

# **D-Control Fader Module Installation Guide**

**for Pro Tools TDM Systems on Windows or Macintosh**

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**digidesign**

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Product features, specifications, system requirements, and availability are subject to change without notice.

PN 932713343-00 REV B 07/04

## Communications & Safety Regulation Information

### Compliance Statement

The model D-Control Fader Module complies with the following standards regulating interference and EMC:

- FCC Part 15 Class A
- EN55103 – 1, environment E4
- EN55103 – 2, environment E4
- AS/NZS 3548 Class A
- CISPR 22 Class A
- ICES-003 Class A

### Canadian Compliance Statement:

This Class A digital apparatus complies with Canadian ICES-003  
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

### CE Compliance Statement:



Digidesign is authorized to apply the CE (Conformité Européenne) mark on this compliant equipment thereby declaring conformity to EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC.

### Australian Compliance:



ACN 069 650 120

### Radio and Television Interference

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.

### Communications Statement

This equipment has been tested to comply with the limits for a Class A digital device. Changes or modifications to this product not authorized by Digidesign, Inc., could void the Certification and negate your authority to operate the product. This product was tested for CISPR compliance under conditions that included the use of peripheral devices and shielded cables and connectors between system components. Digidesign recommends the use of shielded cables and connectors between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices.

### Safety Statement

This equipment has been tested to comply with USA and Canadian safety certification in accordance with the specifications of UL Standards; UL6500 and Canadian CSA standard; CSA C22.2 No.1-M90. Digidesign Inc., has been authorized to apply the appropriate UL & CUL mark on its compliant equipment.

## Important Safety Instructions

- 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 dry cloth.
- 7) Do not block any 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) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service 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.

## WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC  
SHOCK DO NOT EXPOSE THIS EQUIPMENT  
TO RAIN OR MOISTURE.



**Do not attempt to service the equipment. There are no user-serviceable parts inside. Please refer all servicing to authorized Digidesign personnel.**

**Any attempt to service the equipment will expose you to a risk of shock and will void the manufacturer's warranty.**

### SPECIAL WARNING REGARDING VENTILATION:

**Do not install D-Control anywhere or in any way that blocks free air flow at any time around the back panel of the unit.**

### SPECIAL WARNING REGARDING AMBIENT TEMPERATURE:

**Before powering on the D-Control unit, be sure to allow it to reach room temperature. The unit includes some components that are sensitive to cold temperatures, so it is recommended that you unpack the unit and allow it to acclimate before turning it on for the first time.**

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# Chapter 1: Introduction

The D-Control™ Fader Module extends the hands-on control features of D-Control by adding channel strips to the control surface.

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## D-Control Fader Module Features

D-Control provides a full set of controls for all Pro Tools recording, editing and mixing tasks, and a versatile remote-controlled monitoring system.

### Fader Module Features

- Touch-sensitive, motorized Penny and Giles faders
- Touch-sensitive, multi-purpose rotary controls
- Dedicated controls for assignment and activation of inputs, outputs, inserts and sends
- Flexible display of pan, insert, send, plug-in and mic pre controls
- Dedicated controls for all channel strip functions including recording and input monitoring modes, mute, solo, and channel select
- Dedicated controls for automation mode, enable and safe status
- Flip Mode for transfer of parameters from rotary controls to faders
- Custom Fader Mode for flexible channel and parameter mapping

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## Fader Module Components

The following components are included in a D-Control Fader Module:

- D-Control Fader Module unit
- AC power cord
- Ethernet cable

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## System Expansion Options

Additional 16-channel Fader Modules can be added to D-Control, up to a total of 80 faders (five 16-channel Fader Modules). For details on D-Control expansion and customization options, visit the Digidesign Web site ([www.digidesign.com](http://www.digidesign.com)).

# Mechanical Specifications

D-Control Stand Dimensions (not including video display arm)	
Maximum Height	39.7 inches (100.9 cm)
Maximum Width	
Main Unit with 1 Fader Module (16-channel system)	65.3 inches (165.9 cm)
Main Unit with 2 Fader Modules (32-channel system)	88.5 inches (224.8 cm)
Maximum Depth	45.7 inches (116.1 cm)

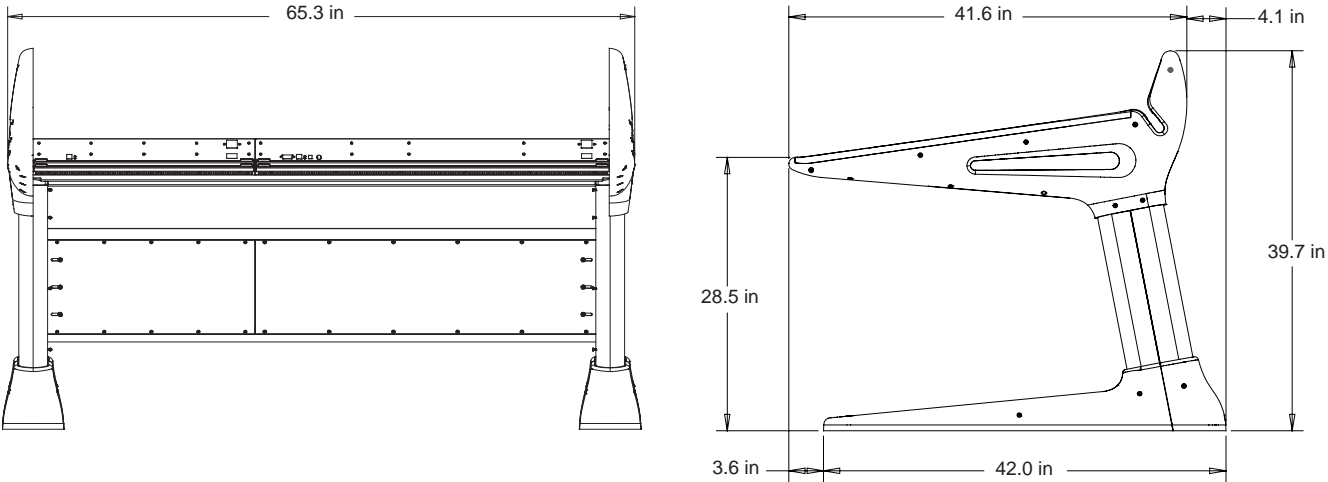


Figure 1. Stand dimensions for a 16-fader D-Control system

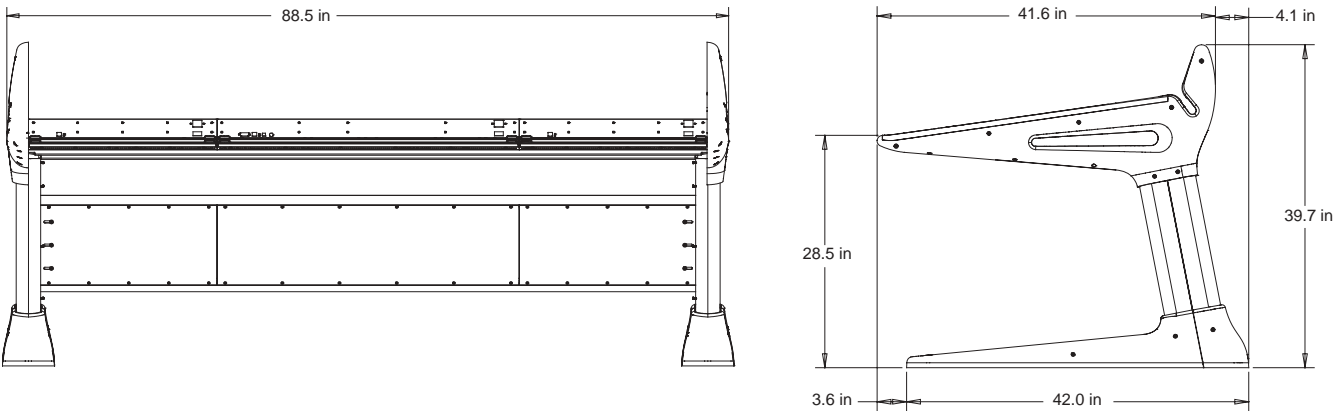


Figure 2. Stand dimensions for a 32-fader D-Control system

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## Operational Requirements

### Temperature and Ventilation

D-Control should be installed and operated in a climate-controlled environment, away from heat sources, and with adequate ventilation. D-Control should be operated at an ambient temperature that does not exceed 100 degrees F (35 degrees C).

The back panel and the front half of the bottom panel of each unit should be exposed to ambient air. Blocking or partially blocking the back panel or bottom panel of a D-Control unit may cause the unit to malfunction and may void your warranty.

The D-Control stand is designed to provide adequate ventilation for the D-Control units. Installation of D-Control units in other stands or studio furniture is not recommended, and may void your warranty if adequate ventilation is not maintained.

### Water and Moisture

D-Control units should be operated away from sources of moisture or humidity and should be kept clear of liquids that might spill into the units.

### Cleaning and Maintenance

If you need to clean the D-Control top surface, apply a non-bleach cleaning solution to a cloth or paper towel, then carefully wipe the surface. Do not use abrasives, cleaning solutions with bleach, or spray cleaners.

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## Connection Requirements

### Power Connections

Each D-Control unit (Main Unit and Fader Modules) and the XMON Monitor Interface requires its own power connection.

Make sure your power source is correctly rated for the number of units you are connecting. A surge protected power source (not included) is highly recommended.

### Ethernet Connections

Each D-Control unit communicates with Pro Tools via Ethernet. A 10-BaseT Ethernet hub (not included) is required to connect D-Control units to the host computer.





# Chapter 2: D-Control Fader Module Overview

## Fader Module Top Panel

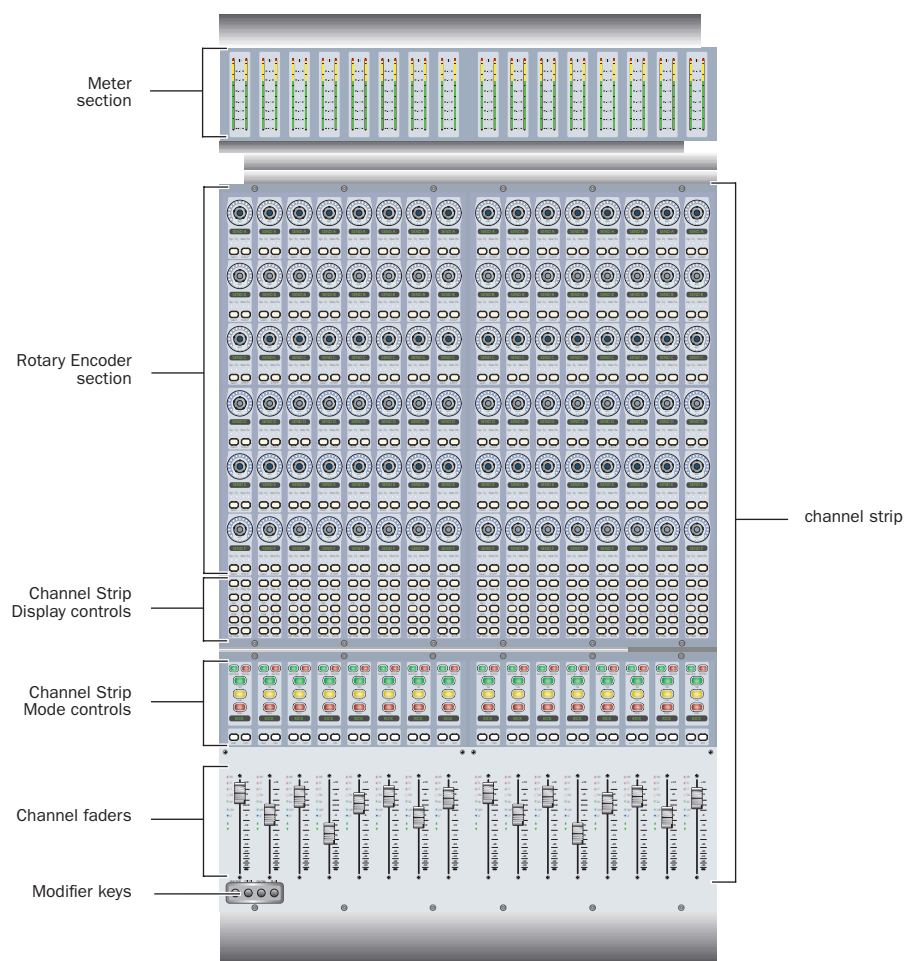


Figure 3. D-Control Fader Module top panel

### Meter Section

The Meter section on the D-Control Fader Module can display track levels, plug-in meters, and other parameters depending on D-Control metering preferences.

### Channel Strip

Each channel strip on the D-Control Fader Module has identical channel controls, including six touch-sensitive rotary encoders, display and mode controls, and a touch-sensitive fader.

### Modifier Keys

Each D-Control Fader Module has a set of four switches in its lower left corner that duplicate the function of the Pro Tools computer keyboard modifiers.

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## Fader Module Back Panel

### AC Power

The AC Power connector accepts a standard AC power cable. The D-Control Fader Module is auto power-selecting (100V to 240V) and automatically works with a standard modular power cord when connected to an AC receptacle in any country.

### Power Switch

The Power switch applies power to the Fader Module.

### Ethernet Connector

The Ethernet connector on the back panel of the D-Control Fader Module provides communication to Pro Tools. See “Ethernet Connections” on page 21.

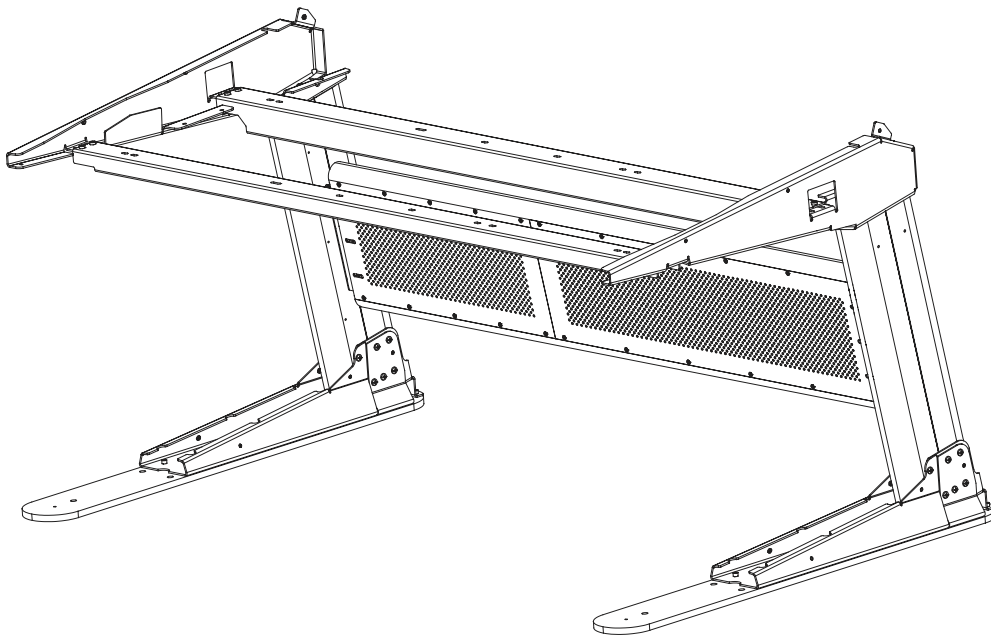
# Chapter 3: Setting Up D-Control

This chapter explains how to set up 16-fader (Main Unit plus one Fader Module) and 32-fader D-Control systems (Main Unit plus two Fader Modules).

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## D-Control Stand

(16-Fader and 32-Fader Systems)



*Figure 4. Assembled D-Control stand*

The stand configurations for 16-fader and 32-fader systems have similar assembly procedures and the same number of parts (the crossbar and support rails are longer for a 32-fader system).

**Stand Components**

Unpack the stand and confirm that you have all of the necessary parts. Figure 5 shows the metal parts of the stand. Figure 6 shows the plastics parts of the stand. Set the plastic parts aside to protect them from damage during initial assembly.

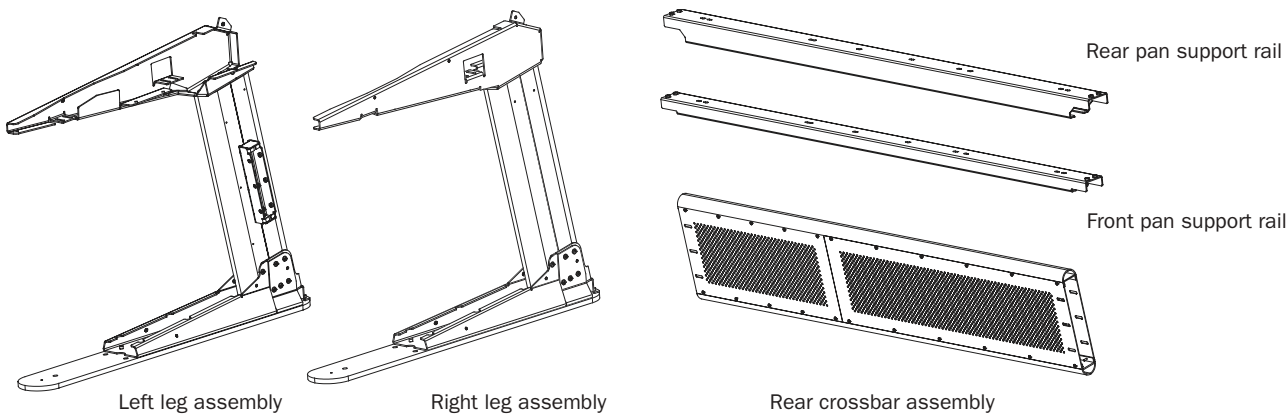


Figure 5. D-Control metal stand parts

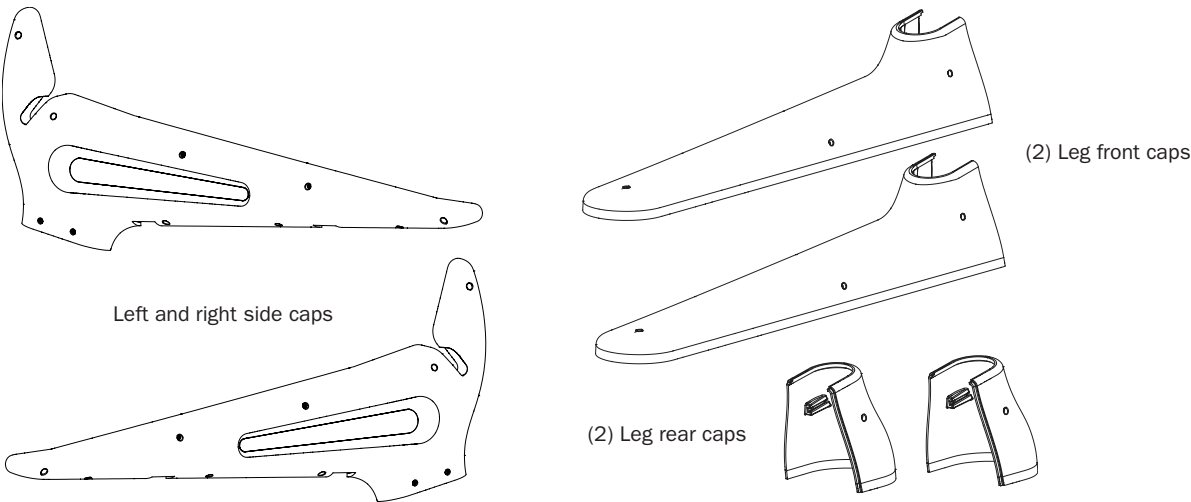


Figure 6. D-Control plastic stand parts

## Stand Hardware

The following hardware is provided with the D-Control stand (spare pieces may be included).

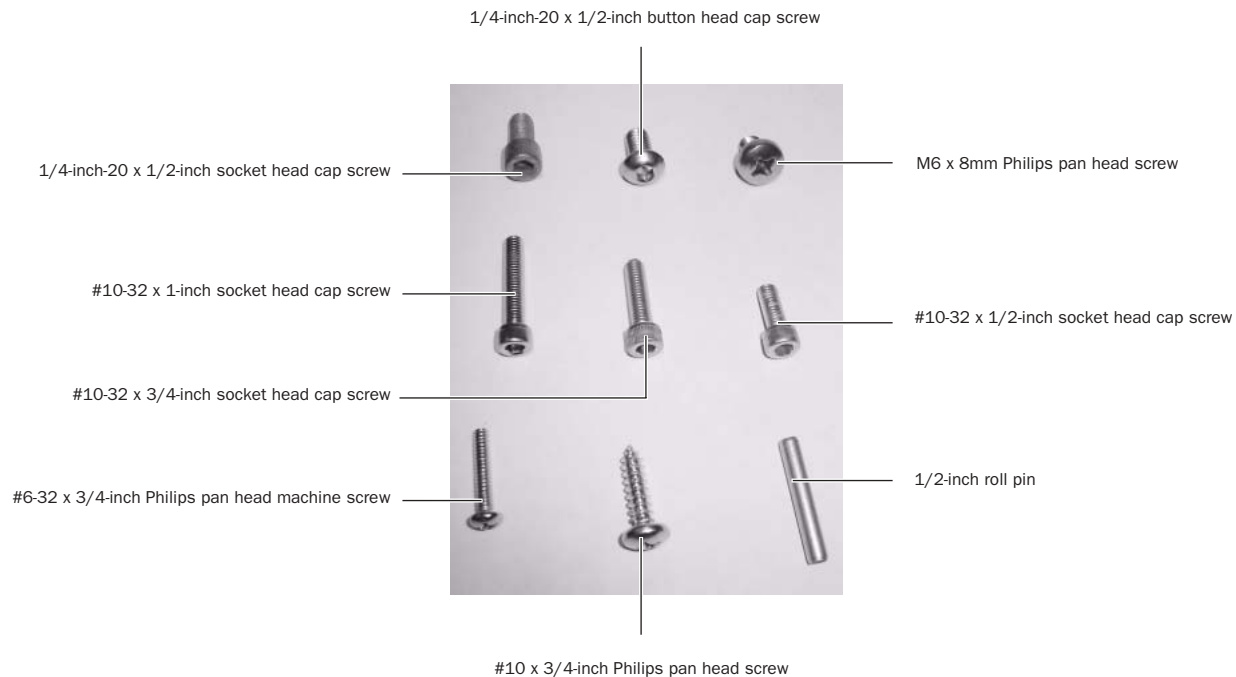


Figure 7. D-Control assembly hardware for metal and plastic parts

### Hardware for Metal Stand Parts

- (12) 1/4-inch-20 x 1/2-inch button head cap screws
- (8) 1/4-inch-20 x 1/2-inch socket head cap screws
- (14) M6 x 8mm Philips pan head screws (18 for 32-fader system)
- (6) 1/2-inch-20 x 1-inch socket head cap screws for leveling the stand (not pictured)
- 1/2-inch roll pins

### Hardware for Plastic Stand Parts

- (2) #10-32 x 1/2-inch socket head cap screws
- (4) #10-32 x 3/4-inch socket head cap screws
- (22) #10-32 x 1-inch socket head cap screws
- (6) #10 x 3/4-inch Philips pan head screws
- (2) #6-32 x 3/4-inch Philips pan head machine screws

### Cabling Accessories

- (14) cable tie mounts
- (8) screw mount cable ties
- (14) cable ties
- (4) Velcro rip ties
- (8) #8 x 1/2-inch self-tapping screws (for use with rip ties and screw mount cable ties)

### Tools for Assembling the Stand

The following tools are required to assemble the D-Control stand:

- 5/32-inch Allen wrench (for button head cap screws)
- 3/16-inch Allen wrench (for socket head cap screws)
- 3/8-inch Allen wrench (for stand leveling screws)
- #2 Philips screwdriver (for large Philips head screws)
- #1 Philips screwdriver (for small Philips head screws)
- small hammer (for 1-inch roll pins)

The following tools are optional, but will help with assembly:

- rubber mallet for adjusting the stand
- ratcheting nylon strap for closing up the stand

## Placement of D-Control

In planning the placement of your D-Control, make sure to account for the dimensions of the assembled system, allowing for at least 1 inch (2.5 cm) of open space behind the finished unit. This meets the ventilation requirements for the D-Control units.

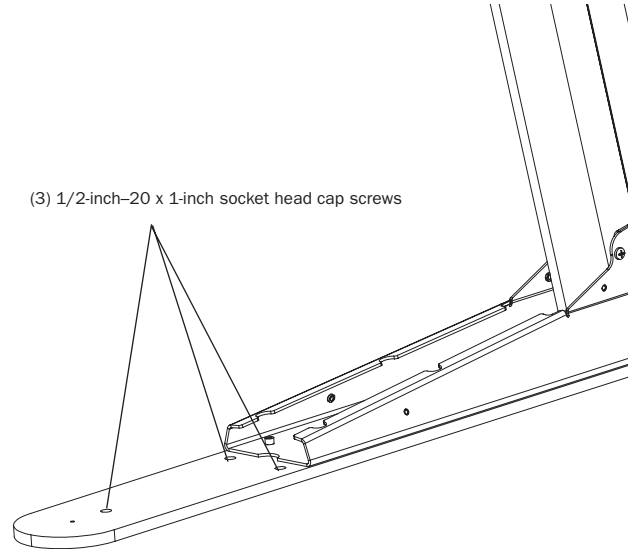
For detailed dimensional information, see “Mechanical Specifications” on page 2.

When assembling the unit, you will need additional clearance on either side of the unit to push the sides of the stand together in the final steps of assembly. You will also need access to the rear of the unit to make cable connections.

## Preparing the Stand Legs

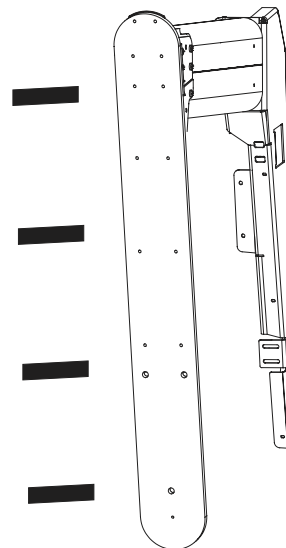
Before assembling the D-Control stand, make sure the floor in the installation space is level and the areas directly under the legs are flat.

Each stand leg has three holes for leveling screws in its base, which can be used to fine-tune the leveling of the unit.



**Figure 8.** Location of leveling screws

If you are placing the unit on a cement or hardwood floor, you can apply adhesive-backed rubber pads (included) to the bottoms of the legs to protect the floor and help level the stand. If you are using the leveling screws, you can place rubber pads directly under the screws to further protect the floor.



**Figure 9.** Applying rubber pads to bottom of D-Control leg

## Assembling the Stand

After you have prepared the installation space for D-Control, begin by assembling the metal parts of the stand.

**⚠** *It is important that you first build the stand slightly wider than its final dimensions, and leave all screws loose enough to allow the stand legs to move side-to-side relative to the rear crossbar and rails. After you install the D-Control units on the stand, you will then slide the leg assemblies inward and tighten all screws.*

### To assemble the stand:

**1** Place the right and left leg assemblies upright, and at the approximate width of the rear crossbar assembly. Position the legs so that their crossbar mounting brackets are on the insides of the legs, facing each other as in Figure 10.

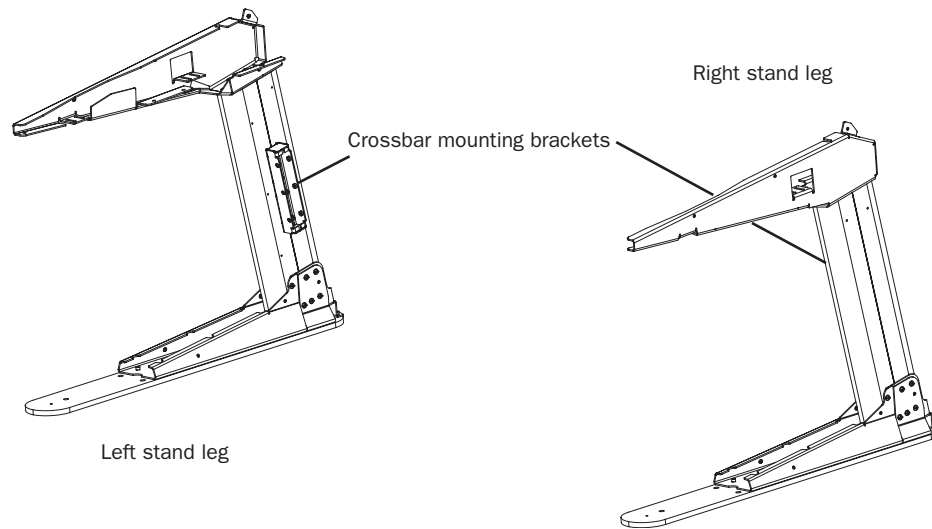


Figure 10. D-Control stand legs positioned with crossbar brackets facing each other

**2** Lift the rear crossbar assembly into position and slide it onto the crossbar mounting bracket on each leg. (The two sides of the crossbar are identical, so it does not matter which side faces front.) Position the legs so there is a small gap between the sides of the crossbar and the inner surface of each leg. The screw holes in the brackets should be visible in the slots on the crossbar.

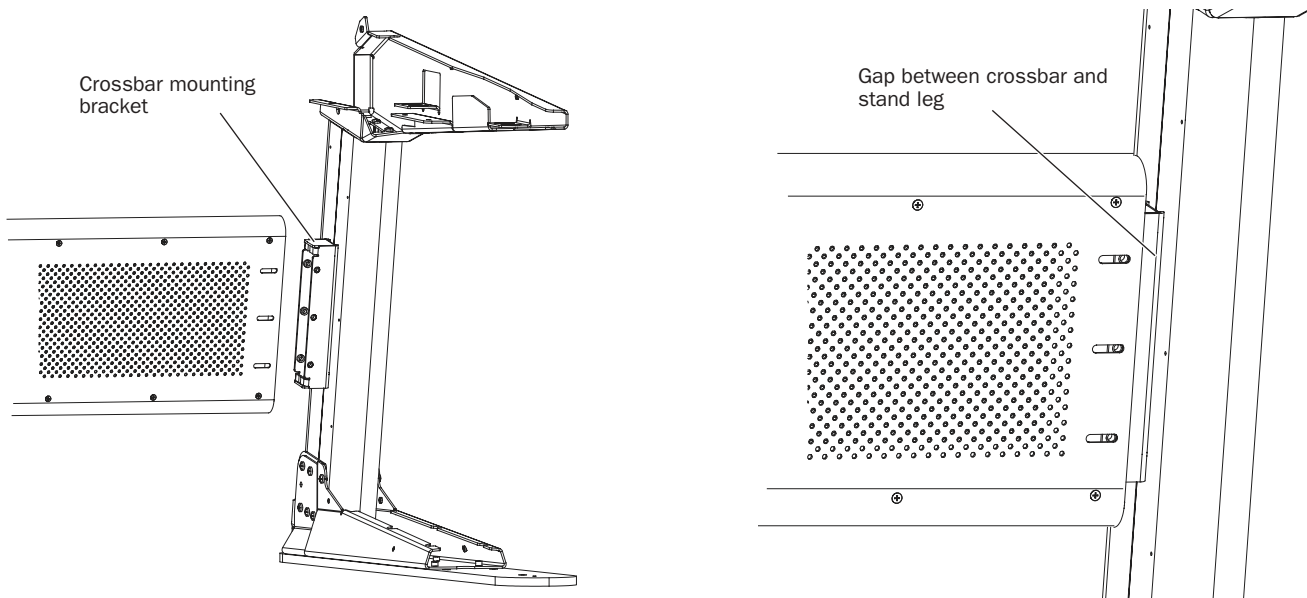


Figure 11. Placing the rear crossbar assembly on the mounting bracket (left); Detail of gap between crossbar and leg (right)

**3** Using a 5/32-inch Allen wrench, attach the crossbar to the brackets with 1/4-inch-20 x 1/2-inch button head cap screws (see Figure 12), using 6 screws on each side (3 in front and 3 in back). Make sure to leave the screws loose enough so that the legs can be moved side-to-side relative to the rear crossbar.



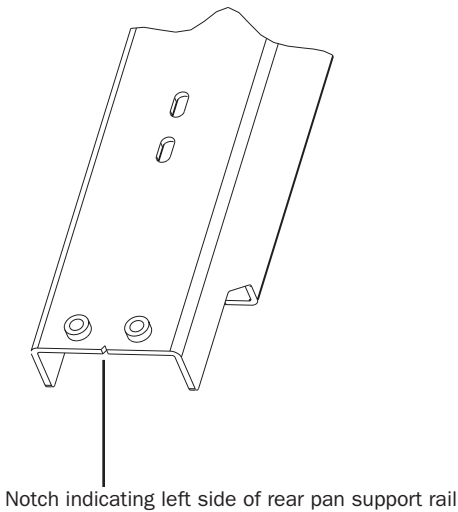
**Figure 12.** Attaching the crossbar

**4** Locate the rear pan support rail, which is the larger of the two rails provided with the stand.



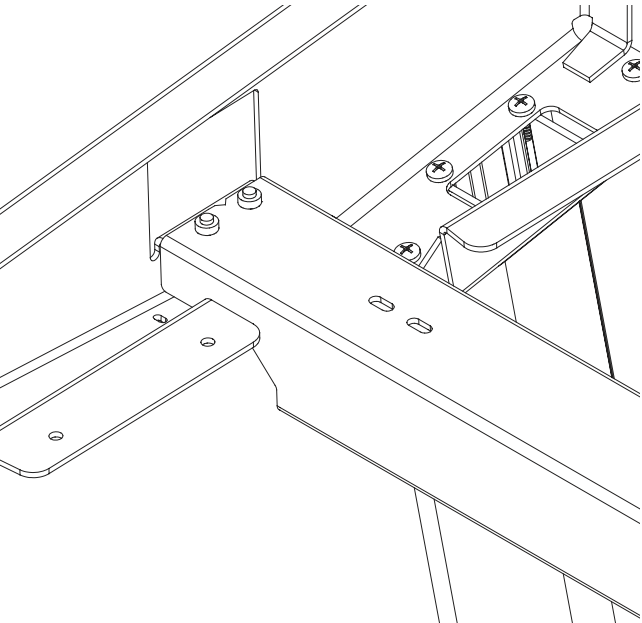
**Figure 13.** Side view of pan support rails

**5** Position the rear rail so that the edge with the V-shaped notch points toward the left stand leg.



**Figure 14.** V-shaped notch in rear pan support rail

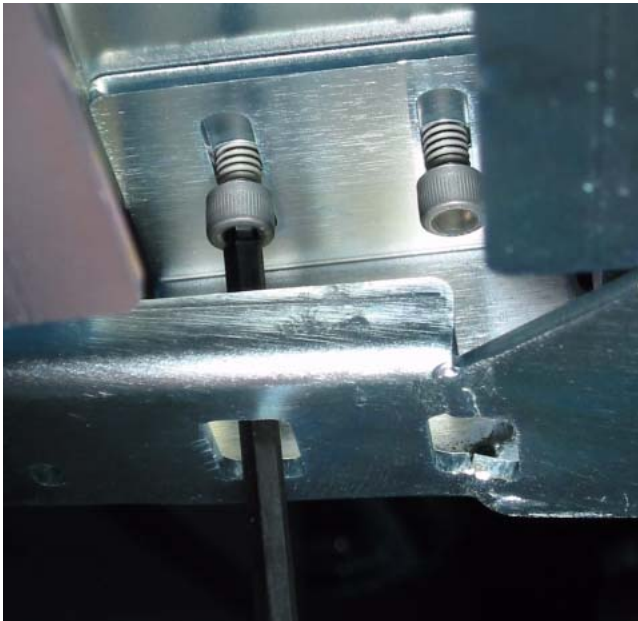
**6** Lift the rear rail into place so that the rail rests on the rear rail tabs of the stand legs (see Figure 15). The holes on the ends of the rail should line up with the slots in the rear rail tabs on each leg.



**Figure 15.** Rear support rail in place on left stand leg



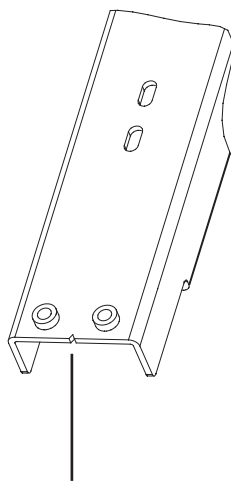
**7** Using a 3/16-inch Allen wrench, attach the rear rail to the rail tabs on each leg from below with 1/4-inch-20 x 1/2 inch socket head cap screws (see Figure 16), using 2 screws in each side. Make sure to leave the screws loose enough so that the leg assemblies can be moved side-to-side relative to the rear rail.



**Figure 16.** Attaching support rail from below

**8** Locate the front pan support rail, which is the smaller of the two rails provided with the stand.

**9** Position the front rail so that the edge with the V-shaped notch points toward the left stand leg.

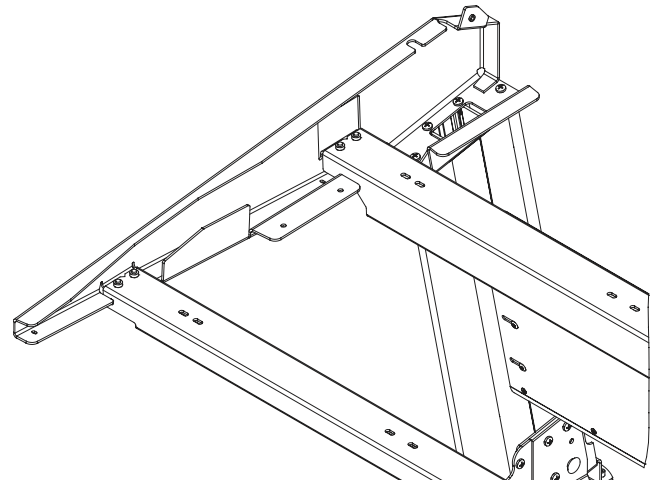


Notch indicating left side of front pan support rail

**Figure 17.** V-shaped notch in front pan support rail

**10** Lift the front rail into place so that the rail rests on the front rail tabs of the stand legs. The holes on the ends of the rail should line up with the slots in the front rail tabs on each leg.

**11** Using a 3/16-inch Allen wrench, attach the front rail to the rail tabs on each leg from below with 1/4-inch-20 x 1/2 inch socket head cap screws, using 2 screws in each side. Make sure to leave the screws loose enough so that the leg assemblies can be moved side-to-side relative to the front rail.



**Figure 18.** Front and rear support rails in place on left stand leg

With the rear crossbar, rear support rail and front support rail in place (see Figure 18), you are now ready to install the D-Control units on the stand.

## Installing D-Control Units

After the stand has been assembled, the next step is preparing the D-Control Main Unit and Fader Modules for installation.

### Attaching the Spacer Plate

A metal spacer plate goes between each D-Control unit on the D-Control stand.

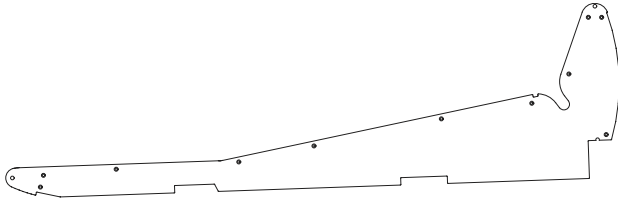
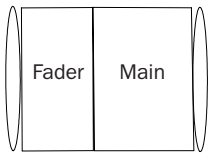


Figure 19. D-Control spacer plate (removed from a Fader Module)

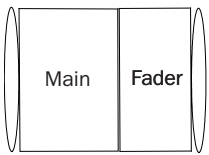
A spacer plate is pre-installed on the right side of each Fader Module. Depending on the size and configuration of your D-Control system, you may need to move the plate from one of the Fader Modules to the Main Unit. Refer to the section below for your system configuration.

### 16-Fader System

If you are building a 16-fader D-Control, you can place the Main Unit either to the left or to the right of the Fader Module.



16-fader system, Main on right



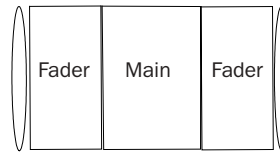
16-fader system, Main on left

Figure 20. 16-channel configurations

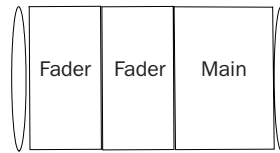
- ◆ If you are placing the Main Unit to the left of the Fader Module, you need to move the spacer plate from the Fader Module to the Main Unit. Refer to “Moving the Spacer Plate” on page 15 before installing the units on the stand.
- ◆ If you are placing the Main Unit to the right of the Fader Module, you can use the spacer plate on the Fader Module as pre-installed. Proceed to “Installing the Units on the Stand” on page 16.

### 32-Fader System

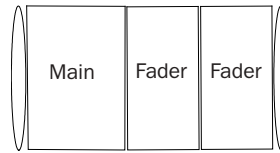
If you are building a 32-fader D-Control, you can place the Main Unit to the left, to the right, or in between the two Fader Modules.



32-fader system, Main in center



32-fader system, Main on right



32-fader system, Main on left

Figure 21. 32-channel configurations

- ◆ If you are placing the Main Unit to the left or in between the two Fader Modules, you need to move the spacer plate from the far-right Fader Module to the Main Unit. Refer to “Moving the Spacer Plate” on page 15 before installing the units on the stand.
- ◆ If you are placing the Main Unit to the right of the two Fader Modules, you can use the spacer plates as pre-installed on the Fader Modules. Proceed to “Installing the Units on the Stand” on page 16.

## Moving the Spacer Plate

When installing any Fader Modules on the right of the Main Unit, you will need to remove the spacer plate from the far right Fader Module and place it on the right side of the Main Unit.

**⚠** Do not use a power screwdriver or similar high-torque device to remove and replace the screws for the spacer plate, as it might strip the threads in the screw housing.

### To move the spacer plate:

**1** Remove the screws holding the spacer plate in place. Make sure to note the location of the longer screws (2 in the front and 5 in the back) as you remove them.

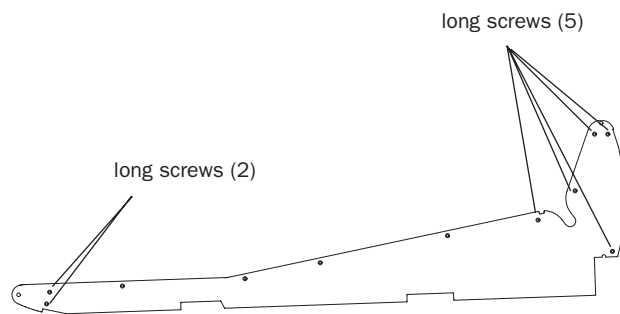


Figure 22. D-Control spacer plate (removed from a Fader Module)

**2** Remove the spacer plate from the right side of the Fader Module.

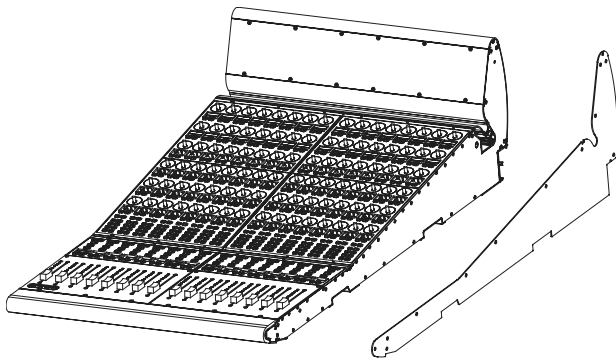


Figure 23. Removing the spacer plate from a Fader Module

**3** Replace the screws in the side of the Fader Module, making sure to replace the long screws in their corresponding holes.

**4** Remove the corresponding screws from the right side of the Main Unit, and attach the spacer plate with the same screws.

**⚠** The holes on the spacer plate are countersunk for installation on the right side of a unit. Do not attach the spacer plate to the left side of any D-Control unit.

## Leveling the Pins on the Rightmost Unit

Each D-Control unit ships with two pins in its right side to anchor the units together on the stand. These pins are not needed on the rightmost unit in your configuration.

### To level the roll pins on the rightmost unit:

**1** Identify the unit that will occupy the rightmost position in your configuration.

**2** Use a small hammer to tap in the two pins the right side of until they are flush with the side of the unit. (There is no stop inside the pin rails, so you will be able to install new pins if you expand your system later.)

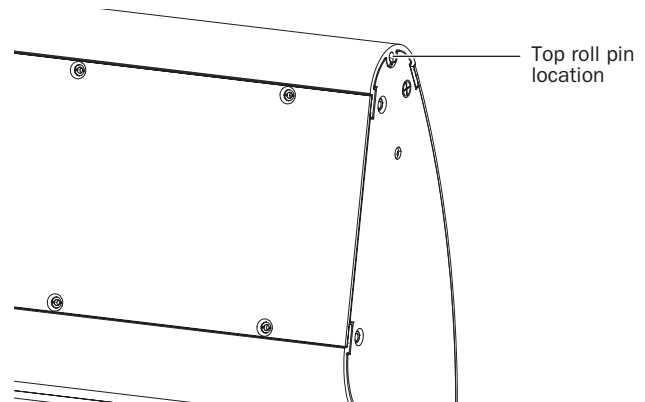


Figure 24. Installing the roll pin in the top of a D-Control unit

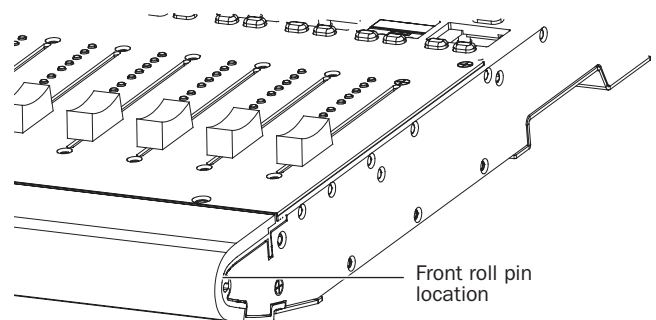


Figure 25. Installing the roll pin in the front of a D-Control unit

## Installing the Units on the Stand

After the D-Control Main Unit and Fader Modules are prepared for installation, the units are placed on the stand in the appropriate order for your configuration. Install the units from left to right on the stand.

### To install the D-Control units on the stand:

**1** Lift the first unit into place on the stand so the channels in the bottom of the unit go over the rear and front rails of the stand.

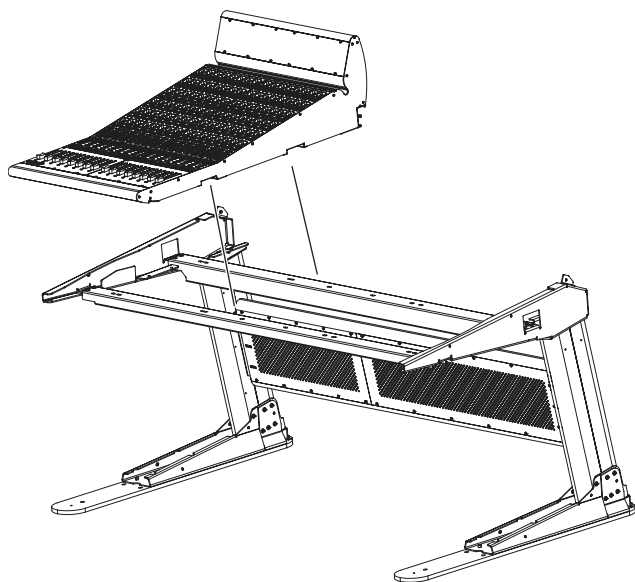


Figure 26. Placing a Fader Module on the stand

**2** Slide the unit to the left side of the stand, leaving a gap of about an inch (2 cm) between the side of the unit and the flange on the inside of the stand.



Figure 27. Leaving a gap between the unit and stand

**3** Lift successive units into place on the stand, being careful not to bend the pins in the units you installed previously.

**4** Slide the units together, guiding the pins in each unit into the corresponding holes in the side of the next unit.

**5** With the units in place, move the stand legs together to close up the gap between the stand and the outer units. Leave a gap of about 1/4 inch (0.5 cm) on each side to allow for installation of the plastic side caps.

**6** Attach the units to the front and rear rails from below with M6 x 8mm Philips pan head screws, using a total of 6 screws for the Main Unit (3 each in the front and rear rails) and a total of 4 screws for the Fader Module (2 each in the front and rear rails). Make sure to leave these screws loose enough so that the units can still move side-to-side relative to the rails.



Figure 28. Attaching a unit to the rails from below

## Closing Up the Stand

Next, you will close up the stand and finish attaching the units.

### To close up the stand:

- 1 Move the stand legs together to completely close the gap between the stand and the outer units. (You may want to tap the base of the legs with a rubber mallet to help move them into place.)
- 2 Use a ratcheting nylon strap to compress the stand legs together.



Figure 29. Using a nylon strap on the stand legs

- 3 If there is still any gap between the rear crossbar assembly and either of the legs, position the crossbar so that the gap is equal on both sides.
- 4 Tighten the 6 button cap screws on each side of the rear crossbar.
- 5 If necessary, use the ratcheting nylon strap to compress the D-Control units together by running the strap around the top part of the legs and across the D-Control units as shown in Figure 30. Make sure the nylon strap does not contact any switches or encoders on the surface.

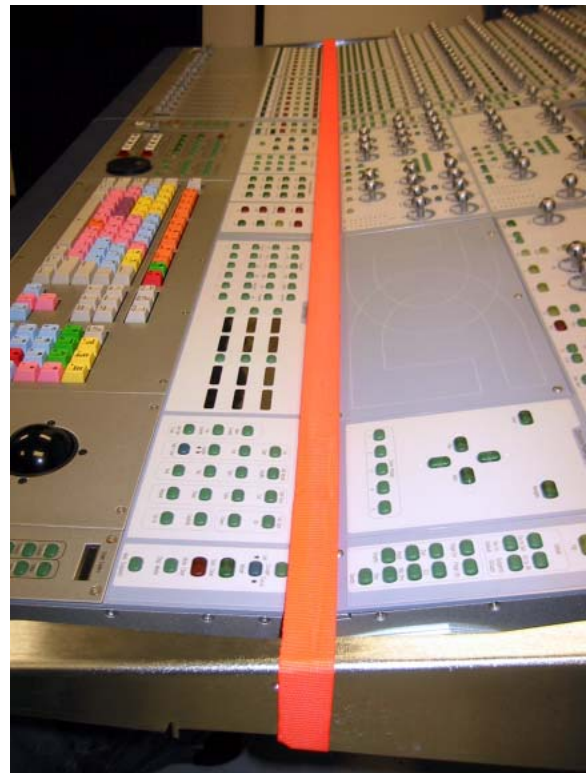


Figure 30. Using a nylon strap on the D-Control units

- 6 Tighten the 2 socket head cap screws on each side of the front and rear rails from below.
- 7 Attach the outside (rightmost and leftmost) units to the flanges on the legs from below with M6 x 8mm Philips pan head screws. Tighten these screws.

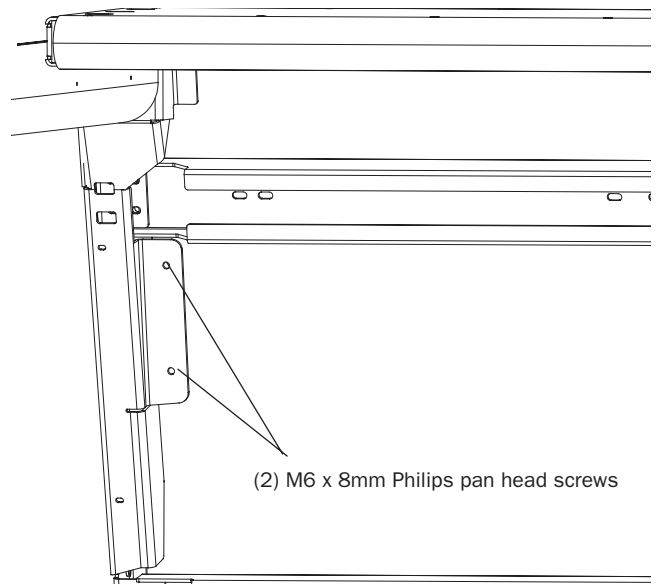


Figure 31. Attaching a unit to the leg flanges (view from below)

- 8 Tighten the Philips pan head screws that attach the D-Control units to the front and rear rails from below.
- 9 Remove the nylon strap.



## Installing the Plastic Side Caps

With the D-Control units in place and attached to the stand rails, you are now ready to install the plastic side caps.

**⚠** Do not use a power screwdriver or similar high-torque device to attach the plastic side caps, as it may distort or damage the caps.

### To install the plastic side caps:

**1** On each side of the system, locate the pair of #6-32 machine screws, arranged one above the other, near the front of each unit. Remove the lower of the two screws from each side of the unit.

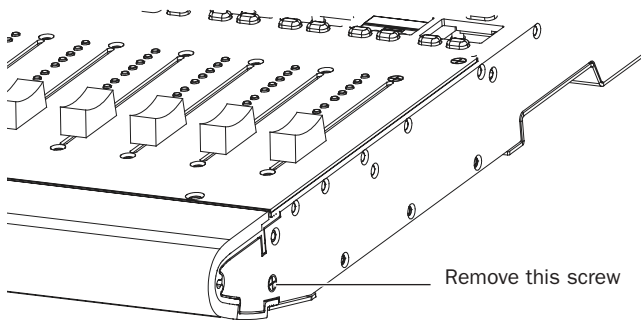


Figure 32. Removing the machine screw from a unit

**2** Locate the two small blue rubber meter break caps and install them in the inside of the plastic side caps.



Figure 33. Installing a meter break cap in a plastic side cap

**3** Place the plastic side caps over each side of the unit, starting by hooking the front of each cap around the front part of the stand leg, then sliding the cap backward into place. The holes on the cap should line up with holes on the stand.



Figure 34. Placing a plastic side cap on the stand

**4** Attach each plastic side cap with the screws indicated in Figure 35. Leave the screws loose until you have placed all of the screws, then go back and tighten all of the screws carefully.

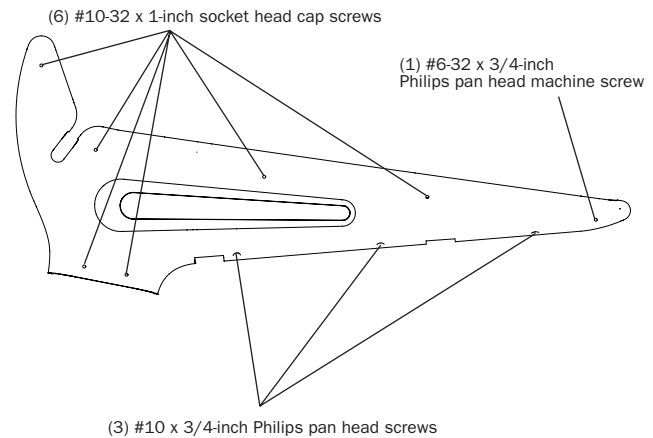



Figure 35. Attaching the plastic side caps

## Installing the Plastic Leg Caps

You can install the D-Control plastic leg caps at any time.

 To protect the plastic leg caps from damage, install them last, after you have finished installing and configuring any other D-Control components and moved the system into place. If necessary, continue with other installations and return to these steps when you are finished.

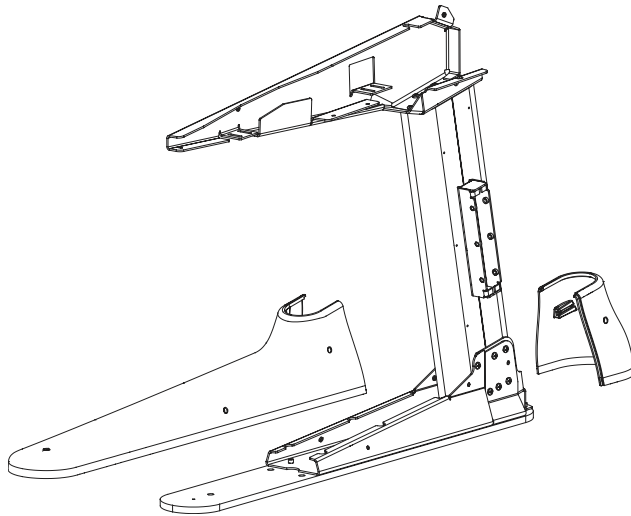


Figure 36. Plastic leg cap placement

### To install the plastic leg caps:

**1** Place the front leg caps over each leg. Attach each front cap with the screws indicated in Figure 37.

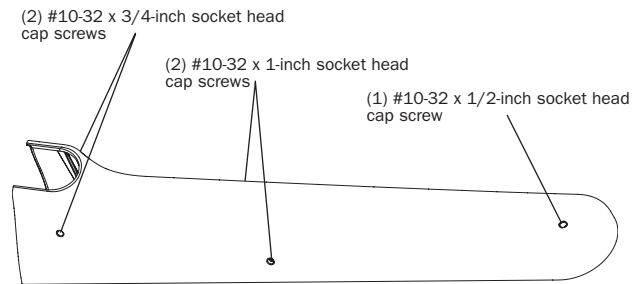


Figure 37. Attaching the plastic front leg caps

**2** Place the rear leg caps over each leg. Attach each rear cap with the screws indicated in Figure 38.

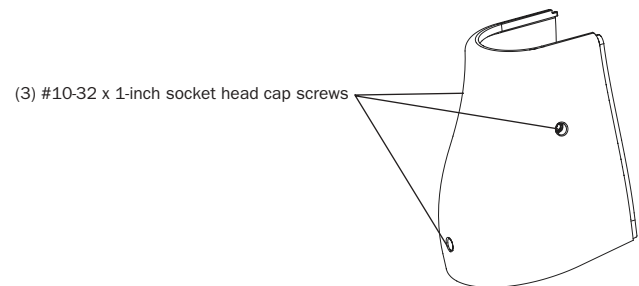


Figure 38. Attaching the plastic rear leg caps





# Chapter 4: Connecting D-Control Fader Modules

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## D-Control Fader Module Connections

D-Control Fader Modules require power and Ethernet connections to operate with Pro Tools.

### Power Connections

Each D-Control Fader Module requires its own power connection. Fader Modules are auto power-selecting (100V to 240V) and automatically work with a standard modular power cord when connected to an AC receptacle in any country. A power cable is provided with each Fader Module.

#### To make D-Control power connections:

- For each D-Control Fader Module, connect the included AC power cord the unit and to a power source.

## Ethernet Connections

Each D-Control unit communicates with Pro Tools via Ethernet. An Ethernet cable is included with each D-Control unit. A 10-BaseT Ethernet hub (not included) is required to connect D-Control units to the host computer.

#### To make D-Control Ethernet connections:

- 1 Install the Ethernet hub according to its instructions, apply power to it, and verify that it is functioning properly.
- 2 Connect the Ethernet hub to the Ethernet port on your computer.
- 3 For each D-Control unit, connect one end of the supplied Ethernet cable to a port on the Ethernet hub, and the other end to the Ethernet port on the back of the unit. Do not use any port labelled for LAN connections.



*Connection sequence to the Ethernet hub does not matter, because the order of the units can be configured from within Pro Tools.*

### Using D-Control on an Ethernet Network

You can purchase a combined 10/100-BaseT hub that can simultaneously support D-Control over 10-BaseT and other network traffic over 100-BaseT. This will allow you to use D-Control with on a local area network.

Moderate network traffic (such as e-mail) should not affect communication between D-Control and the computer. If your network experiences heavy traffic, you may want to create a dedicated Ethernet network for D-Control.

### Controlling Pro Tools Systems Over a Network

When D-Control is connected to an Ethernet network, it will be available to be declared by any Pro Tools system on that network. This lets you control different Pro Tools systems on the network with a single D-Control console. (You can only control one Pro Tools system at a time.)



# Appendix A: Utility Mode

D-Control Utility mode lets you view system information, run diagnostic tests, set hardware preferences, and reset system settings.

## Entering Utility Mode

You can enter Utility mode at any time to change D-Control settings. Utility mode can be accessed from the D-Control Main Unit and also on individual D-Control Fader Modules.

### Entering Utility Mode from a Main Unit

When putting a D-Control Main Unit into Utility mode, the behavior of connected Fader Modules depends on whether or not the units are online.

A D-Control unit is *online* if Pro Tools is running and the unit is declared in the Peripherals page of the Setups dialog. A unit is *offline* when Pro Tools is not running, or if it is not declared on a system that is running Pro Tools.

#### To enter Utility mode from the Main Unit:

- Press the Utility switch in the Session Management section. The Utility switch and the Soft Keys flash to indicate Utility mode is active.
  - If the Main Unit is online, any Fader Modules declared on the same Pro Tools system also enter Utility mode.
  - If the Main Unit is offline, all offline Fader Modules on the same Ethernet network enter Utility mode.

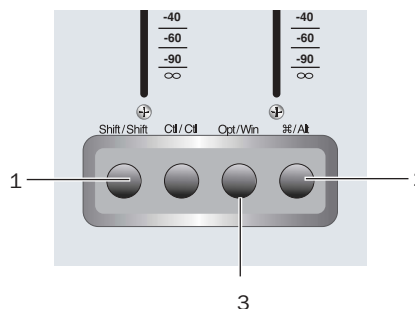
### Entering Utility Mode on a Fader Module

You can put individual Fader Modules into Utility mode to test them independently of other D-Control units.

#### To put an individual Fader Module into Utility mode:

- 1 If Pro Tools is running, do one of the following:
  - Quit Pro Tools.
- or –
- Choose Setups > Peripherals, click Ethernet Controllers, and make sure the Fader Module is not declared.

- 2 Press and hold the Modifier Keys in the lower left of the Fader Module in the following sequence: Shift + Alt/Command + Win/Option. The encoder Select switches in the bottom row flash to indicate Utility mode is active.



Fader Module Modifier Key sequence for Utility mode

## Navigating Utility Mode

When the unit is in Utility mode, the Utility Setup Page is displayed on the Soft Key displays (Main Unit) or on the bottom row of encoders (Fader Module).

The Utility Setup page has five top level options:

- System: System Info Page
- Name: Name Setup Page
- Test: Test Setup Page
- Reset: Reset D-Control to Defaults
- Pref: Preference Setup Page

#### To access an option on the Utility Setup Page:

- Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to the option.

#### To move back up to the Utility Setup Page:

- Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Escape.”

---

## Exiting Utility Mode

### To exit Utility mode:

- Press the flashing Utility switch (Main Unit).
  - or –
- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

---

## D-Control System Info Page

The System Info page provides access to the system firmware version and Ethernet information.

### To display the System Info page:

- From the Utility Setup page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “System.”

### To exit the System Info page:

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## Firmware Version

In the System Info page, hold the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “FW ver.” This shows the Comm board and Motor Control board firmware versions.

## Ethernet Info

In the System Info page, hold the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Ethrnt” to display the following information:

- Unit Name (as named on the Name Page)
- ID: Ethernet address (Machine Address Code) for the unit
- Num: The Digidesign serial number for the unit
- Type: The Ethernet packet type used by Digidesign for control surface communication

---

## D-Control Name Page

The Name page is used to view and change D-Control unit names. These names appear in the Pro Tools Peripherals dialog, and must be unique so as to identify each D-Control unit correctly. This is especially important if your system is on an Ethernet network with multiple controllers connected to it.

### To display the Name page for a D-Control unit:

- 1 Put the unit you want to name into Utility mode. Fader Modules must be put into Utility mode independently. (See “Entering Utility Mode on a Fader Module” on page 23.)
- 2 From the Utility Setup page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Name.”

The Main Unit name appears in the Soft Keys section. The Fader Module name appears in its encoder scribble strips. The first character of the name flashes to indicate text entry.

### To change the unit name:

- 1 Turn the Scrub/Shuttle wheel (Main Unit) or any encoder knob (Fader Module) to change the selected text.
- 2 To move forward and backward through the name field, press the flashing Soft Keys (Main Unit) or encoder Select switches (Fader Module) that correspond to the “>” and “<” symbols.
- 3 When you are finished entering text, do one of the following:
  - Confirm the new name by pressing the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “OK.”
  - Clear the name field by pressing the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Clear.”
  - Cancel the new name by pressing the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Cancel.”

---

## D-Control Test Pages

The Test pages let you test various mechanical and electronic components of the unit.

### To display the Test Setup page:

- From the Utility Setup page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Test.”

The Test Setup page has five top level test modes:

- Ethernet: Ethernet Test Page
- LED: Switch and LED Test Pages
- Display: Display Test Page
- Fader: Fader Test Page
- Rotary: Rotary Encoder Test Page

### To enter a test mode on the Test Setup page:

- Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to the test mode name.

### To exit the Test Setup page:

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## Ethernet Test Page

There are three test levels for Ethernet communication on D-Control: Internal, Mendec, and External. These tests can assist Digidesign Technical Support should you ever experience difficulty with Ethernet communication between D-Control and Pro Tools.

Each test sends data packets through that unit’s Ethernet system. The Transmit (Xmit) and Receive (Recv) values for each test show the number of packets sent and received in the test, and the “Error” and “Retry” fields show percentage error in the transmission and receiving process. An error rate of 1 percent or less generally indicates acceptable performance. (In normal operation, errors are retried and no data loss occurs.)

### To display the Ethernet Test page:

- 1 Put the unit you want to test into Utility mode. Fader Modules must be put into Utility mode independently. (See “Entering Utility Mode on a Fader Module” on page 23.)
- 2 From the Test Setup page, press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Ethrnt.”

### To exit the Ethernet Test page:

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## Internal

The Internal test verifies the first stage of Ethernet communication by sending data packets through the unit’s Ethernet link chip.

### To perform the Internal Ethernet test:

- 1 From the Ethernet Test page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Clear” to clear any values in the unit’s test data page.
- 2 Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Intrnl.”

### To exit the Internal Ethernet test:

- Press the flashing Soft Key (Main Unit) or encoder Select switch (Fader Module).

## Mendec

The Mendec (Manchester Encoder/Decoder) test verifies the second stage of Ethernet communication by sending data packets through the unit’s Ethernet encoder and decoder.

### To perform the Mendec Ethernet test:

- 1 From the Ethernet Test page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Clear” to clear any values in the unit’s test data page.
- 2 Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Mendec.”

### To exit the Mendec Ethernet test:

- Press the flashing Soft Key (Main Unit) or encoder Select switch (Fader Module).

## External

The External test verifies the third stage of Ethernet communication by sending data packets out of the unit’s external Ethernet port and back into the unit using the Ethernet loopback connector (provided with the D-Control Main Unit).

### To perform the External Ethernet test:

- 1 If Pro Tools is running, quit Pro Tools.
- 2 Disconnect the unit from the Ethernet network.
- 3 Plug the Ethernet Loopback connector into the unit’s Ethernet port.
- 4 From the Ethernet Test page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Clear” to clear any values in the unit’s test data page.
- 5 Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Extrnl.”

#### **To exit the External Ethernet test:**

- Press the flashing Soft Key (Main Unit) or encoder Select switch (Fader Module).

## **Switch and LED Test Page**

The Switch and LED Test page has five modes:

- Switch: Switch Test Mode
- Red: Red LED Test Mode
- Yellow: Yellow LED Test Mode
- Green: Green LED Test Mode
- Vegas: Vegas Mode

#### **To display the Switch and LED Test page:**

- From the Test Setup page, press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “LED.”

#### **To exit the Switch and LED Test page:**

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

#### **To enter any of the Switch and LED Test modes:**

- Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to the mode name.

## **Switch Test Mode**

Switch Test mode lets you test each switch on the unit individually.

#### **To test any switch:**

- Press the switch you want to test.

The switch LED lights as long as it is held and the Soft Key display (Main Unit) or encoder scribble strips (Fader Module) show the location information for the switch.

#### **To exit Switch Test mode:**

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## **LED Test Modes (Red, Yellow, Green)**

The LED Test modes lets you test all red, yellow, and green LEDs on the unit individually.

#### **To test LEDs:**

- Press the Soft Key that corresponds to “Red,” “Yellow,” or “Green” to test all LEDs of the corresponding color.

#### **To exit LED Test mode:**

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## **Vegas Mode**

Vegas mode randomly lights every switch, meter, and display on the unit, and runs the faders in sine wave mode.

#### **To enter Vegas mode:**

- Press the Soft Key that corresponds to “Vegas.”

#### **To exit Vegas mode:**

- Press any switch on the unit.

## **Display Test Page**

The Display Test page has three modes:

- Text: Scribble Strip Test
- Time Code: Time Code Display Test
- Meter: Meter Bridge LED Test

#### **To display the Display Test page:**

- From the Test Setup page, press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Disply.”

#### **To exit the Display Test page:**

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

#### **To enter any of the Display Test modes:**

- Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to the mode name.

## **Text (Scribble Strip) Test**

The Text test mode cycles through a series of scribble strip tests that check all scribble strips on the control surface.

#### **To exit Text Test mode:**

- Press any flashing Soft Key (Main Unit) or encoder Select switch (Fader Module).

## **Meter Bridge LED Test**

The Meter Bridge LED test cycles through a series of automated tests that check all LEDs on each meter.

#### **To exit Meter Bridge LED Test mode:**

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## Time Code Display Test

### (Main Unit Only)

The Time Code Display test cycles through a series of automated tests that check all LED segments on the Main Unit Time Code display.

#### To exit Time Code Display Test mode:

- Press the Soft Key that corresponds to “Escape.”

## Fader Test Page

The Fader Test page provides four test modes and a calibration mode:

- Step: Fader Step Test Mode
- Cycle: Fader Cycle Test Mode
- Group: Fader Group Test Mode
- Touch: Fader Touch Test Mode
- Recal: Recalibrates Faders

#### To display the Fader Test page:

- From the Test Setup page, press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Fader.”

#### To exit the Fader Test page:

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

#### To enter any of the Fader Test modes:

- Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to the test name.

### Step Test Mode

In Step Test mode, faders jump together, in stepped fashion, to positions that are adjustable with the Scrub/Shuttle wheel (Main Unit) or any encoder knob (Fader Module).

#### To exit Step Test mode:

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## Cycle Test Mode

In Cycle Test mode, faders move together, from the bottom to top, in a continuous cycle, at a speed that is adjustable with the Scrub/Shuttle wheel (Main Unit) or any encoder knob (Fader Module).

Fader position values are shown in the channel scribble strips and are updated in real time as the faders move.

#### To exit Cycle Test mode:

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## Group Test Mode

In Group Test mode, faders can be moved to test group response.

This mode displays which faders are currently being touched by showing the letter “T” in their channel scribble strips.

#### To exit Group Test mode:

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## Touch Test Mode

The Touch Test page lets you test the touch sensitivity of each fader. The channel scribble strips show when a fader is touched and what frequency the fader is currently recognizing. The fader frequency value is updated in real time.

This mode displays which faders are currently being touched by showing the letter “T” in their channel scribble strips.

#### To exit Touch Test mode:

- Press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Escape.”

## Recal

The Recal command recalibrates D-Control fader touch sensitivity and position to factory specifications.

In addition, under conditions of heavy use, the D-Control fader motor protection feature may disengage a fader if it is in danger of overheating. The Recal command reengages any disengaged faders.

#### To recalibrate the faders:

- From the Fader Test page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Recal.”

## Rotary Test Page

The Rotary Test page lets you test the touch-sensitive encoder knob and the LED ring in each rotary encoder, as well as the Scrub/Shuttle wheel on the Main Unit.

### To enter Rotary Test mode:

- From the Test Setup page, press the Soft Key (Main Unit) or encoder Select switch (Fader Module) that corresponds to “Rotary.”

### To exit Rotary Test mode:

- Press the Soft Key next to “Escape” (Main Unit) or the flashing encoder Select switch.

### To test the rotary encoders:

- ◆ Touch any encoder knob. When the encoder knob is touched, the encoder’s scribble strip turns red and the “Auto” indicator LED below the knob lights.
- ◆ Turn any encoder knob. When the encoder knob is turned, each LED in the LED ring lights in order.

### To test the Scrub/Shuttle wheel:

- Turn the Scrub/Shuttle wheel. The numerical value in the lower left display of the Soft Key section value changes depending on which way you turn the wheel.

---

## Resetting D-Control to Factory Defaults

The Reset (Factory Default) page lets you reset the D-Control Main Unit and Fader Modules to their factory default settings.

### To reset D-Control:

- 1 From the Utility Setup Page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Reset.”
- 2 Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “OK.”
- 3 Do one of the following:
  - Confirm your choice by pressing OK again.
  - or –
  - Cancel the reset operation by pressing the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Cancel.”

---

## D-Control Preferences

D-Control Preferences let you set various display and operation preferences for the unit.

### To display the Preferences page:

- From the Utility Setup Page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Prefs.”

The D-Control Preferences page has five preferences:

- Bright: Scribble Strip Brightness
- Contrast: Scribble Strip Contrast
- Foot 1: Footswitch 1 Settings
- Foot 2: Footswitch 2 Settings
- Sleep: Sleep Mode Settings

### To access a preference on the Preferences page:

- Press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to the preference name.

## Scribble Strip Brightness Page

The Scribble Strip Brightness page lets you adjust the brightness of the scribble strip LED displays.

### To set the scribble strip brightness:

- 1 From the Preferences page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Bright.”
- 2 Turn the Scrub/Shuttle wheel (Main Unit) or any encoder knob (Fader Module) to change the brightness value. Brightness values range from 0–127.
- 3 Do one of the following:
  - Confirm the new brightness value by pressing the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “OK.”
  - or –
  - Cancel the new brightness value by pressing the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Cancel.”



## Scribble Strip Contrast Page

The Scribble Strip Contrast page lets you adjust the level of backlighting in the scribble strip LED displays.

### To set the scribble strip contrast:

- 1 From the Preferences page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Contrast.”
- 2 To adjust the overall contrast for all scribble strips, press the Soft Keys (Main Unit) or the encoder Select switches (Fader Module) that correspond to “>>” or “<<” to increase or decrease the contrast value. Overall contrast values range from 0–9.
- 3 To adjust the relative contrast for individual rows of scribble strips, turn the Flip encoder knobs (Main Unit) or any encoder knobs in a given row (Fader Module). Individual contrast values are shown as “Step” numbers ranging from 0–62.
- 4 To cycle the scribble strips through inverted text display, repeatedly press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Invert.”
- 5 Do one of the following:
  - Confirm the new contrast values by pressing the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “OK.”
  - Reset the contrast values to their defaults by pressing the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Reset.”
  - Cancel the new contrast values by pressing the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Cancel.”

## Footswitch 1 and 2 Settings Pages

### (Main Unit Only)

The Footswitch Settings pages for Footswitch 1 and Footswitch 2 let you set the function for each. For each setting, pressing the footswitch is the functional equivalent of pressing the corresponding switch on the D-Control Main Unit.

Each Footswitch Settings page has four options:

- Flip + / Flip – : Changes the polarity of the footswitch connection to positive (+) or negative (–).
- Play: Simulates pressing the Play switch on the transport
- Record: Simulates pressing the Record switch on the transport
- Talkback: Simulates pressing the Talkback switch on the D-Control Main Unit

### To set the function of the footswitches:

- 1 From the Preferences page, press the Soft Key that corresponds to “Foot 1” or “Foot 2.”
- 2 Press the Soft Key that corresponds to the function you want to assign to the footswitch. The Soft Key for the selected function lights continuously.
  - Press the Soft Key that corresponds to “Escape.”

## Sleep Mode Settings Page

Sleep mode saves power by dimming the LEDs on the D-Control unit. The Sleep Mode Settings page lets you set the amount of idle time before the LEDs on the unit dim automatically.

### To set the time before the D-Control unit sleeps:

- 1 From the Preferences page, press the Soft Key (Main Unit) or the encoder Select switch (Fader Module) that corresponds to “Sleep.”
- 2 Turn the Scrub/Shuttle wheel (Main Unit) or any encoder knob (Fader Module) to change the time before the unit goes to sleep. Times range in 1-minute increments from 1 to 59 minutes, then in 1-hour increments from 1 to 12 hours, to Off (the unit never goes to sleep).