

IF IT IS FOUND DESIRABLE TO CHANGE ANY TOLERANCE OR OTHER DETAIL SPECIFIED ON THIS DRAWING NOTIFY THE PURCHASER PROMPTLY.

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

FFRD-5A TUNING DRAWER

TUBE	TYPE	FUNCTION	SOCKET PIN NUMBERS						
			1	2	3	4	5	6	7
V500	6AG5	1 <sup>ST</sup> RF AMP	1.5 M	220Ω	6.8K	6.8K	48 K	90 K	220Ω
V501	6AG5	2 <sup>ND</sup> RF AMP	1.5 M	220Ω	6.8K	6.8K	48 K	90 K	220Ω
V502	6AU6	MIXER	10Ω	0	6.8K	6.8K	78K	78K	820Ω
V503	6AG5	HFO REACT. MOD.	1.4M	4.7 K	6.8K	6.8K	26K	73K	4.7K
V504	6AG5	HFO OSC.	22 K	120Ω	6.8K	6.8K	68K	68K	120Ω

CH-137-1

FFRD-6A TUNING DRAWER

TUBE	TYPE	FUNCTION	SOCKET PIN NUMBERS						
			1	2	3	4	5	6	7
V600	6AG5	1 <sup>ST</sup> RF AMP	1.5 M	220Ω	6.8K	6.8K	50 K	95 K	220Ω
V601	6AG5	2 <sup>ND</sup> RF AMP	1.5 M	220Ω	6.8K	6.8K	50 K	95 K	220Ω
V602	6AU6	MIXER	10 Ω	0	6.8K	6.8K	80 K	80K	820Ω
V603	6AG5	HFO REACT. MOD.	1.4 M	3.9 K	6.8K	6.8K	27K	75 K	3.9K
V604	6AG5	HFO OSC.	22 K	120Ω	6.8K	6.8K	70 K	70K	120Ω

CH-137-2

FFRD-7A & FFRD-7B TUNING DRAWER

TUBE	TYPE	FUNCTION	SOCKET PIN NUMBERS						
			1	2	3	4	5	6	7
V700	6AG5	1 <sup>ST</sup> RF AMP	1.5 M	220Ω	6.8K	6.8K	45 K	93 K	220Ω
V701	6AG5	2 <sup>ND</sup> RF AMP	1.5 M	220Ω	6.8K	6.8K	45 K	93 K	220Ω
V702	6AU6	MIXER	0	950Ω	6.8K	6.8K	75 K	75 K	950Ω
V703	6AG5	HFO REACT. MOD.	1.4 M	3.3K *2.2K	6.8K	6.8K	24K	68 K	3.3K *2.2K
V704	6AG5	HFO OSC.	22 K	120Ω	6.8K	6.8K	66 K	66K	120Ω

\*= RESISTANCE FOR FFRD-7B ONLY

CH-137-3

FFRD-8A & FFRD-8B TUNING DRAWER

TUBE	TYPE	FUNCTION	SOCKET PIN NUMBERS						
			1	2	3	4	5	6	7
V800	6AK5	1 <sup>ST</sup> RF AMP	1.5 M	220Ω	6.8K	6.8K	50 K	94 K	220Ω
V801	6AK5	2 <sup>ND</sup> RF AMP	1.5 M	220Ω	6.8K	6.8K	50 K	94 K	220Ω
V802	6AU6	MIXER	5 Ω	950Ω	6.8K	6.8K	80 K	80K	950Ω
V803	6AG5	HFO REACT. MOD.	1.4 M	1.5K *1.0K	6.8K	6.8K	50 K	75 K	1.5K *1.0K
V804	6AK5	HFO OSC.	22 K	120Ω	6.8K	6.8K	27 K	50K	120Ω

\*= RESISTANCE FOR FFRD-8B ONLY.

CH-137-4

FFR-2 & FFR-3 RECEIVER

TUBE	TYPE	FUNCTION	SOCKET PIN NUMBERS								
			1	2	3	4	5	6	7	8	9
V100	6BA6	1 <sup>ST</sup> IF AMP	1.7 M	220Ω	6.8K	6.8K	32K	50 K	220Ω	—	—
V101	6BA6	2 <sup>ND</sup> IF AMP	1.5 M	220Ω	6.8K	6.8K	32K	50 K	220Ω	—	—
V102	6BA6	3 <sup>RD</sup> IF AMP	5Ω	220Ω	6.8K	6.8K	32K	50 K	220Ω	—	—
V103	6AL5	2 <sup>ND</sup> DET. & AVC	0	1.2 M	6.8K	6.8K	6.8K	0	520K	—	—
V104	6T8	NOISE LIMITER & 1 <sup>ST</sup> AUDIO	—	1.0M	470K	6.8K	6.8K	—	2.7 K	1.0M	225 K
V105	6AQ5	AUDIO	470K	510Ω	6.8K	6.8K	32 K	32 K	—	—	—
V106	6J6	BFO REACT. MOD.	95K	95K	6.8K	6.8K	33 K	590K	1.0 K	—	—
V107	6AG5	BFO OSC.	47K	120Ω	6.8K	6.8K	37 K	150K	120Ω	—	—
V108	5Y3GT	RECTIFIER	—	32 K	—	730Ω	—	750Ω	—	32 K	—
V109	OA2	VOLTAGE REG.	32 K	—	—	—	32 K	—	—	—	—

NOTE: K = 1000 Ω  
M = 1 MEGOHM

CH-137-5

CH-137 A

TUBE SOCKET RESISTANCES

RESISTANCE MEASURED FROM TUBE SOCKET PINS TO GROUND. LINE CORD DISCONNECTED FROM POWER SOURCE AND TUNING DRAWER PLUGGED INTO RECEIVER. OPERATING CONTROLS WERE SET AS FOLLOWS:

CONTROL

POSITION

HFO (SLAVE — MASTER) SW. .... HFO  
 AUDIO GAIN ..... FULLY CLOCK WISE  
 AVC — MANUAL SW. .... AVC  
 NOISE LIMITER SW. .... ON  
 BFO SW. .... ON  
 BFO (SLAVE — MASTER) SW. .... BFO  
 RF GAIN ..... FULLY CLOCKWISE

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 MAMARONECK, NEW YORK

REQ. ITEM	PART NO.	DESCRIPTION	SYMBOL
		THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
STOCK SIZE		TUBE SOCKET RESISTANCES	
MATERIAL		FFR-2, FFR-3, FFRD-5A, 6A, 7A, 7B, 8A, 8B	
WEIGHT PER PC.			
TYPE & TEMPER			
DRAWN		1-6-55 P.L.K. 1-6-55	
ELEC. DES. APP.			
MECH DES APP.			
HEAT TREAT. SPEC.			
CHECKED			
FINAL APPROV.			
FINISH & SPEC. NO.		CH-137	A

FFR-3		10-23-58
FFR-2		1-6-55
MODEL	PROJECT NO.	ASSY. NO.
DATE		
USED ON		

5	FFR-3, FFRD-7B & 8B ADDED					
4	V503, PINS 2 & 7 WERE 2.7 K	10/23/53	481	16		P.L.K.
3	V603, PINS 2 & 7 WERE 3.3 K					J.R.
2	V703, PIN 5 WAS 52 K.					
1	V803, PIN 1 WAS 1.5 M.					
ISSUE ITEM	CHANGED FROM	DATE	CN. NO.	DRAFTS	CHECKER	ENG. APP.
TOLERANCES		SCALE: #				
ALL OTHERS	DEC. DIM. ± FRAC. DIM. ± ANGULAR DIM. ±	DRILL, PUNCH, COMMERCIAL STOCK SIZES AND MANUFACTURERS TOLERANCES ARE NOT INCLUDED.				