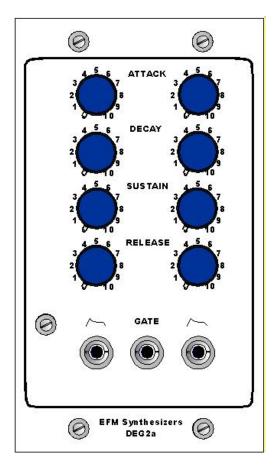
# EFM Synthesizers

#### DEG 2a - Dual ADSR



Dual ADSR Envelope generator. Features...

- Common Gate
- +/-12 or +/- 15V

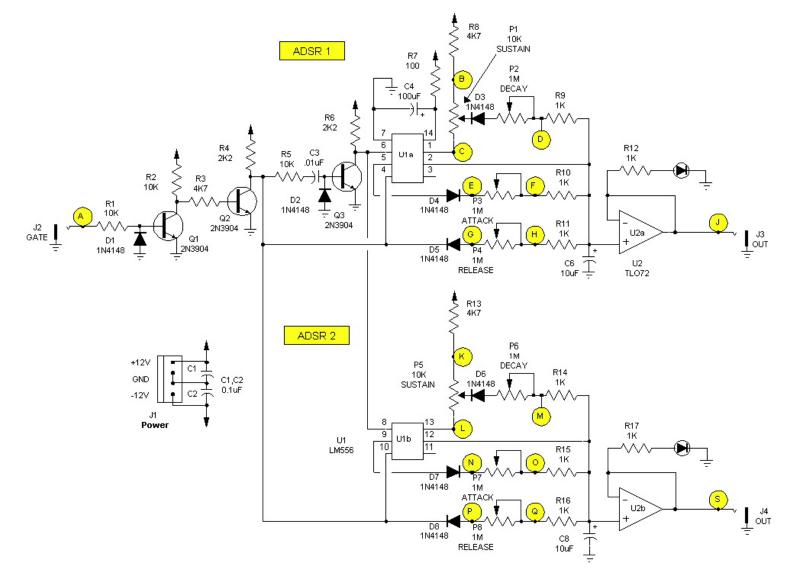
## Assembly

- Press the overlay on the panel blank
- Drill and clean the holes
- Remove the application tape and cutouts
- Mount the jacks, switches, pots ect... to the panel.
- Install the resistors
- Install the IC sockets
- · Install the capacitors
- Cut and solder header strip pins in pads used to connect wire to the board
- Plug the ICs into their sockets
- Mount the L-Brackets to the board with 440 screws and nuts, using the non threaded end of the bracket
- Mount the board to the panel with 440 screws using the threaded end of the bracket
- Wire the panel mounted parts to the header pins.

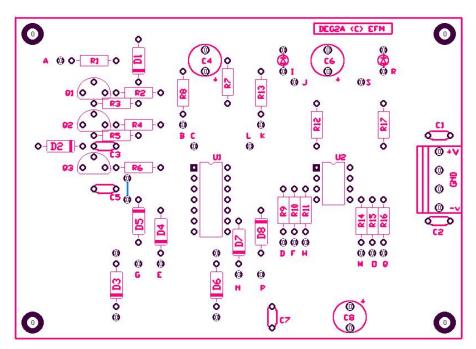
#### Notes

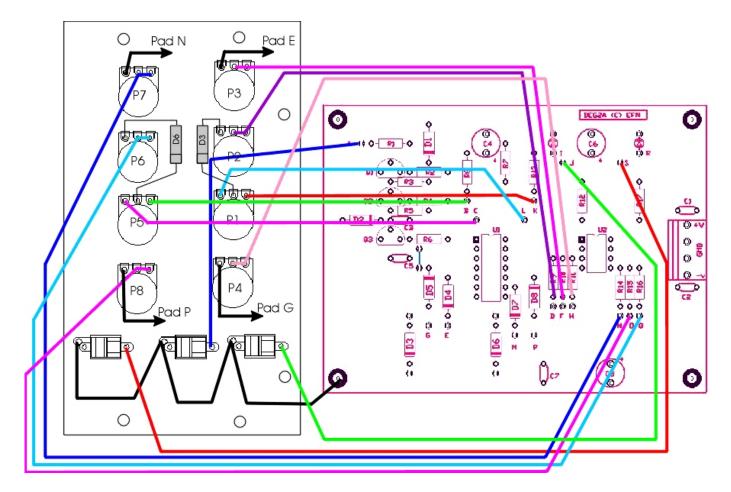
- $\bullet~$  D3 and D6 are mounted to the control pots. Do not install them on the pc-board.
- The LEDS are no longer used you can also omit R12 and R17.
- For faster envelopes change R9,10,11,14,15 and 16 from 1K to 100ohms. Change C6 and 8 from 10uF to 4.7uF

**Schematic** 



#### PC Board





## Small Parts Kit

C1,C2	0.1uF	2
C3,C5,C7	0.01uF	3
C4	100uF 25V	1
C6,C8	10uF 16V	2
R1,R2,R5	10K	3
R3,R8,R13	4.7K	3
R4,R6	2.2K	2
R7	100	1
R9-R12,R14-R17	1K	7
D1-D8	1N4148	8
Q1-Q3	2N3904	3
U1	LM556	1
U2	TLO72	1
PC-Board		1
Full Parts Kit		
P2, 3, 4, 6, 7, 8	1M	6
P1,5	10K	2
Knobs		8
Panel		1
8 pin		1
14 pin		1
J1	Power Connector	1
L-Bracket		2
J2, J3	1/8th	3