# Input/Line Transformers







TL100/TL600

WMT1A

#### WMT1A

#### Description

The Bogen Model WMT1A transformer is designed especially for matching inputs from, or outputs to, a 600-ohm line.

As an input-matching transformer, it may be used to connect telephone systems to most Bogen public address amplifiers for telephone paging. It also functions as an output-matching transformer in feeding program material over a 600-ohm telephone line for "music-on-hold". It is compatible with any amplifier having a 25V output terminal.

#### TL100,TL600

The Bogen Models TL100 and TL600 transformers are compact plug-in units especially designed for use with power amplifiers.

The TL100 provides a balanced one-to-one input match and isolation; its primary impedance will be the same value as total termination of the input impedance to the amplifier(s).

Model TL600 matches the output of a 600-ohm telephone line to a Bogen power amplifier input.

#### WMT1A

#### **Features**

- · Hi-Z, 10k-ohm primary impedance
- Lo-Z, 600-ohm secondary impedance, balanced with center tap
- Matches high-to-low impedance or low-to-high impedance
- Adapts line level signals to microphone inputs
- · RCA connector for Hi-Z side
- Screw terminals for Lo-Z side
- Small steel enclosure w/mounting ears allows easy mounting anyplace
- No wiring or soldering required

#### **TL100 and TL600**

- Provides balanced 600-ohm or bridging input for power amplifier
- May be used to provide a 600-ohm output from a Bogen mixer-pre-amplifier
- Transformer connections terminated in a keyed nine-pin miniature plug
- · Compact, plug-in design
- · Internal mumetal shielding



#### WMT1A

### Technical Specifications

Frequency Response: 50 Hz to 20 kHz ±2 dB

**Sensitivity:** Less than 0.1V across 600-

ohm line required for full output power from average amplifier. Maximum level

+20 dBm

Output: Approx. 1.73V output when

connected across 25V output tap or WMT1A Hi-Z output connection on a

Bogen amplifier.

**Dimensions:**  $2-3/8" \text{ H} \times 2" \text{ W} \times 1-1/4" \text{ D}$ 

**Shipping Weight:** 1 lb.

#### TL100 & TL600

**Function:** TL100 – Provides balanced

one-to-one input match and

isolation

TL600 – matches balanced 600-ohm telephone line to input of power amplifier

Frequency Response: TL100 - 20 Hz to 15 kHz,

±2 dB

TL600 - 20 Hz to 20 kHz,

±1 dB

Hum Reduction: Mumetal shielding

**Construction:** Cylindrical shape, keyed

nine-pin miniature plug

#### WMT1A

## Architect and Engineer Specifications

The line-matching transformer shall be a Bogen Model WMT1A, or equivalent, capable of matching either inputs from, or outputs to, a 600-ohm line. It shall provide a perfect impedance match between a 600-ohm balanced line and the high-impedance input of an amplifier, or the 25V output of an amplifier. Frequency response shall be ±2 dB from 50 Hz to 20 kHz. Less than 0.1 volt across 600-ohm line shall be required for full output power from an average amplifier (maximum level, +20 dBm). Output shall be approximately 1.73 volts when connected across the 25V output tap or WMT1A Hi-Z output connection of a Bogen amplifier.

Line input or output connections from the 600-ohm line shall be made to a three-screw terminal strip. Connection to the auxiliary input of an amplifier shall be by means of a shielded cable terminated in a phono plug. Provisions shall be included to connect the unit to a microphone input. The mounting bracket shall provide for the transformer to be mounted by means of two steel screws. The unit shall measure 2-3/8" H x 2" W x 1-1/4" D and the shipping weight shall be 1 lb.

#### **TL100**

The matching transformer shall be a Bogen Model TL100, or equivalent, and shall provide a balanced one-to-one input for matching and isolation. The primary impedance shall be the same value as the total termination of the input impedance to the amplifier(s). The frequency response shall pass frequencies within ±2 dB from 20 Hz to 15 kHz. The unit shall incorporate mumetal shielding for hum reduction. The transformer connections shall terminate in a keyed nine-pin miniature plug, which shall fit into a matching nine-pin receptacle. The transformer shall be cylindrical in shape with a 1" diameter and the overall length (including pins) shall not exceed 2".

#### **TL600**

The line transformer shall be a Bogen Model TL600, or equivalent, and shall match a balanced 600-ohm zero level transmission line, or provide a 600-ohm output from a pre-amplifier. The secondary impedance shall be 10,000 ohms. The overall frequency response shall pass frequencies within ±1 dB from 20 Hz to 20 kHz. The unit shall incorporate mumetal shielding for hum reduction. The transformer connections shall terminate in a keyed nine-pin miniature plug, which shall fit into a matching nine-pin female receptacle. The transformer shall be cylindrical in shape, with a 1" diameter and the overall length (including pins) shall not exceed 2".

