

## ARIES AR-312 ENVELOPE GENERATOR (ADSR) MODULE

The Aries AR-312 module is the standard Aries Music envelope generator. It is engineered to provide maximum control capabilities at a minimum cost. Included within the module is a 4-jack "patch" or multiple, allowing a single output to be split and routed to 3 different inputs. The module has 4 outputs allowing this module to simultaneously and conveniently control 4 different modules.

The AR-312 Envelope Generator (ADSR) allows perfect control of the dynamics of your notes. Exact control over the Rise and Decay can be obtained to achieve the precise sounds you are looking for.

The Envelope Generator provides a control signal which is usually used to turn on the Voltage Controlled Amplifier (AR-316 VCA) or Voltage-Controlled Filter (AR-327 VCF). When connected to the keyboard Gate and Trigger it provides an output whenever a key is depressed. The 4 controls of the Envelope Generator: Attack / Decay / Sustain / Release allow for changing the dynamics of the note. For example: if the ADSR output is connected to the VCA output with some signal at the VCA Signal input (audio) then the output will rise from zero when a key or the ADSR Manual Trigger is depressed.

The rate of rise is set by the Attack control. It will then Decay (set by that control) until it reaches a level set by the Sustain control. When the key is released the signal will decay to zero at a rate determined by the Release control.

### FEATURES:

#### ADSR

- Attack Time - 2 mS to 4 sec
- Decay Time - 2 mS to 2 sec
- Sustain Level - 0 volts to 10 volts
- Release Time - 2 mS to 2 sec

#### Power Consumption

- 4mA at +15V
- 2mA at -15V

# ENVELOPE GENERATOR



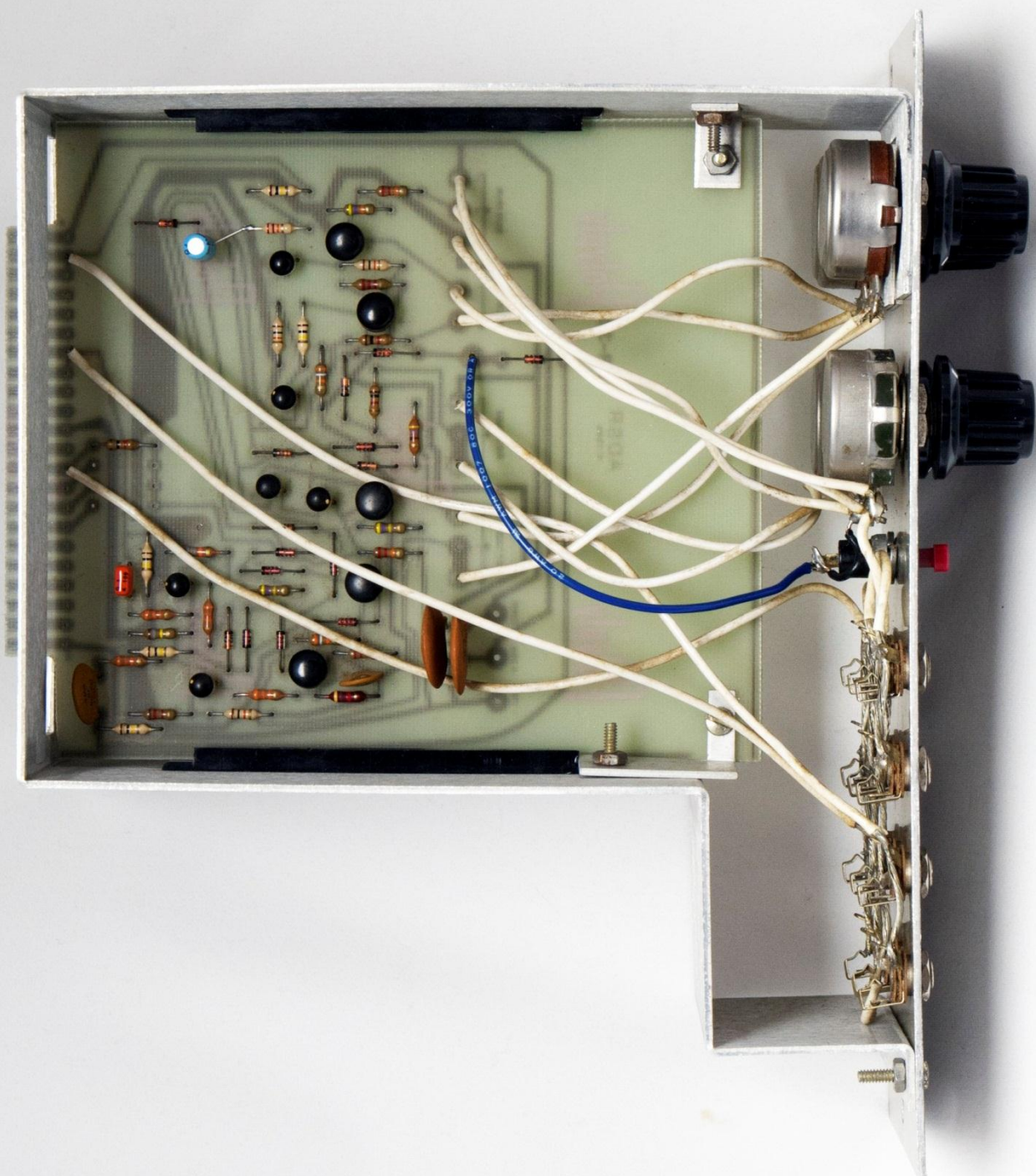
MANUAL GATE



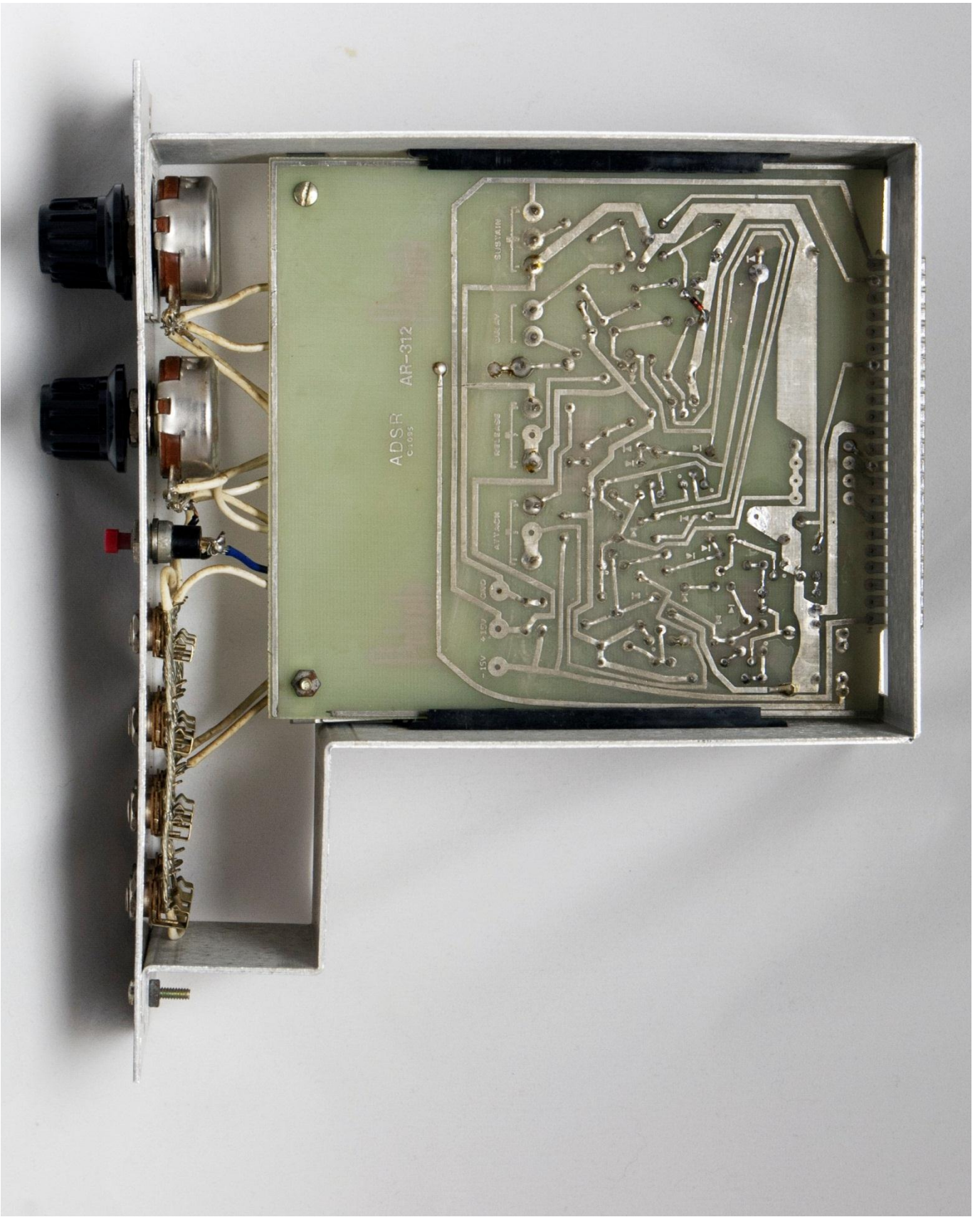
GATE

TRIGGER OUTPUTS

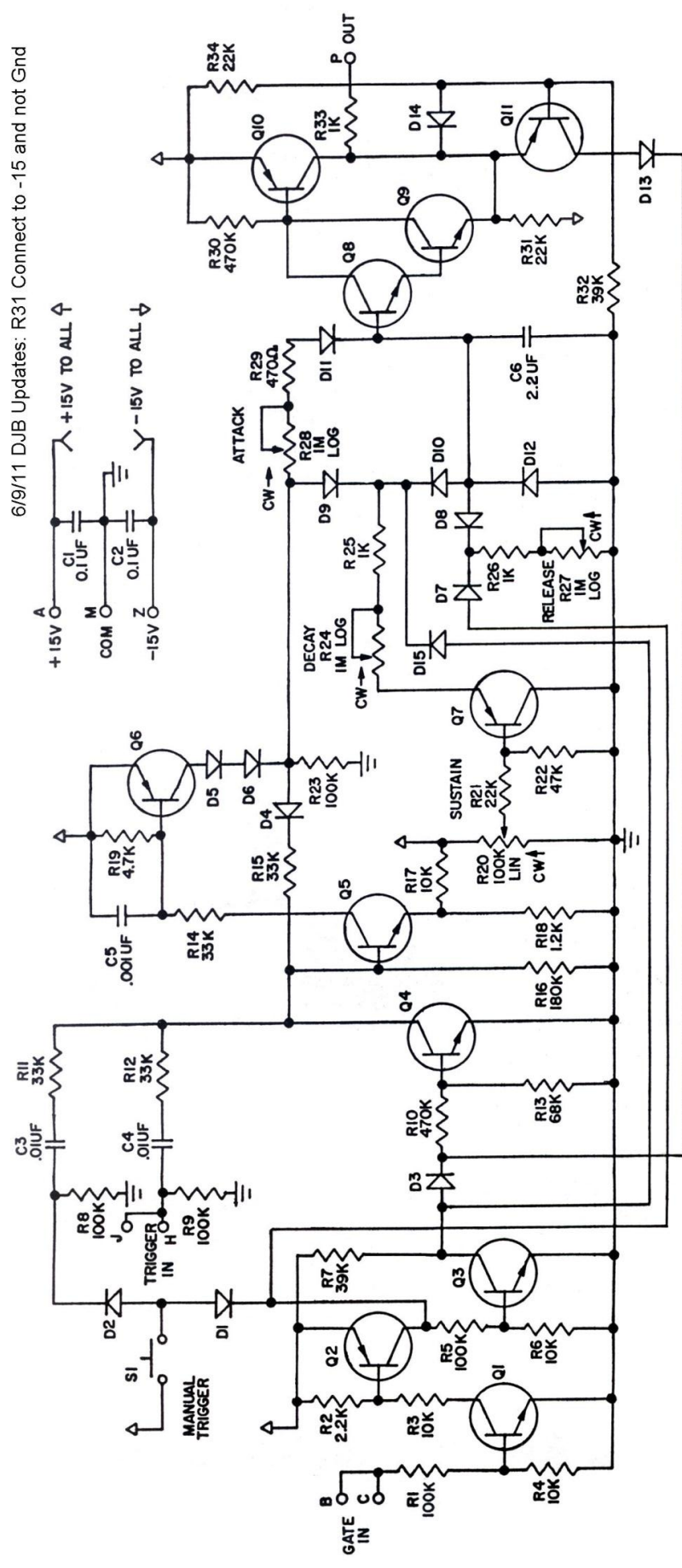
AR-312







6/9/11 DJB Updates: R31 Connect to -15V and not Gnd



HIGHEST REFERENCE DESIGNATION:

- C6 Q11 S1
- D5 R34

NOTE:  
 ALL DIODES ARE 1N4148.  
 ALL NPN TRANSISTORS ARE 2N3393.  
 ALL PNP TRANSISTORS ARE 2N3638.

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