

PIONEER

MULTI-WAY SYSTEMS LEVEL CONTROL

AT-8A AT-16A

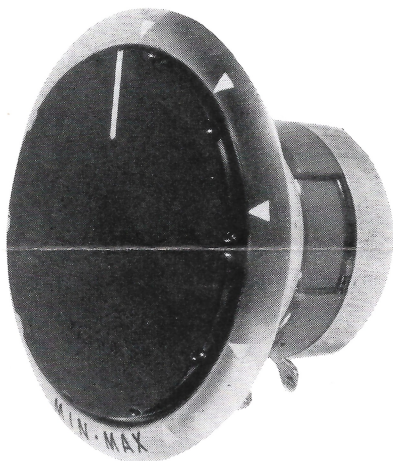
Today there is no longer any need to preach the virtues of multi-way speaker systems for high fidelity sound systems. What is apt to be overlooked is the fact that multi-way speaker systems need dividing networks which in turn brings up the need for attenuators to adjust the levels of the respective speaker units.

In the past, it has been customary to use ordinary or dual ganged rheostats to carry out this function. However, when ordinary potentiometers are used, the input impedance fluctuates when the level is changed, and this has very serious effects. On the other hand, the manufacture of proper attenuators that do not have this defect and that are capable of being used in conjunction with amplifiers with power outputs of twenty watts or more is very difficult, and moreover, such units are very costly, large in size, and in general not easy to handle.

PIONEER has now perfected a new type level control that has none of these inherent difficulties, a level control that is based on an entirely new conception in design. This level control is in addition a very highly versatile type, in that it can also be used for the adjustment of levels of individual slave speaker units used with public address systems.

SPECIFICATIONS

Model No.	AT-8A, AT-16A
Impadance	AT-8A.....8 ohms AT-16A.....16ohms
Mounting diameter	1 $\frac{3}{4}$ inch
Dimension	2 $\frac{9}{16}$ inch



USES FOR AT-8A & AT-16A LEVEL CONTROLS

1. Level adjustment of individual speaker units in high fidelity multi-way speaker systems.
2. Level adjustment of individual slave speaker units used with public address systems (in school, or in interphone systems).

FEATURES OF AT-8A & AT-16A

1. Extremely Low Input Impedance Fluctuation

Basically, these level controls are comprised of ganged linear taper rheostats. However, unlike ordinary potentiometers, they have a unique shape, and their impedance as measured from the input fluctuates very little ($\pm 17\%$). This means that it is possible to prevent to a very large extent mismatching of impedances that may arise as the level setting is changed.

PIONEER ELECTRONIC CORPORATION

2. Winding Inductance Nominal

Wire-wound rheostats are in effect inductances, and so at higher frequencies, the effect of their inductance becomes apparent. In this respect, however, special care has been extended in the windings of the AT-8A and AT-16A level controls so that the inductance is held to a very low order that has virtually no effect upon performance at higher frequencies.

3. Fine Adjustments Possible - Can Be Turned All The Way Down

Normally, attenuators of this type have mechanical rotation arcs of only 180° . However, the AT-8A and the AT-16A level controls have rotation arcs of 300° , which make possible very fine adjustments. In addition, unlike other level controls, it is possible to turn the volume down completely to zero.

4. Compact In Size Yet No Overheating

Unlike other speaker level control rheostats or attenuators, the AT-8A and AT-16A level controls are about the same in size as ordinary volume control

potentiometers. This means that they take up very little space. Despite their small size, however, there is no risk of their overheating or burning out even when used with high-powered amplifiers with outputs of twenty watts or more.

5. Handsome Appearance - Simple Mounting

A handsome escutcheon and control knob are provided with each level control, to be used when the control is mounted in position. A circular hole $1\frac{3}{4}$ " in diameter enables the control to be mounted in position.

USING THE AT8A & AT16A

Wiring is very simple. The level control should be wired into the speaker voice coil circuit as indicated in Figure 1. The numerals (1), (2), and (3) will be found stamped on the soldering lugs of the level controls.

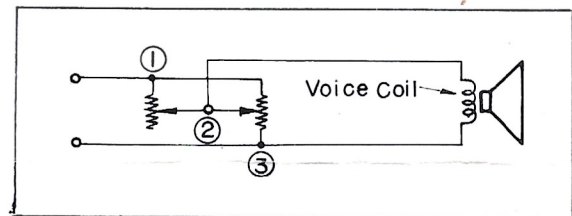


Figure 1