



## Tech Talk Application Note #7<sup>©</sup>

**Application:** Provide more reliable silence sensor operation and longer time delays if desired. This is an optional modification of the AES-302. This modification can be performed without voiding the warranty of the unit.

**Benefits:** Provides more reliable operation of the comparator used in the silence sensor of the AES-302 and provides a simple means to increase the time delay feature.

**How it Works:** Refer to the AES-302 main board schematic diagram contained in this application note. The modification calls for the replacement of U15 which originally was a 5532AN bipolar dual operational amplifier and a change of one resistor. This modification should be performed with the power removed from the unit.

1. Remove the top cover of the AES-302
2. Locate U15 which is near the right center of the board when viewed from the front of the unit. Carefully remove it and replace it with a DIP version of the TLO72 FET input dual operational amplifier which is available from BDI. Be sure to observe proper orientation of the IC.
3. This next step can be performed in one of two ways, locate R51 and either solder a 1.5 K ohm  $\frac{1}{4}$  watt, carbon film resistor across it in parallel or clip it out and replace it with a 1.3 K ohm  $\frac{1}{4}$  watt carbon film resistor. Either method will produce the same result which is to adjust the trigger voltage of U15B to 6.5 V.D.C.
4. Replace the cover and test the unit for proper silence sensor operation before returning it to service.

**Note:** With the replacement of both U15 and R51, the unit will have 60 second or 30 second time delays as originally specified. The operation of the silence sensor will be more reliable. If a longer set of time delays is desired, simply change U15 without changing R51. The time delays will now be up to 240 seconds and 120 seconds instead of 60 seconds and 30 seconds. Placing DIP switch S6-7 on will provide a silence sense delay of 240 seconds Placing both S6-7 and S6-8 on will produce a time delay of 120 seconds.

For any application feel free to call or email us for further information. Telephone – (914) 737-5032 or email us at [Techsupport@Broadcast-Devices.com](mailto:Techsupport@Broadcast-Devices.com)

