

Order No. R800 3001 00



The Radial J48™ direct box is the world's finest phantom-powered active DI. It has been optimized to handle extreme transients using only the 5 milliamps of available current from typical 48-Volt phantom-power. The J48 features a unique digital switch-mode power supply that steps up the internal rail voltage to an amazing 9-Volts.

Most battery-powered guitars and basses are active and will produce as much as 7-Volts when played at maximum volume. Since typical direct boxes are only able to handle about 3 volts, they choke. The trouble is caused when the input signal is greater than the internal rail voltage. This creates all types of distortion: bass sounds thin and lacks punch, guitars sound scratchy and tend to have sporadic peaks, and they lose their natural body resonance.

Because the J48 has more 'horse-power' (current to work with), it is able to handle these transients without choking. This extra headroom significantly reduces harmonic, phase and inter-modulation distortion. And when you fix all of the problems, a funny thing occurs... you get great sound!

**Features**

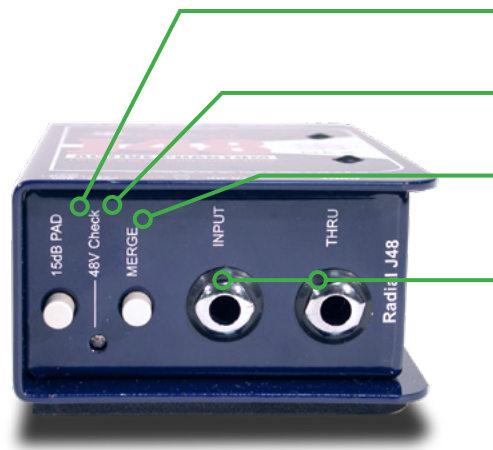
- Superior dynamic headroom
- High input impedance reduces loading
- Merge switch sums stereo instruments to mono
- Low-cut filter, -15 dB PAD, and polarity reverse

**Applications**

- Provides extra 'reach' and 'air' in your sound!
- Ideal for active acoustic guitars and basses
- Great for keyboards and drum modules
- Equally wonderful for live or studio

**Cool stuff**

- Huge 9-Volt internal rail voltage for extra headroom
- Handles loud transients without choking or clipping
- No batteries required, works with phantom-power
- 3 year transferable warranty



**-15dB PAD** allows super-hot inputs such as from a CD player to be connected and balanced for long runs.

**MOMENTARY LED** will flash once to tell you phantom-power is present. This saves power for the audio circuit.

**MERGE FUNCTION** turns the input and thru jacks into a passive mixer to sum stereo signals to mono. This saves valuable inputs on the mixer!

**INPUT** connects from instrument, the **THRU** to the amplifier. High input impedance reduces loading.



**XLR OUT** 600 Ohm balanced, mic-level output will drive 1000 feet without appreciable noise.

**POLARITY REVERSE** flips the polarity from the AES standard pin-2 to pin-3 on the XLR.

**80HZ LOW-CUT** (high-pass) filter gently reduces excessive bass for more headroom and clarity. Eliminates run-away resonant feedback from acoustics!

**GROUND-LIFT** disconnects the internal ground path between the input and the output.



**HEAVY-DUTY WELDED I-BEAM** enclosure of 14 gauge steel makes it impossible to torque the PC board. Eliminates cold solder joints.

**HIGH CYCLE** heavy-duty switches are rated at 10,000 cycles.

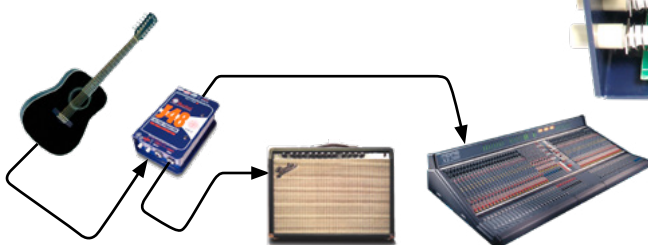
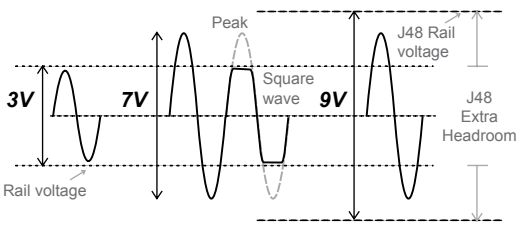
**MILITARY-GRADE PCB** with full surface ground plane to reduce susceptibility to RF noise.

**DIGITAL SWITCHING PSU** steps up the internal rail voltage to 9-Volts. The J48 will not choke like other DI's when hit with loud transients.

**BAKED ENAMEL** finish for excellent durability and great looks for years!

**Headroom: J48 gives you more!**

<p><b>3-Volts</b> Typical active DI</p> <p>Typical headroom of most DI's is a mere 3 Volts. This was originally designed for passive guitars.</p>	<p><b>7-Volts</b> Active guitar/bass</p> <p>The output from today's active guitars &amp; basses reaches 7-Volts, causing most DI's to square wave. This makes them sound harsh.</p>	<p><b>9-Volts</b> J48 max rail voltage</p> <p>The J48's 9-Volt rails provide the extra headroom so it won't choke! More headroom means you get less distortion and better sound!</p>
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Order No. R800 1028 00



Patent No. 6,005,950

The Radial X-Amp™ is an active re-amp that allows a track from a multi-track recorder to be played through a guitar amplifier(s) and re-recorded. Players and engineers can experiment with different combinations of amps and effect pedals long after the original performance has been recorded to build the thickest and chunkiest guitar tracks.

The X-Amp handles level and impedance conversion with an active Class-A circuit which reproduces all the tones and inflections of the original performance. X-Amp drives guitar amps as if the player was still plugged into it! X-Amp accepts a balanced +4dB line-level signal and outputs two unbalanced instrument level signals that can connect to effect pedals and amps. To prevent ground loops between the recorder and the amps, the input features a ground lift. X-Amp allows simultaneous use of two amps. The second amp output is buffered to prevent signal loss, transformer-isolated to eliminate hum caused by ground loops and features a polarity reverse to align out-of-phase amps. The output level control and clip LED aid in setting levels quickly and saves you many trips back and forth between the mixer and amps. Finally, the X-Amp is packaged in an innovative and tough 14 gauge steel welded I-beam enclosure that makes it impossible to torque the PC board.

Re-amping with X-Amp is fun and allows engineers to perfect guitar tracks with options not possible during a typical fast 'n furious tracking session. The X-Amp makes the re-amping process easy and its ultra-high audio quality yields excellent results.

### Features

- 100% Class-A circuit yields amazing clarity
- Overload LED helps monitor input levels
- Dual outputs drive two amps or pedal chains
- Polarity reverse corrects phase between amps
- Out-2 is transformer-isolated to eliminate ground loops
- Active level control to set perfect levels for your amp

### Applications

- Line-level to instrument level conversion
- Interfaces recording gear with amps & pedals
- Re-amp your way to fat sounding tracks
- Use during basic tracks, over-dubs and mixing

### Cool Stuff

- Active design reproduces original performance
- Tweak amp and pedal sound AFTER recording
- Reduces player fatigue and repetition
- Amplify acoustic instrument without feedback
- Run 2 amps without hum or buzz

### The X-Amp Process

Guitar, bass and keyboard tracks are recorded direct with a high-quality DI box like the Radial J48™. After, the track from the recorder is sent to the XLR input on the X-Amp. The signal is converted to an instrument level signal and output to one or two amplifiers. Effect pedals may also be inserted between the X-Amp outputs and the amplifier inputs for even more tonal possibilities. Finally, the amplifiers are mic'ed and the new tones are recorded.

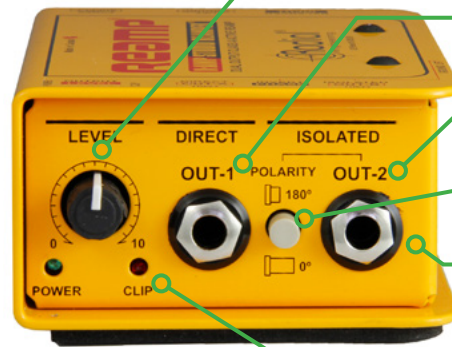


**XLR INPUT** - Balanced 600Ω accepts +4dB line-level signals.

**GROUND LIFT** - Disconnects pin-1 of the XLR to break ground path back to mixer.

**PSU CONNECTION** - 15VDC supply powers the Class-A circuit.

**FULL BOTTOM PAD** - Improves electrical isolation and keeps the X-Amp in one place.



**LEVEL CONTROL WITH CLIP LED** - Quick and easy setting of output level.

**DIRECT OUT-1** - Unbalanced instrument level output connects to your main amplifier.

**ISO OUT-2** - Transformer-isolated to eliminate hum when using two amps.

**POLARITY** - Reverse solves phase problems when using two amps.

**BOOK-END DESIGNED** - Enclosure creates a protective zone around the switches & connectors.

**CLIP LED** - Indicates input overload for setting optimum level before distortion.



**HEAVY-DUTY WELDED I-BEAM** - Enclosure of 14 gauge steel makes it impossible to torque the PC board. Eliminates cold solder joints.

**POWDER COAT** - Finish for excellent durability and great looks for years!

**MILITARY-GRADE PC BOARD** - Protected inside a welded I-beam enclosure eliminating cold solder joints, the No.1 cause of system failure.