

CATALOG NUMBERS OF INTEREST

OCTAL BAKELITE SADDLE SOCKETS AMPHENOL # 168-001  
 4 PRONG BAKELITE SOCKETS " 78-54  
 6 PRONG CERAMIC SOCKETS " 49-556  
 7 PRONG LARGE CERAMIC SOCKETS " 49-557L

2.5 mH RFC

BUD CH 920-W OR EQUIV.

10 mH RFC

BUD CH-1216

CERAMIC PLATE CAP (3/8") FOR 1625

{ NATIONAL SPP-3  
 { MILLEN 36002

MERT TV-163 HORIZ SYNC COILS

150  $\mu$ f 1500 V MICA

SANGAMO K-3315

500  $\mu$ f 2000 V MICA

SANGAMO C-4350

{ RADIO-MASTER } FOR OTHER CAPACITY VALUES NEAR THIS, SEE PAGE P-95

.002  $\mu$ f 1000 V MICA

SANGAMO C-2220

YOU WILL NEED MORE WIRE, SOME HARDWARE,  
 THIS IS YOUR HEADACHE. REORDER BELDEN  
 HOOKUP WIRE AND SOME SORT OF CABLE FOR INTER-  
 CONNECTING UNITS. USE COMMON SENSE IN  
 ORDERING QUANTITIES - USE ROUND NUMBERS  
 IF CHEAPER; DON'T SKIMP ON MERT COILS,  
 YOU KNOW HOW ANY EXPERIMENTING CHEWS UP  
 THE SUPPLY. HAPPY Q METERING !

JS



# PARTS LIST - TRANSMITTER FINALS

To BUILD 15 UNITS :

PART

NEED

HAVE

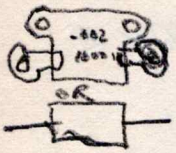
OBTAIN

DESCRIPTION	NEED	HAVE	OBTAIN
15 x 13 x 3 ALUMINUM CHASSIS	15	0	15
5 x 13 ALUMINUM BOTTOM PLATES	15	1	14
OCTAL BAKELITE SOCKET, SADDLE TYPE w/END LUGS	15	0	15
4 PRONG BAKELITE SOCKET AMPH 78-54	15	0	15
6 PRONG CERAMIC SOCKET	15	0	15
7 PRONG LARGE CERAMIC SOCKET	15	0	15
MERIT COILS TV 163 (THESE ARE SLUG TUNED)	15	0	15
10 Ω 10 WATT RES	15	12	3
1000 Ω 1/2 W RES	15	0	15
470 K 1/2 W "	45	10	35
100 Ω 1/2 W	15	0	15
12 K 1/2 W	15	0	15
33 K, 2W RES	15	0	15
25 mf MICA 500V	15	15	0
56 mf MICA 500V	15	0	15
2.5 mh RF CHOKER	30	0	30
⑦ 10 mh 125 mA RF CHOKER	15	0	15
1500 mf MICA 500 V (SANGAMO TYPE K)	15	0	15
⑥ 700 uuf MICA, 1200 + 2000 VDC	30	0	30
500 uuf MICA, 1000 V	15	8	7
① .002 mf MICA, 1200 V	15	0	15
② .005 mf MICA, 500 V	45	0	45
③ .01 mf 500 V	15	15	0
④ 320 mf VARIABLE CAPACITOR	15	0	15
⑤ (SEE*) 500 uuf 1200-2000 V	15	0	15
⑤ TANK COILS	15	0	15
1 CERAMIC PLATE CAPS FOR 1625'S	15	0	15
19 DIN CABLE PLUG [SALVAGE NINE FROM EARL-5'S, WITH CABLE]	15	15	0
16 TERMINAL TIE LUG STRIP	30	25	5
COAX CONNECTOR, CHASSIS (NMR FROM EARL'S)	15	15	0
MISCELLANEOUS TIE LUGS, DEPENDING ON CAPACITORS USED (SEE NOTES)			

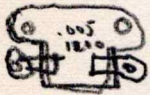


NOTES ON TRANSMITTER FINALS LIST:

- ① SEVERAL OF THESE CAN BE OBTAINED FROM THE ARC-5'S, REST PROBABLY FROM E.E. DEPT. IF YOU WANT, YOU CAN USE SANGAMO TYPE "C" TV MILAS FOR ALL 15, COST 95¢ EACH LIST



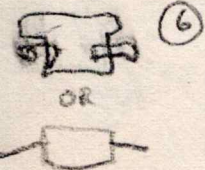
- ② THESE ARE THE ONES WE USE FOR COUPLING TO THE POWER LINES, ALSO. WE HAVE 12 OF THEM BUT SHOULD KEEP THEM FOR COUPLING. THE E.E. DEPT. PROBABLY WILL GIVE US 15; WE GOT THE ONES WE HAVE FROM THEM



- ③ THE FUNCTION OF THESE THREE CAPACITORS IN EACH TRANSMITTER IS BEING SERVED BY A 3x .05  $\mu$ f ROUND BATHTUB. ANY CAPACITANCE DOWN TO .01  $\mu$ f IS GOOD HARD, HOWEVER. USE ANY GOOD SINGLE OR MULTI-SECTION BATHTUBS YOU CAN SCROUNGE UP, OR USE CERAMICS, 500 OR 600 VDC.

- ④ IF YOU WANT TO SAVE MONEY, TRY TO RESCUE AS MANY OF THESE AS YOU CAN FROM THE OLD, OLD, TRANSMITTERS. OTHERWISE, AND FOR THE REST, USE HAMMARLUND MC-140-S

- ⑤ TANK COILS FROM OLD TRANSMITTERS. YOU MAY JUST HAVE ENOUGH. IF NOT, GOOD LUCK IN WINDING MORE TO SAME L AND SIMILAR Q. TRIAL AND MANY ERRORS, HELP IF Q-METER



- ⑥ E.E. DEPT MAY HAVE ENOUGH TO SPARE, PROBABLY BEST BET, THOUGH, IS TO GET SANGAMO TYPE C ALL AROUND. VALUE NEEDED FOR TANK TUNING MAY BE DIFFERENT IF NEW HAMMARLUND CAPACITORS ARE USED, SO CHECK THIS \*SEE OVER

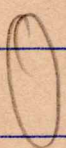
- ⑦ SOME OF THESE MAY BE IN JUNK BOX, BUT I DON'T RECOMMEND IT



\* ORIGINAL CAP. USED WAS 500  $\mu\text{f}$ , BUT EXPERIMENT  
SHOWED THAT 700  $\mu\text{f}$  1200-2000 V WAS NEEDED.  $\Gamma$   
ORIGINALLY EACH XMTR USED 2 EA. 500  $\mu\text{f}$  CAPS. BUT  
WITH THIS CHANGE 1 EA 700  $\mu\text{f}$  AND 1 EA 500  $\mu\text{f}$  ARE  
NEEDED.



# Power Supplies

		obtain	
Chassis 10x12x3		3	
bottom plate 10x12		3	
10 of 600v oil capacitors		6	
<del>two</del> Octal socket, ceramic		3	
Octal sockets, bakelite		3	
3000 $\Omega$ / 10w		3	
6 pin connector socket	 X	3	
9 pin connector socket	X	3	
3 prong male chassis plug, AC	X	3	
3 AG fuse post, panel mount		3	
3 prong female cord connector	X	3	
AC mole plugs		3	
Choke Thoradson T46164		3	
filter capacitors Solar XLMW 6-10		6	
<del>10 mf 600 WVDC</del>			
transformer <i>Possibly</i> CST PC2 105		3	



# Signal Strength meter Parts list

<del>Cabinet</del> Cabinet - Inradline 3906 $7\frac{5}{16} \times 4\frac{1}{2} \times 4\frac{1}{4}$	1
6SJ7	1
Mint TV-163	1
1500 uuf	1
.001 uf 4 pcs	4
<del>.001 uf</del>	
.01 uf	1
20 uf	1
2.5 mh choke 125 ma	1
6 C4 7 pin miniature	1
1000 $\Omega$ $\frac{1}{2}$	1
$\frac{1}{2}$ meg <del>1/2</del> linear pot	1
500 $\Omega$ $\frac{1}{2}$	1
5000 $\Omega$ $\frac{1}{2}$	1
1N64 Crystal diode	2
Neon indicator light Portlite #105 Drake mfg	1
Tube socket octal bakelite Amphenol 168-001	
7 pin miniature tube socket Amphenol	1
7 pin cable socket & plug Amphenol	3
6 pin cable socket & plug	3
3 AG fuse post panel mount	3



for 1 ea <u>Multiplier</u>	obtain	have	Price
Chassis 13 X 3 X 2 1/2 Insuline Corp #29100	3		
Octal bakelite sockets (saddle type with gnd lugs) AMPHENOL 168-001	15		
merit coils TV-163	11	1	
Coax plug Tenna XL-259 (Packed in lots of 50)	3		.88
300 $\Omega$ 1/2 watt res	3		
27 K 1/2 watt	none	7	
100 K 1/2	5	13	
220 $\Omega$ 1/2	10	6	
1000 $\Omega$ 1/2	25	4	
6800 $\Omega$ 1/2	none	4	
100 $\Omega$ 1/2	none	8	
OK			
.01 uf .150V ceramic	none	3	
220 uf mica	6		
1500 uf "	3		
360 uf mica	3		
120 uf "	30		
.01 uf 500V ceramic	none	65	
.02 uf 75V ceramic	5	9	
.05 uf 300V "	none	22	
.1 uf 500V ceramic	none	37	
.1 uf 75V ceramic	none	23	
25 uf mica	15		
tw lug strip 6 terminal	none	7	
" " " 4 "	3		
" " " 2 "	none	13	



1500 $\mu\mu\text{f}$ mica 500V SANGAMO TYPE K-1215	3
700 $\mu\mu\text{f}$ mica 1200V	3
.002 $\mu\text{f}$ mica 1000V SANGAMO C-2220	2
.005 $\mu\text{f}$ mica 1200V	3
.01 $\mu\text{f}$ 500V	9
365 $\mu\mu\text{f}$ variable	
730 $\mu\mu\text{f}$ variable (two gang 365 $\mu\mu\text{f}$ Lafayette MS-1425 stock)	3

Misc.

BELDEN 8426 SIX CONDUCTOR CABLE 2' per 1MTR	10 feet
PIN JACK, BLACK H.S. SMITH PJ-20	6 ea
BELDEN HOOK-UP WIRE #8941	

COILS

RADIO FREQUENCY CHOKE 2.5 MH @ 125 ma NAT R-100	6 ea
RADIO FREQUENCY CHOKE 10 MH @ 125 ma BUD	3
HORIZ. Osc. Ringing Coil MERIT TV-163	3

TUBES

1625	3
6AG7	3



# PART REQUIREMENTS FOR <sup>3</sup>/<sub>15</sub> TRANSMITTERS

<u>MISC</u>	QUANTITY
CHASSIS <sup>13x5x3</sup> <del>13x13x5</del> ALUMINUM	<del>15</del> 3
BOTTOM PLATE 13"x5" ALUMINUM	<del>15</del> 3
SOCKET, OCTAL BAKELITE SADDLE TYPE, AMPHENOL 168-001	<del>15</del> 3
SOCKET, BAKELITE FOUR PRONG, AMPHENOL 78-S4	<del>15</del> 3
SOCKET, CERAMIC SIX PRONG AMPHENOL 49-SS6	<del>15</del> 3
SOCKET, CERAMIC SEVEN PRONG AMPHENOL 49-SS7L	<del>15</del> 3
CABLE PLUG NINE PIN AMPHENOL 86-PM9	0
PLATE CAPS, CERAMIC NATIONAL SPP-3	<del>15</del> 3
TIE LUG STRIP, SIX TERMINAL H.S. SMITH 848 STANDARD	<del>15</del> 3
TIE LUG STRIP, ONE TERMINAL H.S. SMITH 861 STANDARD	<del>10</del> 20
TIE LUG STRIP, EIGHT TERMINAL H.S. SMITH 870 STANDARD	have 1
<u>RESISTORS</u>	
10 OHM 10 WATT	<del>15</del> 3
1000 OHM $\frac{1}{2}$ WATT	<del>15</del> 7
470 K $\frac{1}{2}$ WATT	<del>15</del> 3
100 OHM $\frac{1}{2}$ WATT	<del>15</del> 3
12 K $\frac{1}{2}$ WATT	<del>15</del> 3
33 K 2 WATT	<del>15</del> 3
<u>CAPACITORS</u>	
25 $\mu$ mica 500V	<del>15</del> 3
56 $\mu$ mica 500V	<del>15</del> 3



# Modulator Part Requirement (3 units)

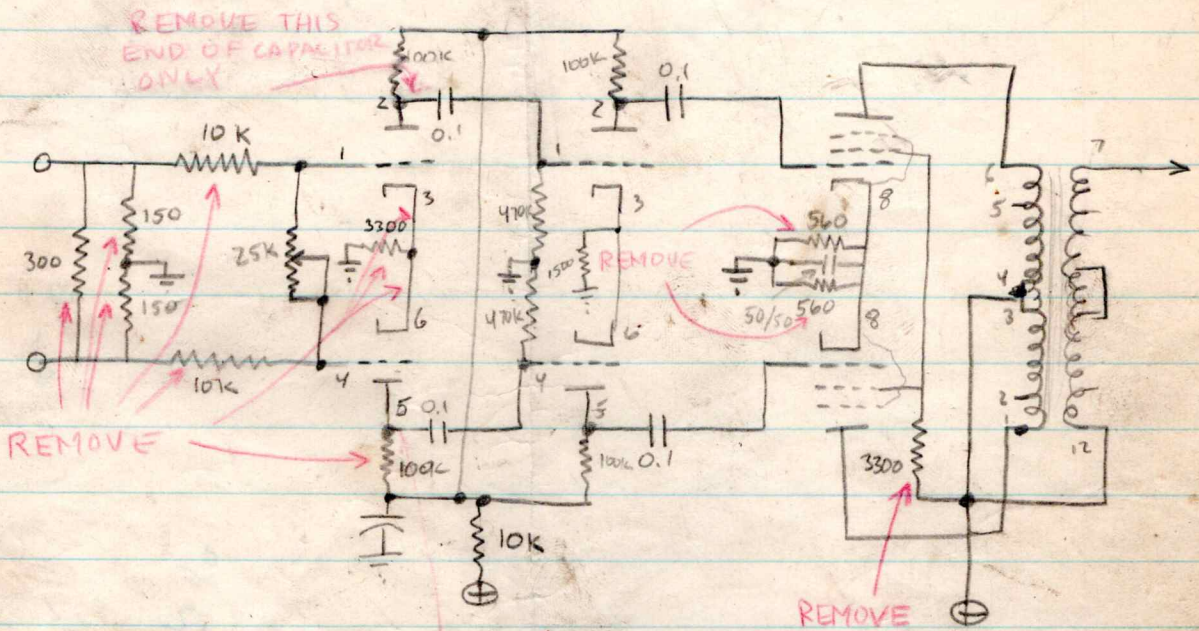
Chassis, aluminium 5X13X3	3	
Bottom Plate 5X13	3	
Modulation transformer UTC # CVM-0	3	10.50 ea
30 uf 450v electrolytic	3	
50 uf 50v <del>50</del> Blue Beaver electrolytic BR-3045 Cornell-Dubilier	3	
1500 uf mica	6	
360 uf mica	3	
.1 uf 600v paper	12	
Merit Coil TV-163	order 3 extra	about 5
100K 1W	15	
470K 1/2 W	12	
10K 1W	3	
3300 Ω 1W	6	
1500 Ω 1W	3	
150 Ω 1/2 5%	6	
10K 1/2 W	6	
560 Ω 2W	6	
Octal bakelite socket (saddle type AMPHENOL 168-001)	12	
25K linear pot. IRC RQ11-120	3	
6 pin cable plug X	3	
7 pin small cable socket	3	
6 terminal tee lug strip	5	
2 " " " " "	<del>None</del>	
1 " " " " "	15	
2 terminal input connection strip	3 <del>None</del>	

OK

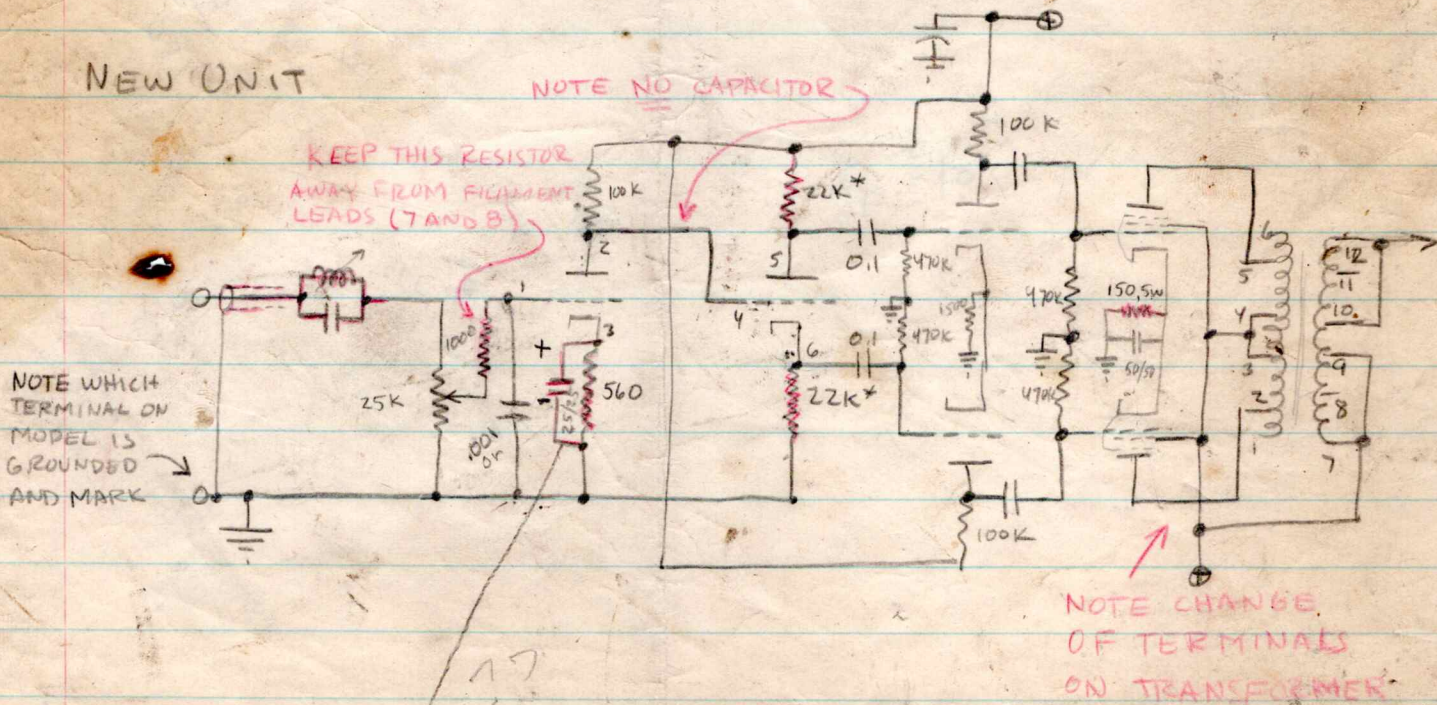


# MODULATOR

OLD UNIT!



NEW UNIT



NOTE WHICH TERMINAL ON MODEL IS GROUNDED AND MARK

\* MATCHED PAIR

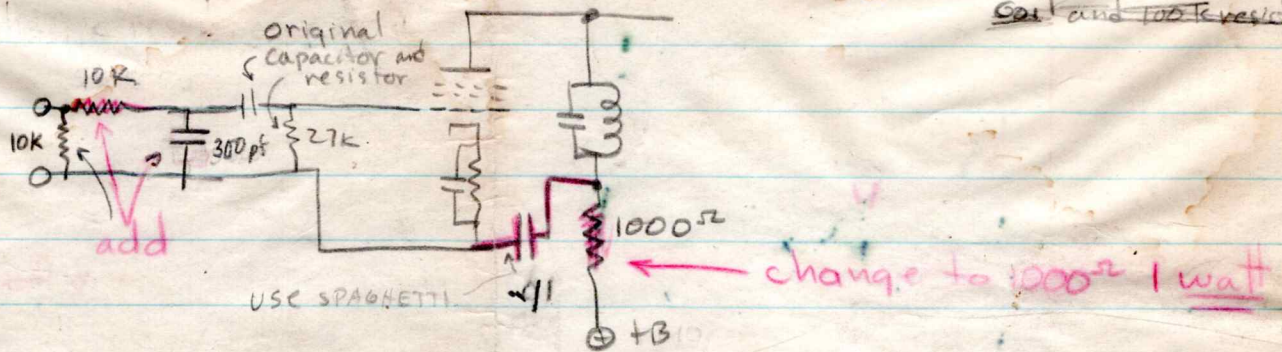


## POWER SUPPLY

1) To those not having a 12 volt transformer winding, add 6.3 volt transformer in series, with 12.6 volts going to pin 9 of the 9-pin socket. Be sure to connect in phase.

## MULTIPLIER

Remove  $300\Omega$  input resistor and  $0.01\mu\text{f}$  capacitor - Replace with coil and  $100\Omega$  resistor



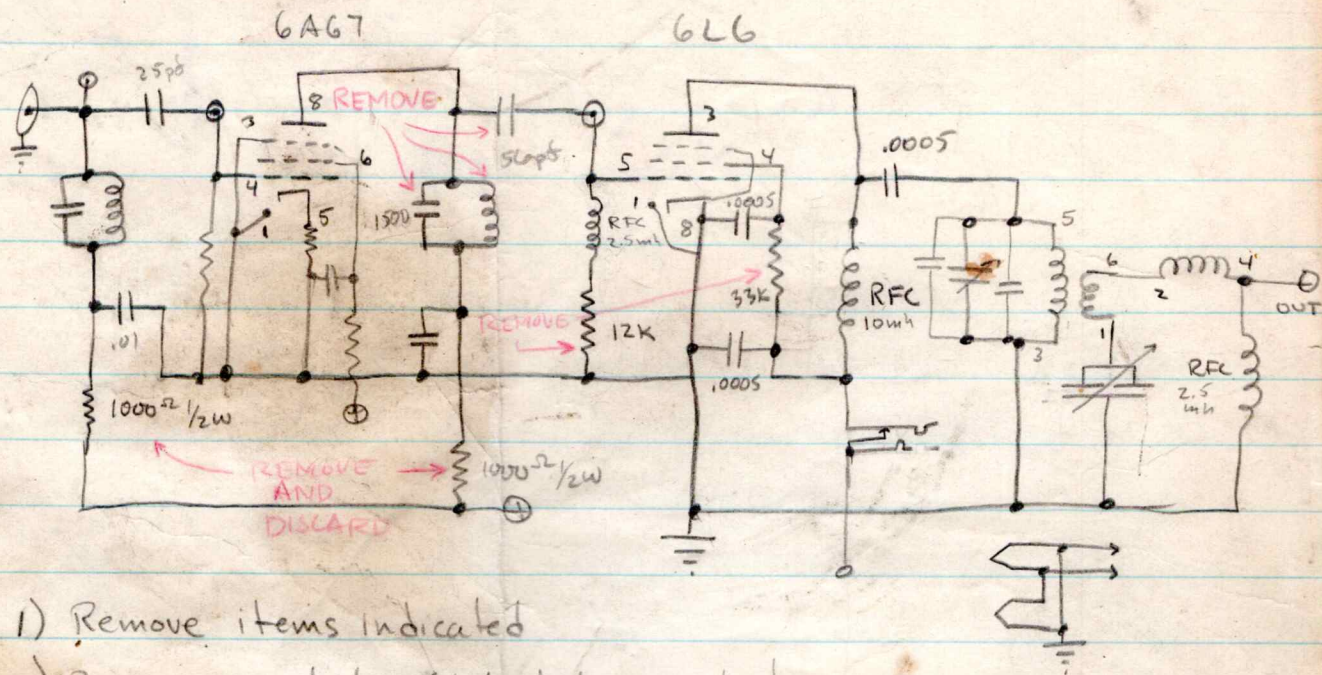
Change plate resistor and capacitor as shown

Call if troubled:  
Dave Ressler  
CH 6-3227



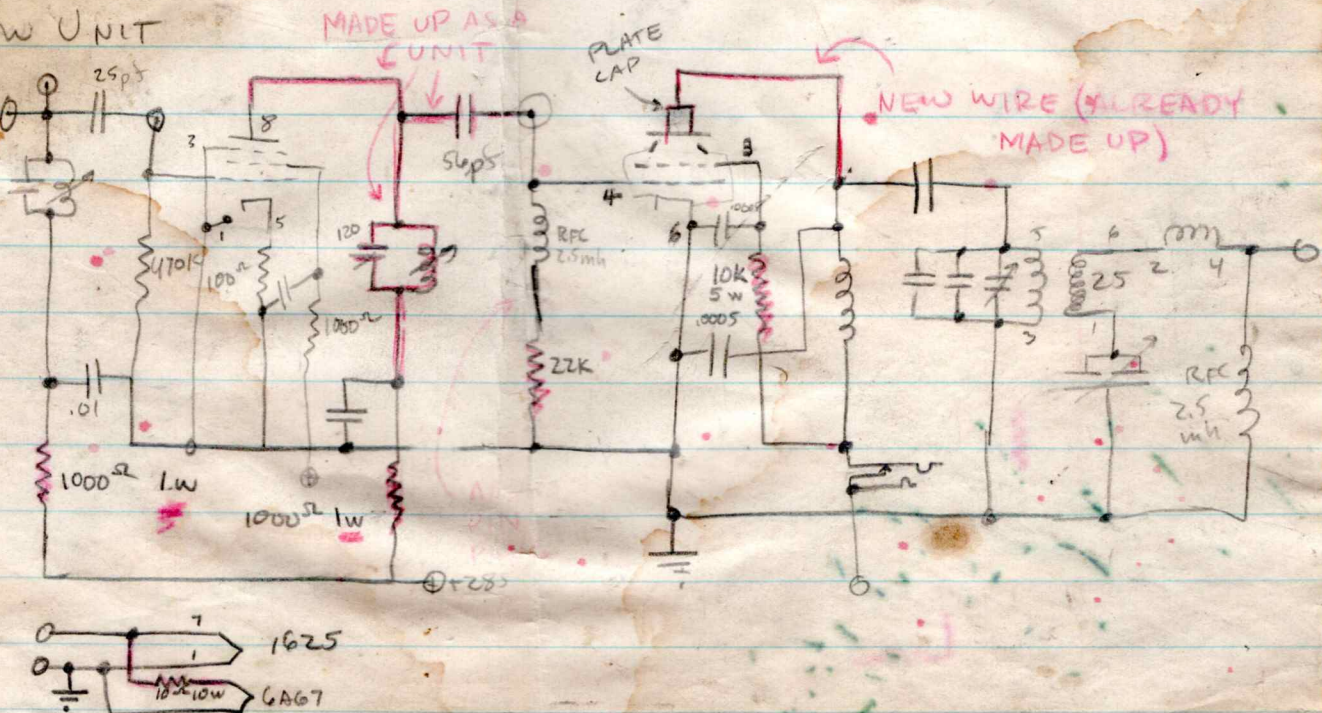
# FINAL STAGE

## OLD UNIT



- 1) Remove items indicated
- 2) Remove octal 6L6 tube socket
- 3) Replace with 7-pin ceramic socket
- ~~4) Drill 1/8" hole for grid bias pin plug as shown on model~~
- 5) Change wire in plug from pin 6 to pin 9

## NEW UNIT





- 1) 110 V RELAY + COMPONENTS
- 2) TRI + RACK TR + RMT OPERATIONS
- 3) SPKR ON WALL
- 4) ~~ALSO STA~~. CUE AMP
- 5) OVERMOD + APU RELAYS



OLD MAGGIE: MOUNT IN RACK, OUTPUT APPEAR-  
ING ON PATCH. 6 V RELAY  
STARTING FROM EITHER ST.A OR C.  
FOR EMERGENCY PLAYBACK ONLY.

NEW MAGGIE: MOUNT IN TR1 RACK WITH  
USUAL TR1 OPERATION.

BUY NEW RECORDER FOR USE AS TR2

CABINET FOR RMT EQUIP  
TABLE FOR PR-10

USE SMALL MIC-5 LIGHT VOLTAGE TO  
THROW CUT-OFF RELAY.

FIXTURE IN ST.A.

RESISTOR ON POT IN N.R. MAGGIE

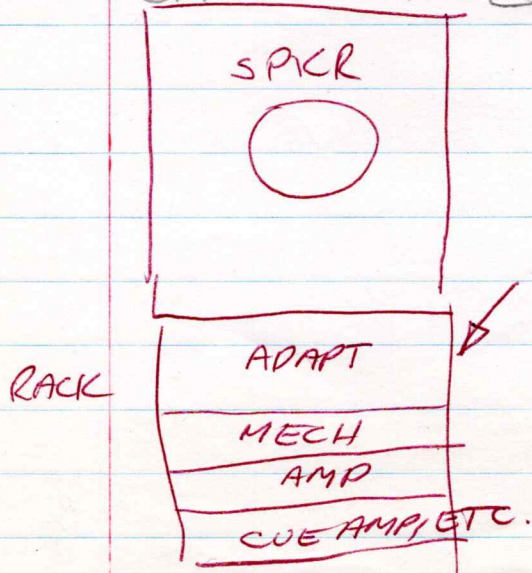
USE BLACK RACK IN TECH ROOM

PUT CUE AMP IN RACK

TERMINALS ON MR. MAG BOX IN ST.B

RACK IN ST.A?

→ MRS. PINE'S STUFF  
CABLE AT EAGLETON!





# STANDARD WIRING CO

## HOOK UP WIRE:

BLACK — GROUND, B-

BROWN — HEATERS

RED — B+

ORANGE — NOT USED (SCREEN)

YELLOW — CATHODES

GREEN — GRIDS

BLUE — PLATES

VIOLET — NOT USED

GREY — NOT USED (AC LINES)

WHITE — NOT USED (RETURNS)

## SPAGHETTI

BLUE, BLACK, RED, GREEN, YELLOW AS ABOVE