

## SIGNAL FLOW IN YOUR TT PATCHBAY

The flow of signal through a patchbay module is affected by both physical connections and mode setting (Normalised, Non-normalised, or Half-Normalised.) The most common configuration for a patchbay is for signals to come in to the patchbay from the top rear connections, and out of the patchbay from the bottom rear connections. Conversely, on the front of the patchbay, the top row connections are outputs and the bottom row connections are inputs.

With jacks connected to the top rear and bottom rear of a single patchbay module, signals coming into a top rear connection are passed directly through to the output on the bottom rear, as shown here. This connection style should be used for your hardware's "default" configuration - the way you want your signals to flow on a day-to-day basis.

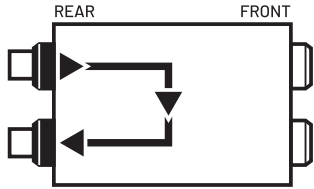


Fig. 1

When no jacks are connected to the top connections of a module, a signal from the front bottom input is passed through to the rear bottom output.

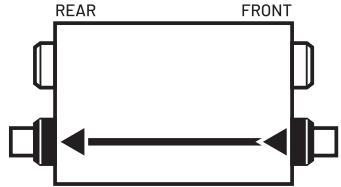


Fig. 2

When all four jacks are connected to a patchbay module, a signal connected to a rear top input of the patchbay is passed to the front top output, while signal from the front bottom input is passed to the rear bottom output.

### NORMALLED OPERATION

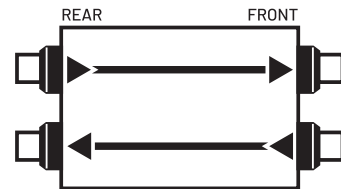


Fig. 3

When a module is set to Normalled and connections are made to the top rear and top front jacks, the signal is passed through from the top rear to the top front - breaking the connection shown in figure 1.

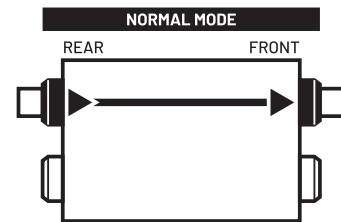


Fig. 4

A Normalled configuration allows you to run several devices in series by using patch cables on the front of the patchbay to interconnect several of your devices. For example, you could run a signal from a preamp, to a compressor, and finally to a reverb. A cable inserted into the bottom rear will have its connection broken when a cable is inserted into the top front.

### HALF-NORMALLED OPERATION

When a module is set to Half-Normalled and connections are made to the rear top, rear bottom, and front top jacks, the signal is passed through from the top rear to the top front - **without** breaking the connection shown in figure 1.

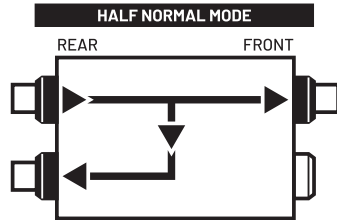


Fig. 5

This allows you to use the patchbay as a mult (splitter), sending the signal coming into the patchbay to two different destinations; very useful for parallel processing of your signal and monitoring applications. Inserting a cable in to the front bottom jack of a half-normalled module will break the connection between the rear jacks.

### NON-NORMALLED OPERATION

AKA "open." In non-normalled configuration, the top and bottom rows of jacks are not connected *at all*. Modules set to non-normalled operation will pass signal straight through from front-to-back or back-to-front, but not vertically. Useful for setups where you do not want your devices to automatically route anywhere.

### ON PHANTOM POWER

We advise against running phantom power through your patchbay, as this makes it possible to send phantom power to a device not designed to handle it; expensive damage could result!

If you decide to route phantom power through your patchbay, **always** ensure that your phantom power source is turned off before changing any connections.

Failure to do so can cause unbalanced shorts when a plug is inserted or removed, damaging input transistors of hardware processors, or damaging the transformer or ribbon of a ribbon mic.

### DB25 WIRING CONVENTION

The PBR TT Patchbay uses the Tascam DB25 wiring convention. Some audio equipment uses the Yamaha convention. Check the documentation for your other DB25 hardware to ensure compatibility.

### NOTICE

This manual provides general information, preparation for use, installation and operating instructions for the Black Lion Audio PBR-Series Patchbays.

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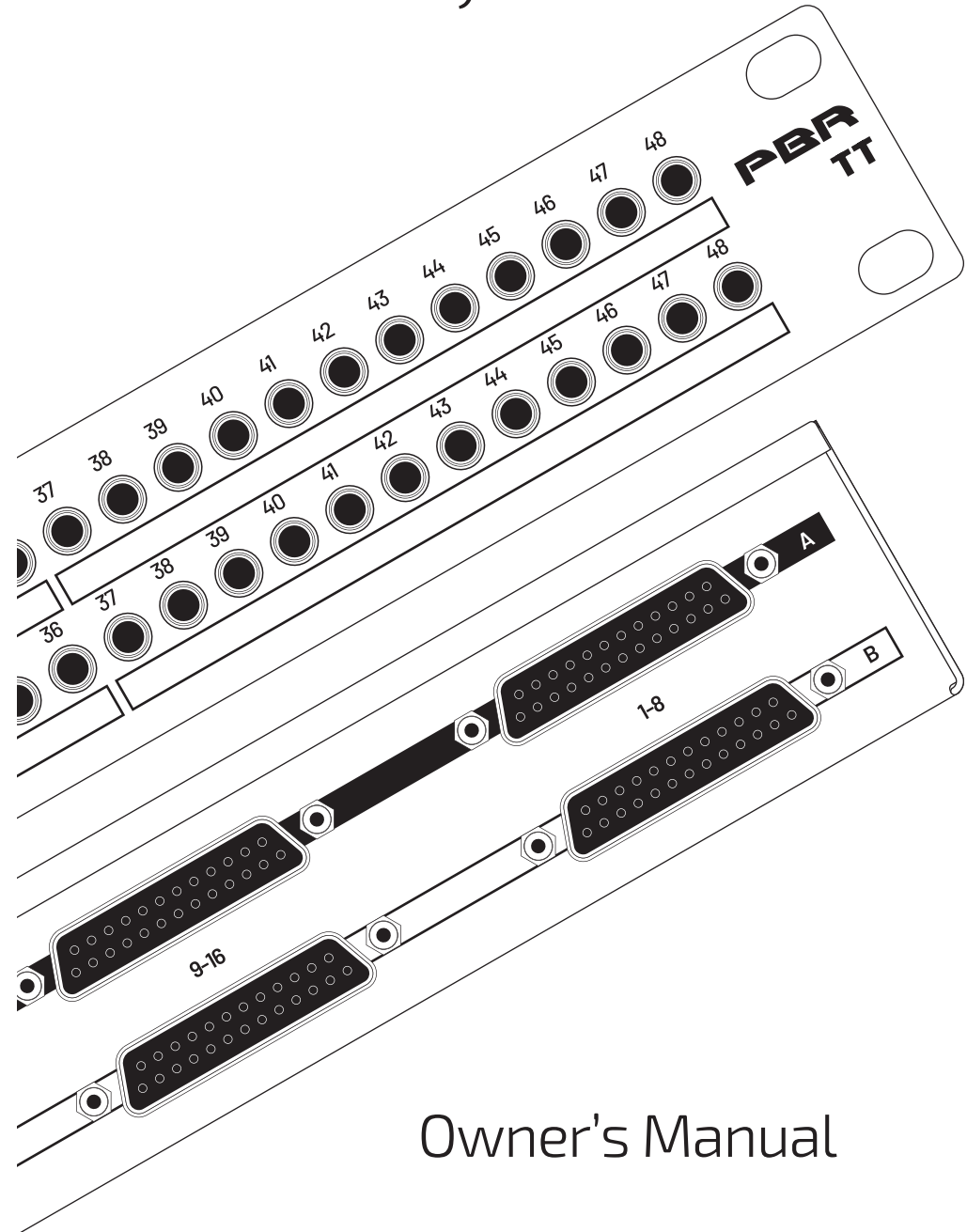
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RAD Distribution  
180 Carpenter Ave.  
Middletown, New York, 10940  
USA

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# PBR TT Patchbay



## Owner's Manual

## 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. 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 that produce heat.
9. Use only attachments/accessories specified by the manufacturer
10. Use only with a 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.
11. 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.
12. This apparatus shall not be exposed to dripping or splashing, and no object filled with liquids, such as vases, shall be placed on the apparatus.
13. Any changes or modifications not expressly approved in this manual could void your authority to operate this apparatus.



Do not attempt to service this unit yourself, as it will void your warranty. Please check your unit carefully upon receipt and return to place of purchase immediately if there are any problems with the product. After that, the standard Black Lion Audio 3 YEAR warranty will apply to defects in materials and workmanship.

### U.S.A.

Should your Black Lion Audio product require service, please contact us on our customer service site: <https://www.blacklionaudio.com/contact>. **You must obtain an RA # (Return Authorization number) from us before shipping a unit back to us. This RA # must be clearly written on the outside of the box.**

Please safely pack the units...It is best to use the original packing materials. Black Lion Audio cannot be responsible for any damages incurred in shipping to us due to poor packaging. PLEASE PACK CAREFULLY and FULLY INSURE THE SHIPMENT.

### INTERNATIONAL

For service or warranty assistance, please contact the Black Lion Audio distributor in your country through the dealer from whom you purchased this product.

## LIMITED 3 YEAR WARRANTY

Black Lion Audio's PBR TT Patchbays are warranted by Black Lion Audio to be free from defects in materials and workmanship for the period of THREE (3) YEARS to the original purchaser. In the event of such defects, the product will be repaired without charge or, at our option, replaced with a new one if delivered to Black Lion Audio prepaid, together with a copy of the sales slip or other proof of purchase date. The warranty excludes problems due to normal wear, abuse, shipping damage or failure to use the product in accordance with the specifications.

All parts and labor are covered under this Limited Warranty. However, if it is determined by Black Lion Audio that the device was damaged or made defective through abuse, we reserve the right to charge the customer for the cost of the repair.

Black Lion Audio shall not be liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation or commercial loss or any other damages, whether incidental, consequential or otherwise. This warranty gives you specific legal rights, and you may have other rights, which will vary from state to state.

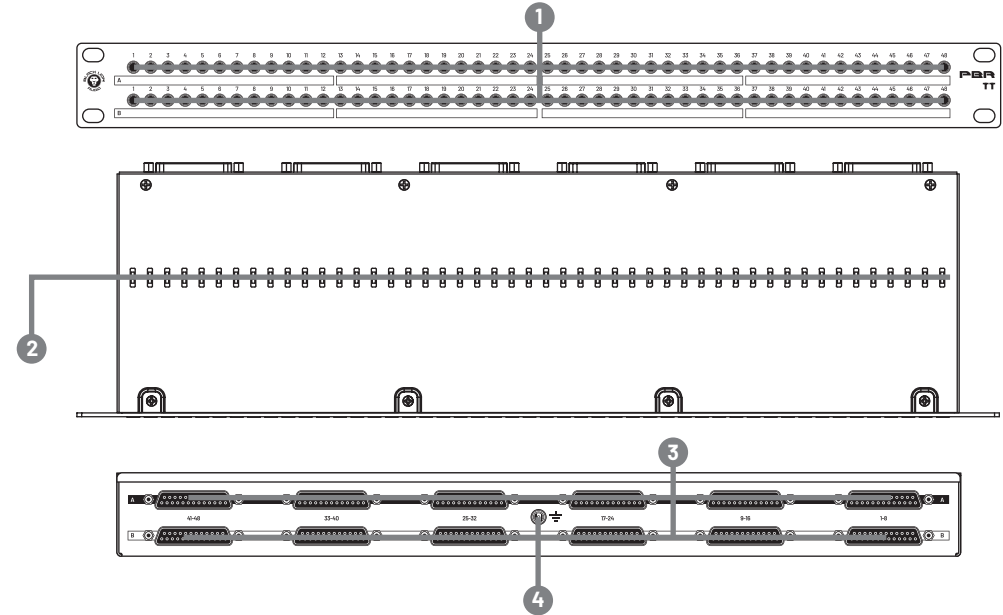
**This warranty is not transferable.**

## CONNECTIONS

The PBR TT offers 96 points of connectivity for your studio gear, allowing for permanent installation and routing of your favorite hardware while still allowing for flexible and creative patching.

The PBR TT Patchbay offers Normalled, Non-Normalled, and Half-Normalled operation, switchable from the top of the unit on a per-module basis. A module, in this context, is any set of vertically-aligned jacks on the patchbay; TT on the front and DB25 on the back.

A typical patchbay configuration will have device outputs sent to the top rear row of patch points with device Inputs connected to the rear bottom row. For example, you would connect the Input of a delay unit or compressor to a DB25 output connection on the rear of the patchbay, and connect the delay's Output to a DB25 Input connection, also on the rear.



1. **Balanced TT connections:** Accepts TT (Bantam) jacks for connecting and routing your audio gear. Accepts balanced connections.
2. **Normal/Non-Normalled/Half-Normalled Switches:** Switches the routing for its respective module between Normal, Non-Normal, and Half Normalled operation. **Switch up = Half-Normal, Switch mid = Non-normal. Switch down = Normal**
3. **DB25 connections.** Accepts DB25 connections (eight channels in a breakout cable) for connecting to the inputs and outputs of your outboard equipment. Common convention is to connect the top row of connections to device outputs and the bottom row to device inputs.
4. **Grounding lug.** Connect this to your outboard equipment using a ground wire to prevent noise from ground loops.

### A note on cable choice:

We've tested the following brands of cables for a secure, reliable connection: Hosa, Mogami, Rean, Neutrik, and RedCo. We advise against using cables from other manufacturers.