footswitch #1.



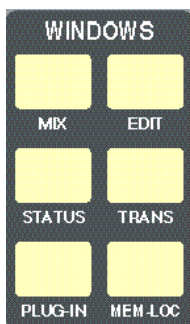
Level Meters

Along the top of ProControl are eight stereo, 15-segment LED meters for global pre- or post-fader level indication of individual channels, as well as six more meters to the right of the Time Counter display for master output levels. Mono channels activate the left side of the meter pair only.

ProControl meters follow Pro Tools Peak Indication preferences, and are identical in operation to the meters on Digidesign Audio Interfaces.

To clear all clipped meters and held peaks:

- Press the CLR/F1 switch in the F-keys (Function keys) section to clear clipped channel and send meters and last held peaks simultaneously, on all ProControl meters (except Plug-Ins). This also clears all audio interface meters.



WINDOWS Switches

Six WINDOW switches open or close the corresponding Pro Tools window.

- MIX and EDIT
- STATUS: Session Setup
- TRANS: Transport
- PLUG-IN:
- MEM-LOC: Memory Locations

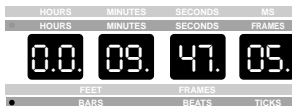
About the TRANSPORT, MEM-LOC, STATUS and PLUG IN STATUS Switches

Pressing these switches brings the selected window to the foreground as the “active” floating window for editing. The Transport, Memory Location, Session Setup Display and Inserts/Sends windows are all floating windows. If a floating window is already in the foreground, then pressing its corresponding switch will close the window.

Visibility of Inserts/Sends Editor

The PLUG-IN switch opens/closes the Inserts/Sends Editor for the currently selected Plug-In). When a Plug-In is selected for editing on ProControl, the corresponding Inserts/Sends Editor for the Plug-In will also open in Pro Tools. Only a single Plug-In can be accessed and edited at a time. Note that if the Inserts/Sends Editor for the currently selected Plug-In is closed, you can still edit the Plug-In using the DSP EDIT/ASSIGN section even though the Plug-In interface is hidden. This “edit focus” mode of operation allows for maximum editing speed on ProControl, avoiding the need for Pro Tools to continually redraw the Plug-In interface on-screen. For more information, see *Chapter 7: Plug-Ins and Sends*.

Time Counter Display



In the center of the meter section is an 8-character, 7-segment LED display for showing time values. Each numeric section of a given time display is separated by LED dots. This display will show whatever is displayed on the Pro Tools main counter display, indicated by the labelled LEDs next to each option:

HOURS MINUTES SECONDS MS

HOURS MINUTES SECONDS FRAMES

FEET FRAMES

BARS BEATS TICKS

The time display format can be selected from ProControl using the COUNTER MODE switch, located directly below the Time Counter display.

COUNTER MODE Switch

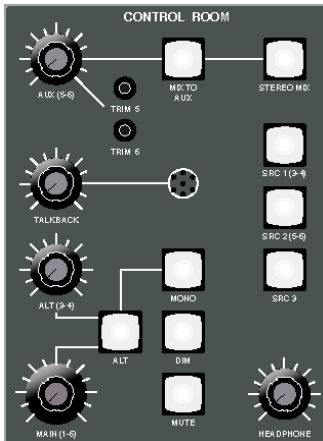
The COUNTER MODE switch is located between the DSP EDIT/ASSIGN section and the main Fader section, directly below the Time Counter display. Repeatedly pressing this switch toggles the LED time display through each of the time display modes. A green LED next to the counter dis-

play shows which of the following modes is active. (Samples is indicated by all green Time Counter Display LEDs off.)

Some time displays, such as Minutes/Seconds have a least-significant digit display in thousandths of a second (three characters). These values are truncated or rounded to be displayed in the ProControl counter, and appear when playback is stopped (for example, “01:00:02.022” will display as “01.00.02.02”).

For information on keyboard entry for the counter, see “The Numeric Keypad” on page 52.

Using the Control Room Monitoring Section



ProControl’s CONTROL ROOM Monitoring section provides high quality audio reproduction and routing for monitoring of the outputs of Pro Tools mixes and alternate sources to speakers and headphones.

The analog CONTROL ROOM section provides multi-source/destination monitoring, supporting three stereo output level controls, four monitor select switches (i.e., input controls), an ALT speaker select switch, a built-in talk-back mic with level control, headphone level control, and monitor MUTE, DIM and MONO switching.

The CONTROL ROOM section retains all of its settings on power-down and restores them on power-up without any intervention from the host computer, and its circuits automatically mute during power down/up to prevent thumps and other spurious signals that could damage speakers.

Two global monitoring modes are available: stereo and surround. Switching between these two master monitor modes is accomplished from the ProControl UTILITY page. Many other ProControl options are also available in the UTILITY page, which is explained in *Appendix A: UTILITY Settings*. All choices made in the UTILITY section (as well as some other specialized functions) are stored in ProControl’s EEPROM memory. These functions do not require a CPU to be con-

nected in order to be changed/accessed, nor do they require Pro Tools software to be active.

Here is an overview of the two monitor modes:

STEREO Monitor Mode Overview

In stereo mode, the CONTROL ROOM section lets you monitor in stereo, with the following features:

- Source switching between 4 stereo sound sources (STEREO MIX, SRC 1 (3-4), SRC 2 (5-6), and SRC 3).
- Speaker selection (main or ALT monitors)
- AUX I/O section for separate cue mix monitoring or alternate Source I/O
- DIM, MUTE, MONO, on monitor (speaker outputs)
- Talkback, Slate, and Listenback (“talent listen”)
- Analog source dubbing (from the re-record/Slate input pair)

SURROUND Monitor Mode Overview

In surround monitor mode, the CONTROL ROOM section allows you to utilize discrete surround mix sources for monitoring. Both 4 channel (standard Dolby® Digital) and 6-channel modes (i.e., 5.1), are supported.

- 4-channel surround comprised of four signals: Left, Center, Right, and Surround (mono).
- 6-channel surround (5.1) comprised of six signals: Left, Center, Right, Left Surround, Right Surround, and a Subwoofer (or LFE) channel.

SURROUND monitor mode also provides source muting (in pairs), level trims, a master level control, and MONO and DIM features.

While in surround mode, the individual source input selectors carry the discrete surround signals in pairs. The output level controls are used to control each surround “stem” mix in pairs, with master control from the MAIN (1-6) master level control. Individual level trim is available for the Aux 5 and Aux 6 signal.

Single Source (“X-OR”) and Multiple Input Source Monitoring

Input sources can be toggled between *single source* X-OR (default) and *multiple source* operation while in Stereo Monitor mode. In Surround mode, multi-source/discrete routing is always enabled. Here is how these two options affect the way in which you can use the CONTROL ROOM section:

While in Stereo Monitor mode

- ◆ When single source (X-OR) is the current mode, only one input source can be monitored at a time when working in Stereo monitor mode. In this mode, only a single input source selector switch can be active at a time (selecting a new choice turns off the current choice). This means that, for example, you will not be able to listen to the main Pro Tools mix coming in on STEREO MIX simultaneously with a DAT machine tape input coming in on SRC 1 (3-4).
- ◆ When multiple source is the current mode, any and all of the four input sources may be monitored at one time while in stereo monitor mode. Selecting more than one choice is allowed, and with the example above, you would be able to listen to both sources at once.

While in Surround Monitor mode

- ◆ When Surround mode is enabled, switch logic automatically changes to a special version of multiple source mode. In this case, the input switches for each source turn the “stem” on or off, but the outputs of ProControl’s monitor section are discrete, not mixed. For example, you could enable/disable each input pair (main L/R, surround L/R (3-4), and Center/Sub (5-6) with their associated switches (STEREO MIX, SRC 1, SRC 2, respectively). Then you can trim the output levels for each stem pair using their master level controls, and also trim the individual levels for Center (5) and Sub (6) from the top-panel screwdriver-accessed trim pots (explained below).

ProControl default (factory) configuration is Stereo/Single mode.

Selecting Monitor Mode Options

The following instructions for monitor mode selection use UTILITY mode. In this mode, the DSP EDIT/ASSIGN switches select utility options through a series of submenus displayed vertically. Using the basic UTILITY instructions listed below, you can quickly reset any monitor options by following the instructions that immediately follow.

To enter UTILITY mode:

- Press UTILITY.

The main UTILITY menu is displayed vertically in the DSP EDIT/ASSIGN section LEDs.

```
MODE
MUTE/DIM
TALKBACK
LSTNBACK
<BLANK>
<BLANK>
<BLANK>
<ESCAPE>
```

When in UTILITY mode, the ASSIGN/ENABLE switches select menu choices that either take you to the next menu or select an option.

Display of Current Settings

When making choices in the UTILITY section submenus, a switch that is lit indicates that it is the currently enabled choice. A switch that is flashing indicates that it is an available, but not the currently active choice.

Navigating in UTILITY Mode

To return to the previous UTILITY page at any time:

- Press the flashing ASSIGN/ENABLE switch to the left of the LED display that shows “ESCAPE.”

To exit UTILITY entirely:

- Press the flashing UTILITY switch in the CHANNEL MATRIX

Stereo and Surround mode

To select Stereo or Surround mode:

- Press UTILITY > MODE > SURROUND, or STEREO as needed.

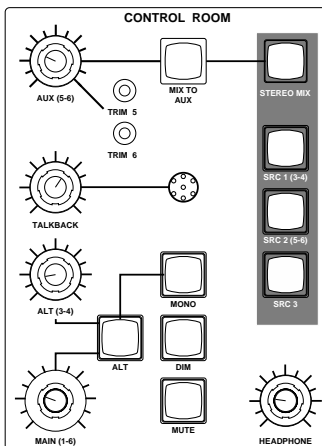
Monitor Input Source Select Switches

This section comprises a set of 4 possible stereo monitor sources for ProControl (in stereo mode), or as master stem source enables for the matrix inputs (surround mode).

To engage an Input Source:

- Press the switch in the CONTROL ROOM MONITORING section that corresponds to the desired input source. If in Single Source Monitoring mode, only one input source can be engaged at a time. To be able to monitor more than one SRC Input, ProControl must be in either Multiple Source Stereo mode, or Surround mode.

See “Using the Control Room Monitoring Section” on page 41 for instructions on enabling stereo or surround mode.



STEREO MIX Switch

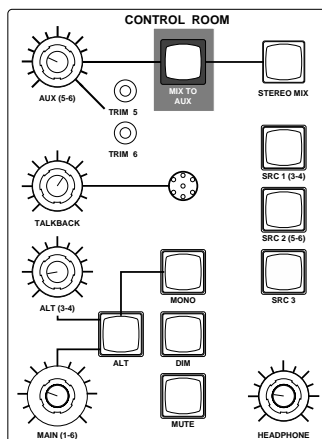
This switch turns the STEREO MIX input pair on or off (Audio Input 2, channels 7 and 8). This input is +4 dBu and active-balanced.

- ◆ In stereo monitor mode, this switch turns the main Pro Tools stereo mix on/off in the monitors.
- ◆ In surround monitor mode, this switch controls the left/right (front) stem mix.

SRC 1, 2, 3 Inputs

Three switches labeled “SRC 1 (3-4)”, “SRC 2 (5-6)” and “SRC 3” turn their respective rear-panel input pairs on or off (Audio Input 2, channels 1-6). These inputs are +4 dBu and active-balanced.

- ◆ In Stereo monitor mode—These stereo inputs would normally be connected to monitor any alternate 2 track source, such as DAT machines or CD players.
- ◆ In Surround monitor mode—SRC 1 (3-4) receives the surround stem mix input source signals (Left/Right Surround, Ls/Rs, or a mono surround channel). SRC 2 (5-6) receive the center and subwoofer stem mix input source signals. SRC 3 is not utilized in Surround mode.



MIX TO AUX/AUX Input

When enabled in stereo monitor mode, the MIX TO AUX switch (green LED) sends the current control room mix to the AUX mix output pair (labeled Aux. Mix Output in the wiring pin-out documentation). This mix could be any combination of individual or mixed combination sources, including STEREO MIX, SRC 1 (3-4), SRC 2 (5-6) or SRC 3). This will depend on whether you are in Single or Multiple Source Stereo mode or Surround mode (explained previously).

- ◆ In Stereo monitor mode—The MIX TO AUX switch routes the current control room mix to the AUX mix output. The feed to AUX In could be a Pro Tools output pair that is dedicated to the creation of a discrete, stereo cue (headphone) mix. If MIX TO AUX is enabled (indicated by its green LED lit solid), the talent will hear the same mix as the control

room. If MIX TO AUX is disabled (LED off), they will hear their discrete mix (or whatever the source is).

- ◆ In Surround monitor mode—The MIX TO AUX switch is inactive. This is because the surround matrix uses the AUX MON level control as the level master for outputs 5 & 6 (the center and sub channels, respectively). The AUX Input is therefore inactive as well, and the input source for 5/6 is automatically connected to SRC 2 (5-6).

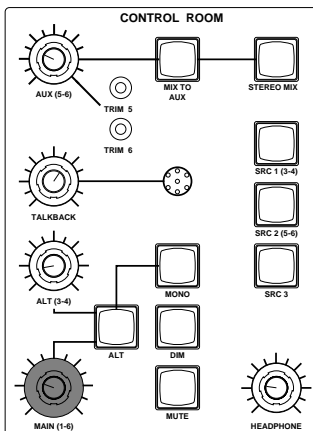
Control Room Monitor Level Controls/Outputs

The CONTROL ROOM section's level controls adjust the volume of your outputs. Depending on whether you are in Stereo or Surround mode, these dual-purpose controls do the following:

MAIN (1-6)/Main Monitor Out

- ◆ In Stereo monitor mode, this rotary knob controls the level of the main stereo control room output (Control Room Main Out L/R). These L/R outputs would most likely be connected to the main (stereo) speaker power amplifiers. The control is inactive when in Single-source mode and the ALT monitor switch is enabled (X-OR).

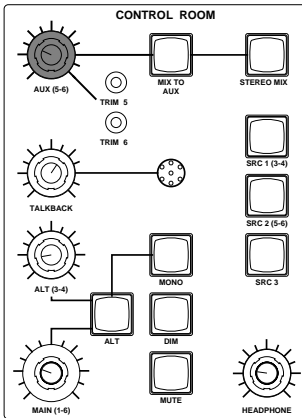
- ◆ In Surround monitor mode, the MAIN (1-6) knob acts as a level master for the entire surround matrix (outputs 1 through 6). In this mode, the control is effectively the left/right surround output trim, and the overall master level control for the surround matrix. All other mix stem elements are balanced against this “master level.” Other levels within the Surround matrix are controlled by the other rotary knobs in the CONTROL ROOM section.



ALT (3-4)/ALT Monitor Out

- ◆ In Stereo monitor mode—The ALT (3-4)/ALT MONITOR OUT knob controls the level for the Control Room ALT monitor output. This output pair would most likely be connected to a power amp for smaller reference speakers.

- ◆ In Surround monitor mode—This controls the output level for the surround (Ls/Rs, or “satellite”) channels.

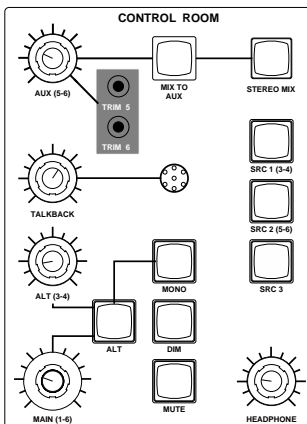


AUX (5-6)/Aux. Monitor Out

This control acts as an output level control for the Aux output (in Stereo mode), or output 5-6 master trim (in Surround mode, acting in combination with top panel trims).

Stereo mode This control is a level control for the AUX Output pair. This output pair is intended to be used as a discrete cue mix feed. It would typically be patched to a power amp that would feed the artist cue (headphone) system, but could be any stereo source. The input source for this feed can be either the AUX In or the control room source mix (STEREO MIX, SRC 1, etc.) when the MIX TO AUX switch is engaged. You can use Pro Tools Sends to bus audio to a pair (or a single, mono) of Pro Tools outputs, then connect those outputs to the AUX IN (ProControl Audio Input port 1, channels 7 & 8).

Surround mode AUX (5-6) knob acts as an output level master trim for the center (5) and subwoofer (6) surround mix stems simultaneously. For individual balancing of center (5) and subwoofer (6) levels, use the top-panel screwdriver level trims ("TRIM 5" and "TRIM 6") as described below:

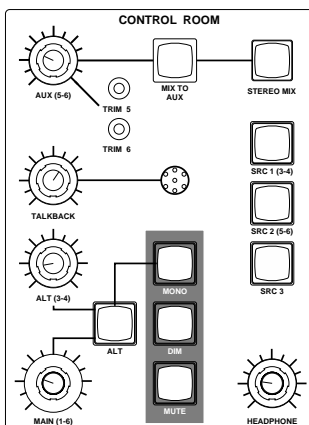


Trim 5 & 6 - Level Trims

These are screwdriver-type top-panel accessible level trims, located below and to the right of the AUX (5-6) level control. They trim the center and subwoofer stem mix output levels individually against the AUX (5-6) control, which acts as a master. They are attenuators only.

To calibrate the Center and Subwoofer channels (Surround mode only):

- 1 Engage the SRC 2 (5-6) Input Selector switch.
- 2 Set the AUX MON (5/6) control to maximum.
- 3 While listening to surround material, use a screwdriver to attenuate whichever Trim (center (5) or subwoofer (6)) needs adjustment. The trims are set at the factory for maximum output.



MUTE, DIM and MONO Controls

Control Room MUTE Switch

The MUTE switch acts as a control room master mute, allowing speaker feeds to be muted. The MUTE switch does not affect the Headphone signal (front-panel 1/4" connector). The current monitoring mode determines the available MUTE options:

Stereo Mode

Two modes of Control Room Mute are available: MUTE CR (default) and MUTE ALL: These two different modes are selectable from the UTILITY/MONITOR page.

MUTE CR (Control Room) Mutes the MAIN and ALT output pairs only. The AUX Out mix will not be affected. This is useful when you want to have the control room speakers muted, but you do NOT want to mute the talent mix feed (either MIX TO AUX or AUX IN). This is the factory default.

MUTE ALL Mutes all of the audio output pairs (MAIN, ALT, AUX). In this case, you would probably be using the AUX out for some purpose other than a talent mix.

The MUTE modes can be selected from the ProControl UTILITY page (UTILITY > MONITOR > MUTE/DIM).

Surround Mode MUTE silences all outputs at all times (MAIN, ALT, AUX). In other words, all six outputs of a surround matrix are affected.

Refer to *Appendix A: UTILITY Settings* for instructions on configuring ProControl UTILITY parameters.

Control Room MONO Switch

The MONO switch (green LED) mono-sums the control room mix, allowing mono confidence monitoring. Listening to a mix in this manner lets you check phase and balance relationships of a mix in mono.

The switch is active in both Stereo and Surround monitor modes, and affects the headphone output as well. It does not affect Slate/Dub or the Aux output.

Stereo mode Pressing MONO will mono-sum signals to the MAIN output as well as the (front-panel) headphone output.

Surround mode Only the STEREO MIX outs are affected by MONO. To confidence mix surround stems in Mono, simply press the MONO switch and then select each stem, one pair at a time with the STEREO MIX (front left/right), SRC 1 (surround left/right) and SRC 2 (center, sub) switches.

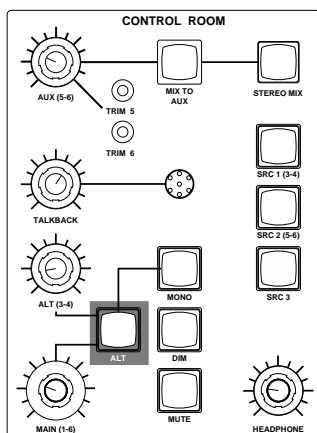
Control Room DIM Switch

The DIM switch (yellow LED) inserts a 15 dB reduction in level to the control room outputs. Depending on the chosen monitoring mode, most or all of the outputs will be affected by DIM as follows:

Stereo mode DIM affects MAIN (1-6) and ALT (3-4) outputs only.

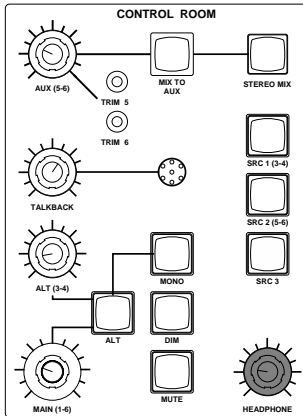
Surround mode DIM affects all outputs at all times (MAIN, ALT, AUX). All six outputs of a surround matrix are affected.

The DIM switch does not affect the AUX (5-6) output (use the AUX (5-6) rotary knob to lower this output level). It also does not affect the front-panel headphone feed or Slate/Dub feed. Press the DIM switch again to return to normal monitoring levels. The DIM switch LED extinguishes.



Control Room ALT Switch

In stereo mode, when enabled, the ALT switch (green LED) routes the control room monitor mix to ALT Monitor Out. This will usually be connected to an alternate set of monitoring speakers. Pressing the ALT switch disables the feed to Main Monitor Out. In surround mode, this switch is inactive. ALT state is remembered when switching between surround and stereo monitor modes, and when powered down.

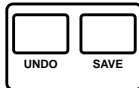


Headphone

A 1/4" stereo headphone jack is provided on the ProControl front-panel (just below the Trackpad) for engineering confidence monitoring. It monitors the currently active main control room audio at all times. The HEADPHONE level knob in the ProControl CONTROL ROOM monitoring section adjusts the level of the headphones. The headphone is not affected by the MUTE and DIM switches, but it is affected by the MONO monitor switch.

Talkback

ProControl provides Talkback/Listenback capabilities that include the TALKBACK level control, internal or external Talkback/Listenback, Slate/Dub and rerecord features. These are explained in *Chapter 5: Recording*.



UNDO and SAVE Switches

The UNDO and SAVE switches perform Undo and Save functions corresponding to operations on the Macintosh.

The UNDO switch allows Undo/Redo of the last edit operation. The UNDO switch LED will be lit when the Undo function is available for use after an operation, and remain unlit when there is nothing to "undo." The UNDO switch LED will flash when the Redo function is available.

The SAVE switch LED will be lit if the session has changed from its currently saved state.

To save the changes in a session:

- 1 Press the SAVE switch. The SAVE switch LED will flash when first pressed, indicating the Save process has been armed.
- 2 If you wish to abort the Save process at this point, press the ESCAPE switch.
- 3 If you wish to complete the Save process, press the SAVE switch again. The SAVE switch LED will remain lit during completion of the Save process, and then afterwards will turn off.



The Numeric Keypad

The Numeric Keypad, located to the right of the WINDOWS selection switches, mimics keypad operation in Pro Tools and is used for memory location store/recall, data entry of counter values or numerics, for completing an editing operation (using the ENTER key), as well as for Pro Tools Transport and Shuttle modes. The functionality is identical to that of your computer's keypad, including modifier-key shortcuts. Throughout this guide, there are instructions for using the Numeric Keypad for all of its various functions.



The TRACKPAD

The trackpad functions just like the type found on high quality laptop/portable computers, with two switches below it for clicking. You can also click, double-click, triple-click and click/drag from the Trackpad directly, without using the Trackpad "click" switches.

Use the Trackpad to perform virtually every Pro Tools command, function or task directly from ProControl.

Configuring TrackPad Response

The Trackpad response follows the Mouse speed setting of the host CPU.

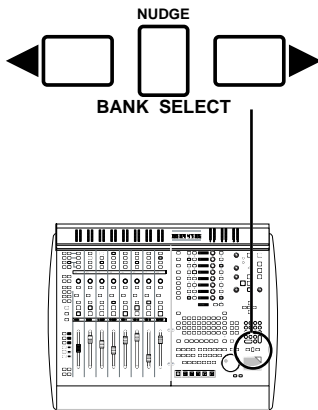
To adjust the Trackpad:

- 1 Press UTILITY > PREFERENCES > MOUSE > MODE > SPEED.
- 2 Select a response speed from Very Fast to Very Slow.
- 3 Press UTILITY to return to the previous ProControl mode.

* Additional control can be provided by the CPU mouse control panel settings.

If the trackpad does not seem to be responding, ProControl might be configured for External Mouse input. See "Mouse Page" on page 201 for instructions.

Bank Switching and Channel Scroll/NUDGE



Beneath the ProControl numeric keypad are the BANK SELECT switches. These include two bank switches with left/right arrow symbols, and the NUDGE switch. Together, these switches allow “bank swapping” or scrolling in single channel increments. The BANK SELECT arrow keys switches banks left or right eight channels or more at a time. For example, a basic system consisting of just a single ProControl Main unit, which contains eight faders, will bank swap in groups of eight channels at a time. An expanded system comprised of one Main unit and three Fader Pack expansion units (i.e., a 32-fader setup) would bank swap 32 faders at a time. The NUDGE switch engages channel-scroll mode, in which the BANK SELECT arrows scroll by one channel at a time in the appropriate direction.

Mix/Edit Window Follows Bank Selection Preferences

Bank-swapping and channel-scrolling behavior can be mirrored in Pro Tools. By enabling Mix Window Follows Bank Selection or Edit Window Follows Bank Selection (in the Display Preferences dialog), Pro Tools channel strips will be banked into view automatically in response to ProControl bank display. Color outlines appear around the channels under the control of each ProControl unit. In some cases, leaving these preferences off can improve bank swapping speed (as Pro Tools does not have to redraw each bank).

Far-right/far-left Bank Select Shortcut

- Holding down the OPT (ALT) ALL switch, press the appropriate BANK SELECT arrow switch to bank swap to the far-left or far-right bank position for the session.

Far-right bank-swapping will not “justify right.” For example, if you have a session that contains 22 channel strips, holding down OPTION/ALL and pressing the right BANK switch swaps to a bank consisting of only the five channel strips #17-22.

* The CHANNEL MATRIX' GO TO and VIEW modes provide additional bank/channel navigation controls. Instructions for these features begin in "GO TO" on page 69

Groups, Master Faders and BANK SELECT

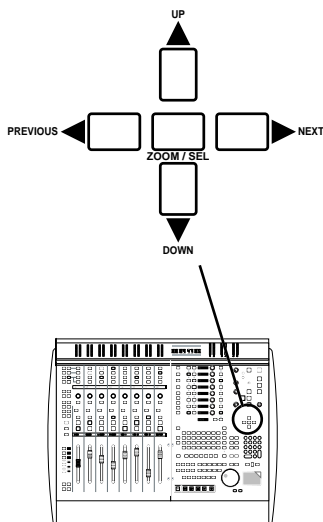
In addition to bank/channel scrolling, the BANK SELECT switches also let you move between vertical lists of eight group members at a time (when Groups are being displayed in the DSP EDIT/ASSIGN displays.) or Master Faders when the MASTER FADERS switch is engaged. If there are more than eight group members or master faders available to edit, the Nudge switch will flash. (Groups and Master Faders are described further in *Chapter 4: Working with Tracks*.)

ZOOM/SEL Switches

The ZOOM/SEL switches provide the same functionality as the arrow keys on the computer keyboard (plus some additional features unavailable from the computer keyboard, described soon). The ZOOM/SEL button in the center selects one of three modes for the UP, DOWN, NEXT and PREVIOUS switches:

- navigation,
- zoom, or
- select mode.

In addition, the ZOOM/SEL cursor quadrant can be used to navigate among fields/characters when entering alpha numeric values from the Numeric Keypad. For details on these modes, see *Chapter 6: Editing*.



To select a ZOOM/SEL mode:

- By default, ZOOM/SEL is in Navigation mode, and the ZOOM/SEL switch is unlit.
- To engage Zoom mode, press ZOOM/SEL until it flashes. Use the Arrow keys to zoom in/out.
- To engage Select mode, press ZOOM/SEL until it is lit solid.

See “Navigating, Zooming and Selecting with ZOOM/SEL” on page 121.

Zooming to “Entire Session” view and “Previous View”

You can use the ZOOM/SEL switch to quickly zoom to “Entire Session” and “Previous View”.

To quickly zoom out so that the entire session is in view in Pro Tools Edit Window:

- Hold down OPT (ALT) ALL switch and double-press the ZOOM/SEL switch.

To return to the previous zoom view:

- Hold down OPT (ALT) ALL and press the ZOOM/SEL switch.

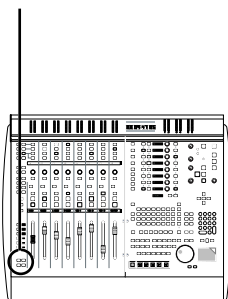
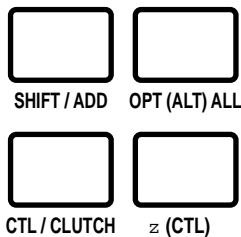
Using the ZOOM/SEL Switches for Alpha Numeric Entry

The cursor quadrant keys are also used when in ALPHA entry mode to navigate through fields/characters. ALPHA mode is explained in “The CHANNEL MATRIX” on page 64.

- Pressing the Right (NEXT) switch moves the text entry point one character to the right.
- Pressing the Left (PREVIOUS) switch moves the text entry point one character to the left.

Additional ZOOM/SEL functions are explained in “Navigating, Zooming and Selecting with ZOOM/SEL” on page 121.

SHORTCUTS



KEYBOARD SHORTCUTS Section

Modifier Key Switches

There are four switches that correspond to the various modifier keys on Windows and Macintosh systems. These are labeled SHIFT/ADD, OPT (ALT) ALL, CTL/CLUTCH and \mathbb{Z} - (CTL). Using these modifiers with other switches changes the action of those switches. For example, pressing and holding down the OPT (ALT) ALL switch while pressing the SOLO or MUTE switch will solo or mute all channels.

The Modifier key switches can also be used in any combination with keys on the computer keyboard to perform menu command selection. The alphanumeric keys of the CHANNEL MATRIX can be used for this same purpose.

In ALPHA mode, the CHANNEL MATRIX (and NUMERIC KEYPAD) also supports many of the single-key Command shortcuts available with Pro Tools 5.0 (or higher). See *Appendix C: ProControl Shortcuts and Equivalents* for details.

F-Key Switches

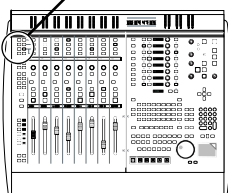
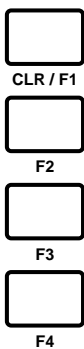
At the top left of the Fader Section are four "F-Keys" (Function switches). Current assignments are:

CLR/F1 Clears clips and last peaks held on the meter bridge, on Pro Tools on-screen meters and Audio Interface meters.

F2 Temporarily shows all channels that have Plug-Ins assigned by lighting the channel INS/SEND switches. Releasing the F2 switch returns to the previous state.

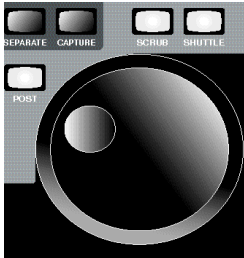
F3 (ProControl main unit only) Toggles between "Fixed" and "Velocity sensitive" modes for the DSP EDIT/ASSIGN encoders.

F4 (ProControl main unit only) Temporarily displays the ProControl main unit's Controller personality file version in the DSP EDIT/ASSIGN displays.



SCRUB/SHUTTLE Wheel

The SCRUB/SHUTTLE wheel is used for Scrubbing, Shuttleing, making selections/regions, and other edit operations. The two switches directly above the wheel, labeled SCRUB and SHUTTLE, choose the mode of operation. The Scrub/Shuttle wheel can also control external devices such as a serial machine (see the previous section Transport Control of External Devices for basic EXT TRANS set up).



Using SCRUB Mode

To use SCRUB mode:

1 While Pro Tools is stopped, press the SCRUB button. The SCRUB switch's LED will light and a message will be posted vertically on the DSP EDIT/ASSIGN LED displays:

SCRUB

MODE

ENABLED

PRESS

SCRUB OR

STOP TO

EXIT

2 Aim Scrub at the selection start or end by pressing PREVIOUS (for start) or NEXT (for end).

3 Rotate the SCRUB wheel clockwise to scrub audio forward, or counter-clockwise to scrub backward.

- The scrub start position will be the location of the Edit cursor when a waveform selection exists, or the location of the Playback cursor location if there is no current selection.

- The distance that the Scrub wheel travels determines the length of the audio scrubbed, and wheel speed determines Scrub speed. During Scrub mode, the REW and FFW LEDs illuminate (mirroring Pro Tools on-screen Transport).

To SCRUB starting from the Selection End:

- To begin scrubbing from the selection end position, press and hold down the OPT (ALT) ALL switch before entering SCRUB mode.

To SCRUB with “finer fixed” resolution:

- Press and hold the ⌘ -CTL switch while scrubbing to engage fine-resolution scrubbing.

To exit SCRUB mode:

- To exit scrub completely and return to normal operation, press the SCRUB switch or any of the Transport switches. Alternatively, scrub may be exited by pressing the space bar on the Mac keyboard, typing ⌘ (CTL) + “.” (period) on ProControl (or ⌘ + “.” on the Macintosh keyboard), or by pressing the ESCAPE switch. You can also exit SCRUB mode by switching to SHUTTLE mode.

Using SHUTTLE Mode

To use shuttle:

1 While Pro Tools is in stop mode, press the SHUTTLE button. The shuttle button LED will light and the following message will be posted vertically on the DSP EDIT/ASSIGN LED displays:

SHUTTLE

MODE

ENABLED

PRESS

SHUTTLE OR

STOP TO

TO EXIT

<BLANK>

2 Rotate the SHUTTLE wheel clockwise to shuttle audio forward, or counter-clockwise to shuttle backward. The REW and FFW switch LEDs will light (mirroring Pro Tools on-screen Transport switches). The SHUTTLE start position will be the location of the Edit cursor when a waveform selection exists, or the location of the Playback cursor location if there is no current selection.

Using the numeric keypad for SHUTTLE “lock” mode:

While in Shuttle Lock mode, you can use the NUMERIC KEYPAD to control shuttle speed (with “0” being off, +9 being the fastest forward shuttle and -9 being the fastest reverse shuttle speed). The +/- keys are used to control shuttle lock direction of play.

To exit SHUTTLE mode:

■ Press the SHUTTLE switch or any of the Transport switches.

You can also exit SHUTTLE mode by pressing the Spacebar on the computer keyboard, pressing ESCAPE on ProControl, or pressing ⌘ - (CTL) + “.” (period).

About Scrub/Shuttle “Lock Out” Behavior

When scrub or shuttle is engaged almost all other controls are “locked out.” Only the following ProControl/Pro Tools controls will be available for use:

- ◆ SCRUB/SHUTTLE wheel and switches
- ◆ Any TRANSPORT switch (disengages scrub/shuttle and reverts ProControl to normal transport modes)
- ◆ Modifier switches
- ◆ Channel faders; MUTE and SOLO switches

Selecting Regions with Scrub/Shuttle

Scrub and Shuttle can be used to create selections/define regions in Pro Tools Edit Window. See *Chapter 6: Editing* for more information.

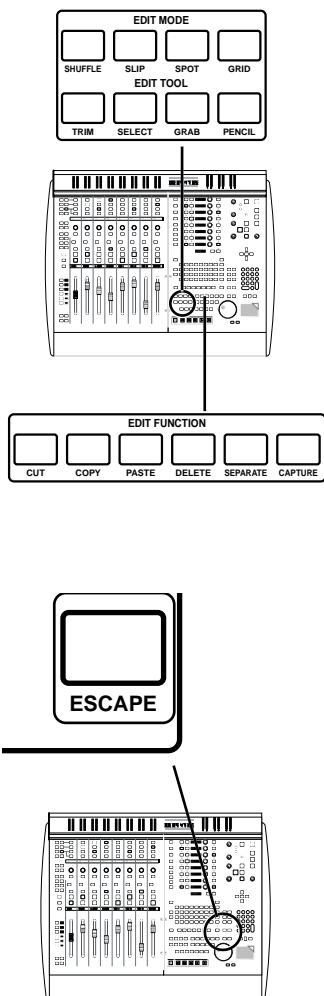
Pro Tools Shuttle Mode Shortcuts

To engage Shuttle Mode for the NUMERIC KEYPAD:

- 1** Choose Setups > Preferences and click Operations.
- 2** Enable the Shuttle mode Numeric Keypad option.

When Shuttle is the selected Numeric Keypad shortcuts mode, the following tasks may be initiated from the keypad on ProControl:

Task	NUMERIC KEYPAD
1x Forward	6
1x Reverse	4
4x Forward	9
4x Reverse	7
1/4x Forward	3
1/4 x Reverse	1
1/2 x Forward	5-6
1/2x Reverse	5-4
2x Forward	8-9
2x Backwards	8-7
1/16x Forwards	2-3'
1/16x Backwards	2-1
Loop Play Edit Selection	0
Enter Main Counter	asterisk (*)
Enter/Edit Time Fields	backslash (/)
Capture TimeCode	=
Create Memory Location	ENTER
Nudge later by grid	+
Nudge earlier by grid	-



EDIT MODE, EDIT TOOL and EDIT FUNCTION Switches

The EDIT MODE and EDIT TOOL switches access the primary Edit function modes and tools:

- EDIT MODE – SHUFFLE, SLIP, SPOT, GRID. Pressing one of these switches selects one of the four edit modes: Shuffle, Slip, Spot, or Grid mode
- EDIT TOOL – TRIM, SELECT, GRAB, PENCIL. Pressing one of these switches selects one of the main edit tools: Trim, Select, Grabber, and Pencil (available when zoomed in at very close resolutions only).
- To access the Smart Tool, press any two of the following switches: TRIM, SELECT or GRAB simultaneously.
- EDIT FUNCTION - CUT, COPY, PASTE, DELETE, SEPARATE, CAPTURE. Pressing one of these switches selects the corresponding Edit function.

These switches mimic their counterparts in Pro Tools. These editing functions are explained in *Chapter 6: Editing*.

The Escape Switch

The ESCAPE switch (green LED) is located at the bottom right hand corner of the CHANNEL MATRIX area and is used to confirm or cancel operations/settings. When an action has occurred that can be canceled by the ESCAPE switch, the switch LED will flash.

The Master Faders Switch

The MASTER FADERS switch allows mono or stereo Master Faders created in Pro Tools to be immediately displayed on the Fader Section of the ProControl Main unit. Using this switch, all Master Faders in the current session are instantly called up on the ProControl Main Unit. This feature is especially useful in large sessions where it might be time consuming to Bank/Channel swap to the Master Faders.



To access Master Faders from the MASTER FADERS Switch:

- 1** Press the MASTER FADERS switch. Its LED flashes. All Master Faders that exist in the current Pro Tools session are now displayed (right justified) in the Fader section of the ProControl Main Unit. This is true even if you are using an expanded ProControl system. In addition, all Pro Tools Master Faders are displayed regardless of their current Show/Hide status in Pro Tools.
- 2** Once these faders are up on the Fader Section, they may be named, adjusted and automated in the same way channel faders are manipulated. If there are more than eight Master Faders in the session, pressing the right or left BANK SELECT button brings up the next set of Master Faders and displays them on the ProControl Main Unit Fader Section.
- 3** To exit the MASTER FADERS mode, press the MASTER FADERS switch again. This will return the ProControl Main Unit Fader Section settings to their previous state/channel display.

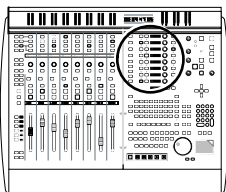


DSP EDIT/ASSIGN Section

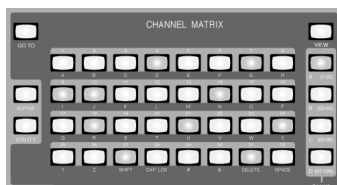
The DSP EDIT/ASSIGN section is at the top left of the Main section.

In the DSP EDIT/ASSIGN section, you can assign, view and edit Plug-Ins and Send/Insert parameters using the following controls and displays:

- 1 - Eight rotary data encoders (arranged vertically)
- 2 - Eight 8 segment LED displays for levels, names, etc., to the left of each encoder
- 3 - SELECT/AUTO / PRE/POST switch column
- 4 - ASSIGN/ENABLE switch column
- 5 - BYPASS/IN/OUT/Ø and MUTE switches, to the right of each encoder
- 6 - The INFO, INSERTS/PARAM and SENDS switches
- 7 - The CHANNEL/GROUP LED display, which displays Plug-In and Send information, CHANNEL MATRIX data and Group information.



Detailed instructions about the DSP EDIT/ASSIGN section can be found in *Chapter 7: Plug-Ins and Sends*. The Fader Section and working with Groups are explained in *Chapter 4: Working with Tracks*.



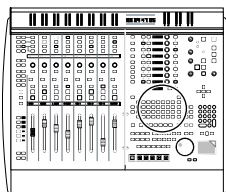
The CHANNEL MATRIX

Viewing Channel Status and Navigating Banks/Channels

The CHANNEL MATRIX is a multi-purpose channel status and navigation control section that adds several unique capabilities to Pro Tools.

The Channel Matrix It consists of:

- 32 primary switches, arranged in four rows of eight switches each (1/A through 32/SPACE),
- Four BANK switches (A1-32, B33-64, C65-96, D97-128)



- Seven STATUS switches (SELECT, MUTE, SOLO, REC/RDY, SNAPSHOT, CLR ALL and PARMS/PAGES).
- VIEW switch
- GO TO switch
- ALPHA switch
- UTILITY switch
- The CHANNEL/GROUP LED display (located below the DSP EDIT/ASSIGN section)

The Big Picture

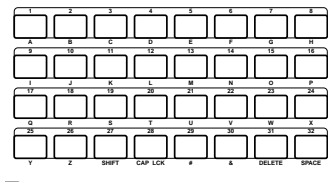
In many ways, the CHANNEL MATRIX serves as a miniaturized representation of an expanded ProControl system. Instead of 16 or more channel strips at your fingertips, the central keypad, bank, status and other controls of the CHANNEL MATRIX provide a 32- channel wide view of any session on any system.

Capabilities of the CHANNEL MATRIX

- Assign and display channel status for SELECT, MUTE, SOLO, and REC/RDY
- Quickly bring any channels to the faders (an alternative method of bank swapping)
- Select Plug-In parameter pages
- Create and enable/disable Groups
- Enter alpha-numeric data (in combination with the Numeric Keypad)
- Commands Keyboard Focus (selectable modes and single-key shortcuts). See *Appendix C: ProControl Shortcuts and Equivalents* for a listing of all ProControl equivalents for Pro Tools.

Primary Channel Matrix Switches

1/A, 2/B...32/SPACE

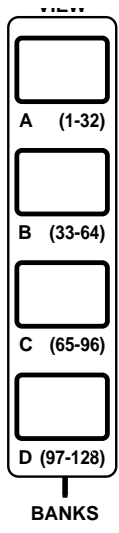


The CHANNEL MATRIX contains 32 switches with LEDs, arranged in four rows of eight. The switches have dual labels: numbers 1-32, and 26 alpha characters (A-Z), with numbers 27-32 providing SHIFT, CAP LCK, #, &, DELETE and SPACE characters.

These multi-purpose switches serve as a keypad for alpha entry, channel selection/navigation, and status viewing and editing. The function of the primary switches is determined by the BANK, VIEW, GO TO and STATUS switches.

BANK A-D

These switches control the channel/bank focus of the CHANNEL MATRIX primary switches., and are labeled BANK A (1-32), BANK B (33-64), BANK C (65-96) and BANK D (97-128).



To display to a different Bank in the CHANNEL MATRIX:

- Press one of the four BANK switches.

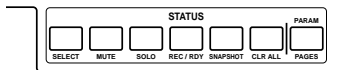
The corresponding bank of channels will be represented in the CHANNEL MATRIX. If a BANK does not contain any active channels, pressing its switch will have no effect.

Notice that this focuses the CHANNEL MATRIX only, it does not bank swap the faders. To navigate channels-to-faders, use GO TO and VIEW, explained in the sections that follow.

Pro Tools Channel Numbering and Banks

Pro Tools numbers channel strips in the Mix window with an “absolute channel number” that designates channels as a letter-number combination that describes their position left-to-right. Channel numbers are letter/number combinations in increments of 32 (“A1...A32,” “B1....B32” and so on).

* The ProControl DISPLAY MODE switch (to the left of the faders) lets you view these absolute channel numbers on the channel displays, along with an abbreviated channel name (press the DISPLAY MODE switch to toggle through all of the available channel display modes to select channel number/name).



STATUS Switches

Below the CHANNEL MATRIX area are the seven STATUS switches for SELECT, MUTE, SOLO, REC/RDY, ALL and PARAM/PAGES. (The SNAPSHOT switch is not active.)

Using SELECT, MUTE, SOLO and REC/RDY in the STATUS Section

Displaying/Querying Channel STATUS

To display Select, Mute, Solo or Rec/Rdy status:

- 1 Use the BANK switches to focus the CHANNEL MATRIX.
- 2 In the STATUS section, press either SELECT, MUTE, SOLO or REC/RDY.

The primary matrix switch (1-32) LEDs illuminate to indicate which channels are soloed, muted and so on, in the currently displayed bank (determined by the current STATUS mode).

A lit primary switch indicates that channel's status is active for the current mode.

If one or more channel strips in banks other than the current bank are active for the chosen function, the corresponding BANK switch LED flashes to indicate this state. For example, if BANK B is flashing, this indicates that some channels (one or more) in BANK B (channels #33-64) are muted or soloed (current STATUS mode).

Assigning SELECT, MUTE, SOLO and REC/RDY from STATUS

To change channel SELECT, MUTE, SOLO and REC/RDY from the CHANNEL MATRIX:

- 1 Select the desired mode in the STATUS section.
- 2 If necessary, select a bank using BANKS A(1-32), B(33-64), C(65-96) and D(97-128) switches.
- 3 Press the appropriate primary switches (1/A, 2/B and so on) to toggle the current STATUS mode for the desired channels. For example, to mute channel 13, press 13/M.

Displaying Track Name from the CHANNEL MATRIX

- Hold down CTL/CLUTCH switch and select a channel using the alpha-numeric switches.

The channel name will be displayed in the CHANNEL/GROUP scribble strip for as long as you hold down the alpha-numeric switch.

Selecting Multiple Channels in the Channel Matrix

When SELECT is the active STATUS mode for the CHANNEL MATRIX switches, pressing any switch in the matrix selects the channel (its LED lights). A selected channel may be de-selected by pressing its channel switch again.

Unlike the fader strip SELECT switches, the CHANNEL MATRIX switches are latching in this mode. This is a convenient alternative to the two manual methods of selecting channels involving either pressing and holding SHIFT/ADD or a channel SELECT switch to select additional (referred to as non-latching behavior).

Snapshot Switch

The SNAPSHOT switch is currently unimplemented.

CLR ALL (Clear All) Switch

The CLEAR ALL switch (CLR/ALL) allows you to clear all channel strips of a particular function.

To CLR/ALL on a status parameter type:

- 1 Select the appropriate STATUS mode (SELECT, MUTE, SOLO or REC/RDY).
- 2 Press the CLR/ALL switch. The function is now CLEARED.

The PARAM/PAGES Switch

This switch works toggles the function of the CHANNEL MATRIX between Plug-In parameter paging and the STATUS functions. This feature is covered in *Chapter 7: Plug-Ins and Sends*.

Putting Channels at the Faders Using GO TO and VIEW modes

The BANK SELECT/Nudge switches are not the only method available for mapping Pro Tools tracks to ProControl channel strips. The CHANNEL MATRIX VIEW and GO TO switches provide additional methods for navigating within a session.

When to use GO TO or VIEW

If you know exactly what channel you want to go to, use GO TO. If you are not sure which channel you need, VIEW mode saves keystrokes by letting you “go to” numerous times without having to press GO TO each time.

GO TO

The GO TO switch provides a convenient way to bring any eight contiguous channels up on ProControl faders instantly. It is used in combination with the BANK and PRIMARY switches in the CHANNEL MATRIX.

Example of GO TO

Assume you had a single ProControl Main Unit and were working on a session with 60 Pro Tools channels. You currently have eight drum tracks “up” on the eight ProControl faders, but you want to quickly call up channels 27-35 to work on the background vocals on those channels.

You could use the NUDGE/BANK SELECT switches, but doing so requires several steps. First, you would have to press the BANK SELECT-Right arrow key three times to display channels 25-32. Then you would switch to NUDGE mode (Channel Select mode) and press the Nudge -Right arrow key twice more so that channels 27-35 occupy the eight channels on the unit.

In cases like the above, a faster alternative is to use the GO TO switch—press GO TO, then press primary matrix switch #27. This instantly places channel 27 at the left-most fader of your ProControl system, with channels 28-35 occupying the next eight faders, and so on.

To go to a specific channel/bank:

- 1** Press the GO TO Switch. Its LED flashes.
- 2** Press any switch in the CHANNEL MATRIX, or press a BANK switch followed by a CHANNEL MATRIX switch. The name of the chosen “destination” channel strip appears in the CHANNEL/GROUP LED display as long as the switch is held down. ProControl banks so that the selected channel strip appears on the left-most fader (fader #1). All displays and controls (including the CHANNEL MATRIX bank view) update accordingly. The CHANNEL/GROUP LED display reverts to its former focus, and the CHANNEL MATRIX is available for other operations again (such as MUTE status, etc.).
- 3** Press ESCAPE before making a CHANNEL MATRIX channel selection (1-32) to cancel the GO TO operation.

The Channel Matrix will return to its previous state (i.e., SELECT, MUTE, SOLO, etc.). To go to another set of channels, repeat the above instructions or use the VIEW switch instead, described below.

VIEW

The VIEW switch places the CHANNEL MATRIX in a “latching” mode of GO TO. In other words, VIEW calls channels to the faders just as in GO TO mode. Unlike GO TO mode, however, the Channel Matrix does not revert to its previous state. Instead, the Channel Matrix remains in VIEW mode so other channels can be quickly banked into view.

To engage VIEW mode:

- 1** Press the VIEW switch. Its LED, and all channel displays, flash to indicate VIEW mode.
- 2** Press any primary switch in the CHANNEL MATRIX, or press a BANK switch followed by a CHANNEL MATRIX switch. The channel chosen in the CHANNEL MATRIX is now brought to your left-most ProControl unit, left justified to the left most physical fader location, with the remaining channels out to the right. All fader section controls are updated (fader positions, switch states, encoder values etc.). The CHANNEL/GROUP scribble strip displays the channel

name chosen in the CHANNEL MATRIX and holds the name until the VIEW mode is exited.

3 To exit VIEW mode, press either of the flashing VIEW or ESCAPE switches, or press either the GO TO switch or any BANK switch in the CHANNEL MATRIX. To exit the VIEW mode. The switch LED's will extinguish and all scribble strips are returned to their prior state.

ALPHA Mode

This switch is used to indicate when alpha-entry is active from the CHANNEL MATRIX or computer keyboard, such as when naming a new session, or to access/utilize the Commands keyboard shortcuts.

These tasks will automatically place ProControl into ALPHA mode, including when naming new regions—even when the Auto-Name Regions Preference is not engaged. Individual channel names can be named or renamed at any time, however, in the methods described below.

To enter a channel name using ALPHA mode:

- 1** Double-press the channel's SELECT switch (or use Pro Tools to access the name/rename track dialog). Now both the ALPHA switch and the channel SELECT switch flash. The current channel name is shown in the scribble strip for the selected channel.
- 2** Type a new name either from the CHANNEL MATRIX switches and the Numeric Keypad or from your computer keyboard.
- 3** Press the PREVIOUS or NEXT switches on the navigation quadrant to move to the next character and edit it. In this ALPHA mode, the PREVIOUS and NEXT switches mimic the behavior of the left/right arrow keys of the computer keyboard.
- 4** When you have finished entering the new name press ENTER on the ProControl Numeric Keypad. To cancel alpha entry without changing anything, press ESCAPE.

The CHANNEL MATRIX will return to its previous state. Use these instructions to enter session, region, settings and other file names.

About the SHIFT, CAP LCK, DELETE and SPACE Switches

The bottom row of the CHANNEL MATRIX now contains switches labeled SHIFT, CAP LCK, DELETE and SPACE. These mimic the same keys found on the computer keyboard for text entry purposes. These switches are ONLY used in conjunction with the CHANNEL MATRIX alpha entry modes.

chapter 4

Working with Tracks

The Fader section includes eight individual channel/fader strips, and the SELECT/ASSIGN, AUTOMATION and other switch sections along the left side of every Main Unit and Fader Pack.

This chapter explains each component of the fader section, and explains their operation for channel-specific tasks.

Channel Fader

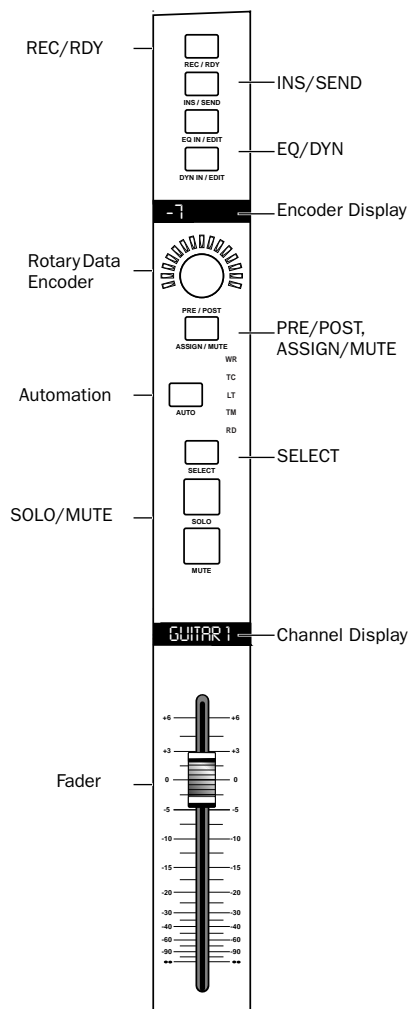
The channel faders are used for level control of audio and MIDI tracks, master faders, and auxiliary inputs, or for send level using FLIP mode.

The Fader Bank

Channels are arranged in sets of eight contiguous strips, referred to as banks.

Pro Tools/ProControl Bank Indicators

Each ProControl unit's active bank of channels is indicated in Pro Tools with a colored outline around the bank's track names in the Mix window. If there are fewer than eight channels/tracks on-screen, they appear as active faders on ProControl from left to right; unused faders remain blank.



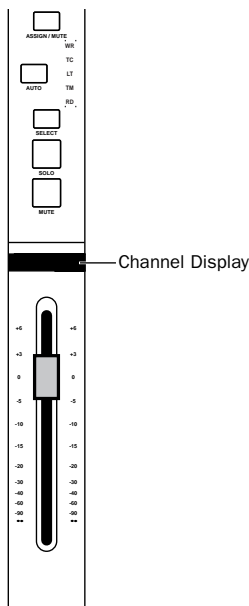
DigiFaders

Each ProControl unit provides eight touch-sensitive, motorized DigiFaders for level control of audio and MIDI tracks, aux inputs and master faders. In FLIP mode, send level can be adjusted and automated with the DigiFaders (FLIP mode is explained in “Using the FLIP Switch” on page 160).

DigiFaders (patented by Digidesign) provide 1,024 steps of fader resolution (or, 10 bit), with a unique circuit implementation that is comfortable and responsive in all mixing situations. Fader response (or “feel”) is adjustable to tighten or loosen fader travel. During automation Touch passes, fader “take-over” is smooth and reliable.

Gain calibration ranges from infinity (bottom of fader travel) to +6 dB (top of fader travel), and fader resolution yields 0.1 dB over most of the fader’s travel length for adjustment accuracy. DAE provides 24-bit interpolation of values between the 10-bit “input values.” This provides a very high level of accuracy on playback (very “analog like”), since DAE will create 24-bit interpolated values between every breakpoint entered in the automation graph by a fader on input.

* Fader resistance (or pull-back) is adjustable to customize fader responsiveness. For instructions, see “Fader Resistance” on page 203, in *Appendix A: UTILITY Settings*.



Channel Scribble Strip LED Display

Directly above each fader is an 8-character LED dot-style display.

This display is dedicated at any time to one of five functions, selectable with the DISPLAY MODE switch. If a channel is unused or a function does not apply, the channel scribble strip display will remain blank.

NAME mode Displays up to eight characters of the Pro Tools track name (for example, “Guitar 1”). This is the ProControl default display mode.

GROUP/NAME mode Displays the track group to which the channel strip is associated, followed by an abbreviated channel name. For example, if a guitar channel is in group A, then engaging GROUP/NAME mode displays “A Gitr 1” (or similar) or, if the track does not belong to a group, “– Gitr 1”. As in Pro Tools, upper- and lower-case text indicates group status.

NAME/LEVEL mode Displays an abbreviated channel name and the current level of the fader. For example, a channel named “Guitar” might display “Gtr-12.2” if its level was at minus 12.2 dB.

#/NAME mode Displays the ProControl Bank letter and number of the channel strip plus an abbreviated channel name.

HEADROOM mode Displays the abbreviation “HR” followed by the remaining headroom level (for example, HR -4.2 dB).

To choose the display mode for the channel scribble strips:

- Press the DISPLAY MODE switch to toggle through the available display modes until the desired mode is displayed.

To toggle through the available display modes in reverse order:

- Hold down the OPT(ALT)ALL switch while pressing the DISPLAY MODE switch.

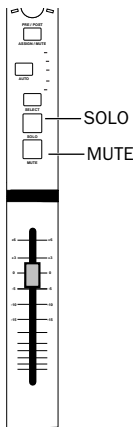
To display Channel NAME at any time:

- Hold ⌘ (CTL) and press the DISPLAY MODE switch. If working in FLIP mode, you only need to press DISPLAY MODE. Releasing these switches reverts the displays to their default display text.

* Pro Tools provides additional displays of channel volume, headroom and (processing) delay in the on-screen track Volume indicator. Refer to the *Pro Tools Reference Guide* for details.

Display of Send Name and Level in FLIP mode

When FLIP mode is enabled, the channel display shows send name and level. See “The FLIP Switch” on page 89 for additional information.



Channel MUTE and SOLO Switches

The channel MUTE and SOLO switches are the same as the Solo and Mute switches in Pro Tools. When the MUTE and SOLO switches are enabled, their LEDs will light (MUTE in red, SOLO in yellow).

Implicit and Explicit Mute/Solo Display

A flashing MUTE LED indicates an implied or implicit mute, meaning that the channel is muted because other channels are soloed.

The MUTE switch LEDs on channels that are explicitly muted are lit continuously (do not flash).

To MUTE or SOLO a channel:

- Press the channel MUTE or SOLO switch.

Keyboard Shortcuts

- ◆ OPT (ALT)/ALL switch + MUTE or SOLO: clears or enables Mutes or Solos on *all* channels
- ◆ OPT(ALT)ALL switch + SHIFT/ADD + MUTE or SOLO: clears/enables Mutes or Solos on all selected channels

If there is at least one channel strip being soloed, pressing the OPT(ALT)ALL switch and any SOLO switch will clear all solos, regardless of the solo state of the pressed channel strip.

If there are no channel strips being soloed, pressing the OPT(ALT)ALL switch and any SOLO switch will solo all the channel strips.

* You can also query and set solo/mute status from the Channel Matrix. See “The CHANNEL MATRIX” on page 64.

Using the SOLO CLEAR Switch

The SOLO CLEAR switch, directly to the left of the row of channel solo switches, flashes whenever any channel strip in the current session (even those located off-bank) is in solo mode.

To clear all soloed channels (master un-solo):

- Press the SOLO CLEAR switch. The SOLO CLEAR switch LED will stop flashing.

* You can also use the CHANNEL MATRIX to “clear all” for solo, mute, record-ready, and channel select status. See “The CHANNEL MATRIX” on page 64.

Pro Tools Solo and Mute Preferences

There are several Pro Tools solo and mute preferences that ProControl fully supports:

Solo Safe Locks out Solo Safe channels from implied mute state when other channels are soloed. See “Solo and Record Safe Modes” on page 77 for details.

Latch Solo Switches Toggles SOLO latching mode.

Solo/Mute Follow Mix Groups Determines whether soloing or muting individual members of a mix group changes the status of the entire group, or only of the individual member.

Solo and Record Safe Modes

Channel strips can be placed into Solo and Record *Safe* modes. When in safe mode, channels are locked out from implied mute or record states.

If you attempt to arm a Record-Safe channel for recording, the REC/RDY switch LED will not light.

If you attempt to solo a Solo-Safe channel, the SOLO switch will not light, and the channel strip will remain audible in the mix. Solo Safe channels can be *explicitly* muted using the MUTE switches.

To enable Solo or Record Safe status on a channel strip:

- Hold down ⌘ (CTL) switch, then press a channel SOLO or REC switch.

To Solo or Record safe from the CHANNEL MATRIX:

- 1 Press the SOLO switch in the STATUS section.

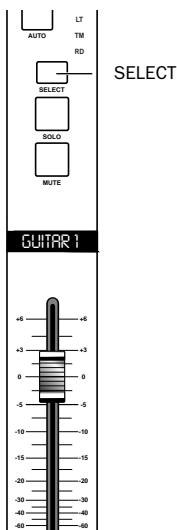
2 Hold down ⌘ (CTL), then use the alpha-numeric keys 1/A, 2/B, and so on to solo or record safe channels in the current bank (A, B, C or D).

Display of Safe Mode

When first solo- or record-safed, a channel's solo or record switch will flash briefly. There is no other indication on ProControl that shows whether a channel is in Record or Solo Safe mode. Pro Tools always displays the safe status by gray-ing out the Solo or Record switches in the Mix window.

Keyboard Shortcuts

- ◆ OPT(ALT)ALL + ⌘ (CTL) + REC/RDY or SOLO switch on any channel: clears/enables Record or Solo Safe status on all channels
- ◆ SHIFT/ADD + OPT(ALT)ALL + ⌘ (CTL) + REC/RDY or SOLO switch on any channel: clears/enables Record or Solo Safe status on all selected channels



The CHANNEL SELECT SWITCH

These switches (one for each channel strip, located directly above the channel SOLO switches) select channels for grouping, deletion and all other channel-related functions for which there are not dedicated controls on the channel strip.

For example, you do not need to SELECT a channel in order to solo or mute it; just press its SOLO or MUTE switch.

However, for any function that utilizes a set of controls not found in the channel strip such as input/output routing and other SELECT/ASSIGN switch functions, or whenever you want to apply a certain function to multiple channels, the SELECT switch *includes* or *excludes* channels from the operation.

To select a single channel:

- Press the channel SELECT switch. Single channels are selected in an either/or manner (they are not latching) and their green LED illuminates when active.

To select more than one channel at a time

- Hold down the SHIFT/ADD key, then press additional channel SELECT switches.

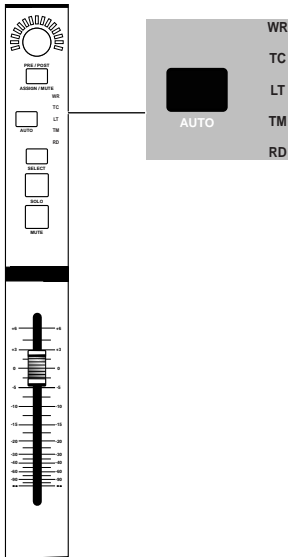
To deselect a channel:

- Hold down SHIFT/ADD, then press the appropriate channel SELECT switch.

SELECT Switch Shortcuts

- ◆ Hold down the OPT(ALT)ALL switch, then press any SELECT switch to select/deselect *all* channels (including off-bank channels).
- ◆ Hold down the ⌘ (CTL) switch, then press any lit SELECT switch to change the SELECT status of that channel strip, and change all other channel strips to the opposite state.

* You can also select channels from the CHANNEL MATRIX. See “The CHANNEL MATRIX” on page 64.



Channel Automation Controls: AUTO Switch

The AUTO switch is located above the SELECT switch. Next to the switch are five 2-character LED automation mode indicators, arranged vertically.

The AUTO switch is used to set the channel automation mode, and to punch in/out on that channel during an automation record pass. MIDI channel volume, pan and mute can be automated just like audio tracks.

The 2-character LEDs next to the AUTO switch indicate the various automation modes and their present status. The AUTO modes are indicated by the labels as follows:

WR LED (red) Indicates Write mode.

TC LED (red) Indicates Touch mode.

LT LED (red) Indicates Latch mode.

TM LED (yellow) Indicates Trim mode.is enabled (for Write, Touch or Latch).

RD LED (green) Indicates Read mode.

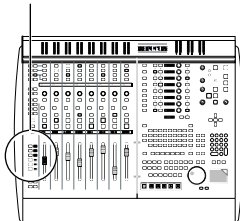
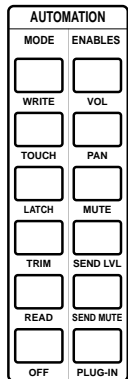
All LEDs Off Indicates that automation is off for the channel.

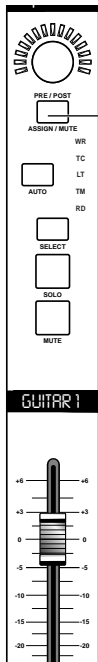
The channel AUTO switch is also used in combination with the master AUTOMATION MODE and ENABLE switches.

Master AUTOMATION MODE and ENABLE Switches

To the left of the channel faders is the AUTOMATION section, which includes the six master AUTOMATION MODE switches and the six AUTOMATION ENABLE switches.

Instructions for setting, recording and editing automation can be found in *Chapter 8: Mixing*.





PRE/POST ASSIGN/MUTE Switch

The PRE/POST ASSIGN/MUTE switch, located underneath each channel strip's data encoder, serves several different functions depending on the current mode set with the Master ASSIGN and SEND switches. This switch only functions when Sends have been assigned for the channel.

PRE/POST Mode

If the SEND MUTE switch is NOT lit in the SELECT/ASSIGN section, the PRE/POST |ASSIGN/MUTE switches are used to change send PRE/POST states. (PRE/POST mode is active when ProControl is not in ASSIGN mode.)

Newly created sends default to post-fader routing (except if there was a send previously assigned to that track, in which case the pre/post state will default to that of the previous send). Pressing the channel PRE/POST switch will change the routing to pre-fader for the channel strip, or vice-versa. (The OPT(ALT)ALL and SHIFT/ADD shortcuts allow you to change all pre/post routing status for all or selected channels.)

Display of Pre/Post-fader Send status

The ASSIGN/MUTE|PRE/POST switches will not be lit when the send is POST fader and will light solid when PRE fader is selected. The scribble strips above the encoders will momentarily display "Pre" or "Post" when the change is made. They will then revert to their prior display state.

▲ Pre/Post status can not be changed during playback.

Assigning and editing send parameters is explained in *Chapter 7: Plug-Ins and Sends*.

ASSIGN/MUTE Mode

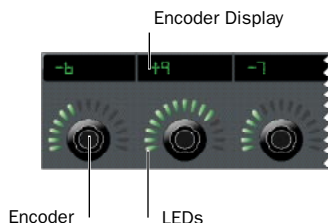
When ProControl is in Assign mode the channel ASSIGN/MUTE switch confirms and “locks in” assignment choices for individual channel I/O and send routing.

When the master SEND MUTE switch is engaged, the PRE/POST ASSIGN/MUTE switches let you mute the channel’s selected send.

In addition, this switch can act as a “select” switch when applying the QuickMode key default function (see “DEFAULT QuickMode Switch” on page 92).

For complete instructions on assigning and editing sends, refer to *Chapter 7: Plug-Ins and Sends*.

Channel Strip Data Encoders and LED displays



Pan, Input/Output Routing, Send Level

Each channel has a multi-purpose rotary data encoder with a ring of 15 green LEDs surrounding it. The rotary encoders control channel pan, send level and stereo send pan, as well as input/output and send assignment. Default function is channel pan.

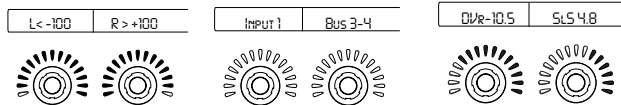
The LED ring displays an approximation of the current data value of the encoder, as determined by the current mode of the data encoders. For example, a single LED indicates pan position, while an expanding series of LEDs show send level).

Above each encoder is an 8-character display, and to the left of the encoder row is the SELECT/ASSIGN switch section, which determines the current function of the encoder row.

Encoder Scribble Strip display

This display indicates pan position, I/O routing and send levels for the encoder row. Only one display mode can be selected at one time.

Here are some examples of what the encoders display for each mode:



Data Encoders showing Pan (left), Input (middle) and Send/Level (right).

The SELECT/ASSIGN Switch Section

Pan, Input/Output, MON/Ø, and Sends

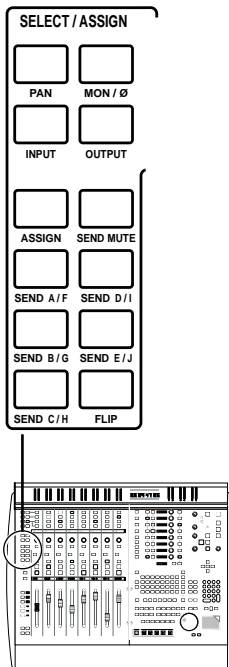
The SELECT/ASSIGN switch section is where you choose the channel data encoders function, or the display contents, for all active channel strips.

The master ASSIGN switch enables input, output or send *assign mode* (with the specific mode determined by the INPUT, OUTPUT and SEND A/F-E/J switches in the SELECT/ASSIGN section).

When the ASSIGN switch is not being used (its LED is off), the SELECT/ASSIGN switches function in Select mode, in which they choose the encoder *display* (PAN displays channel pan values, INPUT displays input assignment).

The switches in the SELECT/ASSIGN section are:

- PAN (see *Chapter 3: ProControl Basics*)
- MON/Ø (see *Chapter 5: Recording*)
- INPUT, OUTPUT (see *Chapter 5: Recording*)
- ASSIGN
- SEND MUTE (see *Chapter 7: Plug-Ins and Sends*)
- Send A/F, B/G, C/H, D/I, E/J, FLIP (see *Chapter 7: Plug-Ins and Sends*)



Local and Global SELECT/ASSIGN Behavior: Tip for Expanded System

When using an expanded ProControl system, SELECT/ASSIGN functions are factory set to operate globally across all units (Main and Fader Packs). Expanded systems can be re-configured so that SELECT/ASSIGN switches function in local mode.

Example of Local SELECT/ASSIGN Capabilities

In default global SELECT/ASSIGN mode, all 16, 24 or 32 channels of ProControl respond as one to SELECT/ASSIGN operation from any unit. For example, if you select SEND A/F to adjust that send level on a channel, all ProControl channel strip encoders will be switched to SEND A/F display. For this and similar circumstances, global (default) SELECT/ASSIGN mode is useful for cue/headphone mixes or other session-wide bussing.

Other tasks, including automation recording and mixing, can benefit from being able to have access to more than one SEND or other parameter at a time. For example, a mildly complex send/return effect might benefit from automating send level to the effect, and automating a fade out of the effect return channel fader. Local SELECT/ASSIGN lets each unit (Main and individual Fader Packs) function independently through their own PAN, INPUT, OUTPUT and SEND A/F-E/J switches, and encoders/displays.

Changing Global/Local Mode

To change this behavior to local mode (or back to global mode):

- Press and hold the OPT(ALT)ALL switch, then press the FLIP switch. The scribble strips above the channel encoders will briefly display either:

```
SELECT |ASSIGN |SWITCHES |ARE |NOW IN |LOCAL |MODE.  
|<BLANK>|
```

– or –

```
SELECT |ASSIGN |SWITCHES |ARE |NOW IN |GLOBAL |MODE.  
|<BLANK>|
```

In Global mode

- Press PAN, INPUT, OUTPUT or one of the SENDs) in the SELECT/ASSIGN area to make that function available across all ProControl Main and Fader Expansion units.

In Local mode

- Press any switch in the SELECT/ASSIGN area. The selected function is now available solely on the ProControl Main or Fader Expansion unit on which the switch was engaged. Other units remain in their current SELECT/ASSIGN mode.

Fine Adjust mode

To adjust channel pan, send level or (stereo) send pan with Pro Tools fine-adjust mode:

- Hold down ⌘ (CTL) while adjusting pan or send level.

Velocity Sensitive and Linear Behavior on Encoders

The channel data encoders, when editing pan or send level, exhibit linear response. Only the DSP EDIT/ASSIGN data encoders provide velocity-based response.

The data encoders in the DSP EDIT/ASSIGN on ProControl, used for send and channel routing and Plug-In editing, offers a special velocity algorithm. This lets you can make large changes quickly by turning the encoder quickly, or small, minimal changes by turning the encoder knob slowly. This more closely mimics how you use analog pots to perform adjustments.

Since the encoder has a fixed number of steps, and there are over 200 actual pan values, (-100 to +100), some steps will be skipped. This same behavior, found on many digital consoles, should not be a cause for concern. DAE will provide interpolated steps with 24-bit resolution when your automation moves are played back. (Refer to the *Pro Tools Reference Guide* for details about Automation Smoothing.)

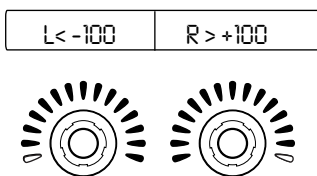
As an alternative to the above behavior, hold down ⌘(CTL), and move a SEND/PAN encoder for fine resolution. You can then place the control at a specific position; you just have to turn the control multiple times to get to a specific number.

PAN Switch

Enabling the PAN switch sets the encoder row to control PAN (the default mode for the encoder row).

To adjust mono channel PAN:

- 1 If not already in PAN mode, press the PAN switch in the SELECT/ASSIGN section. The switch's green led illuminates. The scribble strips will show pan value as described below. A single LED in the LED ring moves either clockwise or counter-clockwise from the center to indicate Pan direction.
- 2 Turn the data encoder in the desired channel to adjust that channel's pan.



To adjust stereo channel PAN:

- 1 Press the PAN master switch a second time. The scribble strips will now show “R<” in the left side of their display, and the PAN switch LED will flash. Pressing PAN again will toggle back to control of left pan.
- 2 Turn the data encoder to adjust pan.

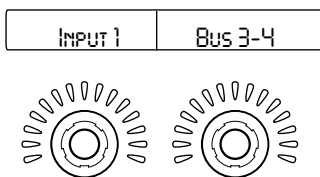
PAN value display

The LED display above the encoder LED ring provides alpha numeric pan position data similar to Pro Tools. Stereo channels will show an “L” or “R.” For example, the pan values for a stereo aux track panned full out would be “L< -100” and “R > +100. -100 to -1 is displayed as “<” and +100 to +1 is displayed as “>.” Center (or, 0 pan value) is shown as “<.”

If automation is globally enabled for pan, data can be recorded to the channel strip’s pan automation playlist. The encoder defaults to mono channel or left side of stereo PAN.

MON/Ø (Auto Input and Input Only)

The MON/Ø switch displays the current input mode (Auto Input or Input Only).

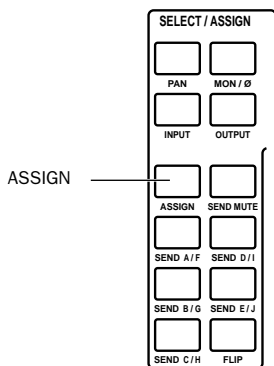


To check input monitor mode status:

- Press and hold the MON/Ø switch.

INPUT and OUTPUT Switches

The INPUT or OUTPUT switches let you assign channel input and output in combination with the master ASSIGN switch. Input and output routing is covered in *Chapter 5: Recording*.



Master ASSIGN Switch

The Master ASSIGN switch is used to assign input, output and send routing. Throughout this guide using instructions using the SELECT/ASSIGN switch section, including the master ASSIGN switch. Whenever an instruction refers to “ASSIGN mode,” it is referring to the state of this switch.

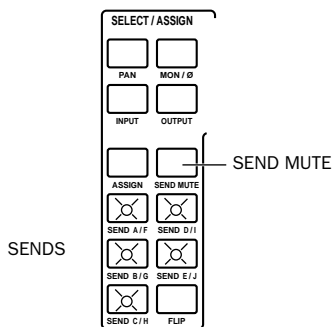
SEND MUTE Switch

This switch is located directly to the left of the ASSIGN/MUTE switch row. When enabled (red LED is lit), the channel PRE/POST|ASSIGN/MUTE switches act as SEND MUTE switches for the currently active send (set by the master send switches, A-F-E/J). If the master SEND MUTE switch is enabled, the associated send is muted on the selected channel, and can be automated.

The master SEND MUTE switch retains its current status even if PAN is the current encoder function. The SEND MUTE LED will turn off if, with active sends selected on the current channel, you switch to PRE/POST mode using the SEND MUTE switch. You must first have a send (A-F, E-J) chosen for editing.

In addition to the method described above, you can mute sends (with automation) using FLIP mode.

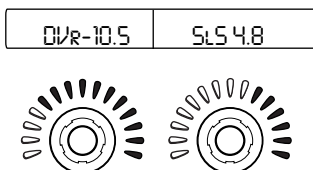
Sends (and Flip mode) are explained in *Chapter 7: Plug-Ins and Sends*.



SEND Switches (A/F - E/J)

The 5 master SEND switches (labeled A/F-E/J) place the encoders into either send assign (when in ASSIGN mode) or send level (in SELECT mode).

Pressing and holding a SEND switch temporarily displays send destinations on the scribble strips located above the channel encoders. Sends are explained in *Chapter 7: Plug-Ins and Sends*.

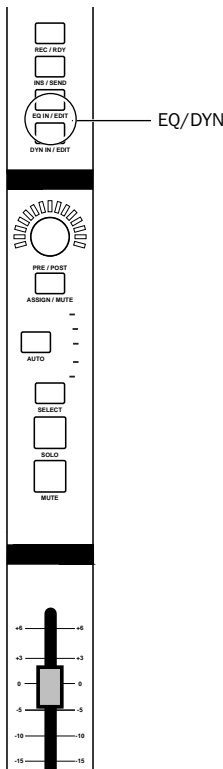


The FLIP Switch

The FLIP switch, located directly under the SEND E/J switch, allows control of send levels from the touch-sensitive faders, and pan control for stereo sends using the channel data encoders. When FLIP mode is engaged, the Channel MUTE switch acts as a Send MUTE switch, and the channel PRE/POST/ASSIGN/MUTE switch toggles pre-/post-fader send status.

FLIP mode can simplify set up of sends-based cue mixes (as just one example) and also provides a touch-sensitive interface for writing Send level automation data.

FLIP mode is explained in greater detail in *Chapter 7: Plug-Ins and Sends*.



EQ IN/EDIT DYN IN/EDIT switches

These switches are located above the encoder LED Display. They are arranged in two rows of eight EQ IN/EDIT (green LED) and eight DYN IN/EDIT (green LED) switches.

EQ EDIT and DYN EDIT Mode

The EQ and DYN IN/EDIT switches' default mode is to function as master EQ or DYN edit access switches for each channel.

Display of current channel EQ and Dynamics Inserts

When these switches are lit, it indicates that there are one (or more) of this type of Plug-In is assigned to that channel. This is a convenient way to tell if there are any EQs or dynamics Plug-Ins on a given channel “at a glance.”

EQ/DYN “GO TO”

Pressing a lit EQ/DYN IN/EDIT switch (while in the default “edit” mode) will bring you directly to the parameter display view of your EQ or dynamics Plug-Ins in the DSP EDIT/ASSIGN section, ready for editing. In addition, the Plug-In window will appear for your choice (provided that it is enabled with the PLUG-IN WINDOWS switch, which will

appear by default when you first open a Pro Tools session). These switches provide a powerful means to go “right to work” editing EQ or Dynamics.

If more than one EQ or Dynamics Plug-In is assigned to a given channel, additional presses on the appropriate channel’s EQ/DYN switch will cycle through the any additional EQ or Dynamics choices that are available on that channel.

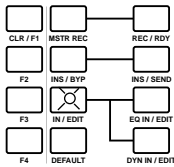
Example of EQ/DYN Edit Mode

For example, let’s say you have a Focusrite d2 4-band EQ on insert 1, and a Digidesign 1-band EQ on insert 2. Pressing the EQ IN/EDIT switch on that channel would first bring up the first page of d2 parameters for editing. A second press would access the Digidesign 1-band. A third press would cycle back to the d2, and so on.

ProControl knows what type of Plug-In is assigned because each Plug-In “tells” Pro Tools what type it is (EQ, DYN or “other”). All Digidesign Plug-Ins have been updated to work with ProControl in this way. If you have a third-party Plug-In, contact your Plug-In manufacturer for update information.

EQ IN and DYN IN Mode

Pressing the IN/EDIT switch changes the function of the channel EQ and DYN IN/EDIT switches—if in default Edit mode, pressing this switch moves you to EQ/DYN IN mode and vice versa). When in EQ/DYN IN mode the channel EQ and DYN IN/EDIT switches bypass all EQ or Dynamics Plug-Ins for a channel. Lit channel EQ/DYN switches indicate that at least one of these Plug-Ins is already bypassed. The switch LED will flash if there is more than one EQ or dynamics Plug-In on the channel, and some of them are bypassed while others aren’t (“mixed state”). In this case, pressing the switch again will bypass all of the Plug-Ins of that type (the LED lights solid).



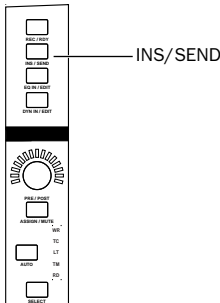
Master IN/EDIT Switch

The IN/EDIT switch is located immediately to the left of the channel EQ IN/EDIT switch row. It toggles the function of the EQ and DYN switches between their default Edit mode and optional In (bypass) mode. See *Chapter 7: Plug-Ins and Sends*.

Channel INS/SEND Switch

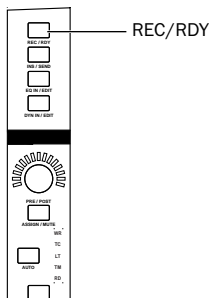
This switch serves two functions for channel inserts:

- ◆ Pressing this switch lists channel inserts (Plug-Ins or Sends, depending on the state of the DSP EDIT/ASSIGN section) so you can select one for editing. This switch is explained in *Chapter 7: Plug-Ins and Sends*.
- ◆ Double-pressing a channel INS/SEND switch opens the first insert of the selected type in the DSP EDIT/ASSIGN section, ready to be edited. This will be the first five Plug-Ins when the DSP EDIT/ASSIGN section is in INSERTS/PARAMS mode, or the channel's first five sends when in SENDS view).
- and –
- ◆ When the master INS/BYP switch (to the left of the INS/SEND switch row), is pressed, the INS/SEND switches allow you to *bypass* the Plug-Ins or sends on all inserts of any individual channel. Unlike normal Plug-In editing/access mode, in INSERT BYPASS mode, any and all switches can be depressed to perform the bypass function additively. INSERT bypass mode actually works by enabling the Master Bypass control for all inserts that contain Plug-Ins on the channel strip. See *Chapter 7: Plug-Ins and Sends* for more information.



Insert “BYPASS” Mode

Pressing the INS/BYP switch to the left of the INS/SEND switch row globally changes the INS/SEND switches to channel Plug-In BYPASS switches that operate on all Plug-Ins for that channel. ProControl provides many other Plug-In and insert-bypass capabilities. See *Chapter 7: Plug-Ins and Sends*.



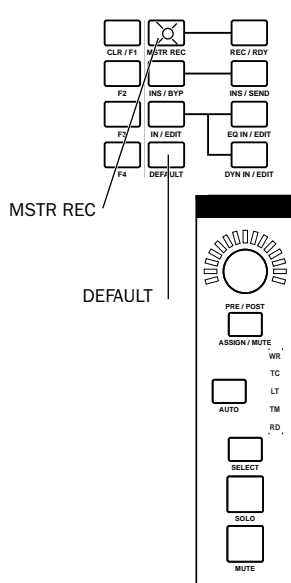
REC/RDY and MSTR REC Switches

These switches arm disk track channel strips for recording. The channel REC/RDY switch LED will flash when a channel is in record-ready mode and lights solid when Pro Tools enters record (record mode). If any disk track is armed for recording (on- or off-bank), the Master REC/RDY switch will flash. This allows you to easily see if any channels strips that are outside of the current bank (and off-screen in Pro Tools), are armed for recording.

MSTR REC “QuickMode” Switch

This switch, located to the left of the REC/RDY switch row, is a master status indicator for REC/RDY, and lets you toggle all REC/RDY switches on/off.

By default, pressing MSTR REC once will take all channels out of record-ready if any tracks are armed. Pressing MSTR REC a second time will place all channels into record-ready mode. Using the REC/RDY and MSTR REC QuickMode switches is explained in detail in *Chapter 5: Recording*.



DEFAULT QuickMode Switch

This switch reverts a control to its default setting, such as Pan center or fader “0” gain (unity). This switch is equivalent to Option/Alt-clicking an on-screen control in Pro Tools and functions as follows:

To reset a fader to its default setting:

- 1 Press and hold the DEFAULT switch. Its LED lights.
- 2 Press any fader SELECT switch.

To reset a channel encoder to its default setting:

- 1 Press and hold the DEFAULT switch. Its LED lights.
- 2 Press a channel ASSIGN/MUTE switch.

To reset an encoder in the DSP EDIT/ASSIGN section to its default setting:

- 1 Enable SENDS or PARAMs mode.
- 2 Press and hold the DEFAULT switch. Its LED lights.
- 3 Press a SELECT/AUTO switch to reset that encoder to its default.

To reset send level from the DSP EDIT/ASSIGN section:

- 1 Enable SENDS view on the DSP EDIT/ASSIGN section.
- 2 Press an insert SELECT/AUTO switch.

To reset all faders or encoders to their default state:

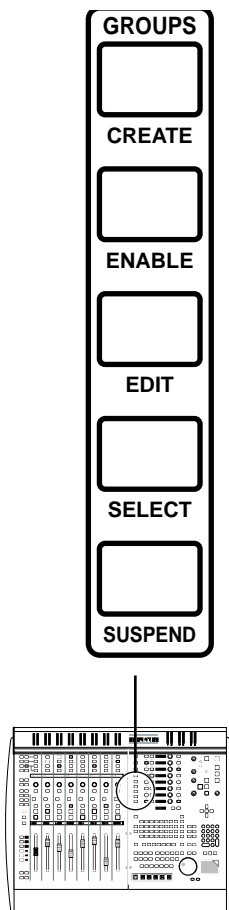
- 1 Hold the OPT(ALT)ALL and DEFAULT switches.
- 2 Press any fader SELECT or ASSIGN/MUTE switch to set all channel faders or encoders, respectively, to the default value for that control.

To reset all selected faders or encoders to their default state:

- 1 Press and hold the OPT(ALT)ALL and SHIFT/ADD switches.
- 2 Press any fader or ASSIGN/MUTE encoder switch to set all selected channel faders or encoders, respectively, to the default value for that control.

To set a Plug-In back to its default state:

- Hold down DEFAULT and press the COMPARE switch, located at the lower right of the DSP EDIT/ASSIGN section.



GROUPS: Working with Groups from ProControl

One of the most powerful features of Pro Tools is its extensive grouping capability. ProControl lets you take full advantage of this capability by providing a dedicated GROUPS switch section, located just to the right of the main Fader section. At the bottom of the DSP EDIT/ASSIGN section is the CHANNEL/GROUP display, which provides visual feedback about groups and their channels.

The GROUPS section contains five Group switches—CREATE, ENABLE, EDIT, SELECT and SUSPEND. These switches mimic Pro Tools Group menu commands, allowing you to use ProControl to perform all the following Pro Tools Group functions:

- Create new groups, and query current groups to see if the selected channels are resident in any existing groups.
- Enable and disable groups
- Edit groups by adding or removing channels (in tandem with the CHANNEL MATRIX)
- Delete individual or all groups
- Select all channel strips of the members of a group or groups (the same as clicking to the left of Group ID letter in Pro Tools).
- Suspending all group activity

Creating New Groups

The GROUPS/CREATE switch is used to create groups in empty group locations, or overwrite existing groups:

To create Groups:

- 1 Make a selection of two or more channels.
- 2 Press CREATE in the GROUPS section. Its LED flashes, and the DSP EDIT/ASSIGN section displays the following:

PRESS A

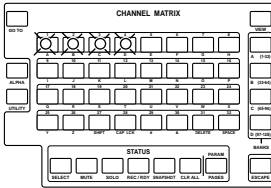
GROUP

SWITCH

TO

CREATE A

GROUP



- 3 Look at the CHANNEL MATRIX to determine whether any of the selected channels are members of an existing group. You don't necessarily have to do this, but it is a very convenient feature that you might want to use now or in the future. Here is how the CHANNEL MATRIX displays group information:

- Existing groups are indicated by the corresponding CHANNEL MATRIX switch (A-Z) being lit. For example, if there are already four groups set up in the current session then switches 1/A, 2/B, 3/C and 4/D will be lit.
- Unlit switches in the CHANNEL MATRIX indicate empty, and therefore available, group locations.
- If any of the currently selected channels are members of an already existing group, then the corresponding CHANNEL MATRIX switch (A-Z) will illuminate.
- If any of the channels that have just been selected for grouping are not members of one of the existing groups (if any), then the corresponding CHANNEL MATRIX switch (A-Z) will flash.

- 4 Press the CHANNEL MATRIX switch corresponding to the group letter (A-Z) you want to create. The CHANNEL/GROUP display shows the group name.

5 If the group is empty:

- The ALPHA key LED flashes. The Create Group dialog box appears on-screen, with the default group name shown.
- If the default name is acceptable, press ENTER on the ProControl keypad or your computer keyboard to create the new group. Press ESCAPE to cancel.
- If the default name is not acceptable, the name can be changed using your computer keyboard or the CHANNEL MATRIX.

After you have finished, the CREATE and ALPHA switch LEDs go off, and the CHANNEL MATRIX section reverts to its former STATUS function.

6 If the selected group contains existing members, the existing group name will appear in the CHANNEL/GROUP display. The lower three LED displays in the DSP EDIT/ASSIGN section will display the following:

OVERWRITE

EXISTING

GROUP?

7 Press ENTER to confirm that you want to overwrite the existing group. Press ESCAPE to exit the group create process without overwriting. In either case, the DSP EDIT/ASSIGN LED displays will return to their former content.

- If you wish to use the default group name, press ENTER without entering new name information.
- or –
- Enter a name for the new group using the CHANNEL MATRIX or your computer keyboard as described earlier.
- Press ENTER on the ProControl keypad or your computer keyboard to confirm the name and create the new group, or press ESCAPE to cancel.
- The CREATE and ALPHA switch LEDs extinguish. The CHANNEL MATRIX switches return to the prior STATUS function.

To display any group name in the CHANNEL/GROUP display:

- While in any group mode, press CTL (CLUTCH) and a Group's corresponding alpha-numeric in the CHANNEL MATRIX.

Enabling/Disabling Groups

The ENABLE switch allows groups to be enabled or disabled.

To enable or disable a group or groups:

1 Press the ENABLE switch. Its LED will flash. The CHANNEL MATRIX will indicate current group status in the following ways:

- The LEDs on any currently enabled group are *lit*.
- The LEDs of any group that is not enabled *flash*.
- The LEDs of any empty group are *off*.

If the switch of an empty group is pressed, the CHANNEL/GROUP display will briefly display "NO GROUP."

2 Press the switch of any group to toggle its enable state. Its corresponding LED in the CHANNEL MATRIX will stop flashing and light solid. Additional groups can be enabled by pressing the corresponding switches.

3 To exit, press the ENABLE switch again. The CHANNEL MATRIX switches return to the prior STATUS function. Press ESCAPE to cancel without saving your changes.

Editing Groups

The EDIT switch allows viewing and editing of group content.

To view or edit a group or groups:

1 Press the EDIT switch in the GROUP section. Its LED flashes. In the CHANNEL MATRIX area, the switch LEDs of all existing groups flash.

2 Press the switch corresponding to the group of interest. The LED on the EDIT switch continues to flash, and the STATUS area SELECT switch LED now flashes also. This indicates that you can now select and edit group membership:

The CHANNEL/GROUP display shows the name of the selected group. The individual channel members of the group are indicated (lit solid) on the CHANNEL MATRIX LEDs. The names of the individual group members are now displayed vertically in the DSP EDIT/ASSIGN displays, which will show (Pro Tools) channel number and abbreviated channel name, separated by a space (for example, “A12 Guit”). If there are more than eight members in the group, the BANK SELECT/NUDGE switch will flash. Use the BANK SELECT left/right cursor arrows to scroll through the member list in banks of eight.

3 To add additional channel strips to a group, press the corresponding channel switches in the CHANNEL MATRIX. The switch LED now lights solid, indicating that the channel strip is now a member of the current group. If a channel strip is outside of the current bank view, press the appropriate BANK switch (A-D) to access it.

4 To remove a group member, press its CHANNEL MATRIX switch. Its LED goes out, indicating that it is no longer a member of the current group.

5 Press the Group EDIT switch again to complete the operation, or press ESCAPE to cancel. The CHANNEL MATRIX switches return to the prior STATUS function.

Selecting Groups

The GROUP/SELECT switch allows an existing group or groups to be selected in the CHANNEL MATRIX. This is useful, for example, for selecting the drums group and then also selecting the percussion group. This “drums and percussion group” may now be combined into a new, larger group containing all members of both groups.

* Previous selections are not retained when entering this mode.

To select groups:

- 1** Press the SELECT switch in the GROUP section. The LED flashes. In the CHANNEL MATRIX area, the switch (A-Z) LEDs of all existing groups flash.
- 2** Press a CHANNEL MATRIX switch (A-Z) to select an existing group. The switch LED lights solid, and the name of the group appears momentarily in the CHANNEL/GROUP scribble strip.
- 3** Select other groups by pressing additional CHANNEL MATRIX switches. The switches in the CHANNEL MATRIX are latching, meaning that any number of active groups may be selected or deselected at any time without the need to hold down any additional modifier key. The CHANNEL/GROUP scribble strip displays the name of the group last selected.

To deselect a group from the current process:

- 1** Press the CHANNEL MATRIX switch corresponding to the (un)desired group. Its LED will begin to flash indicating that the group is no longer selected. The name of the group being deselected will briefly appear in the CHANNEL/GROUP scribble strip.
- 2** Press the flashing SELECT switch or the ESCAPE switch to exit GROUP SELECT mode.

Suspending Groups

The SUSPEND groups switch allows all groups to temporarily be disabled.

To suspend all groups:

- Press the SUSPEND switch. Its LED will flash, indicating that all groups are disabled. To exit Group Suspend mode, press the SUSPEND switch again. All channel strips return to their former group states.

Deleting GROUPS

Groups can be deleted individually, or all at once.

Deleting Groups Individually

Individual groups may be deleted one at a time by using the GROUP EDIT switch in combination with the EDIT FUNCTION area's DELETE switch:

To delete groups individually:

- 1 Press the (GROUP) EDIT switch. Its LED flashes. In the CHANNEL MATRIX area, the switch LEDs of all existing groups flash.
- 2 Press and hold the EDIT FUNCTION/DELETE switch (located just below the CHANNEL MATRIX).
- 3 Press the CHANNEL MATRIX switch that corresponds to an existing group you want to delete. That group's name will appear in the CHANNEL/GROUP display. Once you have selected a group, you are locked in to the DELETE function. The DSP EDIT/ASSIGN displays the following message:

```
DELETE
GROUP?
PRESS
ENTER
TO O.K.,
ESCAPE
TO CANCEL
```

4 Press ENTER on the Numeric Keypad to delete the selected group. The DSP EDIT/ASSIGN LED displays will then revert to their previous state, and the EDIT switch LEDs will extinguish. Press ESCAPE to cancel the operation without deleting any groups.

▲ Group delete cannot be undone.

Deleting All Groups

To delete all groups in a session:

1 Press GROUP EDIT switch.

2 Press the CLR/ALL switch, (located in the STATUS switch section). The DSP EDIT/ASSIGN LED displays the following message:

```
DELETE
ALL
GROUPS?
PRESS
ENTER
TO O.K.,
ESCAPE
TO CANCEL
```

3 Press ENTER to confirm the warning and delete all groups. The message on the DSP EDIT/ASSIGN LED display goes away (reverting to its former content), and the EDIT and CLR/ALL switch LEDs go out. Press the ESCAPE switch to cancel without deleting all groups.

▲ Group delete cannot be undone.

chapter 5

Recording

This chapter presents instructions and examples of recording, including:

- ◆ Basics of audio and MIDI recording in Pro Tools with ProControl
- ◆ Setting up cue/monitor mixes
- ◆ Talkback/listenback communication
- ◆ Slate/dub features of the CONTROL ROOM monitoring section

Basics

Creating New Tracks

- 1 Use the Trackpad to select File > New Track.
- 2 Select a track type, specify how many new tracks to create, and press ENTER. You can scroll the track type pop-up by holding ⌘ (CTL) and pressing the UP or DOWN arrow switches. Use the Numeric Keypad to enter the number of new tracks.

Naming New Tracks

- 1 Double-press the SELECT switch corresponding to the channel you want to name or rename. ProControl automatically enters ALPHA mode.

- 2 Enter a new track name using your computer keyboard or the CHANNEL MATRIX.

Setting the Session Sample Rate

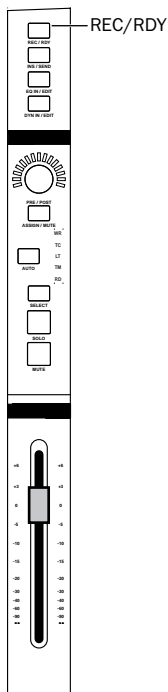
- 1 Press STATUS (in the WINDOWS section) to display Pro Tools Session Setup window.
- 2 Using the Trackpad, select the desired sample rate from the on-screen Sample Rate pop-up. If desired, you can also choose input format, frame rate, and other parameters using the Trackpad to make your selections. Refer to the *Pro Tools Reference Guide* for details about these parameters.

Other Session Configurations

There are several other session parameters that you may want to set for each new session. These include I/O Labelling, Disk Allocation, MIDI tracks and the MIDI Metronome. You can use the Trackpad and your computer keyboard to perform all these tasks. For more detailed instructions on these operations, refer to the *Pro Tools Reference Guide*.

Starting the Recording Process

Before you start your first recording pass with ProControl, make sure you have configured the sample rate and other Session Setup parameters. Also, make sure you have followed all the other instructions for recording in the *Pro Tools Reference Guide* (Disk Allocation, MIDI Metronome/Click, countoff, and other recording-related options).



Step 1: Record-enabling Tracks

To place a track in record-ready mode from the Fader section:

- Press the REC/RDY switch at the top of each channel strip to which you want to record.

Both the channel REC/RDY and the MSTR REC switch LEDs flash indicating record-ready mode. This is a useful indicator, as it will flash whenever any channels are in record-ready mode whether they are visible in the currently displayed bank or are off-bank.

To record-ready tracks from the CHANNEL MATRIX:

- 1 Press the REC/RDY switch in the STATUS section of the CHANNEL MATRIX.
- 2 Press the alpha-numeric switch (1/A, 2/B) corresponding to the channels you want to record-ready.

ProControl recognizes Pro Tools preferences for Latch Record Enables, which can make it faster to record-enable multi-track record passes. As an alternative to using this Preference (see the *Pro Tools Reference Guide*), there are two ways in which ProControl can record-enable all tracks at once.

Shortcuts

To put all tracks in record-ready mode:

- Hold down the OPT(ALT)ALL switch and then press any unlit channel REC/RDY switch (the REC/RDY switch of any channel that is not flashing).
 - or –
- Press the MSTR REC switch. When no tracks are in record-ready mode, pressing the MSTR REC switch will record-enable all tracks.

* If record-ready does not enable on any channel, check if it is in record safe mode. See “Record Safe Mode” on page 110 for details.

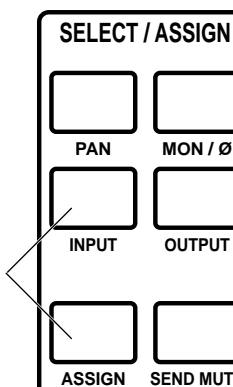
To put the currently selected tracks into record-ready mode:

- Hold down both the OPT(ALT)ALL and SHIFT/ADD switches, and then press any selected channel's REC/RDY switch.

There are three ways to take all tracks out of record-ready mode:

To take all tracks out of record-ready mode:

- Hold down the OPT(ALT)ALL switch and then press the flashing REC/RDY switch of any channel (any channel which is already in record-ready mode). All REC/RDY switches will stop flashing, as will the MSTR REC switch.
 - or –
- Press the MSTR REC switch. If any tracks are already in record-ready mode (the MSTR REC switch will flash when this is the case) pressing the MSTR REC switch will take all channels out of record-ready mode.
 - or –
- In the CHANNEL MATRIX, press the REC/RDY switch and then press CLR ALL.



Step 2: Assigning Audio Track Input

This section explains how to route the appropriate input to audio tracks. (To assign MIDI routing, use the Device/Channel Selector in Pro Tools on-screen Mix window.)

To assign audio channel input:

- 1 In the SELECT/ASSIGN section, press ASSIGN + INPUT.
- 2 Rotate a channel data encoder (rotary knob) to scroll through the list of inputs. The channel ASSIGN/MUTE switch flashes to indicate that the setting has been changed.
- 3 When the desired input is visible, confirm the selection:
 - ◆ To remain in input assign mode, press the channel's ASSIGN/MUTE switch. This enters your new input assignment and lets you then assign a different channel's input.
 - ◆ If you are through assigning channel input, press the master ASSIGN switch.
- 4 Press ESCAPE to cancel.

To make the same assignment to all or all selected channels at the same time:

- Hold down OPT(ALT)ALL or OPT(ALT)ALL+SHIFT/ADD, respectively.

Displaying I/O Assignment:

You can quickly check input or output assignment at any time (in PAN or SEND mode).

To display input or output assignment:

- Hold down the INPUT (or OUTPUT) switches. This temporarily displays the currently assigned input or output settings in the data encoder scribble strip displays.

Step 3: Setting Monitor and Record Modes

Monitoring Modes

Pro Tools TDM systems allow you to globally choose between two input monitoring modes, Auto Input monitoring or Input Only monitoring (refer to your *Pro Tools Reference Guide* for more information).

To display the current input monitoring mode:

- Press and hold the MON/Ø switch, located in the SELECT ASSIGN section.

The MON/Ø switch's LED illuminates. The channel scribble strips of all audio tracks display the current mode:

AUTO INPT
– or –
INPUT

Auxiliary inputs will simply display “Aux,” MIDI tracks will display “MIDI” and Master Faders will display “Master”.

To choose Auto Input or Input Only monitor mode:

- Use the Trackpad to select the appropriate choice from Pro Tools Operations menu.

Record Modes

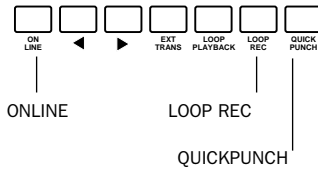
Pro Tools supports several different modes for audio and MIDI recording.

Audio record modes include (default) non-destructive, destructive, Online, Loop Recording and QuickPunch.

MIDI record modes include Merge/Replace and Wait for Note.

Click and *Countoff* options are also available in audio and MIDI recording.

Make sure you understand each of these modes before. For details on these features, see the *Pro Tools Reference Guide*. The following is a list of ProControl equivalents for each applicable mode.



Audio Recording Modes

To enable Online recording:

- Press ONLINE.

Refer to the *Pro Tools Reference Guide* for information about online recording and options.

To enable Loop Recording:

- Press LOOP REC (directly above the main TRANSPORT). For addition information, see “Loop Record Mode” on page 111.

To enable QuickPunch:

- Press QUICKPUNCH. For additional information, see “QuickPunch Recording” on page 111.

To configure Destructive or Non-Destructive mode:

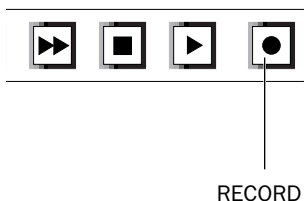
- Use the Trackpad to set the desired mode in the Operations menu.

MIDI Recording Modes: Merge and Replace

To select between MIDI Merge and MIDI Replace record modes:

- Click the on-screen toggle switch (in the MIDI Controls section of the expanded Transport window)
 - or –
- Press OPT(ALT)ALL + ALPHA + 13/M (in the CHANNEL MATRIX).

The on-screen switch is lit in MIDI Merge mode, and dark in Replace mode.



Step 4: Arming Pro Tools for Recording

With channels in record-ready mode and their inputs assigned, you are ready to arm Pro Tools for recording.

To arm Pro Tools for recording:

- Press the RECORD button in ProControl's main TRANSPORT section. It will begin to flash (red) indicating Pro Tools is ready to record to disk.

To enable Record Pause mode:

- Hold OPT(ALT)ALL and press the master RECORD in the ProControl TRANSPORT section.

To enable (MIDI) Wait for Note:

- Use the Trackpad to enable Wait for Note mode by clicking its icon in the MIDI Controls section of the on-screen Transport window. Or, enable the Use F11 for Wait for Note Preference to be able to toggle Wait for Note on/off using the F11 function key (Setups > Preferences > Operation).

Step 5: Recording

To initiate recording:

- 1 Make sure the appropriate tracks are record-enabled and routed correctly, and that you have armed Pro Tools and selected the desired recording mode.
- 2 To begin recording, press PLAY in ProControl's main TRANSPORT section, or use the appropriate Footswitch. If in Wait for Note mode, recording will not begin until Pro Tools receives MIDI input.

The RECORD button and PLAY button will both stay lit for the duration of the recording pass. You can stop recording at any time by pressing STOP (or by pressing the Space bar on your computer keyboard).

* Refer to the Appendix for instructions on configuring the Footswitch UTILITY options for play/stop, record, or remote Talkback.

To cancel out of a recording and discard the current take:

- Hold CTL (CLUTCH) and press STOP in the ProControl Transport section. To use the CPU keyboard, hold Control/Ctrl and press the Space bar.

* In addition to Disk Allocation settings, you might want or need to configure the Record Allocation setting in Pro Tools Preferences. Refer to the *Pro Tools Reference Guide* for details.

Record Modes

Record Safe Mode

Pro Tools provides a record safe mode to lock out recording on any track in a session.

To enable record safe status on a channel strip:

- Holding down the ⌘ (CTL) switch, press the channel REC/RDY switch.
 - or –
- Use the CHANNEL MATRIX REC/RDY and channel switch(es).

After placing a track in record-safe, its REC/RDY LED will briefly flash. If you attempt to arm a record-safe channel for recording, the REC/RDY switch LED will not light.

Keyboard Shortcuts for applying to All/All Selected

- ◆ OPT(ALT)ALL + ⌘ (CTL) + REC/RDY switch on any channel: clears/enables record safe status on all channels
- ◆ SHIFT/ADD + OPT(ALT)ALL + ⌘ (CTL) + REC/RDY switch on any channel: clears/enables record safe status on all selected channels

To take a track (or tracks) out of record safe mode:

- Hold down the ⌘ (CTL) switch and press the REC/RDY switch of any channel in record safe mode.

Loop Record Mode

Pro Tools provides a loop recording mode. Loop recording results in a multi-take file containing new regions for each take. Takes (meaning regions or files with identical times) can be selected for editing using Pro Tools Takes pop-up, which speeds editing of instrumental overdubs, voice-overs, Foley or other tracks.

To enable loop recording:

- 1** Press the LOOP REC switch located just above the primary Transport switches. The Record switch in the Pro Tools Transport window will display “L” when in loop record or loop playback mode.
- 2** In Pro Tools Edit Window, select the desired range on the target track which will constitute the loop.
- 3** Assign an input to the target track.
- 4** Press the track’s REC/RDY switch to place the track in record ready mode.
- 5** Adjust input monitor level and panning using the faders and data encoders.
- 6** Press the RECORD switch on the ProControl Transport. It will turn red and begin to flash. To Loop record MIDI only (no audio), you need only arm the individual MIDI track to be recorded and not the Pro Tools master Record switch.
- 7** Press PLAY to begin recording. If in Wait for Note, recording will not begin until Pro Tools receives MIDI.
- 8** To stop recording, press STOP.

QuickPunch Recording

QuickPunch is essentially “punch-on-the-fly,” which gives you the ability to instantaneously punch-in (initiate recording) on a record-enabled audio track during playback and then punch-out (exit recording) simply by clicking the Transport Record button.

Refer to the *Pro Tools Reference Guide* for details on using QuickPunch, QuickPunch Preferences, and Mute Frees Voice.

To punch-on-the-fly using QuickPunch:

- 1 Press QUICKPUNCH, located directly above the RECORD switch. The QUICKPUNCH red LED illuminates.
- 2 Make sure you have set the QuickPunch Crossfade Length preference in the Editing page of Pro Tools Preferences dialog to the appropriate value.
- 3 Record-enable the tracks you want to punch. The channel REC RDY and MSTR REC switches will flash.
- 4 Prepare to record by cueing Pro Tools.
- 5 Press PLAY.
- 6 At the punch-point, press the RECORD switch in the TRANSPORT section. The REC RDY and MSTR REC switches will stop flashing and stay lit during recording, as will the RECORD switch.
- 7 To punch-out, press RECORD again. While Pro Tools is still playing back you can perform additional punch-ins simply by clicking the RECORD button at each punch-in/punch-out point (up to 100 running punches per take).

Setting up Cue Mixes

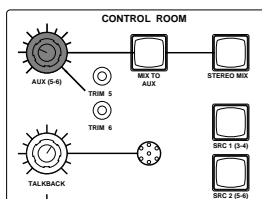
The ProControl AUX (5-6) output bus is designed to be connected to your cue mix system to provide a headphone mix. The Talkback/Listenback signal is always routed to these outputs.

To set up your cue mix, you can either engage the MIX TO AUX switch in the CONTROL ROOM section to send your main stereo mix to the AUX (5-6) output bus, or use Sends to create a special cue mix.

Control Room to Cue Mix

To feed the cue mix the main Pro Tools (Control Room) mix:

- 1 Make sure your cue mix system is connected to the ProControl AUX(5-6) output bus (channels 1 and 2 of the Audio Output connector).
- 2 Press MIX TO AUX.
- 3 Use the AUX(5-6) knob to adjust cue mix level.



Discrete Cue Mix

To set up a discrete Sends-based, stereo cue mix:

- 1** Route a pair of Pro Tools outputs to the ProControl AUX IN bus (Audio Input 1 channels 7 and 8) and route ProControl AUX OUT L/R to the inputs of your headphone/cue system.
- 2** Assign a pre-fader stereo send on each channel and Aux Input needed for the cue mix. (Using pre-fader sends lets you maintain a cue mix independent of your main monitoring mix.)
- 3** Assign the send outputs to the output pair patched to the ProControl AUX IN bus.

Once your mix is set up pre-fader, you can copy your current (main) fader mix to your newly-created, independent, stereo cue mix.

To copy fader/channel levels to send level:

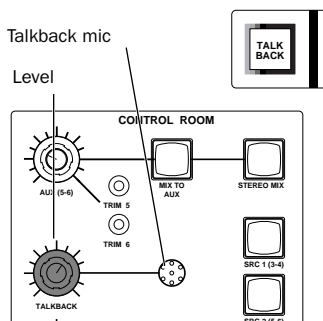
- 1** Select all channel strips by holding OPT(ALT)ALL and pressing any channel SELECT switch. All select switches on all channels light.
- 2** With the Trackpad (or your mouse) choose Copy To Sends from Pro Tools Edit Menu. A dialog will appear asking if you wish to copy all fader data (including automation, mutes, etc.), or just levels.
- 3** Choose level only (the default), and choose your new stereo cue send as the target in the pop-up menu at the bottom of the dialog. Press ENTER on the ProControl numeric keypad to confirm.
- 4** Press PLAY, and adjust the send levels as needed for your cue mix. The AUX (5-6) knob controls overall cue mix volume. Because the cue sends are pre-fader, any soloing or muting tasks that you perform in the control room will not be heard in the cue mix.

* FLIP mode is very useful for setting up send/cue levels as it lets you control selected Send level from the main ProControl or Fader Pack touch-sensitive faders. FLIP mode for this purpose is explained in “Using the FLIP Switch” on page 160.

DSP Considerations

Creating a discrete, independent stereo cue mix might take a large amount of DSP mixing power (depending on how many channels and sends are involved). If necessary, use the main control room mix for your talent (using the MIX TO AUX switch). Or, delete the sends after overdubbing, then use the Save As command to create a new session without the sends cue mix. Open the session without the cue mix to re-claim the DSP mixing resources.

Using Talkback/Listenback, and Slate/Dub (Rerecord)



This section explains how to use the CONTROL ROOM Monitoring features to set up and use talkback/listenback, cue and dub/slate functions.

Talkback/Listenback

Talkback/Listenback facilitate control room-to-tracking room communication. Features include:

- A TALKBACK switch, immediately to the left of REWIND. It works as a momentary-action switch (it is enabled only when depressed).
- Omnidirectional built-in Talkback mic, located in the CONTROL ROOM section. The Talkback mic is shock-mounted to avoid oscillation, rumble or feedback from physical interaction with the CONTROL ROOM surface.
- TALKBACK level control, located to the left of the mic in the CONTROL ROOM section.
- Dedicated Slate/Dub output bus for assignment to an input analog-to-digital (A/D) converter of a Pro Tools Audio Interface (or other recording device).
- Rerecord function for routing the currently selected input source to the Slate/Dub output bus.
- ProControl Audio Input 1 port includes an EXT. TALKBACK input and a LISTENBACK input. There are also level trim knobs for these optional external mic inputs.

Talkback



Talkback features include the built-in Talkback mic with level control, and the TALKBACK switch in the Transport section. Additional options include external Talkback and Listenback capabilities.

External Talkback Input

For higher-fidelity or remote Talkback, an external talkback input (with constant +15V phantom power) is provided through ProControl's Audio Input 1 connector. This is provided as an alternative to the built-in TALKBACK mic mounted in ProControl's CONTROL ROOM section.

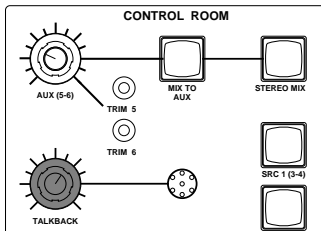
The gain range of the external talkback mic pre-amp is designed to be able to power a low-impedance dynamic microphone suitable for talkback purposes. 15V phantom power is available to power condenser mics for this purpose.

Remote/Footswitch Control of Talkback

As a hands-free alternative to the TALKBACK switch, either footswitch can be configured for remote talkback control.

Talkback Level

As with the built-in talkback mic, the level of the external talkback mic-pre input is also controlled by the TALKBACK level control in the CONTROL ROOM section. A rear-panel trim pot lets you adjust initial gain, with a range of 30 dB.



Configuring External Talkback

ProControl's UTILITY menus let you configure Talkback for INT/EXT mode (in which both the internal and external talkback mics go "live" when TALKBACK is depressed), or EXTERNAL ONLY. (In EXTERNAL ONLY mode, the internal talkback mic is disabled.)

To configure ProControl for an External Talkback mic:

- 1 Press UTILITY. UTILITY functions are listed in the DSP EDIT/ASSIGN section.

- 2 Using the corresponding ASSIGN/ENABLE switches, select MONITOR > TALKBACK. Talkback options are now listed in the DSP EDIT/ASSIGN section.
- 3 Select EXTERNAL, for external-only talkback, or INT/EXT for built-in and external talkback.
- 4 Press UTILITY to exit UTILITY mode.

* The SLATE option lets you route talkback/listenback to the Slate/Dub output bus for recording “slate” to Pro Tools or other devices. See “Using the DUB Function (Slate/Rerecord)” on page 118.

Using TALKBACK

Whether using the internal, external, or INT/EXT Talkback option, operation of the Talkback switch is the same.

To use talkback:

- Depress the TALKBACK switch. The Talkback signal is now “live” to the AUX Out bus to supply headphone/cue mix systems. Adjust the level using the TALKBACK knob.

If SLATE/DUB or RERECORD are enabled, the TALKBACK signal is also sent to the Slate/Dub output bus (Audio Output, channels 5 & 6). See “Using the DUB Function (Slate/Rerecord)” on page 118 for details.

When the TALKBACK switch is depressed, (or Talkback is enabled using a footswitch), the 2-track monitoring source feeding the CONTROL ROOM MAIN (1-6) and AUX level circuits is dimmed by 15 dB. The TALKBACK switch will illuminate when depressed. The talkback mic signal, amplified to the level set by the TALKBACK level control, is mixed with the selected 2-track source and routed to the AUX output pairs.

Listenback

A listenback circuit allows a talent microphone feed that is not part of the recording path to reach the control room, for bi-directional conversation between the control room and the talent. Typical applications involve talent in a studio

where the input source is direct (such as DI'd keyboard) and there are otherwise no open microphones in the studio. By setting up a Listenback mic for the talent, the cue mix (AUX L/R) can include a com line-style signal for song cues, headphone and beverage requests.

ProControl supports this feature using a dedicated Listenback input. The external Listenback input (with +15v mic pre) is accessed using channel #1 on the Audio Input 1 connector. The gain range of the mic pre is adequate for a lo-impedance condenser or dynamic omni mic suitable for listenback purposes, and its +15v phantom power is safe for condenser microphones. Because ProControl's phantom power is always on, ribbon microphones should not be connected to the External Talkback or Listenback inputs.

Listenback Level

The level of the listenback input is controlled by the TALKBACK level control (it serves both the internal or external source). A rear-panel trimpot controls initial gain (gain range is 30 dB). Only one of the mics can be active a time (internal or external).

Listenback/Talkback Linking

The Listenback signal is, by default, linked to Talkback (on/off). Optionally, the Listenback signal can be left “always on” and not controlled by the Talkback switch. This can be useful when, for example, a songwriter needs to call out chords/cues to a musician or band while tracking.

Enabling Listenback

To enable/disable Listenback:

- Press UTILITY > MONITOR > LISTENBACK, then select the desired setting:
 - ON: leaves the Listenback signal in “always-on” mode.
 - OFF: shuts the Listenback signal off.
 - TALKBACK: links Listenback to Talkback.

Using the DUB Function (Slate/Rerecord)

ProControl provides a pair of Slate/Dub outputs for *Slate/Dub* and *Rerecord* signals. These Slate/Dub outputs (ProControl output channels 5 & 6) can be routed to an available pair of Pro Tools inputs or those of DAT or other recording device.

Slate/Dub Option for recording Talkback/Listenback through the Slate/Dub buss.

Rerecord Option for recording input source pairs (STEREO MIX, or SRC 1(3-4)...) through the Slate/Dub output buss. Talkback/Listenback can also be included with the rerecord signal. Rerecord is only available in Stereo/Single Source mode.

To enable Talkback/Slate:

- Press UTILITY > MONITOR > TALKBACK > SLATE (on/off).

To enable Rerecord:

- Press UTILITY > MONITOR > MODE, then enable RE-RECORD.

RERECORD and SLATE: source and talkback recording

- ◆ When RERECORD is enabled, any single source pair [STEREO MIX, SRC 1 (3-4), SRC 2 (5-6), SRC 3] will be sent to Slate/Dub Out. Only one stereo source signal can appear at this output. When the Rerecord option is enabled, the currently selected input source switch will flash.
- ◆ When SLATE is enabled for Talkback/Listenback, the talkback/listenback signal is routed to the Slate/Dub output bus. If RERECORD is also enabled, then the Talkback/Listenback signals are mixed with the selected source input in the slate/dub bus. (Also, Listenback can be configured to follow Talkback using UTILITY > MONITOR > LISTENBACK). To avoid interrupting a RERECORD signal with Talkback/Listenback, make sure Slate/Dub is not enabled (UTILITY > MONITOR > TALKBACK, Slate on/off).

☞ For details on configuring these options from UTILITY, see *Appendix A: UTILITY Settings*

Examples of how Slate/Dub and Rerecord can be used:

- ◆ If you like to keep a DAT or other tape machine ready to record at all times, you can route the Slate/Dub output to the deck's input. Whenever you want to record something to tape, simply engage Rerecord and put the deck into record. Any single input source pair can be routed to the Slate/Dub output.
- ◆ By engaging Talkback Slate, you can use Talkback to record logs, references, dailies, samples, or sound bites.
- ◆ For more flexibility, bring the Slate/Dub output to a patch bay. In this way you can take advantage of the Slate/Dub bus for virtually any signal routing task.
- ◆ Whenever you want to dub a DAT or cassette deck that is in SRC 2 (5-6) (or other) input to your Pro Tools system, but you don't want to disconnect your main input source cables, enable Rerecord and patch the Slate/Dub Out to any pair of Pro Tools inputs. In this way you can simply enable record in Pro Tools on the appropriate inputs to record the cassette deck.
- ◆ To make an analog copy of Pro Tools main mix out, patch your tape deck to the Slate/Dub output and enable Rerecord.
- ◆ Another useful application of Slate/Dub/Rerecord is for capturing scratch vocals through the Talkback mic. This can be convenient if a vocalist in the control room wants to quickly lay down a reference vocal against some audio on a cassette.

Simply enable Talkback Slate and Rerecord, and patch the Slate/Dub output to a recordable destination (such as a pair of Pro Tools inputs). With Talkback Slate and Rerecord enabled, you can patch the cassette output to a pair of Pro-Control inputs and start it playing back. To capture the vocals, simply hold down Talkback and both the source input (in this example, a cassette deck) and the Talkback signal will be routed to the Slate/Dub output. This captures the taped signal coming in through the designated input source

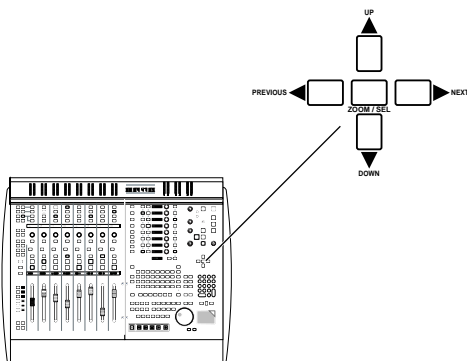
and combines it with the vocalist (being picked up through the Talkback mic). This can be performed using internal or external Talkback, or the Listenback signal if it is configured in UTILITY to “follow” Talkback.

chapter 6

Editing

This chapter describes audio and MIDI editing with ProControl.

Navigating, Zooming and Selecting with ZOOM/SEL



The main ZOOM/SEL button in the center selects one of three modes for the UP, DOWN, NEXT and PREVIOUS switches:

- Navigation mode
- Zoom mode, and
- Select mode.

In addition, the four arrow switches can navigate among alpha numeric fields/characters. All these different uses are explained in the following sections.

Navigation Mode (Mode 1)

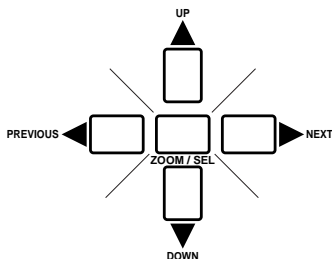
When the ZOOM switch LED is off, the PREVIOUS, NEXT, UP and DOWN switches function in Navigation mode (the default mode). The Zoom/Sel arrows become region/edit/track location selector:

To enable Navigation mode:

- Make sure Navigation mode is engaged (the ZOOM/SEL switch is not lit or flashing). If necessary, press ZOOM/SEL to cycle through mode choices until Navigation mode is indicated.

To navigate using the arrow switches:

- PREVIOUS: moves the edit cursor to previous region boundary or sync point.
- NEXT: moves the edit cursor to next region boundary or sync point.
- Holding down CTL/CLUTCH while pressing PREVIOUS or NEXT: selects regions later or earlier in the track, respectively.



Zoom Mode (Mode 2)

When in zoom mode, the ZOOM/SEL arrow switches control horizontal and vertical zoom.

To enable Zoom mode:

- Press the ZOOM/SEL switch to cycle through mode choices until the switch LED lights (and is not flashing).

To zoom using the arrow switches:

- PREVIOUS: decreases horizontal zoom
- NEXT: increases horizontal zoom
- UP: increases vertical zoom
- DOWN: decreases vertical zoom

To zoom out to view the entire session in the Edit Window:

- Hold down OPT(ALT)ALL switch and double-press the ZOOM/SEL switch.

To return to the previous zoom view:

- Hold down OPT(ALT)ALL and press the ZOOM/SEL switch.

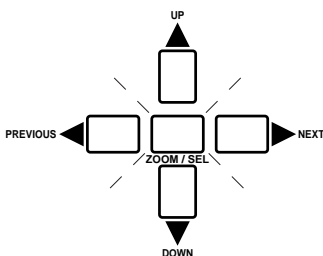
Using the ZOOM Presets

To store a ZOOM setting (1-5)

- 1** Use the ZOOM/SEL switches or the Magnifying Glass tool to zoom in to the desired level.
- 2** Hold down ⌘ (CTL) and click the desired preset location (1-5, just below the other Zoom controls in the Edit Window).

To recall a stored Zoom preset:

- Hold down ⌘ (CTL) and then press the appropriate number (1-5) in the Numeric Keypad.



Selection Adjust Mode (Mode 3)

The third mode for ZOOM/SEL is Selection Adjust mode, in which the UP, DOWN, PREVIOUS and NEXT switches edit on-screen selections.

To enable Selection Adjust mode:

- Press ZOOM/SEL to cycle through available modes until the switch LED begins flashing to indicate Selection Adjust mode.

To edit using ZOOM/SEL and the SCRUB/SHUTTLE wheel:

- Hold down PREVIOUS and move the SCRUB/SHUTTLE wheel to adjust the IN point.
- Hold down NEXT and move the SCRUB/SHUTTLE wheel to adjust the OUT point.
- Hold down both the PREVIOUS and NEXT keys and move the SCRUB/SHUTTLE wheel to adjust the entire selection's position in time while retaining its length.

To move or extend selections to different tracks:

- Press the UP key to move the selection to the previous (upper) track in the Edit window; hold down SHIFT/ADD to extend the selection to include both tracks.
- Press the DOWN key to move the selection to the next (lower) track in the Edit window; hold down SHIFT/ADD to extend the selection to include both tracks.

To clear a selection and go to selection start or end:

- Double-click the PREVIOUS key to place the Edit Cursor at the current selection's start (IN) point.
- Double-click the NEXT key to place the Edit Cursor at the current selection's end (OUT) point.

Window Navigation and Scrolling

In any of the three ZOOM/SEL modes, the following window/display commands are available for Edit window scrolling:

To scroll 1 page left/right:

- ⌘ (CTL) + PREVIOUS/NEXT

To scroll 1 page up/down:

- ⌘ (CTL) + UP/ DOWN

To scroll to session start/end:)

- ⌘ (CTL) + OPT(ALT)ALL + PREVIOUS/NEXT

To scroll to top/bottom of window:

- ⌘ (CTL) + OPT(ALT)ALL+ UP/DOWN

The ZOOM/SEL Switches and Alpha Numeric Entry

The PREVIOUS and NEXT switches are also used in ALPHA entry mode to navigate through fields/characters.

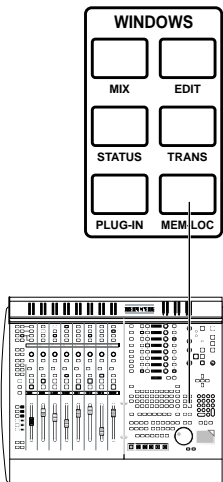
While editing text from ProControl:

- Pressing the NEXT switch moves the text entry point one character to the right.
- Pressing the PREVIOUS switch moves the text entry point one character to the left.

Navigating with the Current Location Indicator

To navigate with the Current Location indicator:

- 1 Press the * (asterisk) key in the Numeric Keypad to highlight the Current Location Indicator in the Transport window (if configured to show Counters) and in the Big Counter Display. The ProControl TIME DISPLAY will flash.
- 2 Use the Numeric Keypad to type in the desired time location, or use the UP/DOWN keys: UP increases numerical values, while DOWN decreases numerical values.
- 3 Tab among time fields using PREVIOUS or NEXT. The currently selected field will flash in the TIME DISPLAY.
- 4 Press ENTER to go to the location, or press ESCAPE to cancel.



Memory Locations and Markers

ProControl supports all Pro Tools Memory Locations and Markers features.

Accessing the Memory Locations Window

To display the Memory Locations window:

- Press MEM LOC in the WINDOWS section.

Creating and Defining Memory Locations

To define a memory location:

- 1 Press ENTER. The New Memory Location window appears.
- 2 Set properties for your marker/memory location with the Trackpad and keyboard.
- 3 Press ENTER to save the new memory location.

To define a memory location to a specific numerical address:

- Press a number key (or keys) immediately before pressing ENTER. If available, a memory location will be assigned to that number/address.

To recall a memory location:

- Decimal + number + Decimal. (Press the Decimal point key, then enter the number of the desired memory location, then press Decimal again.)
 - or –
- Click on the desired memory location button in the Memory Locations window.

To delete a memory location

- Hold down OPT(ALT)ALL, then click a memory location in the Memory Locations window.

To delete all memory locations:

Hold down OPT(ALT)ALL and SHIFT/ADD and click any memory location in the Memory Locations window. This can be undone with UNDO.

To edit a memory location:

- Double-click the location in the Memory Locations window. This lets you change settings for the memory location as well as “move” the marker/memory location from its original location to the current playback/insertion point.

About Auto-Add and Auto-Name Memory Locations

These and all other memory location preferences and settings (display, sorting, and others) can be configured using the Trackpad. Select the appropriate setting from the Name pop-up in the Memory Locations window. See the *Pro Tools Reference Guide* for details about these features.

Creating On-screen Selections

ProControl lets you select audio and MIDI data in several different ways. These include manual selection (drag-select), on-the-fly by dropping in and out points, or with the SCRUB/SHUTTLE wheel.

To manually define an on-screen selection:

- 1** While Pro Tools is stopped press the SELECT switch in the EDIT TOOL section.
- 2** With the Trackpad, double-click (to select an entire region/file) or click and drag left or right.
- 3** When the selection encompasses the desired range, release the Trackpad button.

To make a selection “on the fly” during playback:

- 1** Click within the desired track to select it.
- 2** Press PLAY.
- 3** As your track plays, press the IN switch to set the selection start.
- 4** Press the OUT switch at the point where you want the selection to end.

To scroll to/view selection start or end:

- 1** Place the ZOOM/SEL switches in Navigation mode (press ZOOM/SEL until its switch LED is neither lit nor flashing).
- 2** Do one of the following:
 - Press OPT(ALT)ALL + PREVIOUS switch to scroll to selection start.
 - or –
 - Press OPT(ALT)ALL + NEXT to scroll to selection end.

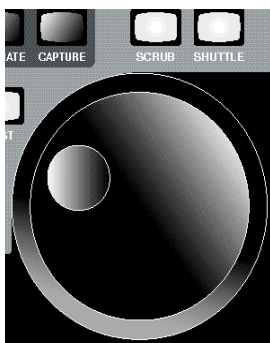
Using the Selection Indicators

The Selection Indicators allow you to make very precise selections based on specific time locations in a session.

To make a selection with the Selection Indicators:

- 1 Press the “/” (slash) key in the Numeric Keypad. The Pro-Control TIME DISPLAY flashes.
- 2 Use the Numeric Keypad to type in start, end or length times. Use the PREVIOUS and NEXT switches to select different time fields within each row.
- 3 Press the “/” key to go to the next row (Start, End, Length) in the Selection/Location Indicator window.
- 4 When you are done, press ENTER.

Pro Tools highlights the selected range of audio on the currently selected track.



Editing with the SCRUB/SHUTTLE Wheel

The primary function of the SCRUB/SHUTTLE wheel is for listening at variable speeds—crawling slowly for precise editing or scanning a track in high-speed mode to search for elements or navigate to other locations. For details on Pro-Control scrub and shuttle features, see “SCRUB/SHUTTLE Wheel” on page 57.

In addition to these primary features, the SCRUB/SHUTTLE wheel can create/define selections, adjust in/out points and more.

To create selections using the SCRUB/SHUTTLE wheel:

- 1 Press SHUTTLE to engage shuttle mode.
- 2 Rotate the Scrub/Shuttle wheel to shuttle in the direction required to roughly locate your selection in point. Once this point has been located, press and hold SHIFT/ADD.
- 3 While still holding SHIFT/ADD, shuttle to roughly locate to the desired selection out point.
- 4 Release the SHIFT/ADD switch. The selection has now been made.

To edit a selection using basic SCRUB mode:

- 1** Navigate to the beginning of the selection by pressing the PREVIOUS switch, or to the end of the selection by pressing the NEXT switch.
- 2** Press SCRUB to engage scrub mode.
- 3** Hold down SHIFT/ADD and scrub the in or out point with the SCRUB/SHUTTLE wheel, depending on whether you selected PREVIOUS or NEXT. Your selection will expand/contract with the wheel as long as you hold down SHIFT/ADD.

* For a complete description of ZOOM/SEL editing features, see “Selection Adjust Mode (Mode 3)” on page 123.

To exit scrub mode:

- Press the SCRUB button again or press any other TRANSPORT switch.

Creating Selections using Memory Locations

Here are a few more techniques for making selections.

To create a selection using two memory locations/markers as the in/out points:

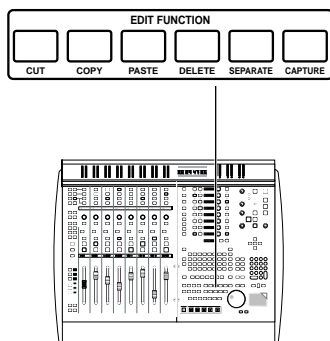
- 1** Recall the memory location that contains the desired selection start point (use the Numeric Keypad to enter the location number, then press “.”)
- 2** Hold down SHIFT/ADD.
- 3** Recall a second memory location that contains a desired out point. The range between the two points is selected.

Moving a Highlight (Selection Range Only)

To move the in and out points earlier or later in the track, preserving the selection length:

- 1 Place the ZOOM/SEL switches in Selection mode (the ZOOM/SEL switch flashes in this mode).
- 2 Hold down both the PREVIOUS and NEXT keys and rotate the Scrub/Shuttle wheel. This adjusts the position in time of the highlight/selection, retaining its length. No audio or MIDI or automation data of any kind is affected.

* The AUDITION controls offer convenient ways to listen to your selections and edits. See “AUDITION, PRE/POST, IN/OUT Switches” on page 33 for details.



Creating and Editing Regions using Capture, Separate, Trim

The ProControl EDIT tools include all the controls found in the EDIT MODE, EDIT TOOL, and EDIT FUNCTION sections. These fourteen switches replicate their similarly named tools in Pro Tools.

Capturing Regions

To create a new region:

- 1 Create a selection of audio or MIDI data.
- 2 Press CAPTURE in the EDIT FUNCTION switch section. Pro Tools will prompt you to name the region. The default region name will be displayed in the CHANNEL/GROUP display (directly below the DSP EDIT/ASSIGN section).
- 3 If Pro Tools prompts you to name the newly-created region (as determined by the Auto-Name Separated Regions preference), use your computer keyboard to enter a name for the new region, or use the alpha numeric keys in the CHANNEL MATRIX.
- 4 Press ENTER to confirm the region name. Press ESCAPE to cancel.

Separating Region

To separate a new region with the Separate Region command:

1 Select the portion of the waveform that you want to separate as a new region. Make sure the selection is within the bounds of the existing region.

– or –

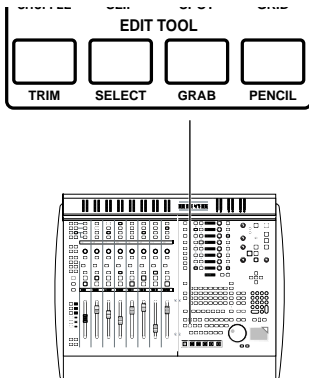
Place the edit cursor at the desired split point.

2 Press SEPARATE (located in the EDIT FUNCTION switch section). If Pro Tools prompts you to name the newly-created region (as determined by the Auto-Name Separated Regions preference), enter a name using the CHANNEL MATRIX alpha-numeric switches or your computer keyboard.

3 Press ENTER to separate and create the new region. Press ESCAPE to cancel.

The new regions will appear in the track in which it was created, separate from the data surrounding it.

* Refer to the *Pro Tools Reference Guide* for information about Grab With Separate and other useful region tools available in Pro Tools. You can use the Trackpad to take select these editing features.



EDIT TOOL Selection

To select an edit tool:

- Press the appropriate EDIT TOOL switch: TRIM, SELECT, GRAB, or PENCIL.

To select the SmartTool:

- Press any two of the following simultaneously: TRIM, SELECT, and/or GRAB.

To select an EDIT TOOL option:

- Use the Trackpad to select the desired TRIM, GRAB or PENCIL option. See the *Pro Tools Reference Guide* for details on these editing tools.

Trimming Regions

Regions and other data can be trimmed using the Trackpad and the Trim tool.

To select the Trim tool:

- Press TRIM (in the EDIT TOOL section).

To select the Trim mode for manual trim functions:

- Use the Trackpad or mouse to select the desired Trim mode from the Trim tool pop-up menu in the Edit Window. Available choices are:
 - Standard
 - Scrub
 - Time Stretch

Refer to the *Pro Tools Reference Guide* for details on these different Trim modes.

To trim:

- Use the Trackpad or mouse and their switches to perform manual trimming.

To Trim a region to a current selection within that region:

- 1 Select a range of data within a region.
- 2 Hold ⌘ (CTL) and ALPHA, then press 20/T in the CHANNEL MATRIX.

To trim the region start up to the current Edit location:

- Hold down OPT(ALT)ALL, then press 7/G (CHANNEL MATRIX).

To trim the region end to the current Edit location:

- Hold down OPT(ALT)ALL, then press 8/E (CHANNEL MATRIX).

Grabbing/Placing and Moving Regions

The Grabber is used to select, move and separate regions.

Grab with Separate and the Object Grabber provide additional selection options. Refer to the *Pro Tools Reference Guide* for details.

To select the Grabber:

- Press GRAB.

To select a Grabber option (Grab with Separate, or the Object Grabber for discontinuous selections), use the Trackpad or mouse to select the option from the Grab Tool Options selector in the toolbar of Pro Tools Edit window.

To place a region in a track:

- With the Grabber, drag the name of a region in the Regions List to the desired track/location (you can move it for more precise placement later).

To place stereo or other multiple regions on adjacent tracks:

- Hold down SHIFT/ADD, then use the Trackpad to select multiple regions in the Regions List. Drag the selected regions to the desired tracks.

To place a new or existing region (or regions) at the Edit Cursor location:

- 1 Press and hold down CTL/CLUTCH.
- 2 Drag the desired region from the Audio Regions List into the desired track and release the Trackpad button. The region will appear at the edit cursor's current location.

To align a region on one track with a region on another track:

- 1 Select the region you want to align to.
- 2 Hold down CTL/CLUTCH, then use the Trackpad to click on the region you want to move. If it is not currently placed in a track, drag it into the target track from the Regions List. The region aligns to the start of the reference region.

Snap to Head/Sync/Tail

To align a region to the head (start) of a selection:

- Hold down CTL/CLUTCH and drag the region to a track.

To align a region to the Sync point of a selected region:

- Hold down OPT(ALT)ALL and CTL/CLUTCH and drag the region to a track.

To align a region to the tail (end) of a selection:

- Hold down ⌘ (CTL) and CTL/CLUTCH and drag the region to a track.

Selecting Regions

To select a region with the Selector tool and Trackpad:

- With the Trackpad or mouse, double-click the region.

To select a region with the Grabber and Trackpad:

- Single-click the region.

To select the next or previous region in a track:

- Place the edit cursor in playlist of the desired track, or select a region in that track.
 - CTL(CLUTCH) + NEXT: selects the next region
 - CTL(CLUTCH) + PREVIOUS: selects the previous region.

To extend the selection to next/previous regions:

- 1 Place the edit cursor in the playlist of the desired track, or select a region in that track.
- 2 Press ⌘ (CTL) + SHIFT/ADD + NEXT. To extend the selection to include whole regions prior to the current selection, press ⌘ (CTL) + SHIFT/ADD + PREVIOUS.

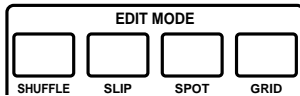
Be aware that when multiple tracks are selected, the regions in the *guide-track* are used. The guide-track is the first track containing a selection, which will be the first, or top-most, track in the Edit window.

Cut, Copy, Paste and Delete

Once a region is selected, you can use the CUT, COPY, PASTE and DELETE switches to perform these standard operations with the selected region. These switches are located in the EDIT FUNCTION section.

Edit Modes: Slip, Shuffle, Spot and Grid Modes

ProControl lets you quickly select the desired Edit Mode by selecting the appropriate option from the EDIT MODE section.



To select an Edit Mode:

- Press the appropriate switch in the EDIT MODE section; SHUFFLE, SLIP, SPOT or GRID. The selected mode switch will light when engaged to indicate the current mode.

Nudging Regions

The ability to nudge regions is a powerful editing tool, allowing you to move regions in precise, user-selectable Grid increments with the plus (+) and minus (-) keys on ProControl's Numeric Keypad.

To nudge regions:

- 1** Select a region, or regions using the techniques described earlier. (You can also select partial regions, in which case the selection will be moved by nudging.)
- 2** Press the TIME DISPLAY switch to select the desired Time Display format (time code, bars&beats, etc). You may have to click the button several time to reach the time display of interest.
- 3** Press the “+” key in the Numeric Keypad to nudge the selection forward (later) from its current position by the selected grid value. Press the “-” key to move the selection backward (earlier) from its position by the selected grid value.

If there is no selection on the screen, the edit cursor will be nudged forward or backward.

To change the current Nudge or Grid value:

- Hold down ⌘ (CTL) and OPT(ALT)ALL while pressing the “+” key to increase the current nudge (grid) value.
- Hold down ⌘ (CTL) and OPT(ALT)ALL while pressing the “-” key to decrease the current nudge (grid) value.

Fades

You can apply fade ins/outs as well as crossfades directly from ProControl. For a detailed explanation of Fades features, including Fades preferences for in/out and crossfades, refer to the *Pro Tools Reference Guide*.

Crossfades

To create a crossfade using the SmartTool:

- 1 Select the crossfade range across two adjacent regions with the Trackpad or other selection method.
 - 2 Use the Trackpad in SmartTool mode to draw the crossfade. (To select the SmartTool, press any two of the following switches simultaneously: TRIM, SELECT, and/or GRAB).
 - or –
- Define a custom crossfade from the Fades dialog.

To display the Fades dialog:

- Hold down ⌘ (CTL) and ALPHA, then press 6/F in the CHANNEL MATRIX.

Fade from Start, Fade to End

Fade from Start and Fade to End let you quickly fade from a region start point to the current edit/play point (Fade from Start) or from the current location to the region end point (Fade to End).

To create a fade in from the region start to the current edit location:

- Hold down OPT(ALT)ALL and ALPHA, and then press D/4 in the CHANNEL MATRIX.

To create a fade out from the current edit location to the region end:

- Hold down OPT(ALT)ALL and ALPHA, and then press 7/G in the CHANNEL MATRIX.

Editing Waveforms, MIDI and Automation with the Pencil Tool

The Pencil tool allows you to destructively “redraw” audio waveform data, automation and MIDI note and controller data.

To destructively edit an audio waveform with the Pencil tool.

- 1** Locate the area you want to edit.
- 2** Adjust the track height.
- 3** Use the ZOOM/SEL controls to zoom in to the sample level. When you are zoomed in far enough, the waveform will appear as a continuous thin line and the Pencil tool will become available.
- 4** Press PENCIL in the EDIT TOOL section.
- 5** Use the Trackpad (in PENCIL mode) to carefully redraw the desired area. If you make a mistake, press UNDO.

To draw MIDI Controller edits:

- 1** Display the appropriate controller data in the desired MIDI track using the Track Display selector.
- 2** Use the Trackpad to select the appropriate Pencil mode (freestyle, line, triangle, and so on).
- 3** Draw new controller data.

chapter 7

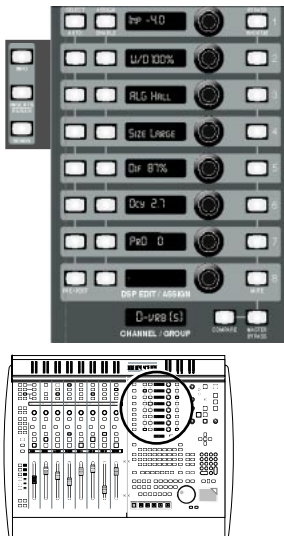
Plug-Ins and Sends

Overview of Plug-Ins, Sends and ProControl

ProControl provides a multi-purpose control section for both Plug-Ins and sends. This main inserts area is the DSP EDIT/ASSIGN section. In combination with various channel switches, the DSP EDIT/ASSIGN section lets you see, adjust and automate Plug-Ins, mono/stereo sends, send level/pre-/post-fader status, hardware I/O inserts and busses.

Similar to the multi-function channel data encoders, the DSP EDIT/ASSIGN switches operate in one of several selectable modes. These modes focus the DSP EDIT/ASSIGN switches to assign /edit functions for Plug-Ins, sends and send routing, and to display input/output status.

* Check with the manufacturer of your Plug-Ins to find out if they have been updated for ProControl—all Digidesign Plug-Ins fully support all ProControl features.



The DSP EDIT/ASSIGN Section

The DSP EDIT/ASSIGN section consists of a bank of eight control rows. Each row provides a rotary encoder, LED display, and three multi-purpose edit/assign switches. DSP EDIT/ASSIGN controls also include the CHANNEL/GROUP display, COMPARE and MASTER BYPASS switches, located below the LED/encoder bank.

The function of these controls—assigning, viewing, accessing, editing or automating Plug-Ins or sends—is selectable from the INFO, INSERT/PARAM and SENDS mode switches, located to the left of the DSP EDIT/ASSIGN encoder bank.

INFO, INSERT/PARAM and SENDS Mode

To the left of the main DSP EDIT/ASSIGN switches are the three mode switches INFO, INSERT/PARAM and SENDS. These set the display or operating mode for the DSP EDIT/ASSIGN switches:

INFO Switch

The INFO switch (green LED), located at the upper left of the DSP EDIT/ASSIGN area, allows momentary display of the current INSERT or SEND controls, depending on which mode is currently set by the INSERT/PARAM and SENDS switches.

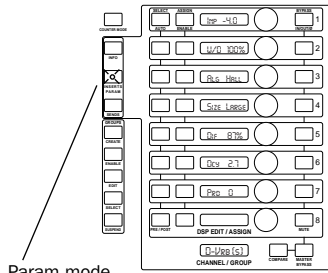
INSERT/PARAM Switch

The INSERT/PARAM switch controls toggles the DSP EDIT/ASSIGN section between two view modes:

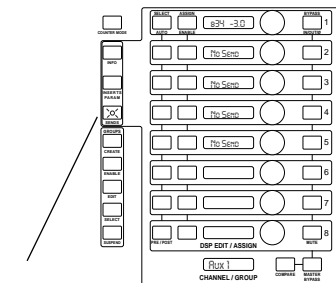
- INSERT view vertically lists the currently assigned inserts for the selected channel (Plug-Ins or hardware I/O inserts).
- PARAM view vertically displays Plug-In parameters for the currently selected Plug-In.

SENDS Switch

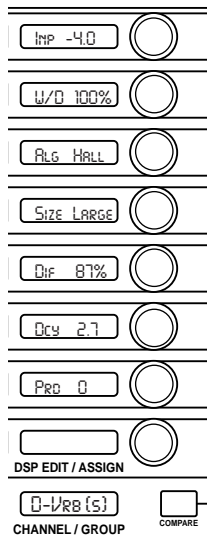
The SENDS switch (green LED, located below the INSERTS/PARAM switch) enables SENDS mode.



Param mode



Sends mode



Data Encoders and LED Displays

The rotary data encoders in the DSP EDIT/ASSIGN section scroll and select parameters shown in the LED displays to their left. The eight encoder LED windows display parameter names and values, send values, and help screens according to the current DSP EDIT/ASSIGN mode.

Velocity Sensitive versus Fixed Encoder Response

You can configure the DSP EDIT/ASSIGN data encoders for fixed response (instead of the default velocity sensitive rate) by pressing F3 on ProControl. Press F3 again to toggle back to the default (velocity sensitive) response.

Fixed means that one rotation of the encoder covers the entire range of parameters

Velocity sensitive means the faster you rotate the encoder the faster the parameters will change and vice-versa.

DSP EDIT/ASSIGN Switches

The following are descriptions of each of the three columns of switches that immediately surround the encoders and LED displays in the DSP EDIT/ASSIGN section.

SELECT/AUTO/PRE/POST Switch

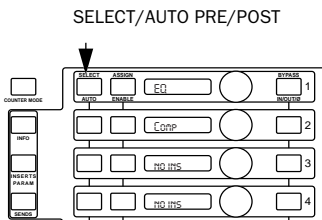
This switch row serves three functions:

In INSERTS mode

- The SELECT/AUTO switches allow you to select which of the currently displayed insert you want to view for editing.

In PARAMs (Plug-In Edit) mode:

- The SELECT/AUTO switch punches the current Plug-In parameter out of automation write during a Plug-In automation write pass, and shows automation record status. (Plug-In automation is explained in *Chapter 8: Mixing*.)



In SENDS mode

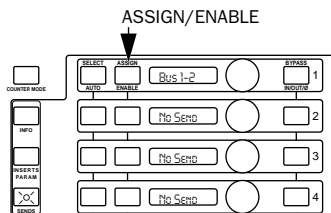
- The SELECT/ASSIGN switch toggles between pre- or post-fader routing for the associated send.

ASSIGN/ENABLE

The ASSIGN/ENABLE switches are located immediately to the left of each LED display. For each insert row, this switch will:

- ◆ Initiate and complete the assignment of a Plug-In or Send to an unused Insert, or the destination of the current send.
- or –
- ◆ Toggles automation enabling on/off. This shortcut is equivalent to choosing a Plug-In parameter for automation in the Pro Tools Plug-In automation dialog.

Instructions for these and all Plug-In/Send features begin with “Assigning Plug-Ins” on page 146.



BYPASS|IN/OUT/Ø/MUTE Switch

The BYPASS|IN/OUT/Ø/MUTE switches perform three functions depending on the current DSP EDIT/ASSIGN mode:

In INSERTS mode

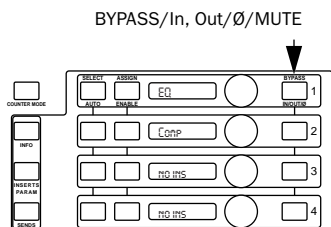
- ◆ Allows BYPASS of Plug-In inserts. (Hardware inserts can not be bypassed.)

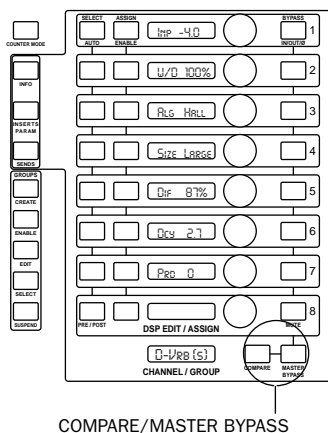
In PARAMs (Plug- In Edit) mode

- ◆ The function of any switch in the row is determined by the Plug-In itself. Any Plug-In that has switched parameters where there are two states to the control (such as on/off, in/out) will show up on this row of switches. Examples of switch functionality in this mode include filter band In/Out (as found in the Focusrite d2 or Digidesign EQs) and Plug-In Polarity (phase inverted or normal).

In SENDS mode

- Mutes the associated send.





COMPARE and MASTER BYPASS Switches

Below the DSP EDIT/ASSIGN section are the CHANNEL/GROUP display and switches. The two switches MASTER BYPASS and COMPARE are utilized with Plug-Ins as explained below.

COMPARE

While editing a Plug-In, this switch performs the same function as it does on-screen in Pro Tools. If the Plug-In settings have been edited the COMPARE switch acts as a “reset” switch, allowing you to toggle between the newly-edited parameter settings (the COMPARE LED is lit), and the previous parameter settings (LED is off).

To reset a Plug-In to its factory or user default settings:

- Press and hold down DEFAULT then press COMPARE.

Pro Tools then loads either the Factory or the User Default Setting for the current Plug-In, as determined by the current Plug-In preferences.

MASTER BYPASS

The switch has two functions, determined by the current INSERTS/PARAM mode status:

In INSERTS mode

◆ Acts as a MASTER BYPASS switch for all Plug-Ins on the CHANNEL/GROUP. (This matches the functionality of the Fader section’s BYPASS function on the INS/SEND switch row.) The MASTER BYPASS switch LED will flash if some Plug-In Inserts are bypassed, while others are not (a “mixed state”). In this case, pressing once on the MASTER BYPASS switch will un-bypass all Plug-In inserts; pressing it a second time will bypass all inserts.

In PARAMs mode

◆ Acts as a MASTER BYPASS switch for the currently edited Plug-In. (This matches the functionality of the TDM/Bypass control on the Plug-In itself.)

CHANNEL/GROUP Display

The CHANNEL/GROUP Display shows:

- ◆ the current channel name when working with inserts and sends,
- ◆ Plug-In name when editing a Plug-In,
 - or –
- ◆ Group Name when working with groups.

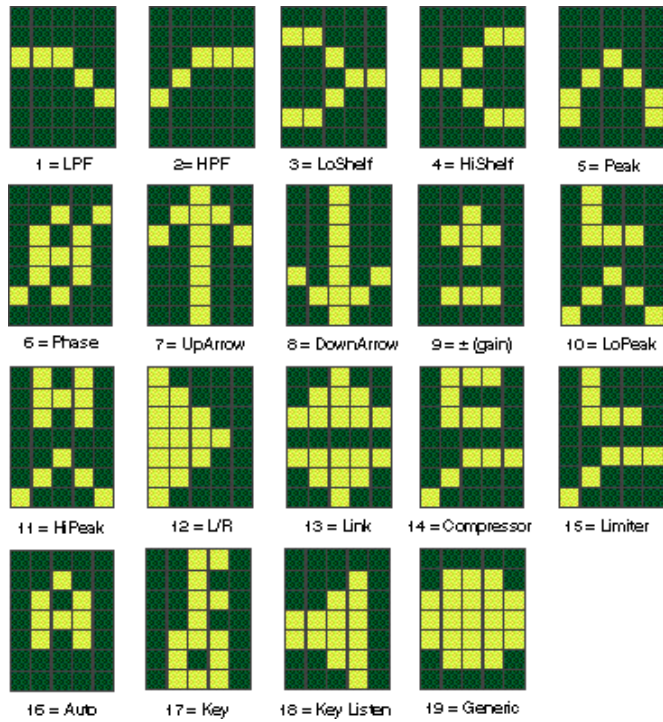
Custom Icons for Encoder Functions

In order to leave as much LED display as possible to show parameters and values while working in the DSP EDIT/ASSIGN section, a standard set of icons is used to indicate knob/switch function. These include EQ type, TDM Key input settings, Automation and phase parameters, and more.

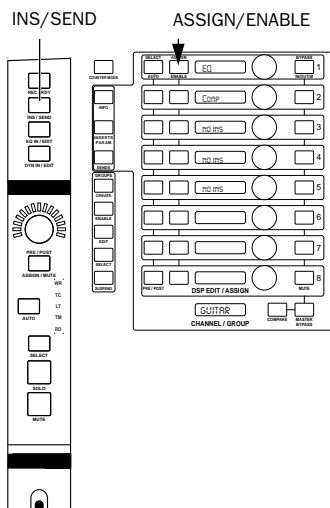
In order to show if a switch exists with a control, (in/out or on/off) a single pixel dot is shown in the upper right-hand corner of the 4th scribble strip character.

Parameter name can be temporarily “hidden” in order to display parameter value (such as dBu or Freq) to 8 characters in the LED displays by depressing OPT(ALT)ALL while rotating a DSP EDIT/ASSIGN knob.

The following chart of icons identifies their associated function:



Icons used in DSP EDIT/ASSIGN



Assigning Plug-Ins

To assign a Plug-In:

- 1** While Pro Tools is stopped, press a channel INS/SEND switch. The INS/SEND switch LED lights solid.
- 2** All current channel inserts are listed vertically down the first five DSP EDIT/ASSIGN LED displays, and the channel name appears in the CHANNEL/GROUP LED display. Flashing indicates whether an insert was the last (most recent) to be edited, otherwise the first (top most) insert will flash.
- 3** In the DSP EDIT/ASSIGN section, press the ASSIGN/ENABLE switch in the appropriate row (the one for the desired insert). The switch LED will flash red.
- 4** Rotate the corresponding Encoder to scroll through and select an available TDM Plug-In or hardware I/O insert.
- 5** To confirm your assignment and exit DSP ASSIGN mode, press the flashing ASSIGN/ENABLE switch in the DSP EDIT/ASSIGN section. This allows you to remain in Insert Assign mode to assign another insert right away.
 - or –

To confirm your assignment and go directly to edit mode for that insert, double-press the flashing ASSIGN/ENABLE switch.

- 6** To cancel, press ESCAPE.

* For another way to open Plug-Ins, see “Accessing Plug-In Editing Using the Channel INS/SEND Switch” on page 147.

Shortcuts

To assign the same Plug-In to all or all selected channels:

- 1** Press and hold the OPT(ALT)ALL switch, or OPT(ALT)ALL and SHIFT/ADD, while confirming the assigned insert to assign to all or all selected, respectively.
- 2** To confirm the multi-channel assignment, press the flashing ASSIGN/ENABLE switch. The Plug-In or hardware I/O pair is assigned across all currently selected channels. Press ESCAPE to cancel.

Plug-In Editing

Selecting Plug-Ins for Editing

Once Plug-Ins are inserted you can use a number of methods to open or display their controls, using the channel INS/SEND, EQ and DYN switches.

Accessing Plug-In Editing Using the Channel INS/SEND Switch

The channel INS/SEND, DYN and EQ switches can be used to begin the process of Plug-In editing.

To select a channel's Plug-Ins from the Fader section:

- Press a channel INS/SEND switch. The names of the five inserts for that channel appear on the first five DSP EDIT/ASSIGN LED displays. If an insert is blank (or, not assigned), it will display “No Insrt.” The name of the last insert edited during the current session will flash. If no insert on that channel has previously been accessed, insert 1 will flash. Plug-Ins which are “in” (engaged) are shown in lower case; Plug-Ins which are bypassed are shown in upper case.

To access an insert for editing, do any of the following:

- Press the appropriate SELECT/AUTO switch in the DSP/EDIT ASSIGN section (the one corresponding to the insert you want to edit).
 - or –
- Press the DSP EDIT/ASSIGN area's INSERTS/PARAM switch — this will open the flashing insert.
 - or –
- Press the PARAM/PAGES switch located in the STATUS cluster of switches located below the CHANNEL MATRIX. This also opens the flashing insert.

The first page of parameters for the selected Plug-In is displayed for editing, and the INSERTS/PARAM switch lights, indicating that the DSP EDIT/ASSIGN section is in “PARAM” view mode. The selected Plug-In will remain in place until another is selected.

Selecting an Insert by Double-Pressing

- ◆ Double-press an INS/SEND switch (pressing twice in quick succession). This will directly access a Plug-In for editing. The Plug-In selected will either be the first in the channel inserts, or the last-edited Plug-In.
- ◆ Double-pressing a channel INS/SEND switch multiple times cycles sequentially through the channel's current inserts (1-5).

Watch the CHANNEL/GROUP display to view the name of the Plug-In whose parameters are being displayed in the DSP EDIT/ASSIGN section. If an insert is unassigned, it will be skipped over. For example, if there is a Plug-In assigned to Insert 1 and Insert 3, but none on Insert 2, 4 or 5, double clicking on the INS/SEND switch will cycle between insert 1 and insert 3.

Plug-Ins which are live are shown in lower case; Plug-Ins which are bypassed are shown in upper case.

EQ and DYN

For additional Plug-In selection features, see “EQ and Dynamics” on page 153.

Plug-In Display

The first page of parameters for the selected Plug-In is displayed for editing, and the INSERTS/PARAM switch lights, indicating that the DSP EDIT/ASSIGN section is in “PARAM” view mode. The selected Plug-In will remain in place until another is selected.

Switching between Sends and Plug-Ins Views

- You can quickly move to view the current channel's Sends by pressing the master SENDS switch (in DSP EDIT/ASSIGN). To return to the current Plug-In page, press the INSERTS/PARAMS (or CHANNEL MATRIX PARAM/PAGES) switch again, and the previously-displayed Plug-In parameters will once again be available in the DSP EDIT/ASSIGN section (provided you did not switch modes while in SENDS view).

Parameter Name/Value and Value-Only View

The normal display of Plug-In parameters on the DSP EDIT/ASSIGN scribble strips (when in PARAM mode) is parameter name (three character abbreviation), space, then parameter values (to four characters) such as dB or frequency. You can momentarily change this display mode to instead show value-only (8 characters). This most often has the effect of including the unit name (dB, Hz) in the displayed value.

To display parameter-only view in the DSP EDIT/ASSIGN section:

- Press and hold OPT(ALT)ALL and rotate the encoder associated with the desired parameter. Once you start rotating the encoder, its current value will be displayed in as many as 8 characters. Releasing the CTL/CLUTCH switch returns the scribble strips to their previous display mode.

The CHANNEL MATRIX switches can be used to access the various Plug-In pages (see “Accessing Plug-In Pages” on page 155 for more information).

Bypassing Inserts

With ProControl you can:

- take advantage of all of Pro Tools standard Insert bypass features
 - and –
- use the MASTER BYPASS and BYPASS (IN/OUT/Ø) switches to gain additional levels of bypass control
 - and –
- use the channel INS/BYP switch to take inserts in/out right from the channel strip with one press.
 - and –
- use the EQ and DYN IN/EDIT controls in the Fader section for specialized access to these plug-in types.

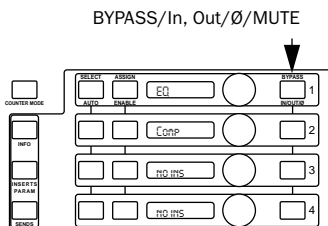
Which method you find most useful will vary depending on the current focus of your editing/mixing. This chapter explains how to use all the different methods available.

Bypassing One of a Channel's Inserts

The first bypass method is useful when you want to bypass a single Plug-In from among a channel's inserts (1-5). The DSP EDIT/ASSIGN section must be in INSERTS mode.

To bypass an individual insert:

- 1 Press a channel INS/SEND switch to display its inserts in the DSP EDIT/ASSIGN section.
- 2 Press the BYPASS/IN/OUT/Ø switch(es) in the appropriate insert's row. To bypass additional inserts, press additional BYPASS/IN switches. (This bypass technique can be automated. See *Chapter 8: Mixing* for full automation instructions.)



In PARAMS mode

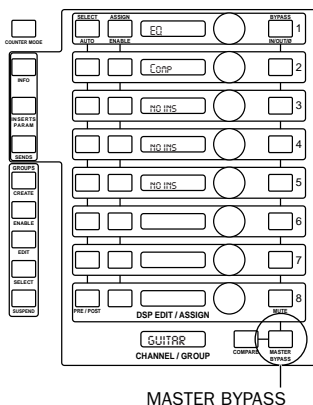
In this mode, the MASTER BYPASS switch bypasses the currently active Plug-In (the one displayed for editing in the DSP EDIT/ASSIGN section). The MASTER BYPASS switch provides constant access to the current Plug-In's main Bypass. This is a useful capability when working with Plug-Ins with special functions for the BYPASS/IN/OUT/Ø switch, such as Plug-Ins with individual parameter bypass options (you will learn about this in the upcoming section About BYPASS/IN/OUT/Ø and Plug-In Paging).

Bypassing All of a Channel's Inserts Simultaneously

You can also bypass all of a channel's inserts simultaneously and is useful for drastic "before and after" listening. This can be done to individual channels, selections of channels or all channels in the session using the techniques described below.

To bypass all inserts on a selected channel:

- 1 Press the INS/BYP switch (to the left of the INS/SEND row). It lights solid.
- 2 Press the INS/SEND switch on any channel to bypass all inserts on that channel. That channel's INS/SEND switch will light to indicate insert bypass mode.



To bypass all of a channel's Plug-Ins with MASTER BYPASS:

■ When the INSERTS/PARAM switch is set to INSERTS, it acts as a MASTER BYPASS switch for all Plug-Ins on the CHANNEL/GROUP. (This matches the functionality of the Fader section's BYPASS function on the INS/SEND switch row.) The MASTER BYPASS switch LED will flash if some Plug-In Inserts are bypassed, while others are not (a "mixed state"). In this case, pressing MASTER BYPASS once will un-bypass (enable) all Plug-In inserts; pressing it a second time will bypass all inserts.

All/All Selected Shortcuts

To change the state of all Plug-Ins on all or all selected channel strips:

- 1 Enable the INS/BYP switch to the left of the INS/SEND switch row in main fader section.
- 2 Press and hold OPT(ALT)ALL or OPT(ALT)ALL and SHIFT/ADD while pressing any INS/SEND switch to affect all or all selected channels, respectively.

* Only Plug-In inserts and Sends can be bypassed, not hardware I/O inserts. For instructions on send mute (bypass), see "Sends" on page 156.

Bypassing of "already-Bypassed" Inserts

While using ProControl's bypass features, bypass state is indicated in the following manner:

- ◆ If none of the Plug-Ins on the channel strip are currently bypassed, the INS/SEND switch LED will be unlit.
- If the channel strip is in a "mixed state" (that is, some Plug-Ins are bypassed while others are not), the INS/SEND switch LED will flash. In this case, pressing the INS/SEND switch for the first time will disable bypass on all Plug-Ins for the channel strip. Pressing a second time will then bypass all Plug-Ins. Note that this is the state that will result if EQ or Dynamics Plug-Ins are enabled via the EQ IN/EDIT or DYN IN/EDIT switches. (The EQ and DYN IN/EDIT switches are explained in "EQ and Dynamics" on page 153.)

About BYPASS/IN/OUT/Ø and Plug-In Paging

When in PARAM (Plug-In editing) mode, the BYPASS/IN/OUT/Ø switch's function will vary depending on the contents of the current Plug-In control page.

For example, one page of a Plug-In might contain the Plug-In main phase switch. This is often associated with the Plug-Ins input level controls. In this case, ProControl displays a single pixel dot in the upper right hand corner of its DSP EDIT/ASSIGN display to indicate that a *switched function* is available for the control. For example,

INPT° 0.0

On this page, BYPASS/IN/OUT Ø... functions in Ø (phase) mode, and toggle Plug-In phase. In an EQ Plug-In, the switch would control the current filter in/out status.

Checking Parameter Name and Value

Normally, the names and current state of this switch row are shown at left in the in the PARAMS view LED display (to show that a parameter is active/inactive). Since display space is limited, you can not view parameter names for these switched controls during normal operation. However, using the INFO switch, you can view the switch symbol, and the switch parameter value.

To view switch symbol and current state of switches in the BYPASS|IN/OUT/Ø row:

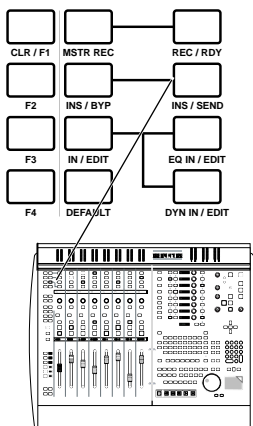
- Press and hold the INFO switch while in PARAMS view.

Using the Channel INS/BYP Switch

The INS/BYP switch globally changes the channel INS/SEND switches into Insert Bypass switches, providing another way to bypass all Plug-In inserts for the selected channel strip in a single operation.

To bypass all Plug-In inserts on a channel strip:

- 1 Press the INS/BYP switch, located next to the F3 switch. Its LED lights to indicate insert bypass mode is enabled.

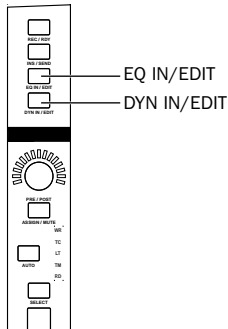


2 In this mode, the INS/SEND switches for each channel strip in the current bank displays one of three bypass states:

- INS/SEND switch LED is unlit – None of the Plug-In inserts on the channel strip are currently bypassed.
- INS/SEND switch LED is lit – All of the Plug-In inserts on the channel strip are bypassed, as a result of pressing the INS/SEND switch.
- INS/SEND switch LED flashes – The channel strip is in a “mixed bypass state,” meaning that only some of the Plug-In inserts on the channel strip are bypassed.

3 Press any INS/SEND switch to toggle bypass on/off for all Plug-In inserts on the corresponding channel strip.

When the channel strip is in a mixed bypass state, pressing the INS/SEND switch once will disable bypass mode on all Plug-In inserts for the channel; pressing the INS/SEND switch again will bypass all Plug-Ins.

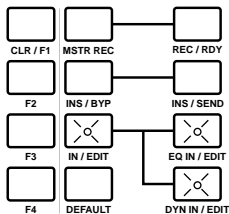


EQ and DYNAMics

The EQ and DYN switches, located near the top of each fader strip, provide dedicated access or bypass for EQ and Dynamics Plug-Ins. Pro Tools supports these switches by identifying EQ- or DYN- Plug-In by *type* and linking them to the EQ and DYN IN/EDIT switches.

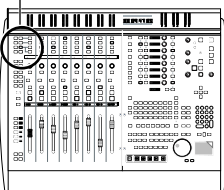
All Digidesign distributed EQ and Dynamics Plug-Ins, as well as those available from many of our third party developers, support this feature.

There are two rows of EQ/DYN switches in each channel fader strip. Controlling the function of these is the EQ and DYN IN/EDIT mode selector, located to the left of the leftmost EQ IN/EDIT switch.



IN/EDIT

The IN/EDIT switch toggles the channel EQ and DYN switches between IN and EDIT modes (EDIT is the default mode).



To set In/Out or Edit EQ/DYN mode:

- Press the IN/EDIT switch, located to the left of the EQ IN/EDIT switch row, until the desired state is shown: The switch will be lit (green) when in default EDIT mode, and will be unlit to indicate IN (bypass) mode.

In EQ/DYN EDIT mode:

- The EQ and/or DYN switches *accesses* the channel's EQ or dynamics Plug-In parameters. This is a keystroke-saving alternative to using the channel INS/SEND and DSP EDIT/AS-SIGN switches to select and open a Plug-In for editing.

To open a channel's first EQ or dynamics Plug-In for editing:

- Press the IN/EDIT switch until it is lit, signifying EDIT mode.

Press a channel EQ IN/EDIT or DYN IN/EDIT switch, as appropriate. The first page of the first EQ or dynamics Plug-in inserted on the selected channel will be displayed in the DSP EDIT/ASSIGN section, ready to be edited or automated. (Plug-In automation is explained in *Chapter 8: Mixing*.)

Visibility of Pro Tools Inserts/Sends Editor

Insert and Send parameters can still be edited in the DSP EDIT/ASSIGN section even if the Inserts/Sends Editor for the currently selected Plug-In is closed or hidden on-screen. This “edit focus” mode of operation allows for maximum editing speed on ProControl, avoiding the need for Pro Tools to continually redraw the Plug-In's interface on-screen.

In EQ/DYN IN (bypass) mode:

- The channel EQ IN/EDIT and DYN IN/EDIT switches *bypass* all supporting EQ or Dynamics Plug-Ins inserted in the currently selected channels. This one-press “master EQ/DYN bypass” switch is useful when you want to reference raw, pre-EQ (or pre-dynamics processing) tracks or inputs.

To determine the main mode for channel EQ and DYN IN/EDIT, use the master IN/EDIT switch as described below.

1 Make sure the IN/EDIT switch is off, signifying IN (bypass) mode.

2 Press a channel EQ IN/EDIT or DYN IN/EDIT switch, as appropriate. (EQ bypasses all EQ Plug-Ins, DYN bypasses all dynamics Plug-Ins.). If a channel EQ or DYN switch illuminates when IN mode is enabled, this indicates that an EQ or DYN Plug-In on that channel is already bypassed.

* Experiment with the various methods of bypassing and selecting inserts and insert parameters. With a small investment of time you will find the methods best suited to your needs.

Accessing Plug-In Pages

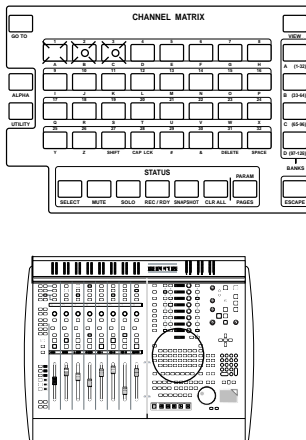
Using the INSERTS|PARAM Switch and CHANNEL MATRIX

When a Plug-In is brought into view for editing on the DSP EDIT/ASSIGN section, it will have one or more *pages* associated with it. Each page is made up of up to eight continuous controllers (the rotary encoders) and eight switched controls (the eight BYPASS/IN/OUT/Ø/MUTE switches). A complex Plug-In might have several pages.

Paging is managed using the CHANNEL MATRIX.

Whenever (and however) a Plug-In is accessed for parameter editing, the PARAM|PAGES switch (yellow LED) lights in the CHANNEL MATRIX STATUS section. While PARAM|PAGES is active, the primary CHANNEL MATRIX switches (1-32) indicate and select Plug-In pages. Each page will light its associated number in the Matrix, with the current page switch flashing.

For example, if there are four pages for the Plug-In, and page 2 is the current active page, then switches 1-4 in the CHANNEL MATRIX will be lit, with switch #2 flashing.



To access another Plug-In page using the CHANNEL MATRIX

- While a Plug-In is in edit mode, press any lit switch in the CHANNEL MATRIX. Its Matrix switch will flash, showing that it has become the active page choice.

(Check with the developer of your Plug-Ins to see if they are fully ProControl-aware, especially in regards to paging and the BYPASS/IN/OUT/Ø switch.)

Sends

Introduction to Send Options

There are two methods you can use to assign and view sends with ProControl, one initiated from the fader section, and one using the special SENDS controls of the DSP EDIT/AS-SIGN section.

You can use either method as the flow of your project demands.

Method 1: Assigning and Viewing Sends from the Fader section

From the Fader section, you can assign sends on a channel-by-channel basis using the SELECT/ASSIGN switches and channel rotary encoders. With this method, the focus is on a single send. For example, you can set the same Send routing for a selection of eight (or more) channels in order to buss them all to the same Aux Input or I/O effects loop.

Method 2: Assigning and Viewing Sends using the DSP EDIT/ASSIGN section

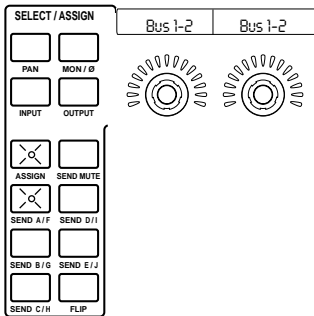
When you want to work with more than one send at a time on a channel, use the SENDS features in the DSP EDIT/AS-SIGN section. In this mode, the focus is on all five sends for a single channel.

For example, you can display and adjust the send level, pre/post status and/or mute for one, two, three, four or all five sends on any single channel. This can be useful when working with mixing stems through sends and managing multiple cue or effects mixes.

Choosing a Method

For access to a single send on any (or across all) channels, use the Fader section (method 1). For access to *all* sends on a *single* channel, use DSP EDIT/ASSIGN (method 2).

* See also the explanation of FLIP features in “Using the FLIP Switch” on page 160.



Method 1: Assigning Mono or Stereo Sends via the Fader Section

While working in the fader section, the SELECT/ASSIGN switches can be used to assign mono or stereo sends to the currently selected channels.

To assign mono or stereo sends to a channel or channels:

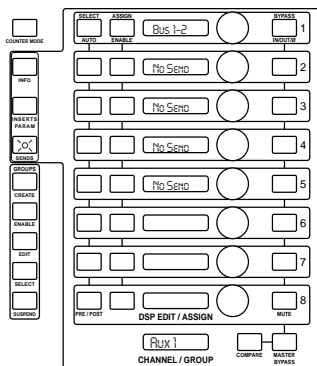
- 1 Press the master ASSIGN switch in the SELECT/ASSIGN switch section. It flashes to indicate ASSIGN mode.
- 2 Press the appropriate master SEND switch in the SELECT/ASSIGN section (SEND A/F-E/J) corresponding to the desired SEND.
- 3 Rotate a channel data encoder to scroll through the available SEND choices until the desired choice is displayed. When you scroll to the stereo send choices, the encoder display will flash. The channel's ASSIGN/MUTE switch will flash as soon as you rotate the encoder. (If you wish to cancel at this point, press the ESCAPE switch.)
- 4 With the desired send choice displayed in the channel strip display, press the flashing ASSIGN/MUTE switch to confirm your send assignment for that channel (or channels) and remain in Send Assign mode to assign other sends. To exit Send Assign mode, press the master ASSIGN switch.

Shortcuts

- To apply a send assignment to all or all selected channels, hold down OPT(ALT)ALL, or OPT(ALT)ALL + SHIFT/ADD, while selecting or confirming Send assignment using the rotary encoder, the master ASSIGN switch or channel ASSIGN/MUTE switch.

Method 2: Assigning Sends from the DSP EDIT/ASSIGN Section

With the DSP EDIT/ASSIGN section you can view, assign and edit all five sends on any channel strip at one time.



To assign a mono or stereo send via the DSP EDIT/ASSIGN section:

- 1 Press a channel INS/SEND switch. Channel name is displayed in the CHANNEL/GROUP display of the DSP EDIT/ASSIGN section.
- 2 Make sure SENDS mode is enabled in DSP EDIT/ASSIGN, if needed — channel sends are shown vertically (1-5).
- 3 Press the ASSIGN/ENABLE switch next to the send of interest. It flashes, indicating that assign mode is enabled.
- 4 Rotate the data encoder to scroll through the available send destination choices, which will be displayed in the display next to the encoder.
- 5 When the desired send choice is displayed, press the ASSIGN/ENABLE switch to confirm.

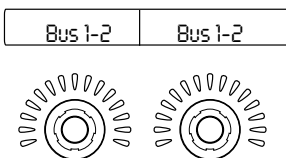
To toggle between channel Sends and Inserts/Params mode:

- Press the SENDS switch in the DSP EDIT/ASSIGN section to flip to that channel's SEND view. This is most useful when already editing and/or assigning Plug-Ins or other inserts for the channel, letting you quickly swap DSP EDIT/ASSIGN focus between sends and Plug-Ins.

Displaying Send Assignments

To display send names:

- Hold down any SEND switch (A-F, E-J). The encoder displays show current Send assignment for each banked channel.

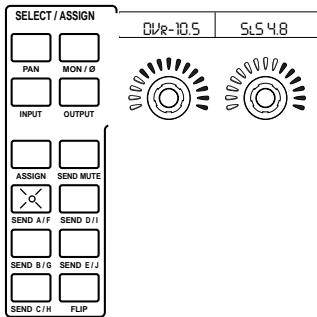


The send name ProControl displays is determined by Pro Tools I/O Labels settings and will match those listed in Pro Tools Sends selector menu.

Adjusting SEND Levels

You can adjust mono or stereo send level from either the channel data encoders or from the DSP EDIT/ASSIGN section. The only difference between these methods is your view of Send data. Channel-based send editing lets you view and adjust *one send* (A/F or D/I, or B/G, and so on) at a time across *all channels*. Using the DSP EDIT/ASSIGN encoders lets you instead view and adjust *all the sends* (A/F and D/J and B/G and so on) on any *one channel* at once.

FLIP mode provides additional ways to control sends and their parameters. (See “Using the FLIP Switch” on page 160 for instructions.)



To adjust send level from the Fader section:

- 1 Press a master SEND switch (A/F-E/J) in the SELECT/ASSIGN section. The data encoders display send name and level.
- 2 Rotate a data encoder to adjust send level.

To adjust send level from the DSP EDIT/ASSIGN section:

- 1 Select a channel for editing by pressing the channel INS/SEND switch.
- 2 Press SENDS in the DSP EDIT/ASSIGN section to place the DSP EDIT/ASSIGN section in SENDS view. The LEDs will list all five sends for the current channel.
- 3 Rotate a DSP EDIT/ASSIGN encoder to adjust the corresponding send level.
- 4 To switch to another channel for additional send editing, press the corresponding channel INS/SEND switch.

Display of Send Parameters

While working with sends, the channel and DSP EDIT/ASSIGN encoder LED displays indicate send information as follows:

Send Name

The left side of the display indicates the send name with a 3 character, abbreviated buss, I/O or other buss (from the Pro Tools Setups > Labels dialog).

Send Level

The right side of the 8-character display shows send level numerically with values ranging from OFF to +6. Negative values are indicated with a “-” sign, up to 5 characters (for example, “-10.5”).

If the send on a channel is unassigned (not routed to anything, and is inactive), the display will be blank, and no LEDs will be lit on the channel encoder’s LED ring. If an encoder is turned, the scribble strip display will briefly read “No Send.”

Using the FLIP Switch

Controlling Sends from the Faders

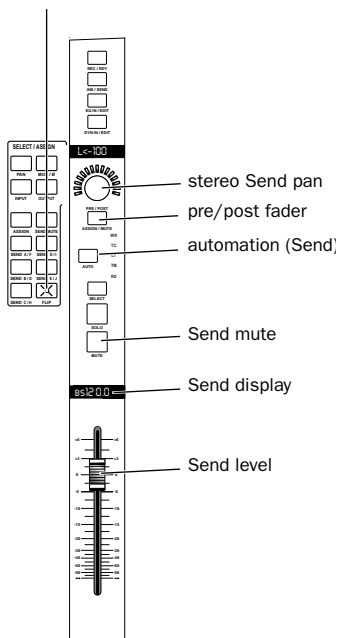
FLIP mode is an optimized mode for Send editing, switching much of the fader strips to send controls.

When FLIP mode is enabled:

- ◆ Channel faders: control send level. Touch-sensitive faders for adjusting and automating send level.
- ◆ Channel rotary encoders: control stereo send pan.
- ◆ Channel MUTE: toggles send mute.

Normally, the faders control channel volume, while the data encoders are used to adjust send level for a selected channel (or channels). However, by engaging the FLIP switch you can gain local or global full-fader control of send levels for automation recording or monitor mixing for cue/headphone mixes, stems or any sends-based submix.

FLIP mode enabled



FLIP Mode Basics

To enable FLIP mode:

- Press the FLIP switch in the SELECT/ASSIGN section. The switch LED (green) flashes, indicating that FLIP mode has been engaged. Both the PAN switch and the last active SEND switch (active prior to engaging FLIP) light solid.

To adjust send level from the DigiFaders in FLIP mode:

- Use the touch-sensitive DigiFaders to adjust send level. The fader displays will display the abbreviated name for the send on the left hand side followed by the send level (in dB).

To select another SEND to work on in FLIP mode:

Press the appropriate master SEND switch in the SELECT/ASSIGN section. If there are no active (selected) sends, FLIP defaults to Send A.

To check track name:

- Hold down the DISPLAY MODE switch. Release the switch to revert the scribble strip displays to the send name/send level view.

To mute a send in FLIP mode:

- Press the channel MUTE switch. (See “Muting Sends” on page 163 for additional information.)

To adjust (stereo) send pan while in FLIP mode:

- Use the channel data encoders to adjust stereo pan position for stereo sends. Left pan is selected first by default. Press the PAN switch to toggle the encoder to control right pan.

If the send is stereo, the channel encoder LED ring displays the relative position of the send pan control (defaults to left side PAN when FLIP is first entered). The encoder scribble strip displays “L <>” followed by the absolute pan position value (+100/-100). If a send on a channel is mono, the data encoders control nothing in FLIP mode.

To change Pre/Post status in FLIP mode:

- While in FLIP mode and Pro Tools is stopped, press PRE/POST|ASSIGN/MUTE. This toggles the current send pre- or post-fader.

Display of Pre/Post Fader Status in FLIP Mode

When the PRE/POST|ASSIGN/MUTE switch LED is off on a given channel, the send is Post fader and when the switch is pressed, (LED lit solid) the send is routed Pre fader. The labels “Pre” or “Post” will momentarily be displayed in the scribble strips above the channel faders when a PRE/POST state is altered.

The SEND/MUTE switch is off. This is because send mute control and display is through the channel MUTE switch while in FLIP mode, regardless of the pre-FLIP state,.

To exit FLIP mode:

- Press either the FLIP or the ESCAPE switch. Both return ProControl to the state it was in prior to entering FLIP mode.

* Expanded ProControl systems can take advantage of FLIP mode in Global and Local mode. See “Local and Global SELECT/ASSIGN control” on page 27.

FLIP Mode Applications

Cue/headphone mixes These are often built using one or more send busses. In practical use, especially during tracking, engineers must frequently switch back and forth between their control room mix and one or more (discrete) cue or headphone mixes to satisfy requests from talent during the recording process. By enabling FLIP mode for the cue mix send, levels in the headphones can be adjusted quickly using the faders. All FLIP mode controls are fully automatable for even greater control over submixes.

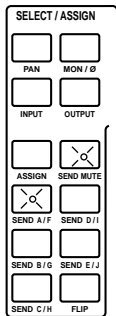
Stems These can be built using multiple send busses, aux inputs and Master Faders (see “About Surround Mode” on page 19 for examples). The channel send levels, which determine the mix heard in each stem buss, can be quickly set

from the faders using FLIP mode. Automation is greatly enhanced with the touch-sensitive faders controlling send level, and simultaneous access to (automatable) send mute and pan.

Shared Plug-Ins and external effects busses FLIP mode increases control over send level and (stereo) send pan. Together, the touch-sensitive faders, rotary encoders and (channel) send mute switch allow for greater subtlety and accuracy. Direct access to all these controls, and full automation, make FLIP mode an ideal environment for submixing.

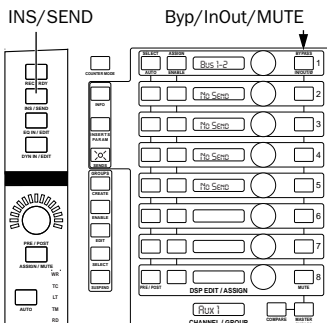
Muting Sends

You can mute sends from either the Fader or DSP EDIT/ASSIGN sections.



To mute a send in the Fader section:

- 1 Make sure the appropriate channels are banked into view on your ProControl Main or Fader Pack unit.
- 2 Select the send to-be-muted by pressing the corresponding master SEND switch (A/F-E/J) in the SELECT/ASSIGN section.
- 3 Press the SEND MUTE switch, located directly above the master SEND switches in the SELECT/ASSIGN section so that it lights solid. This puts the channel PRE/POST/ASSIGN/MUTE switch into SEND MUTE mode.
- 4 Press the channel ASSIGN/MUTE switch(es) to mute the selected send.



To mute a send in the DSP EDIT/ASSIGN section:

- 1 Press SENDS to enable sends mode.
- 2 Press a channel INS/SEND switch to display that channel's sends in the DSP EDIT/ASSIGN section.
- or –

Press the BYPASS/IN/OUT/Ø/MUTE switch corresponding to the send you want to mute.

Pre/Post Fader Send Status

To set pre/post send status from the Fader section:

- 1 Make sure playback is stopped.
- 2 Make sure ProControl is not in channel ASSIGN mode or SEND MUTE mode (ASSIGN or SEND MUTE should be off).
- 3 Select a send by pressing a master SEND switch (A/F-E/J).
- 4 Press a channel PRE/POST|ASSIGN/MUTE switch to change a post-fader send to pre-, and vice versa. When a send is set to pre-fader, PRE/POST/ASSIGN/MUTE switch lights (red).

Shortcuts

To change the pre-/post-fader status of a send on all or all selected channels:

- Hold down OPT(ALT)ALL, or OPT(ALT)ALL + SHIFT/ADD while pressing the channel ASSIGN/MUTE switch for all or all selected, respectively.

* See “Using the FLIP Switch” on page 160 for another technique for pre/post fader control.

To set pre/post send status from the DSP EDIT/ASSIGN section:

- 1 Place the DSP EDIT/ASSIGN section into SENDS mode.
- 2 Select the channel for send editing by pressing its INS/SEND switch in the upper part of the Fader section.
- 3 Press the SELECT/AUTO/PRE/POST switch in the appropriate send switch row in the DSP EDIT/ASSIGN section. The insert display will temporarily display the currently selected pre/post status.

SELECT/AUTO/PRE/POST indicates pre/post send status by being unlit for (default) post-fader sends, and lit (red) for pre-fader sends.

Viewing SEND Routing, Pre/Post and BYPASS/IN/OUT/Ø Status

To view full SEND routing information on all sends for a channel:

- Press and hold the INFO switch while in SENDS view.

The current routing of all currently active sends is displayed in their corresponding space in the DSP EDIT/ASSIGN LED displays (similar to the procedure of holding down master SEND switch in the fader section to view routing for a single send). If a send is inactive, the display will show “no send.” Release the INFO switch to return you to SENDS view.

To view SEND PRE/POST status on all active sends:

- Press and hold the INFO switch while in SENDS view, and then additionally press and hold any (SELECT/AUTO) PRE/POST switch.

The current pre/post status of all of active sends for the current channels are shown in their corresponding space in the LED displays. If a send is inactive, the display will be blank. Release the INFO switch to return to SENDS view.

To view a channel's Sends while editing a Plug-In:

- In INSERTS|PARAMS mode, press the SENDS switch in the DSP EDIT/ASSIGN section.

chapter 8

Mixing

Pro Tools is a powerful mix environment that offers many options for I/O, inserts, sends, Auxiliary Inputs, Master Faders and mix automation. ProControl provides extensive support for these and other mix-related tasks:

Signal Routing Setup and management is simplified through direct control of send parameters, internal/external busses, Auxiliary Inputs and Master Faders.

Mixing and Mix Automation Mixing capability is maximized with the touch-sensitive DigiFaders and other ProControl automation features.

It is important that you already understand these Pro Tools features and conventions. See the *Pro Tools Reference Guide* for details.

Signal Routing

Auxiliary Inputs

Pro Tools Auxiliary Inputs are used as bus and effects returns for both internally bussed signals and external sources.

To create an Aux Input:

- 1 Use the Trackpad to select File > New Track (in Pro Tools).
- 2 Use the New Track dialog to select Auxiliary Inputs and specify the number and type (Aux (stereo)) of tracks you want to create.

* For more detailed instructions on creating tracks, see *Chapter 4: Working with Tracks*.

To assign a channel input/output:

- 1 Press the master ASSIGN switch (SELECT/ASSIGN section).
- 2 Press either the INPUT or OUTPUT switch, depending on which you wish to assign.
- 3 Rotate an encoder until the desired input or output displays.
- 4 Press the channel ASSIGN/MUTE switch.

Shortcuts

To change the assignment of all or all selected channels

- ◆ Hold down OPT(ALT)ALL or SHIFT/ADD + OPT(ALT)ALL while pressing channel ASSIGN/MUTE or the master ASSIGN switch to assign to all or all selected, respectively.

During the assign process, up and until an assignment is committed, other controls on ProControl are active (such as faders).

Bussing Channels to an Aux Input

For internally bussed signals, assign mono or stereo sends on each channel and assign the sends to the correct send bus (this will be the same bus chosen as the input for the aux input channel). See “Sends” on page 156 for send assignment instructions.

To view input/output assignments

- Press and hold the INPUT or OUTPUT switch in the SELECT/ASSIGN section.

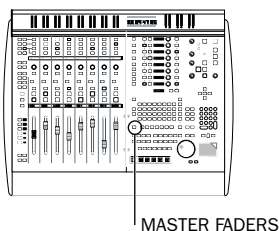
Refer to the *Pro Tools Reference Guide* for additional information on Auxiliary Inputs and other mixing basics.

MASTER FADERS

Using the MASTER FADERS Switch to “Go To” All Master Faders

It is common for a Pro Tools session to utilize multiple Master Faders, each controlling a different element of the mix.

To make it as easy as possible to work with multiple Master Faders, the MASTER FADERS switch instantly brings all mono and stereo Master Faders to the fader bank with a single button.



To call up all Master Faders with the MASTER FADERS switch:

- Press the MASTER FADERS switch, located below and to the left of the CHANNEL MATRIX.

All Master Faders in the current Pro Tools session (regardless of Show/Hide status) are displayed on the ProControl Main unit. Master Faders fill the Main Unit fader bank beginning from the right-most fader (closest to the Transport section).

Displaying and Navigating Master Faders

Stereo Master Fader level controls will be under a single ProControl fader.

The NUDGE switch will flash if there are more than eight Master Faders in the session. If necessary, press the right or left BANK SELECT buttons to bring up the next set of Master Faders.

To exit MASTER FADERS mode:

- Press the MASTER FADERS switch again. The faders will return to whatever state/display they were in prior to engaging MASTER FADERS mode.

Recording and Using Mix Automation

Pro Tools features dynamic automation of faders, pans, fader mutes, send levels, send mutes and Plug-In Parameters. MIDI volume and pan, as well as channel mute, can also be automated for additional mix capability. These are explained in detail in the *Pro Tools Reference Guide*.

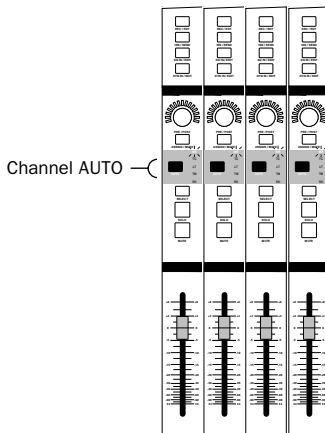
The sections that follow will explain how to take advantage of Pro Tools mix automation from ProControl.

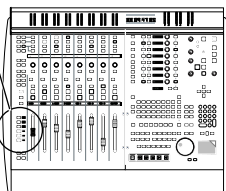
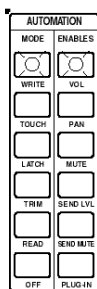
Automation Controls

ProControl replicates Pro Tools on-screen automation features, with both channel-based and session-wide automation controls.

Channel AUTO

The AUTO switches found in each ProControl channel strip select the current channel automation mode (Read, Write, Trim, Off, and so on). Current automation state is indicated using the LED labels to the right of each AUTO switch.





AUTOMATION MODE and ENABLE

The master AUTOMATION MODE switches augment the channel AUTO switch section, for selecting channel automation mode.

The AUTOMATION ENABLE switches provide session-wide control of Volume, Pan, Mute, Send Level and Mute, and Plug-In automation (see the explanation of Pro Tools Automation Enable window in the *Pro Tools Reference Guide*).

To assign an automation mode on individual channels within the same bank:

- Press the channel AUTO switch to toggle through the available automation modes.

– or –

- Hold down one of the master AUTOMATION/MODE switches (WRITE, TOUCH, LATCH, TRIM, READ or OFF), then press the channel AUTO switch.

Channel AUTO or AUTOMATION MODE method?

- ◆ The channel AUTO switch is useful to set most automation modes for individual channels within the same bank. It lets you change a channel automation from Read to any write mode when playback is stopped, and lets you punch out of automation recording at any time.
- ◆ The SELECT switch method is fastest for setting the automation mode on selections of channel strips, or groups of channels that are on different banks.

Enabling TRIM Mode

Trim is a special mode for the three write modes (Write, Touch and Latch). It is toggled on/off separately from other automation mode operations. See “TRIM Automation Mode” on page 182.

To enable TRIM mode:

- 1 Hold down TRIM in AUTOMATION/ENABLE, then press a channel AUTO switch. This enables TRIM mode on that channel.
- 2 Now select a specific TRIM mode (Write, Touch or Latch). Use the channel AUTO switch or a combination of AUTOMATION MODE WRITE/TOUCH/LATCH and the channel AUTO switch as described in the previous steps.

You can also hold down both TRIM and either WRITE, TOUCH or LATCH in the automation mode section, then press a channel AUTO switch to enable the corresponding Trim mode on the channel.

For additional information on using Trim with ProControl, see “TRIM Automation Mode” on page 182. Refer to the *Pro Tools Reference Guide* for information about TRIM/WRITE, TRIM TOUCH and TRIM LATCH modes.

▲ Pro Tools allows you to change from any write mode to read mode during playback, but not from read to write.

Shortcuts

- Hold down OPT(ALT)ALL, or OPT(ALT)ALL + SHIFT/ADD, then press the master AUTOMATION/MODE switch to assign to all or all selected channels, respectively.

Automation Mode Color Display

The channel AUTO switch LEDs illuminate in the following ways to indicate the various automation modes:

- Yellow: Pro Tools is writing TRIM automation.
- Red (flashing): Pro Tools is armed for automation in Write, Touch, or Latch.
- Red (lit continuously): Pro Tools is writing Write, Touch, or Latch automation.
- Green (lit continuously): Auto Read mode is enabled.
- Off: Automation playback is suspended.

About Groups and Automation Mode Assignment

As in Pro Tools, groups follow automation mode-assignment.

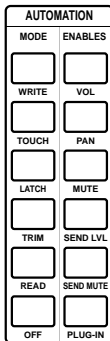
To suppress Group behavior during automation assignment or editing:

- Suspend all groups by pressing the SUSPEND switch (in the GROUPS section).

Enabling and Suspending Automation

ProControl AUTOMATION/ENABLE switches, located to the left of the channel faders, are identical to those found in the Pro Tools Automation Enabled window. They allow automation writing and recording to be suspended on a per-parameter basis.

In addition, the AUTO SUSPEND switch lets you instantly suspend all automation recording on all tracks. These features are essential when editing automation, and many find them especially useful when working with the motorized faders.



Enabling and Suspending Automation Types

To enable (or suspend) volume, pan, mute, send level, send mute or Plug-In automation:

- Press the appropriate switch in the AUTOMATION/ENABLE switch section.

Shortcuts

- Hold OPT(ALT)ALL and press an AUTOMATION ENABLE switch to toggle all automation types on/off.

AUTO SUSPEND

This switch is located directly to the left of the MUTE switch row. The AUTO SUSPEND switch globally suspends record and playback of *all* automation parameters on all channel strips. All channels are left in their present mode, but automation operations are temporarily suspended. This lets you experiment or rehearse automation moves with faders or other controls while ignoring existing fader automation data.

To suspend or enable all automation data on all tracks:

- While Pro Tools is stopped, press AUTO SUSPEND (to the left of the channel MUTEs). The AUTO SUSPEND switch will flash while automation is suspended. Press AUTO SUSPEND again to re-enable automation.

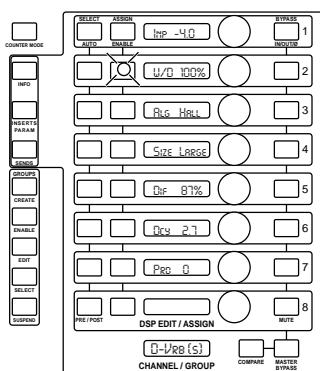
Arming/Disarming Plug-In Parameter Automation

In Plug-In parameters must be individually enabled for automation recording by selecting each from within the Plug-In Automation window.

ProControl allows direct and immediate access to Plug-In automation enabling in the DSP EDIT/ASSIGN section.

To enable automation for any parameter:

- 1** Use the channel INS/SEND, EQ/DYN and/or DSP EDIT/ASSIGN controls to select a Plug-In insert for automation.
- 2** Display the appropriate page of parameters in the DSP EDIT/ASSIGN section. (See “Accessing Plug-In Editing Using the Channel INS/SEND Switch” on page 147.)
- 3** Press the ASSIGN/ENABLE switch for the desired encoder/parameter to enable it for automation. The switch lights, and the LED display to its right briefly reads AUTO ON.
- 4** Select an automation mode for the appropriate channel (the SELECT/AUTO switch LED will flash to indicate automation arming).



To disable a Plug-In parameter from automation:

- Press the ASSIGN/ENABLE switch again. The display briefly reads “AUTO OFF” and then times out. Also, the ASSIGN/ENABLE and SELECT/AUTO switch LEDs extinguish.

Check for any on-screen warning when disabling automation. Refer to the *Pro Tools Reference Guide* if you need more information.

Automation and Switched (Discrete) Controls

Master Bypass and other On/Off, In/Out

These discrete controls can also be automated. Discrete controls include any non-fader or rotary control, such as in/out and on/off switches,

To arm or disarm discrete controls:

- Hold down OPT(ALT)ALL switch, then press ASSIGN/ENABLE for the parameter you want to arm. The LED display to its right briefly reads “AUTO ON” or “AUTO OFF” and then times out back to what it was showing previously.

To arm/disarm MASTER BYPASS:

- Hold down OPT(ALT)ALL, then press MASTER BYPASS. The CHANNEL/GROUP display will briefly display MSTR ON or OFF status.

About Automating Switched Controls

(Mutes, Plug-In Bypass, etc)

When automating switch controls (or, non-fader controls), Pro Tools will write automation for as long as the switch/button is depressed.

For example, let’s assume that you have just written a series of mute on/off states in quick succession on a channel, but after listening back you decide you don’t like the automation and want to erase the previously recorded mute automation data.

With Pro Tools, you have the option of using the Write to End command. With this command and/or the Write to

Start and Write to All commands, you can quickly apply automation parameter values to an entire selection/track. See the *Pro Tools Reference Guide* for more information on these commands.

Displaying Automation Breakpoints in the Edit Window

Pro Tools creates a separate Playlist for each type of automation you record (volume, pan, mutes and so on). This data can be viewed and edited using a combination of modifier keys and the Trackpad/mouse.

To show automation data using the keyboard shortcut:

- 1** Hold down ⌘ (CTL) and CTL/CLUTCH.
- 2** Use the Trackpad or mouse to click any channel automatable control on-screen in Pro Tools: volume fader or display, pan control or display, send level or mute, or any automation enabled Plug-In parameter).

The Edit window track displays the automation data for the parameter you clicked.

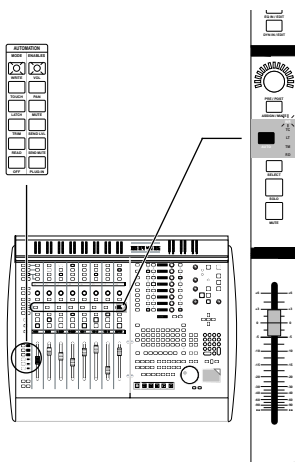
– or –

To show automation data using the Track Display Format selector:

- Use the Trackpad to select a format from the Track Display Format selector (in the track controls of the Edit window).

The channel data display changes to the format you have chosen.

Recording Volume, Pan, or Mute Automation



To record automation on a track:

- 1 Use the AUTOMATION ENABLE switches to make sure that VOLUME, PAN and/or MUTE automation is globally record-enabled.
- 2 Set the desired automation mode for the channel or channels you wish to automate — press channel AUTO to cycle through modes, or hold down a master AUTOMATION MODE switch and press channel AUTO.

* Pro Tools 5.0 and higher support volume, pan and mute automation of MIDI Channels, just like with audio tracks. Refer to the *Pro Tools Reference Guide* for details on this feature.

- 3 To begin automation recording, press PLAY.
- 4 Adjust faders, pans or mute switches on the channels armed for automation recording.

If you want to add additional automation or augment your previous pass, follow the previous procedure but select Auto Touch or Auto Latch modes. These allow you to add new automation only when you actually move a fader.

For additional automation editing options, see “TRIM Automation Mode” on page 182.

Automating Send Level, Send Mute and Stereo Send Pan

ProControl lets you dynamically automate send levels/mutes and (stereo) send pan using either the channel data encoders, the DSP EDIT/ASSIGN section, or the channel faders (with the FLIP switch). Each of these methods is explained in the following sections.

To automate a send level from the Fader or DSP EDIT/ASSIGN section:

- 1 Make sure that SEND LVL is engaged in the AUTOMATION/ENABLE switch section.
- 2 Set the automation mode (Touch, Write or Latch) for the channel containing the send you wish to automate.

- 3** Display the appropriate SEND LEVEL control:
 - In the Fader section, press the master SEND switches A/F-E/J. In this mode, the data encoder can be used to enter and record send level automation data.
 - or –
 - If you prefer working in the DSP EDIT/ASSIGN section, make sure the desired channel sends are displayed in the DSP EDIT/ASSIGN displays. In this mode, the encoders in the DSP EDIT/ASSIGN section control send level and can be used to enter and record automation data.
- 4** Press PLAY. Automation recording begins.
- 5** Rotate the data encoder (channel or DSP EDIT/ASSIGN, depending on which method you are using) or move the appropriate channel fader (if in FLIP mode) as desired.

* FLIP mode provides another way to automate send level. See “FLIP mode” on page 178 for more information.

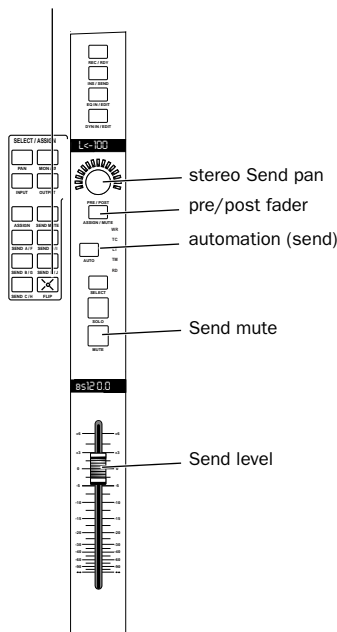
To automate Send Mute:

- 1** Make sure SEND MUTE automation is enabled.
- 2** Select a SEND in SELECT/ASSIGN, then press the master SEND MUTE switch (this places the channel PRE/POST/ASSIGN/MUTE switch into send MUTE mode).
- 3** Arm the channel for automation recording and press PLAY. Automation recording begins.
- 4** Use the channel PRE/POST/ASSIGN/MUTE switch to mute sends.

If you are working in FLIP mode, use the channel MUTE switch to mute sends.

* FLIP mode provides another way to automate send mute. See “FLIP mode” on page 178 for more information.

FLIP mode enabled



FLIP mode

The FLIP switch, located directly under the SEND E/J switch, remaps Send controls to the Fader strips:

Send level This can be adjusted and automated using the touch-sensitive, high-resolution DigiFaders

Send Pan For stereo sends, pan can be adjusted and automated using the channel data encoders.

Send Mute This can be adjusted and automated using the channel MUTE switches.

Not only does this functionality provide an easy and intuitive method for setting up and adjusting musician cue mixes (as just one example) but it also allows you to record Send level automation data with the touch-sensitive DigiFader controls.

FLIP mode follows local/global configuration (See *Appendix A: UTILITY Settings* for instructions on configuring Local and Global mode.)

Display of Send Parameters in FLIP Mode

In FLIP mode, the channel data encoders display pan position for stereo sends. The scribble strip above the encoder will show “L<>” followed by the absolute pan position value, indicating that the pan position can be adjusted with the encoder.

To use FLIP mode to automate Send Level, Send Pan or Send Mute:

- 1 Press the FLIP switch in the SELECT/ASSIGN section. The switch’s green LED flashes. Both the PAN switch LED and the last active SEND switch (active prior to engaging FLIP mode) will illuminate. The fader scribble strips display the abbreviated send name, followed by the send level in dB.
- 2 Enable an automation type (use the AUTOMATION/ENABLE switches).
- 3 Enable the desired channel automation mode using the channel AUTO switch, or using the AUTOMATION/MODE + AUTO switches.

- 4 With automation enabled and the track in the correct automation record mode, press PLAY. Automation recording begins.
- 5 Adjust current send level with the faders
- 6 Use the channel rotary encoders to adjust send pan.
- 7 Use the channel MUTE switch to adjust send pan.

Automating Plug-Ins

Pro Tools and ProControl let you create dynamic automation for virtually all parameters of any Plug-In

Display of Plug-Ins and Plug-In Pages

Since some of the DSP Plug-Ins have more controls than ProControl has physical faders and knobs, these Plug-Ins are controlled through a collection of control “pages.” ProControl first defines a “page size” based on its number of physical controls, and then the DSP Plug-In controls are grouped accordingly into pages of this size. ProControl pages through the total number of controls in groups of eight (eight rows of controls in the DSP EDIT/ASSIGN section).

For example, if you are controlling a Plug-In with 20 controls, then there are three or more pages of controller assignments, depending on how the controls have been arranged on the various Plug-In pages.

For practicality, there may be Plug-In pages that contain “blank” locations where a given control is not active.

To select a different Plug-In page:

- 1 Select and display a Plug-In in the DSP EDIT/ASSIGN section.
- 2 Press a lit switch in the CHANNEL MATRIX (one primary switch (1/A, 2/B...) will be lit for each page available with the current Plug-In).

On-screen, the Plug-In parameters currently under the control of the DSP EDIT/ASSIGN controls will be highlighted blue.

To record dynamic automation of a Plug-In:

- 1** Make sure that Plug-In automation is enabled in the AUTOMATION/ENABLE switch section.
- 2** Set the appropriate channel to the desired automation mode (Write, Touch, Latch, Trim, etc.)
- 3** Press a channel INS/SEND switch. This displays the current Inserts/Sends for the channel in the DSP EDIT/ASSIGN displays.
- 4** Select the Plug-In you wish to automate by pressing the corresponding SELECT/AUTO switch. To access another page, press any lit CHANNEL MATRIX switch (1-32). To arm or disarm the MASTER BYPASS function for automation, press OPT(ALT)ALL > MASTER BYPASS.
- 5** With the desired automation parameter displayed in the DSP EDIT/ASSIGN displays, press the corresponding ASSIGN/ENABLE switch. The display temporarily displays AUTO ON and the ASSIGN/ENABLE switch illuminates. If the channel is already armed for automation recording, the SELECT/AUTO switch will begin to flash.
- 6** Press PLAY. Automation recording begins.
- 7** Rotate the parameter encoder in the DSP EDIT/ASSIGN section. The SELECT/AUTO switch indicates that the encoder has been touched and is recording automation. Following all Pro Tools settings for touch time-out and thinning, automation will be recorded to the Plug-In automation playlist.
- 8** You can punch-out of automation recording at any time by pressing the appropriate SELECT/AUTO switch. For more information on punching out of automation recording, refer to the next section.

Punching out of Automation Recording

You can punch out of automation recording at any time.

To punch out of any automation recording pass:

- Press the channel AUTO switch. Automation recording will be disengaged.

To punch out of automation recording of a Plug-In parameter:

- Press the appropriate SELECT/AUTO switch in the DSP EDIT/ASSIGN section.

Pro Tools Color Display of Parameters/Channels

If a Plug-In control is in a recordable automation mode (WRITE, LATCH, or TOUCH) it will be highlighted in red, otherwise it will be highlighted on-screen in yellow.

If a Plug-In control is in automation READ mode, it will be highlighted on-screen in blue.

If a Plug-In control is in automation OFF mode, it will be highlighted on-screen in blue.

An Important Note About Third-Party Plug-Ins

Third-party TDM Plug-Ins from some of Digidesign's Development Partners may need to be updated for compatibility with new dynamic automation capabilities, as well as controller-based Plug-In editing and librarian functionality. Plug-In control paging behavior is determined by the Plug-In developer, and not by the Pro Tools application. Contact the manufacturer of your Plug-Ins for information about the latest versions, and what to expect in terms of ProControl support.

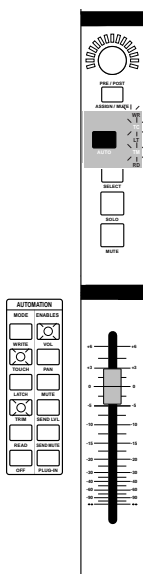
Editing Automation

Read, Trim, Latch/Touch/Write Modes

Almost all types of automation data can be edited in any of several ways. You can:

- record new automation data to any parameter, either into a new automation playlist (a new take) or just overwriting the previous take.
- manually adjust automation breakpoints on-screen in Pro Tools Edit window. You can use the Trackpad to do this. The Grab, Select and Trim tools provide precise and convenient automation editing options.
- utilize Automation Trim mode to raise or lower the mix level moves made within an existing automation pass.

Write, Touch and Latch, and manual/breakpoint editing with ProControl is explained in “Recording and Using Mix Automation” on page 169.



TRIM Automation Mode

TRIM is a special automation mode that allows previous automation moves to be retained in a track volume or send level playlist while increasing or decreasing overall level changes to the playlist. Refer to the *Pro Tools Reference Guide* for more information.

To enter TRIM mode from ProControl:

- 1** While the transport is stopped, press and hold the TRIM switch located in the AUTOMATION Mode/Enable section on the ProControl Main unit
- 2** Press the AUTO switch for each automation-enabled channel to edit in TRIM mode. This is the only way you can engage TRIM mode (you can't enable it using the channel AUTO switch alone, as you can with Write, Touch, Latch and Read modes). When TRIM automation is enabled on a channel strip, the channel fader and send view fader caps turn yellow on-screen in Pro Tools Mix window.
- 3** Press and hold the desired automation mode switch (WRITE, TOUCH, LATCH or READ (“rehearse TRIM”)) and select the channel or channels which will be placed into

one of the automation ready modes. Alternately, “toggle” the automation modes on any given channel by repeatedly pressing the AUTO switch until the desired automation mode has been set.

4 Set the DISPLAY MODE on the channel scribble strips to view channel name/level.

In this mode, whenever TRIM mode is invoked, the Δ symbol is displayed on the channel scribble strips as soon as you touch the fader in TOUCH, LATCH, or READ TRIM. In WRITE TRIM, the delta symbol is always on, since the fader is assumed to be touched at start (pre-set to zero level). (This symbol is always visible in Pro Tools during TRIM states in the volume numerical display.)

5 Press PLAY. Automation TRIM mode begins, and TRIM automation values may be written to data.

6 To trim channel volume, adjust the channel fader. To trim send level, adjust the data encoder. If in FLIP mode trim the send level values (only) with the faders (send pan is not automatable).

- TOUCH and LATCH moves made in conjunction with TRIM operate as they normally do in regards to when recording begins and when it ends (with the obvious exception that the moves “trim” existing automation data rather than overwrite it). WRITE/TRIM behaves somewhat differently, as explained in “About WRITE/TRIM Automation Behavior” on page 184.
- TRIM/READ mode operates identically to TOUCH and LATCH modes except that in READ mode, delta moves are NOT recorded to data. This feature is a great way to experiment and rehearse TRIM moves without writing values to the mix data.

7 When finished with an automation Trim pass, use any of the standard methods for stopping automation recording; either press STOP or punch out of record with the AUTO switches (See “Punching out of Automation Recording” on page 181.)

8 To exit TRIM mode entirely, press and hold the TRIM switch, then press the appropriate channel AUTO switches.

▲ TRIM automation is available only on fader and send level automation. It is NOT available for items such as MUTES, SEND MUTES or Plug-In controls.

About WRITE/TRIM Automation Behavior

In a WRITE/TRIM automation record pass, Pro Tools will snap the faders to the unity (zero) position on the fader scale (on both ProControl and on-screen) before the automation record pass begins. This allows you to simply move the fader above unity to add level or below the mark to decrease delta trim values in a WRITE/TRIM pass. This acts as a “motor-off” trim which simply means that the fader does not follow existing automation data and does not write trim values until you physically adjust the fader.

To utilize WRITE/TRIM mode:

- 1** While the transport is stopped, press and hold the TRIM switch, then press the AUTO switch for the channel you want to engage TRIM mode on.
- 2** Press and hold the WRITE switch (in the AUTOMATION/MODE section) and select the channel or channels that will be placed into WRITE automation ready mode. The faders and/or send level indicators on all armed channels snap to the unity (zero) position on the fader/send scale.
- 3** Press PLAY and begin writing WRITE/TRIM data. Moves made above the unity mark increase the level while an adjustment below unity decreases the level.
- 4** To stop the automation pass either press STOP or, to punch a channel or selection of channels out of automation recording, use the channel AUTO switch(es).
- 5** To exit TRIM mode entirely, press and hold the TRIM switch, then press the appropriate channel AUTO switches.

Write to Start/End/All

When recording or trimming automation levels it is often desirable to write your current setting to an entire selection/track, all the way back to the beginning or to the end of an entire selection or track. ProControl lets you do this with any automation setting or Trim value. Write to Start/End/All are available in all automation recording modes including Write, Touch and Latch, as well as Trim mode.

When using Write to Start/End/All function, keep in mind that every enabled automation parameter will be affected, not just fader level. For example, let's assume you have Plug-In automation on a channel, and the master Plug-In automation switch is enabled. If you choose to write volume to end, all the Plug-In automation past that point will be removed. For this reason, use these functions with caution. Be sure to disable the master automation mode switches that do not apply to the task at hand.

Write to Start

You can write any current automation value or trim value back to the beginning of a selected region or to the beginning of the track during an automation record or Trim pass.

To write a new or trim value to the start of a track or selection.

- 1** Enable a TRIM mode using the method explained in the previous section "TRIM Automation Mode" on page 182.
- 2** Be sure the channel is in the desired automation mode, and that the desired automation parameters are enabled in the AUTOMATION/ENABLES section.
- 3** Begin automation recording and adjust parameters as needed.
- 4** While still playing back during or immediately after making your adjustments, press and hold the CTL/CLUTCH switch and then press the RTZ switch. This switch is located immediately to the right of the ON-LINE switch in the transport section.

The transport will automatically be stopped and the last level value recorded in this automation mode will be the

new (or Trim) value written back to the beginning of the selected region or track. A dialog will be posted in Pro Tools warning you that this operation has taken place, and give you the option to cancel this process. You can suppress the appearance of this warning dialog by pressing and holding the OPT(ALT)ALL switch prior to engaging the Write to Start feature.

Write to End

You can write a current absolute or trim value to the end of a selected region or to the beginning of the track during an automation record and TRIM pass.

To write a new of Trim value to End:

- 1** Enable a TRIM mode using the method explained in the previous section “TRIM Automation Mode” on page 182.
- 2** Be sure the channel is in the desired automation mode, and that the desired automation parameters are enabled in the AUTOMATION/ENABLES section.
- 3** Begin automation recording and adjust parameters as needed.
- 4** While still playing back during or immediately after making your adjustments, press and hold CTL/CLUTCH and then press the “go to end” switch.

The transport will stop and the last value recorded in this automation mode will be written to the end of the selected region or track. A dialog appears warning you that this operation has taken place and lets you abort the process.

* You can suppress the above mentioned warning dialogs by pressing and holding the OPT(ALT)ALL switch prior to engaging the WRITE TO Start/End feature.

Write to All

You can write a current absolute or trim value across an entire selection/region/track.

To write a new or Trim value to ALL:

- 1** Enable a TRIM mode using the method explained in the previous section “TRIM Automation Mode” on page 182.
- 2** Be sure the channel is in the desired automation mode, and that the desired automation parameters are enabled in the AUTOMATION/ENABLES section.
- 3** Begin automation recording and adjust parameters as needed.
- 4** While still playing back during or immediately after making your adjustments, press and hold CTL/CLUTCH and SHIFT/ADD
- 5** Press the “go to end” or RTZ switch. Playback stops and the last level value recorded in this automation mode will be the TRIM delta value written to the entire selected region or track.

About other Mixing Functions: “Snapshot” Automation, Erasing/Thinning Automation, Bounce to Disk, etc.

Using the Trackpad, you can apply any and all of Pro Tools mix features directly from ProControl. All the same conventions, rules and limits apply whether applying snapshot automation from Pro Tools or with ProControl.

Like snapshot automation, you can erase and thin automation data using the Trackpad. Refer to the *Pro Tools Reference Guide* for details.

Advanced Applications

Because ProControl puts so much at your fingertips at once, mixing can become more spontaneous. Here are a few topics that might be of interest to you if you are new to Pro Tools and ProControl.

Basics of effective session setup

Pro Tools is so flexible that many people come up with their own particular arrangement of tracks, channels, and so on. Organizing your mixer usually is a constant work-in-progress, especially if you find yourself doing more than one type of project (a demo for a band, then a few more loops for your next sample CD). Each project will define its own mixer requirements and grow naturally as you work, but the following are descriptions of mixer layouts for both a post and music session.

Utilize Pro Tools I/O Labels

Update Pro Tools I/O Labels for your ProControl system. Doing this for your cue mix channels is one example of where I/O Labels can simplify things. If you're working in surround mode rename the mono send for the center channel to "Center," the subwoofer channel to "boom," and so on.

Setting up a music session

While this chapter only described ProControl-specific mixing/mix automation features, don't overlook the variations possible through track groups, Auxiliary Inputs and Master Faders. Use the GO TO and VIEW switches for easy session navigation. Or, arrange tracks so that you can BANK SELECT to, let's say, all your keyboard tracks, another bank is all eight drum tracks, another is all percussion, while another is group masters of stereo drums, stereo percussion, stereo keyboards, bass, and so on.

Setting up a post mix

Group channels by stem and set each channel output accordingly. Use Master Faders, auxiliary returns and/or channel groups for control of all stem output levels from a single bank (Master Faders actually have this capability by default with the MASTER FADERS switch).

Use Session Templates

By saving a session as a session template, you can instantly restore the layout and arrangement of any session (the SoundCheck and various Calibration Mode session templates are good examples). Any complex bank/channel setups should be saved using Pro Tools Save As command to create what will become the template. Refer to the *Pro Tools Reference Guide* for more information on how to use session templates on Macintosh and Windows.

appendix a

UTILITY Settings

UTILITY

Customizing ProControl Preferences

UTILITY lets you customize ProControl options, perform diagnostic tests on components, and recalibrate various features.

Each ProControl unit (Main or Fader Pack) provides its own remote UTILITY mode for further customization and diagnostics.

UTILITY Mode Basics

To access UTILITY mode on a Main Unit:

- Press the UTILITY switch (to the left of the CHANNEL MATRIX. The DSP EDIT/ASSIGN area displays the following:

```
SYSTEM
MONITOR
TEST
RESET
PREFS
<BLANK>
ESCAPE
```

To access remote UTILITY mode from a Fader Pack:

- 1 Press and hold SHIFT/ADD + OPT (ALT) ALL, then press the F4 switch.
- 2 The scribble strips in the Fader Section (located above the channel encoders) will display the following choices:

```
SYSTEM |NAME |TEST |RESET |PREFS ||ES-
|CAPE|
```

To exit UTILITY mode:

- Press UTILITY (Main Unit), or choose ESCAPE (Fader Pack).

Distinction between ESCAPE and UTILITY after Editing UTILITY Settings

Both the ESCAPE and UTILITY switches can be used when editing UTILITY mode options.

You can exit UTILITY mode at any time by pressing the flashing ESCAPE switch at the bottom of the DSP EDIT/ASSIGN section. This takes you to the previous UTILITY menu, so it is useful when you want to go to other UTILITY menus for further editing.

To exit UTILITY mode entirely, press the flashing UTILITY switch. Use this method when you are finished changing UTILITY settings.

Reset and UNDO

Changes to UTILITY parameters are applied as you make them. In other words, you cannot ESCAPE out of UTILITY mode without saving any changes you have made — they are saved as soon as a new parameter is selected. To reset a UTILITY parameter you must manually access and reset the option.

Display of UTILITY status

UTILITY mode choices and settings are displayed in the DSP EDIT/ASSIGN and Channel scribble strip displays.

When editing parameter choices on the UTILITY pages, menu choices which are currently enabled, or active, are indicated by a lit switch LED. Other available choices are shown with a flashing ASSIGN/ENABLE switch LED.

To select/edit a UTILITY parameter:

- Press the flashing ASSIGN/ENABLE switch in the DSP EDIT/ASSIGN section associated with the parameter you want to edit. If an ASSIGN/ENABLE switch is lit solid, then the default choice is enabled.

The above basic steps are used to edit and select all UTILITY modes and parameters on a Main Unit or Fader Pack.

Example of UTILITY Selection

Throughout the remainder of this Appendix, UTILITY instructions are listed in abbreviated form. For example:

To access the Vegas Test Mode UTILITY page:

- In UTILITY mode, choose TEST > LED > VEGAS.

The above instructs you to:

- 1 Press UTILITY.
- 2 Choose TEST from the UTILITY menu, then
- 3 Choose LED from the TEST menu that appears, then
- 4 Choose VEGAS from the LED menu.

For operations which take place purely within the UTILITY menus, the short-form instructions will appear. Wherever alternate methods of invoking a UTILITY-level parameter is available, its instructions are included. Refer to the index of this guide to locate specific settings.

Remote (Local) UTILITY Mode

There are a number of UTILITY items which are adjustable on individual Fader Pack units. These items are accessed through remote UTILITY mode.

To access remote UTILITY operation:

- 1 Press and hold the SHIFT/ADD + OPT (ALT) ALL, then press the F4 switch.
- 2 The scribble strips in the Fader Section (located above the channel encoders) will display:

```
SYSTEM |NAME| |TEST| |RESET| |PREFS|  
|<BLANK>| |<BLANK>| |ESCAPE|
```

- 3 Select a parameter as described in the previous section.
- 4 To exit these UTILITY menus, press ESCAPE.

* All UTILITY menus may be entered regardless if Pro Tools is currently running or not.

Local Utility Name Page

The local mode Name page lets you specify a unique name for each ProControl Main and Fader Expansion unit.

To access the Local Name page:

- 1 Press and hold SHIFT/ADD + OPT (ALT) ALL + F4 switch on a Fader Expansion unit or Fader section of a ProControl Main unit. The “local mode” UTILITY pages are displayed horizontally on the upper fader section LED displays.

- 2 Press the flashing ASSIGN/MUTE switch for NAME. The Name menu information is displayed horizontally across the upper fader section scribble strips as follows:

```
CHANGE |NAME: | < | FADER | | >  
|<CLEAR> |OK | |CANCEL |
```

The current unit name appears in display #4 with its first character flashing indicating that text entry is now possible. Also, the ASSIGN/MUTE switch LED's corresponding to the “<”, “Name”, “>”, “OK” and “CANCEL” scribble strip fields flash. Text entry is accomplished by using a combination of ASSIGN/MUTE switches to move forward/backward through the text and the encoder located below the Name field scribble strip. Or, use the ALPHA switch and the CHANNEL MATRIX.

- 3 Press the flashing “<” ASSIGN/MUTE switch to move from right to left through the Name field. The character currently active will flash. Press the flashing “>” field ASSIGN/MUTE switch to move from left to right through the Name field. The currently active character will flash.
- 4 Use the rotary encoder to scroll through and select an alpha-numeric character.
- 5 You can clear the Name field at any time by pressing the flashing CLEAR> ASSIGN/MUTE switch located below the scribble strip.
- 6 Press the flashing ASSIGN/MUTE switch for OK to confirm the new name.
- 7 To cancel the name change, press the flashing ASSIGN/MUTE switch for CANCEL to return to the main “local mode” UTILITY page. Or, press the flashing ASSIGN/MUTE switch for ESCAPE on the main UTILITY page to exit and return to normal ProControl operation.

Local Test Page

The local mode Test pages include menu items for testing various components and sections on individual ProControl units, including Ethernet communication.

To access the Test pages:

- 1 Access local mode as described in the previous sections (SHIFT/ADD + OPT (ALT) ALL + F4).
- 2 Press the flashing ASSIGN/MUTE switch for TEST.

Ethernet Test Mode

The Ethernet test page lets you analyze Ethernet communication. All of these tests display statistics relating to Ethernet performance: “packets” sent/received, errors, retries, etc. These tests can assist Digidesign technical support should you ever experience difficulty with your Ethernet communication between Pro Tools and ProControl. During these tests, the “transmit” and “receive statistics should increase at the same rate, and you should not see many “bad” packets reported.

- 1 Press and hold SHIFT/ADD + OPT (ALT) ALL + F4 switch on a Fader Expansion unit or Fader section of a ProControl Main unit to enter local utility mode.
- 2 TEST > ETHERNET on the desired unit. The Ethernet test choices appear horizontally in the data encoder displays:

```
ETHERNET | LOOPBACK | INTERNAL | MENDEC
| EXTERNAL | | | ESCAPE
```

In the fader displays below are the statistical fields for the Ethernet test:

```
RECEIVE |      | BAD |      | TRANSMIT
| | ERRORS |
```

To perform Ethernet Loopback Internal or MENDEC test:

- Press the appropriate ASSIGN/MUTE switch. The fader scribble strip displays will begin to show Ethernet test statistics.

To perform Ethernet Loopback EXTERNAL:

- 1 Disconnect the unit’s Ethernet connection.
- 2 Take the special Ethernet Loopback Connector (included with your ProControl Main Unit) and plug it into your unit’s Ethernet port.
- 3 In Local Utility mode, press TEST > ETHERNET > EXTERNAL.

During the test, watch the fader displays to make sure the transmit and receive values are increasing at the same rate (not the same numbers, but the same rate of change).

- Press F1 at any time to clear and reset the test.

UTILITY SYSTEM Settings

The System page displays firmware revision and other unit-specific data.

To access the System page:

- 1 Press the UTILITY switch.
- 2 Hold down the ASSIGN/ENABLE switch flashing SYSTEM. The firmware, hardware and Ethernet ID system information specific to the ProControl Fader sections (Main and Expanders) is displayed horizontally across all attached Fader Section scribble strips (upper and lower).

This temporary display will revert to its previous mode when the SYSTEM switch is released.

To exit UTILITY System mode, press the flashing ASSIGN/ENABLE switch to the left of the LED display which shows “ESCAPE” or press the UTILITY switch.

MONITOR Settings

The Monitor pages contain items which are specific to the ProControl Main unit analog monitoring section.

To access the Monitor pages:

- Press UTILITY > MONITOR. The following choices appear:

- MODE
- MUTE/DIM
- TALKBACK
- LSTNBACK
- <BLANK>
- <BLANK>
- <ESCAPE>

The following sections explain each option.

Mode Page

Stereo, Multi, Surround and Rerecord

Mode Page lets you change the monitoring scheme of the ProControl analog monitoring section.

Mode Page choices are:

- STEREO
- MULTI
- SURROUND
- RERECORD
- < >
- ESCAPE

Stereo, Multi and Surround modes These modes determine how the SRC 1, SRC 2 and SRC 3 and other busses and switches function. See the section “Using the Control Room Monitoring Section” on page 41.

Rerecord lets you use the Control Room section to send Sources, Talkback and Listenback signals to Pro Tools or another recording device. See the section “Using the DUB Function (Slate/Rerecord)” on page 118 for details.

To select Stereo, Multi, Surround or Rerecord mode:

- Press the appropriate SELECT/ASSIGN switch.

Press ESCAPE to exit.

Selecting Stereo versus Surround Mode

MUTE/DIM Page

The MUTE/DIM Mode page lets you configure the Control Room Mute and Dim functionality.

To access the MUTE/DIM page:

- Press UTILITY > MONITOR > MUTE/DIM.

Available choices are:

ALL
CTRL ROOM

MUTE ALL is the default mode.

To select ALL MUTE/DIM mode;

- Select ALL. This means depressing the MUTE switch will affect all outputs (main and aux/cue).

To select control room-only MUTE/DIM:

- Select CTRL ROOM. In this mode, MUTE only mutes/dims the control room (main and alt) signals.

TALKBACK

To access TALKBACK UTILITY settings:

- 1 Press UTILITY > MONITOR > TALKBACK. Available choices are:

INT/EXT
EXTERNAL
SLATE

INT/EXT means that both the built-in (internal) and external Talkback inputs will appear in the Talkback buss.

EXTERNAL means that only the external Talkback signal will appear in the Talkback buss.

SLATE means that the Talkback signal (whichever) is mixed to the Slate/dub buss.

For details on utilizing these features, see the section “Using the DUB Function (Slate/Rerecord)” on page 118 in Chapter 5: Recording.

To reconfigure Talkback settings:

- 1 Using the ASSIGN/ENABLE switches, change the state of the desired Talkback parameter
- 2 Press “ESCAPE” to exit the menu and return one level up. Or, press the UTILITY button switch to exit the UTILITY mode entirely.

Listenback Settings

A listenback microphone is used in a studio to allow the talent to communicate with the control room. ProControl provides a Listenback input, and the UTILITY > LISTENBACK page is used to turn this off or on.

To turn the Listenback input on/off:

- 1 Press UTILITY > MONITOR > LISTENBACK. Available choices are:

ON

OFF

TALKBACK

- 2 Use the ASSIGN/ENABLE switches to turn Listenback On or Off.
- 3 To have the Listenback signal “follow” the Talkback switch (including mixing with Slate/Dub output), press TALKBACK.
- 4 To exit, press ESCAPE. Or, press the UTILITY button switch to exit the UTILITY mode entirely.

UTILITY TEST Settings

The Test pages include menu items for testing various components and sections on ProControl Main and Fader Expansion units. Guaranteed to break the ice at parties, test routines are provided to verify every LED, fader, touch-circuit, rotary encoder and other control/display.

To access the Test pages:

- Press UTILITY > TEST. The Test menu items are displayed:

<LED>

<DISPLAY>

<FADER>

<ROTARY>

<MOUSE>

<BLANK>

<BLANK>

<ESCAPE>

The following sections describe each of the Test pages.

LED Page

This test mode provides color-specific test routines for your units' LEDs. Press UTILITY > TEST > LED, then select a test. (VEGAS mode provides the best value for your entertainment dollar.)

Vegas Mode

Vegas mode randomly turns on/off every switch LED, meter segment, display LED. The faders are also run in sine wave mode.

Rotate the scrub/shuttle wheel on the ProControl main unit to increase or decrease the rate at which the LEDs update. Press any switch on the ProControl Main unit to exit VEGAS mode.

Switch Test Mode

- Press UTILITY>TEST > LEDs > SWITCH.

Now press any switch on a ProControl Main or Fader Pack Expansion unit. When pressed, the switch LED will light as long as it's held and the lower channel scribble strip on a Fader section will show the location information for the switch.

Press the ASSIGN/ENABLE switch for ESCAPE to exit the test mode. This action will return you to the LED Page display of test choices.

Before exiting, the lower Fader section scribble strip will briefly display the switch location information for the ESCAPE ASSIGN/ENABLE switch.

Red LED Test Mode

- Press UTILITY > TEST > LED > RED.

Red LED mode, when engaged, checks all red LED's on the control surface.

All other LED test menu items shown in the DSP EDIT/ASSIGN scribble strips as well as their associated flashing ASSIGN/ENABLE switch LED's, remain visible in this test mode. This allows you to select another LED test mode without the need to first ESCAPE this mode.

1 Press the ASSIGN/ENABLE switch located to the left of the DSP EDIT/ASSIGN scribble strip showing another test mode to simultaneously disengage the red LED test mode

and enter the newly selected mode. The ASSIGN/ENABLE switch LED for the new choice will light solid while the other choices flash.

2 Press the flashing ASSIGN/ENABLE switch to the left of the LED display which shows "ESCAPE" to exit the LED test page menu and return one level up.

3 Press UTILITY to exit the UTILITY mode entirely and revert to the previous ProControl state.

Yellow LED Test Mode

- Press UTILITY > TEST > LEDs > YELLOW to engage Yellow LED mode. This mode checks for proper lighting of all yellow LED's on the control surface

All other LED test menu items shown in the DSP EDIT/ASSIGN scribble strips as well as their associated flashing ASSIGN/ENABLE switch LED's, will remain visible in this test mode. This allows the user to select another LED test mode without the need to first ESCAPE this mode.

- Press the flashing ASSIGN/ENABLE switch located to the left of the DSP EDIT/ASSIGN scribble strip showing another test mode to simultaneously disengage the yellow LED test mode and enter the newly selected mode.

- Press the ASSIGN/ENABLE switch for "ESCAPE" to exit the LED test page menu and return one level up. Or, press the flashing UTILITY button switch to exit the UTILITY mode entirely and revert to the previous ProControl state.

Green LED Test Mode

- 1 Press UTILITY > TEST > LEDs > GREEN. All Green LEDs illuminate.
- 2 Press UTILITY to exit the UTILITY mode entirely and revert to the previous ProControl state.

All LED Test Mode

- 1 Press UTILITY > TEST > LEDs > ALL. All LED mode checks all LED's on the control surface by turning them all on.
- 2 Press the flashing ASSIGN/ENABLE switch located to the left of the DSP EDIT/ASSIGN scribble strip showing another test mode to simultaneously disengage the ALL LED test mode and enter the newly selected mode.
- 3 Press the ASSIGN/ENABLE switch for "ESCAPE" to exit the LED test page menu and return one level up. Or, press the flashing UTILITY button switch to exit the UTILITY mode entirely and revert to the previous ProControl state.

Display Page

- Press UTILITY > TEST > DISPLAY. The following Display test choices appear vertically on the DSP EDIT/ASSIGN displays:

<METER>
<TIMECODE>
<SCRIBBLE>
<ESCAPE>

Meter Test Mode

Press UTILITY > TEST > DISPLAY > METERS. Meter test mode will continually cycle through a series of automated tests which checks the LED's on each meter on the meter bridge of the control surface(s).

Time code Display Test Mode

Press UTILITY > TEST > DISPLAY > TIME-CODE. Time code test mode will continually cycle through a series of automated tests which checks the LED's and LED segments on the time display on the meter bridge of the control surface.

Scribble Test Mode

Press UTILITY > TEST > DISPLAY > SCRIBBLE. Scribble test mode will continually cycle through a series of automated tests which checks all scribble strip displays on the control surface.

Fader Page

Press UTILITY > TEST > FADER to access the Fader page. The following Fader test choices appear vertically on the DSP EDIT/ASSIGN displays:

<STEP>
<CYCLE>
<SINE>
<GROUP>
<TOUCH>
<RECAL>
<ESCAPE>

- Press any of the flashing ASSIGN/ENABLE switches corresponding to the desired Fader test to enter the test mode.

Step Test Mode

Step test mode places the faders on Pro-Control Main and Fader Expansion units in a test mode where the faders jump, lock-step, to fader positions which are determined by adjusting the scrub/shuttle wheel. When this mode is first engaged, the faders will jump to mid position (approximately. 512 steps).

- Rotate the scrub/shuttle wheel to adjust the step level which the faders use. Turning the wheel to the left decreases the step level while rotating the wheel to the right increases the step distance.

Cycle Test Mode

Cycle test mode places the faders on Pro-Control Main and Fader Pack Expansion units in a test mode where the faders cycle, lock-step, from the bottom of the fader throw to the top in a continuous cycle. The speed at which the faders cycle is determined by the scrub/shuttle wheel. The fader position values are shown in these scribble strips and are updated in real-time as the group of faders is moved. Values will range from off (value of “0”) to full-on (value of “1023”).

Sine Test Mode

Sine test mode places the faders on Pro-Control Main and Fader Expansion units in a test mode where the faders cycle, in a sine wave shape, from the bottom of the fader throw to the top. Very hypnotic. The speed at which the faders cycle is determined by adjusting the scrub/shuttle wheel.

- The fader position values will be shown in these scribble strips and will be updated

in real-time as the group of faders is moved. Values will range from off (value of “0”) to full-on (value of “1023”).

- Rotate the scrub/shuttle wheel to adjust the sine cycle speed. Turning the wheel to the left decreases the speed while rotating the wheel to the right increases the cycle speed.

Group Test Mode

Group test mode places the faders on Pro-Control Main and Fader Expansion units in a mode where the faders become grouped and may be moved in unison to test group response. It also displays which fader(s) is currently being touched by showing the letter “T” in the fader display.

Touch Test Mode

Touch test mode places the faders on Pro-Control Main and Fader Expansion units in a test mode where the Fader Section lower scribble strips indicate when a fader has been touched and at what frequency the fader is currently recognizing.

The fader frequency value will be shown in these scribble strips and will be updated in real-time as a fader (s) is touched. The fader(s) currently touched will additionally show the letter “T” in its corresponding scribble strip.

Recal Mode

Recal places the faders on ProControl Main and Fader Expansion units in a test mode which recalibrates the faders to factory specifications. This is identical to the calibration which occurs at power-on of Pro-Control Main and Fader Expansion units.

All faders will move from their current position to the top of the fader path and then to the bottom. Once the recal has been completed, the faders will return to the position prior to entering the Recal test mode and the lower Fader Section scribble strips will display the fader calibration value.

Rotary Page

Press UTILITY > TEST > ROTARY. The DSP EDIT/ASSIGN area will display:

```
<ROTARY>
<TEST:>
<NNN>
<NNN>
<NNN>
<NNN>
<NNN>
<NNN>
<ESCAPE>
```

The scribble strip displays will show rotary values when encoders on the DSP EDIT/ASSIGN section are rotated. (The rotary controls in the CONTROL ROOM section are not tested in this test.)

- Rotate the desired channel encoder(s) on a Fader Section (Main or Expansion unit) to test the control. The encoder values will be displayed (where “nnn” is the value) and updated in real-time on the Fader Section upper scribble strips.

You can also test the rotary encoders located in the DSP EDIT/ASSIGN section as well as the scrub/shuttle wheel on a Pro-Control Main unit. The values for the (8) DSP EDIT/ASSIGN encoders will be vertically displayed on the scribble strips located to the left of each encoder in the sec-

tion. The values of the scrub/shuttle wheel will be displayed on the Channel/Group scribble strip.

Mouse Page

Press UTILITY>TEST > MOUSE. The available choices displayed are:

```
<CURSOR:>
<X=NNN>
<Y=NNN>
<LEFT UP>
<RIGHT UP>
<BLANK>
<BLANK>
<ESCAPE>
```

- Use the Trackpad and the X/Y coordinates are displayed in scribble strips 2 and 3.

This is a test-only mode. To change Mouse settings, go to UTILITY > SYSTEM > PREFS > MOUSE.

Reset (Factory Default) Page

The Reset page allows you to reset the Pro-Control Main and Fader Expansion units to the factory default settings.

To reset ProControl units:

1 Press UTILITY > RESET. The DSP EDIT/ASSIGN scribble strips displays the message:

<RESET>
<To>
<FACTORY>
<DEFAULTS>
<BLANK>
<BLANK>
<OK>
<CANCEL>

Select CANCEL to cancel the reset operation, exit the reset menu and return to the main UTILITY page.

2 Press OK to reset the unit. A confirmation message will appear down the DSP EDIT/ASSIGN scribble strips which you will need to OK or Cancel.

The default values which will be reinstated are:

Unit Name: MAINUNIT or FADERPK
Contrast:8
Sleep mode: Never
SW 1 & SW 2 = play/stop, 1 = talkback
Monitor mode: Stereo/Single source
Listenback: Off
Talkback: INT/EXT
Mute/Dim: ALL
Mouse speed: Medium

Prefs Pages

The UTILITY Prefs pages provide control of LED contrast, sleep mode, fader resistance, trackpad/mouse, and footswitch options.

To access the Prefs pages:

■ Press UTILITY > Prefs.

Brightness (Contrast) Page

This page lets you adjust LED brightness. Brightness/contrast modes are adjusted on a unit by unit basis (non-global adjustment). Rotate any rotary encoder (including the scrub/shuttle wheel) to the left to decrease the contrast levels of the scribble strip displays. The numeric value of the contrast level will be displayed on the CHANNEL/GROUP scribble strip.

To adjust contrast:

1 Press UTILITY > Prefs > CONTRAST.

2 Use any rotary encoder or the wheel to increase/decrease LED contrast. The numeric value of the contrast level will be displayed on the CHANNEL/GROUP scribble strip.

3 Press “OK” to accept the new contrast value. Following this action, the scribble strips will be lit with the new contrast value and the menu will be returned one level up.

Sleep Mode Page

Sleep mode is an energy-saving feature which places the LEDs in a power-conserving state. “Sleep after” is variable.

1 Press UTILITY > PREFS > SLEEP.

2 Rotate the DIM LED encoder to scroll through options. Values, listed in terms of “sleep after,” reduce in 1-hour increments counting down from 12 to 1, then single minute increments from 59 to 1.

Fader Resistance

Fader pull back, or resistance, determines the “feel” of fader travel. To optimize fader response/feel, each ProControl unit has adjustable fader resistance to provide looser or tighter fader response.

Fader resistance must be set individually on each ProControl unit, using the instructions below for a Main Unit and Fader Pack(s), if any.

To adjust Fader Resistance:

Main Unit

1 Press UTILITY > PREFS > FADER.

2 Use the Scrub/Shuttle wheel to raise/lower fader resistance. You can move any faders on the main unit while adjusting the wheel to feel the change.

Fader Pack(s):

1 Press and hold SHIFT/ADD + OPT(ALT)ALL + F4. The top row of data displays (above the pan knobs) display:

SYSTEM | TEST | PREFS

2 Press the flashing red switch to select PREFS. From the next list of choices, select FADER.

3 Rotate any data encoder (knob) to raise or lower fader resistance. Check the effect of various settings by moving a fader while turning the encoder to adjust resistance.

Mouse Mode Page

To select between the internal Trackpad or an external Mouse:

1 Make sure your external mouse is connected to ProControl (see Chapter 2 for details).

2 Choose UTILITY > PREFS > MOUSE.

3 Select INT (for Trackpad) or EXT (for an external mouse). Only one may be enabled at a time.

To adjust Trackpad/mouse response:

■ Press UTILITY > PREFS > MOUSE > SPEED. Choose between Very Fast, Fast, Medium Fast, Medium, Slow or Very Slow. Medium is the default.

Footswitch Settings

The SWITCH 1 and SWITCH 2 Prefs choices let you configure the polarity and function of both footswitch inputs. Press UTILITY > PREFS > SWITCH 1 or SWITCH 2 to access their respective settings pages. Configure the Polarity for your switch(es), then choose a function: Play/Stop, Record, or Talkback.

appendix b

Audio Wiring Pinout Diagrams

Audio Input 1

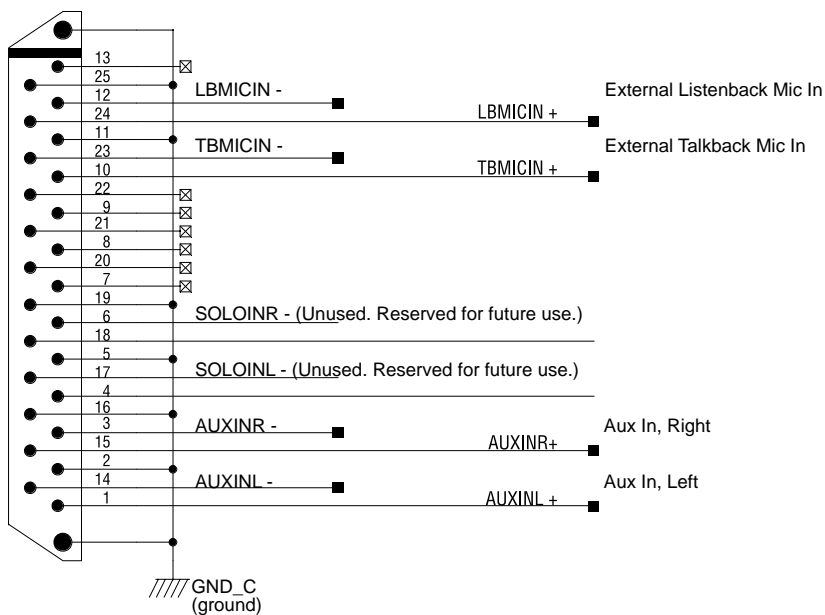


Figure 1. ProControl Audio Input 1

Audio Input 2

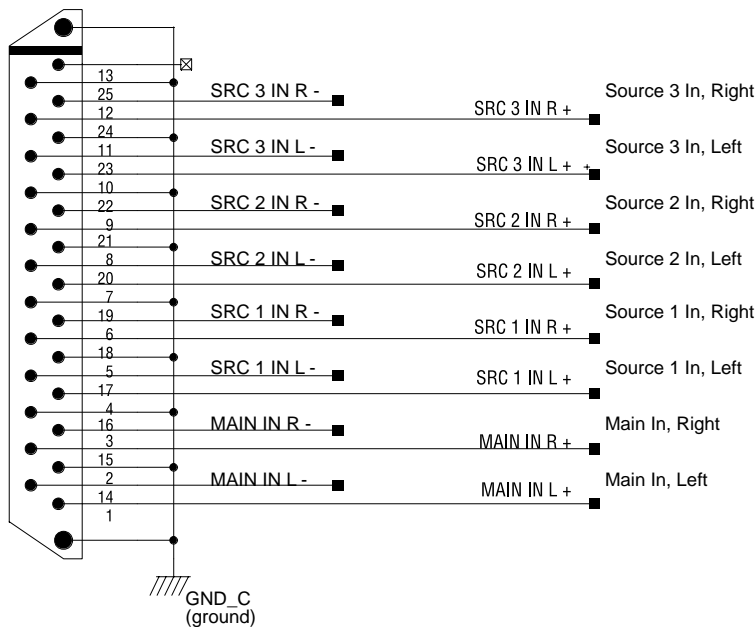


Figure 2. ProControl Audio Input 2

Audio Output

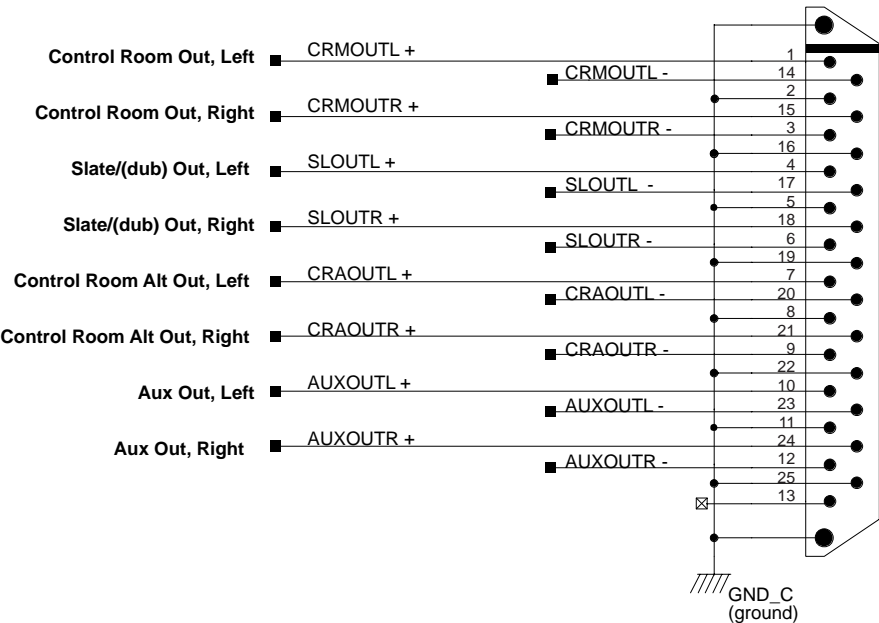


Figure 3. ProControl Audio Output

appendix c

ProControl Shortcuts and Equivalents

Numeric Keypad Transport Mode

Task		Computer Key	ProControl NUMKPD
Metronome/Click on/off	(MIDI)	7	7
Count on/off	(MIDI)	8	8
Merge Record on/off (MIDI)		9	9
Loop Play		4	4 (or LOOP PLAYBACK)
Loop Record		5	5 (or LOOP RECORD)
Quickpunch		6	6 (or QUICKPUNCH)
Rewind		1	1 (or REW)
Fast Forward		2	2 (or FFW)
Record(Punch In/Punch Out)		3	3
Play/Stop		0	0, or PLAY/STOP
Enter "Main" Counter			* (Numeric KPD)
Enter Edit Time Fields	(in main Toolbar)		/ (NKpd)
Enter Timeline Time Fields	(in Transport)	Opt/Alt - /	OPT(ALT)ALL+ / (NKpd)
Capture Timecode		= (Mac kpd only)	=
Create memory location		enter	ENTER
Nudge forward by grid value			+
Nudge backward by grid value			-

Numeric Keypad Shuttle Mode

Task	Computer Alpha Key	ProControl NUMKPD
1 X Forward	6	6
1 X Rewind	4	4
4 X Forward	9	9
4 X Rewind	7	7
1/4 X Forwards	3	3
1/4 X Rewind	1	1
1/2 X Forward	5-6	5-6
1/2 X Rewind	5-4	5-4
2 X Forward	8-9	8-9
2 X Backwards	8-7	8-7
1/16 X Forwards	2-3	2-3
1/16 X Backwards	2-1	2-1
Loop Play of Edit Selection	0	0
Enter "Main" Counter	* or = (on Mac numeric keypad only)	* or = (on Mac numeric keypad only)
Enter Edit Time Fields (Main Toolbar area)	/	/
Enter Timeline Time Fields (Transport)	OPT(ALT)ALL+/ 	OPT(ALT)ALL+/
Capture Timecode	= (on Mac numeric keypad only)	= (on Mac numeric keypad only)
Create memory location	Enter	ENTER
Nudge forward by grid value	+	+
Nudge backwards by grid value	–	–

Memory Locations

Task	Key	ProControl NUMKPD
Recall memory location	decimal - number - decimal	Decimal (.)
Create memory location	enter	ENTER
Overwrite memory location	Control (Mac) or Start (Win) + click on mem button in Memory Locations window	CTL/CLUTCH + click
Delete memory location	Option/Alt click on button	OPT(ALT)ALL + click

F Keys

Mode or Tool	Mac	ProControl
Shuffle Edit Mode	F1	SHUFFLE
Slip Edit Mode	F2	SLIP
Spot Edit Mode	F3	SPOT
Grid Edit Mode	F4	GRID
Zoomer	F5	ZOOM/SEL
Scrubber	F6	SCRUB/SHUTTLE
Trimmer	F7	TRIM
Selector	F8	SELECT
Grabber	F9	GRAB
Smart Tool		Simultaneously press any two: TRIM, SELECT or GRAB
Pencil	F10	PENCIL
Wait for Note (MIDI) On/Off	F11 (Preferences)	
Record Key	F12	

Commands Focus Shortcuts

Accessing Commands Focus Modes

Using the ⌘ (CTL) and OPT (ALT)ALL modifiers, you can select which of the four modes is the current keyboard focus:

Mode	While holding down ⌘ (CTL) and OPT(ALT)ALL:
Commands (Edit)	1 (Numeric Keypad)
Audio (Regions List)	2
MIDI (Regions List)	3
Groups (List)	4

The following Pro Tools Commands shortcuts are available from ProControl:

Task	Focus Key	ProControl (ALPHA + ...)
View/Zoom Tasks		
Zoom Level 1	alpha 1	N/A
Zoom Level 2	alpha 2	"
Zoom Level 3	alpha 3	"
Zoom Level 4	alpha 4	"
Center Timeline Start	Q	17/Q
Center Timeline End	W	23/W
Fill Window	E	5/E
Zoom Out Horizontally	R	18/R (or ZOOM/SEL)
Zoom In Horizontally	T	20/T
Audition Tasks		
Start/In with Pre	alpha 6	PRE
Start/In with Post	alpha 7	IN
End/Out by Pre	alpha 8	OUT
End/Out by Post	alpha 9	POST
Play Timeline Selection]	N/A (use computer keyboard)
Play Edit Selection	[N/A (use AUDITION mode)

Task	Focus Key	ProControl (ALPHA + ...)
Selection and Navigation Tasks		
Copy Edit Selection to Timeline Selection	alpha 0	SHIFT/ADD+OPT(ALT)ALL+ALPHA +5 (NKpd)
Copy Timeline Selection to Edit Selection	O	SHIFT/ADD+OPT(ALT)ALL+ALPHA +6 (NKpd)
Timeline Insertion follows Playback (toggle)	N	N
Insertion Follows Playback		ALPHA + 14/N
Move Edit Selection up	P	Must use ZOOM/SEL
Move Edit Selection down	; (semicolon)	Must use ZOOM/SEL
Tab back	L	PREVIOUS
Tab forward	' (apostrophe)	NEXT
Capture Timecode	=	=
Editing Tasks		
Snap Region Start to timecode	Y	25/Y
Snap Region Sync point to timecode	U	21/U
Snap Region End to timecode	I	9/I
Snap Region Start to playhead	H	8/H
Snap Region Sync point to playhead	J	10/J
Snap Region End to playhead	K	11/K
Trim Start to Insertion	A	1/A
Trim End to Insertion	S	S
Fade to Start	D	D
Fade (without showing Fades dialog	F	F
Fade to End	G	G
Undo	Z	Z
Cut	X	X
Copy	C	C
Paste	V	V
Separate	B	B

Task	Focus Key	ProControl (ALPHA + ...)
Nudge back by next Grid Value	M	M
Nudge back by Grid Value	<	– (NUMERIC KEYPAD)
Nudge forward by Grid Value	>	+ (NUMERIC KEYPAD)
Nudge forward by next Grid Value	/	

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