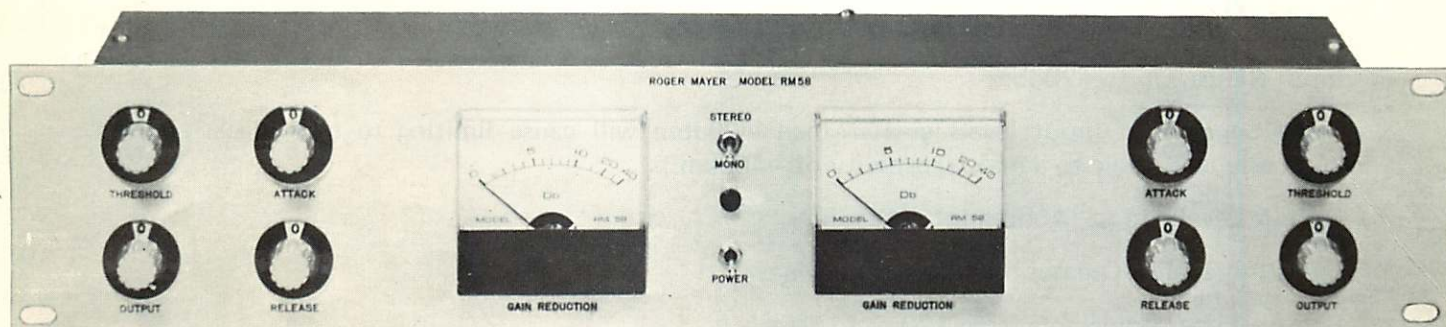


# R M



## RM 58 Stereo Limiter

The RM 58 Stereo Limiter is basically two separate limiters with very carefully matched characteristics mounting in a standard rack panel. The limiting action of one limiter can be coupled to the other by a mono/stereo switch. This mode of operation is useful in TV and Radio "Jingles" as one can make the background music fade down automatically when an announcement is being made. The limiters operate on the limiting action which is the greatest and this feature has been used to provide many unique effects.

The front panel has controls for THRESHOLD (input gain), OUTPUT LEVEL, RELEASE TIME, ATTACK TIME, MONO/STEREO switch, (This switch activates the coupling between the limiters) and a meter which will read the amount of GAIN REDUCTION in Db.

The RM 58 limiter features a very wide range of both attack and release times and can be adjusted to sound like the old faithful photo-cell limiters without the noise and hiss. The wide range of adjustment of these times opens up countless new recording techniques for the innovative engineer or producer. The input sensitivity is easily adjustable and thus the RM 58 can be successfully interfaced with any system.

The solid state electronics comprise of gold plated glass fiber boards which plug into MIL spec gold plated connectors. This systems greatly helps servicing and the use of only top quality components assures reliability and minimum "Down Time".

# Technical Specifications

**Input Range.** Up to +20dbm

**Input Sensitivity.** Input levels greater than -20dbm will cause limiting to take place. (This is internally adjustable to a max. sensitivity of -40dbm.)

**Output Level.** Up to +15dbm into 600 ohms.

**Input Impedance** Greater than 50K at all times.

**Release Time.** Adjustable from 120ms to 6secs.

**Attack Time.** Adjustable from 50us to 10ms.

**Distortion.** T.H.D. .5% at 40 db limiting action.

**Limiting Range.** 40db.

**Signal to Noise Ratio.** 80db.

**Dimensions.** Width 19" Height 3½" Depth 8".

**Shipping Weight.** 7 lbs.

**Finish.** Clear anodised front panel with black engraving.

**Power Requirements.** 120 volts 50/60Hz 20 watts  
240 model to order

**Price.** \$650 F.O.B. NY, N.Y.

Available from: —

# Roger Mayer

CONSULTING ELECTRONIC ENGINEER  
220 EAST 57TH STREET  
NEW YORK, N.Y. 10022  
PHONE 486-1544

## SPECIFICATIONS FOR RM 57 LIMITER

Input impedance is 50K ohms.

Output Impedance is 300 ohms

Output Level is adjustable to a max. of 10dbm

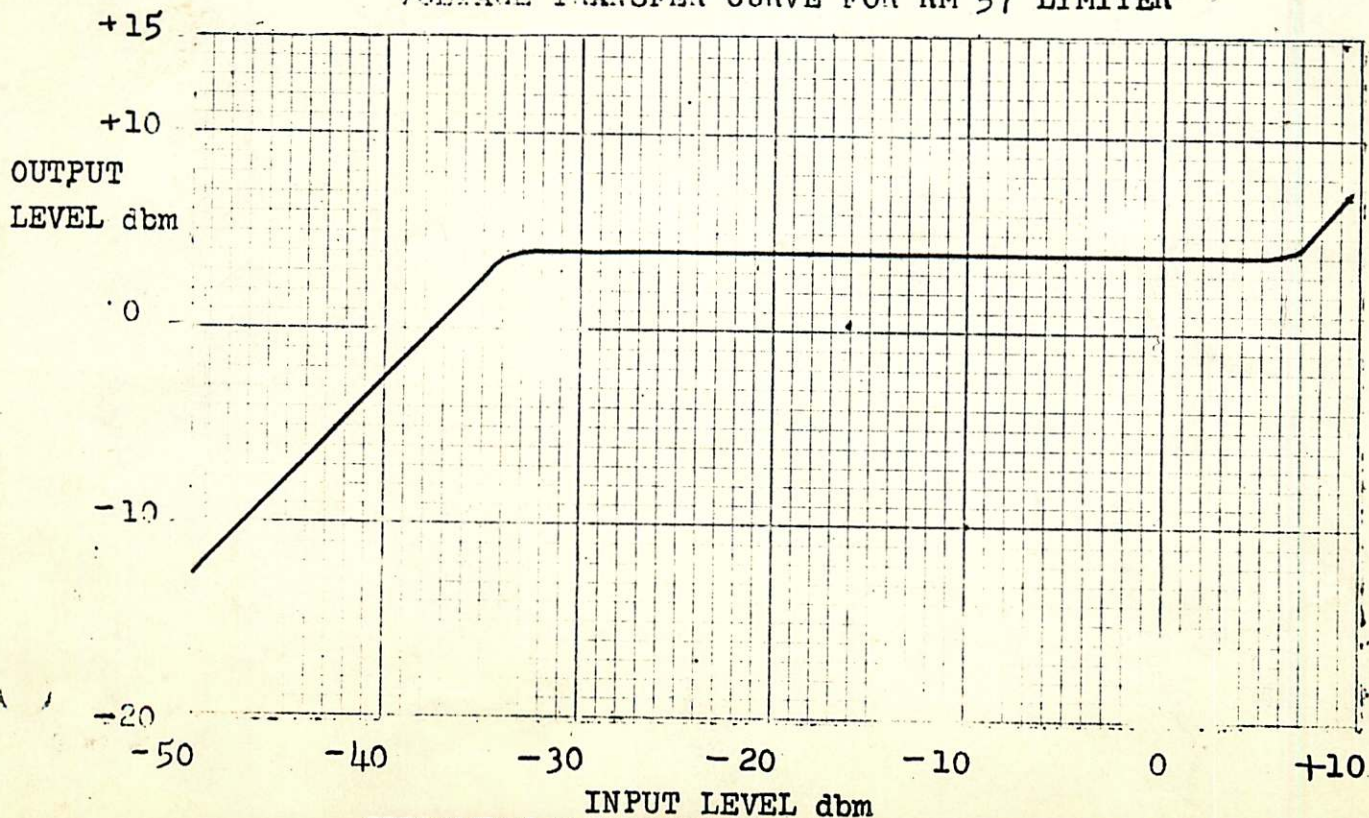
Input Level. With the threshold control in max. position the threshold of input to give a limiting action is -36dbm. However it will accept level to +10dbm.

Attack Time. The range of attack time is variable from the micro-sec region to about 15m/sec.

Release Time. This is normally set from about 100m/sec to 3sec.

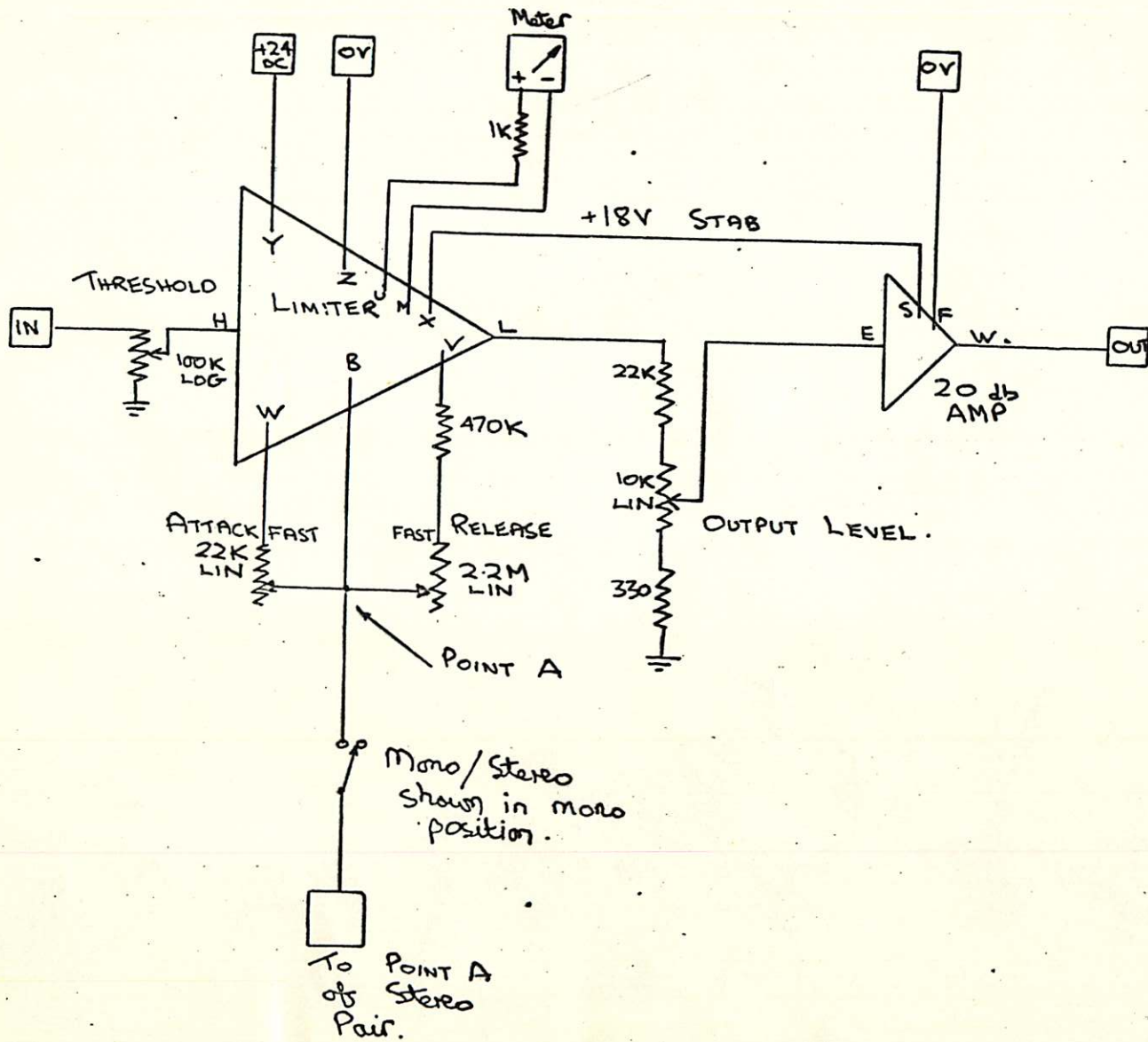
Noise Figure. This is measured at 6db, under limiting action of 20db.

VOLTAGE TRANSFER CURVE FOR RM 57 LIMITER



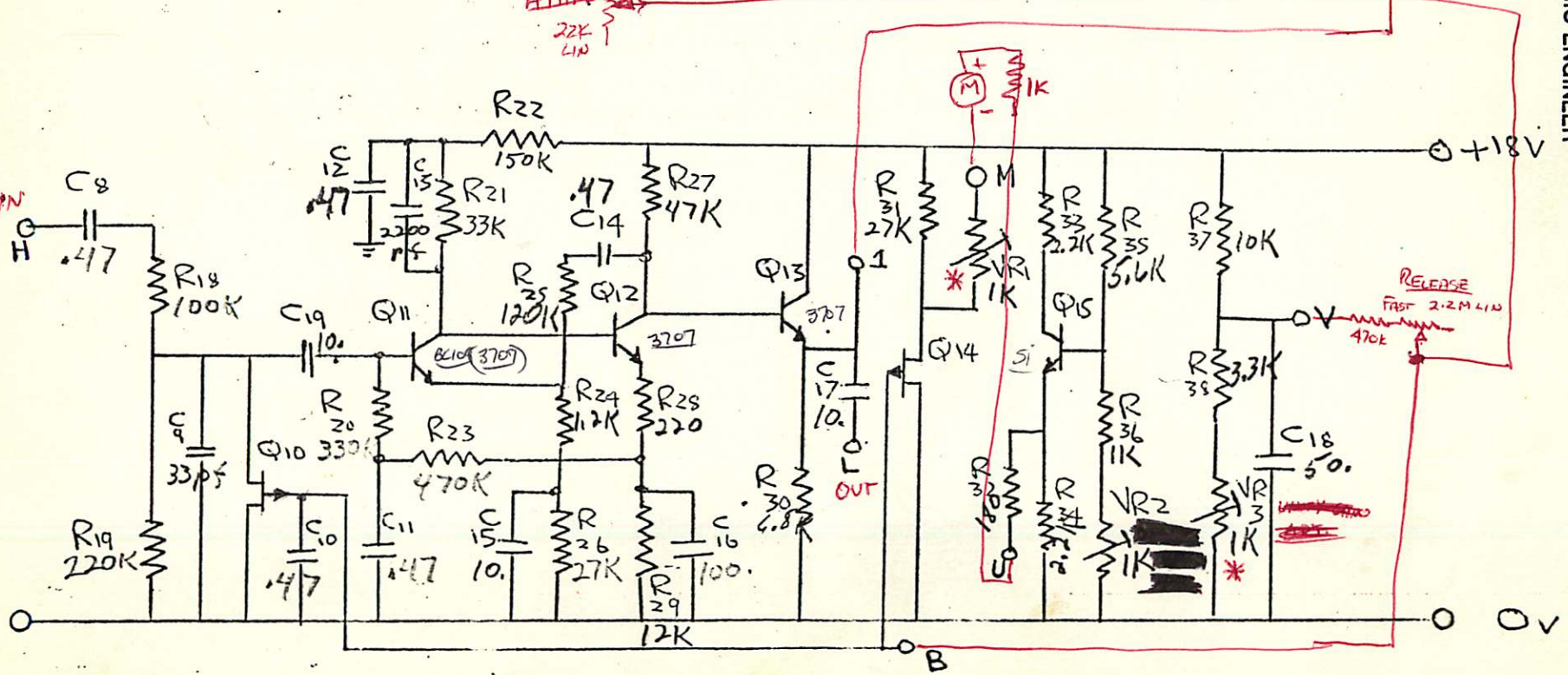
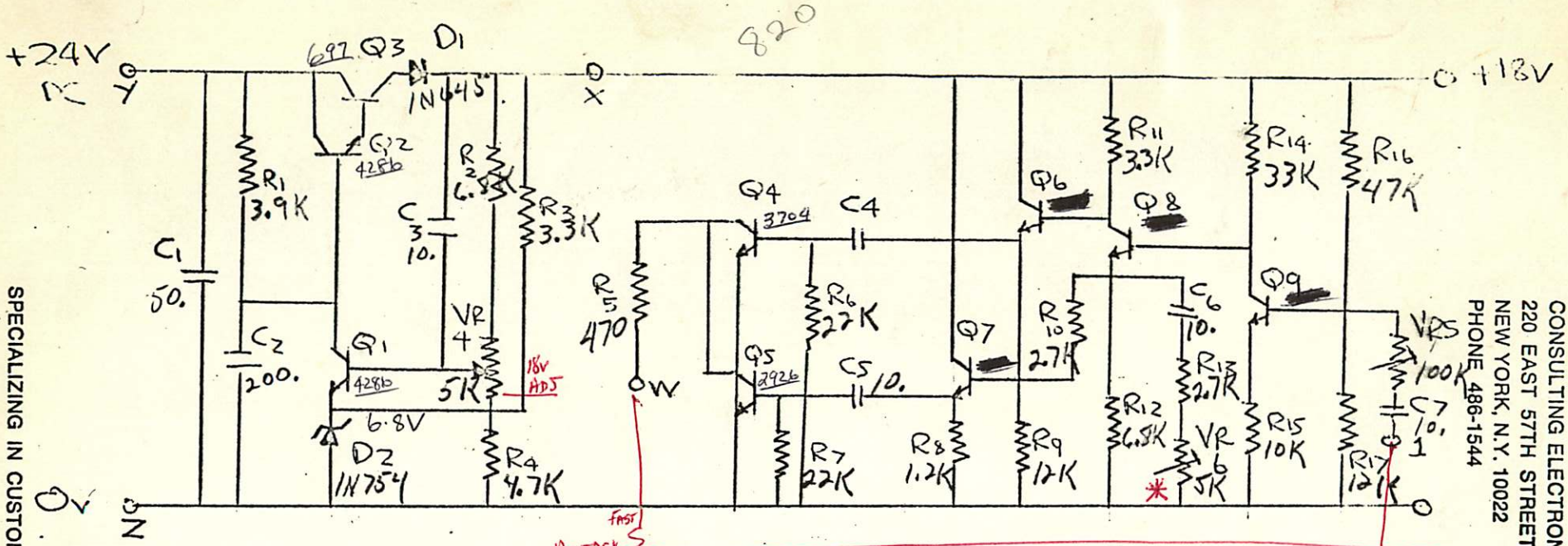
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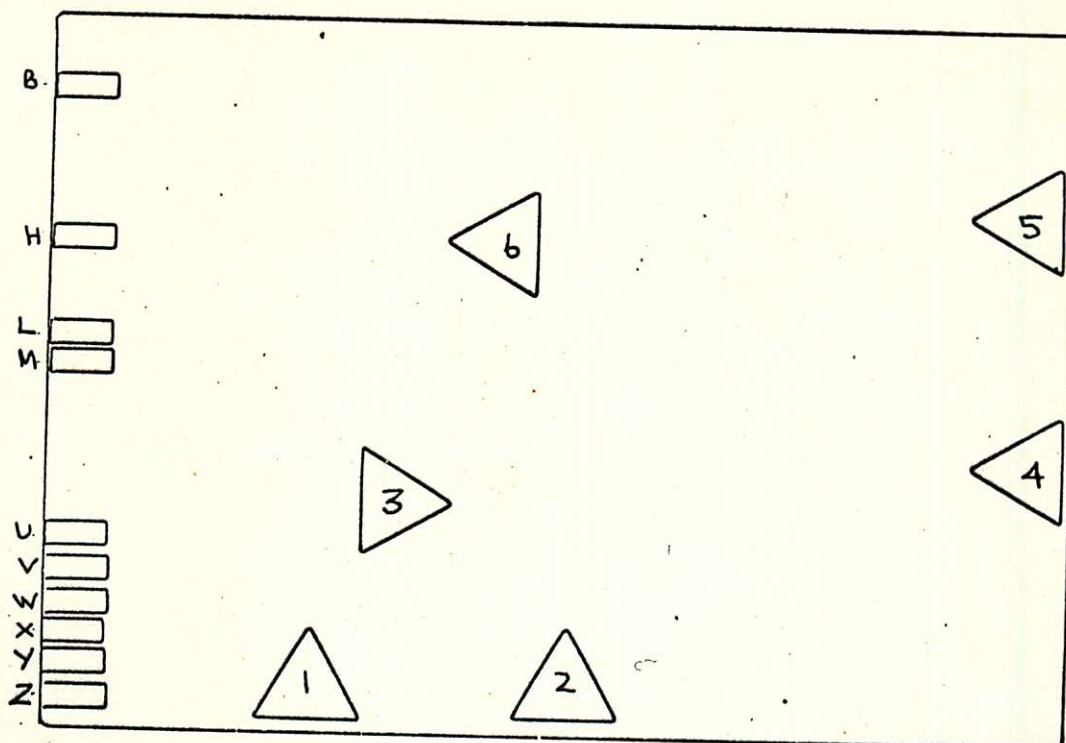
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SPECIALIZING IN CUSTOM BUILT AUDIO EQUIPMENT AND RECORDING STUDIO CONSOLES

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## LIMITER CARD PRESET POSITIONS & INSTRUCTIONS

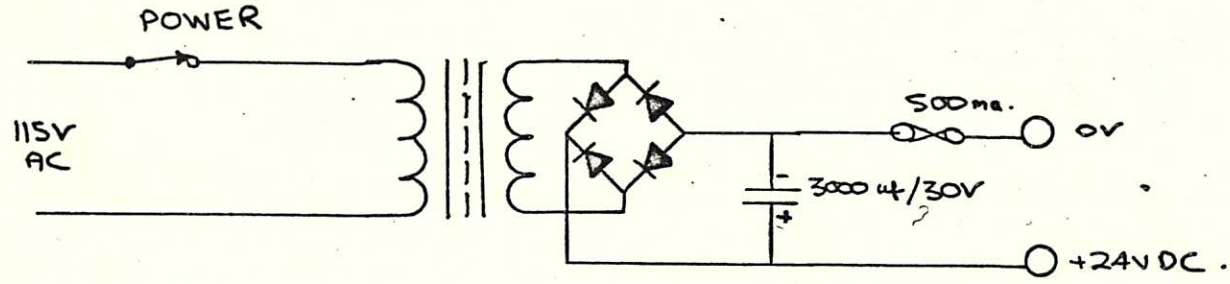
- #1 VR4 Adjust to give 18Volts DC at pin X.
- #2 VR6 Do not adjust factory set.
- #3 VR5 Adjust to give 0dbm at pin L with 0dbm being applied to pin H.
- #4 VR3 Do not adjust factory set.
- #5 VR2 Adjust so that meter reads zero when output has just reached threshold of limiting.
- #6 VR1 Do not adjust factory set.

### NOTE

When Attack and Release Potentiometers are at #10 position they are in the fastest mode ie. they present the least amount of resistance to their corresponding networks.

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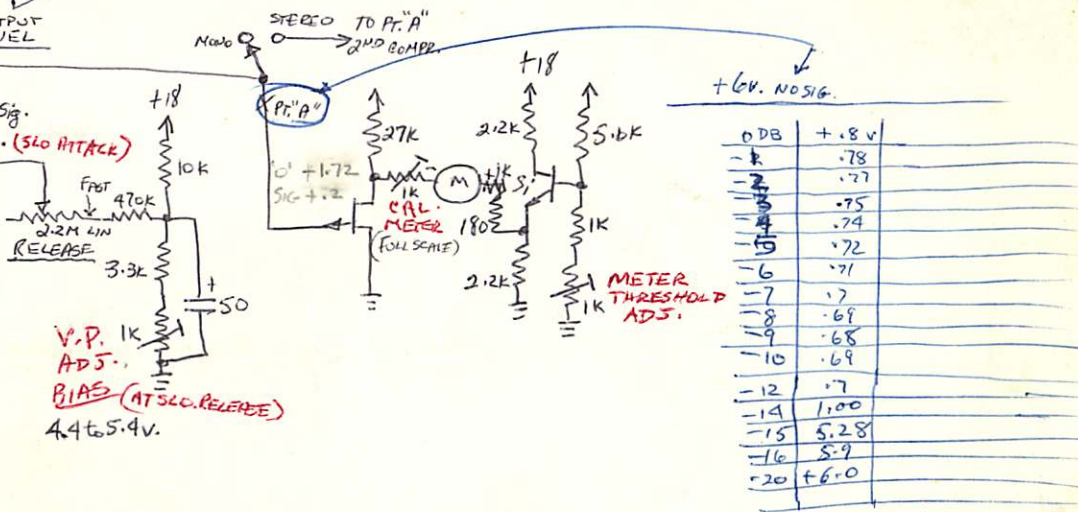
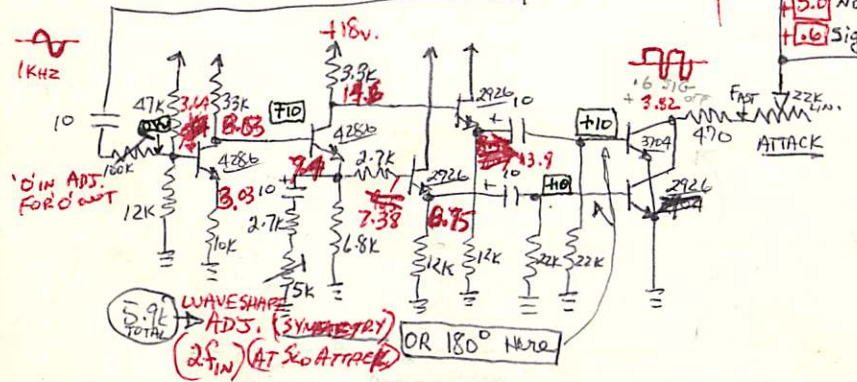
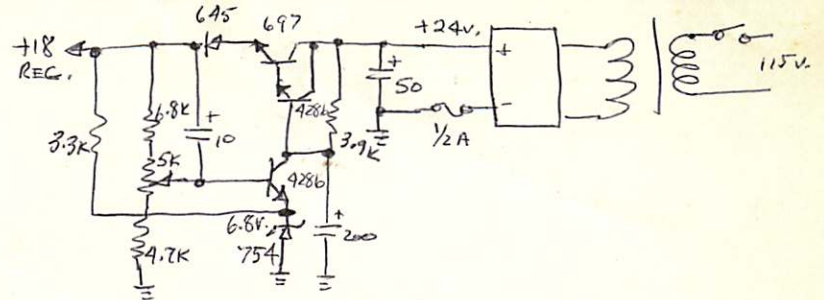
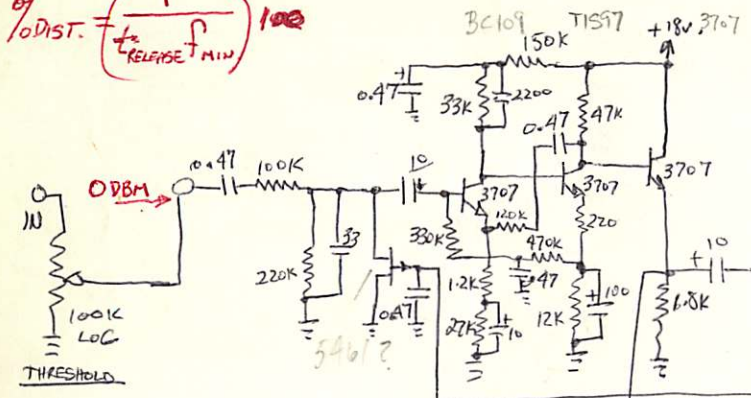
ROGER MAYER RM-57 LIMITER.

220 E57  
NY 10022  
486-1544

(AES DEC '69 p 680)

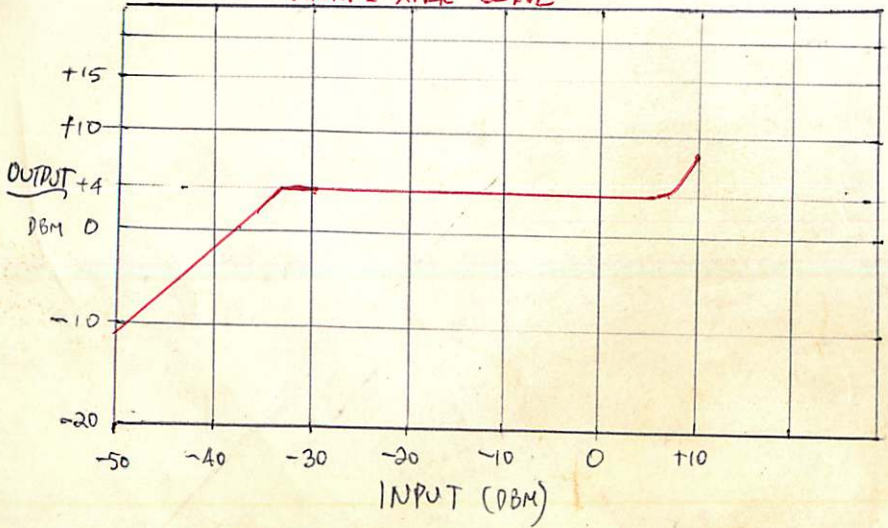
RELEASE TIME =  $\Delta t$   $t_{PEAK}$  to 37%  $t_{PEAK}$   
37% DECAY FROM INITIAL VALUE

$\% \text{DIST.} = \left( \frac{1}{t_{RELEASE} f_{MIN}} \right) 100$



0 DB	+0.8 v
-1	.78
-2	.77
-3	.75
-4	.74
-5	.72
-6	.71
-7	.7
-8	.69
-10	.68
-12	.67
-14	1.00
-15	5.28
-16	5.9
-20	6.0

VOLTAGE XFER CURVE



$Z_{IN} = 50K$   
 $Z_{OUT} = 300\Omega$   
 $E_{OUT} = +10DBM \text{ MAX.}$   
 $E_{IN} = w/ \text{THRESH. MAX. IS } -36DBM$   
 $E_{IN} \text{ MAX} = +10DBM$   
ATTACK TIME: VARIABLE FROM  $\mu S$  TO  $\approx 15MS$   
RELEASE TIME: " 100MS TO 3SEC.

