

Palmer

PDI-09 “The Junction” Specialized Guitar DI-Box Owners Manual



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PDI-09 “The Junction”

The Junction is the shortest link between your pre-amp, multi-effects unit or guitar amplifier and a recording-live mixing console. We all know that the sound quality of a guitar amplifier can't be judged by ordinary Hi-fi criterion. A guitar amplifier and its speakers are essential to your sound. For the longest time the only way to amplify this sound was to use the classic approach in a microphone. In recent years there have been efforts, some more successful than others, to authentically reproduce this sound using “Speaker Simulators”. To argue about which approach is better is like asking which came first, the chicken or the egg. That argument could go on and on however, in real life stage and studio applications the direct signal from a guitar amplifier can make life much easier and produce fantastic results! Two examples: In a recording situation the guitarist can work directly with the engineer in the control room without being confined to a sound booth. Live, the acoustics changing from night to night can turn a powerful and crunchy sound from one night in to mud the next. With a direct signal both the guitarist and the engineer have a predictable sound to work with.

Palmer speaker simulators are known to be among the best available today. Even sound purists like Keith Richards “couldn't deny that thing” (see Guitar Player interview December '92) and Joe Satriani, (see Guitar Player interview May 2000) *How did you track the guitars?* “We used Palmer Speaker Simulators. That was the interface for all the amps. We'd go out of the Palmer into a Neve mic pre and then into Pro Tools”. While Keith was using the older PDI-03 and Joe the newer more improved PGA-04 ADIG-LB both incorporating a built in load-box, the concept is basically the same with the PDI-09, the only difference being, the PDI-09 uses your speaker as the load when used at the output of a guitar amplifier. The PDI-09 utilizes the same tried and true filters that the PDI-03 used in '92, offering the same quality at a price less than that of a comparable microphone, all the while functioning without batteries or phantom power. Now, some people will say that the use of microphones is more versatile however, the PDI-09 will also work at instrument and line/pre-amp level. Can you imagine micing a pedal-board or pre-amp? We think not! You'd be surprised how good your favorite stomp box or pre-amp will sound going direct using the PDI-09 as your interface to your live/recording console.

Connections: Pre-amps, multi-effects units or any devices that output at line level should be connected to the input of the PDI-09 using a good quality shielded guitar cable. Guitar amplifiers (heads as well as combos) should be connected to the input of the PDI-09 using a speaker cable and your speaker/speaker cabinet or load box such as the Palmer “The Sponge” connected to the thru output of the PDI-09 using a speaker cable as well. * If your amplifier has a variable impedance switch it should be set at the impedance of your speaker/speaker cabinet and or external load box. **CAUTION: If you are using a valve (tube) amplifier, you MUST have a speaker or equivalent load box connected to the thru jack of the PDI-09 or considerable damage will occur to the amplifier.** Now, using a balanced microphone cable, hook up the balanced XLR/Cannon output to the microphone input of the mixing console.

The attenuator switch is used to adjust the signal level coming out of the PDI-09. As a rough guide, 0db would be used for line level signals (pre-amps etc.) or instrument level signals such as a pedal board, 15 db for speaker output signals from lower wattage amps (practice amps) up to 10 watts and 30 db for higher wattage amplifiers.

The Filter Circuit is very simple and offers three options, Mellow, Normal and Bright. We purposely avoided using such acronyms such as 4X12 closed back, etc. to describe these settings since we feel there are no two speakers or speaker cabinets that sound the same, therefore how can there be a standard for a 4X12 sound and so on? That being said, certain associations will be made for the purpose of describing these settings and their possible similarities with types of speaker cabinets. Another important factor to remember is that the upper mid range is very crucial to the simulation of a guitar amplifier sound and no conventional equalizer can produce this tonal quality.

The Mellow setting would produce a speaker sound much like that of the older models of American speakers that tend to deliver a warmer, softer sound. The Normal setting would have a speaker sound, with linear response characteristics, similar to that of an open back 2X12 cabinet. Finally, The Bright setting gives you the more aggressive sound, the kind usually relating to the British made speakers.

EQ Tips: Boosting lower frequencies (80-100 HZ) at the mixing console will give you a fatter sound similar to that of the 4X12 cabinet. Additionally, by adding upper midrange frequencies (2-4 k-HZ) and cutting the lower frequencies you would help produce the thinner open 2X10 sound and somewhere in between will get you to the 2X12 sound. Remember these tips would be used to enhance the filter settings of the PDI-09, trying to accomplish the same thing by using a conventional DI box, would sound terrible.

As we previously stated, the PDI-09 is more than just an alternative to a microphone. Suggestions such as hooking up your distortion pedal or pedal board direct using the PDI-09 can lead to exciting new directions. Additional new possibilities present themselves in using a lower wattage amplifier cranked to the max for distortion and then plugging it in to a larger amplifier using the PDI-09. You have just turned tonally cool, smaller amplifier in to a larger stage compatible amplifier. To accomplish this setup you must have a specially wired cable and connect your amplifier as follows. First connect the smaller amplifiers speaker output to the ¼" input of the PDI-09 using a speaker cable. Then connect your speaker or appropriate load box to the thru jack using an additional speaker cable. Now buy or make a shielded cable that is ¼" mono male (guitar plug) wired to female XLR/Cannon. The XLR/Cannon end must be wired pin 2 hot, or to the tip of the ¼" plug and pin 3 wired to the shield or sleeve of the ¼" plug. Note: Pin 1 is left open or unused on the XLR/Cannon end. This unbalances the output of the PDI-09 and allows you to plug directly in to a larger amplifiers input jack. Another option would be to drive rack effects at line level and then use your favorite stereo power amplifier to power your speaker cabinets. You have just turned your amplifier in to a pre-amplifier.

Have fun experimenting with your PDI-09 "The Junction"!

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