

JS-3

3-Way Microphone Splitter

Users Guide



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INPUT PANEL

1. -30dB PAD

Allows line-level sources to connect to the JS3's input.

2. Mic input

For low impedance microphone signals.

3. Direct-1 thru

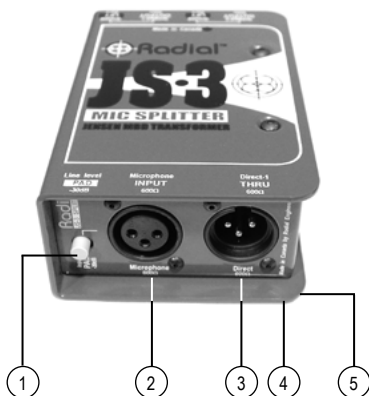
Mic-level direct output will pass phantom power to microphone.

4. Bookend design

14 gauge steel outer shell creates protective zone around connectors and switches.

5. Full-bottom no-slip pad

This provides electrical isolation and plenty of "stay-put" friction to keep the JS3 in one place.



OUTPUT PANEL

6. Isolated output-2

Mic-level transformer-isolated.

7. Ground lift (isolated-2)

Lifts the ground pin-1 on the isolated-2 XLR output connector.

8. Isolated output-1

Mic-level transformer-isolated.

9. Ground lift (Isolated-1)

Lifts the ground pin-1 on the isolated-1 XLR connector.



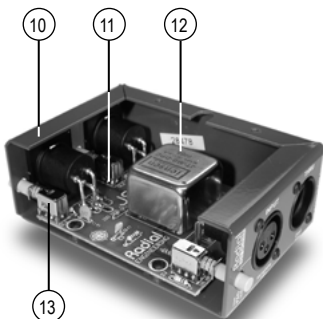
CONSTRUCTION

10. Steel I-beam enclosure eliminates stress that could torque the PC board and cause solder joint failure.

11. Military-grade double-sided PCB with plated through-holes is bolted to welded steel standoffs.

12. Jensen transformer offers outstanding audio performance.

13. Sturdy PC mounted switches are high-cycle rated for long life.



WELCOME

Congratulations on your purchase of the Radial JS3 mic splitter. This simple yet extremely handy device will likely find its way into all types of applications such as splitting mic signals and distributing signals throughout your sound system.

The Radial JS3 is equipped with the world's finest Jensen bridging transformer to ensure the audio signal is transferred and distributed without distortion and is built using the finest materials to ensure years of trouble-free performance.

We have purposely written this manual to be short, as most users will likely be familiar with the JS3's applications. We do suggest that you take a moment to read through this document to familiarize yourself with the features that are built in. For more detailed information, please visit the Radial website. This is also where we post questions and answers that come from users after the product is released. If you do not find an answer, we invite you to send us an email at info@radialeng.com and we will do our best to answer your query in a prompt and professional manner.

The Radial JS3 is a wonderful device that will surely provide you with years of problem-solving connectivity. Enjoy!

INTRODUCTION

Upon inspection, you will notice the Radial JS3 is equipped with four XLR connectors: the MIC INPUT connector; the DIRECT-1 THRU; the ISOLATED-1 OUTPUT with ground lift switch and the ISOLATED-2 OUTPUT with ground lift switch.

Normally, the source microphone connects to the MICROPHONE INPUT and the DIRECT-1 THRU connects to the mixing console that supplies phantom power back to the microphone. If the source is a line-level device such as a CD player, the input pad should be engaged to ensure the signal does not saturate the transformer, causing distortion.

Note that the JS3 will always output a mic-level signal.

The JS3's isolated outputs will then feed a recording interface, broadcast truck or other PA system. The advantage of using the transformer-isolated output is that it creates a magnetic bridge between the source and the destination, thus eliminating any direct electrical current from passing. This eliminates problems such as ground loops, which can cause buzz and hum in a sound system. A ground lift switch is provided to disconnect the ground path between the input and output to further suppress noise.

The JS3 is completely passive. This means that it does not require a power supply of any kind. The magic lies in the quality of the transformer we use. Jensen transformers are famous for their exceptional signal handling and low distortion. The JS3 is equipped with a Jensen JT-MBD mic-bridging transformer that features a laminated nickel core and Faraday shield for optimum signal transfer. You will find the JS3 to be transparent and very efficient, making it the perfect choice in professional installations.

USING THE JS3

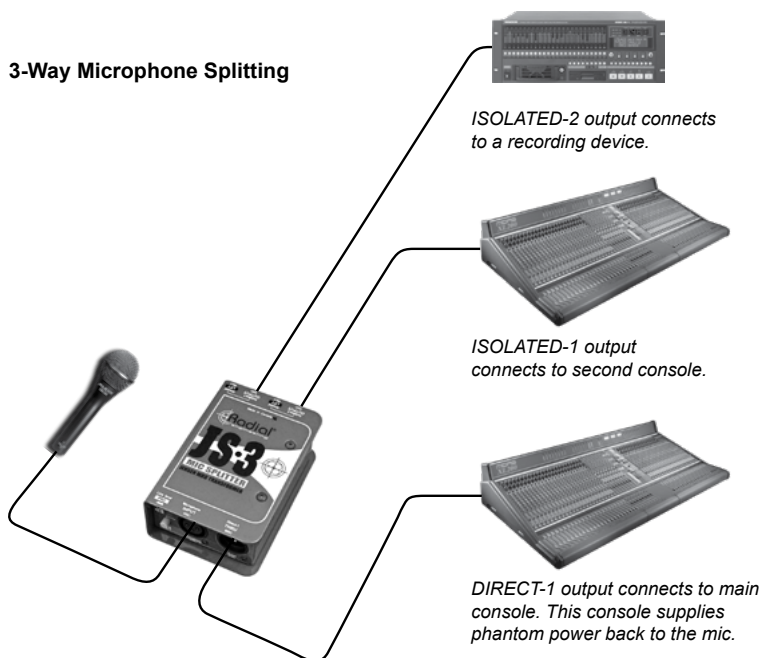
As with all Radial products, using the JS3 is simple and straight ahead. Make sure the sound system is turned off and all levels are set to zero before making audio connections. This will avoid any pops in the sound system that could cause damage to speakers.

Connect a microphone or line-level source to the MICROPHONE INPUT on the JS3. Connect the DIRECT-1 THRU output to the console that supplies phantom power and then the ISOLATED-1 and ISOLATED-2 outputs to your monitor console and recording systems. Both isolated outputs are identical and electrically separate from each other. If you encounter noise, simply depress the ground lift switches.

If you are using the JS3 with a line-level device such as a keyboard, CD player or line mixer, depress the -30dB input pad. This will reduce the level going into the transformer and eliminate transformer saturation .

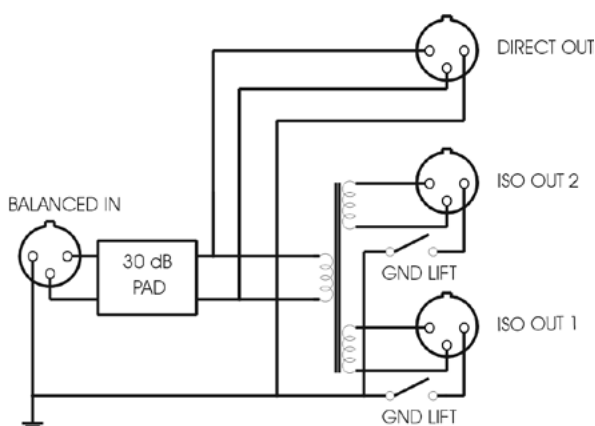
Start by turning up your sound system slowly to test connections before driving at full volume. You are now ready to go!

3-Way Microphone Splitting



JS3 BLOCK DIAGRAM

JS3 BLOCK DGM



J-RAK

The optional J-RAK is a high density rackshelf for Radial DI's and splitters. It's a 2RU rack chassis that allows up to 8 Radial devices in one neat 19" package. The DI's can be mounted with either the input side or output side facing the front. Ideal for studio or touring. Constructed of 14 gauge steel with a baked enamel finish.



J-CLAMP

The optional J-CLAMP can mount a single Radial device to virtually any surface. Perfect for hiding away inside racks, on podiums or under tables. Constructed of 14 gauge steel with a baked enamel finish.



JS•3 SPECIFICATIONS

Frequency response	20Hz to 20kHz (+0dB/-2dB)
Maximum Input	+25dBu @1kHz
Phase distortion	+2.8° @ 20Hz
Total harmonic distortion	0.0005% @ 1kHz
Input	Source dependent
Outputs	Source dependent
Input pad	-30dB
Power requirement	None, completely passive
Size	3.25" x 5" x 1.875"
Weight	2 lbs.

THREE YEAR TRANSFERABLE LIMITED WARRANTY

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