


Direct Box Specifications

Noise:

Measured Output, un-weighted, 22Hz-22kHz, source impedance 150 Ohms balanced. 
Better than -110dBV

Input Impedance

Instrument Setting
Speaker Setting


2.2 Meg Ohm
243k Ohm

Output Impedance

Less than 40 Ohms

Frequency Response

+/- 0.25db
+/- 1dB
-3dBu
+4dBu

25Hz – 44kHz
12.5Hz – 63kHz
4Hz - 92kHz
6Hz 

Maximum Input Level

Instrument = +21.5dBu Typical
Speaker = +36.25dBu, 50 Vrms, Typical
+11.5dBu output at maximum input level

Total Harmonic Distortion plus Noise

@ 1kHz, +20dBu input level, no load.
@ 1kHz, -20dBu input level, no load
@ 20Hz, -20dBu input level, no load

0.25% Typical (2nd and 3rd harmonic)
0.015% Typical (2nd and 3rd harmonic)
0.75% Typical (2nd and 3rd harmonic)

Power Requirements

Phantom powered, 4.5mA @ +48VDC

RNDI: Active Transformer Direct Interface

RUPERT NEVE DESIGNS



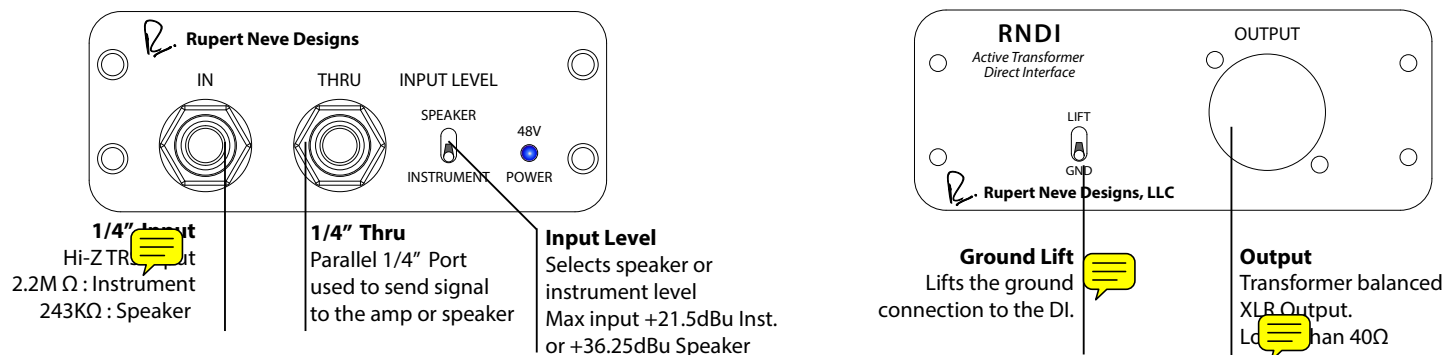
Operations Manual

PN: 775-00022 

RNDI: Active Transformer Direct Box User Guide

Thank you for your purchase of a RNDI Active Transformer Direct Box. Everyone at Rupert Neve Designs hope you enjoy using this tool as much as we have enjoyed designing and building it.

Front / Back Panel



RNDI Overview

The RNDI is designed to deliver instrument (electric guitar, bass, keyboard, piezo pickup, etc.) and speaker feed direct injection with unprecedented sound quality. The class-A & discrete circuit topology found in the RNDI is based around Mr. Rupert Neve's custom input and output transformers, which allows for outstanding sonic performance and superior noise rejection. The RNDI can handle extremely high input levels without clipping (+21.5 dBu on instrument & 36.25dBu on speaker), and the transformer coupled output has a very low output resistance of 40 Ohms, which is capable of driving long lines with minimal loss. The chassis of the RNDI is a formed steel clamshell designed to hold up to the use on stage or in the studio.

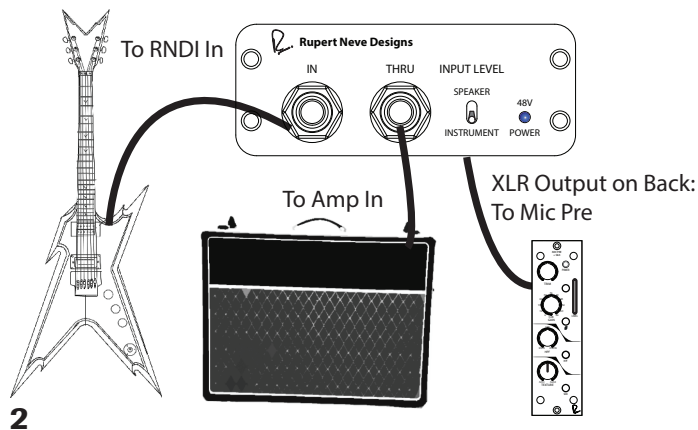
Usage Notes

Power for the RNDI is supplied by standard 48V phantom power on the XLR output connection, which is indicated by a front panel LED. Try to avoid placing the RNDI close to strong electro-magnetic radiators like power amplifiers, as some noise can still be inducted on the transformers through the RNDI's steel shielding. To minimize ground loop hum, the full signal chain should ideally be on a single isolated circuit. If you are experiencing a hum on the RNDI output or amplifier, experiment with switching the ground lift on the RNDI and ground lifts on other components in the chain. If that doesn't work, try removing certain modules or powering off other devices on the same power circuit to minimize the hum.

In an instrument configuration, the DI converts the impedance of the instrument signal, balances the signal (if unbalanced), provides a buffered output stage to send to a separate mic pre, and optionally sends the thru connection to the amp input. To get the best performance out of your RNDI, we recommend you use the best cables and mic pre's available, and output the maximum level from your instrument.

In a speaker feed configuration, the DI is used post power amplifier to capture the tone of the preamp and power amp. Be sure to switch the RNDI input level to speaker and connect the amplifier and speaker BEFORE turning the amplifier on. With tube power amps, THE SPEAKER MUST BE CONNECTED to the thru connection to provide a load for the amplifier. Solid state amps can generally be run without a speaker connected. See the diagrams below for standard connection examples.

Instrument Configuration (Instrument Selected)



Speaker Feed Configuration (Speaker Selected)

