

BOGEN[®]

COMMUNICATIONS, INC.

LINE INPUT/LINE OUTPUT MATCHING TRANSFORMER MODEL WMT-1A

The Bogen WMT-1A line input/line output matching transformer is designed to match either a high-impedance input, or output of an amplifier, to a 500/600-ohm line. It may be used to connect telephone systems to most Bogen public address amplifiers, or for distributing background music that is transmitted over leased telephone lines. The unit also functions as an output-matching transformer to feed program material over a 500/600-ohm telephone line for transmission to a local broadcast studio.

The WMT-1A provides an impedance match between the 500/600-ohm balanced line and the high-impedance (auxiliary) input of the amplifier, or the 25-volt output of the amplifier. The 500/600-ohm line input or output connections are made to a screw terminal strip. Connection to the amplifier is provided by a shielded cable terminated in a phono plug.

Mounting flanges are provided to mount the WMT-1A to the amplifier chassis or backboard. No wiring or soldering is required for making connections in most cases. A jumper-wire is easily repositioned when connecting the WMT-1A high-impedance output to the MIC input of the amplifier.

Frequency Response:	50Hz to 20,000Hz \pm 2dB
Sensitivity:	Less than 0.1 volt across 600-ohm line required for full output power from average amplifier. Maximum level. +20dBm.
Output:	Approximately 1.73 volts output when connected across 25-volt output tap or WMT-1A HI-Z output connection on Bogen amplifier.
Overall Dimensions:	2-3/8"H x 2"W x 1-1/4"D (6.0 x 5.1 x 3.2cm)
Weight:	4 oz. (.11kg)

INPUT MATCHING TRANSFORMER

To match the input from a 500/600-ohm line, proceed as follows:

1. Connect the input from the 500/600-ohm line to the terminal board on the WMT-1A. For a balanced line, the shield is connected to the center terminal.
2. Insert the phono plug of the WMT-1A to a high-impedance receptacle on the amplifier, usually the AUX receptacle.
3. If the AUX input is already in use, the WMT-1A phono plug may be connected to one of the MIC inputs of the amplifier, after following the instructions below for MODIFICATION FOR MIC INPUT.

Note

With amplifiers which utilize a fader-type volume control for two AUX channels, it is advisable to connect the WMT-1A to a MIC input even though only one of the AUX inputs is in use.

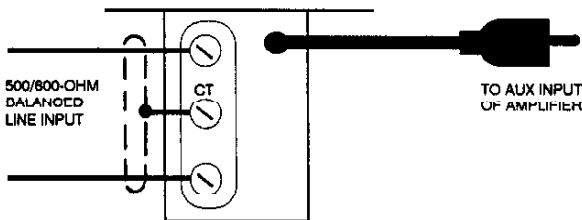


Figure 1 — Connecting WMT-1A as Input Matching Transformer

MODIFICATION FOR MIC INPUT

The WMT-1A includes a jumper wire connection to permit it to feed into a microphone input. The input may be Hi-Z or Lo-Z, balanced or unbalanced. The circuit uses a 150-ohm resistor to divide the signal down to one-hundredth of that normally obtained from the secondary. Refer to Figure 2 for jumper wire location and position.

Figure 2 shows the use of an adaptor to connect the output of the WMT-1A through the phono plug to the MIC input terminal on the amplifier. To connect to terminal strip-type inputs, clip off the phono plug and connect the shield to the ground terminal and the center conductor to one of the remaining terminals.

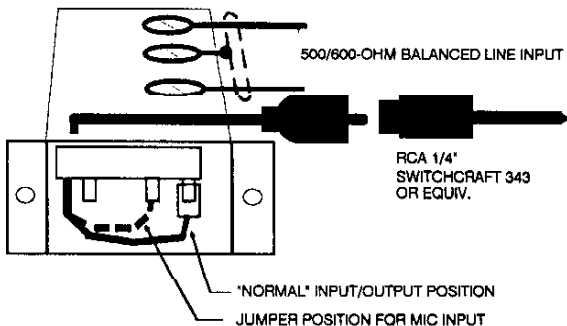


Figure 2 — WMT-1A Jumper Placement for Microphone Input Applications

OUTPUT MATCHING TRANSFORMER

To match the output to a 500/600-ohm line, proceed as follows:

1. Connect the 500/600-ohm line to the terminal board on the WMT-1A. For a balanced line, the shield is connected to the center terminal.
2. Insert the phono plug of the WMT-1A into the receptacle marked WMT-1A HI-Z OUTPUT on the amplifier chassis. If this receptacle is not available, remove the phono plug from the WMT-1A cable and make connections to the 25-volt output of the amplifier. Connect the center lead of the cable to the output terminal marked 25V, and the shield to COM or ground.

Note

When the WMT-1A is used as a bridging output, it does not draw any power from the amplifier.

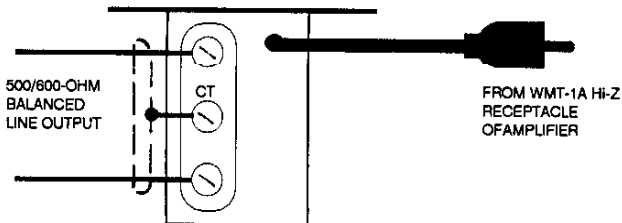


Figure 3 — Connecting WMT-1A as Output Matching Transformer

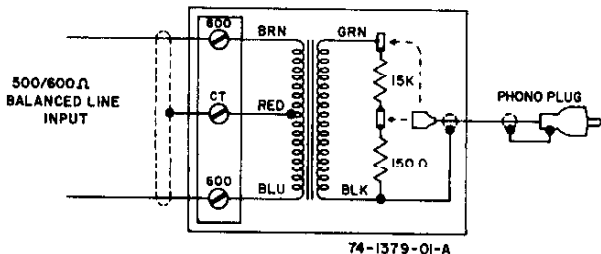


Figure 4 — WMT-1A Schematic Diagram

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BOGEN[®]
COMMUNICATIONS, INC.

50 SPRING STREET, P.O. Box 575
RAMSEY, NJ 07446 (201) 934-8500

All specifications
subject to change
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