

# AUTOTRANSFORMERS

## 18A AND 19A AUTOTRANSFORMERS

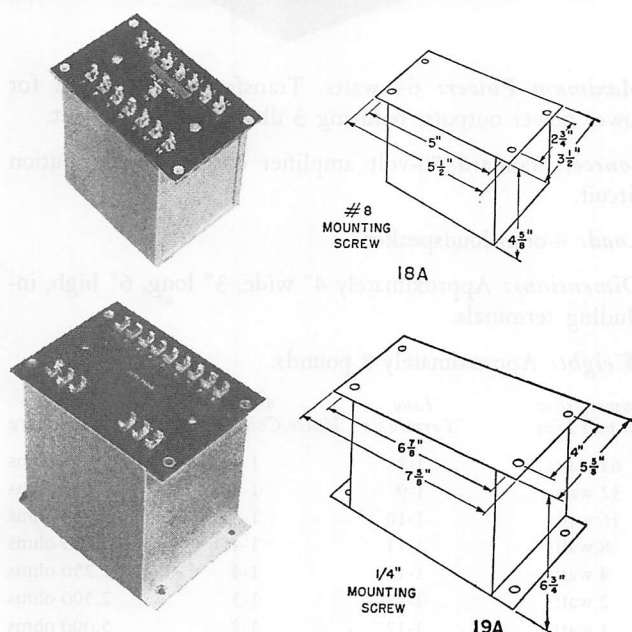
Designed to provide impedance matching between amplifiers and loudspeakers over a wide range of applications. These two transformers have the same impedance ratios and cover the same frequency range, but differ in size and power handling capacity.

### Typical Specifications

**Frequency Range:** 50 to 15,000 cycles.

**Average Loss:** 0.35 db for the 18A; 0.1 db for the 19A.

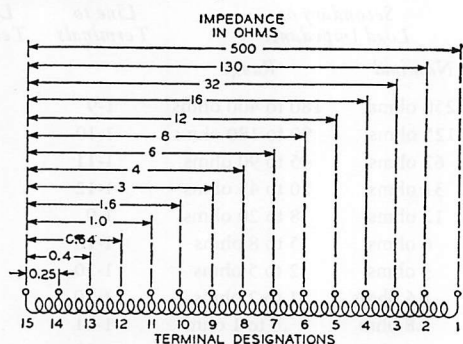
**Power Capacity:** 18A is 50 watts continuous; 19A is 200 watts continuous, 500 watts on speech or music from 100 to



15,000 cycles. (These power ratings hold only to tap 10. For lower impedance taps reduce ratings 2 db.)

**Insulation:** 18A—2,000 volts a-c; 19A—3,000 volts a-c.

**Impedance Ratio:** See diagram.



**Dimensions:** 18A — 5½" long, 3½" deep and 4¾" high (not including terminals); 19A — 7⅝" long, 5⅝" deep and 6¾" high (not including terminals).

**Weight:** 18A — 9 pounds 3 ounces; 19A — 27 pounds.

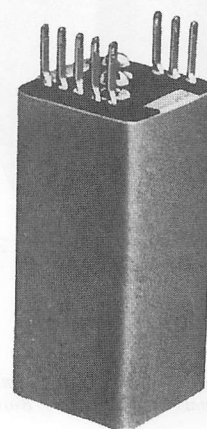
## 25A, 26A AND 27A AUTOTRANSFORMERS

These autotransformers were especially designed for loudspeaker matching purposes. The 25A will handle four watts of audio power, the 26A sixteen watts and the 27A sixty-four watts. They were designed to work from a standard 70 volt distribution circuit, or other circuits as required. By using a transformer for each loudspeaker, in multiple systems, the volume for each speaker can be individually adjusted by selecting taps on the transformer.

A high degree of flexibility is possible since all the loudspeakers in a system using these transformers may be connected in parallel across the distribution circuit. No complicated connecting circuits are required.

The frequency range of 50 to 15,000 cycles permits exceptional quality. When the transformers are connected between proper impedances the transmission loss is less than 0.6 db.

### 25A AUTOTRANSFORMER 4 WATTS



### Typical Specifications

**Maximum Power:** 4 watts. Transformer is tapped for lower power outputs, reducing 3 db per step to 0.25 watts.

**Source:** Standard 70-volt amplifier output or distribution circuit.

**Load:** 4 or 8-ohm loudspeaker.

**Dimensions:** Approximately 1-11/16" wide, 1-11/16" long, 3-9/16" high. Including terminals, 4-5/16" high.

**Weight:** Approximately 12 ounces.

**Mounting:** Can be mounted on loudspeaker (728B) frame through the use of the 713A Bracket.

If loudspeaker voice coil is 4 ohms, connect it to terminals 1-2. If loudspeaker voice coil is 8 ohms, connect it to terminals 1-3.

Power from 70-volt Line	Line Terminals	Input Impedance
4 watts	1-8	1,250 ohms
2 watts	1-9	2,500 ohms
1 watt	1-10	5,000 ohms
.5 watt	1-11	10,000 ohms
.25 watt	1-12	20,000 ohms

**26A AUTOTRANSFORMER 16 WATTS**

**Typical Specifications**

**Maximum Power:** 16 Watts. Transformer is tapped for lower power outputs, reducing 3 db per step to 0.25 watts.

**Source:** Standard 70-volt amplifier output or distribution circuit.

**Load:** 4 or 8-ohm loudspeaker.

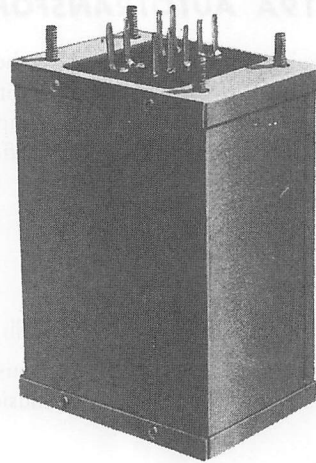


**Dimensions:** Approximately 2 7/8" wide, 2 7/8" long, 4" high, including terminals.

**Weight:** Approximately 2.5 pounds.

Power from 70-volt Line	Line Terminals	Voice Coil Terminals		Input Impedance
		4-ohm	8-ohm	
16 watts	1-8	1-4	1-5	312 ohms
8 watts	1-9	1-4	1-5	625 ohms
4 watts	1-10	1-4	1-5	1,250 ohms
2 watts	1-11	1-4	1-5	2,500 ohms
1 watt	1-12	1-4	1-5	5,000 ohms
.5 watt	1-12	1-3	1-4	10,000 ohms
.25 watt	1-12	1-2	1-3	20,000 ohms

**27A AUTOTRANSFORMER 64 WATTS**



**Maximum Power:** 64 watts. Transformer is tapped for lower power outputs, reducing 3 db per step to 1 watt.

**Source:** Standard 70-volt amplifier output or distribution circuit.

**Load:** 4-ohm loudspeaker.

**Dimensions:** Approximately 4" wide, 3" long, 6" high, including terminals.

**Weight:** Approximately 8 pounds.

Power from 70-volt Line	Line Terminals	4-ohm Voice Coil Terminals	Input Impedance
64 watts	1-8	1-4	78 ohms
32 watts	1-9	1-4	156 ohms
16 watts	1-10	1-4	312 ohms
8 watts	1-11	1-4	625 ohms
4 watts	1-12	1-4	1,250 ohms
2 watts	1-12	1-3	2,500 ohms
1 watt	1-12	1-2	5,000 ohms

This transformer can be used in place of the 18A Autotransformer to match a 500-ohm amplifier output to lower impedance loads as follows:

Primary or Line Impedance	Secondary or Load Impedance		Connect Line to Terminals	Connect Load to Terminals
	Nominal	Range		
500	250 ohms	180 to 400 ohms	1-9	1-8
500	125 ohms	90 to 180 ohms	1-10	1-8
500	62 ohms	45 to 90 ohms	1-11	1-8
500	31 ohms	20 to 45 ohms	1-12	1-8
500	12 ohms	8 to 20 ohms	1-9	1-4
500	6 ohms	5 to 8-ohms	1-10	1-4
500	3 ohms	2 to 5 ohms	1-10	1-3
500	1.6 ohms	1 to 2 ohms	1-10	1-2
500	.8 ohm	.6 to 1 ohm	1-11	1-2
500	.4 ohm	.25 to .6 ohm	1-12	1-2