

## AR 312 ENVELOPE GENERATOR INITIAL TEST PROCEDURE

Your AR 312 Envelope Generator requires no trim or calibration. But, you should perform an initial test to ascertain that everything is functioning properly.

You may use either:

A DC coupled oscilloscope.

A voltage controlled device such as a VCO or VCA. (You will be listening to a change in the parameter being controlled by the Envelope Generator. i.e. pitch or volume)

In order to test the gate and trigger inputs, you will need a gate and trigger such as derived from the AR 313 Keyboard. If this is not available, the test can be performed at a latter time,

Proceed as follows

1. With the power supply off connect the +15V, -15V, and ground terminals of the Envelope Generator to the power supply. If a connector is not available for the board, you may connect clip leads as such:

+15volts to pin 3 of R 20

ground to pin 1 of R 20

solder a wire to the -15 volt terminal and connect there  
**CAUTION: DOUBLE CHECK THESE CONNECTIONS!** Reverse voltage applied, even momentarily, could destroy many components.

2. Connect the output of your Envelope Generator to the oscilloscope or voltage controlled device.
3. Turn Attack, Decay, and Release pot fully counter-clockwise and Sustain pot fully clockwise. Depress the Manual Gate switch and observe a square wave of ten volts at the output.
4. While depressing the Manual Gate switch turn the Sustain pot counter-clockwise. The output should drop as you turn the pot. Turn the pot back to ten. Depress the switch again. The output should be ten volts.
5. Turn the Sustain pot to 5. Turn the Attack pot clockwise and observe an increased Attack time when you depress the switch. Turn the pot back to 0. Depress the switch. Attack time should be very short.
6. Test the Decay in the same manner.
7. Test the Release in the same manner.
8. Apply an external Gate and Trigger to the input jacks on the front panel to initiate the Envelope Generator. Observe a waveform at the output.
9. Run a patch cord to one of the jacks labelled "Patch". Connect the other end to the Envelope Generator output. Check to see that the Envelope Generator output is now available at the other three jacks labelled "Patch".

The Envelope Generator is now ready for use. If any of the above tests did not respond as described, recheck your wiring and parts assembly.