

# Data Sheet

**jensen transformers**  
By REICHENBACH ENGINEERING

# JE-MB-D MICROPHONE BRIDGING TRANSFORMER

The JE-MB-D is a 1:1:1 turns ratio microphone bridging transformer with a single primary and two secondary windings, each surrounded with its separate Faraday shield.

The JE-MB-D can be used to bridge a balanced microphone line, which is terminated with a balanced preamplifier input, to feed second and third balanced preamplifier inputs.

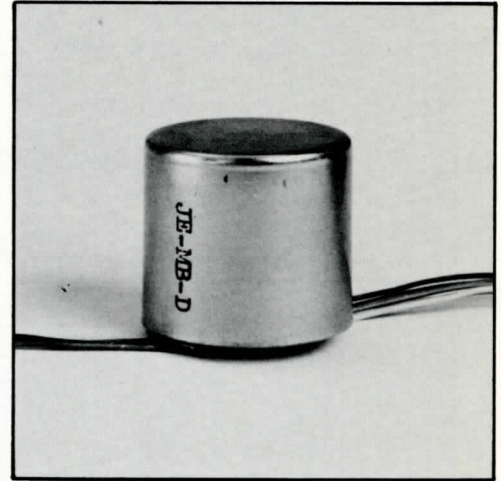
The transformer, with separate Faraday shields for each winding, isolates and rejects the common-mode noise caused by the noise voltage difference between the chassis of the multiple mixers. With this type of isolation, the microphone shield can be connected through to the chassis of one mixer but need not be connected through to the second or third mixer chassis. Instead, the chassis (shields) of the second and third mixers connect only to the Faraday shield of the appropriate secondary. This eliminates the ground loops which would be caused if the microphone shield were connected through to multiple mixers.

Phantom power can be provided by the mixer which terminates the microphone directly.

The design is optimized for a source impedance at the primary of 150 ohms (microphone) and secondary loads of 1000 ohms (typical microphone preamplifier input impedance). No resistors are used in the usual application of a "mic-split box."

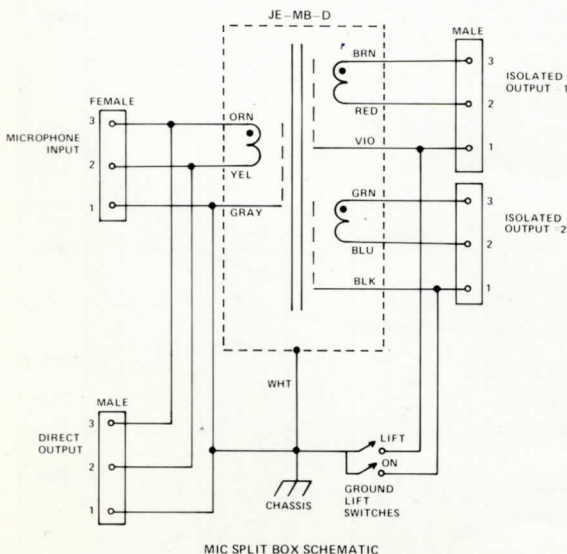
The primary winding is interleaved equally with both secondary windings for matched transfer characteristics to both secondaries and to minimize variations in response with an unloaded secondary.

If cables with the shield connected to pin 1 (shield) are used in the system, insulated mounting will be required for the connectors.

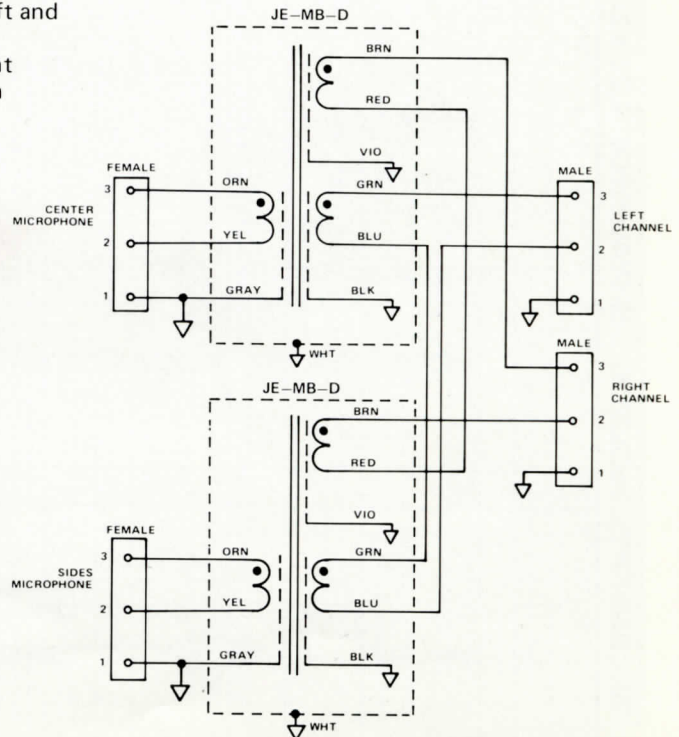


## STEREO MIC MATRIX

A pair of these 3 winding 1:1:1 transformers can be used to matrix the Sum and Difference signals of a stereo microphone to the Left and Right format. Connect each microphone to a primary, and cross-connect the secondaries in series and anti-series for Left and Right outputs. The Faraday shields can be connected together as one in applications not requiring separate shields.



MIC SPLIT BOX SCHEMATIC



STEREO MICROPHONE MATRIX SCHEMATIC