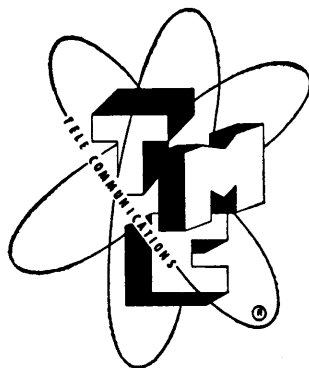


**INSTRUCTION BOOK**  
**for**  
**ANTENNA MULTICOUPLER**  
**MODEL AMC-6**



**THE TECHNICAL MATERIEL CORPORATION**  
MAMARONECK, N.Y. OTTAWA, ONT.

**In order that our equipment will always be up to date electrically and mechanically, we reserve the right to make, at any time, such design changes required to accomplish this objective.**

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# THE TECHNICAL MATERIEL CORPORATION

C O M M U N I C A T I O N S   E N G I N E E R S

700 FENIMORE ROAD

MAMARONECK, N. Y.

## W a r r a n t y

The Technical Materiel Corporation, hereinafter referred to as TMC, warrants the equipment (except electron tubes, fuses, lamps, batteries and articles made of glass or other fragile or other expendable materials) purchased hereunder to be free from defect in materials and workmanship under normal use and service, when used for the purposes for which the same is designed, for a period of one year from the date of delivery F.O.B. factory. TMC further warrants that the equipment will perform in a manner equal to or better than published technical specifications as amended by any additions or corrections thereto accompanying the formal equipment offer.

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3. That the equipment has not been altered in any way either as to design or use whether by replacement parts not supplied or approved by TMC, or otherwise.
4. That any equipment or accessories furnished but not manufactured by TMC, or not of TMC design shall be subject only to such adjustments as TMC may obtain from the supplier thereof.

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2. Serial Number of Equipment.
3. TMC Part Number.
4. Nature of defect or cause of failure.
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When ordering replacement parts, the following information must be included in the order as applicable:

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2. TMC Part Number.
3. Equipment in which used by TMC or Military Model Number.
4. Brief Description of the Item.
5. The *Crystal Frequency* if the order includes crystals.

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All correspondence pertaining to Warranty Claims, return, repair, or replacement and all material or equipment returned for repair or replacement, within Warranty or otherwise, should be addressed as follows:

THE TECHNICAL MATERIEL CORPORATION  
Engineering Services Department  
700 Fenimore Road  
Mamaroneck, New York



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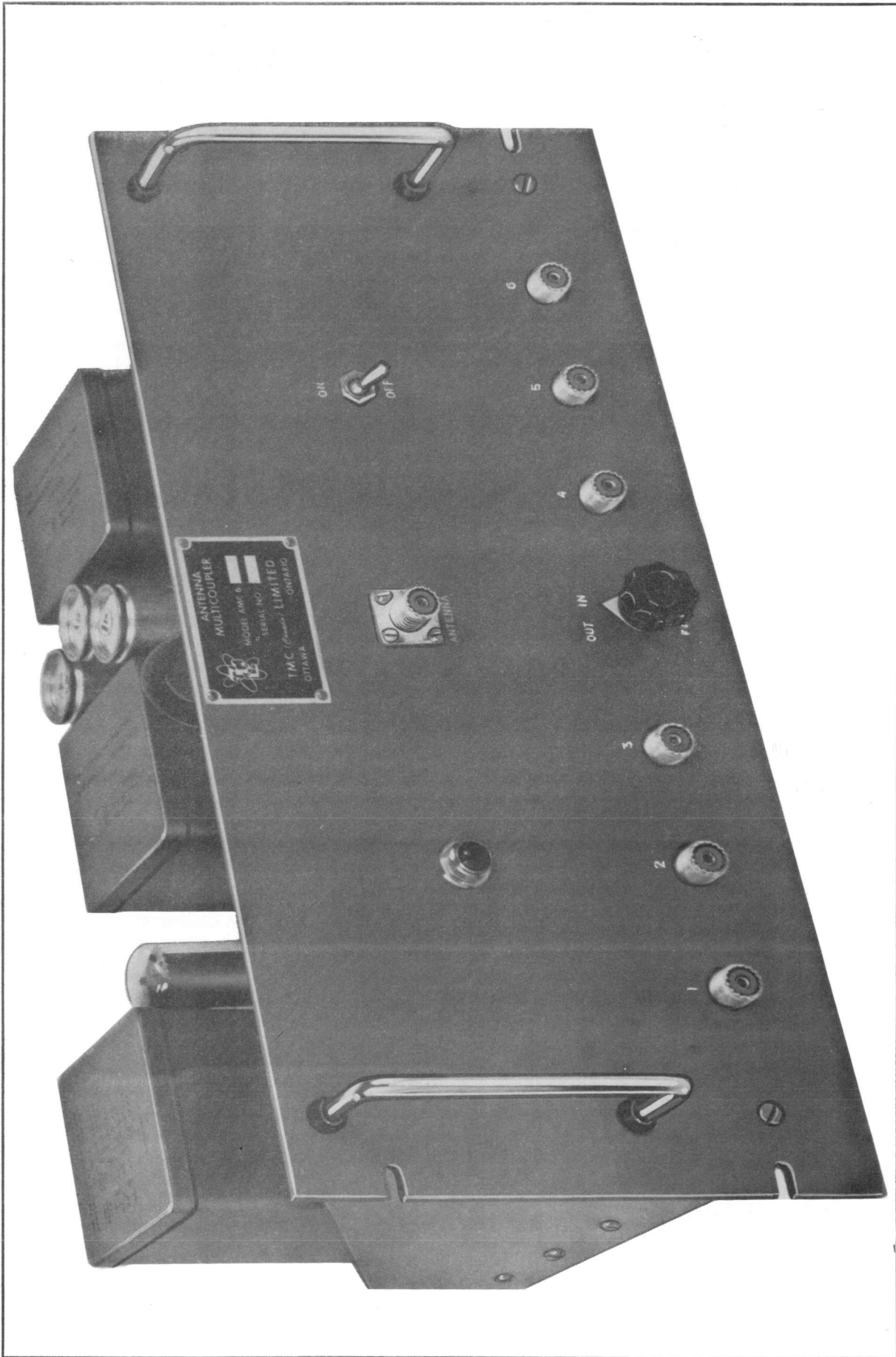
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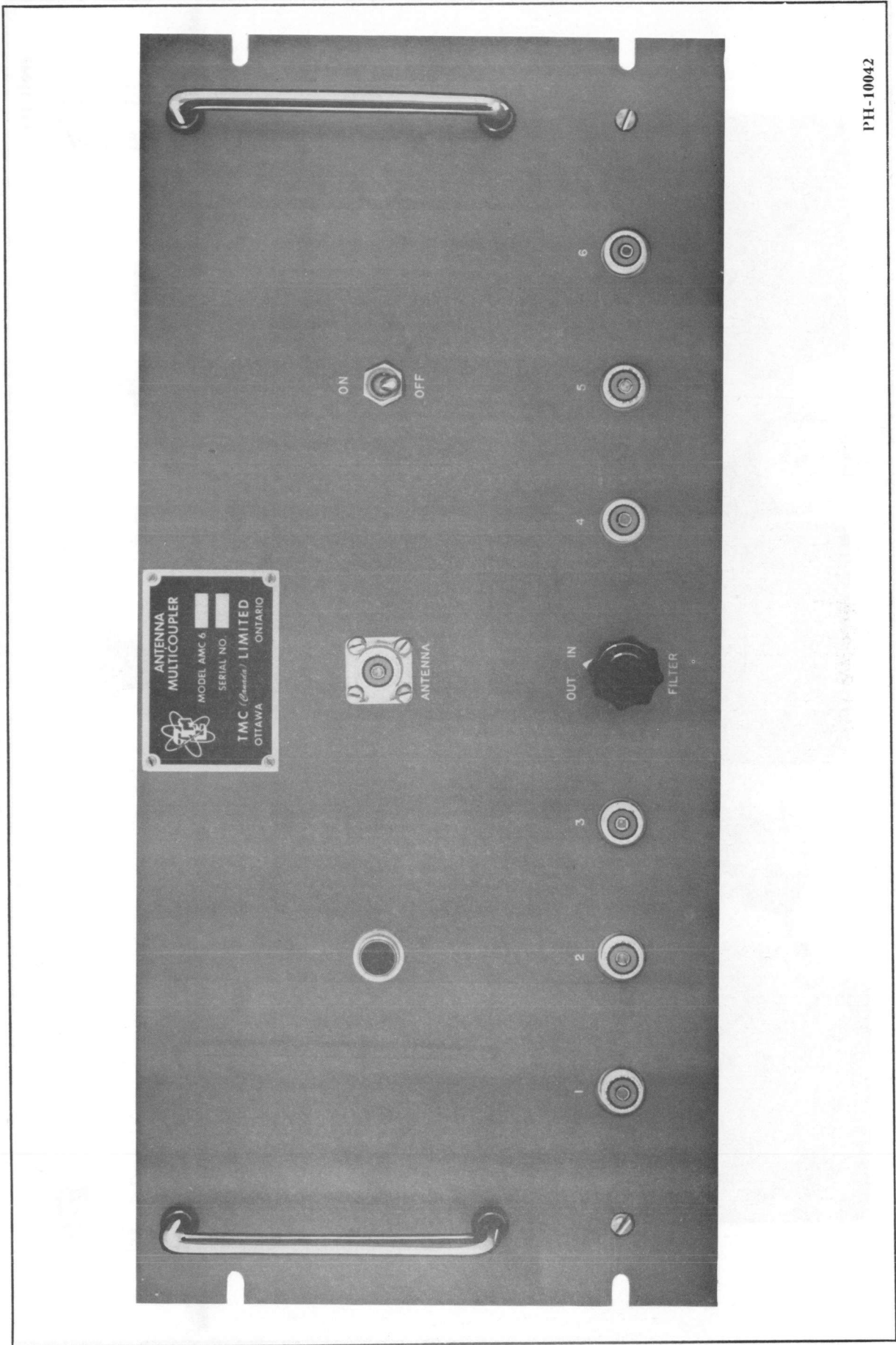
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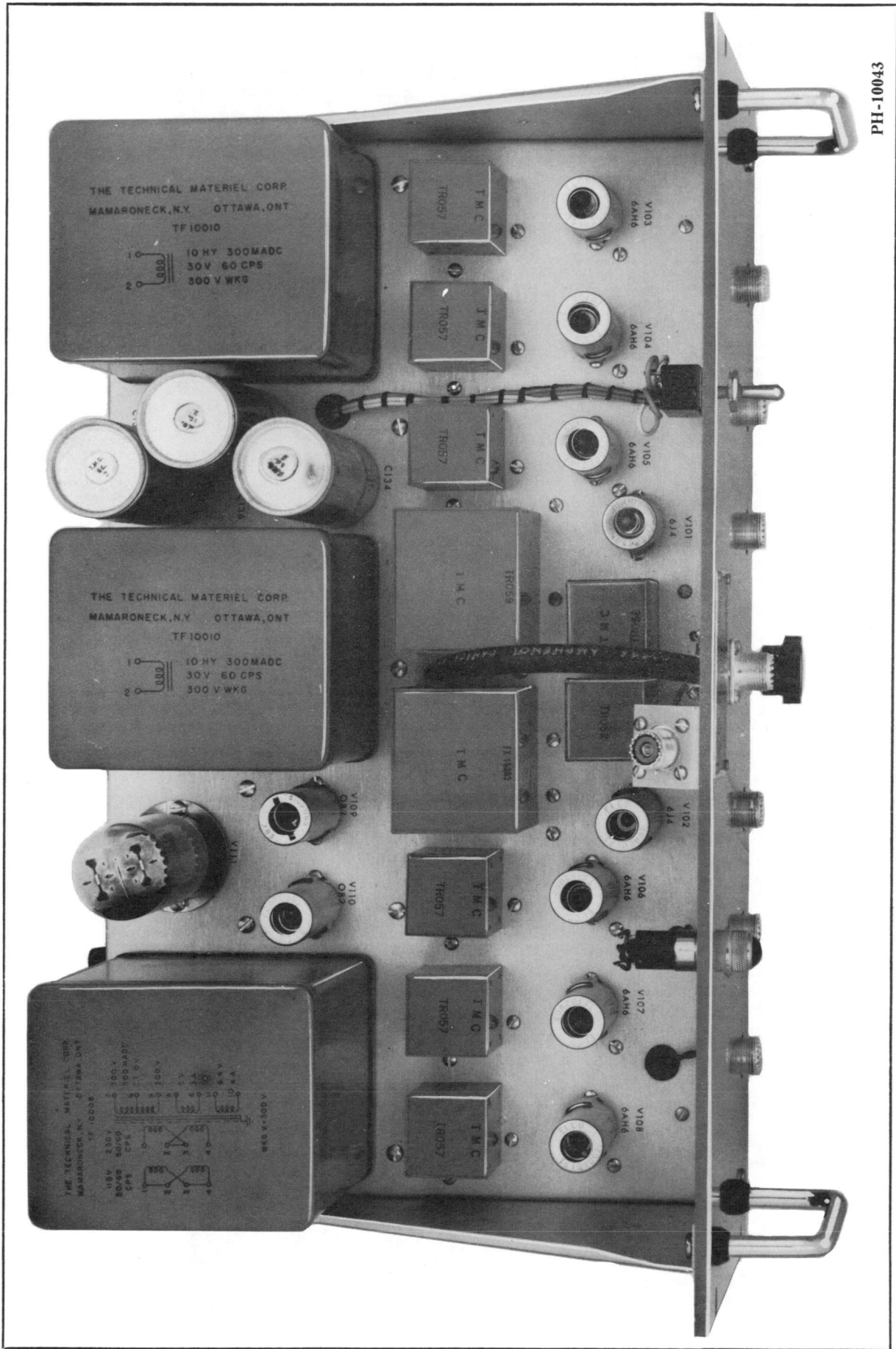


FRONTPIECE



PH-10042

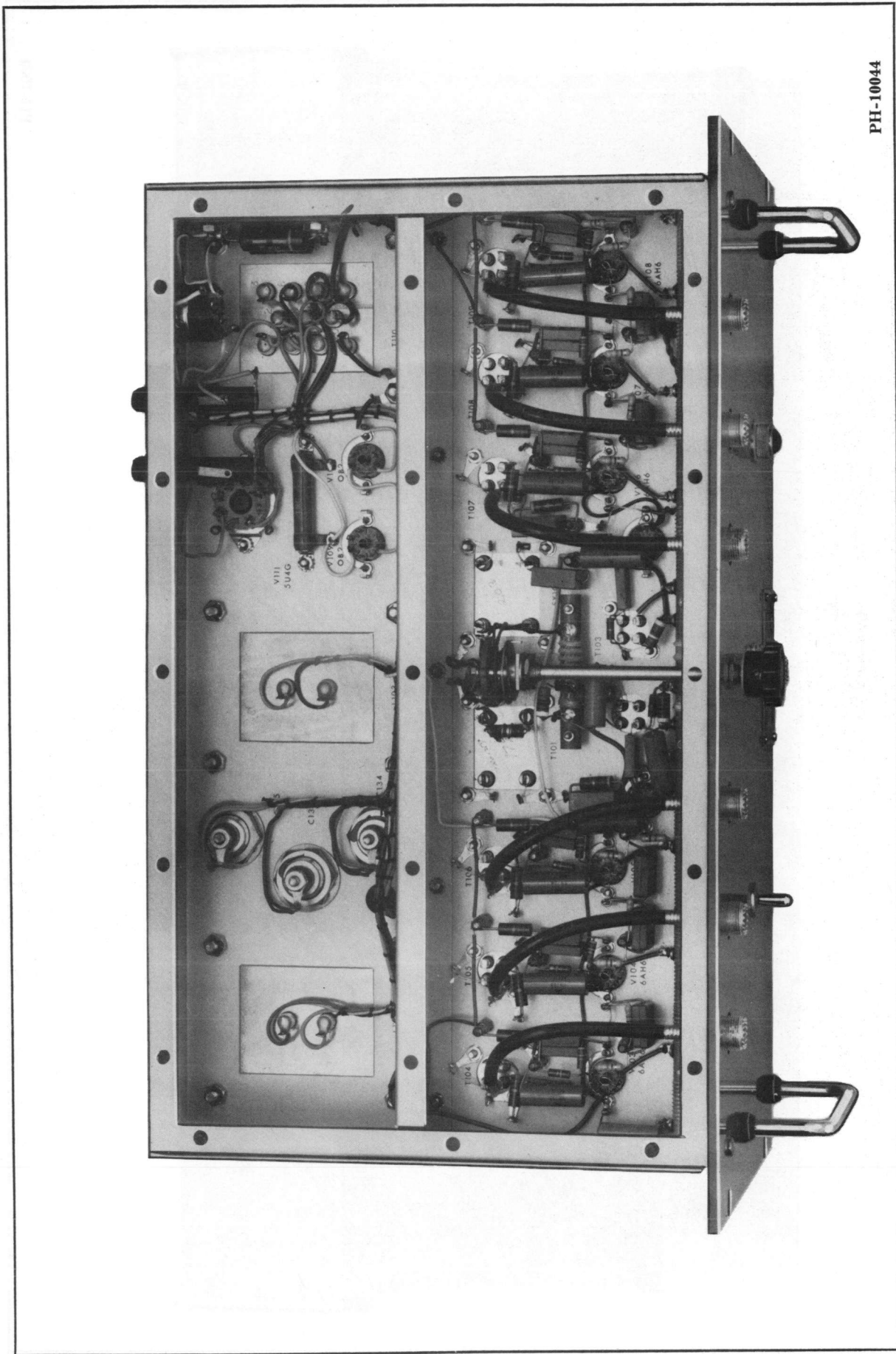
Figure 1-1. FRONT VIEW, AMC 6-2



PH-10043

Figure 1-2. TOP VIEW, AMC 6-2





PH-10044

Figure 1-3. BOTTOM VIEW (base cover plate removed), AMC 6-2



PH-1004

Figure 1-4. REAR VIEW, AMC 6-2

## SECTION I GENERAL DESCRIPTION

### 1. PURPOSE

The Antenna Multicoupler, Model AMC 6-2, is a broad-band antenna coupling device normally installed at radio receiving stations where it is desirable to employ a common antenna for several communications receivers. The multicoupler allows six receivers to be independently operated over a band of 2 to 30 megacycles per second from a non-resonant type antenna. A range of models is available for use with antennas having impedances between 50 ohms and 600 ohms, balanced or unbalanced. All models have an output impedance of 75 ohms to match input impedances available at the antenna terminals of most receivers. When the equipment is used in a receiving system, it results in a general improvement in the noise-factor and a 10 decibel improvement in overall gain. Spurious response generated by the multicoupler is kept to a minimum and the design is such that a considerable reduction in the amplitude of signals re-radiated from receiver to receiver or receiver to the common antenna system is obtained.

### 2. DESCRIPTION OF UNIT

a. The Antenna Multicoupler, Model AMC 6-2, is a broad-band electronic amplifier with self-contained DC power supply. The unit is designed for operation from either a 115 V or 230 V, 60 cycles single phase source. The equipment is designed for unattended service.

b. The Model AMC 6-2 is intended for rack mounting. It is provided with a standard rack panel (as shown in Figure 1-1) which measures  $8\frac{3}{4}$  inches in height and 19 inches in width. The only front panel controls are the power ON/OFF switch and the FILTER IN/OUT switch. All coaxial jacks carrying RF signals to or from the unit are available on the front panel. (On special order, the unit can be supplied with the output jacks in the rear.) An additional coaxial jack is available immediately behind the front panel where a rear antenna connection is required. A chassis which mounts the main electrical components is shown in Figures 1-2 and 1-3. It is held securely to the front panel by side brackets and occupies a rack depth of 11 inches. The DC power supply occupies the rear half of the chassis while the broad-band amplifier circuit occupies the front half. Power to the unit enters a socket on the rear apron of the chassis as shown in Figure 1-4, while the main power fuse is located immediately to the left of this socket. Total weight of the unit is 37 pounds.

## SECTION II THEORY OF OPERATION

### 1. GENERAL

The Antenna Multicoupler is essentially a band-pass amplifier interposed between an antenna and the antenna terminals of conventional communication receivers. Impedances into and out of the amplifier are flat over the specified operating range to ensure high performance when operated in a receiving system. The amplifier consists of a low noise, two stage pre-amplifier, a distribution line, and six power amplifier stages. A low frequency cut off filter (effective in the broadcast-band) at the input of the amplifier can be switched out to extend its band-pass limits.

### 2. CIRCUIT ANALYSIS

a. The pre-amplifier is shown in Figure 2-1 and consists of two neutralized amplifier stages in cascade. Both stages employ the 6J4 triode tube in order to maintain a good noise figure.

A line section, DL101, terminated by R101 is used to provide a constant input resistance to the multicoupler over the pass-band of the equipment. This ensures proper termination of the antenna transmission line and guards against a degradation in noise factor or the generation of unusually high spurious signals in the receiving system. Transformer T101 is used to match the impedance of DL101 to the antenna transmission line. Filter FX101 is a low frequency cut-off filter that prevents high level signals in the broadcast region from reaching the grid of V101, which would result in the development of high spurious signals. Switch S101 is provided to allow the removal of the Broadcast-band Filter (FX101) from the circuit in order to extend the band-pass of the unit to frequencies below 2 megacycles per second. It should be noted that the input capacity of V101 forms part of the line section DL101. Signals which reach the junction of LA and LB therefore appear in amplified form across the plate load. The load itself consists of a line section composed of LG, LH, stray capacity, the input capacity of V102, and terminating resistor R104. In order to neutralize the first stage, part of the winding of T102 as well as capacitor C104 are required. V102 is neutralized in a manner similar to V101 and serves as a buffer stage between the output of V101 and the input of the distribution line. When the AMC 6-2 is used in a receiving system the noise factor is principally due to the performance of the pre-amplifier — this in turn is determined by the performance of V101 and to a lesser degree by V102.

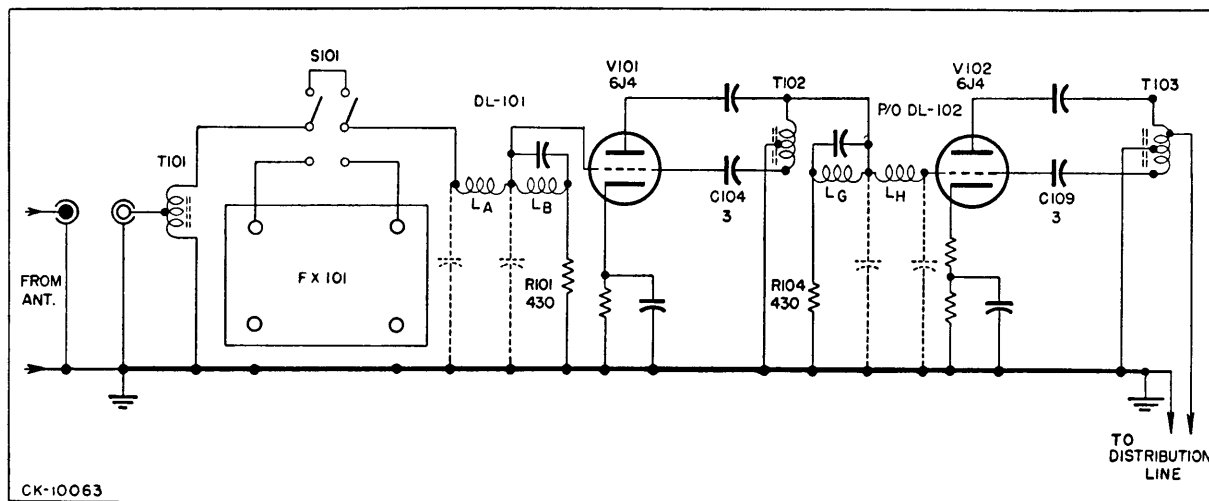


Figure 2-1. PRE-AMPLIFIER CIRCUIT



b. In order to provide multiple outputs for the operation of several receivers, the distribution system shown in Figure 2-2 is used. The output signals from the pre-amplifier are fed into the mid-section of an artificial line DL102. They are transmitted by the line to the terminating resistors, R108 and R145. Input to the final stages is obtained by tapping the line in a parallel manner. Capacity elements of the line are formed by the input capacity of the output tubes.

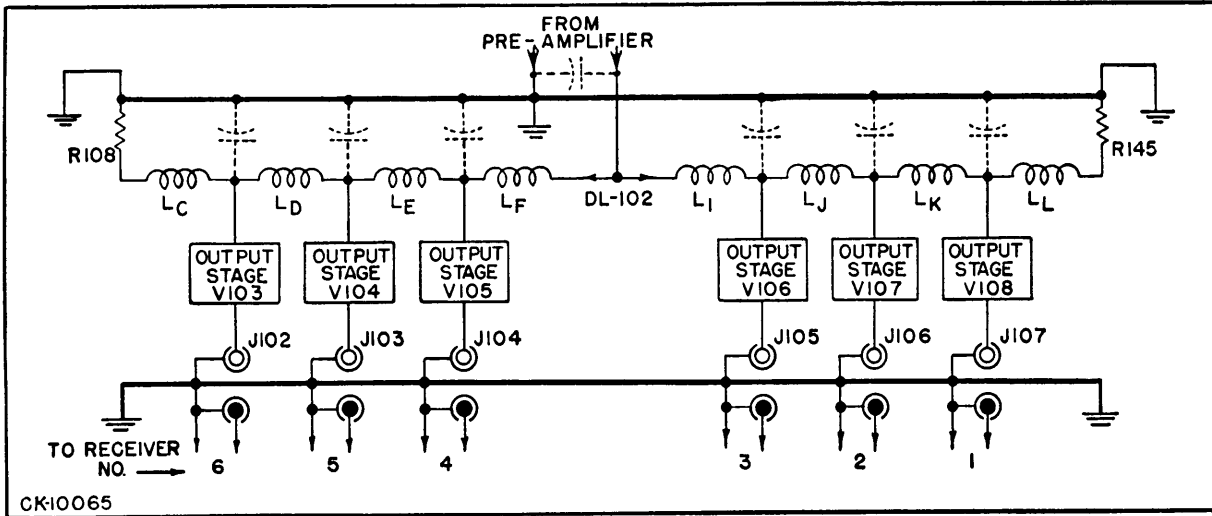


Figure 2-2. DISTRIBUTION SYSTEM

c. A typical output stage is shown in Figure 2-3. It employs a 6AH6 pentode type tube for isolation purposes. Cathode feedback resistor R135 is used to improve spurious signal response and to minimize the adverse gain effects in the tube as a result of aging. Transformer coupling is used between the plate circuit and the output jack.

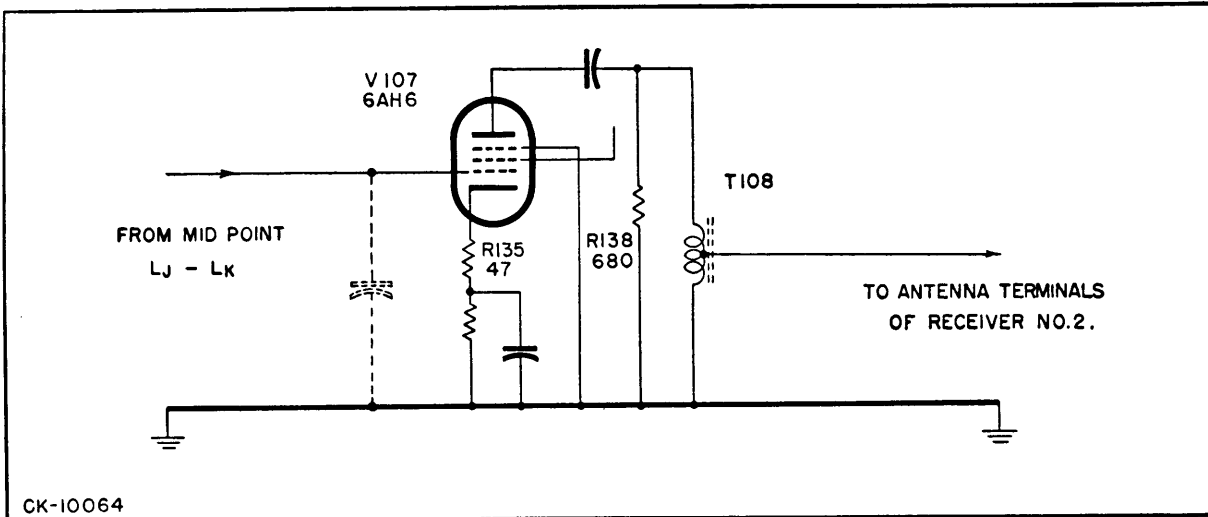


Figure 2-3. TYPICAL OUTPUT STAGE

d. The gain characteristics of individual tubes are adjusted throughout the amplifier so that the generation of spurious signals by the multicoupler is minimized. A low impedance distribution line assures a low standing wave ratio on the line and consequently little variation in the signal level between various output jacks. By using a low impedance line the internal decoupling efficiency of the multicoupler is also improved. Very high isolation between the output jack and the antenna jack is effected by the cascaded stages of the pre-amplifier.

e. The power supply circuit is of conventional design. (See Figure 8-2). A centre-tapped secondary winding applies an AC voltage to V111 which delivers fullwave rectified DC pulses to a capacitive type input filter. Gaseous voltage regulator tubes maintain the plate voltage to the pre-amplifier essentially constant for line voltage variations of 95 to 125 V. The primary of the power transformer is provided with two separate windings connected in parallel for 110 V operation and in series for 220 V operation.

## SECTION III INSTALLATION

### 1. GENERAL

a. To obtain optimum performance from a receiving system using a multicoupler, it is necessary to have the nearest possible impedance match between the antenna and the input jack of the AMC 6-2 over the operating frequency range. The last significant figures in the model number of the multicoupler, such as AMC 6-2/200U, is indicative of the input impedance which in this case is 200 ohms unbalanced.

b. In some installations it may be required to operate more than six receivers from a common antenna. It is possible in this case to cascade multicouplers. The output jacks of the first multicoupler are connected to the input jacks of up to six multicouplers which in turn provide output for as many as 36 receivers. Cascading multicouplers in this way does not seriously affect their operating performance.

c. The spurious signal amplitude to be expected from two signals applied at the input of the multicoupler is shown in Figure 6-2. Every precaution has been taken in the design of the instrument to minimize intermodulation effects in the receiving system. At the low end of the band (where high level signals from local broadcast stations are likely) filter FX101 becomes effective. Sufficient attenuation is provided by the filter so that signals are reduced to a level where they are ineffective in the production of spurious signals. The filter may be switched out or in as desired. In some instances the location of the receiving station is such that excessive signals from a powerful local station may cause serious intermodulation effects in the receiving system. This, however, should not be troublesome for signals under 10,000 microvolts. Should it be found that signals of a higher order than 10,000 microvolts are causing serious intermodulation effects, additional filters may be inserted in the antenna transmission line. A suggested method of locating the frequency or determining the amplitude of interfering signals can be obtained by referring to the test set-up in Figure 5-1. First, disconnect the multicoupler from the circuit and connect the antenna lead together with test probe (P) to test point (2); set the signal generator to the unmodulated condition and turn the attenuator to zero. Tune the receiver until a strong signal is located and turn on the BFO switch; adjust the gain controls for a convenient reading on the output meter using the highest signal obtained on either side of zero beat as a reference voltage. Move the tuning dial until the signal disappears; adjust the frequency and attenuator controls of the signal generator until a voltage comparable with the reference voltage is obtained on the output meter. The signal generator setting in microvolts indicates the strength of the signal pick-up by the antenna while the first tuning dial position of the receiver indicates its frequency.

### 2. UNPACKING

a. The Antenna Multicoupler, Model AMC 6-2, is shipped in its individual shipping container and should be carefully unpacked. Seven coaxial plugs, TMC Part No. PL-259, are in a cloth bag tied to a handle of the unit. The power cord, wrapped in paper, is under the packing on top of the unit. A close visual inspection should be made to ascertain any physical damage due to rough handling during shipment.

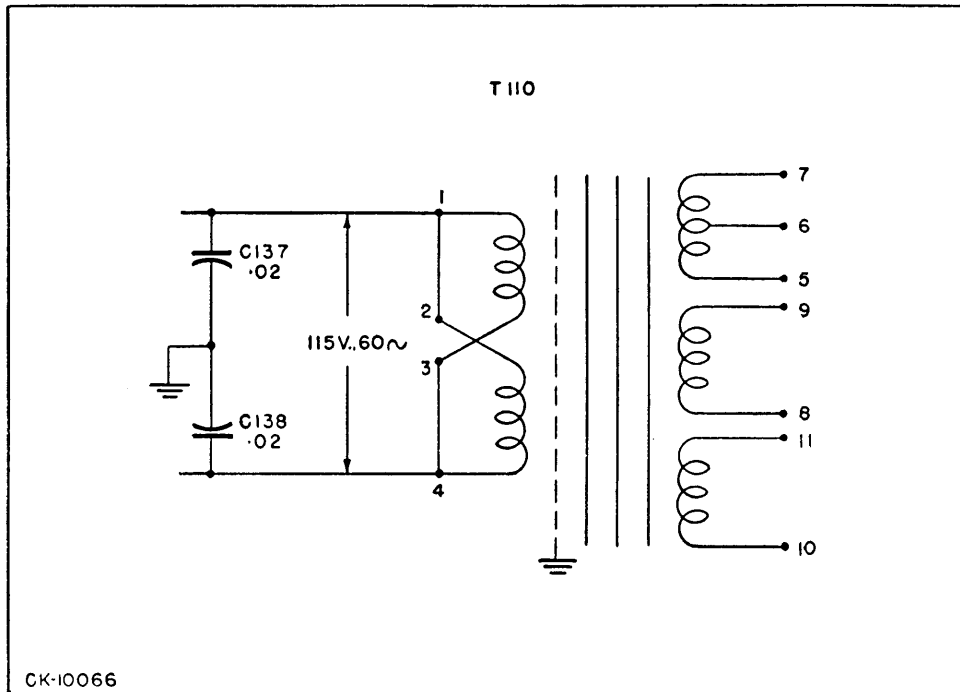
### 3. INSTALLATION

a. Mount the multicoupler in a standard rack using four machine screws provided with cup type washers.

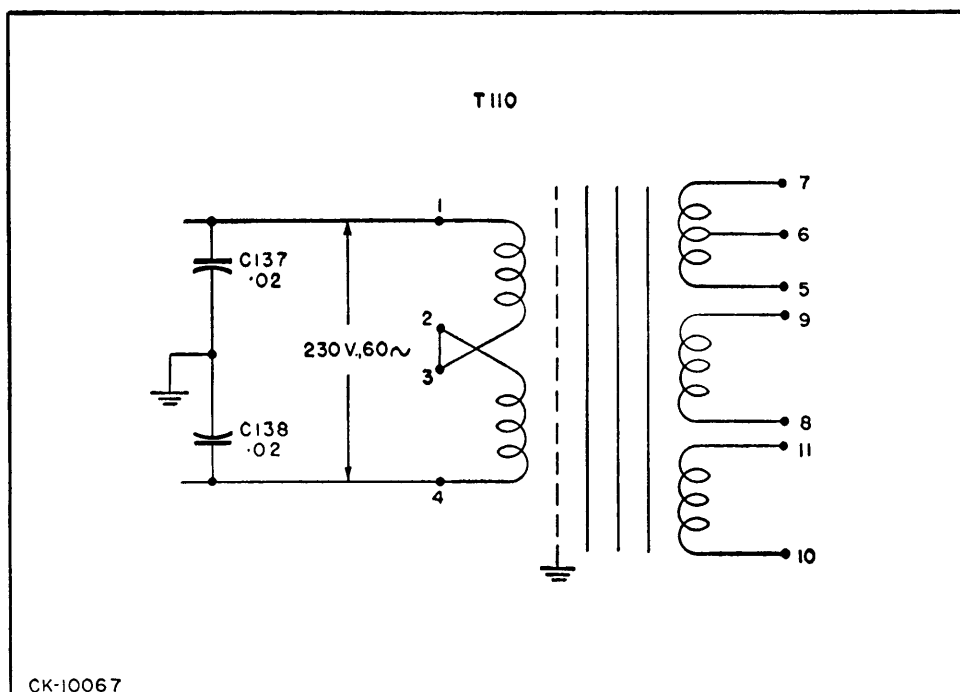
b. Connect one of the male type coaxial plugs to the antenna cable and insert this either into J101 marked ANTENNA on the front panel of the multicoupler or on the rear jack J109, as desired. Attach the remaining plugs to the ends of the 75 ohm single conductor coaxial cables which are to be connected to the antenna input terminals of the receivers. If the receiver input is greater than 75 ohms, it would be desirable to use an impedance matching transformer at the input to the receiver. TMC can supply transformers for this purpose. Insert the plugs into the output jacks on the front panel of the multicoupler. These are marked 1 to 6 for receiver identification purposes. Where less than six receivers

are employed, the unused output jacks of the AMC 6-2 may be left open circuited as this does not affect the performance of the multicoupler. When attaching coaxial plugs to coaxial cable solder both the inner and outer conductor to ensure trouble free service.

c. With the power switch in the OFF position, connect the plug on the power cord to J108 and rotate it clockwise to ensure that it is locked in position. Plug the other end of the power cord into a 50/60 cycle power outlet. A tag indicating the AC voltage rating is attached to each unit supplied. A wiring schematic for 115 and 230 V operation is shown in Figure 3-1 and Figure 3-2 respectively.



**Figure 3-1. POWER TRANSFORMER CONNECTIONS FOR 115V OPERATION**



**Figure 3-2. POWER TRANSFORMER CONNECTIONS FOR 230V OPERATION**

## SECTION IV OPERATION

### 1. GENERAL

Power is supplied for operation of the unit by tripping the toggle switch on the front panel to the ON position. This condition is indicated by the illuminated pilot light on the front panel. Failure of the light indicates failure of the AC power line, a defective toggle switch, a burned out light, or a blown out primary power fuse.

The switch marked FILTER IN/OUT should be switched to the IN position. This switch is moved to the OUT position only when an operator wishes to tune his receiver to frequencies below 2 megacycles per second.

## SECTION V MAINTENANCE

### 1. EMERGENCY

a. **WARNING:** *Never replace a fuse with one of higher rating. If a fuse burns out immediately after replacement, DO NOT replace it a second time until the cause of failure has been corrected.*

b. In the event of a system failure as a result of weak or noisy signals in all receivers make a rough check of the antenna system by connecting the antenna lead-in directly to the antenna terminals of a receiver. If the fault disappears, check the pre-amplifier of the multicoupler for noisy or low emission tubes. When only one receiver in the system gives faulty performance, check the receiver itself or the particular output tube in the multicoupler that supplies signals to the receiver.

c. In the event of complete loss of signals check the antenna system as in paragraph (b). If signals are restored, check for a faulty multicoupler. The filaments of all tubes should be lit, and there should be a glow from the voltage regulator tubes V109 and V110 when the DC power supply voltage is normal.

d. Where failures are difficult to locate in a faulty multicoupler, replace it with a spare unit and apply trouble tracing techniques outlined under paragraph 3, Corrective Maintenance.

### 2. PREVENTIVE MAINTENANCE

Do not indiscriminately replace tubes in the multicoupler. When searching for faulty tubes replace a tube with a new one, but if there is not a definite improvement in performance of the equipment, replace the old tube in its original socket. In this way a tube which has passed a critical operating life is not replaced by a new one of indefinite life.

### 3. CORRECTIVE MAINTENANCE

a. **CAUTION:** *Whenever corrective maintenance is carried out on the multicoupler the usual precautions dealing with high voltage should be observed since the unit operates on voltages dangerous to yourself and to your test equipment.*

b. With a voltmeter, check voltages given in Table 5-1. Where abnormal readings are obtained for a particular tube either the tube itself or the electrical components immediately associated with the tube are at fault. For a pictorial layout of electrical components see Figure 8-1.

c. Faults which are difficult to locate by other means may be isolated by the test set up shown in Figure 5-1. The signal generator should be set for a modulated condition of 1000 cycles per second and a modulation depth of 30 per cent. Next set up the receiver gain controls for use as a fixed level detector. To do this connect test probe (P) to test point (3); set the signal generator attenuator to 100  $\mu$ V; turn the receiver audio gain control up, and with the BFO off adjust the manual RF gain control to a minimum value for a convenient voltage reading on the output meter. Connect test probe (P) to other test points and adjust ONLY the signal generator attenuator to obtain the same output meter reading as before. Record the attenuator settings in a table similar to Table 5-2. Ratios between the microvolt settings in this table can be used to locate quickly any circuit fault in the multicoupler.

EXAMPLE 1. Ratio 4 over 5 = 1.8 from table  
 Ratio 4 over 5 = 1.0 for defective multicoupler  
 Deduction: First stage gain is low due to poor tube (V101)

EXAMPLE 2. Ratio 5 over 6 = 1.8 from table  
 Ratio 5 over 6 = 100 from defective multicoupler  
 Deduction: Open circuit in LH

EXAMPLE 3. Ratio 2 over 1 = 2 from table  
 Ratio 2 over 1 = 6 from defective multicoupler  
 Deduction: Defective component in the input circuit of the pre-amplifier causing low input impedance.

TABLE 5-1. TUBE OPERATING VOLTAGES

Tube	Type	Function	Pin No. 1	Pin No. 2	Pin No. 3	Pin No. 4	Pin No. 5	Pin No. 6	Pin No. 7	Pin No. 8	Pin No. 9
V101	6J4	1st pre-amplifier	0	0.7	0	6.3*	-	-	110	-	-
V102	6J4	2nd pre-amplifier	0	1.25	0	6.3*	-	-	120	-	-
V103	6AH6	Power amplifier	0	0	0	6.3*	175	130	1.3	-	-
V104	6AH6	Power amplifier	0	0	0	6.3*	175	130	1.3	-	-
V105	6AH6	Power amplifier	0	0	0	6.3*	175	130	1.3	-	-
V106	6AH6	Power amplifier	0	0	0	6.3*	175	130	1.3	-	-
V107	6AH6	Power amplifier	0	0	0	6.3*	175	130	1.3	-	-
V108	6AH6	Power amplifier	0	0	0	6.3*	175	130	1.3	-	-
V109	OB2	Voltage Regulator	-	105	-	-	210	-	-	-	-
V110	OB2	Voltage Regulator	-	0	-	-	105	-	-	-	-
V111	5U4G	Rectifier	-	270	-	280*	-	280*	-	270	-

NOTE: (1) Voltages marked with an asterisk(\*) are AC.

(2) All voltage measured to ground with a voltmeter having a sensitivity of at least 20,000 ohms per volt.

(3) Measurements made with AC power line voltage equal to either 115V or 230V depending upon the primary connections used on the power transformer.

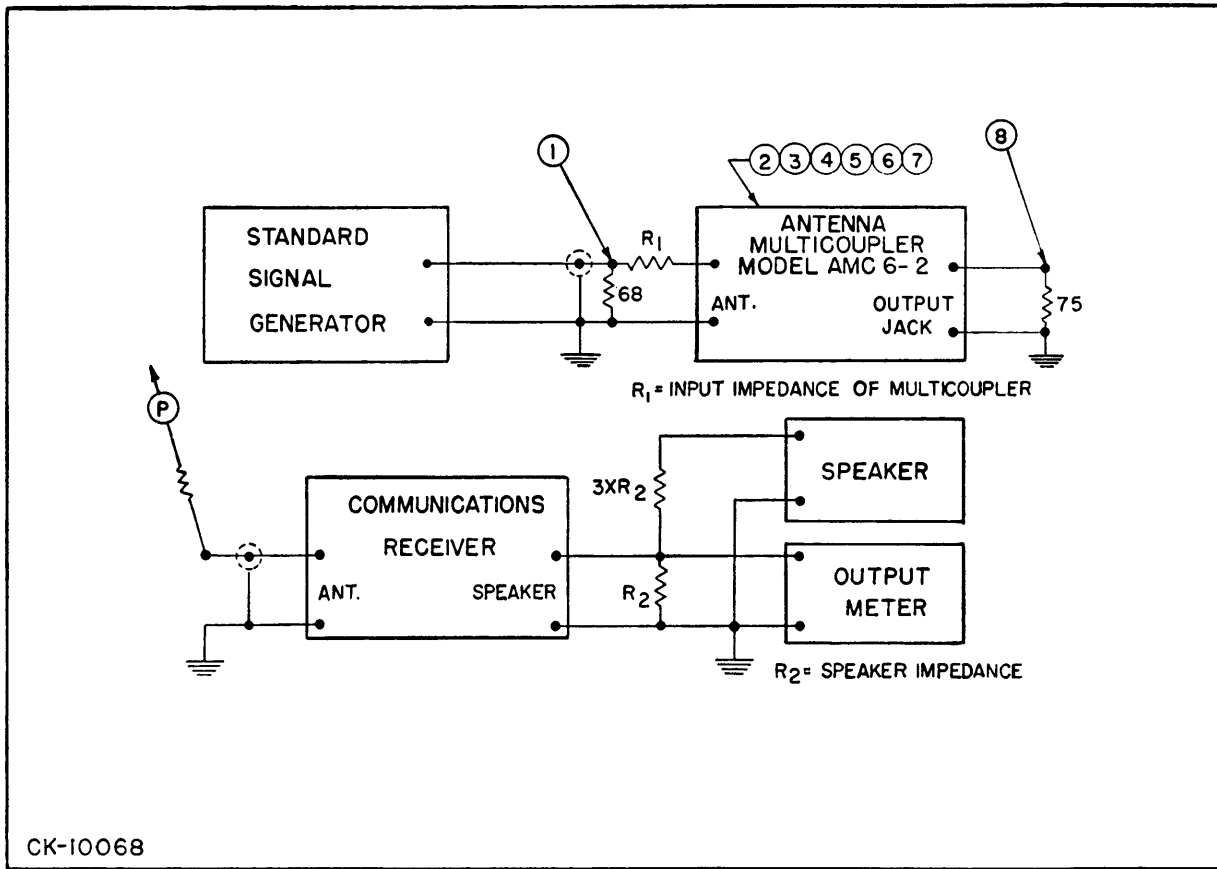


Figure 5-1. TEST SET UP FOR GAIN MEASUREMENTS

TABLE 5-2. GAIN TEST POINTS

Test Point	Location	Signal Generator Attenuator Setting - uv
1	Input — High Side of 68 ohm Resistor	70*
2	Primary of T101 — Pin No. 1	135*
3	Secondary of T101 — Pin No. 3	100
4	Grid of V101 — Mid Point LA, LB	110
5	Plate Load V101 — Mid Point LG, LH	53
6	Grid of V102 — Pin No. 1	33
7	Grid of Output Tubes — V103 to V108	40
8	Output — High side of 75 ohm Resistor connected to jacks J102 to J107	70

NOTE: (1) Attenuator settings in table are for AMC 6-2/200U.  
 (2) S101 is in FILTER IN position.  
 (3) Test frequency is 15 mc/s.  
 (4) \*For models other than AMC 6-2/200U, use figures given in Table 6-1.

## SECTION VI TECHNICAL SPECIFICATIONS

### 1. FREQUENCY RANGE:

2 to 30 mc/s

### 2. GAIN:

Nominal 10 db  $\pm$  3 db, 2 to 30 mc/s. (FILTER IN condition). Measurements made under conditions of Series R equal to the input impedance of multicoupler. When used in a receiving system, the multicoupler provides a response as shown in Figure 6-1.

### 3. NOISE FACTOR:

The noise factor is less than 6. A system noise factor of less than 6.5 is obtained when the multicoupler and a communications receiver having an equivalent noise factor are used in combination.

### 4. INTERMODULATION CHARACTERISTICS:

1. The equivalent antenna voltage of an intermodulated signal will be down 55 db with respect to the level of either of two equal amplitude signals whose equivalent antenna voltages to produce the intermodulated signal are:

- a. 8,650  $\mu$ V for a 75 ohm antenna,
- b. 14,100  $\mu$ V for a 200 ohm antenna.

2. Points in the shaded area of Figure 6-2 indicate the maximum amplitudes of the spurious signals which result when any two equal amplitude signals lying in the pass-band are simultaneously applied to the input of the AMC 6-2/200U multicoupler.

### 5. HARMONIC DISTORTION:

Negligible under conditions shown in paragraph 4.

### 6. INPUT IMPEDANCE RANGE PROVIDED BY T.M.C. MULTICOUPLERS:

This is shown in Table 6-1.

### 7. INPUT FILTER FOR BROADCAST-BAND:

A filter is provided and may be inserted into the input of the multicoupler to provide an attenuation of not less than 35 db at frequencies below 1.5 mc/s with no appreciable change in the multicoupler characteristics in the 2.5 to 30 mc/s range. (See Figure 6-2.) Insertion loss at 2 mc/s: 3 db; between 2.5 to 30 mc/s: nil. By means of this filter, the increase in spurious response normally produced when the multicoupler is operated near powerful "broadcast" transmitters, is greatly reduced.

### 8. INPUT IMPEDANCE CHARACTERISTICS:

These are shown in Figure 6-3.

### 9. AVAILABLE OUTPUTS:

6 outputs on the AMC 6-2, 10 outputs on the AMC 10-2.

**10. ISOLATION:**

- a. Output to Output: More than 70 db down at 2.5 mc/s.  
More than 45 db down at 28 mc/s.
- b. Output to Input: More than 80 db down at 2.5 mc/s.  
More than 60 db down at 28 mc/s.

**11. UNIFORMITY OF OUTPUT SIGNALS:**

The minimum signal voltage from any one of the output jacks will not be less than 75 percent of the output voltage from any other jack.

**12. NOMINAL INPUT IMPEDANCE:**

See Table 6-1.

**13. OUTPUT IMPEDANCE CHARACTERISTICS:**

These are shown in Figure 6-4.

**14. PRIMARY POWER SUPPLY:**

115/230 volts, 60 cycle, 90 watts

**15. DC POWER SUPPLY:**

Self-contained in AMC 6-2  
Separate in AMC 10-2

**16. TUBE COMPLEMENT:**

2 each 6J4 — RF pre-amplifiers  
6 each 6AH6 — power amplifiers (10 each in AMC 10-2)  
1 each 5U4G — rectifier  
2 each OB2 — voltage regulators

**17. MOUNTING:**

Standard 19 inch rack units.

**18. SIZE AND WEIGHT:**

AMC 6-2: 8¾ inches x 19 inches x 11 inches deep, 37 pounds  
AMC 10-2: 7 inches x 19 inches x 8 inches deep, 10 lbs.  
MCS, Power Supply: 7 inches x 19 inches x 5 inches deep, 30 lbs.

**19. COMPONENTS AND CONSTRUCTION:**

Equipment is manufactured in accordance with JAN specifications wherever practicable.



**TABLE 6-1. RANGE OF INPUT IMPEDANCES PROVIDED BY T.M.C. MULTICOUPLERS**

Model Number	Type of Input	Input Impedance	Number of Outputs	Cf Correction Factor for Figure 6-2 Use 1.0 unless otherwise stated	S.G. Settings for Table 5-2	
					Test Point	
					1	2
AMC 6-2/50B	Balanced	50	6			
AMC 6-2/50U	Unbalanced	50	6			
AMC 6-2/75B	Balanced	75	6		120	220
*AMC 6-2/75U	Unbalanced	75	6		120	220
AMC 6-2/200B	Balanced	200	6		70	135
AMC 6-2/200U	Unbalanced	200	6		70	135
AMC 10-2/50B	Balanced	50	10			
AMC 10-2/50U	Unbalanced	50	10			
AMC 10-2/75B	Balanced	75	10		120	220
AMC 10-2/75U	Unbalanced	75	10		120	220
AMC 10-2/200B	Balanced	200	10		70	135
AMC 10-2/200U	Unbalanced	200	10		70	135

\* AMC 6-2/75U RCAF Reference 10EA/50473.

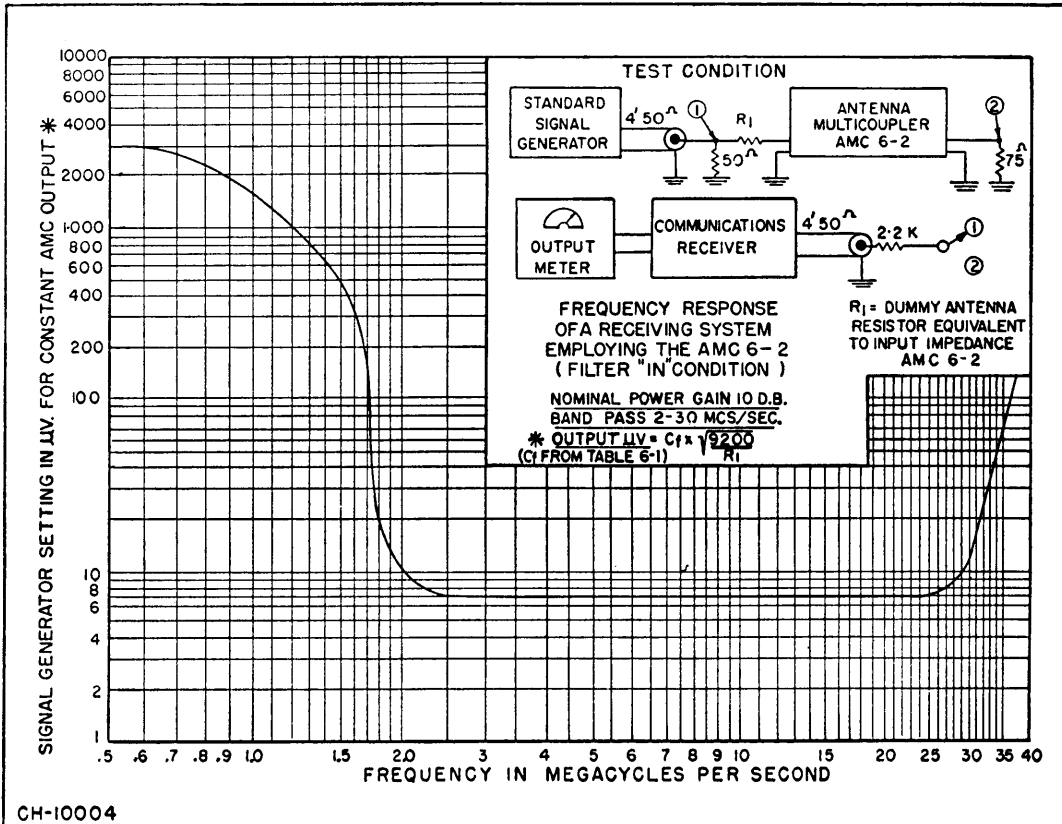
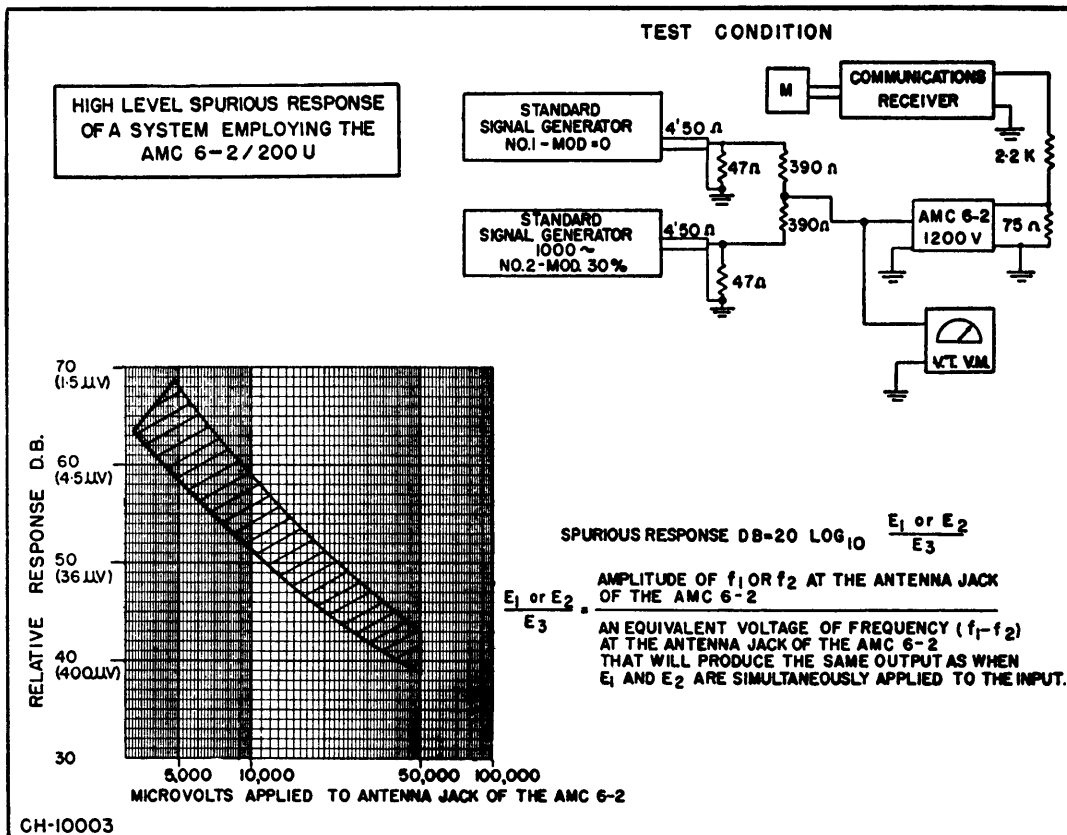


Figure 6-1. FREQUENCY RESPONSE CHARACTERISTICS



Figur 6-2. INTERMODULATION CHARACTERISTICS

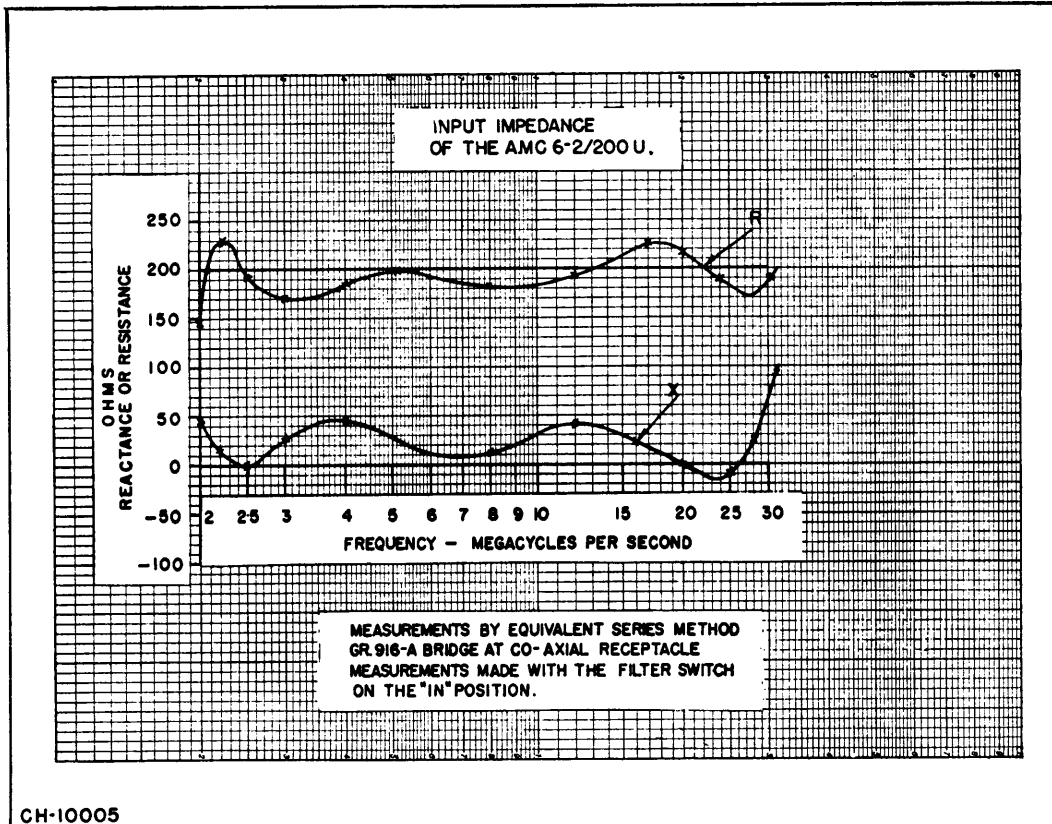


Figure 6-3. INPUT IMPEDANCE CHARACTERISTICS

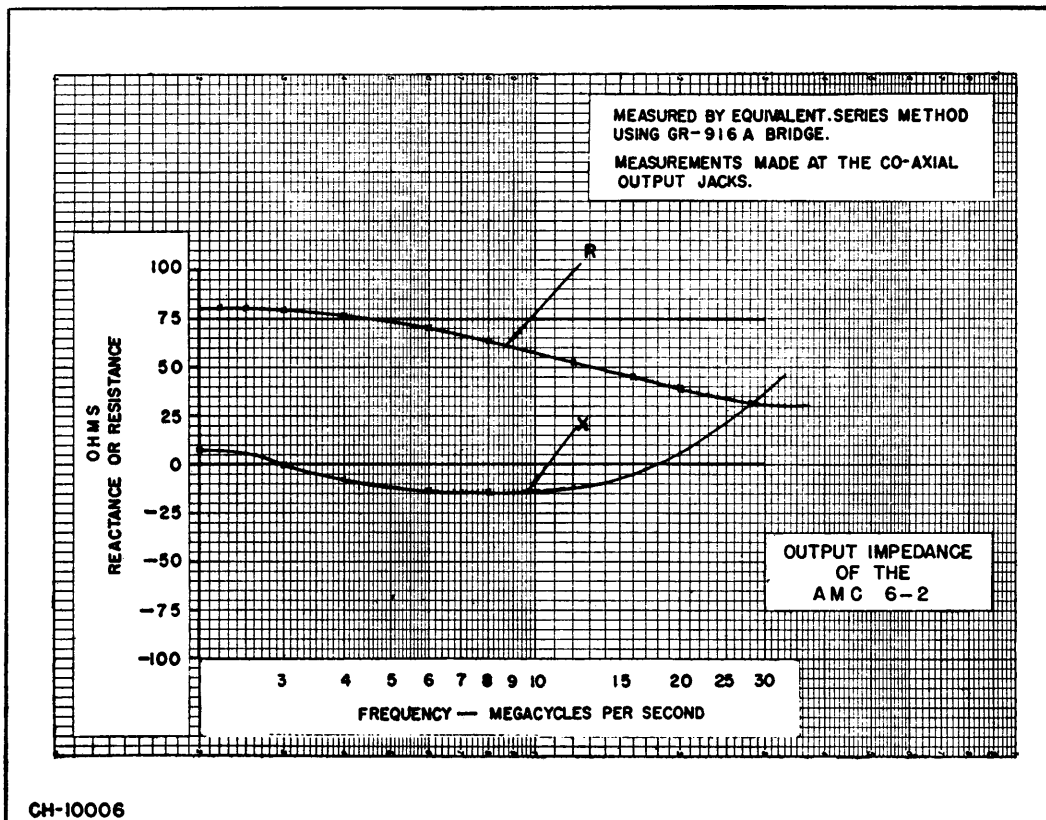


Figure 6-4. OUTPUT IMPEDANCE CHARACTERISTICS

## SECTION VII

## COMPONENT PARTS LIST — ANTENNA MULTICOUPLER, T.M.C. (CANADA) LIMITED — MODEL AMC 6-2

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
C101	1	CAPACITOR: fixed, ceramic, 10 $\mu\text{f}$ , $\pm 0.5 \mu\text{f}$ , 500 VDCW. Centralab D6/100.	P/O Termination of Artificial Line Section	CC21SH100D	10EC/35709
C102	1	CAPACITOR: fixed, mica, .01 $\mu\text{f}$ , 300 VDCW. JAN CM35B103J.	Cathode Bypass	CM35B103J	10EC/29315
C103	1	CAPACITOR: fixed, mica, .001 $\mu\text{f}$ , 300 VDCW. JAN CM20B102J.	DC Plate Blocking	CM20B102J	10EC/36580
C104	1	CAPACITOR: fixed, ceramic, 2.6 $\mu\text{f}$ , $\pm .25 \mu\text{f}$ , 500 VDCW. Centralab D6/030.	Neutralizing Capacitor	CC21SJ026C	
C105	1	CAPACITOR: fixed, ceramic, 10 $\mu\text{f}$ , $\pm 0.5 \mu\text{f}$ , 500 VDCW. Centralab D6/100.	P/O Termination of Artificial Line Section	CC21SH100D	10EC/35709
C106	1	CAPACITOR: fixed, mica, .01 $\mu\text{f}$ , 300 VDCW. JAN CM35B103J.	HT Bypass	CM35B103J	10EC/29315
C107	1	CAPACITOR: fixed, mica, .01 $\mu\text{f}$ , 300 VDCW. JAN CM35B103J.	Cathode Bypass	CM35B103J	10EC/29315
C108	1	CAPACITOR: fixed, mica, .001 $\mu\text{f}$ , 300 VDCW. JAN CM20B102J.	DC Plate Blocking	CM20B102J	10EC/36580
C109	1	CAPACITOR: fixed, ceramic, 2.6 $\mu\text{f}$ , $\pm .25 \mu\text{f}$ , 500 VDCW. Centralab D6/030.	Neutralizing Capacitor	CC21SJ026C	
C110	1	CAPACITOR: fixed, mica, .001 $\mu\text{f}$ , 300 VDCW. JAN CM20B102J.	Plate Decoupling Capacitor	CM20B102J	10EC/36580
C111	1	CAPACITOR: fixed, mica, .0051 $\mu\text{f}$ , 500 VDCW. JAN CM35B512J.	Cathode Bypass	CM35B512J	10EC/29211

**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
C112	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Screen Bypass	CM20B102J	10EC/36580
C113	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	DC Plate Blocking	CM20B102J	10EC/36580
C114	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Plate Decoupling Capacitor	CM20B102J	10EC/36580
C115	1	CAPACITOR: fixed, mica, .0051 $\mu$ f, 500 VDCW. JAN CM35B512J.	Cathode Bypass	CM35B512J	10EC/29211
C116	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Screen Bypass	CM20B102J	10EC/36580
C117	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	DC Plate Blocking	CM20B102J	10EC/36580
C118	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Plate Decoupling Capacitor	CM20B102J	10EC/36580
C119	1	CAPACITOR: fixed, mica, .0051 $\mu$ f, 500 VDCW. JAN CM35B512J.	Cathode Bypass	CM35B512J	10EC/29211
C120	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Screen Bypass	CM20B102J	10EC/36580
C121	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	DC Plate Blocking	CM20B102J	10EC/36580
C122	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Plate Decoupling Capacitor	CM20B102J	10EC/36580
C123	1	CAPACITOR: fixed, mica, .0051 $\mu$ f, 500 VDCW. JAN CM35B512J.	Cathode Bypass	CM35B512J	10EC/29211
C124	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Screen Bypass	CM20B102J	10EC/36580

**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
C125	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	DC Plate Blocking	CM20B102J	10EC/36580
C126	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Plate Decoupling Capacitor	CM20B102J	10EC/36580
C127	1	CAPACITOR: fixed, mica, .0051 $\mu$ f, 500 VDCW. JAN CM35B512J.	Cathode Bypass	CM35B512J	10EC/29211
C128	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Screen Bypass	CM20B102J	10EC/36580
C129	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	DC Plate Blocking	CM20B102J	10EC/36580
C130	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Plate Decoupling Capacitor	CM20B102J	10EC/36580
C131	1	CAPACITOR: fixed, mica, .0051 $\mu$ f, 500 VDCW. JAN CM35B512J.	Cathode Bypass	CM35B512J	10EC/29211
C132	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	Screen Bypass	CM20B102J	10EC/36580
C133	1	CAPACITOR: fixed, mica, .001 $\mu$ f, 300 VDCW. JAN CM20B102J.	DC Plate Blocking	CM20B102J	10EC/36580
C134	1	CAPACITOR: fixed, cylindrical case, 4 $\mu$ f, 600 VDCW. JAN CP40B2EF405K.	DC Power Supply Filter Capacitor	CP40B2EF405K	10EC/50466
C135	1	CAPACITOR: fixed, cylindrical case, 4 $\mu$ f, 600VDCW. JAN CP40B2EF405K.	DC Power Supply Filter Capacitor	CP40B2EF405K	10EC/50466
C136	1	CAPACITOR: fixed, cylindrical case, 4 $\mu$ f, 600 VDCW. JAN CP40B2EF405K.	DC Power Supply Filter Capacitor	CP40B2EF405K	10EC/50466
C137	1	CAPACITOR: fixed, duranite, oil filled, .02 $\mu$ f, 600 VDCW. Aerovox type 88.	AC Line Filter Capacitor	CN-100-17	10EC/37874

**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
C138	1	CAPACITOR: fixed, duranite, oil filled, .02 $\mu$ f, 600 VDCW. Aerovox type 88.	AC Line Filter Capacitor	CN-100-17	10EC/37874
DL101	1	ARTIFICIAL LINE SECTION: composed of inductive elements LA, LB; capacity elements C101; input capacity V101; and stray capacity. Coils wound on $\frac{3}{8}$ in. bakelite tubing, 2 $\frac{3}{4}$ in. long (ref. TMC dwg. CF-10002).	Used to form a line section of constant impedance into the 1st pre-amplifier stage.	DL-10001	10EC/53180
DL102	1	ARTIFICIAL LINE: Part 1: composed of inductive elements LG, LH; capacity elements C105, input capacity V102; and stray capacity.  Part 2: composed of inductive elements Lc, Ld, Le, Lf, Ll, Lj, Lk, Ll; capacity elements due to input capacity of tubes V103-V108; and stray capacity.  General: Coils wound on $\frac{3}{8}$ in. bakelite tubing 16 $\frac{1}{2}$ in. long (ref. TMC dwg. CF-10007).	Used to form a line section of constant impedance between 1st and 2nd pre-amplifier stages.  Used to form a distribution system between output of 2nd pre-amplifier stage and the six output stages.	DL-10003	10EC/53181
F101	2	FUSE: cartridge, slow blow, 1 amp, 250 V (one fuse spare). Bussman Mfg. Co. No. MDL-1.	Primary Power Fuse	FU-102-001	5CB/651
FX101	1	FILTER ASSEMBLY: low frequency cut-off filter non-repairable item; frequency response: 2 mc less than 2 db 1.5 mc greater than 25 db below 1 mc greater than 35 db.	High-pass Filter Assembly	FX-10002	10EC/53173
I101	1	LAMP: incandescent, bayonet base, 6-8 V, 0.25 amp, T-3 $\frac{1}{4}$ bulb, maximum length 1 $\frac{3}{16}$ in. Canadian General Electric CGE-44.	Pilot Light	BI-101-44	5L/777
J101	1	RECEPTACLE: coaxial type, single conductor. Amphenol 83-1R.	Antenna Input Jack	SO-239	10EC/14828

COMPONENT PARTS LIST—Continued

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
J102	1	RECEPTACLE: coaxial type, single conductor, (P/O assembly CA-10011). Amphenol 83-1R	Output Jack	SO-239	10EC/14828
J103	1	RECEPTACLE: coaxial type, single conductor, (P/O assembly CA-10011). Amphenol 83-1R.	Output Jack	SO-239	10EC/14828
J104	1	RECEPTACLE: coaxial type, single conductor, (P/O assembly CA-10011). Amphenol 83-1R.	Output Jack	SO-239	10EC/14828
J105	1	RECEPTACLE: coaxial type, single conductor, (P/O assembly CA-10011). Amphenol 83-1R.	Output Jack	SO-239	10EC/14828
J106	1	RECEPTACLE: coaxial type, single conductor, (P/O assembly CA-10011). Amphenol 83-1R.	Output Jack	SO-239	10EC/14828
J107	1	RECEPTACLE: coaxial type, single conductor, (P/O assembly CA-10011). Amphenol 83-1R.	Output Jack	SO-239	10EC/14828
J108	1	RECEPTACLE: male twistlock, 250 V AC, 10 amp. Hubbell 7466.	AC Power Receptacle	JJ-100	10EC/42592
J109	1	RECEPTACLE: coaxial type, single conductor. Amphenol 83-1R.	Antenna Input Jack	SO-239	10EC/14828
L101	1	COIL: RF.	Compensating Inductor	CL-10003	
L102	1	CHOKES: filter, non-repairable item, inductance 10 H, at 30 V RMS 50/60 cps for 300 MA DC; winding resistance 90 ohms, 300 VDCW; oil filled hermetically sealed steel case.	P/O DC Power Supply Filter	TF-10010	
L103	1	CHOKES: filter, non-repairable item, inductance 10 H at 30 V RMS 50/60 cps for 300 MA DC; winding resistance 90 ohms, 300 VDCW; oil filled hermetically sealed steel case.	P/O DC Power Supply Filter	TF-10010	



**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
R101	1	RESISTOR: fixed, film, 430 ohms, $\pm 1\%$ , 1 W. Corning Glass Works CGW-N25.	Artificial Line Terminating Resistor	RN-25-H-431F	10EC/53540
R102	1	RESISTOR: fixed, composition, 47 ohms, $\pm 5\%$ , 1W. JAN RC30GF470J.	Cathode Bias Resistor	RC30GF470J	10EC/49626
R103	1	RESISTOR: fixed, film, 6800 ohms, $\pm 1\%$ , 1 W. Corning Glass Works CGW-N25.	Plate Resistor	RN-25-H-682F	10EC/53177
R104	1	RESISTOR: fixed, film, 430 ohms, $\pm 1\%$ , 1 W. Corning Glass Works CGW-N25.	Artificial Line Terminating Resistor	RN-25-H-431F	10EC/53540
R105	1	RESISTOR: fixed, composition, 47 ohms, $\pm 5\%$ , 1 W. JAN RC30GF470J.	Cathode Feedback Resistor	RC30GF470J	10EC/49626
R106	1	RESISTOR: fixed, composition, 47 ohms, $\pm 5\%$ , 1W. JAN RC30GF470J	Cathode Bias Resistor	RC30GF470J	10EC/49626
R107	1	RESISTOR: fixed, film, 6800 ohms, $\pm 1\%$ , 1W. Corning Glass Works CGW-N25.	Plate Resistor	RN-25-H-682F	10EC/53177
R108	1	RESISTOR: fixed, film, 220 ohms, $\pm 1\%$ , 1W. Corning Glass Works CGW-N25.	Distribution Line Terminating Resistor	RN-25-H-221F	10EC/54377
R109	1	RESISTOR: fixed, composition, 680 ohms, $\pm 5\%$ , 1W. JAN RC30GF681J.	Decoupling Resistor	RC30GF681J	10EC/33015
R110	1	RESISTOR: fixed, film, 6800 ohms, $\pm 1\%$ , 1W. Corning Glass Works CGW-N25.	Plate Resistor	RN-25-H-682F	10EC/53177
R111	1	RESISTOR: fixed, composition, 47 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Feedback Resistor	RC20GF470J	10EC/36319
R112	1	RESISTOR: fixed, composition, 47 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Bias Resistor	RC20GF470J	10EC/36319
R113	1	RESISTOR: fixed, composition, 22,000 ohms, $\pm 5\%$ , 1 watt. JAN RC30GF223J.	P/O Screen Voltage Divider	RC30GF223J	10EC/36121

**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
R114	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Plate Load Resistor	RC30GF681J	10EC/33015
R115	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Decoupling Resistor	RC30GF681J	10EC/33015
R116	1	RESISTOR: fixed, film, 6800 ohms, $\pm$ 1%, 1W. Corning Glass Works CGW-N25.	Plate Resistor	RN-25-H-682F	10EC/53177
R117	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Feedback Resistor	RC20GF470J	10EC/36319
R118	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Bias Resistor	RC20GF470J	10EC/36319
R119	1	RESISTOR: fixed, composition, 22,000 ohms, $\pm$ 5%, 1 watt. JAN RC30GF223J.	P/O Screen Voltage Divider	RC30GF223J	10EC/36121
R120	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Plate Load Resistor	RC30GF681J	10EC/33015
R121	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Decoupling Resistor	RC30GF681J	10EC/33015
R122	1	RESISTOR: fixed, film, 6800 ohms, $\pm$ 1%, 1W. Corning Glass Works CGW-N25.	Plate Resistor	RN-25-H-682F	10EC/53177
R123	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Feedback	RC20GF470J	10EC/36319
R124	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Bias Resistor	RC20GF470J	10EC/36319
R125	1	RESISTOR: fixed, composition, 22,000 ohms, $\pm$ 5%, 1 watt. JAN RC30GF223J.	P/O Screen Voltage Divider	RC30GF223J	10EC/36121
R126	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Plate Load Resistor	RC30GF681J	10EC/33015

**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
R127	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Decoupling Resistor	RC30GF681J	10EC/33015
R128	1	RESISTOR: fixed, film, 6800 ohms, $\pm$ 1%, 1W. Corning Glass Works CGW-N25.	Plate Resistor	RN-25-H-682F	10EC/53177
R129	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Feedback	RC20GF470J	10EC/36319
R130	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Bias Resistor	RC20GF470J	10EC/36319
R131	1	RESISTOR: fixed, composition, 22,000 ohms, $\pm$ 5%, 1 watt. JAN RC30GF223J.	P/O Screen Voltage Divider	RC30GF223J	10EC/36121
R132	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Plate Load Resistor	RC30GF681J	10EC/33015
R133	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Decoupling Resistor	RC30GF681J	10EC/33015
R134	1	RESISTOR: fixed, film, 6800 ohms, $\pm$ 1%, 1 W. Corning Glass Works CGW-N25.	Plate Resistor	RN-25-H-682F	10EC/53177
R135	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Feedback	RC20GF470J	10EC/36319
R136	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Bias	RC20GF470J	10EC/36319
R137	1	RESISTOR: fixed, composition, 22,000 ohms, $\pm$ 5%, 1 watt. JAN RC30GF223J.	P/O Screen Voltage Divider	RC30GF223J	10EC/36121

## COMPONENT PARTS LIST—Continued

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
R138	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Plate Load Resistor	RC30GF681J	10EC/33015
R139	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Decoupling Resistor	RC30GF681J	10EC/33015
R140	1	RESISTOR: fixed, film, 6800 ohms, $\pm$ 1%, 1W. Corning Glass Works CGW-N25.	Plate Resistor	RN-25-H-682F	10EC/53177
R141	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Feedback	RC20GF470J	10EC/36319
R142	1	RESISTOR: fixed, composition, 47 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF470J.	Cathode Bias Resistor	RC20GF470J	10EC/36319
R143	1	RESISTOR: fixed, composition, 22,000 ohms, $\pm$ 5%, 1 watt. JAN RC30GF223J.	P/O Screen Voltage Divider	RC30GF223J	10EC/36121
R144	1	RESISTOR: fixed, composition, 680 ohms, $\pm$ 5%, 1W. JAN RC30GF681J.	Plate Load Resistor	RC30GF681J	10EC/33015
R145	1	RESISTOR: fixed, film, 220 ohms, $\pm$ 1%, 1W. Corning Glass Works CGW-N25.	Distribution Line Terminating Resistor	RN-25-H-221F	10EC/54377
R146	1	RESISTOR: fixed, wire wound, vitreous enamel, 1500 ohms, $\pm$ 10%, 10W. Ward Leonard, Co. Cat. No. 10F2000	Series Dropping Resistor	RW-109-26	
R147	1	RESISTOR: fixed, composition, 100 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF101J.	Compensating Resistor	RC20GF101J	10EC/32827
R148	1	RESISTOR: fixed, composition, 47,000 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF473J.	P/O Screen Voltage Divider	RC20GF473J	10EC/32871
R149	1	RESISTOR: fixed, composition, 47,000 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF473J.	P/O Screen Voltage Divider	RC20GF473J	10EC/32871
R150	1	RESISTOR: fixed, composition, 47,000 ohms, $\pm$ 5%, $\frac{1}{2}$ watt. JAN RC20GF473J.	P/O Screen Voltage Divider	RC20GF473J	10EC/32871

**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
R151	1	RESISTOR: fixed, composition, 47,000 ohms, $\pm 5\%$ $\frac{1}{2}$ watt. JAN RC20GF473J.	P/O Screen Voltage Divider	RC20GF473J	10EC/32871
R152	1	RESISTOR: fixed, composition, 47,000 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt. JAN RC20GF473J.	P/O Screen Voltage Divider	RC20GF473J	10EC/32871
R153	1	RESISTOR: fixed, composition, 47,000 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt. JAN RC20GF473J.	P/O Screen Voltage Divider	RC20GF473J	10EC/32871
R154	1	RESISTOR: fixed, composition, 1000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt. JAN RC20GF102K.	Plate Load Resistor	RC20GF102K	10EC/32843
S101	1	SWITCH: rotary, DPDT, shorting type, mycalex wafer, angle of throw 30%. Oak (special).	High-pass Filter Switch	SW-10004	10EC/53179
S102	1	SWITCH: toggle, DPST, 1 amp, 250 V, 28 degrees. JAN ST-22K.	Power Switch	ST-22K	10EC/32456
T101	1	TRANSFORMER: See Supplement following Page 36.	Antenna Matching Transformer	TR-059	10EC/53174
T102	1	TRANSFORMER: neutralizing, non-repairable item, broad band rf; input terminals 2-3 impedance 300 ohms unbalanced; output terminals 4-1 impedance 300 ohms unbalanced, terminals 1-3 ground; frequency range 2-30 mc/s; response less than 1 db below mid-band.	Neutralizing Transformer	TR-058	10EC/53172
T103	1	TRANSFORMER: neutralizing and impedance matching, non-repairable item, broad band rf; input terminals 3-4 impedance 400 ohms unbalanced, output No. 1 terminals 2-4 impedance 400 ohms unbalanced, output No. 2 terminals 1-4 impedance 100 ohms unbalanced, terminal 4 ground; frequency range 2-30 mc/s; response less than 2 db below mid-band.	Neutralizing Transformer	TR-062	10EC/53171

## COMPONENT PARTS LIST—Continued

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
T104	1	TRANSFORMER: output, broad band rf, non-repairable item; input terminals 1-3 impedance 600 ohms unbalanced, output terminals 2-4 70 ohms unbalanced, terminals 3-4 ground; frequency range 2-30 mc/s; response less than 1 db below mid-band.	Output Matching Transformer	TR-057	10EC/53170
T105	1	TRANSFORMER: output, broad band rf, non-repairable item; input terminals 1-3 impedance 600 ohms unbalanced, output terminals 2-4 70 ohms unbalanced, terminals 3-4 ground; frequency range 2-30 mc/s; response less than 1 db below mid-band.	Output Matching Transformer	TR-057	10EC/53170
T106	1	TRANSFORMER: output broad band rf, non-repairable item; input terminals 1-3 impedance 600 ohms unbalanced, output terminals 2-4 70 ohms unbalanced, terminals 3-4 ground; frequency range 2-30 mc/s; response less than 1 db below mid-band.	Output Matching Transformer	TR-057	10EC/53170
T107	1	TRANSFORMER: output, broad band rf, non-repairable item; input terminals 1-3 impedance 600 ohms unbalanced, output terminals 2-4 70 ohms unbalanced, terminals 3-4 ground; frequency range 2-30 mc/s; response less than 1 db below mid-band.	Output Matching Transformer	TR-057	10EC/53170
T108	1	TRANSFORMER: output, broad band rf, non-repairable item; input terminals 1-3 impedance 600 ohms unbalanced, output terminals 2-4 70 ohms unbalanced, terminals 3-4 ground; frequency range 2-30 mc/s; response less than 1 db below mid-band.	Output Matching Transformer	TR-057	10EC/53170
T109	1	TRANSFORMER: output, broad band rf, non-repairable item; input terminals 1-3 impedance 600 ohms unbalanced, output terminals 2-4 70 ohms unbalanced, terminals 3-4 ground; frequency range 2-30 mc/s; response less than 1 db below mid-band.	Output Matching Transformer	TR-057	10EC/53170

**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
T110	1	TRANSFORMER: power, non-repairable item; primary 115/230 volts, 50/60 cycle, single phase; secondary #1 (terminals 5, 6, 7): 300 volts, 300 ma DC, centre tapped, secondary #2 (terminals 8, 9): 300 volts, 3 amp; secondary #3 (terminals 10, 11): 300 volts, 4 amp; electrostatic shield provided; hermetically sealed steel case, 4½ inches long, 3¾ inches wide, 4½ inches high excluding terminal; 11 ceramic turret type terminals, ½ inch high located on mtg. end; Row 2: terminals 2, 5, 8 located on centre line parallel to 4½ inch side dimension, terminal 5 in exact centre of mtg. end, ½ inch between centres; two rows of terminals Row 1: (terminals 1, 4, 7, 10 and Row 3: 3, 6, 9, 11) run parallel to Row 2 with ½ inch spacing between centres, ½ inch centres between rows; terminal 4 in Row 1 and terminal 6 in Row 3 are located midway between terminals 2 and 5; reading perpendicularly, Row 1 is to the left of Row 2; mtg. by 4 studs 10-32 x ½ inch located one in each corner, 3¾ inches between centres along 4½ inch dimension, 2¼ inches between centres along 3¾ inch dimension; finish TMC grey. Berkshire Trans. Co.	Power Transformer	TF-10008	
V101	1	TUBE: electron, 6J4, UHF amplifier triode, receiving type, 7 pin miniature, Canadian General Electric CGE 6J4.	1st Pre-amplifier	6J4	10EC/30101
V102	1	TUBE: electron, 6J4, UHF amplifier, triode, receiving type, 7 pin miniature. Canadian General Electric CGE 6J4.	2nd Pre-amplifier	6J4	10EC/30101
V103	1	TUBE: electron, 6AH6, miniature 7 pin pentode, receiving type. Canadian General Electric CGE 6AH6.	Power Amplifier Tube	6AH6	10EC/26005
V104	1	TUBE: electron, 6AH6, miniature 7 pin pentode, receiving type. Canadian General Electric CGE 6AH6.	Power Amplifier Tube	6AH6	10EC/26005
V105	1	TUBE: electron, 6AH6, miniature 7 pin pentode, receiving type. Canadian General Electric CGE 6AH6.	Power Amplifier Tube	6AH6	10EC/26005
V106	1	TUBE: electron, 6AH6, miniature 7 pin pentode, receiving type. Canadian General Electric CGE 6AH6.	Power Amplifier Tube	6AH6	10EC/26005

## COMPONENT PARTS LIST—Continued

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
V107	1	TUBE: electron, 6AH6, miniature 7 pin pentode, receiving type. Canadian General Electric CGE 6AH6.	Power Amplifier Tube	6AH6	10EC/26005
V108	1	TUBE: electron, 6AH6, miniature 7 pin pentode, receiving type. Canadian General Electric CGE 6AH6.	Power Amplifier Tube	6AH6	10EC/26005
V109	1	TUBE: electron, OB2, miniature 7 pin voltage regulator. Canadian General Electric CGE OB2	Voltage Regulator	OB2	10EC/29330
V110	1	TUBE: electron, OB2, miniature 7 pin voltage regulator. Canadian General Electric CGE OB2	Voltage Regulator	OB2	10EC/29330
V111	1	TUBE: electron, 5U4G, rectifier, octal, receiving type. Canadian General Electric CGE 5U4G.	Rectifier	5U4G	10EC/21898
XF101	2	HOLDER: fuse, extractor post type; length 2 9/64 in., cap width 11/16 in., depth 17/64 in. Bussman Mfg. Co. No. HKP-M.	Fuse Holder	FH-100-2	10EC/42598
XI101	1	LIGHT: indicator, with red frosted lens, miniature bayonet base. Dial Light Co. 87410-111.	Pilot Light Socket	TS-106-1	5L/1641
XV101	1	SOCKET: tube, 7 pin miniature, moulded thermo-setting plastic insulation. JAN TS-102-PO1.	V101 Socket	TS-102-PO1	10EC/29469
XV102	1	SOCKET: tube, 7 pin miniature, moulded thermo-setting plastic insulation. JAN TS-102-PO1.	V102 Socket	TS-102-PO1	10EC/29469
XV103	1	SOCKET: tube, 7 pin miniature, moulded thermo-setting plastic insulation. JAN TS-102-PO1.	V103 Socket	TS-102-PO1	10EC/29469



**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
XV104	1	SOCKET: tube, 7 pin miniature, moulded thermosetting plastic insulation. JAN TS-102-PO1.	V104 Socket	TS-102-PO1	10EC/29469
XV105	1	SOCKET: tube, 7 pin miniature, moulded thermosetting plastic insulation. JAN TS-102-PO1.	V105 Socket	TS-102-PO1	10EC/29469
XV106	1	SOCKET: tube, 7 pin miniature, moulded thermosetting plastic insulation. JAN TS-102-PO1.	V106 Socket	TS-102-PO1	10EC/29469
XV107	1	SOCKET: tube, 7 pin miniature, moulded thermosetting plastic insulation. JAN TS-102-PO1.	V107 Socket	TS-102-PO1	10EC/29469
XV108	1	SOCKET: tube, 7 pin miniature, moulded thermosetting plastic insulation. JAN TS-102-PO1.	V108 Socket	TS-102-PO1	10EC/29469
XV109	1	SOCKET: tube, 7 pin miniature, moulded thermosetting plastic insulation. JAN TS-102-PO1.	V109 Socket	TS-102-PO1	10EC/29469
XV110	1	SOCKET: tube, 7 pin miniature, moulded thermosetting plastic insulation. JAN TS-102-PO1.	V110 Socket	TS-102-PO1	10EC/29469
XV111	1	SOCKET: tube, octal, moulded thermosetting plastic insulation. JAN TS-101-PO1.  PLUG: coaxial type, single conductor, brass, silver plated; mates with receptacle SO-239. (J101) (also J109 on Model AMC 6-2/75U) USN CPH-49190.	V111 Socket  P/O Antenna Cable	TS-101-PO1  PL-259	10EC/28274  10EC/13322

**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
	6	PLUG: coaxial type, single conductor, brass, silver plated; mates with receptacle SO-239. (J102-J107).	P/O Receiver Connecting Cable	PL-259	10EC/13322
	8	SHIELD: tube, brass, nickel plated. JAN TS-102-UO2	Shield V101-V108	TS-102-UO2	10EC/34621
	2	SHIELD: tube, brass, nickel plated. JAN TS-102-UO3	Shield V109, V110	TS-102-UO3	10EC/30067

**COMPONENT PARTS LIST—Continued**

Ref. Symbol	Quan.	Description	Function	TMC Part No.	RCAF Replacement Reference No.
	1	<p>CABLE ASSEMBLY: consisting of the following: (Cornish Wire Co. reference for complete assembly: No. 1628, BLACK) Female twist-lock plug. Hubbell type No. 7464 ea 1</p> <p>Male non-polarized plug, Cornish Wire Co. type No. 56 ea 1</p> <p>Cable, two conductor, rubber covered, Cornish Wire Co. type 16/30-SJ, length 6 ft. ea 1</p>	AC Line Cord	CA-103	10EC/24586 5 A/2003
	6	<p>ASSEMBLY: output coaxial lead consisting of: Connector Receptacle, coaxial, Amphenol type 83-1R ea 1</p> <p>Hood, Amphenol type UG-177/U ea 1</p> <p>Outer Ferrule, for coaxial cable, Burdny Engineering Co. type YPV 160 ea 1</p> <p>Cable, coaxial, Amphenol type RG-59/U, length 6" approx. ea 1</p>	Output Coaxial Lead	CA-10011 SO-239 MS-10097 CU-101-4 RG-10001	10EC/14828 10EC/29495 10EP/53178 5E/502
	1	<p>INPUT COAXIAL CABLE: length 10½"</p> <p>For use on multicoupler AMC 6-2/75U Amphenol type RG-11/U ea 1</p> <p>For use on multicoupler AMC 6-2/200 Amphenol type RG-114/U ea 1</p>	Input Coaxial Lead RG-10002-2 RG-10002-1		5E/531

## COMPONENT PARTS LIST SUPPLEMENT

MODEL	J101	J109	L101	T101
AMC 6-2/50B	RECEPTACLE: coaxial type, dual conductor. JAN UG-103/U.	NOT USED	NOT USED	TRANSFORMER: input, broad band rf, non-repairable item; input balanced 50 ohms, terminals 1-2; output 400 ohms, terminal 3; ground terminal 1; frequency response less than 1 db below mid-band; frequency range 2-30 mc/s. TMC TR-071.
AMC 6-2/50U	RECEPTACLE: coaxial type, single conductor. JAN SO-239.	RECEPTACLE: coaxial type, single conductor. JAN SO-239.	NOT USED	TRANSFORMER: input, broad band rf, non-repairable item; input unbalanced 50 ohms, terminal 1; output 400 ohms, terminal 3; ground terminals 2-4; frequency response less than 1db below mid-band; frequency range 2-30 mc/s. TMC TR-063.
AMC 6-2/75B	RECEPTACLE: coaxial type, dual conductor. JAN UG-103/U.	NOT USED	NOT USED	TRANSFORMER: input, broad band rf, non-repairable item; input balanced 75 ohms, terminals 1-2; output 400 ohms, terminal 3; ground terminal 4; frequency response less than 1 db below mid-band; frequency range 2-30 mc/s. TMC TR-066.
AMC 6-2/75U	RECEPTACLE: coaxial type, single conductor. JAN SO-239. RCAF Ref. 10EC/14828	RECEPTACLE: coaxial type, single conductor. JAN SO-239. RCAF Ref. 10EC/14828	COIL: RF. TMC CL-10003.	TRANSFORMER: input, broad band rf, non-repairable item; input unbalanced 75 ohms, terminal 1; output 400 ohms, terminal 3; ground terminals 2-4; frequency response less than 1 db below mid-band; frequency range 2-30 mc/s. TMC TR-059. RCAF Ref. 10EC/53174.

**COMPONENT PARTS LIST SUPPLEMENT—Continued**

MODEL	J101	J109	L101	T101
AMC 6-2/200B	RECEPTACLE: coaxial type, dual conductor. JAN UG-103/U.	NOT USED	NOT USED	TRANSFORMER: input, broad band rf, non-repairable item; input balanced 200 ohms, terminals 1-2; output 400 ohms, terminal 3; ground terminal 4; frequency response less than 1 db below mid-band; frequency range 2-30 mc/s. TMC TR-067.
AMC 6-2/200U	RECEPTACLE: coaxial type, single conductor. JAN SO-239.	NOT USED	COIL: RF. TMC CL-10002.	TRANSFORMER: input, broad band rf, non-repairable item; input unbalanced 200 ohms, terminal 1; output 400 ohms, terminal 3; ground terminals 2-4; frequency response less than 1 db below mid-band; frequency range 2-30 mc/s. TMC TR-060.

PICTORIAL COMPONENT LAYOUT			
DATE	FILE NO.	REV.	BY
19/9/65	473	1	W.C.
DESIGNED	CHECKED	APPROVED	DATE
			ID-10034

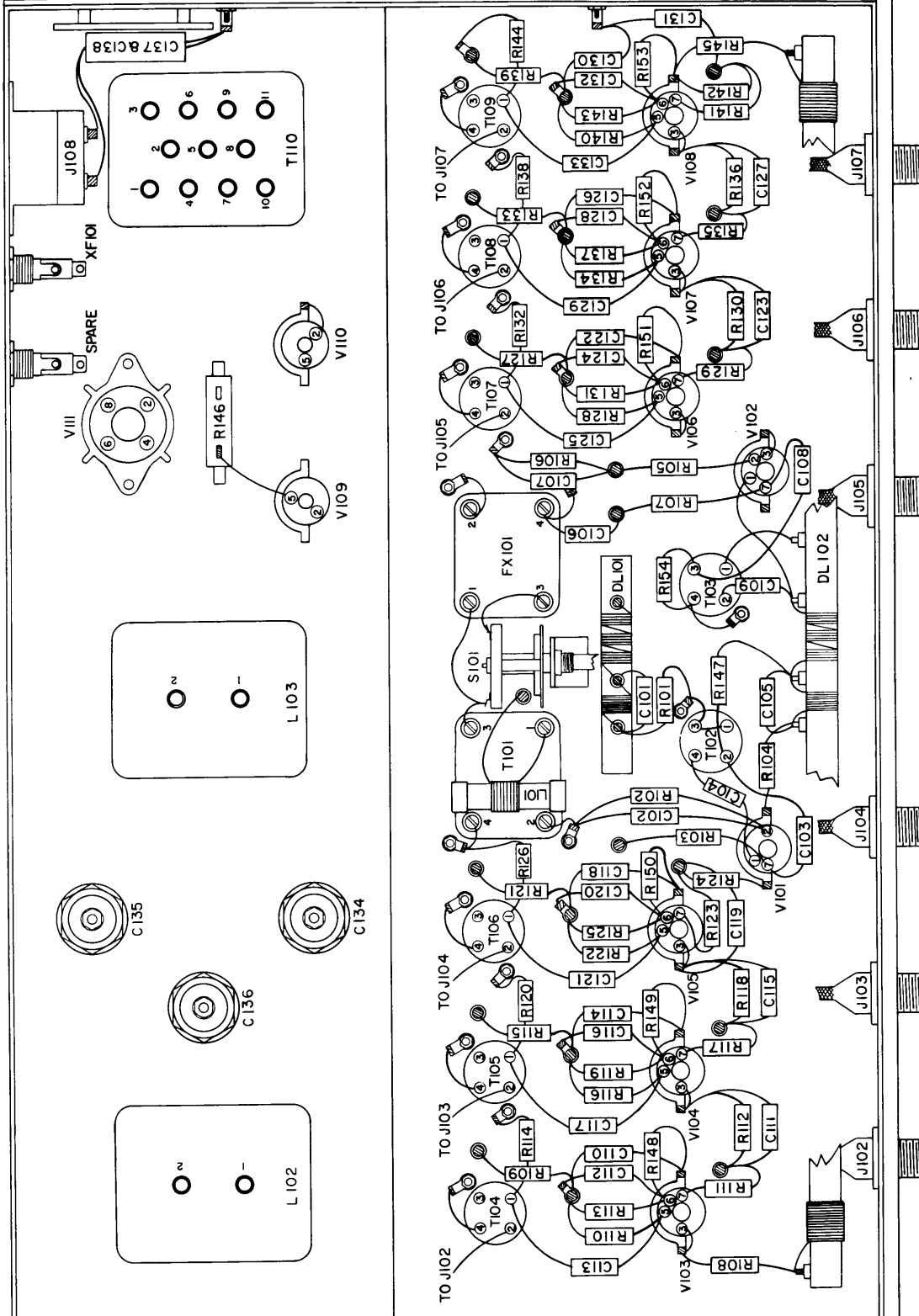


Figure 8-1. PICTORIAL COMPONENT LAYOUT



