PDB Passive Direct Box

The PDB Passive Direct Box is an accessory for the D.W. Fearn VT-1 or VT-2 Microphone Preamplifier that provides high-quality "direct" recording of electric instruments. It may also be used with other mic preamps. The PDB takes a low-level, high-impedance, unbalanced signal (such as from an electric bass guitar) and converts the signal to a mic-level, low-impedance, balanced signal to be fed to a professional microphone preamplifier.

Note that the PDB is not designed to process line-level signals. For that application, the D.W. Fearn LP-1 Line Pad would be appropriate.

To use the PDB, plug the instrument into the 1/4" jack labeled "INST." The output of the PDB is available on the male XLR connector labeled "MIC LEVEL OUT." Use a high-quality balanced mic cable with the appropriate connectors to connect the PDB to your microphone preamplifer. If desired, an instrument amp (e.g. a guitar amp) may be connected to the 1/4" jack labeled "AMP." This jack is wired directly in parallel with the INST jack and will split the instrument output between the PDB and the instrument amp.

The PDB follows the industry standard wiring, with pin 2 "high" or "+" and pin 3 "low" or "-". Pin 1 on the connecting cable should be connected to the cable shield. Internally, pin 1 is connected to the PDB chassis through a RC network when the "GROUND LIFT" switch is in the up position. In the down position, pin 1 is connected directly to the PDB chassis. The proper position of the GROUND LIFT switch must be determined experimentally for each set-up. It may also be necessary to experiment with other "ground" switches on an instrument amp (guitar amp) if one is connected to the AMP jack. The correct position is the one that has the least amount of hum. In many situations, there will be no difference in the switch position and it can be set either way.

The output level of the PDB depends on the level of the signal going into it, but with most pick-up type instruments (electric bass, electric guitar) the output will be around -50 to -30 dBu. This is ideal for most microphone preamplifiers. With some higher-output instruments (keyboards, amplified bass), the level may be too high for some mic preamps. In that case, use the input pad feature of the preamp (on the VT-1 or VT-2, use the -20 input position). The PDB is designed to accommodate signals as high as 2 volts peak-to-peak and it is highly unlikely to be overloaded by any typical instrument.

The PDB is a passive device and requires no power. There is little to go wrong with the PDB, and no routine maintenance is necessary.