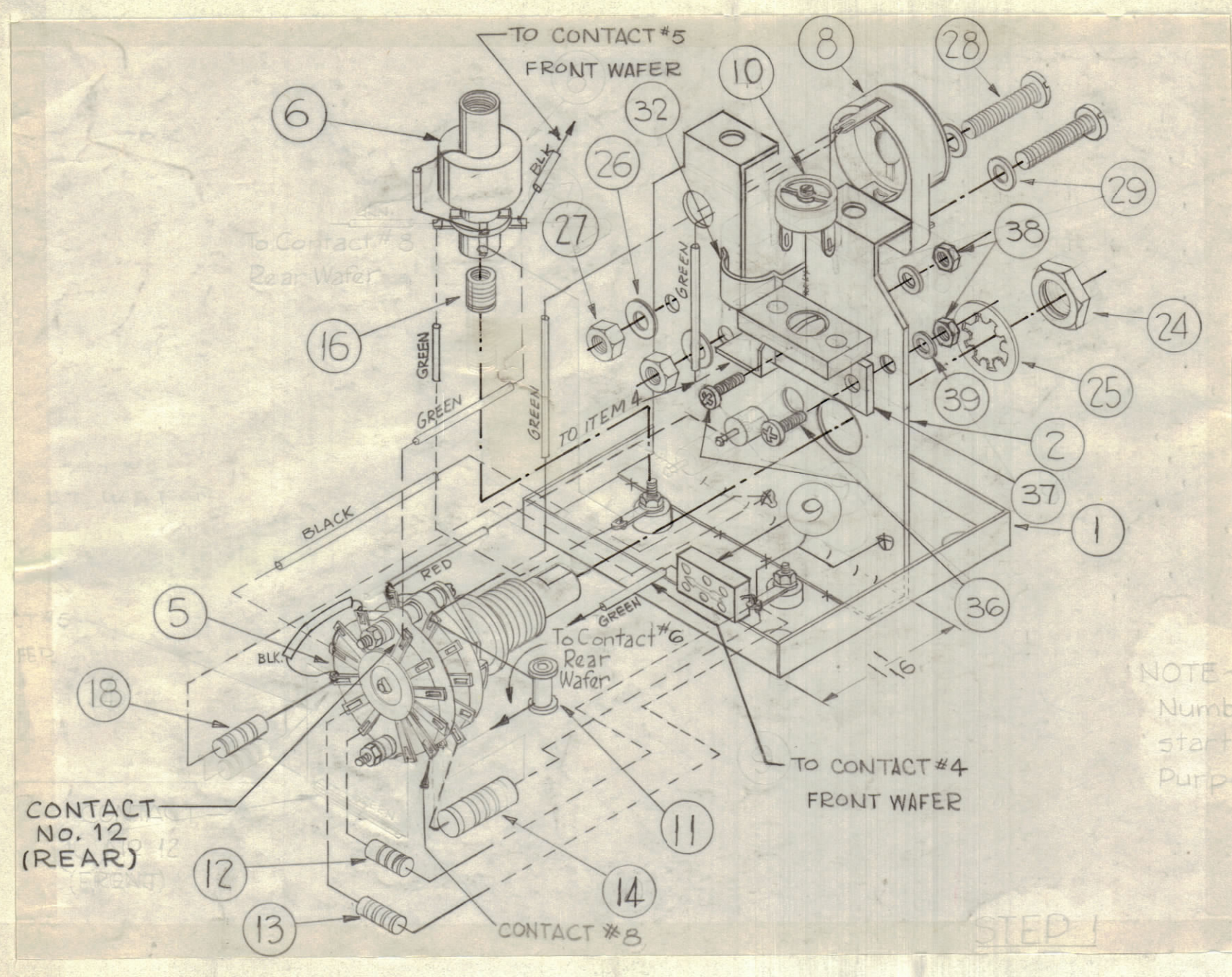
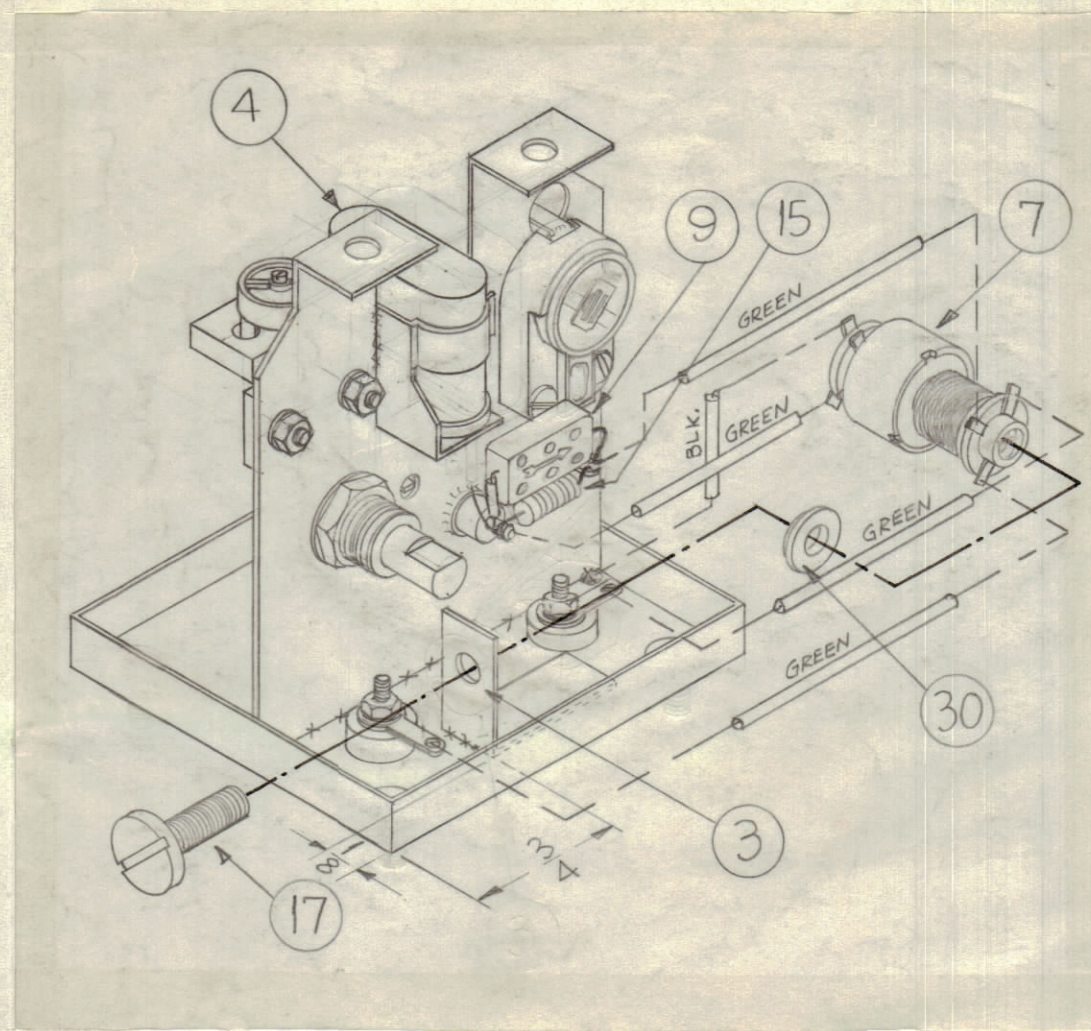


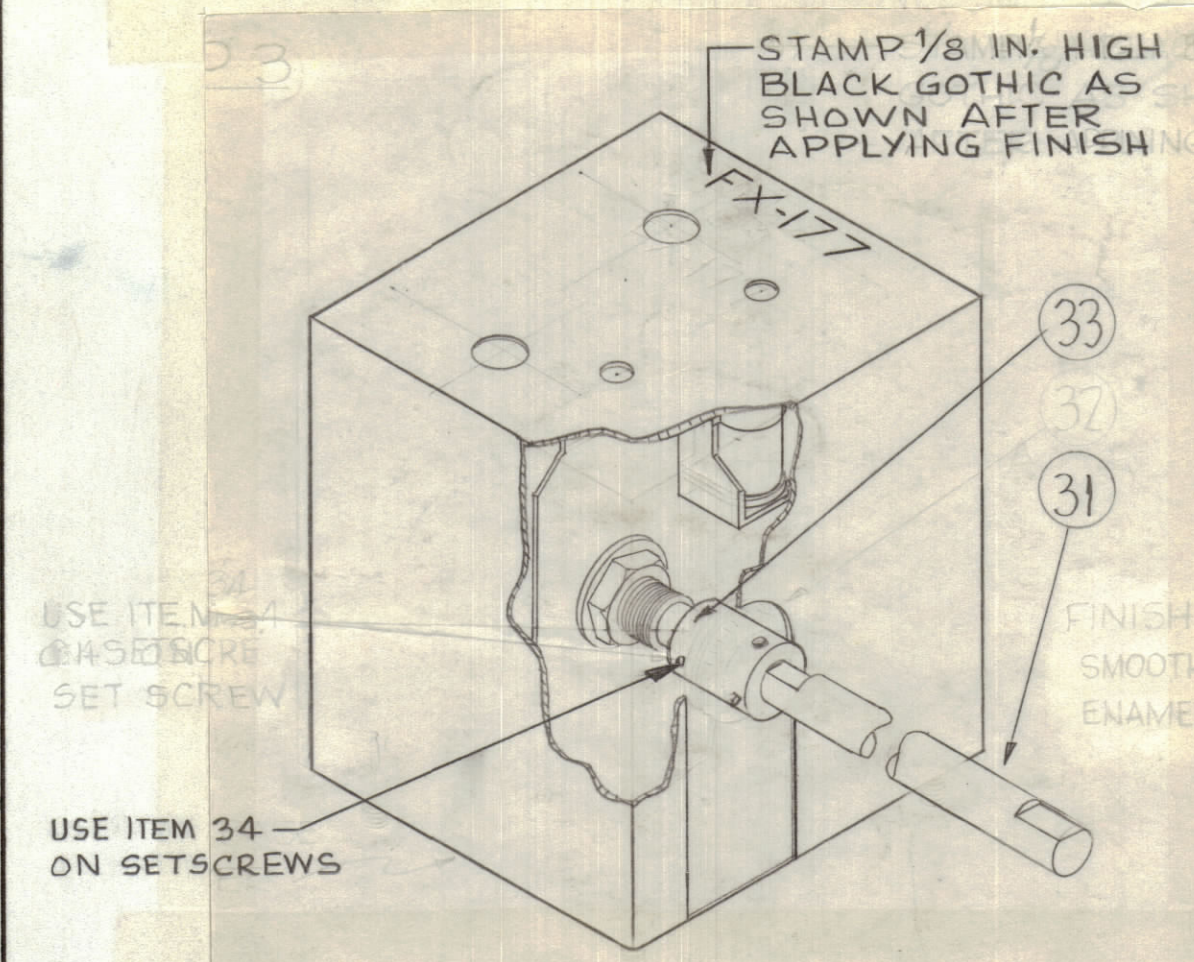
STEP 1



STEP 2

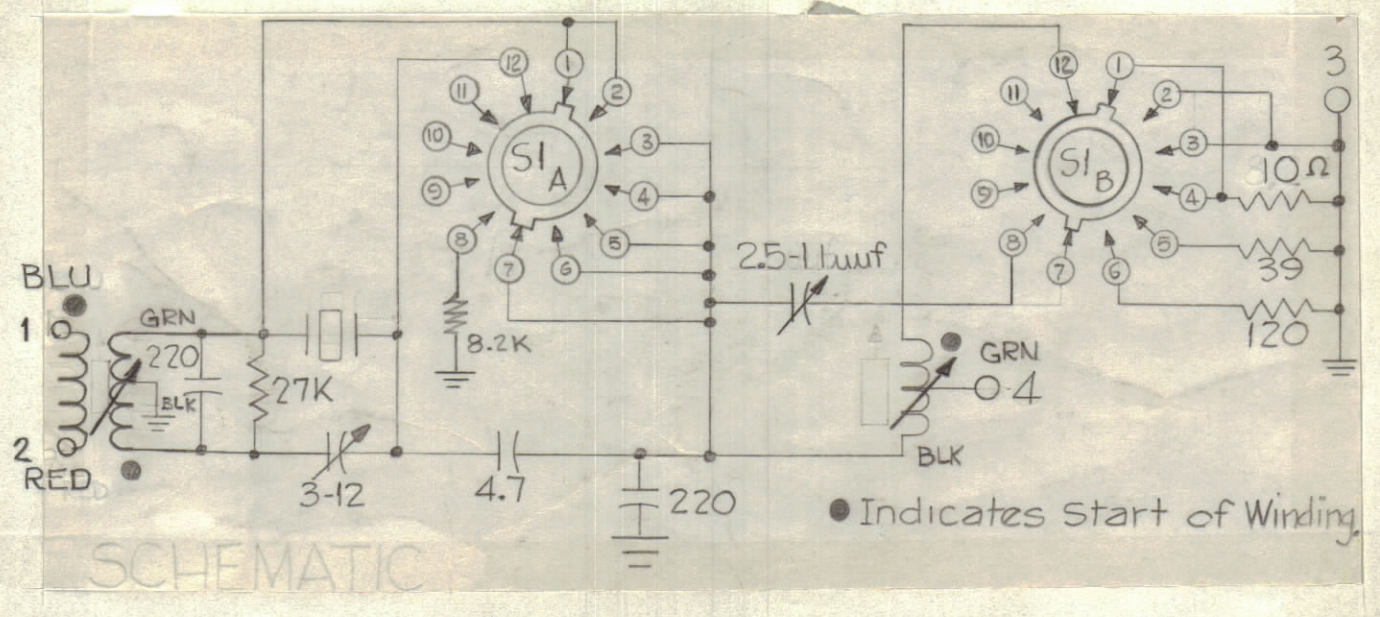


STEP 3



FINISH NOTE:
S-115 SMOOTH GRAY ENAMEL

NOTE:
CONTACTS ON SWITCH (SW-289) NUMBERED IN CLOCKWISE POSITION, STARTING AT CONTACT No 1, FOR ASS'Y. PURPOSE ONLY.



SCHMATIC

PROCEDURE:

1. SOLDER ITEMS (2) AND (3) TO ITEM (1) AS SHOWN.
2. SPOT SOLDER ITEM (32) TO ITEM (2).
3. ASSEMBLE ALL REMAINING ITEMS IN STEP (1).
4. ON ITEM (5) CONNECT:
 - A. ITEM (10) FROM CONTACT 5, FRONT, TO CONTACT 8, REAR.
 - B. JUMPER FROM CONTACT 7, FRONT, TO CONTACTS 6, 5, 4, 3 FRONT.
 - C. ITEM (12) FROM CONTACT 6, REAR, TO GROUND LUG AS SHOWN IN STEP 1.
 - D. ITEM (13) FROM CONTACT 5, REAR, TO GROUND LUG AS SHOWN IN STEP 1.
 - E. ITEM (18) FROM CONTACT 4, REAR, TO SOLDER POINT ON ITEM (2) AS SHOWN IN STEP 1.
 - F. BLACK JUMPER FROM CONTACTS 3 AND 2 REAR, TO SOLDER POINT ON ITEM (2) AS SHOWN IN STEP 1.
 - G. GREEN JUMPER FROM CONTACT 12, REAR, TO ITEM (6) AS SHOWN IN STEP 1.
 - H. ITEM (11) FROM CONTACT 12, FRONT, TO CONTACT 6, FRONT.
 - I. ITEM (14) FROM CONTACT 3, FRONT, TO GROUND LUG #3 ON ITEM (1).
 - J. ITEM (9) FROM CONTACT 4, FRONT, TO GROUND LUG AS SHOWN IN STEP 1.
 - K. ITEM (11) FROM CONTACT 12, FRONT, TO CONTACT 6, FRONT.
 - L. BLACK JUMPER FROM CONTACT 5, FRONT, TO ITEM (6) AS SHOWN IN STEP 1.
 - M. RED JUMPER FROM CONTACTS 1 AND 2, FRONT, TO ITEM (18).
 - N. GREEN JUMPER FROM CONTACT 12, FRONT, TO ITEM (4) AS SHOWN IN STEP 1.
 - O. GREEN JUMPER FROM ITEM (6) TO INSULATED LUG #4 ON ITEM (1).
 - P. BLACK JUMPER FROM CONTACT 1, REAR, TO CONTACT #4, REAR.
5. ASSEMBLE ALL ITEMS IN STEP 2.

6. TEST

- A. TEST EQUIPMENT REQUIRED:
 - (1) 1 SWEEP GENERATOR MG-1 OR EQUIV.
 - (2) 1 DC OSCILLOSCOPE (P7 PHOSPHORUS)
 - (3) 1 CRYSTAL FILTER TEST JIG
 - (4) 1 NON METALLIC ADJUSTING TOOL.
 - (5) 1 SWITCHABLE ANTENUATOR
- B. PRELIMINARY ADJUSTMENTS
 - (1) ADJUST C-273 FOR MINIMUM CAPACITY
 - (2) ADJUST C-277 FOR MINIMUM CAPACITY
 - (3) ADJUST SWITCH TO 3KC POSITION
- C. PROCEDURE
 - (1) ADJUST BOTTOM COIL (TT-154) FOR MAXIMUM AMPLITUDE.
 - (2) ADJUST VERTICAL COIL (TT-153) FOR MAXIMUM AMPLITUDE & FLATNESS OF CURVE.
 - (3) REPEAT ABOVE STEPS UNTIL ABSOLUTE MAXIMUM IS OBTAINED
 - (4) REMOVE ALL ATENUATION SO THAT ONLY THE BASE OF THE 3KC PATTERN IS OBSERVED ON THE SCOPE. ADJUST C-273 THE 3-12 MMFD TRIMMER UNTIL THE SIDE SLOPES ARE SYMMETRICAL.
 - (5) ADJUST VERTICAL COIL (TT-153) FOR MAXIMUM BANDWIDTH (3 db TILT ALLOWABLE).
 - (6) ROTATE SWITCH FULLY CLOCKWISE TO THE .5KC POSITION & ADJUST SCOPE SO THAT THE PEAK IS CALIBRATED AT THE CENTER OF SCREEN. DO NOT ADJUST SCOPE AGAIN.
 - (7) ROTATE SWITCH FULLY COUNTER CLOCKWISE TO THE 15 KC POSITION. BRING THE PEAK TO THE PREVIOUSLY CALIBRATED POINT ON THE SCOPE BY ADJUSTING THE BOTTOM COIL (TT-154).
 - (8) ROTATE THE SWITCH ONE POSITION CLOCKWISE TO THE 7.5 KC POSITION & BRING THE PEAK TO THE CALIBRATED POINT BY ADJUSTING C-277.
 - (9) ROTATE SWITCH ONCE MORE CLOCKWISE TO THE 3KC POSITION. CHECK FOR SYMETRY AND BANDWIDTH. IF ADJUSTMENT IS NECESSARY ADJUST C-273 FOR SYMETRY AND VERTICAL COIL (TT-153) FOR BANDWIDTH (3 db TILT IS ALLOWABLE)

7. COMPLETE ASSEMBLY AS SHOWN IN STEP 3.

ZONE		SYM		REVISIONS		DATE	E.M.N. NO.	DRAFT	CHKD	APPD
E		REPLACES A-2120-D (SIZE 4) CHG ITEM 6 OF PROCEDURE WAS TEST AS PER S-603		10/30/63		10312	MJT			

REQ'D.	ITEM	PART NUMBER	DESCRIPTION	SYMBOL
2	39	LWE02MRN	LOCKWASHER, EXT.	
2	38	NTH0256BN6	NUT, HEX	
1	37	AX-423	BRACKET MFG. ASS'Y.	
2	36	SCBP0256BN4	SCREW, MACHINE	
	35		NOT USED	
X	34	GL-121	CEMENT, LOCTITE	
1	33	MC-102	COUPLING, SWITCH SHAFT	
1	32	TS-167-1	SOCKET, CRYSTAL	
1	31	PM691FD12.06A	SHAFT, 1/4" DIA.	
1	30	WA-101-5	WASHER, INSULATED	
4	29	WA-109-17	WASHER FIBER	
2	28	SCBP0440BN8	SCREW, MACHINE	
2	27	NTH0440BN6	NUT, HEX	
2	26	LWS04MRN	LOCKWASHER, SPLIT	
1	25	LWI37MRN	LOCKWASHER, INT.	
1	24	NTH3732BN16	NUT, HEX	
X	23	WL-100-7	BUS-BAR, WIRE	
X	22	BS-100	SOLDER, SOFT	
X	21	PX-104-1-.034	INSULATION, SLEEVING	BLACK
X	20	PX-104-3-.034	INSULATION, SLEEVING	RED
X	19	PX-104-4-.034	INSULATION, SLEEVING	GREEN
1	18	RC20GF100K	RESISTOR, FIXED, COMPOSITION	
1	17	SC-143-1032-B-4	SCREW, NYLON	
1	16	SM-148	STUD, NYLON, THREADED	
1	15	RC20GF273K	RESISTOR, FIXED, COMPOSITION	
1	14	RC20GF822K	RESISTOR, FIXED, COMPOSITION	
1	13	RC20GF390K	RESISTOR, FIXED, COMPOSITION	
1	12	RC20GF121K	RESISTOR, FIXED, COMPOSITION	
1	11	CC20RH47F	CAPACITOR, FIXED, CERAMIC	
1	10	CV-112-3	CAPACITOR, VARIABLE, CERAMIC	
2	9	CM15C221J	CAPACITOR, FIXED, MICA	
1	8	CV11A120	CAPACITOR, VARIABLE, CERAMIC	
1	7	TT-154	TRANSFORMER, IF, TUNED	
1	6	TT-153	TRANSFORMER, IF, TUNED	
1	5	SW-289	SWITCH, ROTARY	
1	4	CR-108	CRYSTAL UNIT, QUARTZ	
1	3	MS-2643	BRACKET, COIL MOUNTING	
1	2	MS-2644	BRACKET COMPONENT MOUNTING	
1	1	BX-196	CAN & COVER	

MATERIAL		LIST OF MATERIAL	
THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK		TITLE FX-177 ASSEMBLY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		DRAWN A. TANTILLO	DATE 10-20-63
TOLERANCES DECIMALS ±.05 FRACTIONS ± 1/64 ANGLES ± 0° 30'		CHECKED [Signature]	DATE 10/20/63
THE CONTENTS OF THIS DRAWING ARE THE EXCLUSIVE PROPERTY OF THE TECHNICAL MATERIEL CORP. ITS UNAUTHORIZED USE OR REPRODUCTION IN WHOLE OR IN PART IS STRICTLY FORBIDDEN.		ELECT. DES. DATE	FINAL APPROVAL [Signature]
NOTES		MECH. DES. DATE	DATE A-2120

A-2120

B

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