

Personal Q Guide for VENUE Systems

Version 1.0

Digidesign

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

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Communications & Safety Regulation Information

Compliance Statement

The models PQ Rack and PQ Controller comply with the following standards regulating emissions and immunity:

- FCC Part 15 Class B
- EN55103 – 1, environment E3
- EN55103 – 2, environment E3
- AS/NZS 3548 Class B
- CISPR 22 Class B
- ICES-003 Class B

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This Class B digital apparatus complies with Canadian ICES-003
Cet appareil numérique de la classe B 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 B 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 B 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: UL60065 7th /IEC 60065 7th and Canadian CAN/CSA C22.2 60065:03. 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) CAUTION – Refer all servicing to qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
- 13) WARNING – To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- 14) To reduce the risk of electric shock, grounding of the center of the plug must be maintained, if applicable.
- 15) The AC mains plug or appliance coupler shall be readily available to the operator as a means of power disconnection.



The above symbol denotes presence of a shock hazard at any part involving a potential in excess of 35 V peak, or 60 V DC, and where a leakage current from that part to ground exceeds 3.5 mA.



The above symbol denotes that the operator must refer to an explanation in the operating instructions to avoid damage to the equipment and/or to avoid personal injury.

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Chapter 1: Introduction and Overview

The Personal Q (PQ) system lets performers remotely control their own monitor mixes on a VENUE system.

D-Show provides eight built-in, 12 x 2 PQ mixers that can be used to create up to eight independent stereo monitor mixes. After a PQ mixer is set up from the D-Show control surface, it can be controlled by the mix engineer from the Output section of the control surface, or by an onstage performer using a PQ Controller.

The PQ system carries control data to and from the D-Show console, allowing you to adjust PQ mixer input level, input pan/balance, and output level. The PQ system does not carry audio signals; audio signals for monitor mixes are output from any of D-Show's physical outputs on the Stage Rack or FOH Rack.

Personal Q System Features

The Personal Q system provides remote operation of controls on the D-Show console, and mirrors any changes made to the corresponding controls on the console.

The Personal Q system consists of at least one PQ Rack and one PQ Controller.

PQ Rack Features

- Connects to the PQ Link connector on a Stage Rack
- Provides connections for up to eight PQ Controllers

PQ Controller Features

- Connects to the PQ Rack
- Four rotary encoder controls with LED rings for level, pan/balance, solo, and metering of PQ mixer inputs (1–8, L, R, and User Inputs)
- Four on/off switches for control of PQ mixer input on/off status
- Rotary encoder control with LED ring for master volume of PQ mixer output
- Four 6-character displays for input and control names
- Console call feature allows performer to activate call message on D-Show console display
- Lockout feature allows performer or console operator to temporarily lock out PQ Controller from control changes

Personal Q System Components

The following components are included in a Personal Q system:

PQ Rack

- PQ Rack unit
- AC power cord
- PQ Link Cable (10 ft/3 m)

PQ Controller

(Up to 8 PQ Controllers can be connected to each PQ Rack)

- PQ Controller unit
- PQ Controller cable (50 ft/15 m)

System Expansion Options

The Personal Q system allows independent control of up to eight individual PQ mixes.

PQ Racks In D-Show systems with two Stage Racks, one PQ Rack can be connected to each Stage Rack, for a total of two PQ Rack units. When two PQ Racks are used, dual control of each PQ mix (up to a maximum of 8 available PQ mixers) is possible. (This is useful when a single performer has two positions onstage.)

PQ Controllers Each PQ Rack can accommodate 8 PQ Controllers, for a maximum of 16 PQ Controllers (2 controllers for each of the 8 available PQ mixers) on a D-Show system.

For more information on D-Show expansion options, visit the Digidesign Web site (www.digidesign.com).

Operational Requirements

Temperature and Ventilation

D-Show units should be operated away from heat sources and with adequate ventilation.

Storage

D-Show units should be stored and transported at temperatures not lower than 0 degrees F (–18 degrees C) and not exceeding 140 degrees F (60 degrees C).

Operation

D-Show units should be operated at temperatures not lower than 40 degrees F (4 degrees C) and not exceeding 115 degrees F (46 degrees C).

Water and Moisture

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

If condensation is present on a D-Show unit, leave the unit to dry in ambient air for at least one hour before powering the unit on.

Cleaning and Maintenance

If you need to clean the surface of a D-Show unit, use a dry cloth. Do not apply any cleaning solutions, spray cleaners, or abrasives to the surface.

Connection Requirements

Power Connections

PQ Rack Each PQ Rack 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.

PQ Controllers Each PQ Controller is powered by the PQ Rack through its PQ Controller cable connection.

PQ Rack Overview

PQ Rack Front Panel

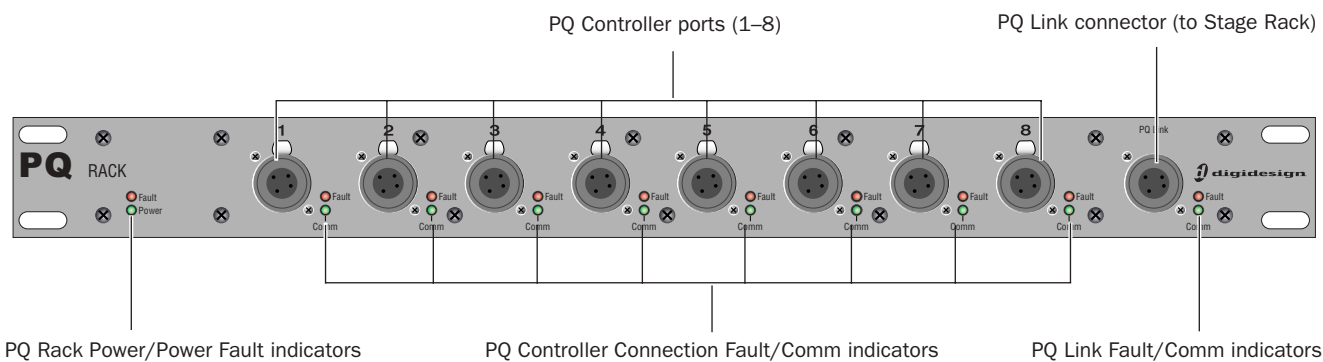


Figure 1. PQ Rack Front Panel

PQ Controller Ports Each of the 8 PQ Controller Ports accepts a male 4-pin PQ Controller cable, for connecting a PQ Controller. The PQ Controller port numbers (1–8) correspond directly to the PQ mixer number (1–8) that is controlled in D-Show.

PQ Link Connector The PQ Link connector accepts a female 4-pin PQ Link cable, for connecting the PQ Rack to a Stage Rack. The maximum cable length for this connection is 15 ft (4.6 m).

PQ Rack Power/Power Fault Indicators These indicators light to show application of power (green) and any power fault or interruption (red) for the PQ Rack.

PQ Connection Comm/Fault Indicators These indicators light to show active communication to a PQ Controller (green) and any connection fault or interruption (red), for the corresponding PQ Controller port.

PQ Link Comm/Fault Indicators These indicators light to show active communication between the PQ Rack and a Stage Rack (green) and any connection fault or interruption (red).

PQ Rack Back Panel

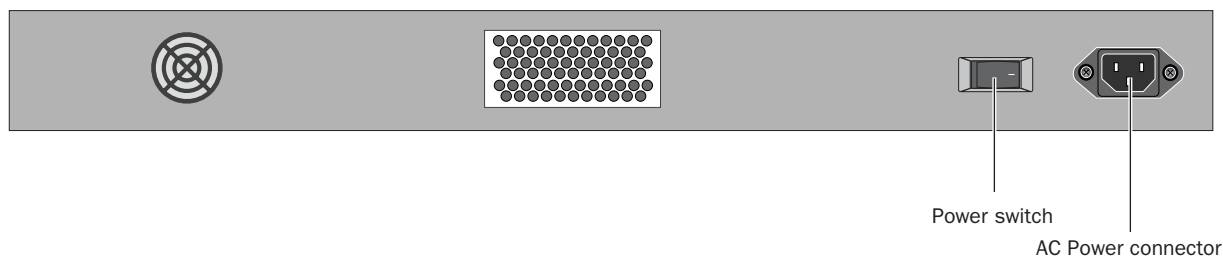


Figure 2. PQ Rack Back Panel

AC Power Connector The AC power connector accepts a standard modular AC power cord. The PQ Rack power supply is auto-power selecting (100V to 240V, 50 Hz to 60 Hz) and automatically works when connected to an AC receptacle in any country.

Power Switch The Power switch applies power to the PQ Rack and activates all PQ Controllers connected to the PQ Rack.

PQ Controller Overview

PQ Controller Top Panel

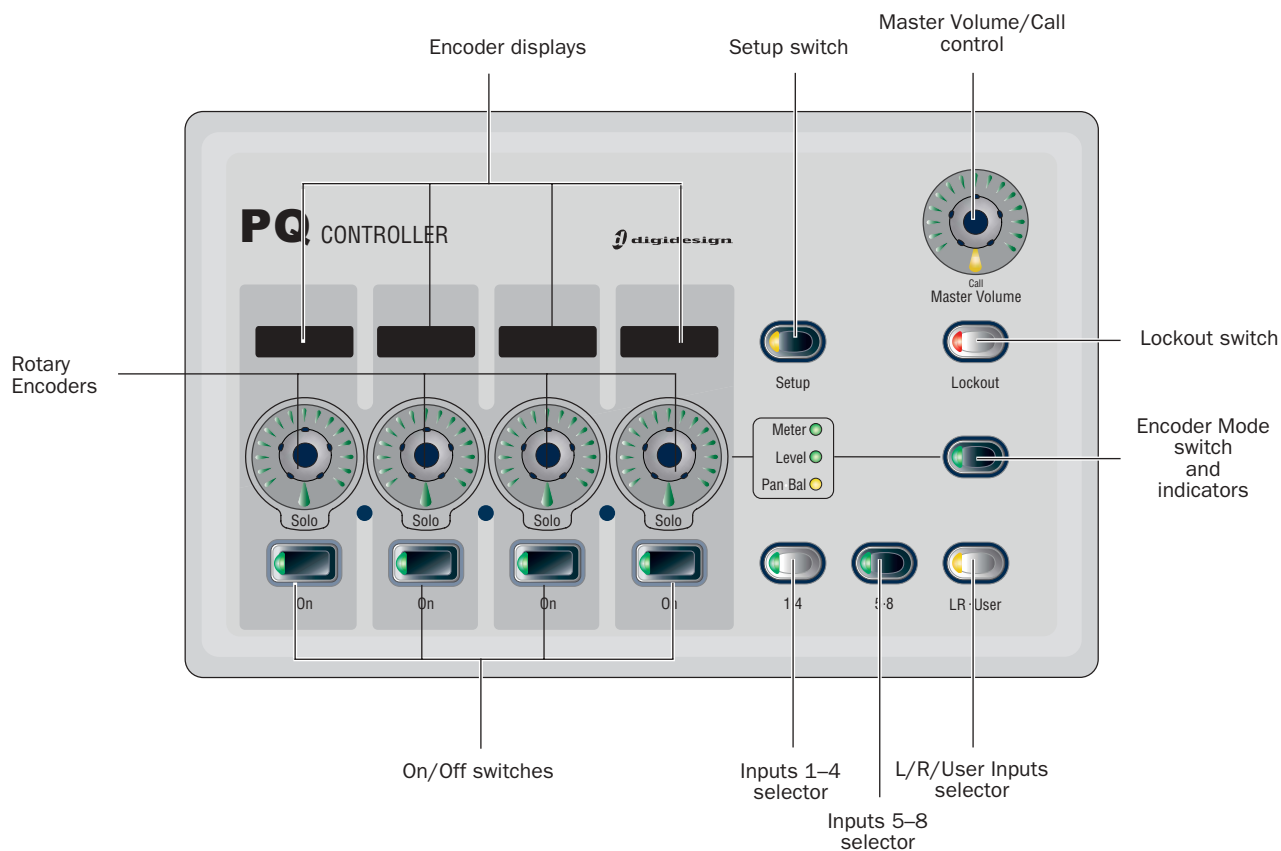


Figure 3. PQ Controller Top Panel

Encoder Displays The encoder displays show the name/value of the PQ mixer input currently controlled by the corresponding rotary encoder.

Rotary Encoders The rotary encoders control the currently displayed parameter (level or pan/balance) when turned, or solo the currently displayed PQ mixer input when pressed. The encoder rings display input level or pan settings, or indicate input meter levels, depending on the encoder mode.

On/Off Switches The On/Off switches turn the currently displayed PQ mixer input on or off.

Setup Switch The Setup switch puts the PQ Controller in Setup mode, which displays the port number for the PQ Controller, and lets you adjust display brightness and contrast on the PQ Controller.

Inputs 1–4 Selector The Inputs 1–4 selector displays PQ mixer inputs 1–4 on the rotary encoders and displays for adjusting level and pan/balance.

Inputs 5–8 Selector The Inputs 5–8 selector displays PQ mixer inputs 5–8 on the rotary encoders and displays for adjusting level and pan/balance.

L/R/User Inputs Selector The L/R/User Inputs selector displays the Main Left, Main Right, Center/Mono, and user-assignable inputs on the rotary encoders and displays for adjusting level and pan/balance.

Master Volume/Call Control The Master Volume/Call control changes the PQ mixer output volume when turned, or raises a call message on the D-Show console display when pressed.

Lockout Switch The Lockout switch temporarily locks the local controls of the PQ Controller to prevent inadvertent changes to controller settings. This function does not lock out control of the PQ mixer from the D-Show console. The Lockout switch lights when lockout is activated from the controller, and flashes when lockout is activated from the console.

Encoder Mode Switch and Indicators The Encoder Mode switch and indicators toggle control of input level, input pan/balance, or input metering on the rotary encoders and LEDs for the currently displayed input.

PQ Controller Back Panel

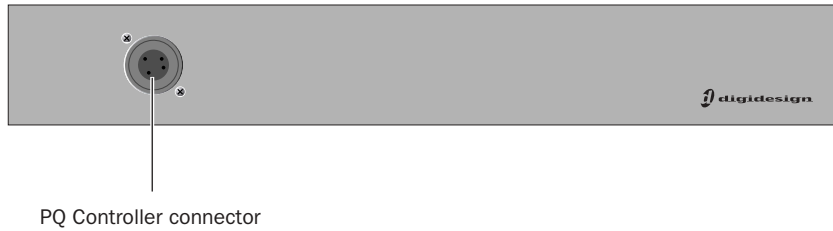


Figure 4. PQ Controller Back Panel

PQ Controller Connector The PQ Controller connector accepts a female 4-pin PQ Controller cable connector, for connecting the PQ Controller to a PQ Rack. Power is provided by the PQ Rack, through the PQ Controller cable. The maximum cable length for this connection is 100 ft (30.5 m).

Chapter 2: Connecting the Personal Q System

Connecting the Personal Q System to D-Show

The Personal Q System consists of a PQ Rack and from 1 to 8 PQ Controllers. The PQ Rack connects to the Controller Section of the Stage Rack. PQ Controllers connect to the 8 available ports on the PQ Rack.

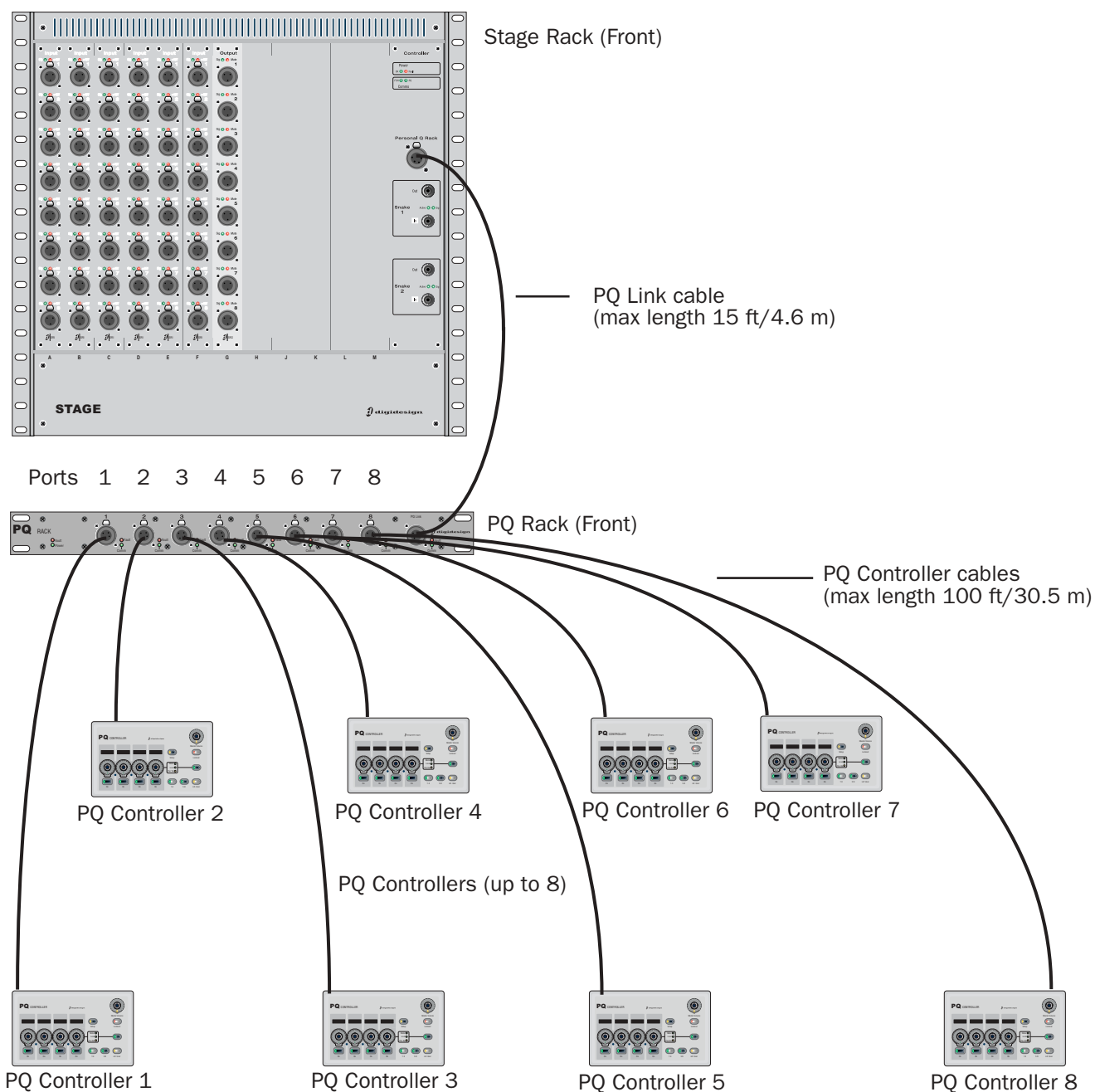


Figure 5. Personal Q System component connections (not to scale)

Connecting the PQ Rack to the Stage Rack

The PQ Rack connects to the Stage Rack with the PQ Link cable. The maximum length permissible for the PQ Link cable is 15 feet (4.6 meters).

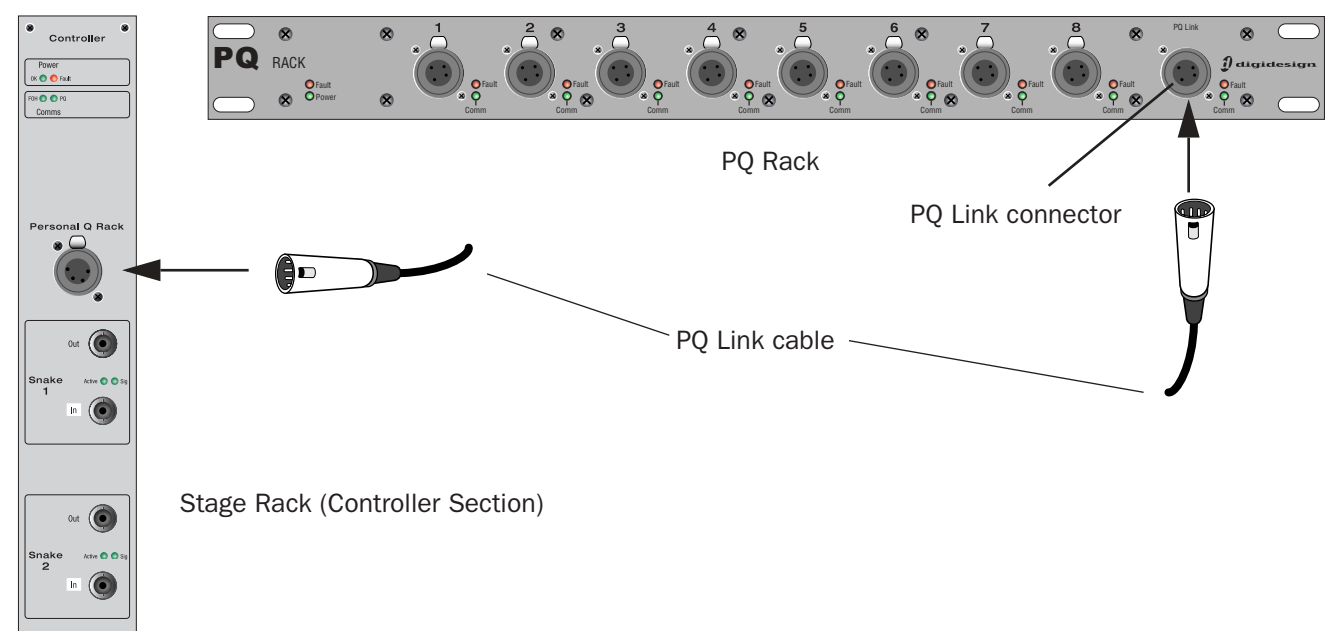


Figure 6. PQ Link cable connection between Stage Rack and PQ Rack

Connecting PQ Controllers to the PQ Rack

PQ Controllers connect to any of the PQ Controller ports 1–8 on the PQ Rack with PQ Controller cables. The Controller port number (1–8) corresponds directly to the PQ mixer number (1–8) that is controlled in D-Show. The maximum length permissible for the PQ Controller cable is 100 feet (30.5 meters).

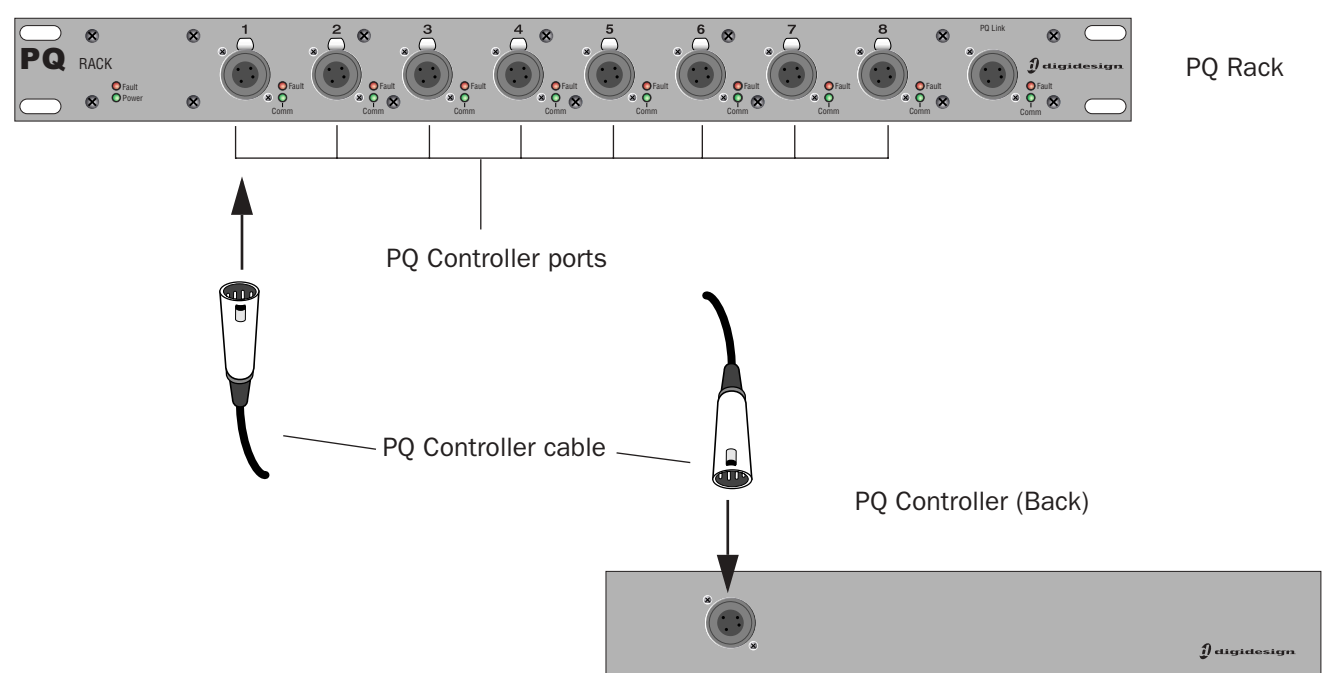


Figure 7. PQ Controller cable connection between PQ Rack and PQ Controller

Power Connections

PQ Rack

The power supply in the PQ Rack is auto-power selecting (100V to 240V, 50 Hz to 60 Hz). A modular IEC power cable is provided.

PQ Controllers

PQ Controllers are powered through the connection to the PQ Rack. No additional power connection is required.

Applying Power to the Personal Q System

PQ Rack

The PQ Rack can be connected to the Stage Rack and powered up or down at any time before or after power up of the D-Show system.

PQ Controllers

PQ Controllers can be connected to or disconnected from a PQ Rack at any time.

Updating PQ System Firmware

If new firmware is available for a PQ Rack or PQ Controller unit, it is automatically downloaded to the unit when it is connected to the D-Show system. The LEDs on the Rack or Controller unit flash in sequence to indicate firmware is being updated. The unit is unavailable during the firmware update.

⚠ *Firmware updates can take several minutes to complete. Make sure to allow time for all connected units to finish the update process.*

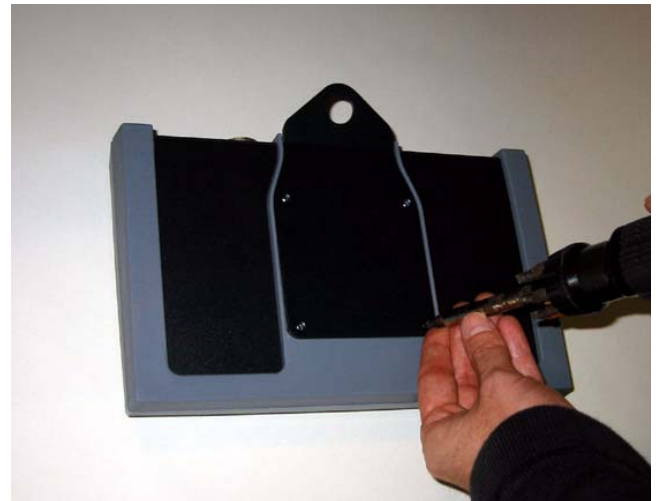
Firmware download status can be monitored on-screen from the Devices tab of the Options page.

Mounting a PQ Controller to a Microphone Stand

A PQ Controller can be mounted on microphone stand using a specially-designed bracket.

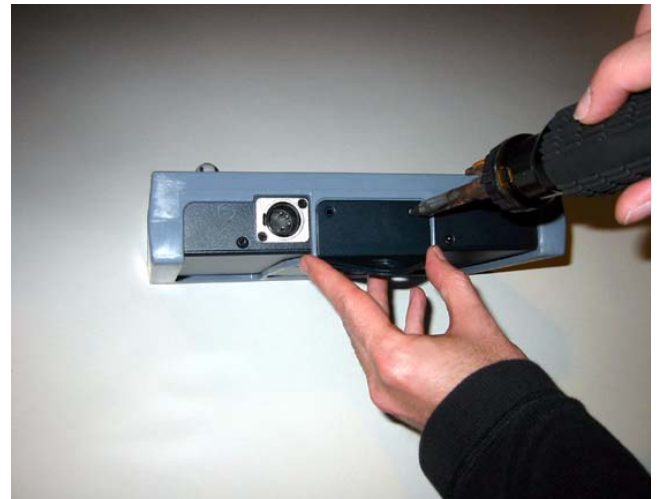
To mount a PQ Controller on a microphone stand:

- 1 Attach the large mounting bracket to the bottom panel of the PQ Controller with 4 of the provided machine screws. Do not fully tighten the screws.



Attaching the large mounting bracket to the bottom of a PQ Controller

- 1 Attach the small mounting bracket to the back panel of the PQ Controller with 2 of the provided machine screws. Do not fully tighten the screws.



Attaching the small mounting bracket to the back of a PQ Controller

- 2 Line up the holes in the two brackets and tighten the screws on each bracket.

3 Affix the PQ Controller mounting bracket to any standard microphone mount, and secure it with a nut or with a microphone boom (shown below).



PQ Controller affixed to a microphone mount

Using Two Personal Q Systems

In D-Show systems with two Stage Racks, a complete Personal Q system can be connected to each Stage Rack. When two Personal Q systems are connected in this manner, their PQ Controllers control the corresponding D-Show PQ mixers in parallel.

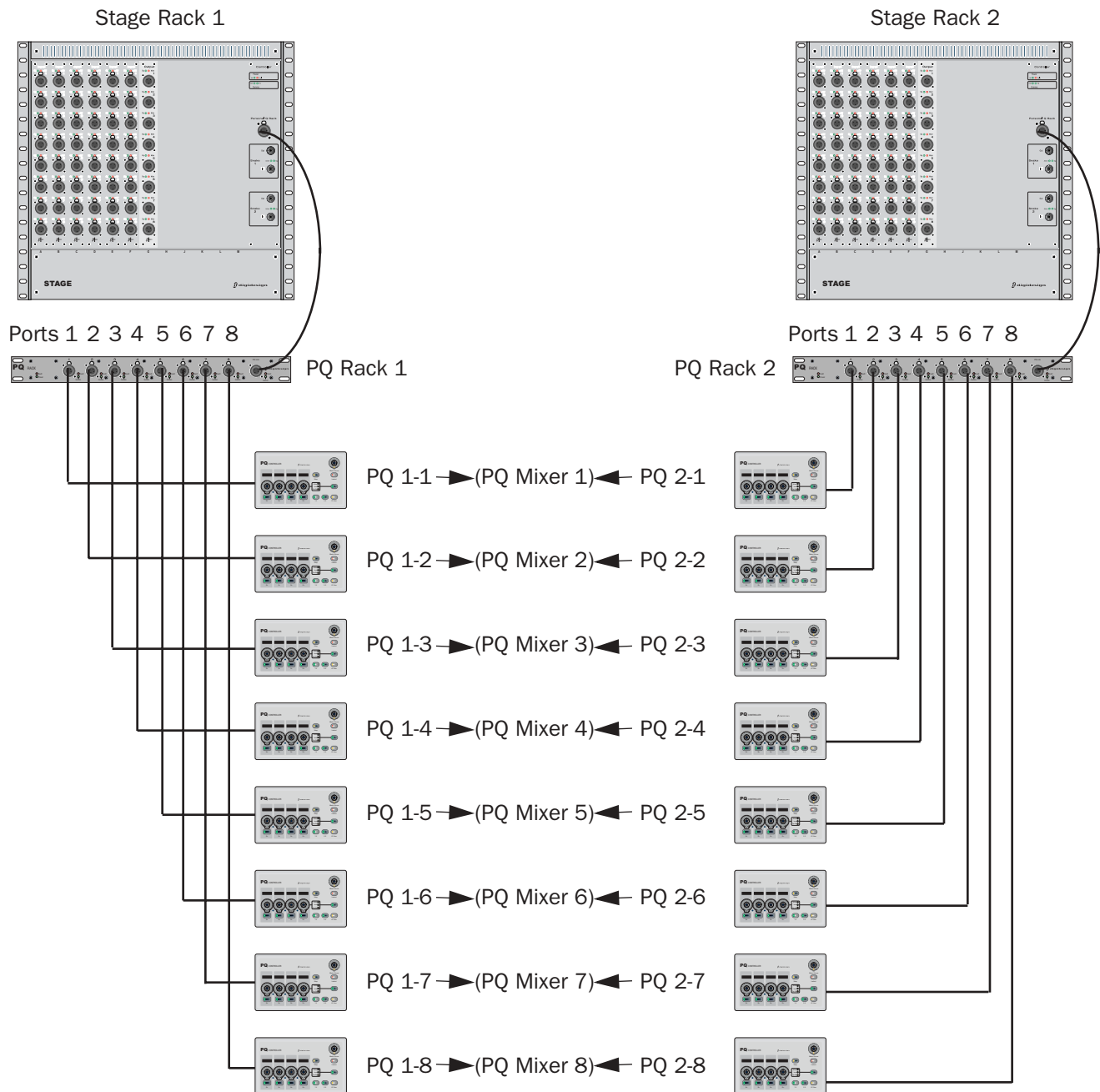


Figure 8. System connections with two Stage Racks and parallel PQ systems (not to scale)

Chapter 3: Using the Personal Q System

Configuring the Personal Q System

When properly connected to an enabled Stage Rack, PQ Racks and PQ Controllers are automatically recognized and assigned numbers by D-Show. When a PQ Controller is detected, the Controller Detected indicator lights in the corresponding Personal Q Mixer window on-screen.

To view the Personal Q System configuration from D-Show:

- Go to the Options page and click the Devices tab. Connected PQ Racks and PQ Controllers appear beneath the corresponding Stage Rack, and are automatically assigned numbers.

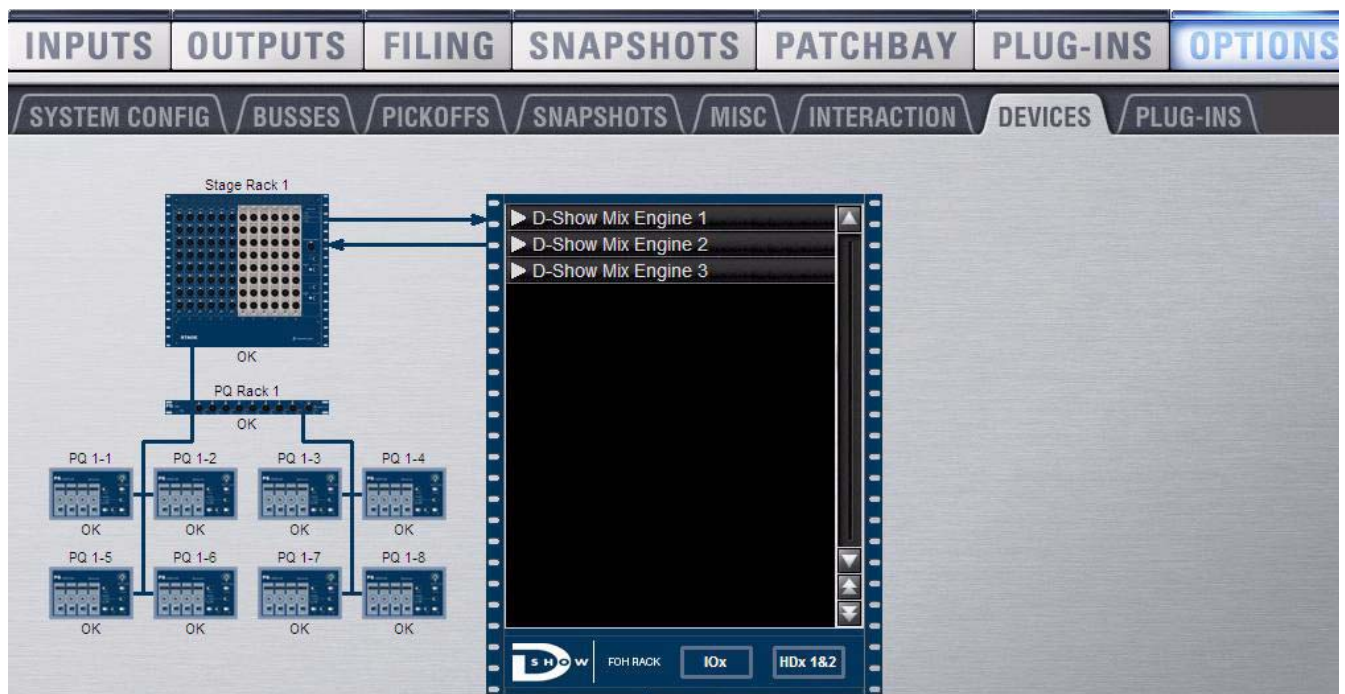


Figure 9. Personal Q System connections in the Devices tab of the Options page, showing PQ Rack and PQ Controller numbering

PQ Rack Numbering

Each PQ Rack number is automatically assigned, and corresponds to the number of the Stage Rack where it is connected.

PQ Controller Numbering

Each PQ Controller number is automatically assigned, and corresponds to the number of the PQ Rack and the PQ Controller port where it is connected. For example, a PQ Controller connected to port 4 on PQ Rack 2 is numbered “PQ 2-4.”

The last digit of the PQ Controller number determines which of the 8 available PQ mixers it controls in D-Show. For example, PQ Controllers numbered “PQ 1-3” and “PQ 2-3” would both control PQ mixer number 3 (“PQ 3”) in D-Show.

To assign a PQ Controller to control a specific PQ mixer in D-Show:

- Connect the PQ Controller to a PQ Rack controller port whose number corresponds to the PQ mixer you want to control.

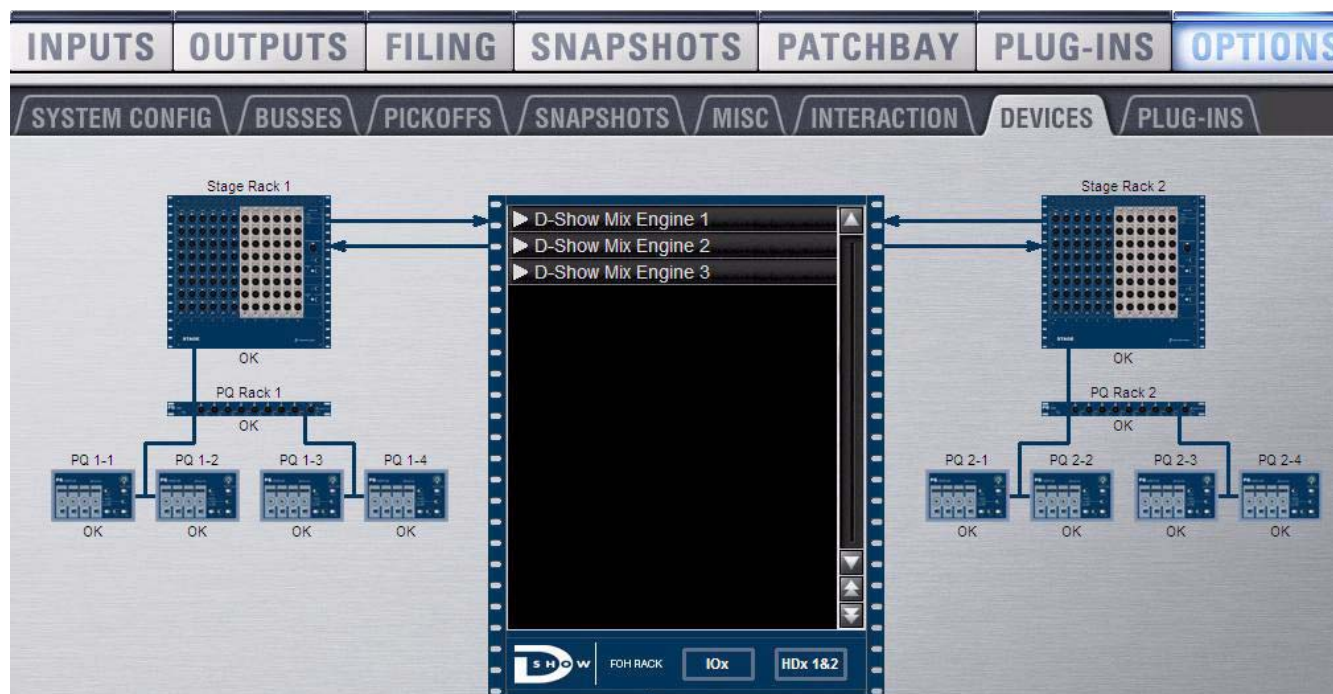


Figure 10. Personal Q System connections in the Devices tab of the Options page, showing a configuration with two PQ systems

Setting Up PQ Controllers

You can view a PQ Controller's number and adjust its display settings directly from the controller.

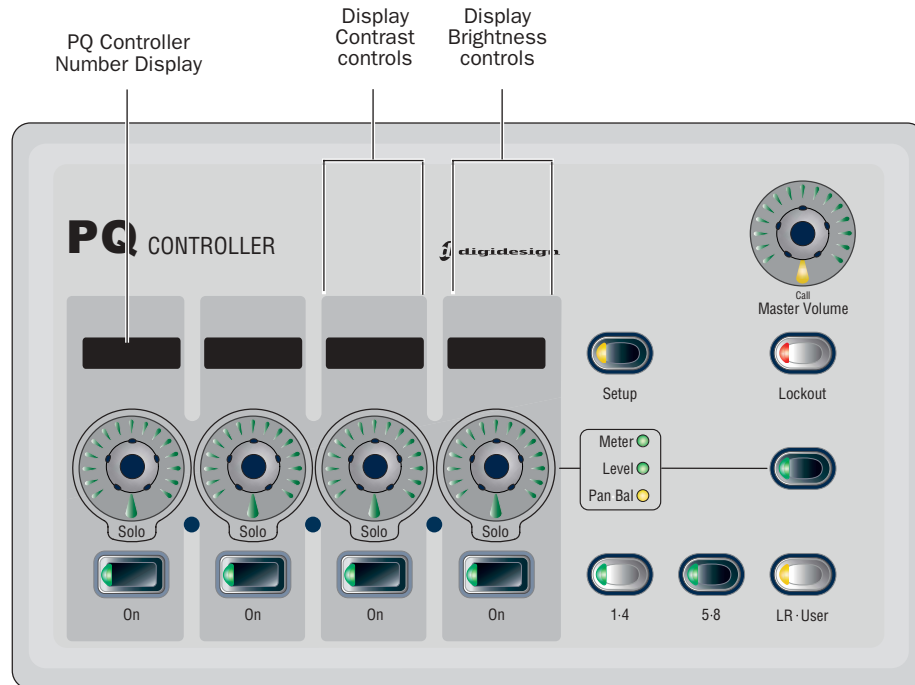


Figure 11. PQ Controller display and encoder functions in Setup mode

Viewing a PQ Controller Number

To view a PQ Controller's number from the PQ Controller unit:

- 1 Press the Setup switch on the PQ Controller. The leftmost display on the PQ Controller shows its port assignment, which corresponds to PQ mixer that it controls.
- 2 Press the Setup switch again to exit Setup mode.

Adjusting PQ Controller Display Settings

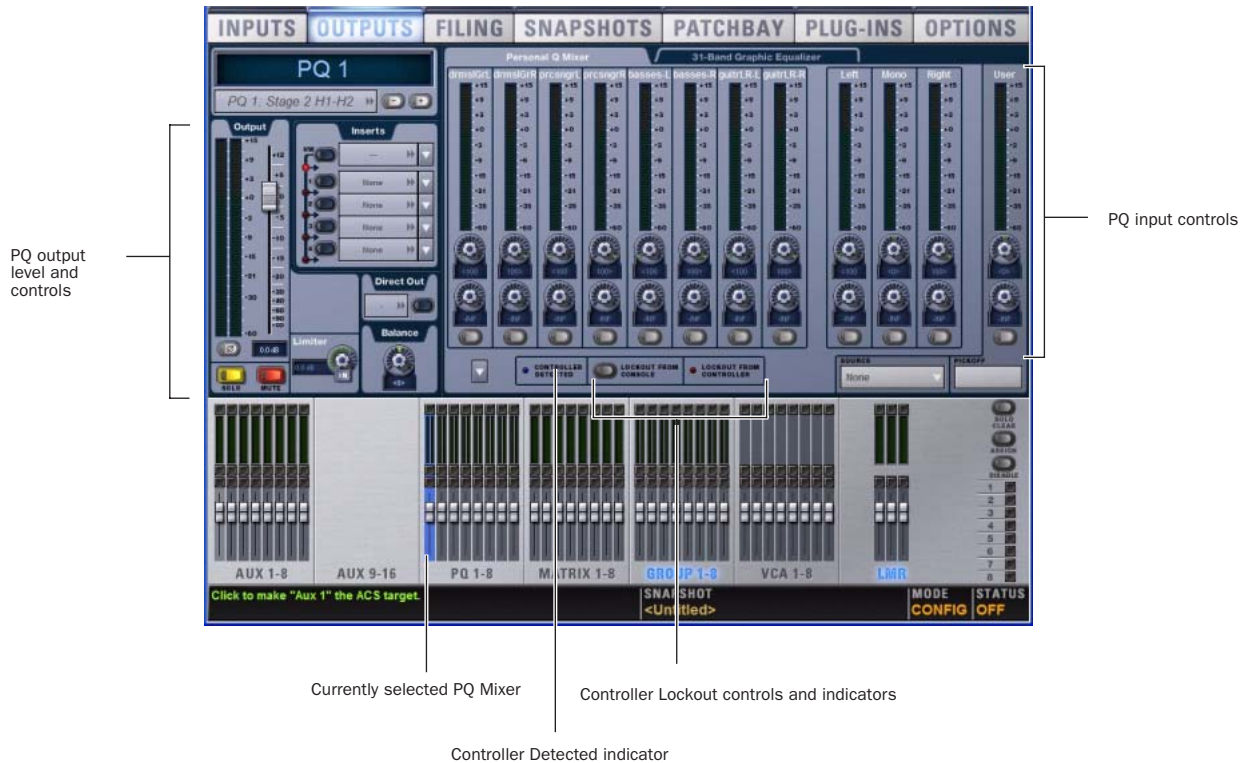
To adjust the brightness and contrast of a PQ Controller's displays:

- 1 Press the Setup switch on the PQ Controller.
- 2 Turn the third encoder to adjust display contrast.
- 3 Turn the fourth encoder to adjust display brightness.
- 4 Press the Setup switch again to exit Setup mode.

Configuring Personal Q Mixers in D-Show

Before you can control a Personal Q Mixer remotely, you must configure its inputs and outputs from the D-Show console. Personal Q Mixers cannot be configured from the PQ Controller.

Each of the 8 available Personal Q Mixers can receive up to 12 input channels, including 8 Groups or 8 Auxes, 3 Mains (L-R+M or L-C-R), and a user-selected input. The Group, Aux and Main input configurations are applied globally to all 8 Personal Q Mixers. Each Personal Q Mixer has a stereo output.



Personal Q Mixer in D-Show Outputs page

Group and Aux Inputs


The first 8 inputs to the PQ mixers can be set to receive signal from Group or Aux busses (pre- or post-fader).

Mains

The next 3 inputs to the PQ mixers receive signal from the Main busses (pre- or post-fader). The channel names reflect whether the Mains are configured as L-R+M or L-C-R.

User Input

The last channel of the PQ mixers can receive signal from any Input Channel, FX Return, or hardware input. This User Input can be set individually for each PQ mixer, allowing for a variety of custom feeds and cue mixes.

 The sources for PQ mixer channels are configured from the Pickoffs tab of the Options page. For complete instructions on configuring PQ mixers, refer to the D-Show Guide.

Controlling a Personal Q Mixer from a PQ Controller

You can control Personal Q Mixer inputs and outputs directly from the PQ Controller.

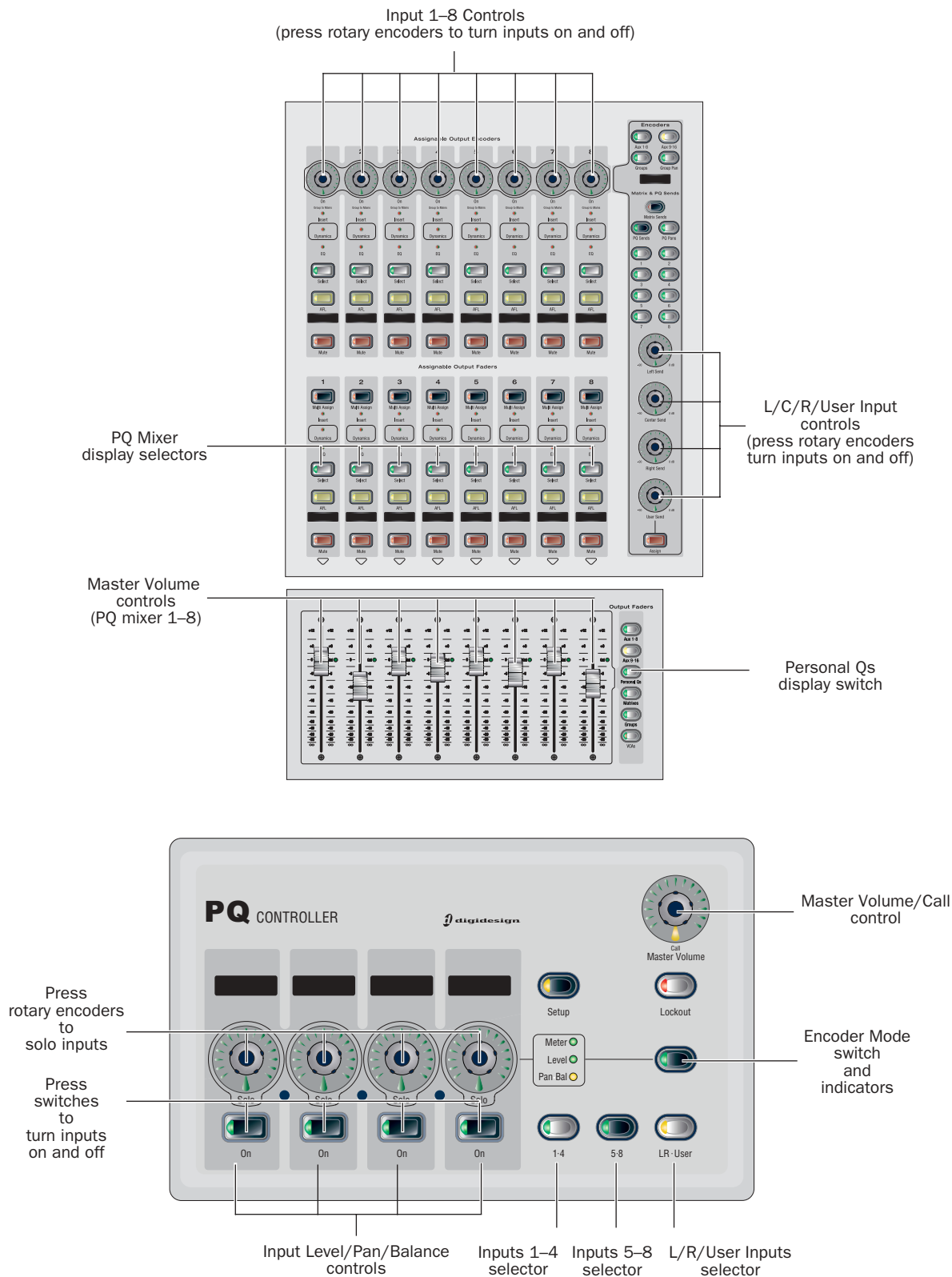


Figure 12. PQ Controller controls (bottom) and corresponding controls in the Output section of the D-Show control surface (top)

Adjusting PQ Mix Inputs

To control Personal Q Mixer inputs from the PQ Controller:

- 1 Press any of the Input Selector switches on the PQ Controller (1–4, 5–8, or L/R User) to assign the corresponding PQ mixer inputs to the PQ Controller encoders.
- 2 Press the “On” switches to toggle the corresponding inputs on or off. The switches light to indicate that the corresponding inputs are activated.
- 3 Press the Encoder Mode switch to toggle display of input metering, level, or pan/balance on the PQ Controller encoders:

Meter The level of the corresponding PQ mixer input signal is shown on the encoder LEDs. You can adjust level with the encoders while in this mode.

Level Turn an input encoder to adjust the level for the corresponding PQ mixer input. Input level is shown in the encoder display and by an expanding series of encoder LEDs.

Pan/Bal The encoder adjusts the panning of the corresponding PQ mixer input across the stereo outputs of the PQ mixer.

Soloing a Personal Q Mixer Input

To solo a PQ mixer input:

- Press the encoder knob to toggle solo mode on and off for the corresponding input. All other inputs are temporarily muted when solo is pressed, allowing you to isolate one instrument in the mix. The Solo indicator LED lights to indicate that the input is soloed.

Adjusting PQ Mixer Output

To control Personal Q mixer output level from the PQ Controller:

Turn the Master Volume encoder. Output level is shown by an expanding series of encoder LEDs.

💡 *The Personal Q mixer output Graphic EQ, limiter, polarity, and mute status can be controlled from the D-Show console only.*

Calling the D-Show Console from the PQ Controller

To call the console from a Personal Q controller:

- Press the Master Volume encoder knob on the controller.

A call message appears on the D-Show console display that identifies which PQ Controller is calling. The Call LED on the PQ Controller flashes until the message is cleared from the console display.

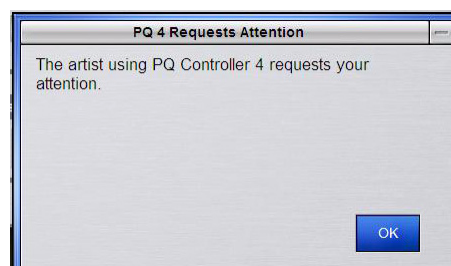
To clear a call message from the console display:

- 1 Click the message banner at the bottom of the console display to show the message.



Call message banner

- 2 Click OK to dismiss the message.



Call message

To clear a call message from the Personal Q controller:

- Press the Master Volume encoder knob on the controller a second time.

Locking Out PQ Controllers

Lockout From Console

The PQ Controller can be locked out by clicking the on-screen Lockout From Console button in any of the PQ mixers. When this Lockout button is engaged, the PQ controller cannot adjust PQ mixer controls. The performer using the PQ Controller cannot override this lockout from the controller.

Lockout From Controller

Users can lock their PQ Controllers by pressing the Lockout switch on the controller to prevent inadvertent changes to controller settings. When this is done, the on-screen Lockout From Controller indicator lights in the corresponding PQ mixer. This function does not lock out control of the PQ mixer from the console.

Troubleshooting

PQ Rack Communication

If the PQ Link Fault indicator lights on a connected PQ Rack, or if the PQ Rack does not appear in the Devices tab of the Options page, try the following:

- Make sure the length of the PQ Link cable does not exceed 15 ft (4.6 m).
- Check power connections to the PQ Rack.
- Power cycle the PQ Rack.
- Disconnect and reconnect the PQ Link cable from the Stage Rack or from the PQ Rack.
- Substitute a different PQ Link cable.

PQ Controller Communication

If a PQ Controller Fault indicator lights on a connected PQ Rack, or if the PQ Controller does not appear in the Devices tab of the Options page, try the following:

- Make sure the length of the PQ Controller cable does not exceed 100 ft (30.5 m).
- Check power connections to the corresponding PQ Rack.
- Power cycle the corresponding PQ Rack.
- Disconnect and reconnect the PQ Controller cable from the PQ Rack or from the PQ Controller.
- Connect the PQ Controller to a different port on the PQ Rack.
- Substitute a different PQ Controller cable.
- To test a PQ Controller unit independently, plug the PQ Controller directly into the Personal Q Rack port on the Stage Rack, using the short PQ Link cable. (A PQ Controller cable longer than 15 ft (4.6 m) will not work.)

If the PQ Controller is working properly, it should appear in the Devices tab of the Options page as “PQ 1-1” and properly operate the controls on PQ mixer #1.