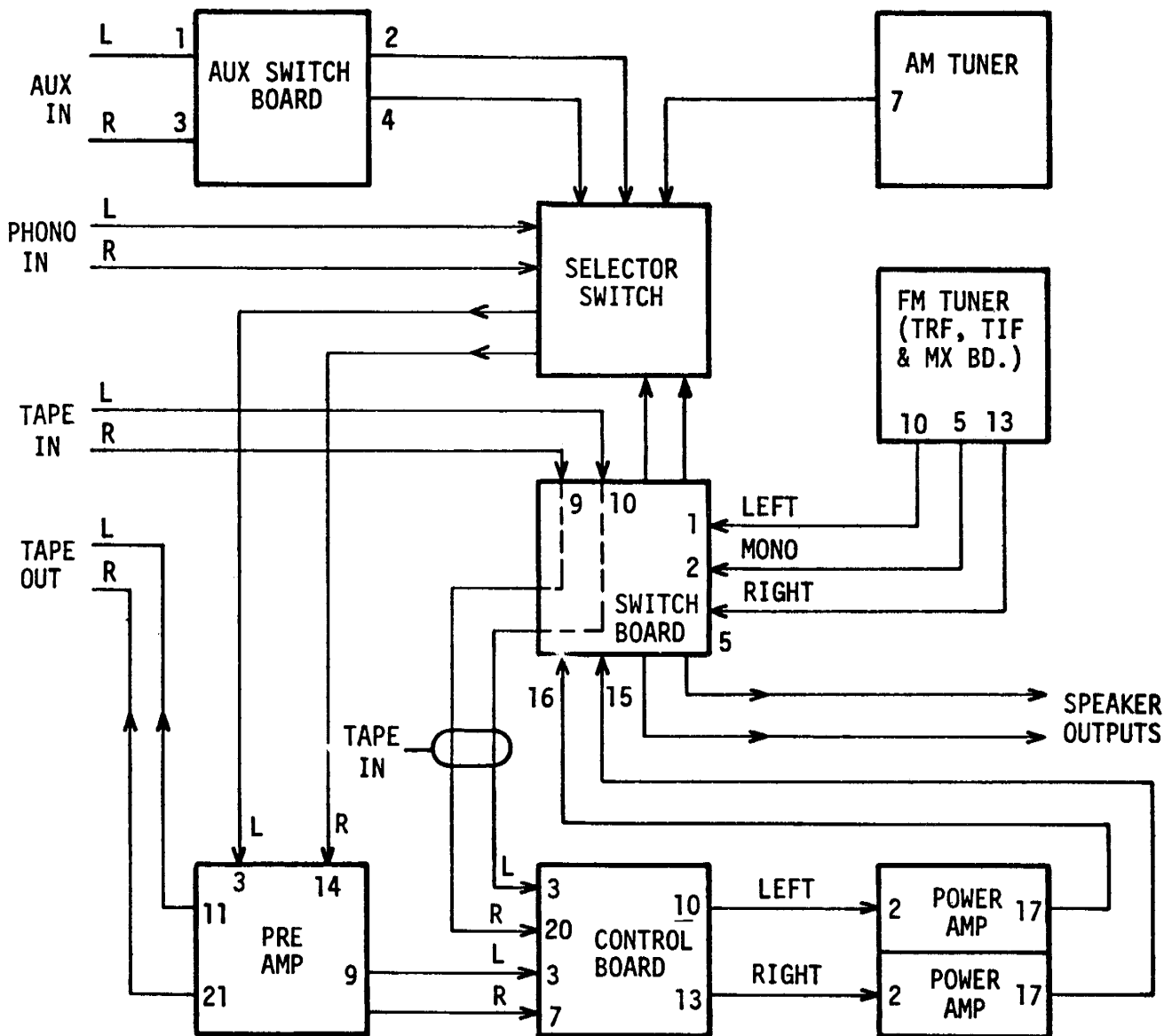


# KLH M27 RECEIVER

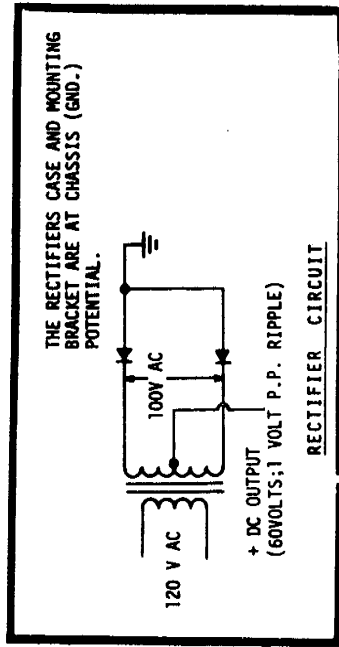
## CIRCUIT BOARD PICTORIALS

### BLOCK DIAGRAM



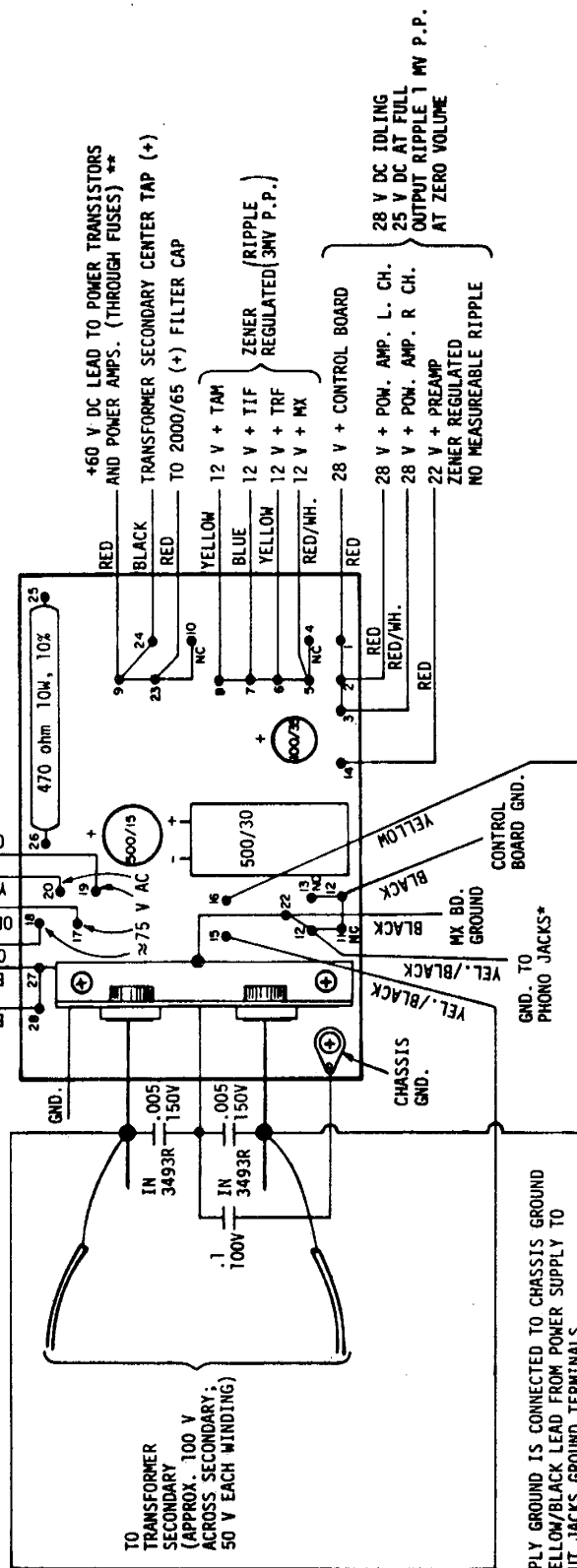
THIS SET CONTAINS PICTORIALS OF THE FOLLOWING BOARDS:

- |       |                    |              |
|-------|--------------------|--------------|
| TAM 2 | PREAMP BOARD       | POWER AMP    |
| TRF 4 | AUX. GAIN SWITCHED | POWER SUPPLY |
| TIF 3 | CONTROL BOARD      |              |
| MX 4  | SWITCH BOARD       |              |



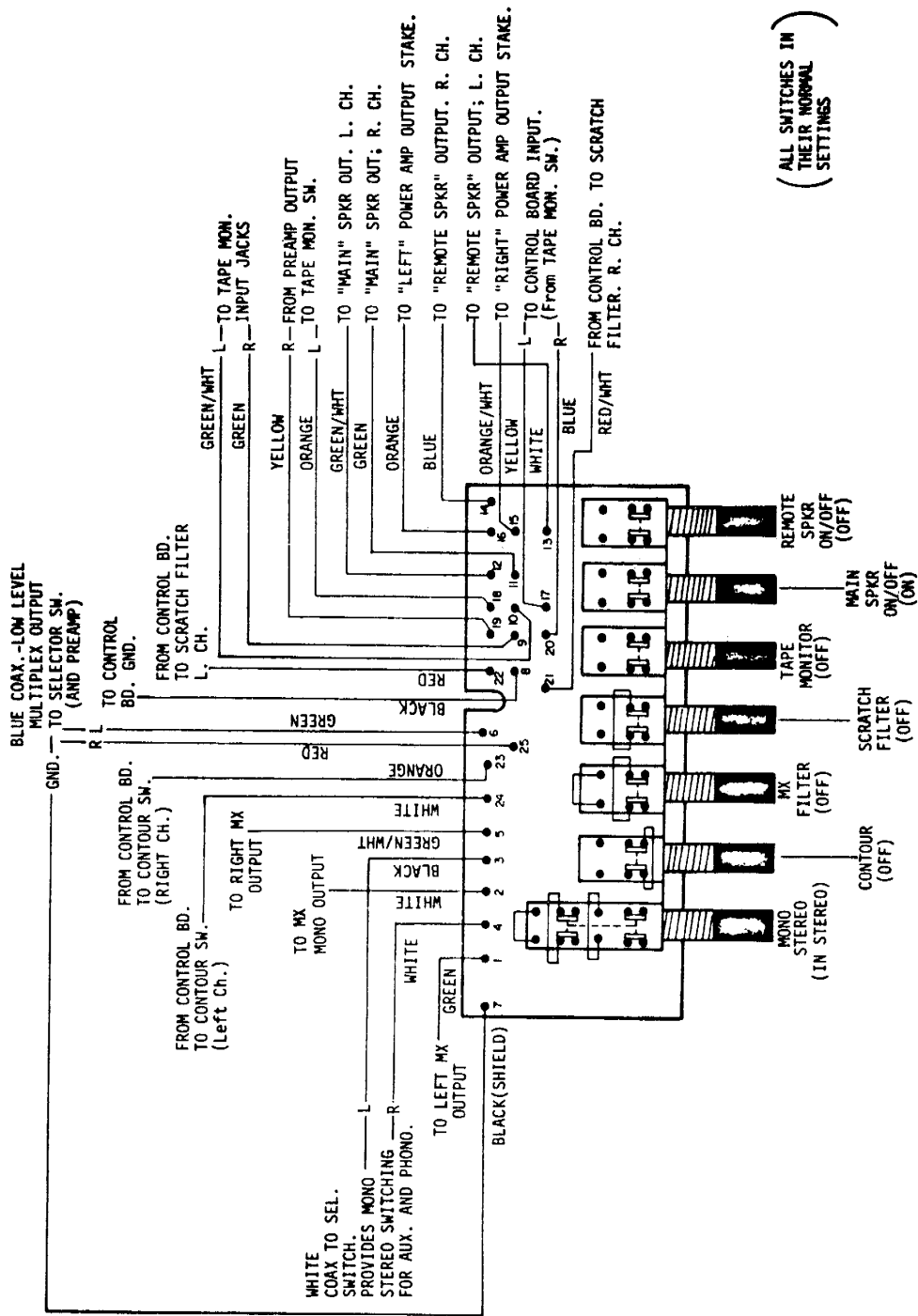
TO UNIT ON/OFF PILOT LIGHT  
 TO PILOT LIGHT BD.  
 TO SEL. SWITCH  
 TO POWER TRANSISTORS GROUND  
 TO GND, SIDE OF 2000/65 FILTER CAP C3

NOTE: ALL READINGS WITH 120 AC LINE, UNIT IDLING (0 VOLUME)



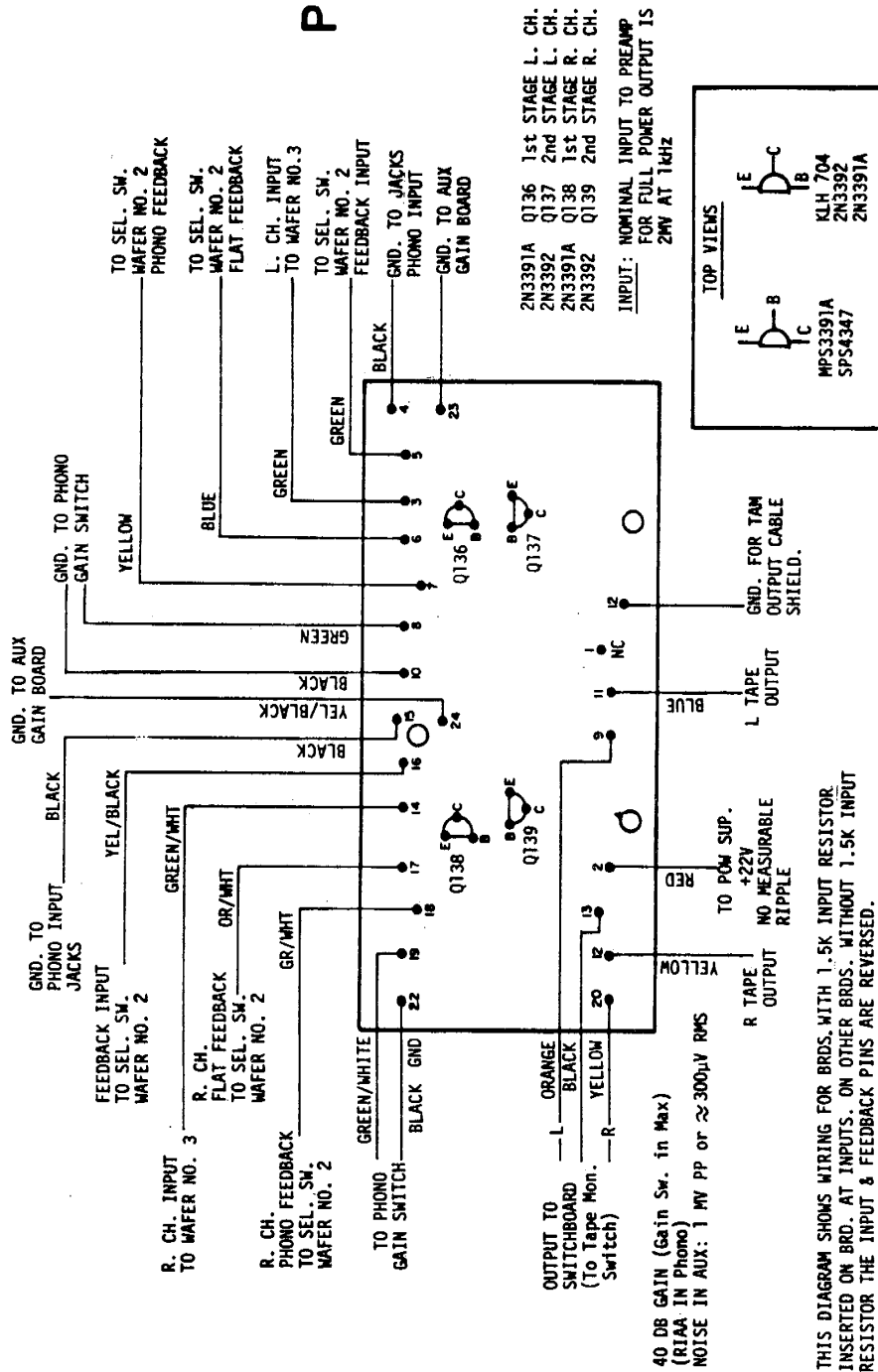
\* POWER SUPPLY GROUND IS CONNECTED TO CHASSIS GROUND BY LONG YELLOW/BLACK LEAD FROM POWER SUPPLY TO PHONO INPUT JACKS GROUND TERMINALS.

\*\* + 60 V DC RIPPLE 1 VOLT P.P.

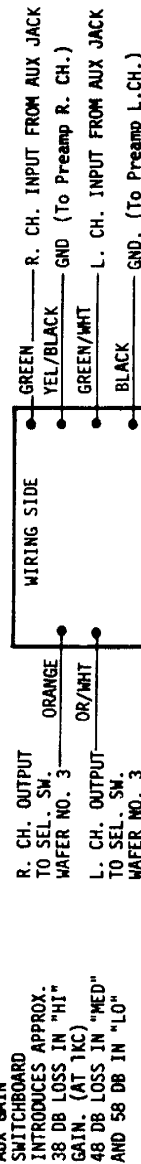


# SB-1 M27 SWITCH BOARD

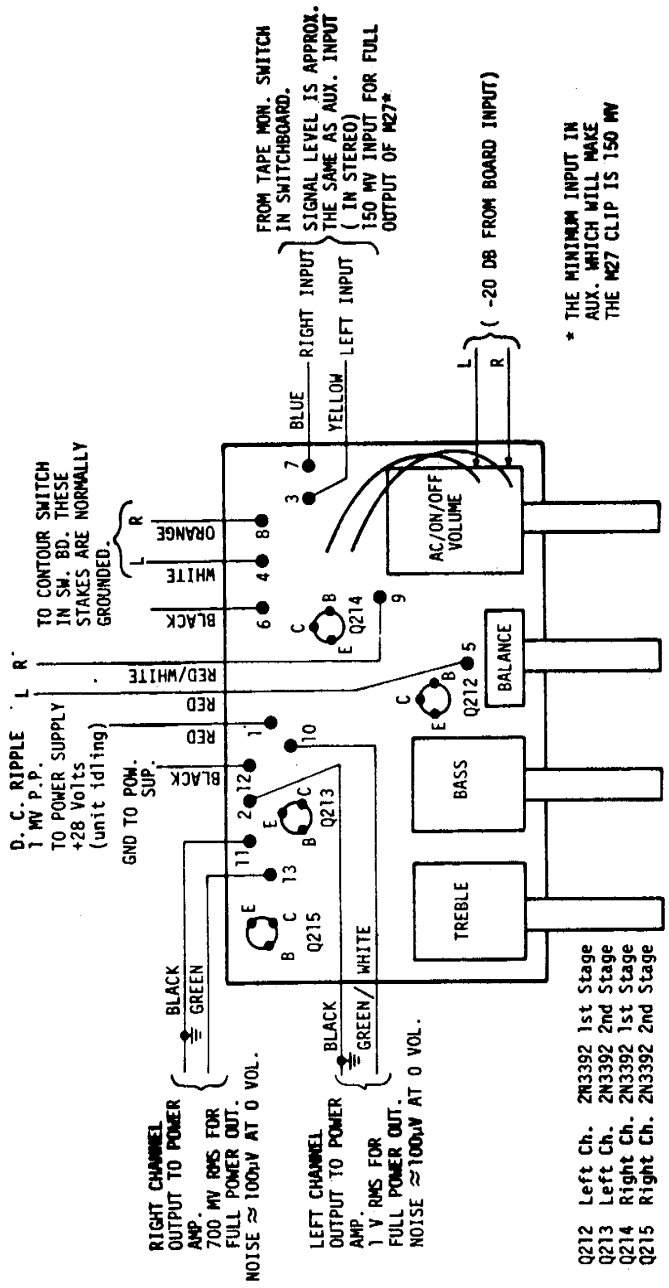
# PPB-3 PRE AMP



# AUX. GAIN

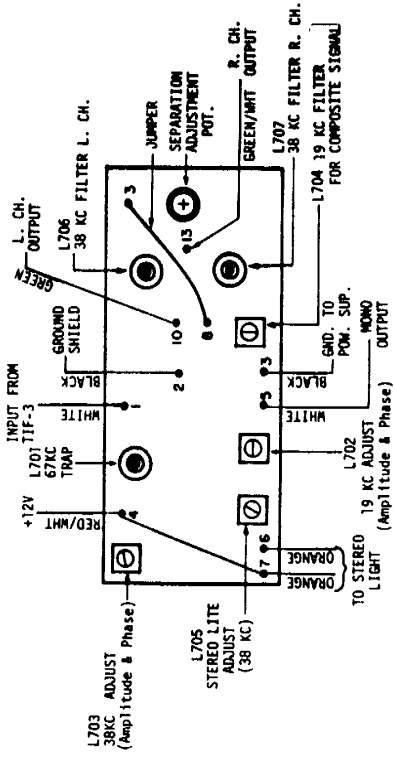


# M27 PREAMP AND M27 AUXILIARY GAIN SWITCHBOARD

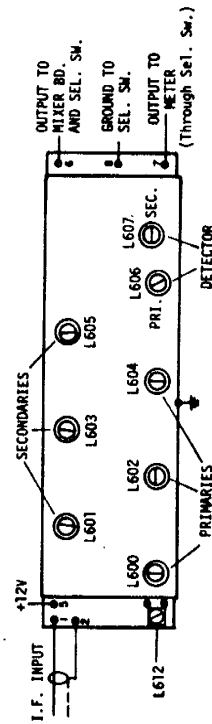
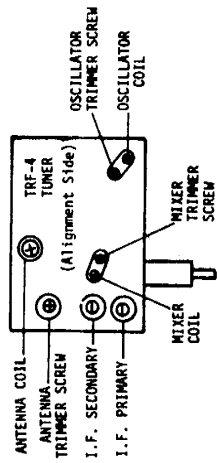
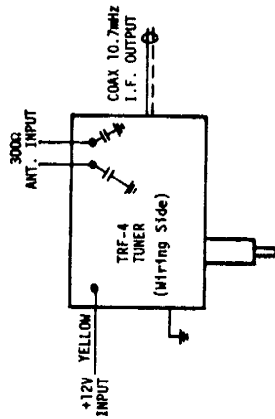


# TCB-2 M27 CONTROL BOARD

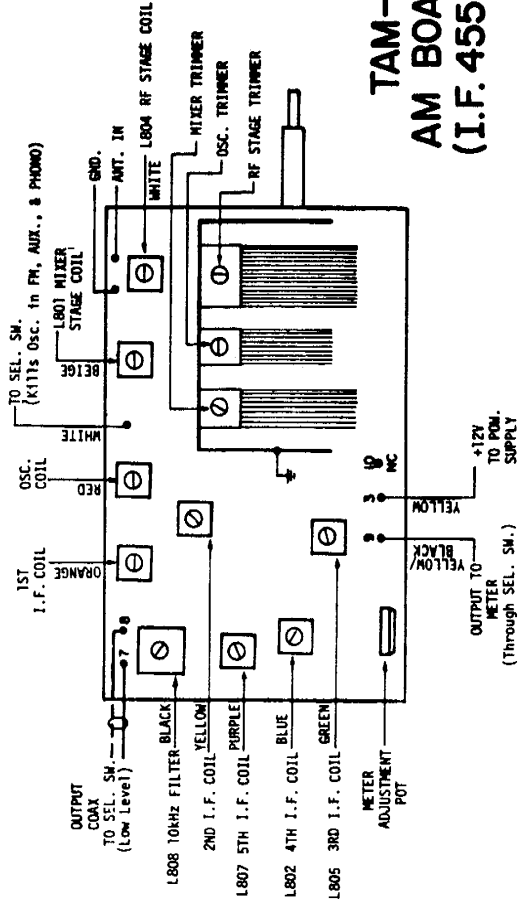
# MX-4 MULTIPLEX BOARD



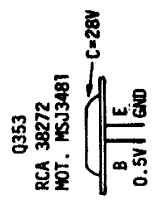
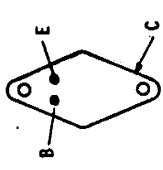
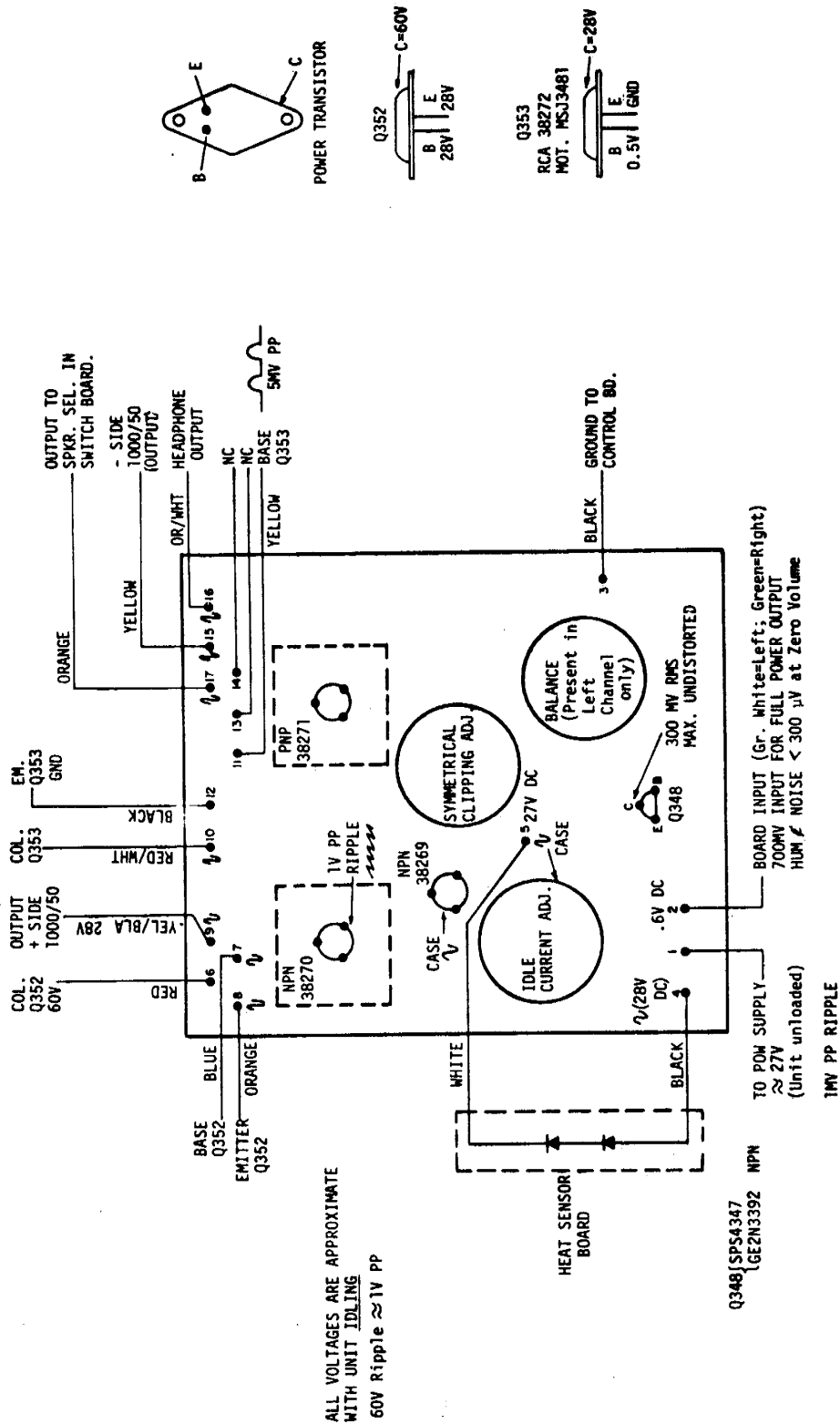
# TRF-4 TUNER



# TIF-3 (I.F.)



# M27 TUNER BOARDS



# PAB-5 M27 POWER AMP

ALL VOLTAGES ARE APPROXIMATE  
WITH UNIT IDLING  
60V Ripple ≈ 1V PP

BOARD INPUT (Gr. White=Left; Green=Right)  
700mV INPUT FOR FULL POWER OUTPUT  
HUM ≠ NOISE < 300 μV at Zero Volume  
1mV PP RIPPLE

Q348(SPS4347  
LGE2N3392 NPN

KLH RESEARCH AND DEVELOPMENT CORP.

MODEL TWENTY-SEVEN TEST

PRELIMINARY SET-UP PROCEDURE

Connect an 8 ohm, 50 watt load resistor across each channel speaker output.

Adjust line voltage through variac for 117 volts RMS.

Monitor the outputs with the scope and an ACVTVM.

Set controls as follows:

Volume: Minimum with power on

Balance, Bass and Treble: To 12 O'clock position.

Push button Switches: Not depressed

Rear Panel, Phono & Auxiliary Switches: To "high gain" position.

Selector: In auxiliary position.

SYMMETRICAL CLIPPING ADJUSTMENT

Apply 150 mv RMS at 1 kHz to the auxiliary inputs both channels.

Advance the volume pot until the output signal begins to clip.

Adjust R308 on the appropriate power amp board until clipping is symmetrical

(The left channel has three pots.)

Return volume pot to minimum.

IDLE CURRENT ADJUSTMENT

Be sure volume pot is set for minimum.

Carefully connect a DC millivoltmeter across the .51 ohm 2 watt resistor on the power amp board.

Adjust the idle adjust pot R311 for a reading of 15 mv on the DC millivoltmeter.

Do the same for the other channel.

Remove the millivoltmeter.

CHANNEL BALANCE

Be sure the balance control is set for the 12 o'clock position.

Monitor the right channel on the ACVTVM.

Advance the volume pot until an output of 1 volt is seen on the ACVTVM.

Switch the monitor to the left channel.

Adjust the level balance pot R320 on the left power amp board, so that the left channel output is also exactly 1 volt, as seen on the ACVTVM.