

Radial JDI Mk3 and JDI Duplex

Radial juices up direct recording with two new direct boxes

Direct boxes may not be the glamourpusses of the studio world, but they sure are necessary. Even in home and project studios, which are becoming increasingly balanced — at least as far as their interconnections are concerned — the quality of your direct box can make or break a track. As the saying goes: "Garbage in...garbage out."

Canada's Radial Engineering has been making top-shelf direct boxes for years. The JDI Mk3 and JDI Duplex phase-coherent passive direct boxes may offer a bit of a price drop compared to other Radial DI units, but, with high-quality components and solid construction, they're anything but cut-rate.

FEATURES

The steel chassis looks as though it could withstand Armageddon without so much as introducing a crackle into your signal. Each device has a solid, clearly marked case that resembles a hard-cover book. Connections and controls are housed where the pages would be, somewhat recessed behind flanges (the "book cover"). It's a nice design. The PC board sits on an internal chassis that sits inside the covers, relieving potential torque that occurs in real-world situations. The controls are accessible when you need them, but they're also protected from harm. A non-slip pad on the bottom keeps the unit in place while protecting it and your other gear from scratches.

Both units boast almost identical circuitry (the Duplex is essentially two independent Mk3's mounted in one chassis). The centerpiece is a Jensen JT-DBE (which carries a 20-year warranty). The use of Jensen transformers does add to the cost of the boxes, but also offers outstanding performance.

Operating a direct box is a straightforward affair, but the Radials have a couple of enhanced features that are worth noting. The

Mk3 has two 1/4-inch jacks: Input (for connecting an



► RADIAL JDI MK3 AND JDI DUPLEX

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SUMMARY: Solid construction, transparent sound, Jensen transformers, and a flexible set of features set the Radial JDI Mk3 and JDI Duplex direct boxes apart from the crowd.

STRENGTHS: Excellent sound. Quality construction. Flexible feature set.

WEAKNESSES: We're thinking....

PRICE: JDI Mk3, \$200; JDI Duplex, \$350

EQ FREE LIT. #: 101

unbalanced instrument, such as a guitar, bass, keyboard, etc.) and Thru (for routing that source on to a stage amplifier or preamp). But the Thru jack has another function: You can plug a second source into its jack and use the Merge switch to sum both inputs to a mono output at the XLR. This feature is especially cool on the Duplex model because you can use it to merge two stereo sources while retaining their imaging — send both left channels to Channel A and both right channels to Channel B. The Mk3's dual-input capability also comes in handy on sources that have parallel mono outputs, such as a hybrid electric guitar that sends magnetic and piezo pickups signals to separate jacks.

Other controls include Polarity Reverse (which switches the XLR from pin-2 to pin-3 hot), ground lift, and two pad controls — a standard -15 dB for taming hot instruments and the -30 dB speaker pad that lets you use the JDI to interface an amplifier's speaker output. (Note: Radial requires that you use a parallel speaker out from the amp or from the speaker cabinet and maintain the amp's speaker load.)

PERFORMANCE

Generally, the best thing you can say about a direct box is that you forget it's there. The JDIs are transparent and noise free, but they're not forgettable.



They performed very well on every source I fed them, including electric and acoustic guitar and bass. Even in an environment that's occasionally prone to grounding problems and noise from computers and monitors, the signal was ultra clean.

The polarity switch may be designed to reduce phasing problems between combined direct and miked signals, but engaging it can also color a mono signal in a pleasant way — especially nice on a Stratocaster or a Fishman Blender-equipped Taylor acoustic. Using the Pad and Speaker switches, the JDI also handled output from a tube amp quite well — the signal, without the coloration of the amp's speaker, was a little bright with distorted settings, but didn't have that papery rasp that can happen when going direct. With a little processing, it sounded huge. The amp's clean settings sparkled, a nice alternative to the more muted clean sound you'd get from miking a speaker. The amp's speaker-compensated line out also sounded good (for this, the JDI's pads were disengaged). The Duplex box, with its pair of

SPECS AND FEATURES

	JDI MK3	JDI DUPLEX
CHANNELS	1	2
CONNECTIONS	1/4-inch high-impedance input; 1/4-inch high-impedance thru; XLR output	2 - 1/4-inch high-impedance input; 2 - 1/4-inch high-impedance thru; 2 - XLR output
FREQUENCY RESPONSE	10 Hz to 80 kHz ± 3 dB	10 Hz to 80 kHz ± 3 dB
SIGNAL TO NOISE	122 dBu full bandwidth	122 dBu full bandwidth
DISTORTION	Less than 0.05% @ 20 Hz	Less than 0.05% @ 20 Hz
PHASE DEVIATION	Less than 3° from 40 Hz to 10 kHz	Less than 3° from 40 Hz to 10 kHz
INPUT IMPEDANCE	130 kohms	130 kohms
OUTPUT IMPEDANCE	150 ohms	150 ohms
CONTROLS	Pad -15 dB; Speaker (-30 dB); Merge (sums Input and Thru signals to Mono); Polarity Reverse; Ground Lift	2 - Pad -15 dB; 2 - Speaker (-30 dB); 2 - Merge (sums Input and Thru signals to Mono); 2 - Polarity Reverse; 2 - Ground Lift
CHASSIS	14 gauge steel construction	14 gauge steel construction

independent ins and outs, allows you to mix both speaker and line-level signals for one huge stereo sound. You can also use the JDIs in reverse as a re-amping tool to take a balanced input from your mixer or recorder and feed a high-impedance unbalanced out to your amp.

DIRECT CONCLUSION

A quality tool, no matter how simple, is a joy to own. With bulletproof construction, a versatile feature set, and transparent sound, the Radial JDI Mk3 and JDI Duplex would acquit themselves well in any pro, live, or studio rig. ■