



PRO6 Control Centre Quick Reference Guide

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PRO6 Control Centre - Quick Reference Guide
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IMPORTANT SAFETY INSTRUCTIONS



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with a dry cloth.
- 7 Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 13 Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 14 Use the mains plug to disconnect the apparatus from the mains.
- 15 **Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.**
- 16 **Warning: Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.**
- 17 **Warning: The mains plug of the power supply cord shall remain readily operable.**

**EC-Declaration of Conformity**

The undersigned, representing the following manufacturer

Manufacturer:

Telex Communications (UK) Limited

Address:

Klark Teknik Building,
Walter Nash Road,
Kidderminster.
Worcestershire.
DY11 7HJ.

hereby declares that the following product

Product Type Number	Product Description	Nominal Voltage(s)	Current	Freq.
PRO6	Control Centre	115V AC 230V AC	2.9A 1.5A	50/60Hz

is in conformity with the regulations of the following marked EC-directives and bears the CE-mark accordingly

reference number	title
2004/108/EC	EMC Directive (EMC)
2006/95/EC	Low-Voltage Directive (LVD)

The conformity of the product with EC directives is provided by the compliance with the following standards:

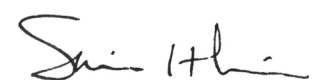
Standards/date:

reference number	title
EN50081/1	Generic Standard Using EN55103 Limits and Methods
EN55103	Class B Conducted Emissions PAVI
EN55103	Class B Radiated Emissions PAVI
EN61000-4-4	Fast Transient Bursts at 2kV
EN61000-4-2	Static Discharge at 4kV
EN60204	Electrical Stress Test
EN60065 7 th Edition	Electrical Safety

Place, date: Kidderminster, UK
5th September 2008



Managing Director Business Line
Printed name: John Oakley



R+D Director Business Line
Printed name: Simon Harrison

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Precautions

Before installing, setting up or operating this equipment make sure you have read and fully understand all of this section and the "IMPORTANT SAFETY INSTRUCTIONS" at the front of this guide.

This equipment is supplied by a mains voltage that can cause electric shock injury!

The following must be observed in order to maintain safety and electromagnetic compatibility (EMC) performance.

Safety warnings

Signal 0V is connected internally to the chassis.

To completely disconnect this equipment from the AC mains, while observing full safety precautions (see "Power" on page ix), switch off the isolator switch (above the mains power sockets on rear of control centre) and then switch off the mains at the three mains outlets. Unplug the three mains leads from the rear of the control centre.

To avoid electrical shock do not remove covers.

General precautions

In the event of ground loop problems, disconnect the signal screen at one end of the connecting cables. Note that this can only be done when the equipment is used within a balanced system.

Do not remove, hide or deface any warnings or cautions.

Power

The system power supplies contain LETHAL VOLTAGES greatly in excess of the mains voltage and its rails can produce extremely large currents that could burn out equipment and wiring if shorted.

The internal power supplies are of the switch mode type that automatically sense the incoming mains voltage and will work where the nominal voltage is in the range 100VAC to 240VAC.

Each mains inlet is to be sourced from its own separate wall-mounted mains outlet socket. Otherwise, their mains sources must be suitably

distributed so as to meet local safety regulations.

During operation, a minimum of two of its three mains inlets must be connected and supplying power.

When removing the equipment's electric plugs from the outlets, always hold the plug itself and not the cable. Pulling out the plug by the cable can damage it.

Never insert or remove an electric plug with wet hands.

Do not connect/disconnect a mains power connector to/from the PRO6 Control Centre while power is being applied to it. Switch the power off first.

Before switching the PRO6 Control Centre on or off, make sure that all monitor loudspeaker power amplifiers are turned off or muted.

Handling the equipment

Completely isolate the equipment electrically and disconnect all cables from the equipment before moving it.

When lifting or moving the equipment, always take its size and weight into consideration. Use suitable lifting equipment or transporting gear, or sufficient additional personnel.

Do not insert your fingers or hand in any gaps or openings on the equipment, for example, vents.

Do not press or rub on the sensitive surface of the GUI screens.

If the glass of the GUI screen is broken, liquid crystals shouldn't leak through the break due to the surface tension of the thin layer and the type of construction of the LCD panel. However, in the unlikely event that you do make contact with this substance, wash it out with soap.

Installation

Before installing the equipment:

- Make sure the equipment is correctly connected to the protective earth conductor of the mains voltage supply of the system installation through the mains leads.
- Power to the equipment must be via a fused spur(s).
- Power plugs must be inserted in socket outlets provided with protective earth contacts. The electrical supply at the socket outlets must provide appropriate over-current protection.
- Both the mains supply and the quality of earthing must be adequate for the equipment.
- Before connecting up the equipment, check that the mains power supply voltage rating corresponds with the local mains power supply. The rating of the mains power supply voltage is printed on the equipment.

Location

Ideally a cool area is preferred, away from power distribution equipment or other potential sources of interference.

Do not install the equipment in places of poor ventilation.

Do not install this equipment in a location subjected to excessive heat, dust or mechanical vibration. Allow for adequate ventilation around the equipment, making sure that its fans and vents are not obstructed. Whenever possible, keep the equipment out of direct sunlight.

Do not place the equipment in an unstable condition where it might accidentally fall over.

Make sure that the mains voltage and fuse rating information of the equipment will be visible after installation.

Audio connections

To ensure the correct and reliable operation of your equipment, only high quality, balanced, screened, twisted pair audio cable should be used.

XLR connector shells should be of metal construction so that they provide a screen when connected to the console and, where appropriate, they should have Pin 1 connected to the cable screen.

Radio frequency interference—Class A device

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Electric fields

Caution:

In accordance with Part 15 of the FCC Rules & Regulations, "... changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment."

Should this product be used in an electromagnetic field that is amplitude modulated by an audio frequency signal (20Hz to 20kHz), the signal to noise ratio may be degraded. Degradation of up to 60dB at a frequency corresponding to the modulation signal may be experienced under extreme conditions (3V/m, 90% modulation).

Safety equipment

Never remove, for example, covers, housings or any other safety guards. Do not operate the equipment or any of its parts if safety guards are ineffective or their effectiveness has been reduced.

Optional equipment

Unless advised otherwise, optional equipment must only be installed by service personnel and in accordance with the appropriate assembly and usage regulations.

Special accessories

To comply with part 15 of the FCC Rules, any special accessories (that is, items that cannot be readily obtained from multiple retail outlets) supplied with this equipment must be used with this equipment; do not use any alternatives as they may not fulfil the RF requirement.

Contents

Introduction

Chapter 1	Introducing The PRO6	3
	Overview of the PRO6 Live Performance System	3
	System components (standard supply)	4
	About this guide	4
Chapter 2	About The PRO6 Control Centre	5
	Overview of the PRO6 Control Centre	5
	Bay and GUI layout	6
	PRO6 control surface	7
	GUI	8
	Front panel connections	9
	Rear panel connections	9

Operation

Chapter 3	Working With The PRO6 Control Centre	13
	Basic GUI operation	13
	Operating the GUI screen controls	14
	Using the GUI menu	15
	Text editing	16
Chapter 4	Navigation	17
	An introduction to PRO6 navigation	17
	About the navigational controls	18
	About the navigation 'select' sections	19
	How to navigate	19
Chapter 5	Patching	23
	Introduction	23
	Function buttons	24
	About the patching procedure	25
	Configuring the devices	25
	Configuring the PRO6 with the snake type	27
	Setting up the I/O rack devices	27
	How to patch	29
Chapter 6	Basic Operation	31
	Principles of operation	31
	Operating modes	31
	Hints and tips	32
	Saving your work	33

Setting a mic amplifier's input gain	.34
Setting the high and low pass filters	.35
Input equalisation (E zone)	.36
Input dynamics processing (D zone)	.37
Using VCA/POP groups	.39
Setting up a mix	.41
Setting up the effects rack	.44
Simple routing to master stereo outputs	.46
Scene and show management (automation)	.46
Configuring the inputs and outputs	.51
Using copy and paste	.51
Surround panning	.53
Two-man operation	.54
Saving your show files to USB memory stick	.55

Connecting And Setting Up The System

Chapter 7	Setting Up The System	59
	Initial set-up procedure	.59
	Unpacking the equipment	.59
	Making up a rack	.59
	Wiring instructions	.59
	Powering the PRO6 system	.61
	Switching the PRO6 Control Centre on/off	.62
	Setting up the DL351 Modular I/O unit ID	.64

Appendices

Appendix A	Troubleshooting	67
	No audio	.67
	Diagnostics	.67
	Swapping the active master controller	.68

Introduction

Chapter 1: Introducing The PRO6

Welcome to the PRO6 Control Centre. The PRO6 Control Centre is a user-friendly, state-of-the-art, high performance digital console specifically designed for live use.

The PRO6 Control Centre, which forms an integral part of the PRO6 Live Performance System, was conceived by Midas to offer audio professionals high-performance audio equipment, designed to provide no-compromise sonic quality with a feature set that offers all essential facilities and functions. It represents the very best of British design and engineering combined with contemporary, efficient manufacturing methods, and will give you many years of reliable service.

So, to obtain the best results with a minimum of effort, please read this Quick Reference Guide and, finally, enjoy your Midas PRO6 Live Performance System!

Overview of the PRO6 Live Performance System

The PRO6 Live Performance System is a very powerful and flexible audio processing system that provides a complete solution for any audio mixing and signal distribution application in a live sound environment.

Despite its compact size the standard PRO6 offers 56 channel inputs, eight returns, 41 buses (16 auxes, 16 matrices, three masters and six solos), eight on-board effects processors, PEQs (four-band on inputs and six-band on outputs), eight standard (up to 36 maximum) 31-band GEQs, eight configurable stereo effects¹, 5.1 surround panning and comprehensive, easy-to-use routing. PRO6 automation provides up to 1,000 scenes with snapshot save/recall capability and global edit, and show file archiving.

The PRO6 Control Centre forms the core of the PRO6 Live Performance System, which also includes two 19" rack units — a DL351 Modular I/O (7U) and a DL371 DSP (7U) — that are interconnected by a networked data system. The network carries both proprietary control data and open architecture AES50 digital audio, and uses readily available standard cabling and connectors. The PRO6 uses a proven stable Linux operating system. All of the console's internal and network routing ("patching") is managed via the graphical user interface (GUI).

Operation of the control surface is intuitive, unique and easy. Its layout is based on familiar analogue lines to retain that 'analogue' feel. To manage the numerous channels, the PRO6 Control Centre utilises VCA/POP groups and colours, and additionally there are various navigational controls that aid quick channel/bus access and selection. A daylight-viewable GUI at the top of the control surface assists operation and provides extra functionality.

The PRO6 Live Performance System is tolerant of many types of hardware or software failure. To achieve this the system employs dual redundancy, where a key component has an identical redundant spare that is ready to take over should it fail. Other failure scenarios are managed by the N+1 principle, where redundant components form an acceptable fraction of the system.

The Klark Teknik DN9696 Recorder can be used with the PRO6 Live Performance System for live multi-track recording and 'virtual' sound check. Optional equipment includes the XL8 DL451 I/O and DL431 splitter, and the DN9331 RapidE for remote GEQ operation.

-
1. Each can be configured to generate four additional GEQs, making a total of 36 available on the console (plus one stereo effect).

System components (standard supply)

The PRO6 Live Performance System is modular, allowing for some variations in physical placement and system size. The standard PRO6 package touring system is configured as a 14U rack (containing two DL3n1 units) in a single, easily portable flight case, with an equally portable, flight-cased control surface and minimal cabling. This package comprises:

- 1-off PRO6 Control Centre (in a flight case). Its user-configurable modular I/O rack (rear panel) will be populated with the following modules (from top to bottom):
 - DL443 analogue Jack I/O module, providing eight Jack line inputs and eight Jack line outputs.
 - DL441 analogue input (mic) module, providing eight balanced mic/line inputs.
 - DL452 digital (AES3) I/O module, providing four stereo AES/EBU inputs and outputs.
- 1-off main 14U rack (in a flight case), which houses:
 - 1-off DL351 Modular I/O. This is populated with seven DL441 analogue input modules (56 main inputs) and a DL442 analogue output module. There are a total of 64-off XLR mic/line inputs provided on the system.
 - 1-off DL371 DSP. This is populated with five cards, the two empty slots being blanked off.
- 4-off interconnecting (N+1) rack cat5E copper cables.
- 2-off interconnecting (dual redundant) gigabit HyperMac Cat5E copper cables, each 100 m long.
- 8-off mains cables.

About this guide

This is the Quick Reference Guide for the PRO6 Control Centre. Its purpose is to quickly familiarise the user with the PRO6 Control Centre, show how to set up the PRO6 Live Performance System and then show how to carry out some basic operations on the PRO6 Control Centre in order to produce some audio. This guide is structured such that it may also provide a useful introductory guide for training purposes.

This document is aimed at professionals, such as front of house (FOH) and monitor (MON) engineers, who will be using this equipment in a live performance environment. It is assumed that the reader has prior experience of using professional audio equipment and has, most likely, undergone training on this system.

This guide has been structured specifically so that mix engineers and system technicians can go straight to the areas applicable to them, that is, "Operation" on page 11 and "Connecting And Setting Up The System" on page 57, respectively. The rest of the guide is intended for general readership.

For full details on the PRO6 Live Performance System and the PRO6 Control Centre, refer to the PRO6 Live Performance System Owner's Manual (part number DOC02-DL3), which can be found on our website at www.midasconsoles.com.

Note: *The content of this guide does not supersede any information supplied with any other item of the PRO6 Live Performance System.*

Chapter 2: About The PRO6 Control Centre

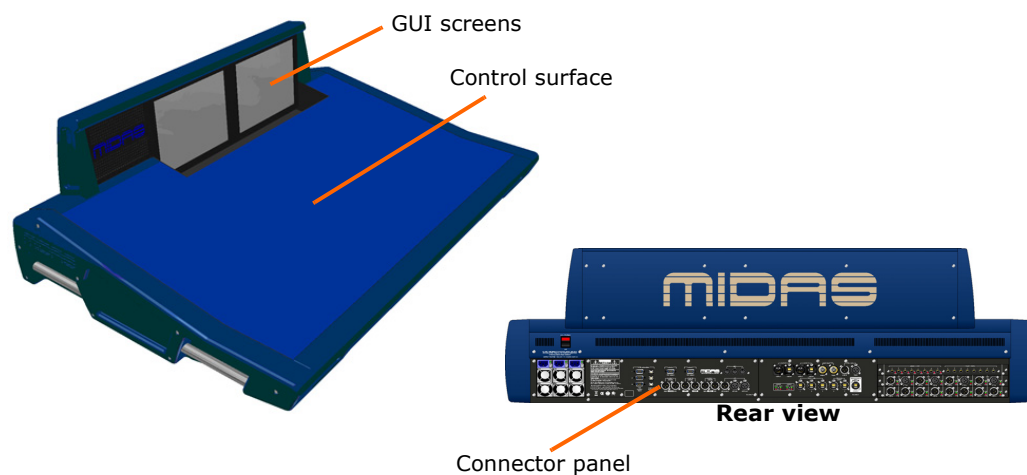
This chapter introduces you to the PRO6 Control Centre and provides a brief hardware description.

Overview of the PRO6 Control Centre

The PRO6 Control Centre has a combined control surface and GUI that provide an array of easy-to-use controls for the precise manipulation of audio.

The PRO6 Control Centre is of modular construction and is built on a robust Midas steel frame chassis similar to those used for established Midas analogue products. The frame houses three full size bays with a smaller one on the right. All of the bays are controlled from a single processor and, collectively, provide the primary mixing needs of the engineer.

All associated power supplies, computer motherboards, memory, graphics cards etc. are housed within the PRO6 Control Centre, which also contains a digital audio router box that supports local FOH (insert) I/O connectors on the rear panel. Substantial forced air-cooling is provided by a bulkhead and large (but slow moving) internal fans. These produce very low noise, suitable for seated areas theatres and concert sound.



Externally, the PRO6 Control Centre has three main areas: control surface, GUI and rear panel. The control surface is populated with instantly recognisable controls that are logically distributed in major sections. The GUI, which comprises two screens at the top of the centre bays, enhances operation by providing visual representations of the control surface and also gives you extra functionality. The rear panel provides all of the console and network connectivity, and houses the mains power sockets and isolator switch.

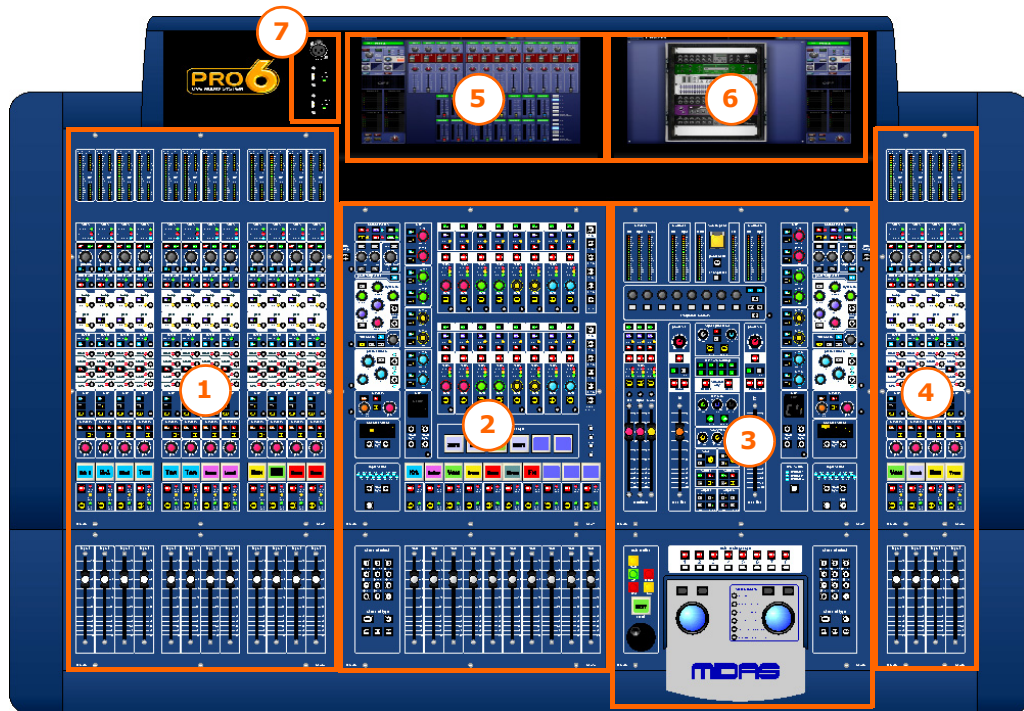
Being of modular design, the overall form and shape of the PRO6 is similar to Midas' flagship XL8. The PRO6 is split into bays, each one containing a flat fader tray and shallow raked control area. The centre bays also have a third area that houses a steep-raked display screen.

Multiple hardware fault types are tolerated by the PRO6 Control Centre without loss of audio control due to the dual redundancy and N+1 methods incorporated in the system. This is further helped by the modular nature of the bays and GUI independence. Either of the GUI screens can be used to operate the whole PRO6 Control Centre, even if *none* of the control surface hardware is working. The unit offers the facility of universal input, N+1 redundant power supplies with three latching mains connectors.

Bay and GUI layout

The PRO6 Control Centre has four discrete bays that house the following control surface controls:

- **Input bays (12-channel and 4-channel)** — two input bays provide fast access to input faders and important signal processing controls.
- **Mix bay** — provides access to outputs and groups, a detailed processing controller (all channels) and navigational controls.
- **Master bay** — provides access to the master output mixes, monitor (A and B) faders, automation, comms control, assignable effects control, and another set of detailed processing and navigational controls.

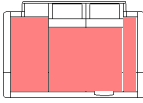


- | | | |
|---------------------------|--------------------------|--------------------------------|
| 1 Input bay (12-channel). | 4 Input bay (4-channel). | 7 Talk mic and USB connectors. |
| 2 Mix bay. | 5 Mix bay GUI screen. | |
| 3 Master bay. | 6 Master bay GUI screen. | |

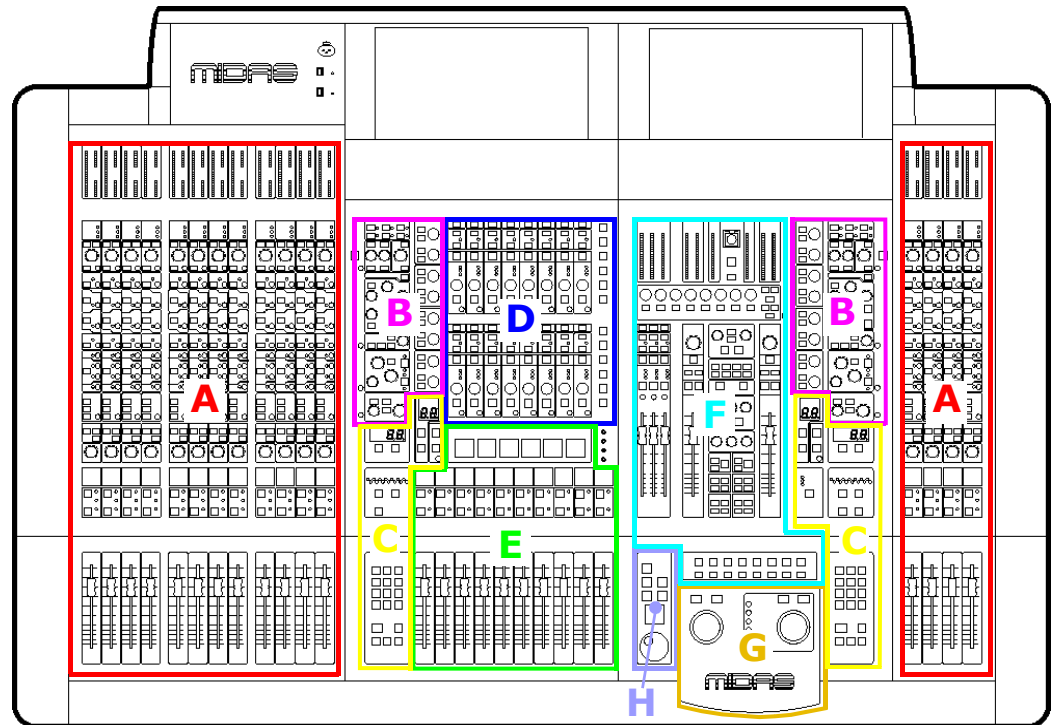
Figure 1: Bay and GUI layout

Two GUI display screens at the top of the central bays provide extensive screen support (standard configuration) and extra functionality for the channels and buses. For example, when mixing or processing. They also facilitate the use of the GUI menu, which gives you access to the many powerful features of the PRO6, such as patching, effects, GEQs, diagnostics etc.

PRO6 control surface



The control surface of the PRO6 Control Centre is divided into areas (see Figure 2) whose function is, largely, dependent on bay location. Each bay has assorted control elements with local feedback and/or support from the two centrally located GUI display screens. The screens can be remoted via external VGA connections, and third party systems can also be viewed/controlled via an integrated KVM switch on the rear panel.



A – input fast zone: 16 input fast strips across the 12-channel and 4-channel input bays provide the operator's 'must have now' controls.

B – channel strip and mixes: processing areas, such as the D-zone (dynamic), E-zone (EQ) and mix controls, provide a more comprehensive control by allowing detailed adjustments to a single channel's audio parameters.

C – channel and bus navigation zone: sections for channel and bus navigation and selection. For details, see Chapter 4 "Navigation".

D – output fast zone: 16 output fast strips can be used for mixing and processing aux, return, matrix and master channels. Navigation and flip buttons are on the right of the output fast strips.

E – VCA and POP groups: VCA faders and POP group sections.

F – miscellaneous: master fast strips, A and B signal path monitoring, communications, I-zone, surround monitoring and mute groups.

G – primary navigation zone: trackballs for mix and master bay GUI screen control, and a screen access panel (between trackballs) for direct access to GUI menu options.

H – automation: scene store/recall and system edit.

Figure 2: Main areas of the control surface

During show time the screen functions that require fast access are controlled by control knobs, pushbutton switches, faders etc. More complex functions that do not require this fast access are controlled by the trackballs and navigational keys. A keyboard integral to the flight case is used for text entry via the master bay GUI screen. An external USB keyboard can be used to operate the mix bay GUI screen.

The choice of controls provided by each bay type are prioritised by access time importance. Fast zone areas, which contain fast strips, give instant access to specific functions across the bay and channel strips give greater control of the selected fast strip.

GUI

The GUI comprises two screens that provide a pictorial representation of the control surface layout so that its displays are easy to follow at a glance. Not only does it reflect what is happening on the control surface, but it also provides extra functionality via a GUI menu. This menu provides access to all the screens that you will require to set up, configure, manage and operate the entire PRO6 Control Centre, all from a single drop-down list of easy to follow options.

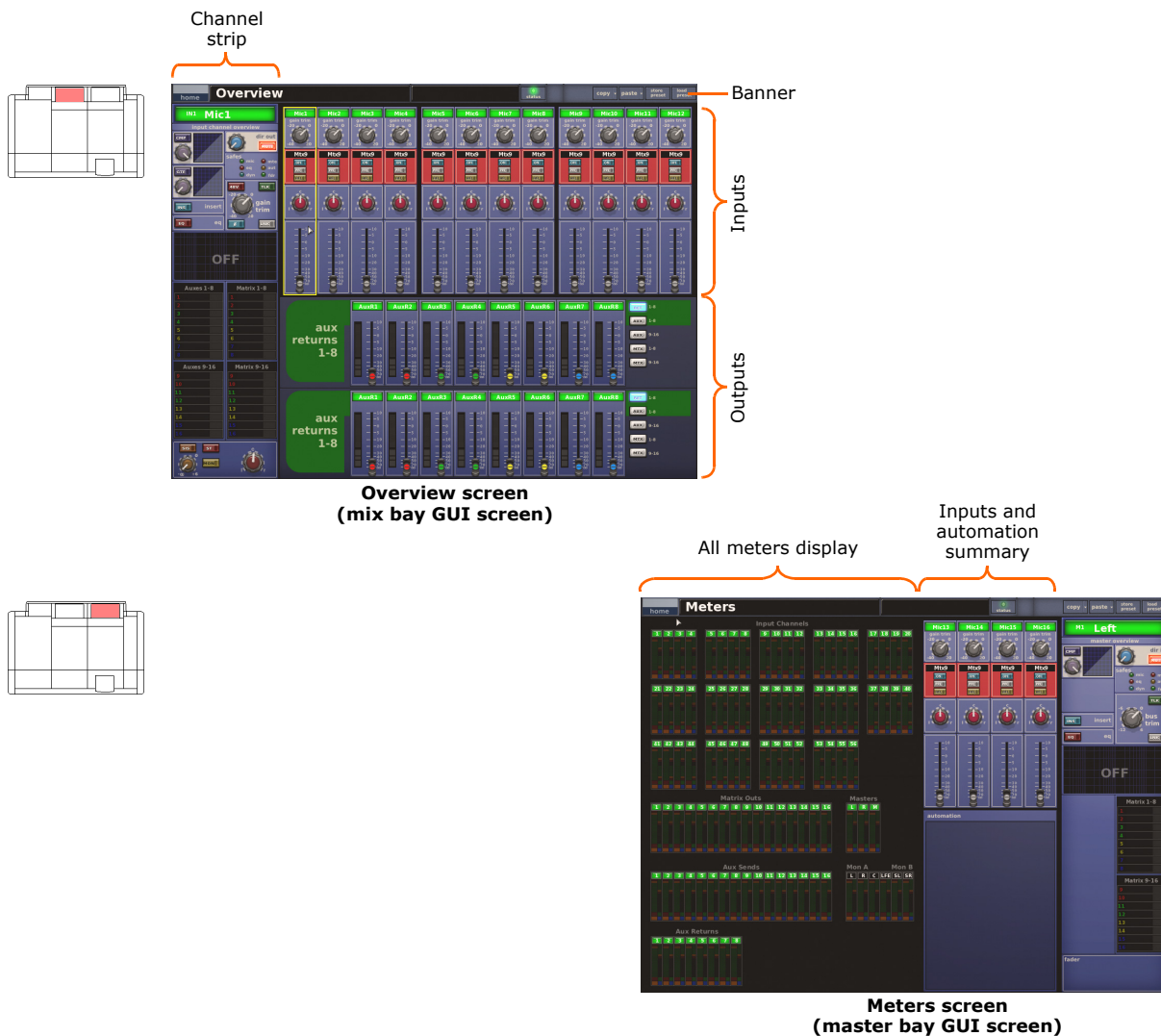
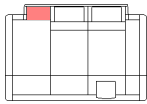


Figure 3: Layout of the GUI screens

Each GUI screen has its own default display (**Overview** and **Meters** as shown in Figure 3), although either is selectable via the GUI main menu. The **Overview** screen displays 12 inputs and two sets of eight outputs, and the **Meters** screen shows all the meters, four inputs and a summary of the automation. Both screens have a banner at the top, which is constantly displayed, and a channel strip down the outermost side.

The channel strips have a similar function to the ones on the control surface (see Figure 2 on page 7), but provide extra functionality. Each displays an 'overview' of the associated selected channel, which is divided into specific sections that provide access to processing areas.

Front panel connections



The panel to the left of the mix bay GUI screen (item 7 in Figure 1) has an XLR socket and two USB sockets for connecting a talk mic and USB devices, respectively. For example, you can connect a USB memory stick for show file backup and transfer, or a USB keyboard for text editing on the GUI.

Rear panel connections

A connector panel on the rear of the PRO6 Control Centre has three main sections (see below). On the left are three mains power inlet and ventilation assemblies, with a DC power switch above. The mid-section contains connections for the audio, network, communications, intercoms, synchronisation, external remote devices and peripheral devices. The section on the right is the user-configurable modular I/O section.

The modular I/O section can house up to three of any of the following I/O modules in any combination: DL441 analogue input module; DL442 analogue output module; DL443 analogue insert input/output module; and DL452 digital in/out (AES/EBU) module. This gives a maximum of 24 inputs and 24 outputs, if the appropriate cards are fitted. The following diagram shows the standard I/O module configuration in which the DL443 (top), DL441 (middle) and DL452 (bottom) are fitted.



Operation

Chapter 3: Working With The PRO6 Control Centre

Although many controls on the PRO6 Control Centre are similar to their equivalent analogue-type counterparts, some have been specifically designed for the PRO6, particularly those for navigation and GUI operation. As you will probably have had experience on analogue consoles, you will already be familiar with most of the PRO6 controls and their operation. Therefore, this chapter only deals with the GUI controls that may be new to you.

The navigational controls, such as quick access buttons and scroll buttons, are described in Chapter 4 "Navigation" on page 17, and the ones specifically for automation can be found in "Managing the scenes" on page 48.

Basic GUI operation

This section explains the basic procedures you can perform at the GUI screens. In general, you will control and operate the GUI by combining the operations described here.

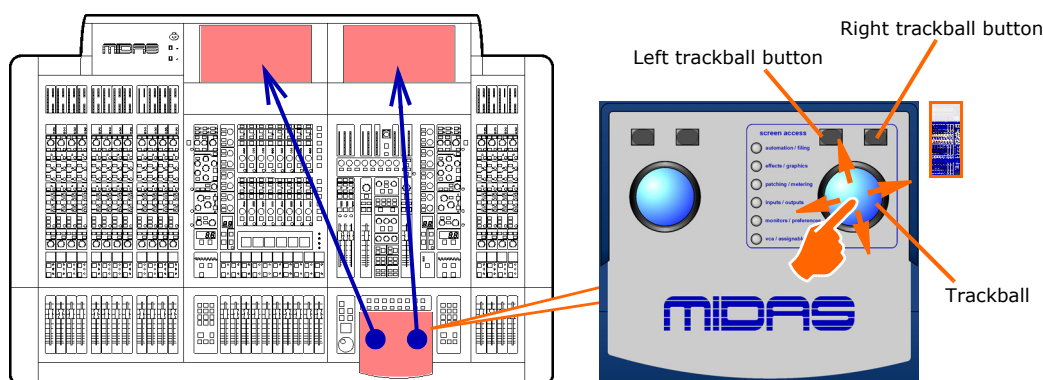


Figure 4: Controlling the GUI

Each trackball controls the movement of a pointer on its respective GUI screen (see Figure 4). The left trackball operates the mix bay GUI screen and the right one operates the GUI screen in the master bay. Each trackball has two buttons, which have similar functionality to the buttons on PC/laptop mouse. The left button is used in click and drag operations, while the right button is generally used for editing and finer control operations.

>> To operate a trackball

Rotate it by placing a finger on it and then moving your finger. The on-screen pointer will move accordingly.

Click

Moving the pointer to a specific point of the GUI screen and pressing the left button is called “clicking”. This is fundamental to GUI operation and forms the basis of many of its operations, such as switching a button on/off, selecting list and menu items, text editing etc. Doing the same with the right button is called “right-clicking”.

Drag

Moving the pointer to a specific point of the GUI screen and then pressing the left button while moving the pointer up/down/left/right is called “dragging”. Dragging is used mainly to adjust control knobs and faders, and to move sliders (attached to drop-down lists)—although it is also used to select blocks of connectors when patching. The pointer disappears when the control has been selected to show that it is ready for adjustment.

Operating the GUI screen controls

This section shows you how operate GUI screen elements, such as buttons, control knobs, drop-down lists and sliders.

>> To switch a GUI button on/off

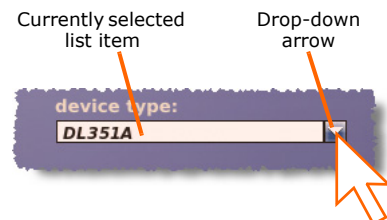
Click the button. If it has a status indicator, this will illuminate/extinguish to show that it is on/off, respectively.

>> To adjust a GUI control knob or fader

Use a drag operation. Move the pointer up/down/left/right for adjustment.

>> To select an option from a drop-down list

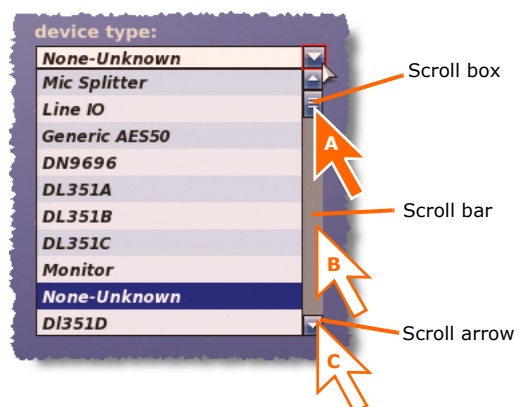
- 1 Click the drop-down arrow. The drop-down list will unfold to display some or all of its contents, depending on how many items it contains.
- 2 Do one of the following:
 - Click the option you require.
 - If necessary, scroll the list (see “To scroll a drop-down list” below) to display the option, and then click it.



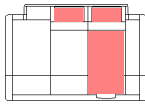
>> To scroll a drop-down list

With the drop-down list displayed, do one of the following:

- **A.** Drag the scroll box.
- **B.** Click the scroll bar. The scroll box will ‘jump’ in the direction of the click to another position in the scroll bar.
- **C.** Click an up/down scroll arrow. The scroll box will ‘jump’ in the direction of the scroll arrow to another scroll bar position. Clicking a scroll arrow when the scroll box is adjacent to it has no effect.



Using the GUI menu



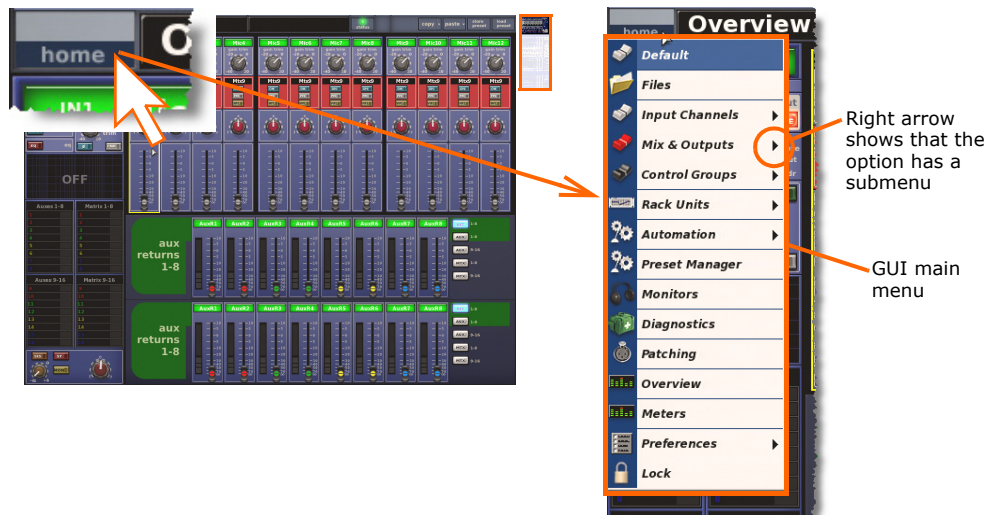
You can access the GUI main menu by clicking the **home** button, which is constantly displayed at the upper-left corner of both GUI screens. Menu options with an arrow on the right have a submenu. The background colour of a menu option will be blue when it is available for selection.

Throughout this guide, menu/submenu option selection sequences are shown in the following format (for example, for choosing the general preferences screen):

home ▶ Preferences ▶ General

>> To access the GUI main menu

Click **home**.



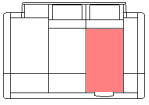
>> To select a GUI menu option

Click the menu option, for example, **Monitors**. The background of the menu option will change to blue when it is ready for selection.

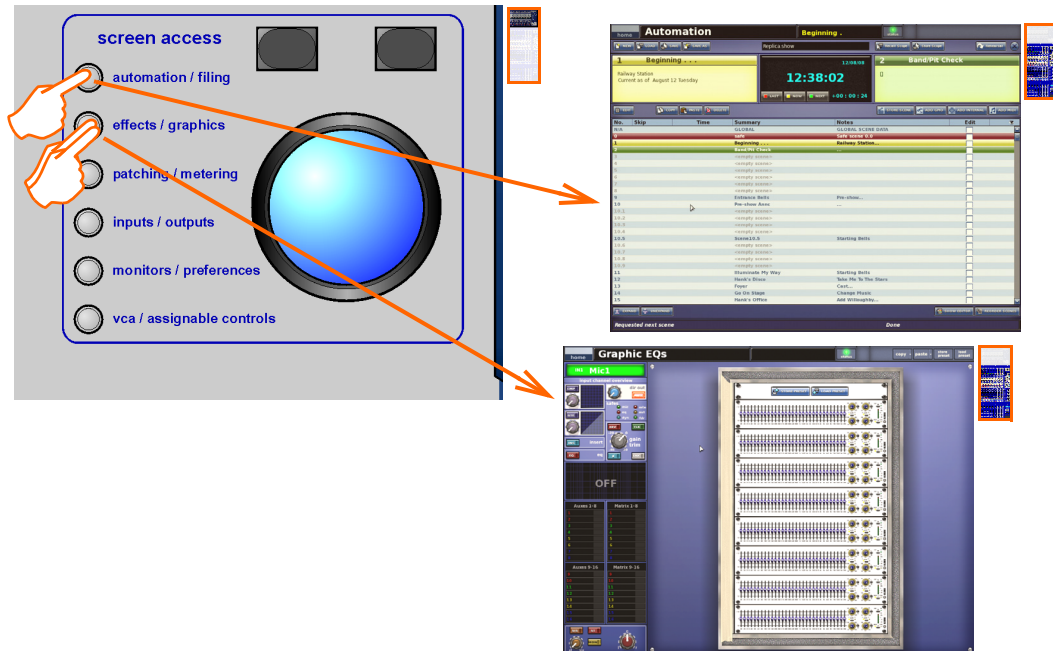
>> To access the submenu of a GUI menu option

Move the pointer over the arrow on the right of the menu option. The submenu will appear automatically to the right of the arrow. Click an option in the submenu to select that option.

Accessing a GUI menu screen using the screen access buttons



You can access some of the GUI menu screens simply by pressing a button, instead of using the GUI menu. This is done by using the screen access buttons in the primary navigation zone. Each button provides direct access to two screens, the title of which are printed next to the button. The first screen mentioned is accessed by a single button press, while the next is accessed by a double press. An example of each is shown in the following diagram.



Text editing

A keyboard is used to type in text on the GUI, for example, to configure input and output channel names. Editable text on the GUI is contained in text boxes, which generally consist of a single line of limited length. Although all text editing can be done using the normal keyboard functions, the GUI can be used to assist you, for example, by highlighting portions of text (using drag).

>> To enter/edit text via the keyboard

- 1 At the GUI, click in the text box to place an insertion point in it. The pointer will change to an I-beam shape.
- 2 Using the keyboard, type in the new text. If the text box already contains some text, you can delete this first or edit it, which can be done via the keyboard or by using the cut, copy and paste options after right-clicking.
- 3 Press Enter on the keyboard to exit the text box (or click on an empty area of the GUI screen). The pointer's shape will change back to an arrow.

Chapter 4: Navigation

This chapter introduces you to PRO6 navigation and shows you how to use the navigational tools of the PRO6 Control Centre.

For information on navigating the scenes in automation, refer to “Managing the scenes” on page 48.

An introduction to PRO6 navigation

The PRO6 provides you with unique navigational controls to quickly and easily access the items, such as channels, buses, groups and processing areas, that you will require for mixing.

Navigation is an important feature of the PRO6 Control Centre. One of the advantages digital consoles have over analogue ones is that their channel count is not limited by the control surface hardware. However, this means that only a certain amount of channels can be at the control surface at any time, while the others are ‘hidden’. So, navigation is required to access these hidden channels whenever you need them.

The way the PRO6 is set to operate may alter the function of some of the navigational controls. For more information, see “Operating modes” on page 31.

How the input channels are managed

To aid navigation the 56 input channels are grouped into 14 ‘banks’ of four channels each. The banks contain the following consecutively numbered channels: 1 – 4, 5 – 8, 9 – 12 etc., up to 53 – 56. (Figure 5 shows the number of consoles required to show all of the available inputs simultaneously.)

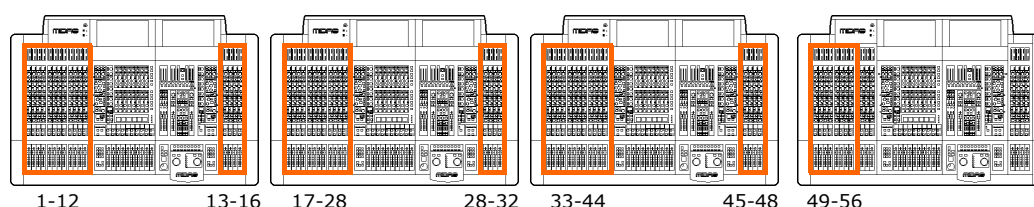


Figure 5: All inputs

During normal operation, four banks of input channels populate the input bays (see Figure 6 “Input channels in the input bays” on page 18). These are displayed across the control surface in ascending order from left to right.

Note: The rigid bank (four-channel) structure does not apply to groups, as their contents are dependent on what channels are selected as group members.

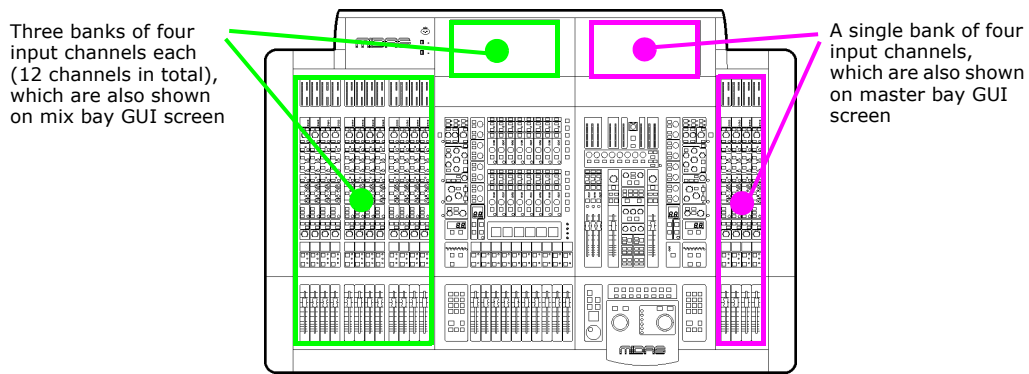


Figure 6: Input channels in the input bays

About the navigational controls

The PRO6 navigational controls can be broadly divided into two main areas: those that operate the channels currently populating the control surface (quick access buttons and LCD select buttons) and the ones that navigate channels to/from the control surface (scroll buttons and output select buttons)—although there may be some overlapping.

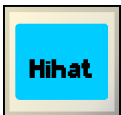
Quick access buttons



Quick access buttons help you to quickly select the channel, mix bus or processing area you want. The buttons, which are round and translucent, illuminate (blue) when active.

The quick access buttons in fast strips select their local channel and assign their local processing area to the associated channel strip. The ones in the channel strips select their local processing area, but don't affect channel selection.

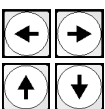
LCD select buttons



LCD select buttons select their local input channel/group (VCA/POP). The buttons are square and have an LCD display, which can be backlit. The display provides useful feedback by showing you information, such as channel/group name, and by identifying the group from the user-configured backlight colour. When selected, the display changes to a 'negative' image.

For more information on how to use the group LCD select buttons, see "Using VCA/POP groups" on page 39.

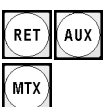
Scroll buttons



You can scroll through the channels/mixes by using the pairs of scroll buttons located in the 'select' sections of the mix and master bays (see Figure 7 on page 20). The direction of scrolling matches the analogue convention, where channels are left/right and mixes are up/down. The buttons are translucent and have a blue backlight that illuminates when pressed.

The scrolling action of the buttons (or the number of channels/buses scrolled per press) varies according to their location. For more details, see "About the navigation 'select' sections" on page 19.

Output select buttons



The output select buttons navigate their associated bank of outputs to the control surface. The buttons are translucent and have a blue backlight that illuminates when pressed; the backlight stays on to show you which bank of outputs is currently populating the control surface.

Channel select (lower) and channel type sections

The **Channel select** (lower) and **channel type** sections are used in combination to navigate a single channel to the control surface, which is generally used for rectifying a fault on a problem channel.

ALIGN button



The **ALIGN** button (both **input select** sections) navigates the currently selected channel to the local input bay. This is useful, for example, if you have scrolled away from the selected channel on the control surface and you want to get the fader back.

B button



The **B** button (master bay **input select** section only) assigns the 4-channel input bay as area B. This operates with the channel strip on the right (in the master bay).

Right arrow (to right channel) button



The right arrow (**to right channel**) button — to the right of the top output select buttons — assigns the channel strip, navigation controls and sends in the master bay to the top row of outputs.

About the navigation 'select' sections

The 'select' sections in the mix and master bays (see Figure 7 on page 20) are used for navigating the channels and mixes, and also show you which ones are currently selected. They have the following functions:

- **channel select** (upper) section — scrolls either the input or output fast strips (depending on selected channel type) channel-by-channel. Current channel selection follows the scroll, which is shown on the section's display, along with the channel type.
- **input select** section — scrolls the inputs in banks (of four). Shows you which banks of inputs currently populate the control surface by illuminating the appropriate bank LEDs. When using VCA/POP groups, an LED will flash if its bank contains a channel(s) that are members of the selected group, but don't currently populate the control surface. This section also has an **ALIGN** button and a **B** button (master bay only).
- **mix** section — scrolls the mix buses singly or in banks of eight. Shows you the you the number and type (aux or matrix) of the currently select mix bus. The quick access button assigns the currently selected mix bus to the channel strip.
- **channel select** (lower) and **channel type** sections — see "Channel select (lower) and channel type sections" above.

How to navigate

This section shows you how to navigate the channels, mixes and groups, and how to select the ones you want. Refer to Figure 7 "Location of the navigational controls on the control surface" on page 20 throughout this section.

In many cases there are a number of navigational methods you can choose from to carry out a particular task. Some may be more suitable than others in a given situation and there may even be a combination of methods you can use. Experience should guide you to the most appropriate and the ones you most prefer.

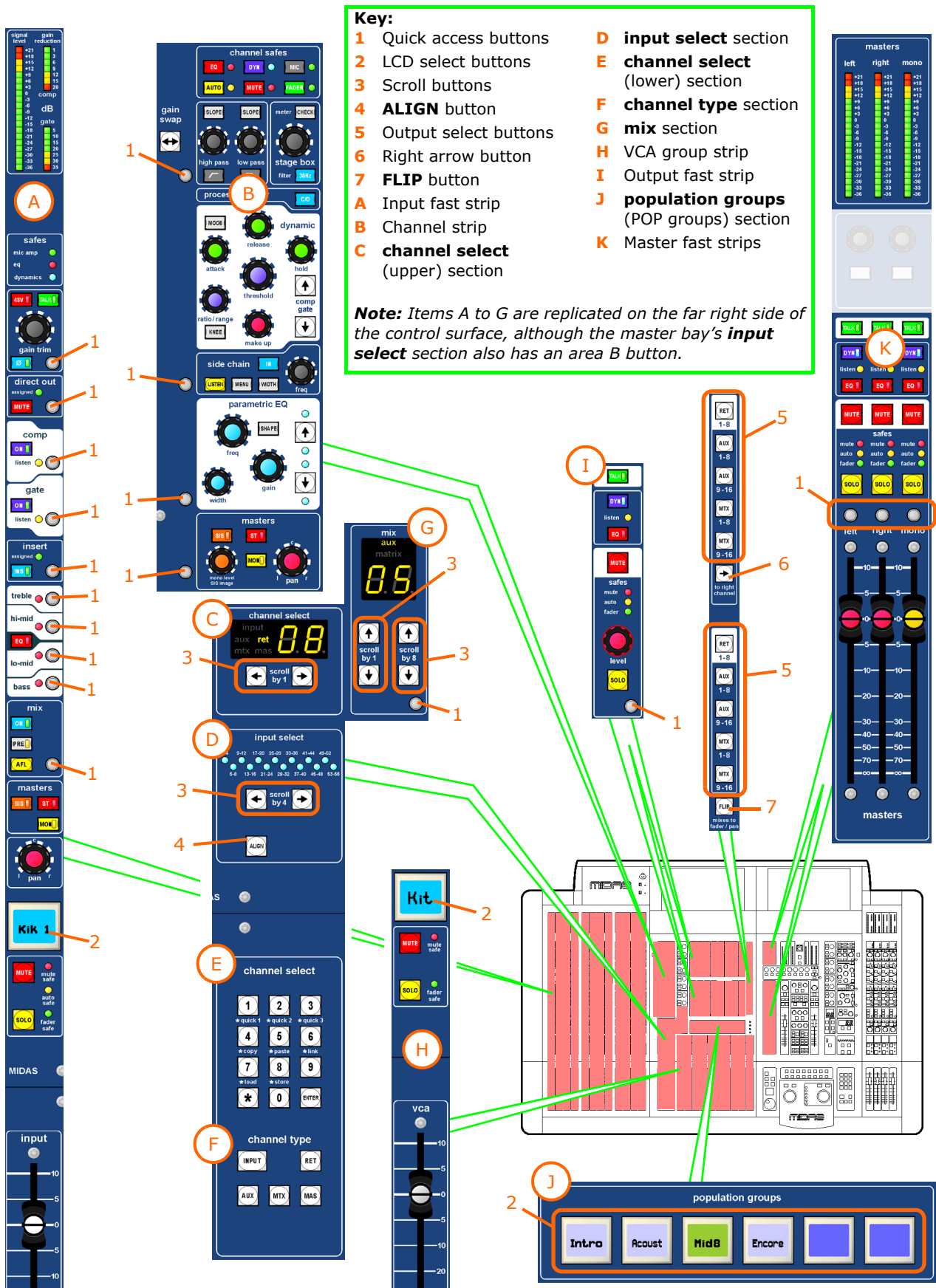


Figure 7: Location of the navigational controls on the control surface

Switching between inputs and outputs

You can easily change from working with inputs to working with outputs, and vice versa. To switch channel type, simply select any channel of the type you want to switch to. The **channel select** (upper) section shows which type of channel is currently in operation (and the channel number selected).

>> To change channel type

Do one of the following:

- Press a quick access button in a fast strip of the required channel type.
- To change to inputs from outputs, press an LCD select button in any input fast strip.

Navigating channels and mix buses to the control surface

There are a number of ways in which you can bring channels and mix buses to the control surface, particularly using the scroll buttons.

>> To navigate a channel to the control surface

With the channel type you require currently in operation, do one of the following:

- Scroll to the channel using the **scroll by 1** buttons in the **channel select** (upper) section. This will also select the channel.
- If you are currently operating the inputs, scroll the bank containing the input channel you require to the control surface using the **scroll by 4** buttons in the **input select** section.
- If you are currently operating the outputs, navigate the bank containing the output channel you require to the control surface by pressing its output select button (in either the top or bottom output fast strip sections).

>> To navigate an input channel to a fast strip on the control surface

Press **ALIGN**.

>> To navigate a mix bus to the control surface

Do one of the following:

- Scroll to the mix bus using the **scroll by 1** buttons in the **mix** section. This will also select the mix bus.
- Scroll the bank containing the mix bus you require (aux or matrix) to the control surface using the **scroll by 8** buttons in the **sends** section.

Selecting channels, mix buses and groups

There are a number of ways you can select a channel/mix bus from those currently populating the control surface, particularly by using the quick access buttons.

>> To select an input channel

Do one of the following:

- Press its LCD select button.
- Press any of its quick access buttons. This will also assign the channel to the channel strip and its processing area to the GUI channel strip.

- Scroll to the input channel using the **scroll by 1** buttons in the **channel select** (upper) section.

>> To select an output channel

Do one of the following:

- Press its quick access button. This will also assign the channel to the channel strip (control surface and GUI).
- Scroll to the output channel using the **scroll by 1** buttons in the **channel select** (upper) section.

>> To select a mix bus

Scroll to the mix bus using the **scroll by 1** buttons in the **mix** section.

>> To select a group

Press its LCD select button.

Navigating a processing area or mix bus to a channel strip

You may want a specific processing area assigned to a channel strip, for example, to carry out processing or for copying to other channels. Or, you may want to carry out detailed processing on the currently selected mix bus, but it may not necessarily be assigned to its associated channel strip.

>> To navigate a processing area to a channel strip

Do one of the following:

- If its channel is already selected, press its quick access button in the channel strip. This will also assign the channel to the channel strip (control surface and GUI).
- If its channel is at the control surface, but is not currently selected, press its quick access button in the fast strip.

>> To navigate the selected mix bus to a channel strip

Press the quick access button in the **mix** section. This does not affect the current population of the output fast zone.

Fault finding a problem channel

If you know the number of the channel that has a problem, you can quickly navigate it to the control surface by typing in its channel type and number via the **channel select** (lower) and **channel type** sections.

>> To navigate a channel using its number

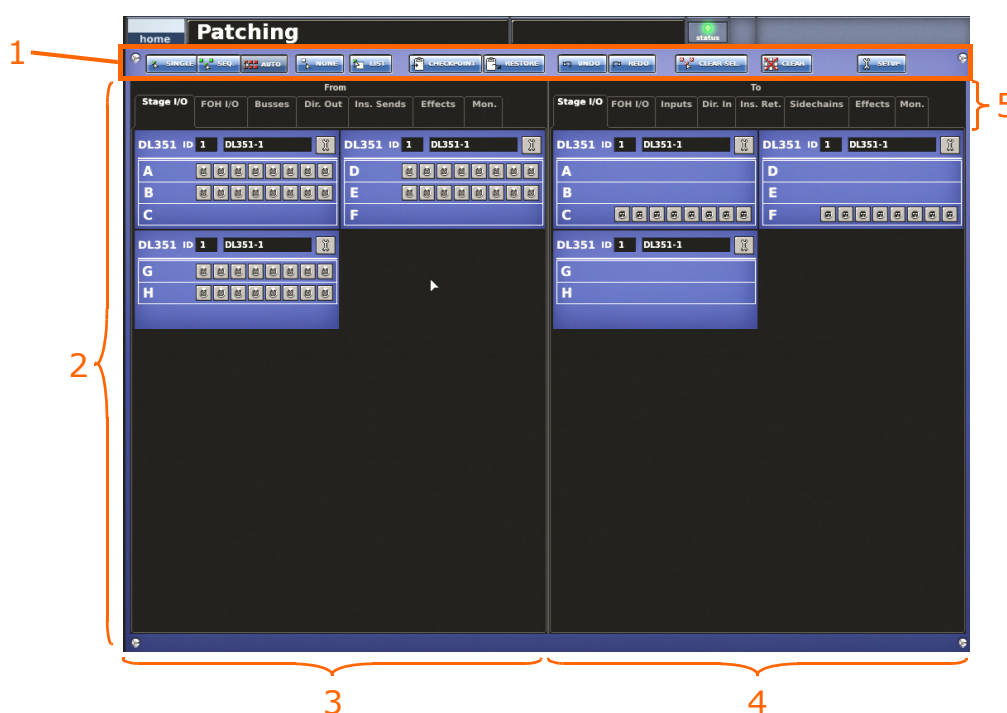
- 1 In the **channel type** section, press the button corresponding to the channel's type. For example, if the channel is an input, press **INPUT**.
- 2 In the **channel select** (lower) section, type in the channel's number. For example, press **4** and then **7** for channel 47.
- 3 Press **ENTER**.

Chapter 5: Patching

This chapter describes the patching feature of the PRO6.

Introduction

Patching is a GUI-only feature that allows you to carry out all the routing requirements of the PRO6. The GUI main menu has a **Patching** option that takes you to the **Patching** screen (shown below), which contains all of the available patching connectors on the PRO6. This screen provides an easy-to-use interface, where you can select your source and destination patching options, facilitated by a panel of function buttons. Additionally, the **Patching** screen allows you to set up the units (devices). For example, you can adjust the analogue gain, select +48V phantom voltage etc., of the line I/O units connected to the system.



1 Function button panel, contains the function buttons that enable patching and device configuration (see "Function buttons" on page 24).

2 Patching area, contains all of the patch connectors on tabs.

3 **From** section, has tabs that contain all of the patch connector sources.

4 **To** section, has tabs that contain all of the patch connector destinations.

5 Tab names.

>> To access the Patching screen

Do one of the following:



- At the GUI, choose **home ▶ Patching**.
- Press the **routing/metering** button in the primary navigation zone.
- At the appropriate GUI screen, click the **src** (source) or **dest** (destination) button. The **Patching** screen will open at the appropriate tab/configuration window.

Function buttons

The function buttons are described in Table 1 “Description of the function buttons”. Click a function button to select it; its background colour will change to a lighter shade when selected.

Table 1: Description of the function buttons

Button	Description
	Allows you to patch a single source to a single destination or multiple destinations. See “Single patching (SINGLE)” on page 30.
	Lets you select multiple sources and patch them one by one to their destinations. In this method, each source can only have one destination. See “Sequence patching (SEQ.)” on page 30.
	Allows you to select a block of sources and patch them all automatically, simply by selecting a single destination. Any existing patches within the destination range will be replaced by the new ones.
	Clears all currently selected patch connectors from all tabs in the From and To sections. The green triangles will disappear accordingly.
	Changes the tooltip type from standard to list, but is only available when carrying out a sequence patching operating via the SEQ. button. The list tooltip, which has a distinctive translucent orange background, appears in the To section when you are patching the destinations of a number of selected sources. The list contains a queue of sources waiting to be patched; the first in the queue is at the bottom of the list.
	Sets a patching store point that contains the patching status at that instant. There is only one checkpoint available, so each time CHECKPOINT is clicked the previous checkpoint is overwritten.
	Reverts patching status to the last checkpoint or, if no checkpoints have been created, it will revert patching status to the power up condition. All patching done in the intervening period will be lost.
	Undoes the latest single patch, even if it was part of a multiple patching operation. Repeated clicks will undo the preceding patching operations, going back to the last checkpoint, or power up if no checkpoints have been created.
	Redoes an undo. This can be repeated for each undo in the previous undo operation.
	Clears all current selections and their patches. Important: Unlike the NONE button, which merely removes the current selections (highlighted in yellow), CLEAR SEL. goes a step further by removing the patch as well. This will stop any audio that may have been going through the patched signal.

Button	Description
	Clears all patching. Important: Exercise great caution when using this function. Observe the warning that appears after clicking this button.
	Opens the input/output setup window, from where you can set up the I/O tabs in the Patching screen (see "To add a device or change its set up" on page 28).

About the patching procedure

Although patching can be thought of as routing/rerouting the console's incoming, internal and outgoing signals, in the context of the **Patching** screen, patching also encompasses the setting up and configuration of the stage and FOH rack I/O devices. The patching procedure is initially carried out after system installation and comprises:

- **Device configuration:** Configure the devices by adjusting their parameters (see "Configuring the devices" on page 25).
- **Snake selection:** Configure the PRO6 according the type of 'snake' you are using for the X and Y networks (see "Configuring the PRO6 with the snake type" on page 27). **This is important, as the PRO6 Control Centre will not work unless the snake type is correctly configured.**
- **Setting up the I/O rack devices:** Set up the system devices, such as line I/O, DN9696 and generic AES50, to the I/O tabs in the **From** and **To** sections of the **Patching** screen (see "Setting up the I/O rack devices" on page 27).
- **Patching:** Carry out all of the required routing, for example, mics to input channels (see "How to patch" on page 29).

Configuring the devices

You have the option to configure the devices from the **Patching** screen. Parameters, such as gain and +48V phantom voltage, can be adjusted or switched on/off, respectively via a device-specific configuration window.

These configuration settings can be independent of channel data, as (until patched) they only control the physical unit. If a device is subsequently patched to one or more channels, the channel(s) control the device, and vice-versa.

The device configuration area also allows control of audio parameters when the device is used as a direct connection to another device, for example, FOH to stage via a digital snake, instead of through the DSP. In this case the settings are also saved in the show file and can be automated, even though the signals are not routed through the console DSP.

Device configuration procedure

Although the procedure for configuring the devices is similar, their parameters are dependent on device type. The procedure for configuring the devices of a similar type involves:

- Opening the configuration window of the device.
- Selecting one of the device's cards/channel ranges and configuring the available parameters.
- Repeating for the other cards/channel ranges of the device.

- Repeating for the other devices.
- Closing the device's configuration window.

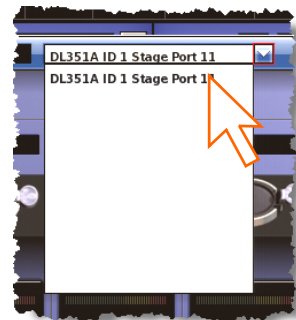
>> To open the configuration window of a device

Click the device's spanner button.

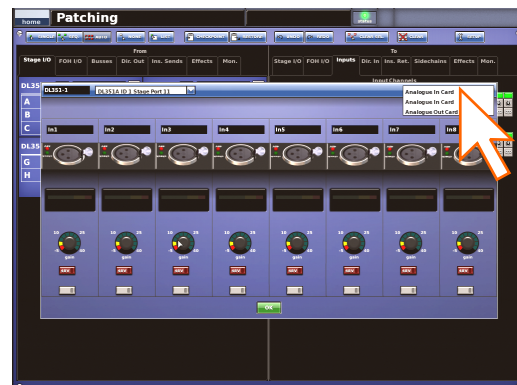


>> To set up/change the configuration of an I/O device

- 1 Open the configuration window of the I/O device you want to configure (see "To open the configuration window of a device" on page 26).
- 2 Select the I/O device from the drop-down list at the top of the configuration window.



- 3 Select the card/channel you want to configure/change, from the drop-down list at the upper-right corner of the configuration window. For example, the "Analogue In Card".



- 4 In a channel, configure the parameters. For example, in channel "In1", adjust the gain and switch the +48V phantom voltage on (shown right).
- 5 Repeat step 4 for the other channels in the card.
- 6 Repeat step 3 to step 5 for the other cards.
- 7 If you want, you can configure other I/O devices by repeating step 2 to step 6. Otherwise, click **OK** (bottom of configuration window) to save the configuration changes and close the window.



Configuring the PRO6 with the snake type

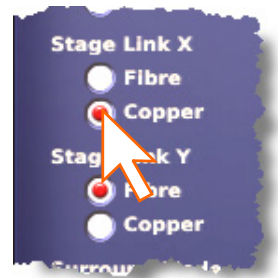
Important:

The snakes must be correctly configured before operating the PRO6. Otherwise it will not work.

You can connect the DL371 DSP to the PRO6 Control Centre with either copper or fibre-optic snakes. The PRO6 needs to be configured with this information before operation can begin. This is done via the GUI menu.

>> To configure the PRO6 with the snake type information

- 1 At the GUI, choose **home** ▶ **Preferences** ▶ **General**.
- 2 Under the **Stage Link X** heading, click the **Fibre** or **Copper** option, according to whichever is fitted to the X network. For example, click the **Copper** option (shown right). A selected option will contain a red circle.
- 3 Repeat for the Y network, under the **Stage Link Y** heading.

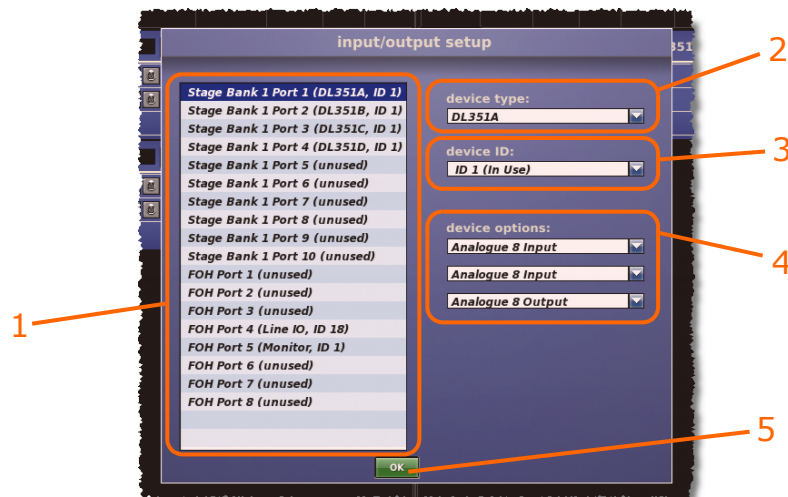


Setting up the I/O rack devices

You can add, remove and set up the devices, such as line I/Os, mic splitters, DN9696s etc., that are connected to the Stage I/O and FOH I/O racks. This is done via the **input/output setup** window. Here, you can set up the device ID and also the type of cards (modules) fitted to the physical unit. Figure 8 "input/output setup window" shows a typical example of what the **input/output setup** window looks like with one of the DL351 devices selected. The options are context-sensitive, so some may be blank, depending on the type of device.

The DL351 Modular I/O has four devices (A, B, C and D) per unit, and each one has its own port. The four devices represent the following:

- DL351A - cards A, B and C.
- DL351B - cards D, E and F.
- DL351C - cards G and H.
- DL351D - redundant AES50 port.



- 1 List of Stage and FOH ports with current device assignments.
- 2 **device type:** drop-down list, contains a list of the available devices to choose from.
- 3 **device ID:** drop-down list, contains a full list of IDs for the selected device type. Those already in use will be prefixed with the text "(In use)".
- 4 **device options:** drop-down list(s), from which you can select the card that is actually fitted in the physical unit. The positions of the drop-down lists are relative to the card positions in the physical unit.
- 5 **OK** button, closes the **input/output setup** window.

Figure 8: **input/output setup** window

>> To add a device or change its set up

- 1 Click **SETUP** (shown right) to open the **input/output setup** window.
- 2 In the list of ports (far left in the **input/output setup** window), click the port you want to allocate the device to. For example, "FOH Port 3 (unused)". The text in the **device type:** field will change accordingly. (A port that has no device allocated to it will have the text "(unused)" after its name.)
- 3 In the **device type:** drop-down list, click the type of device. For example, "DL351A".
- 4 In the **device ID:** drop-down list, click the ID you want for the device. For example, "ID6".
- 5 In the **device options:** drop-down list, click the type of card fitted physical unit. For example, "Analogue 8 Input". If there is more than one **device options:** drop-down list, repeat for the remaining ones, making sure they match the actual cards fitted.
- 6 Click **OK**. This will save any changes and close the **input/output setup** window.



How to patch

Patching, basically, involves selecting the source patching connectors in the **From** section of the **Patching** screen and then selecting their destination(s) in the **To** section. You can select patches singly, or in multiples by using the sequence and automatic operations.












>> To open a tab in the From or To sections

Click the tab title. For example, **Ins. Sends** (insert sends).

>> To select a single patch connector

Click the patch connector. The effects of clicking a patch connector are shown in Table 2 "Effects of clicking a patch connector".

Table 2: Effects of clicking a patch connector

Clicking	In the From section	In the To section
	Selects patch the connector. 	Will do one of the following (provided a source patch connector(s) has been selected in the From section): <ul style="list-style-type: none"> Selects the patch connector during a single patching operation.  Patches the patch connector during either a sequence or an automatic patching operation.  Otherwise, this has no effect.
	Deselects the patch connector, which then reverts to its previous state (patched or unpatched).  OR 	Deselects the patch connector. 
	Selects the patch connector and all the ones it is patched to in the To section. Shows which tabs contain selected patch connectors by putting a green triangle under the title of each. 	Removes the patch. 

Selected patch connectors will turn green after another patch operation is initiated or a function button is selected.



*To quickly check the destinations of a source patch connector, click it. This will select it and all of its destinations. A green triangle will appear under the name of any tab in the **To** section that contains a destination(s).*

Single patching (SINGLE)

The **SINGLE** function button allows you to patch a single source to a single destination or multiple destinations.

>> To patch a single source to a single destination

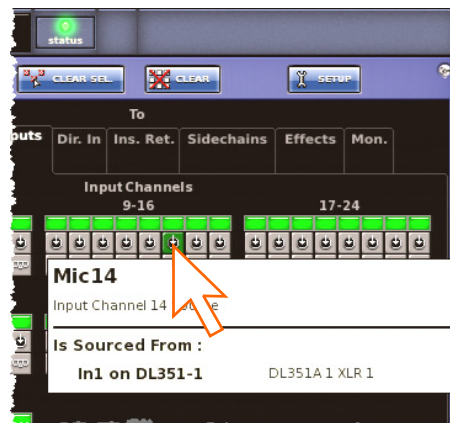
The following example shows you how to patch an output from a mic splitter to an input channel.

- 1 Click **SINGLE**.
- 2 Select the source patch connector. For example, in the **Stage I/O** tab of the **From** section, click the first patch connector (XLR1) of card A of the DL351 Modular I/O. Its background will change to yellow and a green triangle will appear under the tab title (as shown right).



- 3 Select the destination patch connector. For example, in the **Inputs** tab of the **To** section, click the patch connector for input channel 14 (Mic14). It will now be patched to the source. If the new patch is carrying a signal, this audio may be heard, depending on the settings of the PRO6 Control Centre.

Note: You can also carry out single patching operations by using the **CLEAR SEL.** and **AUTO** functions.



>> To patch a single source to multiple destinations

- 1 Patch the source patch connector to one of its destinations, as detailed in "To patch a single source to a single destination" on page 30.
- 2 In the **To** section, select the other destinations.

Sequence patching (SEQ.)

If you need to do a number of patches, and each has only a single destination, you can use the sequence function. All of the source patch connectors are selected in the **From** section before being patched, one by one, in the **To** section. This saves you having to go back to the **From** section for the start of each patch.

To assist you in sequence patching, you can change the tooltip to the list type (see the **LIST** function button in Table 1 "Description of the function buttons" on page 24).

Chapter 6: Basic Operation

This chapter is intended to familiarise you with the PRO6 Control Centre by showing you how to carry out some basic operations in order to get some audio out of it.

Note: *As the operation of both input bays is principally the same, this chapter will generally only show the operation of the 12-channel input bay. Although, any differences in their operation will be shown.*

Please don't forget that, although this system is a complex, high-tech piece of equipment, it is very easy to use.

Principles of operation

PRO6 Control Centre operation is based on the concept of colours and groups rather than 'layering' or 'paging', which is the case with most digital consoles on the market today. With so many channels available it is far easier to remember them by their user-configured individual/group colour and name rather than their channel number.

The control surface is populated with instantly recognisable controls that are logically distributed in major sections, so that all the controls you need to access most of the time are always on the control surface, while the remainder are only one action away. All I/O meters are permanently on display, both on the control surface and the GUI, to give instant monitoring feedback.

Operating modes

You can change certain aspects of PRO6 operation by assigning different tasks to certain areas of the control surface. This section will explain the different ways in which the control surface can operate.

Normal mode

During normal operation the 12-channel input bay is operated from the mix bay controls and GUI screen, while the controls and GUI screen in the master bay operate the 4-channel input bay. Both input bays operate in unison and are, in effect, area A. (The 12-channel input bay will always be area A, no matter operation mode you are using.)

Using the 4-channel input bay as area B

You can assign the 4-channel input bay as area B, thus making both the input bays independent from each other. This facilitates two-man operation, which is described in "Two-man operation" on page 55.

Operating the top output fast strips from the master bay

During normal operation, both rows of output fast strips — which are always independent from each other — are operated using the controls in the mix bay. However, you can assign the master bay to control the top row of output strips.

>> To switch control of the output strips to the master bay

Press the right arrow (**to right channel**) button (see Figure 7 “Location of the navigational controls on the control surface” on page 20).

Controlling the mix buses in flip mode

Flip provides a more global approach to mix bus level control. Normally, you can only use the level control knobs in the channel strips to adjust the signal level of the aux/matrix mix buses going to the masters. However, by using flip you have the option of controlling them from either the **pan** control knobs or the faders in the input fast strips.

In flip mode the **channel select** (upper) section scrolls across the input fast strips.

>> To configure the PRO6 for pan or fader flip

- 1 At the GUI, choose **home** ▶ **Preferences** ▶ **General**.
- 2 Depending on which option you require, click the option button of one of the following in the **Fader flip** section. When an option is selected, it will contain a red circle:
 - “Flip to faders”.
 - “Flip to Pans”.

>> To flip mixes to input pan/fader control

With an output selected on the control surface, press **FLIP** (see Figure 7 “Location of the navigational controls on the control surface” on page 20). The button will illuminate to show you are in ‘flip’ mode. The currently selected mix bus in the input channels will change to AuxS1 and, on the GUI, the background of the pans and faders will change accordingly. Also, the LCD select buttons in the input fast strips will display the current bus mode, for example, “MONO AUX”.

Hints and tips

- **Check what is hidden:** On the PRO6, unlike on an analogue control surface, some of the settings and parameters will be hidden from view (stored in the computer memory of the PRO6). At various times during a mix we recommend that you select and view unused parameters to make sure there are no hidden surprises, for example, a reverb send left from a previous mix.
- **Check the Meters screen:** It is a good idea to frequently monitor the **Meters** screen (default display of the master bay GUI), which provides at a glance an overview of the console’s status and operation. It shows all the meters and the status condition of faders and some switches, such as solos and mutes. However, some things will still remain hidden.

Saving your work

We recommend that you save your work regularly while carrying out the procedures included in this chapter. Not only is this good practise during normal PRO6 operation, but in this instance it may save you from losing some set-ups that could prove useful later on. To do this, create a new show (see "To access the Automation screen" on page 46), and then continue reading through the remainder of this section, following the instructions carefully. Save your work at convenient points (see "To create a new scene using the current settings" on page 49 and "To save a show or create a new one from the current settings" on page 47).

Saving a show versus storing a scene

It is important to understand the differences between saving a show and storing a scene.

- **Storing a scene** saves the current scene settings to the show file. Scene data is *never* updated unless you manually store a scene.

Although the state of the console is copied every five seconds, it is not stored in a scene. Instead, it is placed in the NVRAM (non-volatile random access memory) of the console's memory, which is a type of RAM that doesn't lose its data when the power goes off. If the console loses power accidentally, these settings are loaded so that audio parameters are identical, thus avoiding audio level jumps. When power is lost, the showfile loaded (if any) will not subsequently be restored, and any unsaved changes to it will be lost.

- **Saving a show** copies the show file onto the internal solid-state disk of the PRO6, which provides you with a 'permanent' copy. Although this memory is recalled on PRO6 power up, in extreme circumstances, such as a system failure, this may be lost. We therefore recommend that you save your work regularly.

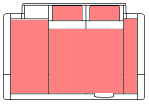
Shutting down the PRO6 Control Centre properly

When switching off the PRO6 Control Centre, we recommend that you use the Shutdown option of the GUI menu (see "To switch off the PRO6 Control Centre" on page 62).

By using shutdown, the cached copy of the show data, which is maintained by the system, is automatically stored. Shutdown then uses the current showfile, NVRAM data and cache files to restore the PRO6 Control Centre to *exactly* the same state as at power down; even to the point of loading the unsaved show and placing you at the correct scene, with non-stored scene data at the control surface.

If you don't use the Shutdown option the audio parameters are still restored, but the show and show status (saved/unsaved) cannot be restored automatically. You must manually reload the show.

Setting a mic amplifier's input gain



The PRO6 Control Centre has two input gains per channel, one is the remote gain for the analogue mic pre (stage box gain) and the other is the digital trim (console gain). In its default state, the stage box gain is in the channel strip and the console gain is in each input fast strip. However, you can swap these sections over (by pressing the gain swap button) to give you a more global control of the stage box gain.

Note: The **gain trim** and **stage box** control knobs on the control surface will adjust whatever has been 'swapped' to their respective strips and not necessarily what their names suggest. The **stage box** control knob (channel strip) always controls the alternative 'swap' to the ones shown in the input fast strips on the GUI screen.

>> To set the stage box gain/console gain

Pressing the gain swap button changes the appearance of the gain trim knobs

Stage box input gain

Console digital trim (fast strip)

gain swap

48V TALK 1

trim

stage box

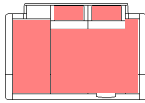
meter CHECK

high pass low pass

filter 30Hz

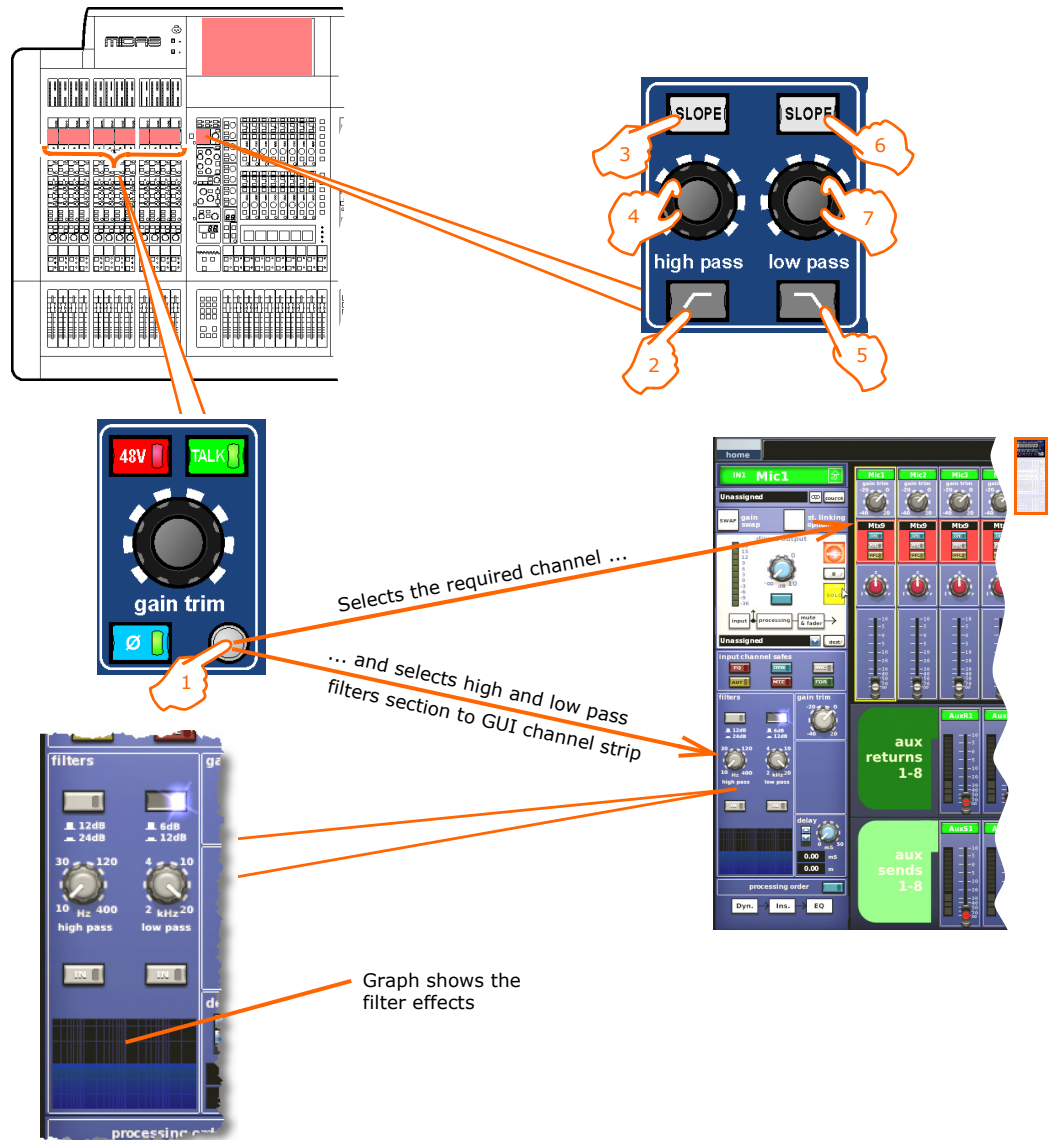
- 1 Press the quick access button in the **gain trim** section to display the **GAIN SWAP** button in the GUI's channel strip.
- 2 Press the left-right arrow gain swap button (or click **GAIN SWAP**) to swap the **gain trim** and **stage box** sections over.
- 3 Adjust the **gain trim** control knob (5dB steps from -5dB to +40dB) to the required level to suit the Midas pre-amp characteristic. A suitable level could be one that only just illuminates the yellow LEDs. Do this for each required channel.
- 4 Drive the mic amps for that 'Midas colouration'; feel free to overdrive if you want.
- 5 After you have achieved the required gain state, press the left-right arrow gain swap button (or click **GAIN SWAP**) to swap the gains back to their default state.
- 6 Adjust the **digital trim** control knob to (this time) adjust the console digital trim (+20dB to -40dB continuous trim) for your preferred gain structure.
- 7 Set analogue remotes for initial set-up, then adjust digital trim for showtime.

Setting the high and low pass filters



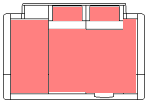
Select high and low pass filters. The high and low pass filters can be switched be on/off and, when on, each has two settings. The filters are replicated on the GUI, which also shows the value of the filter in operation.

>> To set both high and low pass filters in



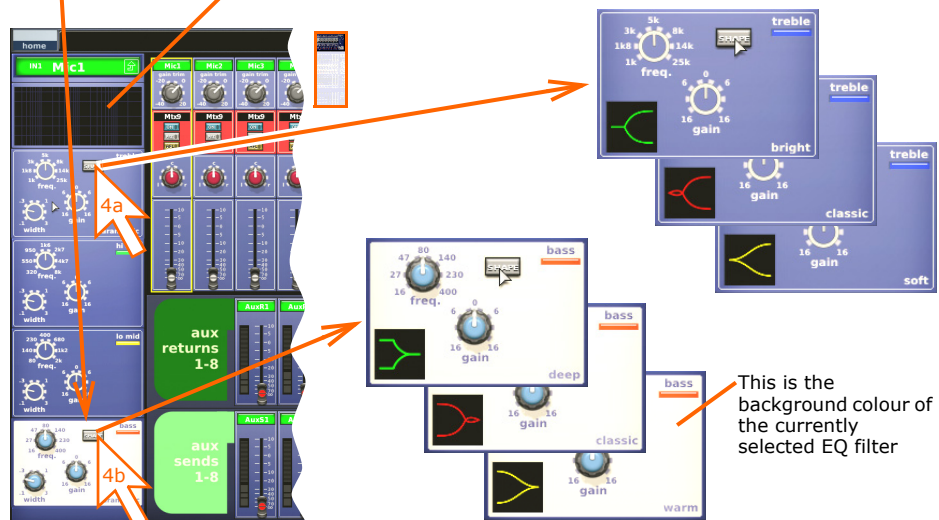
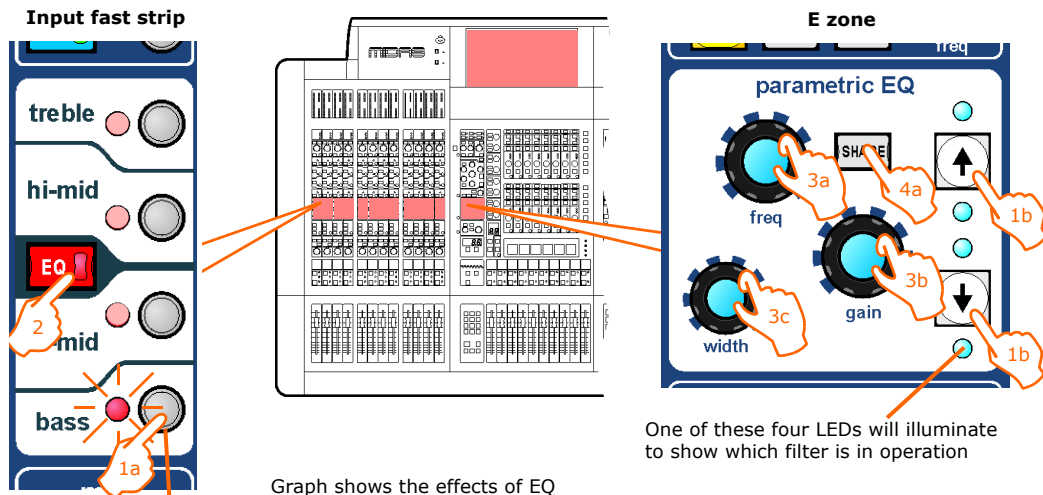
- 1 Press the quick access button in the **gain trim** section to assign the **filters** section to the channel strip.
- 2 Press the high pass filter button to switch on the high pass filter.
- 3 Press **SLOPE** (high pass) to change the filter value to 24dB (button illuminated) or 12dB (button extinguished). The GUI shows the current value.
- 4 Adjust the **high pass** filter control knob to the required value, in the range 10Hz to 400Hz.
- 5 Press low pass filter button to switch on the low pass filter.
- 6 Press **SLOPE** (low pass) to change the filter value to 12dB (button illuminated) or 6dB (button extinguished). The GUI shows the current value.
- 7 Adjust the **low pass** filter control knob to the required value, in the range 2kHz to 40kHz.

Input equalisation (E zone)



Use EQ to equalise the input signal via the treble, hi-mid, lo-mid and bass filters, which are situated in the input channel strip's E zone. Treble and bass each have a parametric filter option and three specific shelving modes. Feedback for EQ is via GUI only.

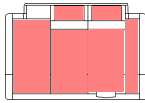
>> To EQ the input signal



- 1 Press the quick access button of the required EQ filter (**treble**, **hi-mid**, **lo-mid** or **bass**). For example, the bass filter. This will select the channel and open the EQ filters processing area in the GUI's channel strip. Alternatively, you can navigate to it using the bass and treble up and down buttons in the E-zone (see 1b above).
- 2 Press **EQ** to switch on EQ (button will illuminate).
- 3 Adjust the **freq**, **width** and **gain** control knobs in the E-zone to apply EQ.
- 4 Audition the different filters, including the 'minimum harmonic disruption' types, by scrolling through them using the **SHAPE/ [MODE]** button. The minimum harmonic disruption filters are only available for **treble** (bright, classic and soft) and **bass** (deep, classic and warm); see Note below.

Note: *bright* and *deep* use psychoacoustic phenomena to generate steep slopes that sound natural. These filters are called "minimum harmonic disruption filters".

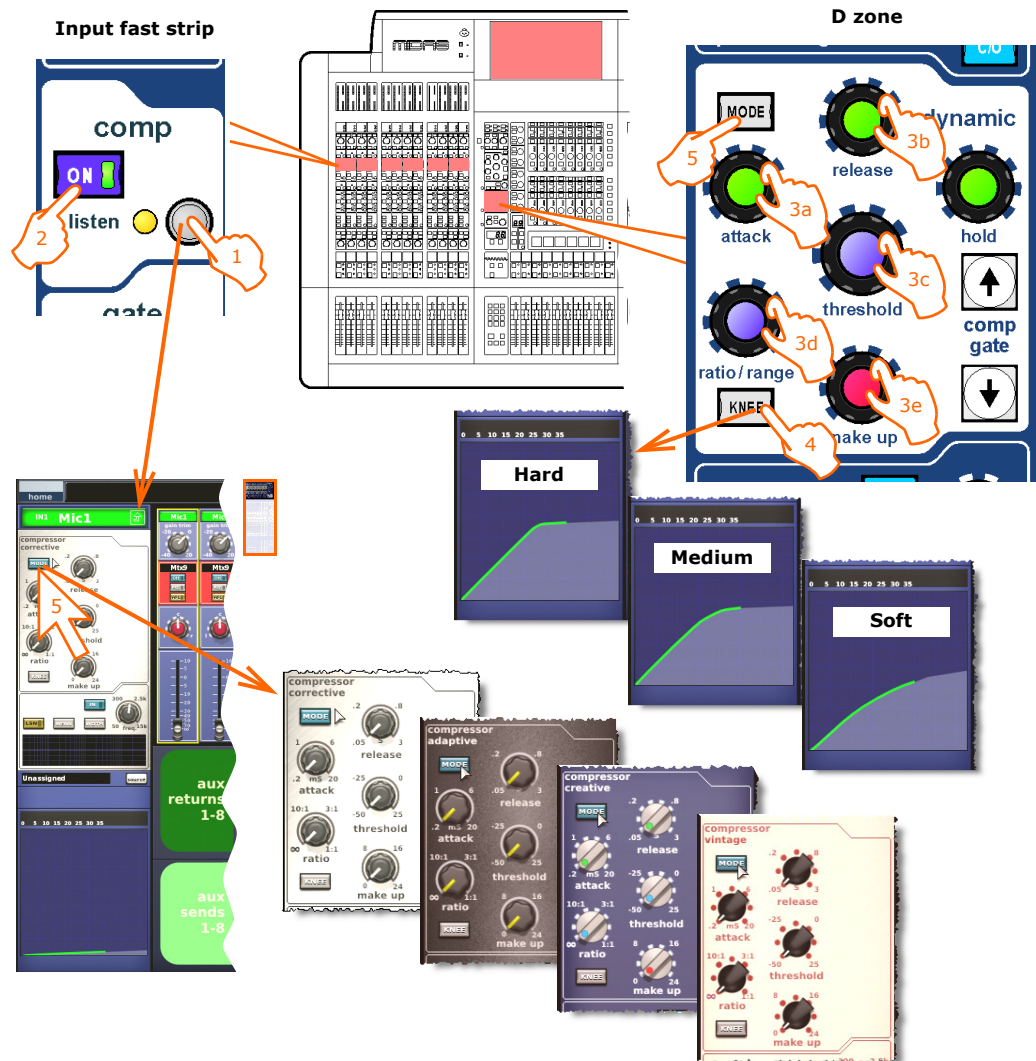
Input dynamics processing (D zone)



Set up compressor and gate dynamics processors using the controls in the input channel strip's D zone.

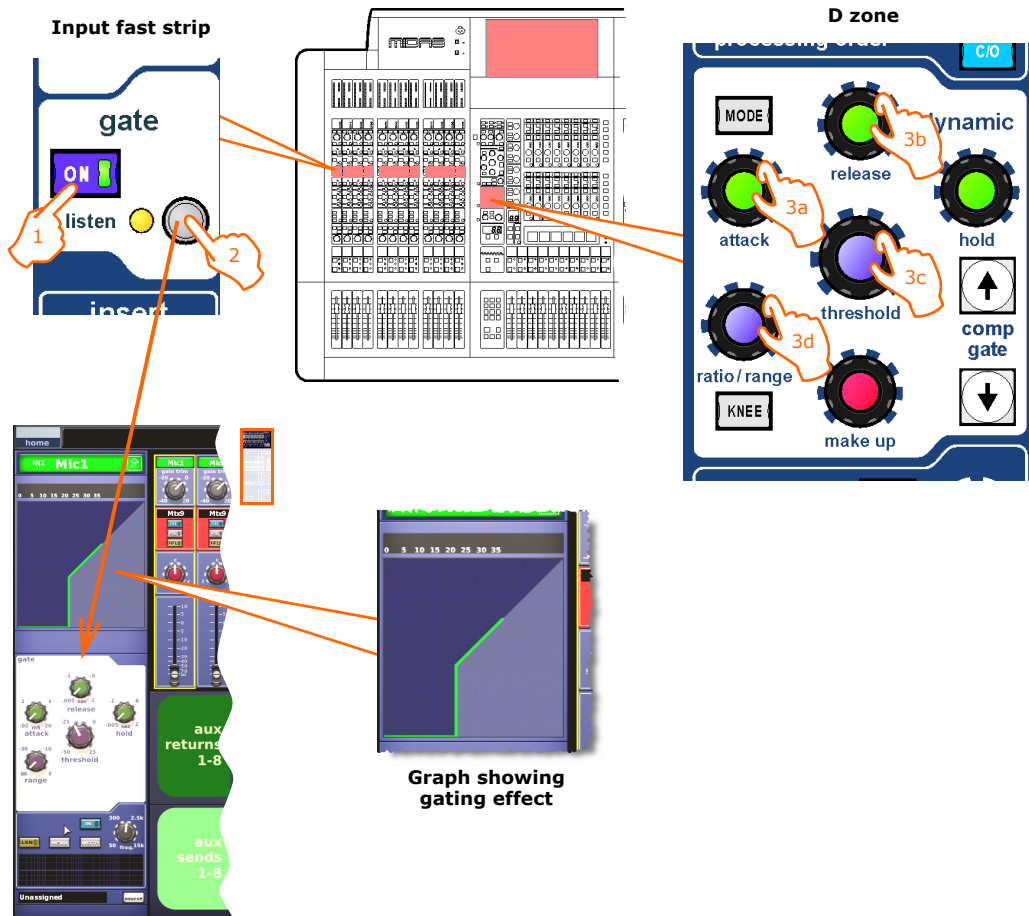
There are four compressors available, corrective, adaptive, creative and vintage, each with the option of hard knee, medium knee and soft knee.

>> To set up a compressor/limiter



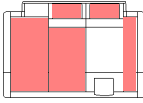
- 1 Press the quick access button in the **comp** section. This will select the channel and open the compressor processing area in the GUI's channel strip.
- 2 Press **ON** to switch the compressor on.
- 3 Operate the controls in the D-zone to adjust the compression parameters, such as attack and release. You could also set up a limiter by using a high threshold and a steep ratio (greater than 5:1).
- 4 Use **KNEE** to audition the different algorithms (hard knee, medium knee and soft knee).
- 5 Use **MODE** to try different compressor types (corrective, adaptive, creative and vintage).

>> To set up a gate



- 1 Press the quick access button in the **gate** section. This will select the channel and open the gate processing area in the GUI's channel strip.
- 2 Press **ON** to switch the gate on.
- 3 Operate the controls in the D-zone to adjust the gate parameters, such as attack, release, threshold, ratio/range and hold.

Using VCA/POP groups



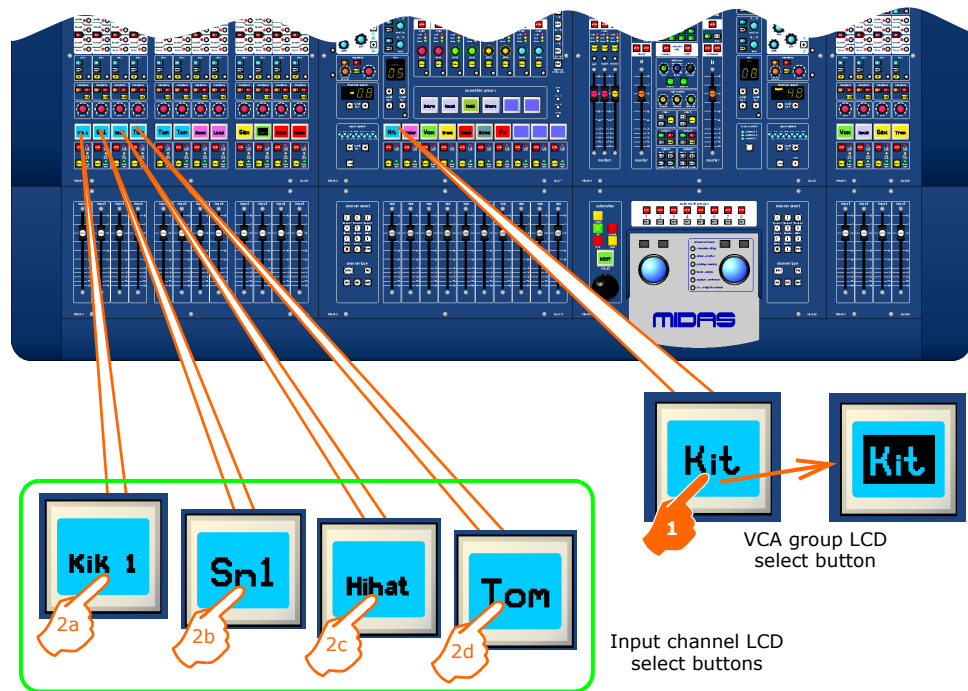
VCA/POP groups (bottom of the mix bay) allow simultaneous control over a number of channels. This provides a quick method of bringing particular channels to the control surface and saves you having to remember their name/number. You can choose channel group associations and also configure the colour and legend of each group's LCD select button to make them instantly recognisable. The LCD select button for each group is used for both group member assignment and group recall.

Any group can have any channels (input/output) assigned to them, although in normal practise is more likely that they will only have one or the other. Only input channel group members are unfolded to the surface (input bays).

VCA groups include fader, solo and mute control, whereas POP groups are limited to unfolding channels (on area A or B).

>> To assign input channels to a VCA/POP group

In the following example, four input channels (already named "Kik 1", "Sn1", "Hihat" and "Tom") are selected to the VCA group select button named "Kit". This method is also used for assigning selecting channels to a POP group.



- 1 Press and hold down the LCD select button of the VCA group that you want to assign the input channels to, for example, "Kit". The button will start flashing when you are in group member selection mode and the inputs will jump to program mode. Any existing group members will be unfolded to the control surface.
- 2 While still holding down the LCD select button, press the LCD select buttons of the input channels you want to assign to the VCA group. For example, "Kik 1", "Sn1", "Hihat" and "Tom". Scroll to new bank, if required. A bank LED (**input select** section) will flash if it contains a channel that is a member of the current group, and the bank is not at the control surface.
- 3 Release the group's LCD select button. The VCA group now contains the input channel members you have just chosen and the group will be selected.
- 4 Press the VCA group's LCD select button to exit the group.

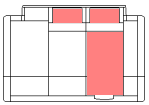
>> To assign output channels to a VCA/POP group

Use the method shown in “To assign input channels to a VCA/POP group” on page 39, but to select a group member press the quick access button of the output channel, which must be at the control surface. The quick access buttons of any output channels that are at the control surface and are group members will illuminate. Individual output select buttons will flash if their bank contains a member of the current group.



*To quickly see which channels are in a particular VCA group, press the group's SOLO button on and off. Monitor this action on the **Meters** display (master bay GUI). Only the **SOLO** buttons of channels that are group members will be affected.*

Configuring the VCA/POP groups



The default name and associated colour of a group, which appear on its LCD select button and on the GUI, can be configured to suit your own preference. You can also globally change the colour of the group members to match the group colour. Configuration is carried out at the **Group Sheet** screen (see Figure 9).

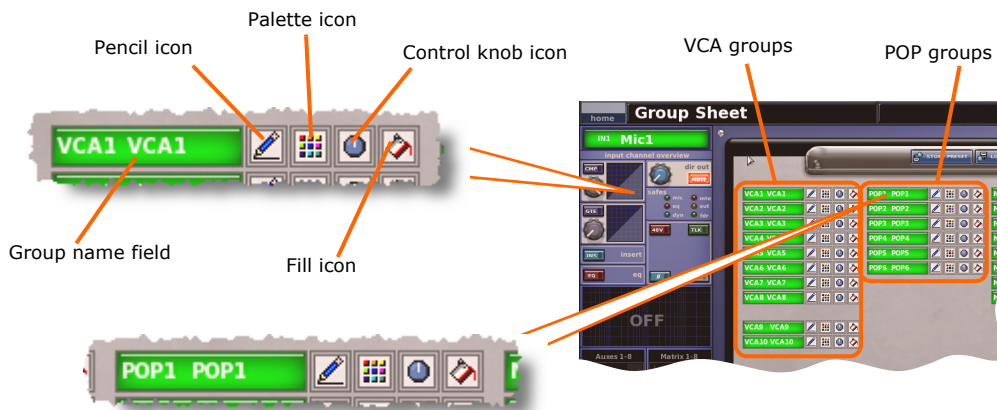



Figure 9: VCA/POP group fields on the **Group Sheet** screen

Note: Clicking the control knob icon  will take you to the **VCA Groups** screen (a submenu of the **Control Groups** option), which provides group management control.


>> To access the Group Sheet screen

Do one of the following:


- At the GUI, choose **home** ▶ **Control Groups** ▶ **Group Sheet**.
- In the primary navigation zone, press the **vca/assignable controls** screen access button.

>> To set up the name of a VCA/POP group

Do one of the following:


- **Choose from a list of pre-configured names** by clicking the pencil icon  of the group. In the drop-down list, click the name of your choice, for example, “E Gtr”. Scroll the list, if required.
- **Type in a new name** by clicking within the name field of the group. The pointer will change to a white flashing “I”-shaped cursor, which will appear at the end of the name field. Type in the new name via the keyboard (maximum six characters).

>> To set up the colour of a VCA/POP group

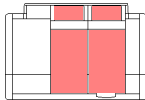
- 1 Click the palette icon  of the group.
- 2 In the palette (shown right), click the colour you require. For example, blue.



>> To set up the colour of a VCA/POP group

Click the palette icon  of the group. The colour of all group members will now match that of the group.

Setting up a mix



The PRO6 has 32 configurable mix buses (16 aux and 16 matrix), each of which can be used as aux mixes, subgroups or mix minus. All the mixes can also be set up as stereo pairs or mono. 16 matrix outputs can also be accessed directly from input channels via level controls, which gives the PRO6 the ability to provide 32 discrete mixes, plus left, right and mono. The **mix** sections (input fast strips) and the **mix** and **sends** sections (mix and master bays) provide mix control and navigation, while the bus mode selection is via GUI only.

Similarly to the inputs and groups, identification of mixes is by colour coding. Any pair of mix buses can be locked onto the control surface of the input bays on an individual channel-by-channel basis. So that the two most crucial auxes for each channel, that is, the most pertinent effects auxes, main artistes' foldback, etc., can be available at all times.

The overview displays in the GUI channel strip (see Figure 10) show the status of the mixes, which are colour coordinated to match those in the sends section of the control surface.

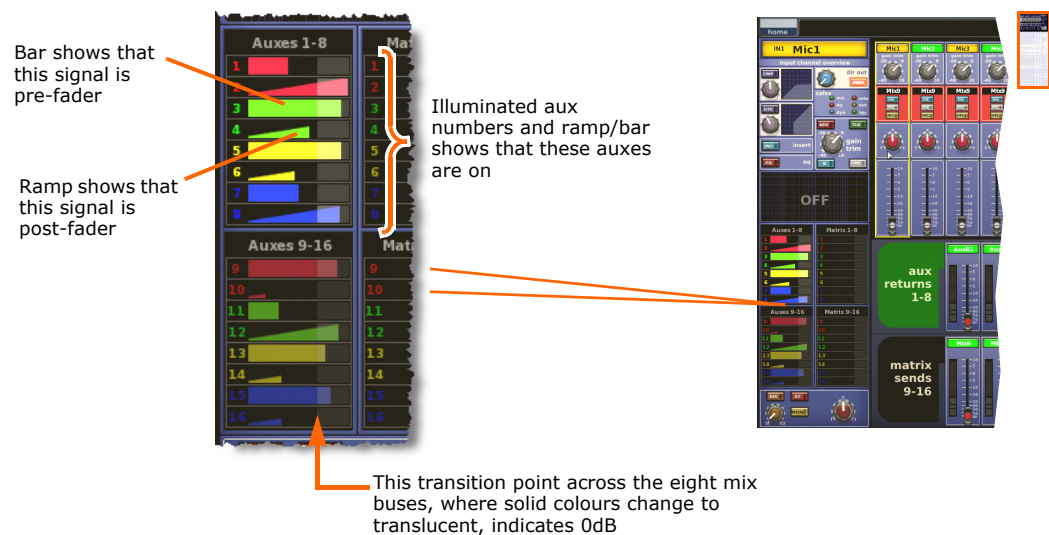
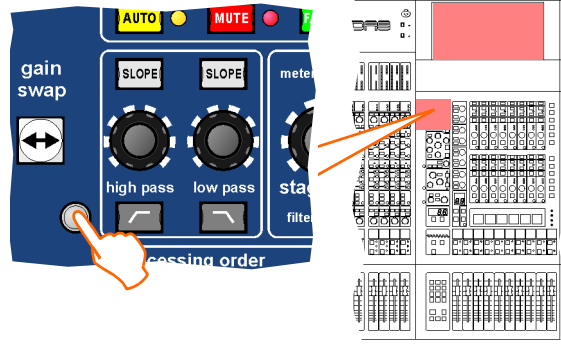


Figure 10: Sends sections of the mixes on the GUI (channel strip)

>> To select the mix bus mode

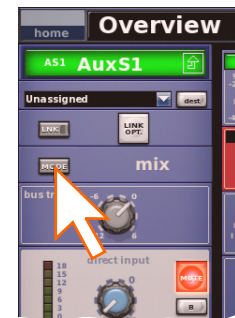
- 1 Select the mix bus (see "To select a mix bus" on page 22).
- 2 Press the quick access button (adjacent to the filters section) to assign the mix overview to the channel strip. For example, the **aux send overview** for AuxS1.



- 3 Click within one of the sections (for example, **dir in**) to open the mix processing area in the channel strip.



- 4 Press **MODE** repeatedly to scroll through the mix modes (**mix**, **group** and **mix minus**) to select the one you want. Group mode is fader only with no pre-fader, and mix minus allows mute only with all buses being initially muted. Stereo mix mode—with mix selected and **LINK** button on—is only accessed from the odd numbered output channel of the linked pair. In stereo mix mode the top control knob becomes pan adjust and the bottom one adjusts level.

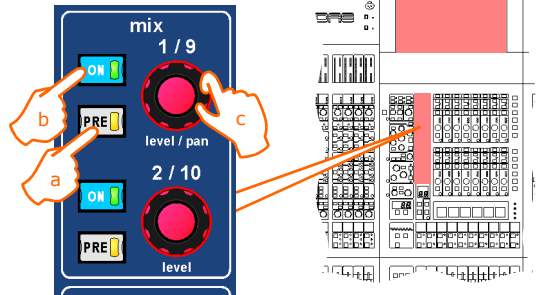
**>> To set up a mono aux mix**

- 1 Making sure that the mix bus is not linked, select **mix** (see "To select the mix bus mode" on page 42).
- 2 Select the input channel (see "Selecting channels, mix buses and groups" on page 21).
- 3 At the GUI, click within the appropriate sends section (aux or matrices) in the overview display (see Figure 10 on page 41) to open its processing area.



4 In the **mix** (upper) section, do the following:

- Press **PRE** to select pre-fader (on) or post-fader (off). Button status is only available on the GUI (see Figure 10 on page 41).
- Press **ON** to route the aux mix from input to aux output.
- Adjust the level control knob to change the signal level. You have the option to adjust them using the pan/fader controls in the input fast zone (12-channel input bay); this is known as “flip” mode. (You can also adjust them in the GUI channel strip — overview or processing area — using drag.)



Mix bus routing

You can route an aux or matrix (or even master output) to an effect or output. This is a GUI-only operation, which is done via the GUI channel strip or **Patching** screen (see Chapter 5 “Patching”).

>> To route an aux or matrix to an effect or output

Do one of the following:

- In the processing area of the channel strip, click the required mix bus destination from the drop-down list. For details of how to open the processing area, refer to “To select the mix bus mode” on page 42.
- In the processing area of the channel strip, click **dest** (shown right). This will open the **Patching** screen and the appropriate tab. For details of how to open the processing area, refer to “To select the mix bus mode” on page 42.
- Open the **Patching** screen and route the aux/matrix from there. For information on patching, see Chapter 6 “Basic Operation” on page 31.



Linking

You can link two mixes together. Pairs can only be created from adjacent mix buses of the same colour. To link a pair of mix buses, click the **LINK** button of the lower (odd) numbered mix bus (even numbered mix buses do not have a **LINK** button). The **LINK** button can be found in the GUI channel strip (refer to “To select the mix bus mode” on page 42). You can choose linking options for the pair after pressing the adjacent **LINK OPT.** button.

Setting up the effects rack

You can set up the effects rack (in the GUI's **Effects** screen) to contain any of the available effects listed in the **Change Device Type** window, in any of the eight rack positions. This is a GUI-only function. The diagram right shows the rack populated with the seven available effects.



The **assignable controls** panel (shown in the **Delay** diagram below) is common to all effects, and allows you to control effects parameters via the equivalent panel on the control surface (master bay).

Delay — provides simple delay line-based effects. Delay times can be specified manually or you can use the 'tempo-tap' button. It has a three-mode delay algorithm: one delay tap (mono or stereo processing); dual - two delay lines (stereo inset only); and ping-pong - two delay lines with cross feedback.



DN780 — is a reverberation device that emulates the Klark Teknik DN780 Digital Reverberator/Processor unit and allows you to create unique acoustic environments of virtually any type.



Flanger — has one or, if configured as stereo, two-tap delay lines. One tap is fixed and the other tap position is modulated to provide 'thru-zero' flanging or single tap modulation when 'thru-zero' is off.



Phaser — has one, or if configured for dual operation, two stereo phasers connected in serial or parallel, according to mode setting.



Pitch Shifter — has two independent channels that can independently shift the pitch of signals up or down to correct poor pitching or generate harmonies. The pitch change can also be modulated as an effect.



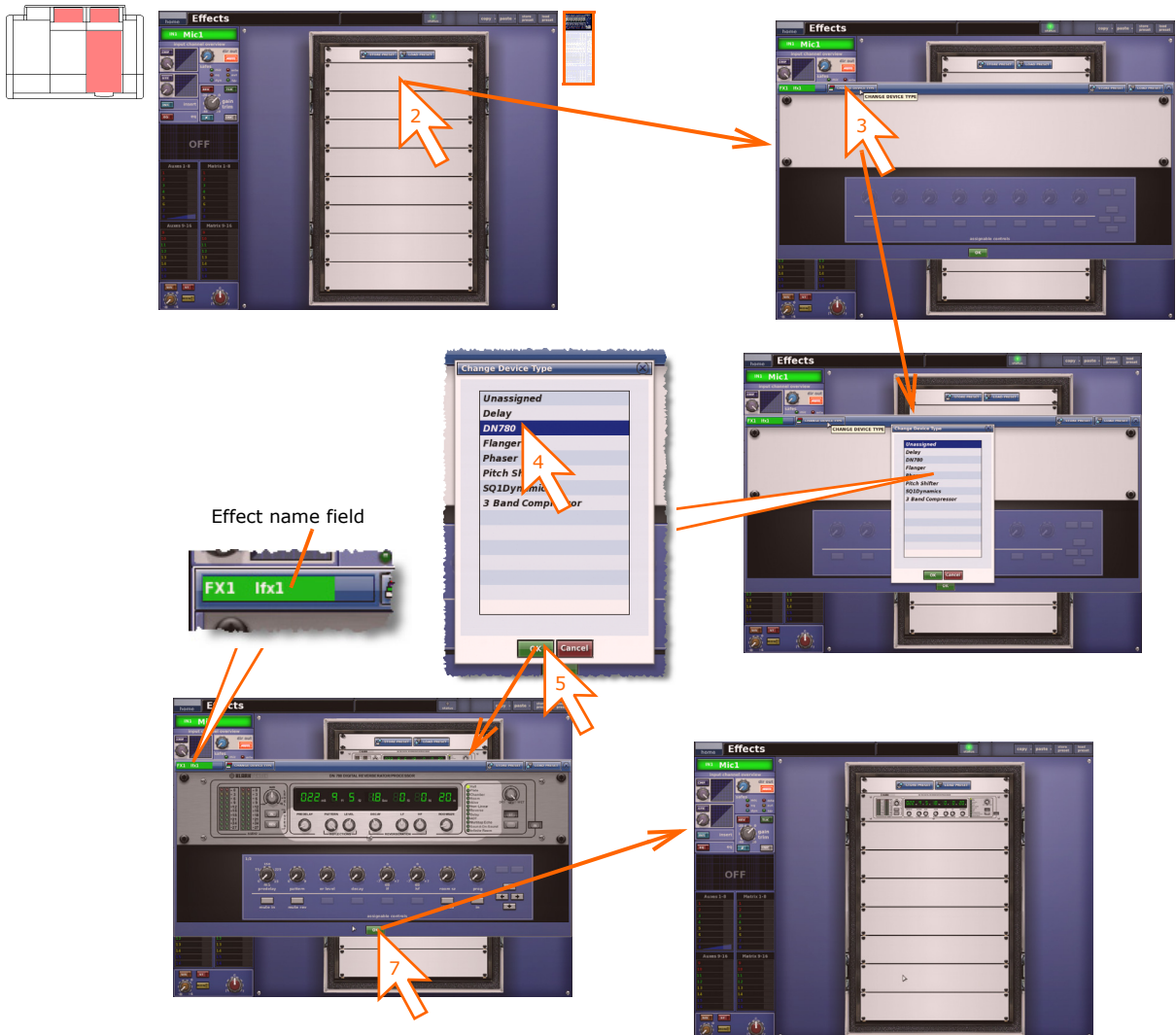
SQ1 Dynamics — is an emulation of the Klark Teknik Square ONE Dynamics, which is an 8-channel analogue dynamics processor. Used for the precise manipulation of compression parameters, it also includes gating for creative and corrective applications, and channel linking for stereo/multi-channel operation.



3 Band Compressor — is a minimum phase shift (analogue style) implementation that guarantees coherent band summing, even at the most extreme crossover point settings. Each band provides full control of its compressor's action, with partially adaptive time constants ensuring the most natural results from even the most variable sources.



>> To add an effect to the effects rack



- 1 At the GUI, choose **home ▶ Rack Units ▶ Effects**. Alternatively, press the **effects/graphics** screen access button in the primary navigation zone.
- 2 Click within your chosen rack position. This will be the position of the new effect.
- 3 In the new effect's window, click **CHANGE DEVICE TYPE**.
- 4 In the **Change Device Type** window, click your chosen device type. For example, "DN780".
- 5 Click **OK**.
- 6 Change the parameters of the new effect device, as necessary. For example, adjust control knobs, press buttons etc. You can even change the effect's name by editing its name field (shown above).
- 7 Click **OK** to exit. The new effect will appear in the effects rack.
- 8 You can now patch the new effect, which will be on the **Effects** tabs of both the **From** and **To** sections of the **Patching** screen. For information on how to patch, see Chapter 5 "Patching" on page 23.

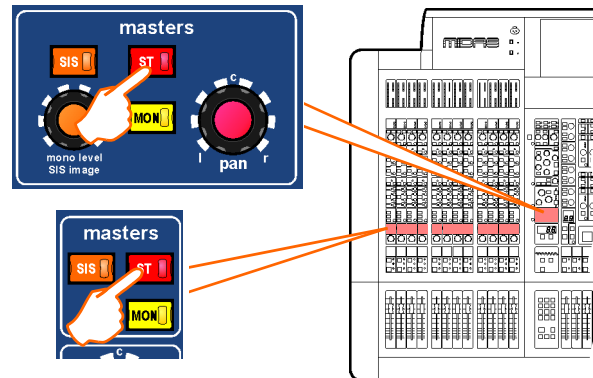
Simple routing to master stereo outputs

The following shows you how to obtain audio. Before proceeding with this operation, make sure nothing is muted and master faders are up.

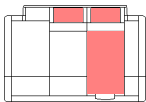
>> To obtain audio

Do one of the following:

- Press the **ST** (stereo) button of an input fast strip.
- Press the **ST** (stereo) button of a channel strip.



Scene and show management (automation)



Automation allows you to manage show files and the scenes within the shows. This is all done via the **Automation** screen (a GUI menu option). Figure 11 (below) shows typical **Automation** screen displays before (left) and after a show is loaded.

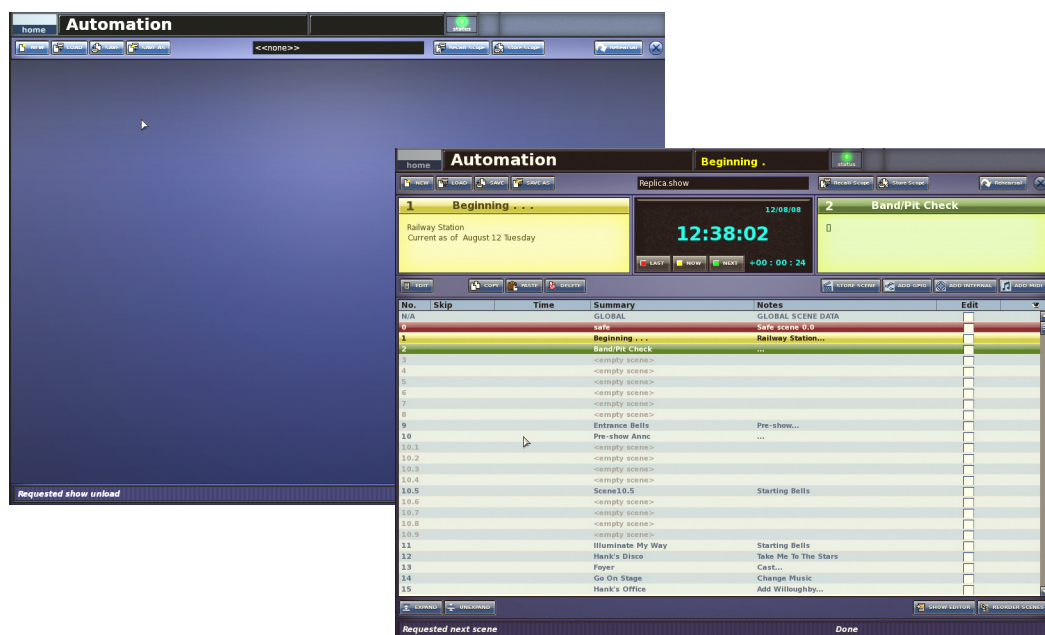


Figure 11: Typical **Automation** screen displays

>> To access the Automation screen

Do one of the following:

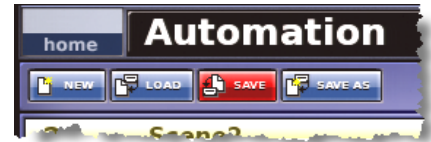
- At the GUI, choose **home** ▶ **Automation** ▶ **Automation**.
- In the primary navigation zone, press the **automation/filing** screen access button.

Managing the shows

The four buttons (**NEW**, **LOAD**, **SAVE** and **SAVE AS**) towards the top of **Automation** screen allow you to create a new show, load an existing show, update the current show or create a new show using the current settings.

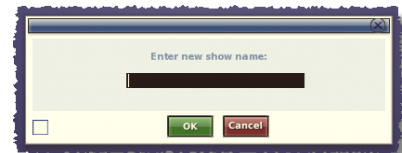
Important:

We recommend that you save your show settings regularly (see "Saving a show versus storing a scene" on page 33). The PRO6 will indicate that there are show settings to be saved by changing the background colour of the SAVE button to red.

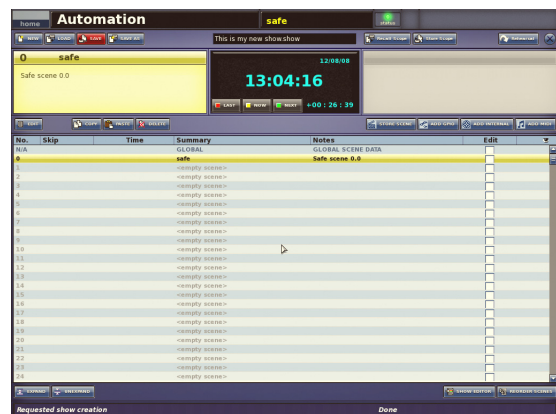


>> To create a new show

- 1 Click **NEW**.
- 2 In the **Enter new show name:** window, type your chosen name for the new show.



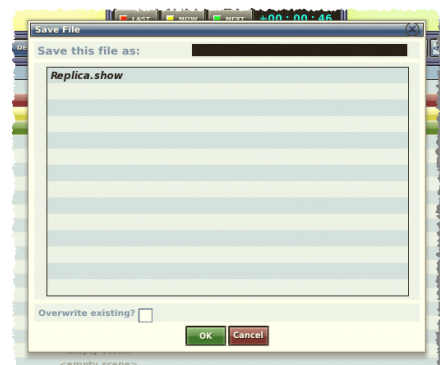
- 3 Click **OK**. You can now create and manage the scenes for your new show. (Clicking **CANCEL** instead of **OK** will close the **Enter new show name:** window without creating a new show.)



>> To save a show or create a new one from the current settings

Do one of the following:

- To update the current show with the latest settings, click **SAVE**.
- To create a new show using the current show settings, click **SAVE AS**. Then, in the **Save File** window, type in the name of the new show. Click **OK** to save the new show and close the window. (Clicking **Cancel** will close the window without saving the new show.)

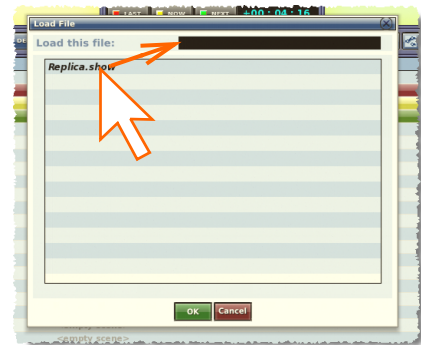


>> To load a show

- 1 Click **LOAD**.
- 2 In the **Load File** window, click the show file you want to load (shown right). The file name will appear in the **Load this file:** name field.

The **Load File** window will contain a list of all the shows currently loaded. If the one you want is not there, load it from a USB memory stick (see "To load (import) a show file from a USB memory stick" on page 56).

- 3 Click **OK** to start loading the file and close the window. The show file name will appear in the show file name field (next to the **SAVE AS** button) when it has finished loading.

**Managing the scenes**

An automation section in the master bay (see item H in Figure 2 "Main areas of the control surface" on page 7) supports the **Automation** screen by providing a number of controls for scene navigation and management. A jogwheel and a **next** LCD button are unique automation controls, while the **store**, **ok**, **cancel**, **last** and **now** buttons are replicated on the **Automation** screen.


The four coloured, backlit buttons are context-sensitive and illuminate only when they are available. Typically, three scenes in the cue list (**Automation** screen) will be highlighted to match the button colours (red, yellow or green) to show which scene each button will act upon.

The jogwheel quickly scrolls through the individual scenes in either direction. You can even go to the empty scenes towards the end of the cue list and then wrap to the beginning. Operation of the jogwheel does not change scene selection.

The **next** LCD button displays information on the scene you have just scrolled to.

Additional function buttons on the **Automation** screen allow you to copy scenes and also to choose what is stored within each scene (store and recall scope buttons).



*The eye icon  in the **Automation** screen (just under the **ADD MIDI** button) opens a Show window, which contains a list of filter options.*

>> To navigate the scenes using the jogwheel

Place a finger in the indent in the jogwheel and move it in a clockwise or anti-clockwise direction, as required (shown right). The scenes will be scrolled, one by one.

When using the jogwheel the next LCD button will illuminate yellow and will track the scene currently highlighted in yellow in the cue list. In this case, pressing this button will only have an affect if a non-empty scene is currently highlighted.



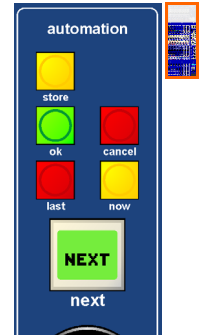
>> To recall a scene

Important:

When recalling a new scene, make sure monitor output levels are low, as the new scene's settings may produce higher audio output levels than the one it is replacing. Also, recalling a scene clears any unsaved adjustments made to the previous scene.

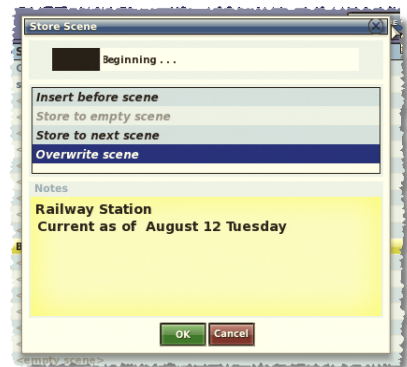
Do one of the following:

- Press **last** to change scene selection to the one currently highlighted in red in the cue list, which was the last selected scene.
- Press **now** to change scene selection to the one currently highlighted in yellow in the cue list.
- Press **next** (LCD button) to change scene selection to the one currently highlighted in green in the cue list, which is the scene immediately following the 'now' scene. However, if you have used the jogwheel the affect will be different (see "To navigate the scenes using the jogwheel" on page 48).



>> To create a new scene using the current settings

- 1 Press **STORE SCENE**.
- 2 In the **Store Scene** window (shown right), type in the scene name, if required.
- 3 In the **Notes** panel, type in any scene notes, as required.
- 4 Do one of the following. The options are context-sensitive, so some may be greyed-out to show that they are unavailable.



- Click "Insert before scene" to put the new scene in between the one currently highlighted in yellow and the scene immediately before it.
- Click "Store to empty scene" to put the new scene in the one currently highlighted in yellow, provided it is empty.
- Click "Store to next scene" to put the new scene in the next one, provided it is empty.
- Click "Overwrite scene" to overwrite the scene currently highlighted in yellow.

An **OK** button will appear at the bottom of the window, to the left of the **Cancel** button.

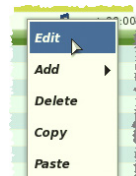
- 5 Click **OK**. This will store the scene, saving any changes you have made, and close the window. (Clicking **CANCEL** will close the window, ignoring any changes.)

Additional control – managing events

You can use the MIDI or GPIO functions of the PRO6 to control the parameters of an external device (outgoing), and conversely you can use an external device to control the PRO6 (incoming). Also, by using the PRO6's unique 'internal' event option, you can trigger events from within the showfile itself. All this is done by creating events in scenes/point scenes.

You can have any number and types of events in any scene/point scene, and event parameters are set up and edited in an **Edit Event** window. Similarly to scenes/point scenes, you can skip events during rehearsals.

To aid event management, a menu appears (shown right) when you right-click a scene/point scene or event. The menu options allow you to create, edit and copy events. Click an option to select it.



The following shows what some of the event symbols in the **Automation**

screen mean: = currently selected event; = MIDI event;

= GPIO event; = internal event; = incoming event; and

= outgoing event.

>> To create an event

Select the scene in which you want to create the event, and then do one of the following:

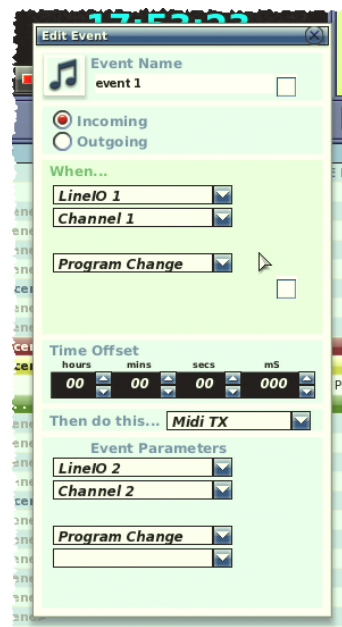
- Click the **ADD GPIO**, **ADD INTERNAL** or **ADD MIDI** button, as required.
- From the 'right-click' menu, choose **Add ▶ Midi Event**, **Add ▶ Internal Event** or **Add ▶ GPIO Event**, as required.

>> To edit an event

- 1 Right-click the event you want to edit, and then choose **Edit** to open the **Edit Event** window (a typical example is shown right).
- 2 In the **Edit Event** window, choose your options as necessary. For example, you can use a program change to trigger the event.
- 3 At the upper-right corner of the **Edit Event** window, click "X" to close it.

>> To copy and paste an event

- 1 Right-click the event you want to copy, and then choose **Copy** from the menu.
- 2 Select the scene in which you want to paste the copied event. Or, if the scene already contains an event(s), select the event after which you want to paste the copied event.
- 3 Right-click to open the menu, and then choose **Paste**.



Configuring the inputs and outputs

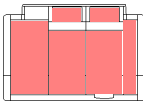
Similarly to the VCA/POP groups, you can change the name and colour of each of the inputs and outputs. This is done via the GUI at their respective sheet screens. For configuration details, see “Configuring the VCA/POP groups” on page 40.

>> To open the Input/Output Sheet screen

Do one of the following:

- At the GUI, choose **home** ▶ **Input Channels** ▶ **Input Sheet** to open the **Input Sheet** screen, or choose **home** ▶ **Mix & Outputs** ▶ **Output Sheet** to open the **Output Sheet** screen.
- In the primary navigation zone, press the **inputs/outputs** screen access button once to open the **Input Sheet** screen or twice in quick succession to open the **Output Sheet** screen.

Using copy and paste



The **copy** and **paste** buttons (upper-right corner of GUI) allow you to copy the parameters of one/all of a single channel’s processing area(s) — such as the EQ, compressor, gate etc. — and paste them to one/all of the other channels of a similar type.



Right-clicking the **copy** or **paste** button will open their respective menu, each of which contains full copy/paste options.

>> To copy a processing area to a channel/all channels

- 1 If necessary, navigate the channel’s processing area to the channel strip (see “Navigating a processing area or mix bus to a channel strip” on page 22).
- 2 Click **copy**.
- 3 Do one of the following:
 - To copy the processing area to another channel, select the channel and then click **paste**. (As the copied parameters are still stored, you can paste to as many channels as you want.)
 - To copy the processing area to all other channels, right-click **paste** to open its menu and then choose **Paste To All**.

>> To copy all parameters to a channel/all channels

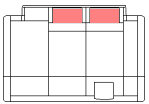
- 1 If necessary, select the channel from which you want to copy all of the processing areas.
- 2 Right-click **copy** to open its menu, and then choose **Copy All**.

- 3 Do one of the following:
- To copy the parameters to another channel, select the channel and then click **paste**.
 - To copy the processing area to all other channels, right-click **paste** to open its menu and then choose **Paste To All**.

Copy and paste rules and restrictions

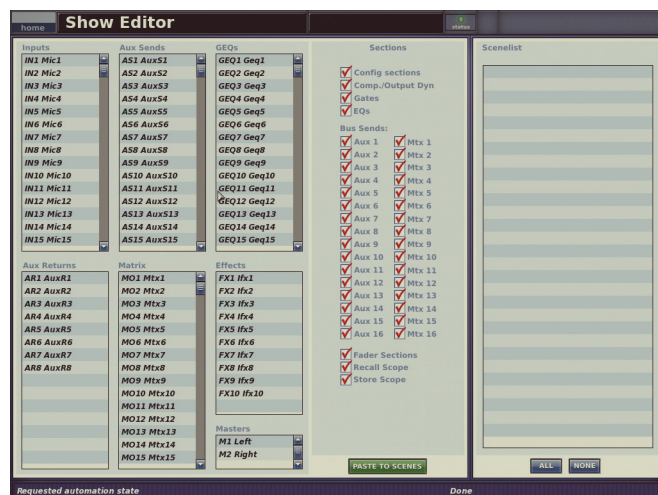
- You can only copy and paste similar functions. For example, you can't copy the input EQ from one channel to the output EQ of another, as they are different.
- You can only copy and paste across similar channel types. For example, you cannot copy from an aux and paste to a matrix.
- Copying and pasting across inputs is restricted to the input bays only.
- Compressor settings can be copied, but not the mode (that is, corrective, adaptive, creative, vintage or shimmer). To ensure mode similarity between source and target channels, make sure the target channels have the same selected mode as the source channel's before copying.
- Channel names are not copied.
- Compressor and gate side chain listen cannot be copied.
- Auxes: mix pan and master routing direct input solo B GEQ all parameters can be copied, but insert cannot be copied.
- Returns: mix pan and master routing solo B can be copied.
- Matrices and masters: mix pan and master routing direct input solo B GEQ all parameters and fader area solo B can be copied.

Show editor



The show editor is a GUI-only function that allows you to very easily copy and paste settings through scenes. This is done via the **Show Editor** screen (shown right).

The panel on the far left of the **Show Editor** screen shows the sources (channels, GEQs and effects) from which you can copy the settings. The **Sections** panel in the centre of the screen contains source sections that you can copy to the scene(s). At the far right of the screen is the **Scenelist** panel, which is a cue list of the current show.



>> To open the Show Editor screen

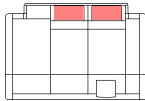
Do one of the following:

- From the GUI menu, choose **home** ▶ **Automation** ▶ **Show Editor**.
- At the **Automation** screen, click **SHOW EDITOR**.

>> To copy and paste sections to a scene(s)

- 1 In the **Show Editor** screen, click the sources that contain the sections you want to copy to a scene(s). These are in the far left panel of the screen. You can choose any combination of inputs, aux returns, aux sends, matrices, GEQs, effects and masters.
- 2 In the **Sections** panel, click the boxes of the sections that you want to copy. Ticked options will be copied.
- 3 In the **Scenelist** panel, click the scene(s) in which you want to paste the sections. You can use the buttons at the bottom of the list to help you, as follows:
 - Click **ALL** to select all of the scenes in the list.
 - Click **NONE** to deselect all selected scenes.
- 4 Click **PASTE TO SCENES**.
- 5

User library



The PRO6 has a user library where you can store settings, such as for the EQ or the whole channel. For example, you may wish to store the EQ settings of a singer who may be called upon to perform during a future show. You can then easily recall these EQ settings to the appropriate channel, when required.

The settings are stored as presets, which along with the library files, are managed via a **Preset Manager** screen on the GUI. Here, you can create new libraries, load existing libraries, save the current library or give it a new name. You can also delete presets from the library.

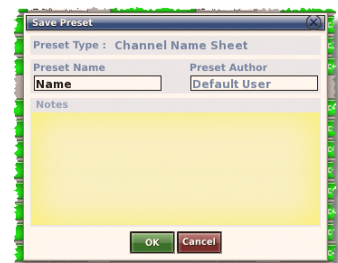


>> To open the Preset Manager screen

From the GUI menu, choose **home ▶ Preset Manager**.

>> To save a preset to the user library

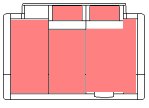
- 1 Make sure that the settings you want to save are assigned to the channel strip, then click **store preset**. If the channel's overview is displayed, all of its settings will be saved in the preset. Otherwise, just the settings of the displayed processing area will be saved.
- 2 In the **Save Preset** window (shown right), type in your chosen preset name (**Preset Name**), your name (**Preset Author**) and any note (**Notes**) as necessary.
- 3 Click **OK**.



>> To load a preset

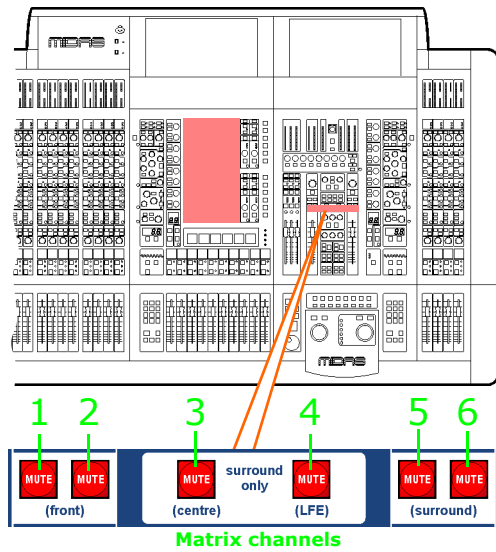
- 1 Make sure that the channel in which you want to load the settings of the preset is assigned to the channel strip, then click **load preset**.
- 2 In the **Load Preset** window, click the preset that you want to load.
- 3 Click **OK**.

Surround panning



In addition to stereo and LCR panning, the PRO6 has three surround panning modes: quad; left, centre, right and surround (LCRS); and 5.1 surround. These are operated via a surround monitoring system, which uses matrix channels 1 to 6 as the surround bus channels. The channels are muted via six **MUTE** buttons in the master bay. PRO6 output connections are via the **surround, sub, centre** and **front** XLRs on the rear panel.

The 5.1 panning mode uses all six channels, while quad mode uses four (left and right on both the front and surround). Although the LCRS mode uses five channels (front left and right, centre and surround left and right), both surround channels are the same.



The surround panning mode is selected via the **Preferences** screen of the GUI menu (**home** ▶ **Preferences** ▶ **General**), which contains a list of the surround panning mode options under the Surround Mode heading.

The diagram above right shows the areas on the control surface associated with surround panning and the matrix channel allocation of the surround monitoring system's **MUTE** buttons. Figure 12 shows the allocation of the surround **MUTE** buttons per loudspeaker, and the recommended¹ 5.1 surround system configuration.

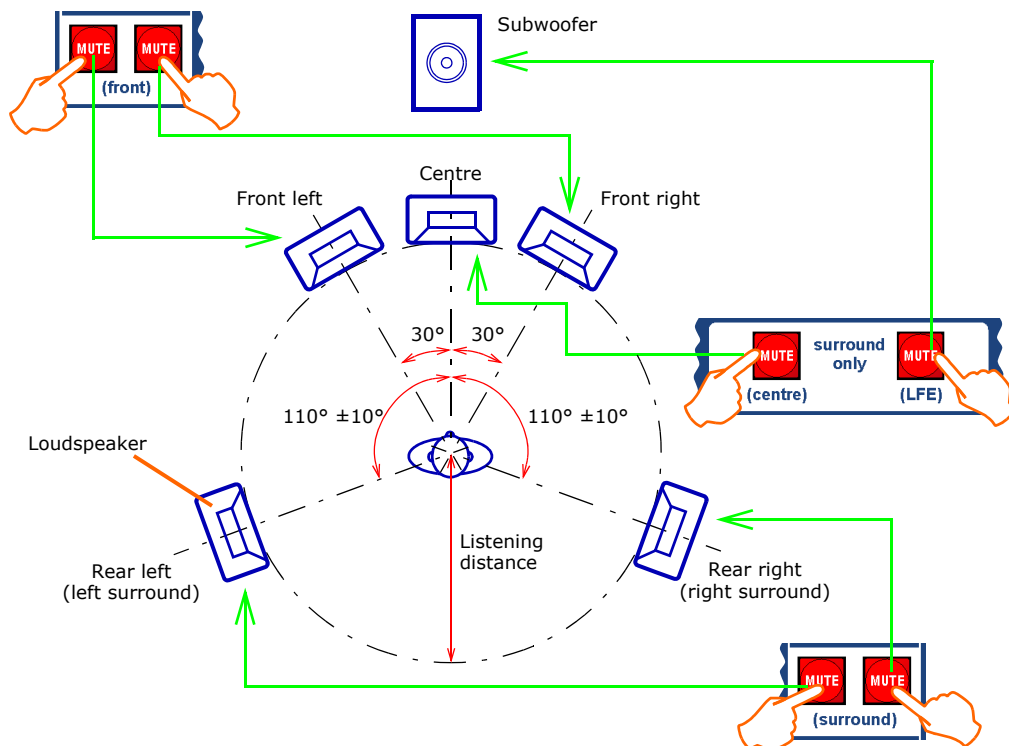
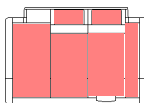


Figure 12: 5.1 surround panning arrangement

1. Reference - ITU-R BS.775.1, 1994. *Multichannel stereophonic sound system with and without accompanying picture*. International Telecommunications Union.

Two-man operation



The PRO6 Control Centre can be operated by two people simultaneously. In this mode of operation the 4-channel input bay is designated as area B, and operates independently of the 12-channel input bay, which is always area A. (You can have the same channel selected simultaneously in both bays.)



This feature can also be used by a single operator if they require somewhere to store important channels. In this case, area B can be used in the same way a 'channel 25' would be used on an analogue console.

The following diagram shows the areas designated as A and B during two-man operation and also shows the location of the area B button. All other parts of the control surface are common to both areas.

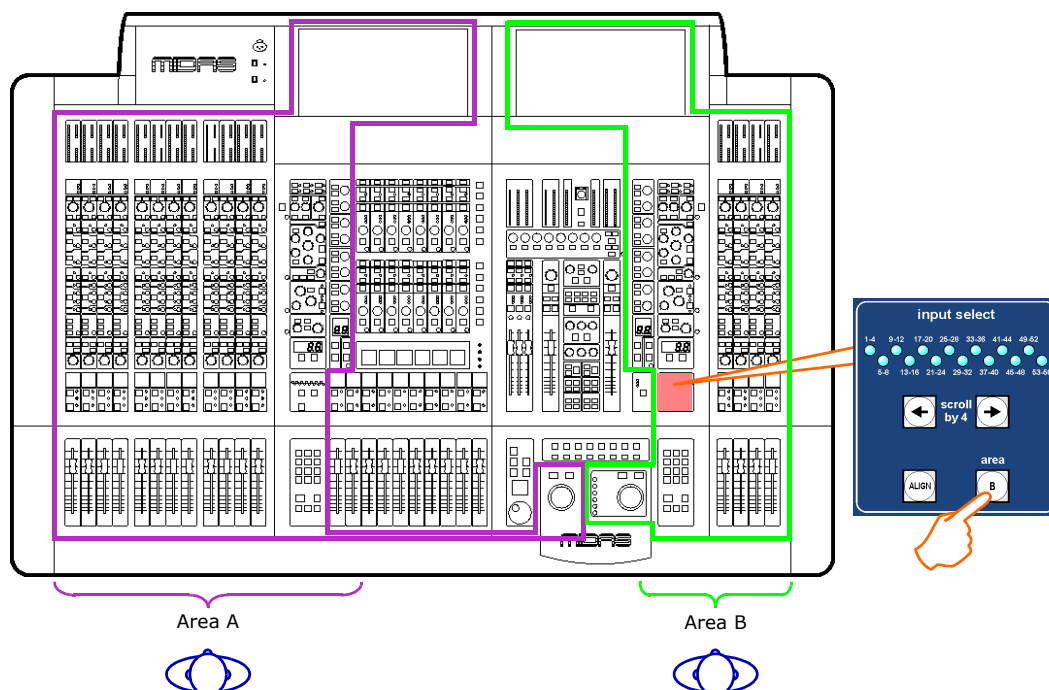


Figure 13: Two-man operation

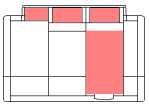
Groups can be pre-selected to populate area A or B, and a single group of inputs can have members in both areas of the control surface. An operator can then recall them to their own area to work on.

Note: When operating in area B, please remember to select the B option, where appropriate, particularly in the monitor section. Also note that solo B (also for talkback) is totally independent of area B, which is used for navigation only.

>> To set up the PRO6 Control Centre for two-man operation

In the **input select** section of the master bay, press **B** (see Figure 13 above).

Saving your show files to USB memory stick

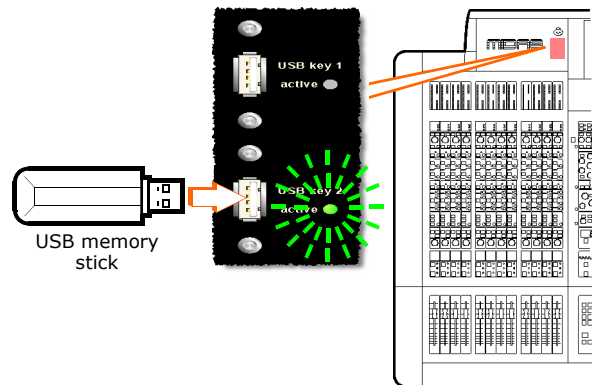


When you are satisfied that your show file is how you want it, we recommend that you save it to a removable storage device (USB memory stick). This provides a valuable back up should the show file stored in the internal memory of the PRO6 be lost, for example, due to inadvertent deletion or in the highly unlikely event of system failure.

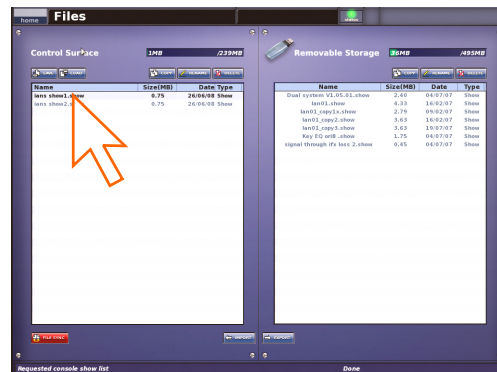
You can also load show files onto the PRO6 from the same storage device.

>> To save (export) a show file to a USB memory stick

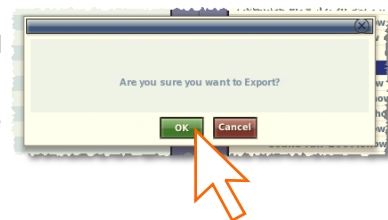
- 1 Insert the USB memory stick into the active USB socket, which is the one with the flashing **active** LED. For example, **USB key 2** (shown right).
- 2 Do one of the following:
 - At the GUI, choose **home ▶ Files**.
 - In the primary navigation zone, press the **automation/filing** screen access button twice in quick succession.



- 3 You may see an "Analysing..." message in the **Removable Storage** panel, which means that the Midas folder on the USB memory stick is being read. Wait for the message to clear. Then, in the **Control Surface** panel, click the show file you want to copy (shown right).
- 4 Click **EXPORT**.



- 5 In the **Are You Sure you Want To Export?** message window, click **OK**. The file will start copying to the USB memory stick.
- 6 When your show file appears in the **Removable Storage** panel, it has finished copying to the USB memory stick. Remove the USB stick



>> To load (import) a show file from a USB memory stick

The procedure is similar to the export procedure, as detailed in "To save (export) a show file to a USB memory stick" on page 56, but select the file to be imported to the PRO6 from the **Removable Storage** panel and then press **IMPORT**.

Connecting And Setting Up The System

Chapter 7: Setting Up The System

This chapter shows you how to set up a PRO6 Live Performance System to its default configuration.

Note: *If you want to set up the PRO6 Live Performance System using a configuration other than the default, please contact Midas Technical Support for details.*

Initial set-up procedure

Initial system set-up basically comprises:

- Unpacking and checking the equipment — see “Unpacking the equipment” on page 59.
- Making up a rack — see “Making up a rack” on page 59.
- Connecting up the equipment — see “Wiring instructions” on page 59.
- Powering the equipment — see “Powering the PRO6 system” on page 61.
- Initial patching — see “Setting up the I/O rack devices” on page 27. **It is important to set up the type of snakes connected in the system.**
- Configuring the DL351 unit — see “Setting up the DL351 Modular I/O unit ID” on page 63.

Unpacking the equipment

After carefully unpacking the equipment, check it against the packing list shown in “System components (standard supply)” on page 4.

Save all packing materials, as they will prove useful should it become necessary to transport the equipment later.

Inspect the equipment carefully for any sign of damage incurred during transportation. It has undergone stringent quality control inspection and tests prior to packing and was in perfect condition when it left the factory. However, if the equipment shows any signs of damage, notify the transportation company without delay. Only you, the consignee, may institute a claim against the carrier for damage during transportation.

Making up a rack

In the standard supply, the rack supplied with the PRO6 Live Performance System is fully fitted with the DL351 Modular I/O and DL371 DSP units.

Wiring instructions

Connect the snake (copper or fibre optic) to the DL371 DSP unit and PRO6 Control Centre (see Figure 14 “Standard system configuration” on page 60).

The DL351 Modular I/O and DL371 DSP units should already be connected together when you receive them.

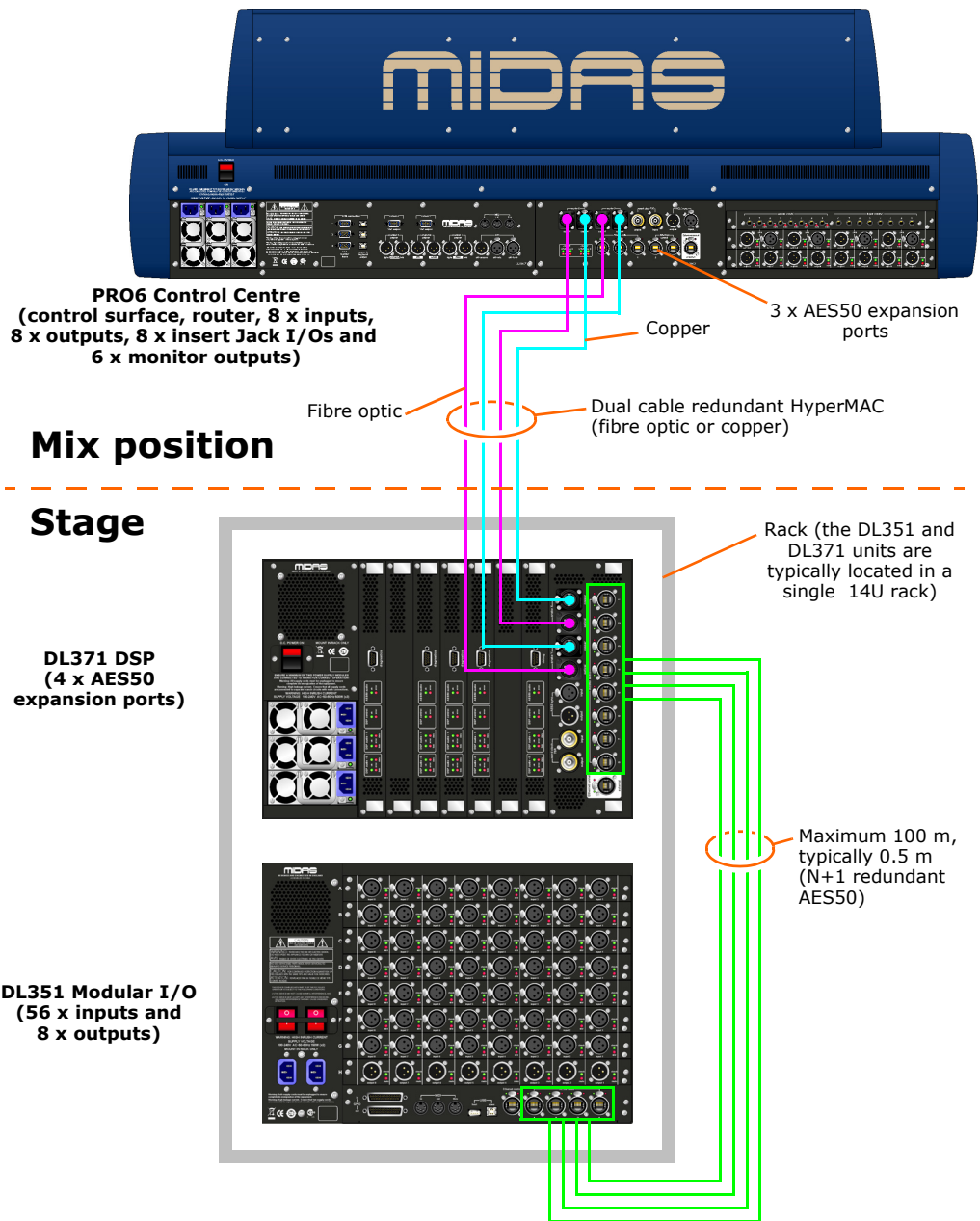


Figure 14: Standard system configuration

Powering the PRO6 system

The following details the recommended power up and power down procedures for the PRO6 system.

Note: *If you are in any doubt as to how to switch the DL3n1 units on/off, refer to their operator manuals.*

>> To power up the PRO6 system

Important Note:

DO NOT switch on the speaker sub-system until after the start-up of the PRO6 system has been completed.

After all PRO6 system interconnections have been made (refer to Figure 14 "Standard system configuration" on page 60), start up the PRO6 system:

- 1 Make sure that all of the PRO6 system equipment is switched off, that is, the PRO6 Control Centre, speaker sub-system, DL351 Modular I/O unit and DL371 DSP unit.
- 2 Switch on the PRO6 Control Centre (see "To switch on the PRO6 Control Centre" on page 62).
- 3 In the master bay of the PRO6 Control Centre, move all of the monitor and master channel faders to the minimum position and mute all of the master channels (see section F in Figure 2 "Main areas of the control surface" on page 7).
- 4 Switch on the DL351 Modular I/O unit.
- 5 Switch on the DL371 DSP unit.
- 6 After both **status** indicators at the top of each GUI screen have changed to green (as shown right), switch on the speaker sub-system.
- 7 Switch on the audio source and start playing the audio.
- 8 On the PRO6 Control Centre, check that the audio inputs are routed to the master channels. Then, unmute the master channels and gradually increase their faders while listening to the sound levels from the speakers.



If there is no sound at all coming from the speakers when the faders are at maximum, move the faders to below the 0dB level and check if the audio is muted somewhere along the input paths and also check that the individual speakers are switched on. If there is still no sound from the speakers, see "No audio" on page 67.

>> To power down the PRO6 system

Important Note:

BEFORE switching off any of the PRO6 system components, don't forget to mute the audio from the speakers and switch off the speaker sub-system.

- 1 Mute the audio from the speakers and switch off the speaker sub-system.
- 2 Switch off the DL351 Modular I/O unit.
- 3 Switch off the DL371 DSP unit.
- 4 Switch off the PRO6 Control Centre (see "To switch off the PRO6 Control Centre" on page 62).

Switching the PRO6 Control Centre on/off

Carry out the following to switch the PRO6 Control Centre on or off in a safe manner, observing all **WARNINGS** and **Cautions**.

>> To switch on the PRO6 Control Centre

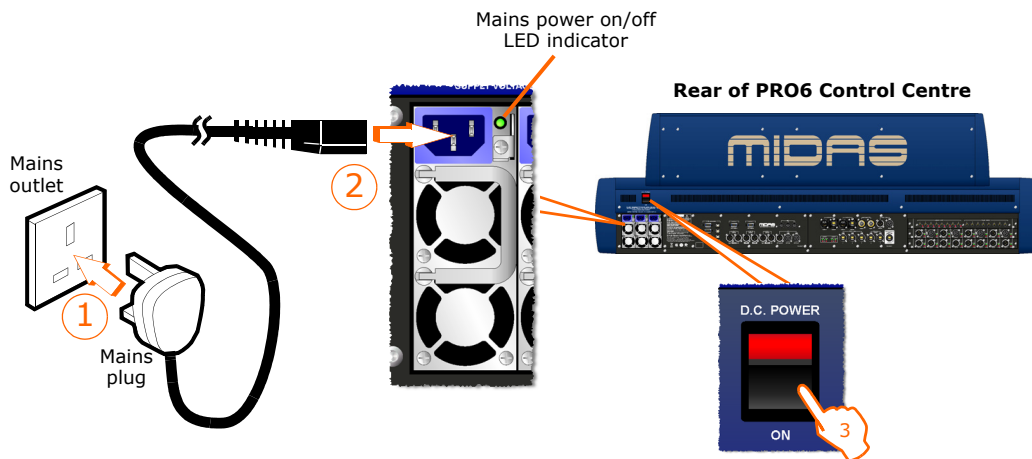


Caution!
Before switching on, check that all monitor loudspeaker power amplifiers are turned off or muted.



Caution!
A minimum of two power supply modules must be supplying power to the PRO6 Control Centre for correct operation.

After connecting up the audio cables, carry out the following:



- 1 Plug the three mains cables into the mains power outlets.
- 2 Plug the IEC connectors of the three mains cables into the mains sockets on the rear of the control centre. (The green LED next to each mains socket will illuminate if its mains supply is on.)
- 3 Observing the **Cautions** above, apply power to the PRO6 Control Centre by switching the **D.C. POWER** switch on. The PRO6 Control Centre will boot up (see "Booting up" on page 63) and, when the default GUI screens are displayed, it is ready for use.

>> To switch off the PRO6 Control Centre

- 1 Make sure you have saved any shows, scenes or settings you require (see "Saving your show files to USB memory stick" on page 56).
- 2 At the GUI, choose **home** ▶ **Shutdown System**.
- 3 At the **Shutdown ENTIRE system?** prompt, click **OK**.
- 4 After the shutdown sequence has finished, switch off the **D.C. POWER** switch (rear of control centre).
- 5 Disconnect the mains cables from the rear of the PRO6.

Booting up

The PRO6 Control Centre has two boot up modes, as follows:

- **Cold:** Cold boot occurs when a brand new system that has never before operated as a system is booted up. Cold boot determines the system configuration and sets up all the IP addresses and unit names.
- **Hot:** Hot boot is the normal mode of operation, even if the PRO6 has just been loaded from a truck and is physically cold! Hot boot uses the configuration and names stored in the system flash memory. A complete hot boot takes up to approximately 30 seconds to complete. Should the configuration not match the previously stored settings, the user is asked what action the PRO6 should take.

During boot up, you will briefly see the 'splash' screens on the GUI (also shown when the PRO6 is locked), which is followed by the default screens. When these appear, the PRO6 Control Centre is ready for operation.

Setting up the DL351 Modular I/O unit ID

After connecting up your PRO6 network system, you may need to set up the ID of the DL351 Modular I/O unit, which is done via its control panel (see Figure 15 below). You only need to do this if the unit is not already configured to the ID you want, as there are only two ID numbers available (1 and 2) and the default is ID 1. The unit's ID number is shown at the end of the bottom line in the default display, for example, the ID of the unit shown in Figure 15 is "1".

To change the ID number there is no need to switch on the PRO6 Control Centre, as the procedure can be carried out offline.

Refer to the operator manual for the DL351 Modular I/O if you require more details.

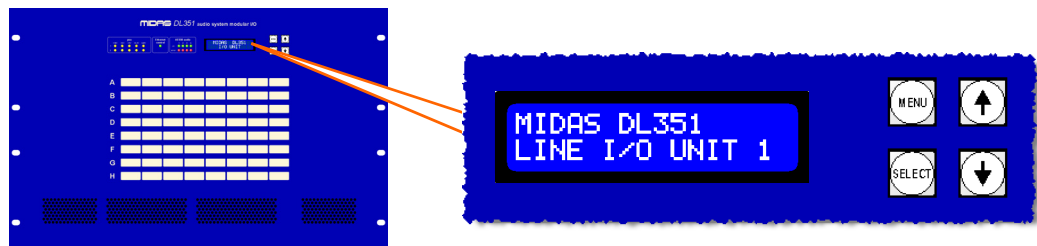




Figure 15: Control panel of the DL351 Modular I/O (showing default display)

>> To set up the ID of the DL351 Modular I/O unit

- 1 Make sure the DL351 Modular I/O unit is switched on.
- 2 Press **MENU** and hold for approximately two seconds to enter the main menu. You have entered the main menu when the first option is displayed.
- 3 Press the down arrow button  to go to the set ID option.
- 4 Press **SELECT** to go to the "Select ID" screen.

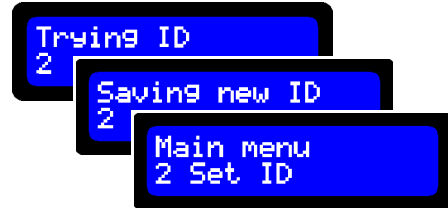


- 5 Press the down arrow button  to go to the ID 2 option.



Select ID
2

- 6 Press **SELECT** to choose the ID 2 option.



Trying ID
2

Saving new ID
2

Main menu
2 Set ID

- 7 Press **MENU** to exit menu mode.



MIDAS DL351
LINE I/O UNIT 2

Appendices

Swapping the active master controller

Although it is highly unlikely that the active master controller (MC) will develop a malfunction, should it ever happen you will need to activate the standby MC.

>> To swap the active master controller

- 1 At the GUI, choose **home ▶ Files**.
- 2 Click **FILE SYNC**.
- 3 In the **Master Controller File Synchronisation** window, click the **MAKE ACTIVE** button of the standby MC (shown in grey text). This will become the active one.

Thank you for reading through this Quick Reference Guide. We hope you found it useful.

Please feel free to send us your comments. Our contact details and website address can be found at the front of this guide.



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