
=THE=COIL=AUDIO=COMPANY=

LAWRENCE KANSAS

LA GRANGE TEXAS

PS6 RACK TRAY & PSU

INSTALLATION GUIDE

&

OPERATING MANUAL



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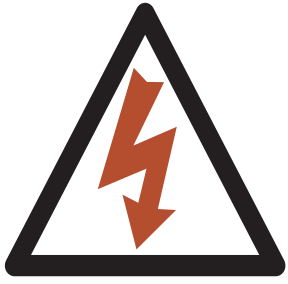
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WARNING!

HIGH VOLTAGES PRESENT!

FOR YOUR PERSONAL SAFETY, PLEASE READ THIS OPERATING MANUAL THOROUGHLY BEFORE USING THIS PIECE OF EQUIPMENT.

Please note the following:

->Never operate or turn on the PS6 Power Supply when it is not attached to the PS6 Rack Tray. Never connect the Power Supply to the Rack Tray while it is powered on. Never replace fuses or bulbs while the IEC/power cable is attached to the unit or wall. Be aware that the 10pin cinch sockets at the rear of the back block are live at 275V whenever the unit is power on. Don't place hands, or anything else, on or in unused PS6 Tray slots, or near cinch connectors when in use.

->This unit must be installed in such a manner that operator access to the Main AC plug is maintained and accessible. To reduce risk of electric shock, it is essential that the unit is powered off and/or disconnected from Main AC power before any installation or maintenance procedures begin.

->This equipment is not to be mounted in an area prone to excessive vibration (like a drum riser or sub cabinet) or high SPL sound levels. Doing so could introduce unwanted artifacts and can damage the unit.

->This equipment is not intended for use in hazardous environments. It must be used and stored in studio conditions, such that the ambient relative humidity does not exceed 80%, nor is the temperature to be allowed to drop to a level which would cause excessive moisture buildup in the unit.

->Please insure that adequate ventilation is provided and that the PSU chassis and any installed PS6 MODULE ventilation slots are not obstructed. When rack mounting this equipment in a tightly sealed space, a small fan may be required to provide sufficient airflow.

->In the event that this unit has been dropped or has suffered any impact damage, an electrical safety test must be carried out by a qualified technician or shipped back to Coil Audio LLC for service before reconnection to the Main AC power. Please do not attempt to service the unit yourself.

STEP 1: INSPECT PACKAGE CONTENTS

The PS6 RACK TRAY and PSU systems are carefully packed for shipment to insure a safe arrival. However, if there is any damage, contact Coil Audio immediately and keep any and all shipping materials for use during any damage claims with the shipper.

Included in the package are:

- (1) PS6 RACK TRAY unassembled with included parts & hardware
- (1) PS6 PSU Power Supply Unit with attached umbilical cable
- (1) 3-Prong IEC Power Cord
- (1) Set of COIL AUDIO DOCUMENTS including:
 - COIL AUDIO PS6 RACK TRAY & PSU INSTALLATION GUIDE/OPERATING MANUAL
 - COIL AUDIO PS6 RACK TRAY ASSEMBLY INSTRUCTIONS

STEP 2: ASSEMBLE RACK TRAY/ INSTALL PS6 GUIDE BRACKETS AND MODULES

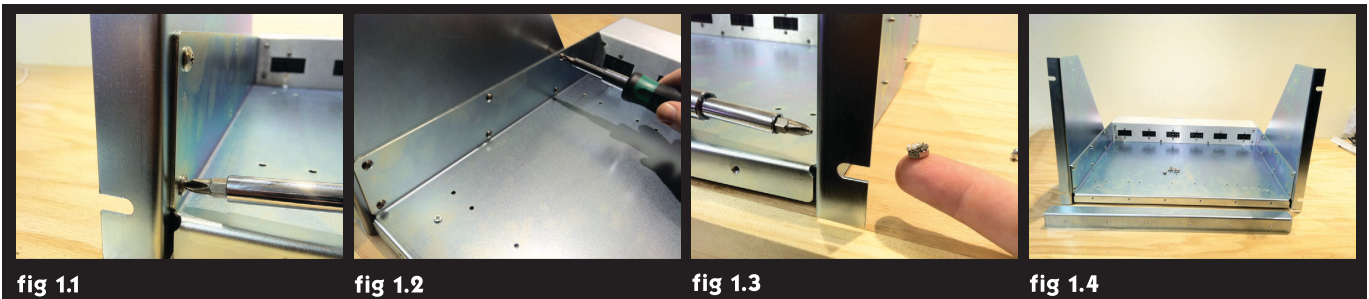


Package Contents:

- (1) MAIN TRAY with BACK BLOCK (XLR i/o & Power)
- (2) RACK EARS (one left/one right)
- (1) TOP RAIL
- (16) 1/8" #6-32 Stainless Steel Screws w/Lock-Nuts

You'll need one Phillips Head Screwdriver for assembly.

STEP 2A: Attach RACK EARS to MAIN TRAY



-Place a RACK EAR (right or left) along the outer sidewalls of the tray as illustrated in fig 1.1 and line up the 6 corresponding holes.

-Secure the RACK EAR in place using (6) 1/8" #6-32 Stainless Steel Screws and Lock-Nuts as illustrated in fig 1.2, making sure to orient the Lock-Nuts to the outside of the assembly.

-Repeat this process for the adjoining RACK EAR - again, making sure to orient the Lock-Nuts to the outside of the assembly. as illustrated in fig 1.3.

-Your RACK TRAY should now look like fig 1.4.

STEP 2b: Attach TOP RAIL to RACK TRAY



-Place the TOP RAIL inside the upper walls of the newly installed RACK EARS, orienting the 6 tapped holes to the front, as illustrated in fig 2.1.

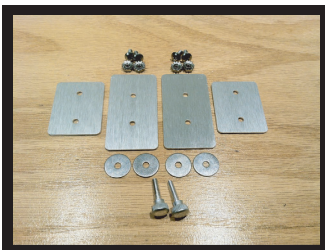
-Carefully line up the 2 corresponding holes where the end of the TOP RAIL meets the upper wall of the RACK EAR.

-Secure the TOP RAIL to the RACK EAR on each end with (4) 1/8" #6-32 Stainless Steel Screws and Lock-Nuts, as illustrated in fig 2.2.

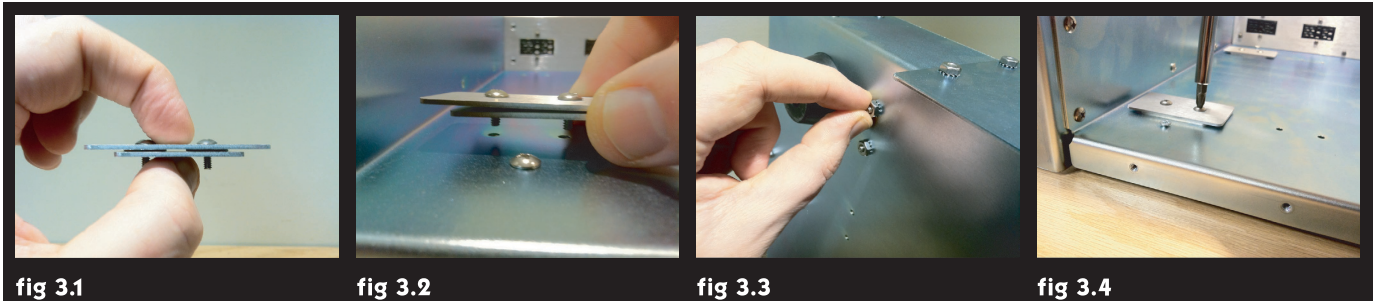
-Your RACK TRAY should now look like fig 2.3.

STEP 2c: Attach GUIDE BRACKETS to MAIN TRAY

Package Contents:



- (4) GUIDE BRACKET plates (two short/two long)
- (4) 3/8" #6-32 Stainless Steel Screws w/Lock-Nuts
- (2) Fender Washers
- (2) Module Thumbscrews



-Place a short GUIDE BRACKET plate and a long GUIDE BRACKET together with the washers sandwiched between them as illustrated in fig 3.1.

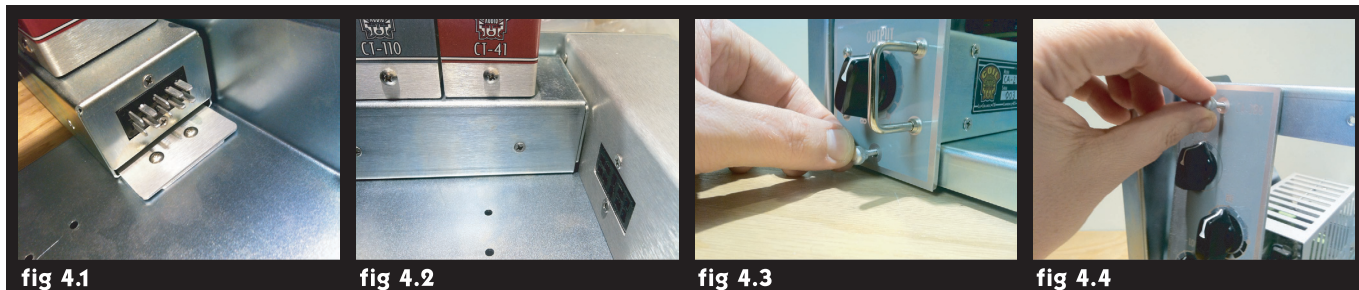
-Use the 3/8" #6-32 Stainless Steel Screws to hold the 1st GUIDE BRACKET into place while you position it on the RACK TRAY as illustrated in fig 3.2.

-Secure the GUIDE BRACKET by tightening LOCK-NUTS on the underside of the RACK TRAY as illustrated in fig 3.3. Do not Over Tighten yet.

-Secure the 2nd GUIDE BRACKET (by repeating the method above) in line with the first one installed (oriented front to back) as illustrated in fig 3.4

-Center each GUIDE BRACKET before using a screwdriver to tighten it into place.

STEP 4: Inserting a MODULE into the RACK TRAY



Gently slide the **MODULE** onto the **RACK TRAY** making sure the **MODULE** glides over the **GUIDE BRACKETS** smoothly without restriction, as illustrated in fig 4.1. Adjusting the **GUIDE BRACKETS** may be necessary to line up the **MODULE** as it travels down the tray, make sure they are as centered and square as possible. Also insure that the **Cinch Jones Plug and Socket** line up, as illustrated in fig 4.2.

-Push the module until it's fully seated in the tray as illustrated in fig 4.2. Some force might be necessary the first few times.

-Now that the module is inserted, secure it to the **TOP RAIL** and lower 'lip' of the **RACK TRAY** using the (2) **Module Thumbscrews** as illustrated in fig 4.3 and 4.4. Adjusting the two screws in the **TOP RAIL** may be necessary to line up the **MODULE THUMBSCREW HOLES** more accurately.

STEP 3: RACKING THE PS6 TRAY AND PSU

The **PS6 RACK TRAY** and **PSU** are designed to fit any standard 19-inch studio equipment rack. Make sure the equipment rack chosen for installation is stable and can secure the weight of the loaded **TRAY**. The **RACK TRAY** has rubber feet and can also be placed on a desktop.

The **RACK TRAY** requires a minimum of 12 inches of vertical space (7U) and 20-22 inches of depth to accommodate space for the large **Cinch Jones Plug and XLR Connections**.

The **PSU** requires a minimum of 3.75 inches of vertical space (2U) and 8.5-10 inches of depth to accommodate the power cord from the wall and umbilical power to the **Rack Tray**.

The **PSU** can be racked directly underneath the **RACK TRAY** if desired. It would preferably be installed at the bottom of the rack, away from the tray to ensure no radiated noise from the power supply leaks into the modules.

The **RACK TRAY** and **PSU** can be installed in a sealed equipment rack or wall provided there is adequate ventilation. A small fan may be required to provide sufficient airflow.

To insure the structural integrity and functionality of the units, use all four rack screw slots provided on the rack ears of each unit to mount them securely into an equipment rack.

STEP 4: CONNECT THE RACK TRAY TO YOUR STUDIO

With the loaded RACK TRAY AND PSU installed in a studio equipment rack, you may now connect the RACK TRAY to an audio patchbay, patch panel, or directly to a microphone tie line(s) via the 6 sets of XLR in/out panel mount connectors.

Please be aware when using AD converters or computer interfaces that use XLR/TRS "Combo Jacks" and 1/4 inch "instrument inputs". Please check your interfaces' manual for wiring specifications.

On Combo Jacks, some manufacturers use the XLR connection for "microphone" inputs, and the TRS connection for "line" inputs. Coil preamps are line level out and need to go to the TRS portion of the combo jack. Make sure to use a standard XLR to TRS cable for connection. Wiring should be XLR Pin1 to TRS sleeve, XLR Pin2 to TRS Tip, and XLR Pin3 to TRS Ring.

1/4" instrument HI-Z inputs are unsuitable for the LOW-Z line level output of coil audio preamps.

The XLR connectors are wired to the AES standard as follows:

XLR INPUT (female)

PIN 1 = GROUND

PIN 2 = (+) or high/hot

PIN 3 = (-) or low/cold

XLR OUTPUT (male)

PIN 1 = GROUND

PIN 2 = (+) or high/hot

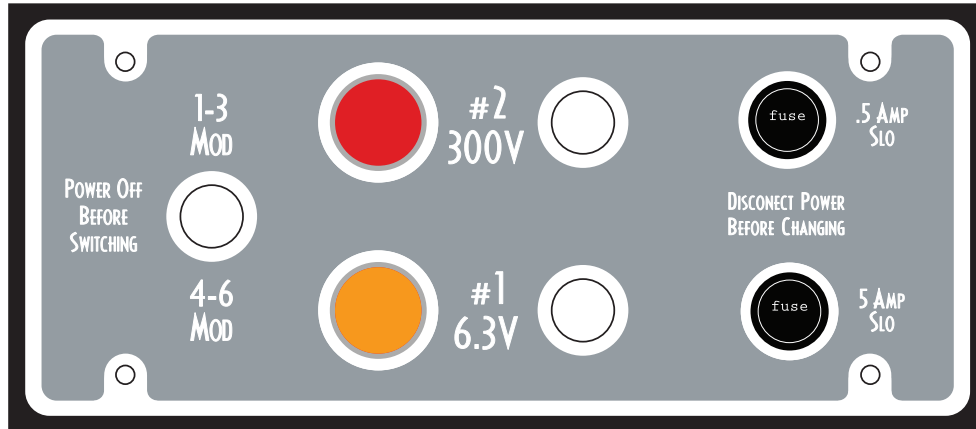
PIN 3 = (-) or low/cold

Connect the umbilical cable coming from the PSU into the Rack Tray by carefully lining up the large center Ground pin on the socket to the corresponding center hole on the Cinch Jones plug. Make sure the plug is fully inserted and secured. Do not stretch the umbilical cable tight or apply unnecessary stress.

Finally, plug the IEC power cord into the PSU and then into an appropriately grounded 3-prong wall-outlet (120VAC) or power conditioner.

STEP 5: POWERING UP

The PSU powers up the RACK TRAY & MODULES in a way similar to the standby featured in many tube instrument amplifiers. The 6.3v is engaged first to warm the tubes' filaments before engaging the high voltage DC that powers the plates. This prolongs tube life, and keeps wear and tear to a minimum.



Follow these steps to power cycle:

1. Make sure the 1-3 MOD/4-6 MOD Switch is set correctly:

This switch regulates power to the tube filaments, depending on how many modules are installed.

If 1-3 modules are installed in the RACK TRAY, this switch should always be in the upwards position. 1-3 MOD

If 4-6 modules are installed in the RACK TRAY, the switch should always be in the downwards position. 4-6 MOD

2. Turn On the #1 6.3V :

Engage this switch first by flipping it upright and the corresponding jewel light will illuminate - indicating that 6.3V filament power is being sent to any modules on the RACK TRAY. Wait for 20-60 seconds before proceeding to the next step.

3. Turn On the #2 300V :

Engage this switch last by flipping it upright. The corresponding jewel light will illuminate indicating that the High Voltage DC is activated and that any modules installed on the RACK TRAY are ON and ready for use.

4. To Power Down the Unit, reverse Steps 2 and 3.

Maintenance:

Should either of the indicating fuse holders light, the fuse will need to be replaced.

DISCONNECT OR UNPLUG THE IEC/POWER CABLE FROM THE POWER SUPPLY BEFORE REPLACING FUSES OR BULBS.

Fuse Replacement:

**300V B+:
3AG Slo-Blo type fuse rated at 1 amp**

**6.3V Filament:
3AG Slo-Blo type fuse rated at 5 amp**

Lamp replacement:

**6.3V Filament:
Bulb #47
6.3 Volts, 0.15 Amps. Miniature Bayonet Base. Bulb: T-3**

**300V B+:
Bulb #120MB
120 Volts, 0.025 Amps. Miniature Bayonet Base. Bulb: T-2**

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Warranty

For repair or service please contact us at: support@coilaudio.com

All Coil Audio products carry our 1-year limited warranty and are hand-built, assembled, and tested in the USA using UL-approved parts.

Limited 1-Year Warranty

During the warranty period, Coil Audio will, at no additional charge, repair or replace defective parts with new parts. This warranty does not extend to any Coil Audio product that has been damaged or rendered defective as a result of accident, misuse, or abuse; by the use of parts not manufactured or supplied by Coil Audio; or by unauthorized modifications. NOS Vacuum tubes are exempt from the 1-year warranty, but are warranted for 30 days from date of purchase.

Except as expressly set forth in this Warranty, Coil Audio makes no other warranties, express or implied, including any implied warranty of merchantability and fitness for a particular purpose.

Warranty & Non-Warranty Repair Service

If your Coil Audio product is in need of warranty service or repair, please contact us at support@coilaudio.com. Please make sure to put the Serial Number(s) of the product(s) needing repair in the Subject field of the e-mail and leave a description of the issue with your unit(s). Coil Audio is not responsible for any shipping expenses to or from our repair facility.

If your Coil Audio product is no longer under warranty - a nominal flat bench fee that includes diagnostic and repair will be charged along with the price of any individual components replaced. If the issue is vacuum tube related we may contact you directly for resolution. At the owners discretion, replacement NOS Vacuum Tubes will be charged market value (depending on availability) or a New Model substitution can be made at the time of repair.