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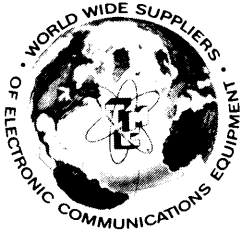
Technical Manual

for

LF/MF Receiving Antenna Multicoupler

Model LMC-8A

The Technical Materiel Corporation
700 Fenimore Road
Mamaroneck, New York 10543-0142 U.S.A.



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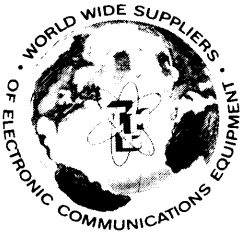
Technical Manual

for

LF/MF Receiving Antenna Multicoupler

Model LMC-8A

THE TECHNICAL MATERIEL CORPORATION



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The Technical Materiel Corporation, hereinafter referred to as TMC, warrants the equipment - except electron tubes, semi-conductor devices, fuses, lamps, batteries, and articles made of glass or other fragile or expendable materials - purchased hereunder to be free from defect in workmanship and materials 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 FOB 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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NOTICE

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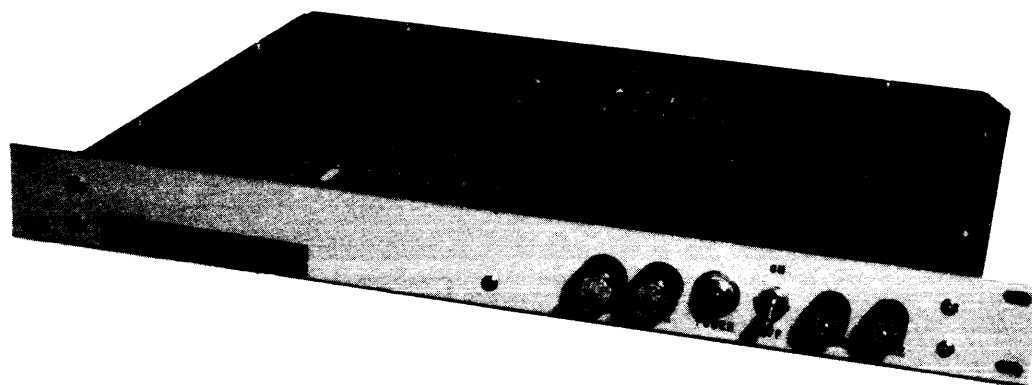


Figure 1-1

EIGHT OUTPUT ANTENNA MULTICOUPLER, MODEL LMC-8A

SECTION 1
GENERAL INFORMATION

1-1. FUNCTIONAL DESCRIPTION

(1) The Eight Output Antenna Multicoupler, Model LMC-8A (figure 1-1) is a broadband Antenna-to-Receiver coupling device which permits the use of a common antenna by eight Low frequency communications receivers. Its circuitry consists of a Lowpass filter, a broadband transistorized preamplifier, and eight individual buffer amplifiers. The unit is engineered in such a way that a sizeable reduction is achieved in the amplitude of signals re-radiated from one receiver to another or from one receiver to the common antenna system. The LMC-8A is provided with a lowpass filter which passes frequencies between 10 KHz to 2 MHz.

(2) The filter attenuates all signals outside the band to avoid needless overloading of amplifiers due to large signals outside the band of interest.

(3) The amplifier including buffers, has a low noise figure and yet large signal handling capability. It yields +2 dB overall insertion gain with out introducing objectionable intermodulation. In addition, it provides a constant input and output impedance for a good VSWR over 10 KHz to 2 MHz, and high isolation between output to output or output to input to suppress re-radiation from one receiver to another or to the common antenna system.

1-2. PHYSICAL DESCRIPTION

(1) The LMC-8A is designed for mounting in a standard 19 inch rack, fastened by four retaining screws on the front panel. The operating controls are located on the front panel. The eight output receptacles are on the rear panel as are the power connections.

The majority of the components in the LMC-8A are mounted on printed circuit boards which in turn are bolted to the chassis. Other components are bolted directly to the chassis. All semiconductors used in the LMC-8A are listed in table 1-1.

Table 1-1. SEMICONDUCTOR AND INTEGRATED CIRCUIT COMPLEMENT

Reference Symbol	Type	Function
Power Supply		
1Z1	NW10005	Rectifier Bridge
1A1CR1	1N758	Bias Regulator
1A1CR2	1N914B	Bias Regulator
1A1Q1	TX10001	Current Regulator
1A1Q2	2N5086	Voltage Regulator
1Q1	2N3055	Voltage Regulator
Preamplifier (50 or 75 ohm)		
1A3CR1, 1A3CR2	1N914B	Bias Regulator
1A3Q1	2N3866	Buffer
1A3Q2	2N5160	Current Amplifier
1A3Q3	2N3866	Current Amplifier
8 Buffer Amplifiers		
1A4Q11 to 1A4Q81	2N3866	Buffers

1-3. EQUIPMENT SUPPLIED

(1) The following table is a list of ancilliary items supplied with each LMC-8A.

Table 1-2. LOOSE ITEMS SUPPLIED

Name	Designation	Function	Qty
Power Cable Assy	CA10505	Connections to power connector 1J10	1
Technical Manual	-----	Instructions for operating and maintenance of LMC-8A	1

1-4. TECHNICAL SPECIFICATIONS

Table 1-3

Basic Model	LMC-8A
No. of Outputs	8
Frequency Range w/o Filters	10 KHz-2 MHz
Nominal Gain	2 db
Noise Figure Less Than	7 db
<u>Isolation</u>	
Output to Input db	55
Output to Output db	40
Desensitization of 3 db @	3.5 V Peak
<u>Intermodulation</u>	
2nd order	65
3rd order	70
<u>VSWR</u>	
Max. Input	1.5
Max. Output	1.2

1-5. INSTALLATION AND ENVIRONMENTAL

Table 1-4

Basic Model	LMC-8A
<u>Power Source</u>	
Volts ac	115/230
Freq. Hz	50-400
<u>Power Consumption</u>	
Watts	25
Weight lbs.	8 (3.75 Kg)
<u>Dimensions</u>	
Width	19" (48.25 cm)
Height	1 ³ / ₄ " (4.44 cm)
Depth	14" (35.56 cm)

SECTION 2
INSTALLATION

2-1. INITIAL INSPECTION

(1) Each LMC-8A is thoroughly tested and calibrated at the factory before being shipped. Upon receipt of the unit, check the packing case and its contents for possible damage. Unpack the equipment methodically taking care also to check the packing material for parts shipped as loose items. See table 1-2 for these. With respect to damaged equipment for which the carrier is liable, TMC will assist in describing methods of repair as well as furnishing of replacement parts.

2-2. POWER REQUIREMENTS & ELECTRICAL INSTALLATION

(1) The LMC-8A operates from a 115 volt ac, 50 to 60 Hz power source. The input is protected by two 0.5 amp fuses, one on each side of the line.

(2) The following external connections must be made to the LMC-8A.

(a) Antenna: Attach a BNC connector to a coaxial cable and connect it to antenna jack 1J9 (ANTENNA INPUT) on the rear panel of the LMC-8A. The other end is connected to an antenna.

(b) Power: Connect primary power to the unit by plugging the supplied power cable assembly into connector 1J10 (POWER INPUT) on the rear panel ensuring that the notch on the cable lines up with the pin at the top of 1J10.

(c) Outputs: Connect the outputs to the associated receivers as required via the BNC connectors, 1J1 to 1J8 inclusive, on the rear panel.

(3) All LMC-8A equipment should be located in such a way that sufficient clearance is obtained at the rear of the unit for making connections to the BNC connectors.

The front panel controls should be within easy reach of an operator. Solid state design eliminates heat problems allowing the stacking of several LMC-8A's one above the other in a rack.

2-3. PERFORMANCE CHECK

(1) When the LMC-8A has been installed and appropriate power connections have been made, turn POWER switch to the ON position. If the POWER lamp lights the Eight Output Antenna Multicoupler, Model LMC-8A is ready for use.

SECTION 3

OPERATION

3-1. GENERAL

(1) Controls: Table 3-1 contains a list of the operating, indicators and fuse holders on the front panel of the LMC-8A.

Table 3-1. CONTROLS AND INDICATORS

Item	Description
Power ON/OFF switch 1S1	Controls primary power to LMC-8A
POWER lamp 1DS1	Lights when primary power is connected to the LMC-8A and switch 1S1 is turned on.
Fuse holders for 1F1/1F2	Failure of a fuse is indicated by illumination of the FUSE holder.
SPARE Fuses	Two spare fuses are contained in storage holders located on the front panel.

(2) Procedures: Operating procedures for the LMC-8A are virtually non-existent. After the necessary connections have been made from the rear panel to the appropriate receiver the only procedure to perform is to turn on the power switch.

SECTION 4
PRINCIPLES OF OPERATION

4-1. GENERAL

The eight output low frequency antenna multicoupler is a broadband antenna distribution system, designed to couple one low frequency antenna to antenna inputs of up to eight low frequency communication receivers. Both the input and output impedance of the LMC-8A coupler are nominally 50 ohms or 75 ohms with a voltage standing wave ratio characteristic better than 1.5 to 1 over the frequency range 10 KHz to 2 MHz. The antenna input is connected to the preamplifier board through a lowpass filter. Four major circuits comprise the LMC-8A and they are described in the succeeding paragraphs in this section. See figure 4-1, Block Diagram, LMC-8A for further comprehension.

4-2. LOWPASS FILTER (FX10022)

(1) The antenna input is connected to a lowpass filter mounted on its own printed circuit assembly 1A2 via ANTENNA INPUT connector 1J9. This filter rejects all frequencies above 2 MHz. All input signals pass through this filter before being fed via shielded cable to the preamplifier.

4-3. PREAMPLIFIER AND OUTPUTS

(2) The preamplifier printed circuit assembly 1A3 encompasses on it a low noise, wideband amplifier having an input impedance of 50 or 75 ohms and a voltage gain of 8 db. The input to the preamplifier circuit is RC coupled through to Q1. Q1 provides the required voltage gain for Q2 and Q3.

The output of Q1 is coupled to a complementary push-pull amplifier circuit consisting of Q2 and Q3. The latter circuit serves a balancing function to minimize higher order intermodulation products. In the preamplifier circuit of the LMC-8A CR1 and CR2 provides temperature compensation and R8 and C10 provide the negative feedback. The dc supply for operating the network is -27 vdc.

(3) The output signal of the preamplifier is fed through external wiring from a terminal on the preamplifier printed circuit assembly 1A3 to an input terminal. This input terminal is on the 8 output printed circuit assembly 1A4, connected in common (through input capacitors 1A4C11 to 1A4C81 inclusive) with the inputs of 8 identical buffer amplifiers each of which has an output impedance of 50 or 75 ohms. Thus the original signal from the lowpass filter can be followed all the way through the preamplifier and output stages to appear at the emitter of each buffer amplifier transistor (1A4Q11 to 1A4Q81 inclusive). This level is attenuated about 6 db in each buffer by the output impedance matching circuit. For each of the 8 outputs an over-all insertion gain of +2 db is realized.

4-4. POWER SUPPLY AND REGULATOR

(4) The power supply components are chassis mounted except for the regulator which is described later. The primary power input to the LMC-8A is provided through a printed circuit filter assembly A5780 (FL1). A5780 removes RF signals present in the line. When the POWER switch 1S1 is in the ON position, input power lights lamp 1DS1 on the front panel and is fed through fused 1F1 and 1F2 to the power transformer 1T1. This transformer reduces the line voltage to required 27 vac. This potential in turn is rectified by 1Z1, a diode bridge and filtered by capacitor 1C1.

Printed circuit assembly 1A1 performs a regulating function which provides a -27 vdc regulated output. Transistor 1Q1 and 1K potentiometer 1A1R7 provide the regulated voltage. This is set at the factory and seldom needs any adjustment. The power supply board also provides short circuit protection for the LMC-8A.

SECTION 5
MAINTENANCE

5-1. GENERAL

(1) This section describes preventive maintenance, troubleshooting and repair procedures for the LMC-8A. The following equipment is suggested in order to perform these procedures properly.

- (a) Audio Generator, Hewlett Packard Model 200 CD, or equivalent.
- (b) Oscilloscope, Tektronix Model 545, or equivalent.

(2) For aid in the location of components, refer to figures 5-1 to 5- inclusive.

5-2. PREVENTIVE MAINTENANCE

(1) In regard to the LMC-8A preventive maintenance consists of routine functions such as visual inspection and cleaning. Cleaning is strongly recommended as dust may build up on components and not only reduce the efficiency of the coupler unit but also increase component wear. To facilitate cleaning the unit, use a vacuum cleaner or a compressed air hose.

(2) A simple visual check of the unit when it is opened up for servicing or cleaning will often pick up potential trouble and hence reduce downtime due to component wear or failure. Signs of trouble are; discoloration, warped printed circuit boards, and damaged wiring. Any deteriorating component should be replaced immediately. In addition all hardware should be checked for tightness.

5-3. TROUBLESHOOTING

(1) The primary objective of this procedure is to narrow the problem area to one or two sections of the LMC-8A. In order to minimize labor costs while locating the source of trouble, systematic troubleshooting will greatly speed up the process. During operation of the LMC-8A the following symptoms may be observed:

1. The failure of one or more outputs.
2. Weak or noisy signals in all receivers.
3. Weak or noisy signals in one receiver.
4. Complete loss of signals in all receivers.

(2) The following paragraphs contain information which may cause the four problem symptoms just mentioned. They could be construed as typical faults that could occur during normal operation of the LMC-8A.

(a) The failure of one or more outputs: If a low output is observed at one particular output when connected to a specific receiver, failure of that output stage is indicated. All semiconductors and discrete components in the malfunctioning output stage should be checked.

(b) Weak or noisy signals in all receivers: If this phenomenon persists in all receivers, a rough check of the antenna system is required. If the weakness and/or noise disappears, check the preamplifier circuit of the LMC-8A.

(c) Weak or noisy signals in one receiver: When only one receiver in the system is involved, check these items:

1. The receiver unit itself.
2. The connections between the LMC-8A and the receiver.
3. Or the particular output section as outlined in paragraph (a).

(d) Complete loss of signals in all receivers: If the entire system fails, the method discussed in paragraph (b) may be used to determine if the trouble actually is in the LMC-8A. If this appears to be the case, check each stage of the LMC-8A unit. The best method of doing this is to apply a test signal to the ANTENNA input jack on the rear of the unit. Use an audio generator and trace the signal back through the equipment with an oscilloscope. Start this procedure at the output jacks and work backwards towards the input.

5-4. REPAIR

(1) Repair work generally consists of the replacement of an electrical component, but the following precautions should be observed:

(a) Always replace a defective component with its exact duplicate.

(b) Place any new component in the same position as the one it replaces. It's generally not good practice to attempt to alter the existing layout. This includes the running of any wire as well as discrete component replacement.

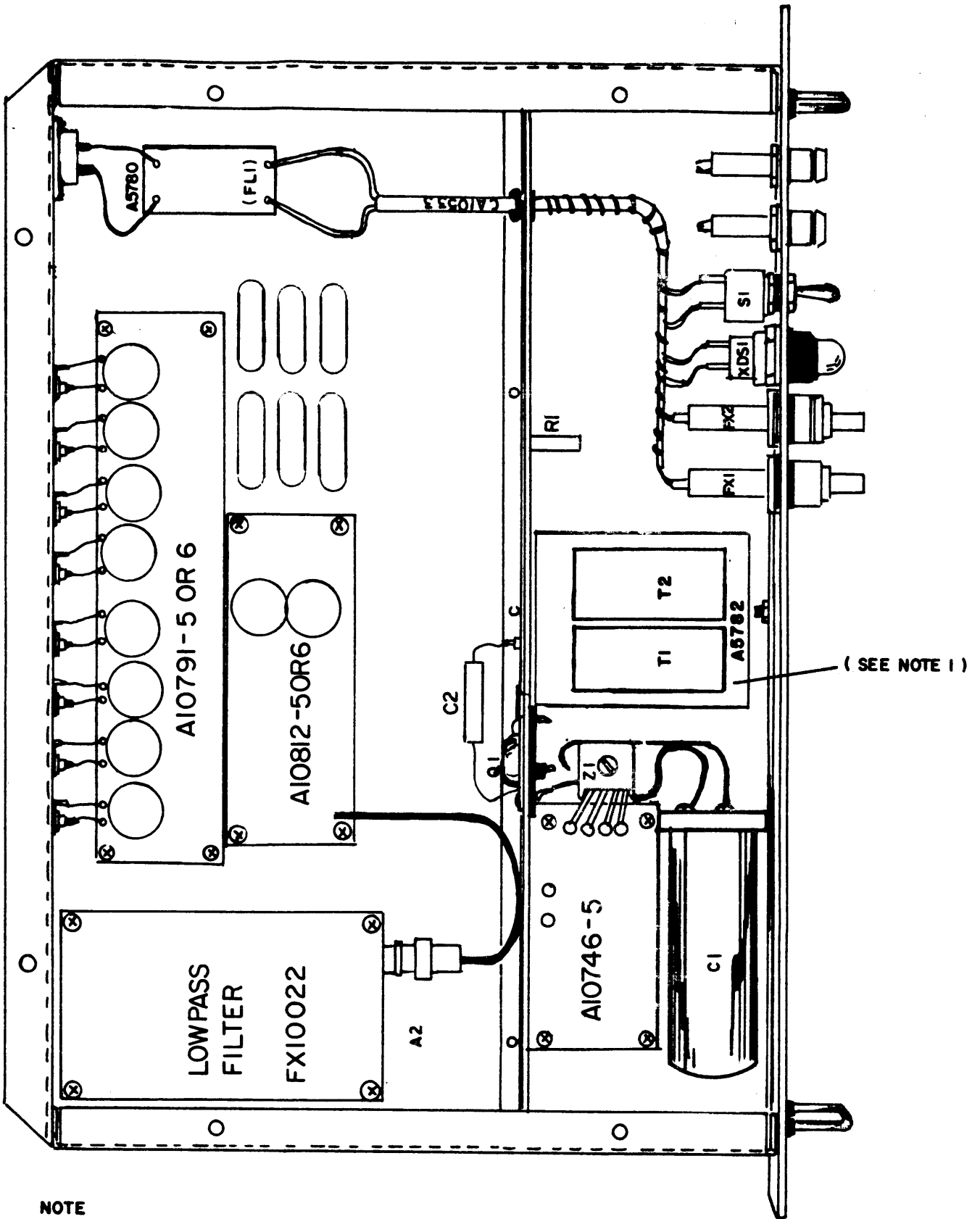
(c) Never attempt to solder with an iron having a power rating of more than 100 watts. Use a pair of long-nose pliers as a heat sink to offer protection while soldering.

(d) Extreme caution is called for whenever replacement of components is warranted because excessive heat applied to a board can cause the printed circuit wiring to lift off.

(e) Always double check any solder joints made as cold or loose solder connections can cause trouble at a later date.

5-5. ADJUSTMENTS

The REGULATOR printed circuit board A10746-5 assembly, may require adjustment periodically. There is a screwdriver adjustable potentiometer 1A1R7 on the regulator printed circuit assembly. An arrow on the schematic denotes clockwise adjustment which lowers the regulated output voltage. It adjusts to produce -27 vdc.



NOTE

SOME UNITS MAY USE TF10060 (T1)
 IN PLACE OF ASSEMBLY A5782 (T1, T2)

Figure 5-1

Top View with Cover Off, LMC-8A

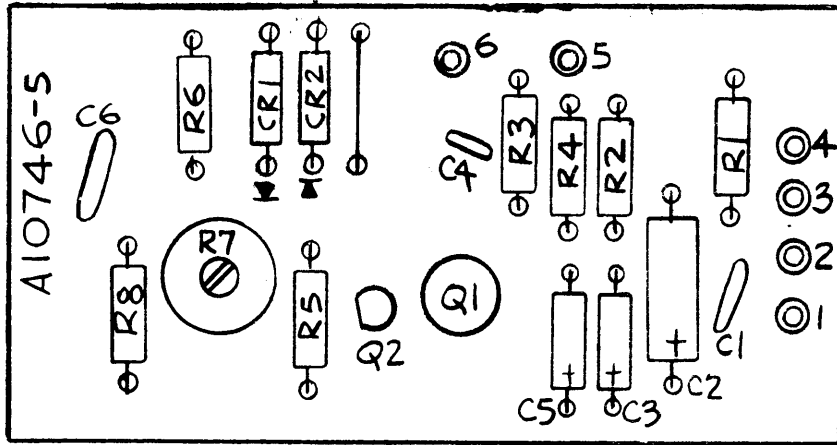


Figure 5-2

Power Supply (Regulator) Assembly 1A1

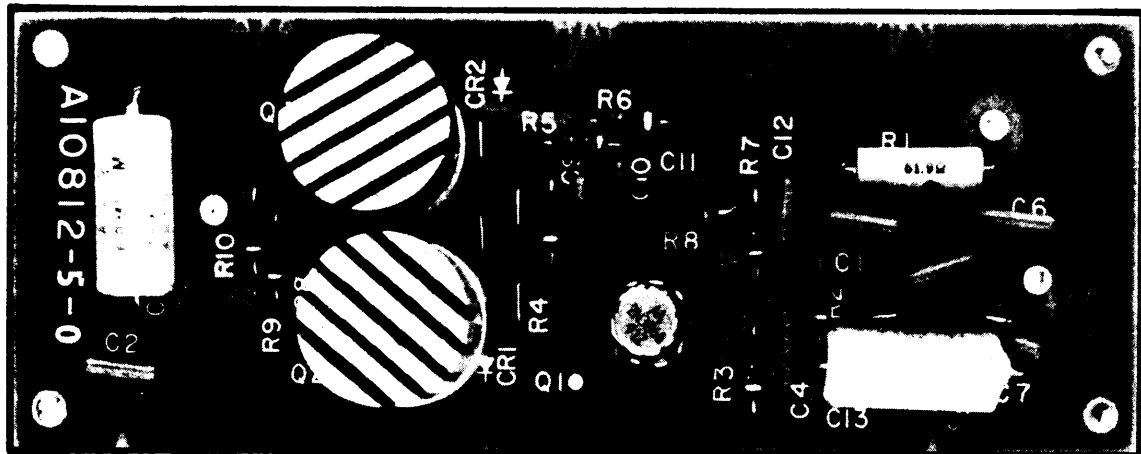


Figure 5-3
Preamplifier Assembly 1A3

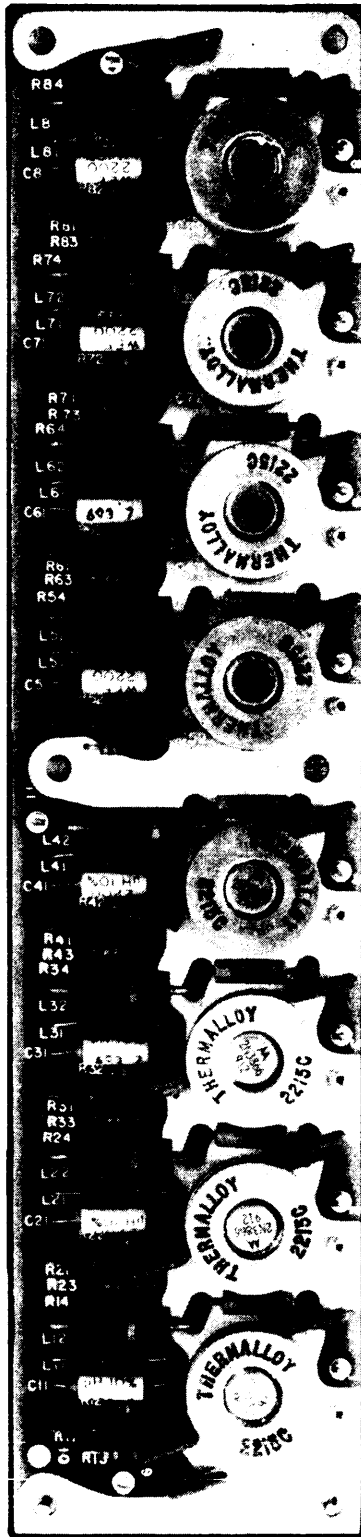


Figure 5-4

8 Output Assembly 1A4

SECTION 6
PARTS LIST

6-1. INTRODUCTION

(1) Reference symbols have been assigned to identify all electrical parts. These symbols are marked on the equipment adjacent to the parts that they identify and are included on all drawings, diagrams and part lists. The letters of a reference symbol indicate the generic group of the part, such as capacitor, resistor transistor etc. The numeral differentiates between parts of the same generic group. Sockets associated with any particular plug-in device, such as a transistor or fuse, are identified by a reference symbol which incorporates the symbol used for that device as well as a prefix symbol.

(2) Prefix symbols have also been assigned to each separate printed circuit board assembly (1A1, 1A2 etc.) to avoid confusion of identifying similar components in a different circuit.

(3) To expedite delivery when ordering replacement parts, specify the TMC part number and the name and model number of the equipment.

6-2. NOTE

(1) RF Cable Assembly

(a) The RF cable assembly is a coaxial cable having a male connector. The length of this cable is determined on final testing of the unit, and may vary between units. Its purpose is to compensate for any phase difference between an individual unit and the master standard.

LMC-8A
MAIN CHASSIS, FRONT & REAR PANELS

REF DESIGNATION	DESCRIPTION	TMC PART NUMBER
A1	Voltage Regulator	A10746-5
A3	Preamplifier, 75 ohms	A10812-5
A3	Preamplifier, 50 ohms	A10812-6
A4	Output Module: 8 outputs, 75 ohms	A10791-5
A4	Output Module: 8 outputs, 50 ohms	A10791-6
A2	Filter, Lowpass	FX10022
W1	Cable: RF coaxial with connectors	CA10530 or CA10662
* C1	Capacitor, Electrolytic, 2800 UF	CE112-15
C2	Capacitor, Electrolytic, 50 UF	CE10007
DS1	Lamp: Neon	BI100-51
F1, F2	Fuse: slo-blo, 0.5 amp (115 Vac operation only)	FU102-.5
F1, F2	Fuse: slo-blo, 0.25 amp (230 Vac operation only)	FU102-.25
FL1	Filter: RF, line	A5780
J1 to J9	Connector: BNC, receptacle	UG625B/U
J10	Connector: Receptacle, Male	MS3102A-14S-7P
R1	Resistor	RW111-3
S1	Switch: Toggle	ST22K
* T1, T2	Transformer, Power	A5782
Q1	Transistor	2N3055
Z1	Diode Bridge Network	NW10005

* Some units may use TF10060 (T1) in place of Assembly A5782
(T1, T2) some units may use CE44C222G in place of CE112-5.

A1, REGULATOR ASSEMBLY
A10746-5

REF. DESIGNATION	DESCRIPTION	TMC PART NUMBER
C1, C6	CAPACITOR: Fixed, ceramic, 0.1 uF	CC10015-X5V104M
C2	CAPACITOR: Fixed, tantalum, 6.8 uF	CSR13G685ML
C3, C5	CAPACITOR: Fixed, tantalum, 0.47 uF	CSR13G474ML
C4	CAPACITOR: Fixed, ceramic, 0.01 uF	CC10017-X5V103M
CR1	DIODE: Zener	IN758
CR2,	DIODE	IN914B
R1	RESISTOR: Fixed, composition, 47K, $\frac{1}{2}$ W, 5%	RC20GF473J
R2	RESISTOR: Fixed, composition, 68K, $\frac{1}{2}$ W, 5%	RC20GF683J
R3	RESISTOR: Fixed, composition, 15 ohms, $\frac{1}{2}$ W, 5%	RC20GF150J
R4	RESISTOR: Fixed, composition, 560 ohms, $\frac{1}{2}$ W, 5%	RC20GF561J
R5	RESISTOR: Fixed, composition, 1.2K, $\frac{1}{2}$ W, 5%	RC20GF122J
R6	RESISTOR: Fixed, composition, 7.9K, $\frac{1}{2}$ W, 5%	RC20GF392J
R7	RESISTOR: Variable, composition, 1K, linear curve, $\frac{1}{2}$ W	RV111U102A
R8	RESISTOR: Fixed, composition, $\frac{1}{2}$ W, 6.8K, 5%	RC20GF682J
Q1	TRANSISTOR: NPN, silicon	TX10001
Q2	TRANSISTOR: PNP, silicon	2N5086

PREAMPLIFIER ASSEMBLY
A10812-5 and -6

REF. DESIGNATION	DESCRIPTION	TMC PART NUMBER
C1, C2, C4, C6, C10, C12, C13	CAPACITOR: Fixed, ceramic, 2.2 uF	CC10018
C3, C7, C8	CAPACITOR: Fixed, ceramic, 0.1 uF	CC10020
C5, C14	CAPACITOR: Fixed, ELEC 50 uF	CE105-50-50
C9	CAPACITOR: Fixed, ceramic, 0.47 uF	CC10021
C11	CAPACITOR: Fixed, mica, 5pF	CM04ED050J03
CR1, CR2	DIODE	1N914B
R1*	RESISTOR: Fixed, deposited film high stability, 61.9 ohms, ½W, 1%	RN65D61R9F
R2	RESISTOR: Fixed, film, 1K, ½W, 2%	RL07S102G
R3	RESISTOR: Fixed, film, 51 ohms, ½W, 2%	RL07S510G
R4	RESISTOR: Fixed, film, 68 ohms, ½W, 2%	RL07S680G
R5	RESISTOR: Fixed, film, 560 ohms, ½W, 2%	RL07S561G
R6	RESISTOR: Fixed, film, 270 ohms, ½W, 2%	RL07S271G
R7	RESISTOR: Fixed, film 7.5 K, ½W, 2%	RL07S752G
R8	RESISTOR: Fixed, film, 180 ohms, ½W, 2%	RL07S181G
R9, R10	RESISTOR: Fixed, film, 10 ohms, ½W, 2%	RL07S100G
L1	INDUCTOR: RF, coil, 220 uH	CL275-221
Q1, Q3	TRANSISTOR	2N3866
Q2	TRANSISTOR	2N5160

* For -6 the value of R1 select d on test

8 OUTPUT ASSEMBLY
A10791-5 and -6

REF. DESIGNATION	DESCRIPTION	TMC PART NUMBER
C1, C2, C12, C13, C22, C23, C32, C33, C42, C43, C52, C53, C62, C63, C72, C73, C82, C83	CAPACITOR: Fixed, mica 2.2 uF	CC10018
C11, C21, 31, C41, C51, C61, C71, C81	CAPACITOR: Fixed, mica 0.22 uF	CC10019
L11, L21, L31, L41, L51, L61, L71, L81	INDUCTOR: RF coil, 220 uH	CL275-221
L12, L22, L32, L42, L52, L62, L72, L82	INDUCTOR: RF coil, 2200 uH	CL275-222
R11, R21, R31, R41, R51, R61, R71, R81	RESISTOR: Fixed, composition, 100 ohms, $\frac{1}{2}$ W, 5%	RC07GF101J
R12, R22, R32, R42, R52, R62, R72, R82	RESISTOR: Fixed, composition, 4.3 K, $\frac{1}{2}$ W, 5%	RC07GF432J
R13, R23, R33, R43, R53, R63, R73, R83	RESISTOR: Fixed, composition, 3.3 K, $\frac{1}{2}$ W, 5%	RC07GF332J
R14, R24, R34, R44, R54, R64, R74, R84	RESISTOR: Fixed, composition, 180 ohms, 1W, 5%	RC32GF181J
* R15, R25, R35, R45, R55, R65, R75, R85	RESISTOR: Fixed, film, 71.5 ohms, $\frac{1}{2}$ W, 1%	RN6D71R5F
Q11, Q21, Q31, Q41, Q51, Q61, Q71, Q81	TRANSISTOR	2N3866

*The value of R15 and R85 for -6 is 52.3 ohms

FILTER ASSY. LOWPASS
FX10022

REF. DESIGNATION	DESCRIPTION	TMC PART NUMBER
C2, C11	CAPACITOR: fixed, mica, 1300 pF	CM06FD132F03
C3, C12	CAPACITOR: fixed, mica, 120 pF	CM04FD121F03
C4, C9	CAPACITOR: fixed, mica, 1000 pF	CM06FD102F03
C5, C10	CAPACITOR: fixed, mica, 750 pF	CM06FD751F03
C6	CAPACITOR: fixed, mica, 510 pF	CM06FD511J03
C7	CAPACITOR: fixed, mica, 2000 pF	CM06FD202F03
C8	CAPACITOR: fixed, mica, 390 pF	CM05FD391J03
L1, L4	INDUCTOR: RF coil, 2.6 uH	CL10040-4
L2, L3	INDUCTOR: RF coil, 7.2 uH	CL10040-5

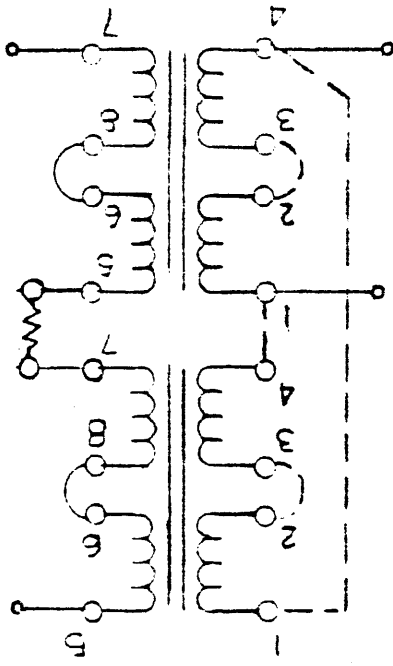
SECTION 7
SCHEMATIC DIAGRAMS

5. 230V OPERATION FOR TF10060

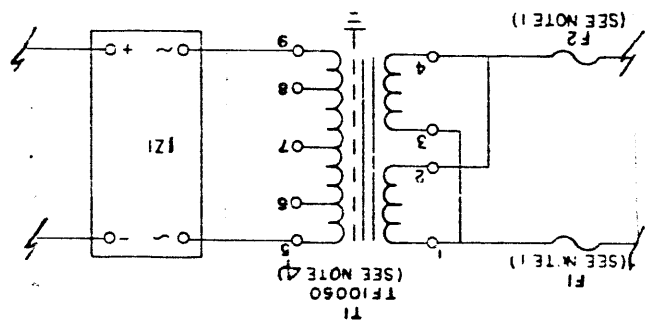
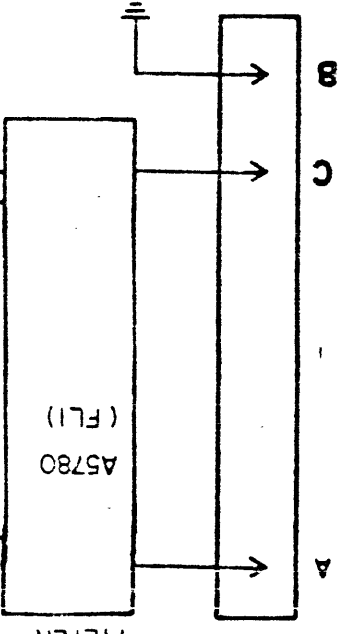
4. SOME UNITS MAY USE TF10060 (T1) IN PLACE OF ASSEMBLY A5782 (T1,T2)

UNIT	A3	A4
LMC-8A, 75Ω	A10812-5	A10791-5
LMC-8A, 50Ω	A10812-6	A10791-6

2. 230V OPERATION



POWER INPUT
115 VAC
60 HZ



(SEE NOTE 4)

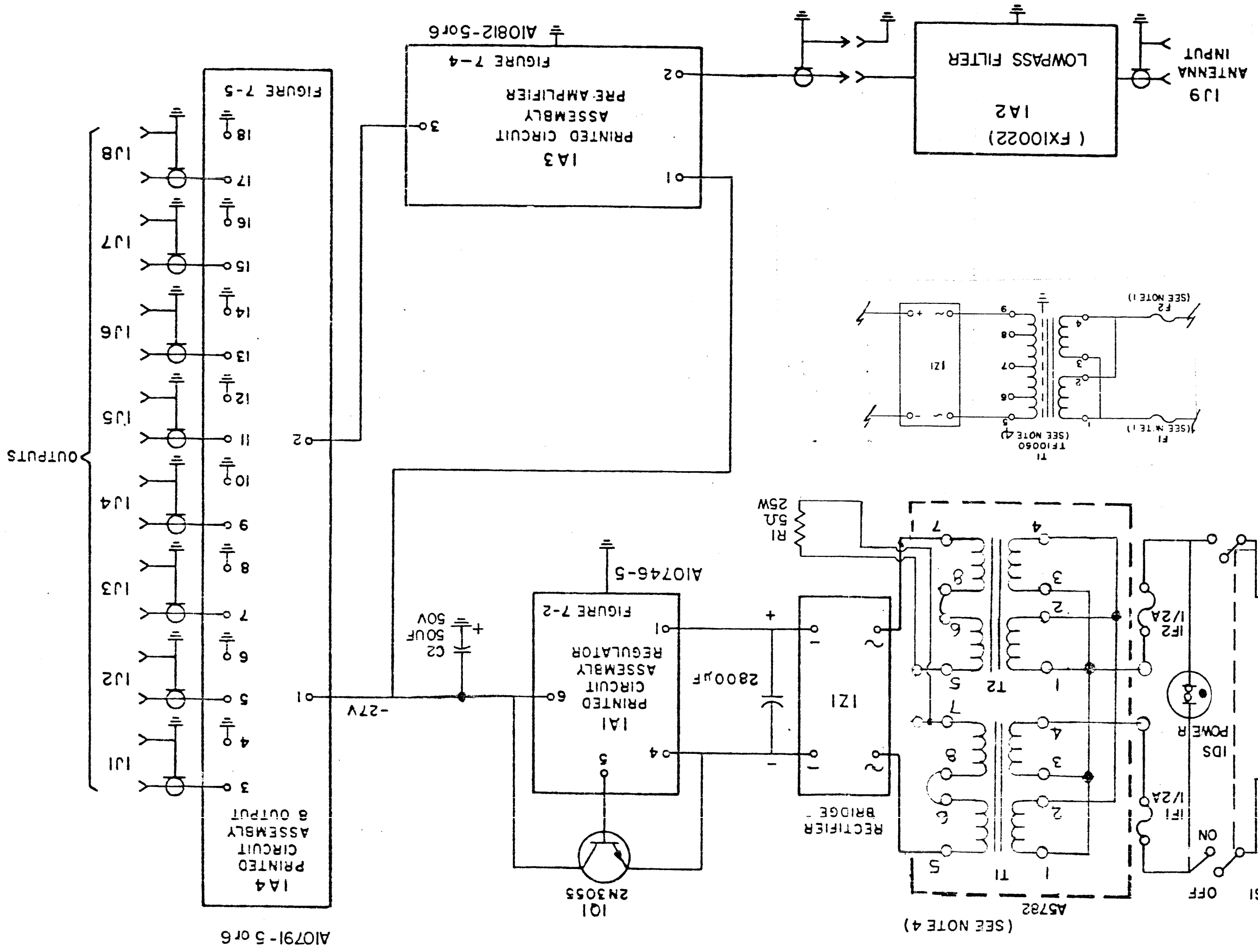


Figure 7-1

System Schematic,
LMC-8A

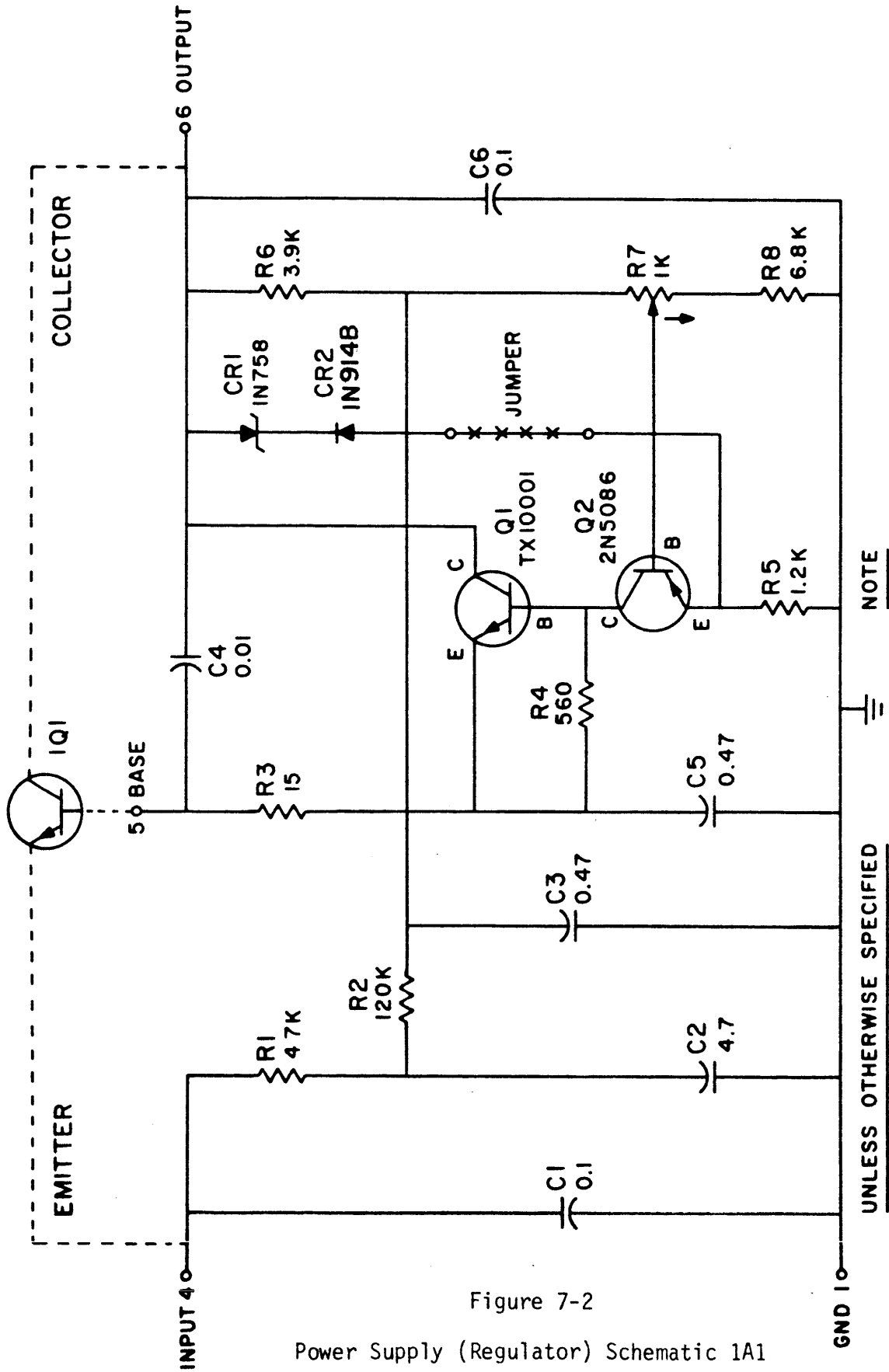


Figure 7-2
Power Supply (Regulator) Schematic 1A1

UNLESS OTHERWISE SPECIFIED
RESISTANCE IN OHMS 5%, 1/2W
CAPACITANCE IN μ F
INDUCTANCE IN μ h

NOTE
ALL COMPONENTS PREFIXED
BY FIGURES 1A1 IN PARTS LIST

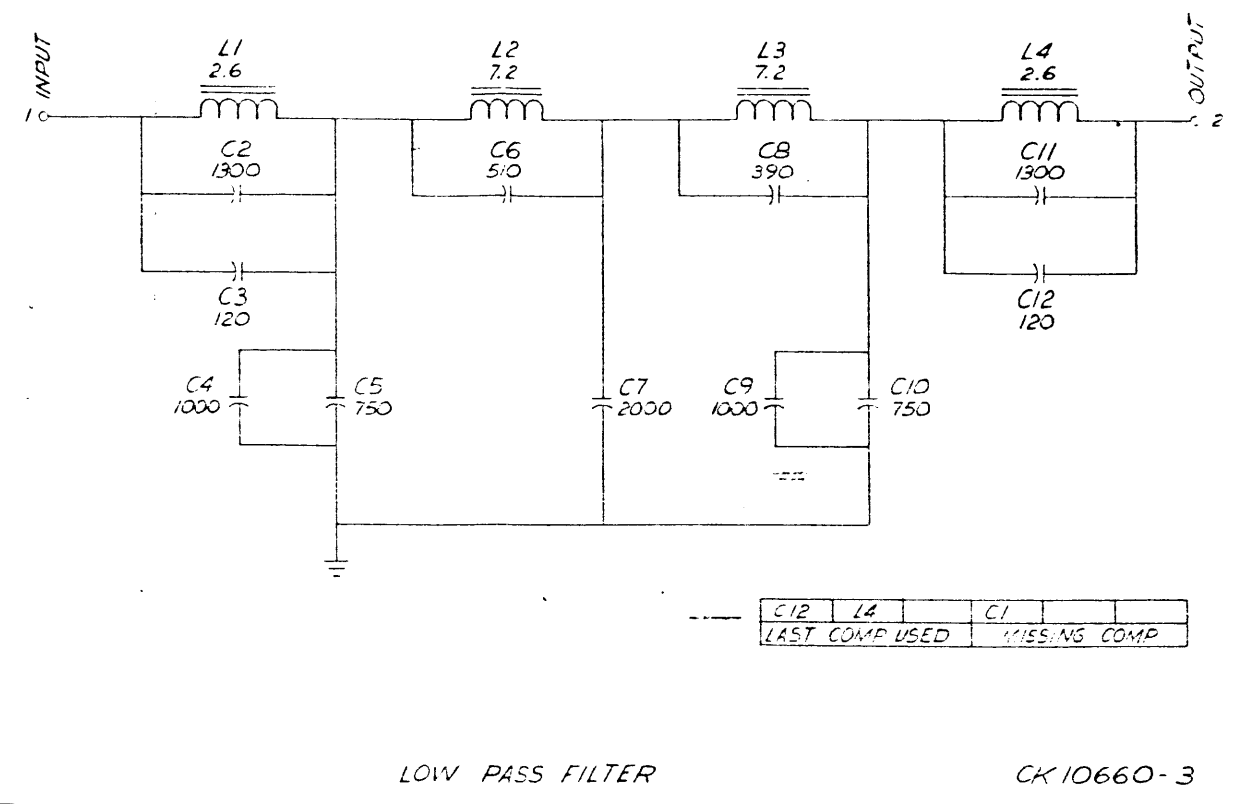
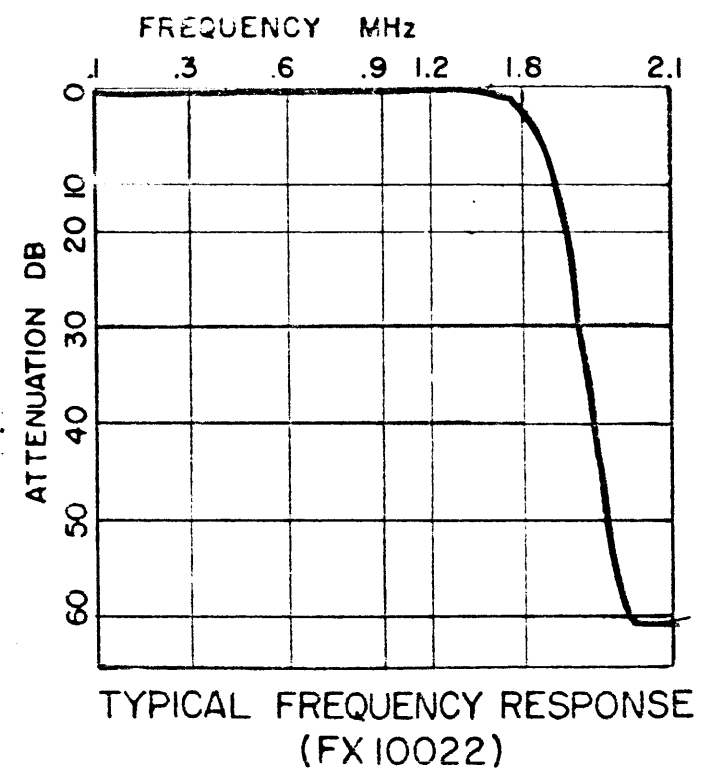


Figure 7-3
Lowpass Filter Schematic
(A2, FX10022)

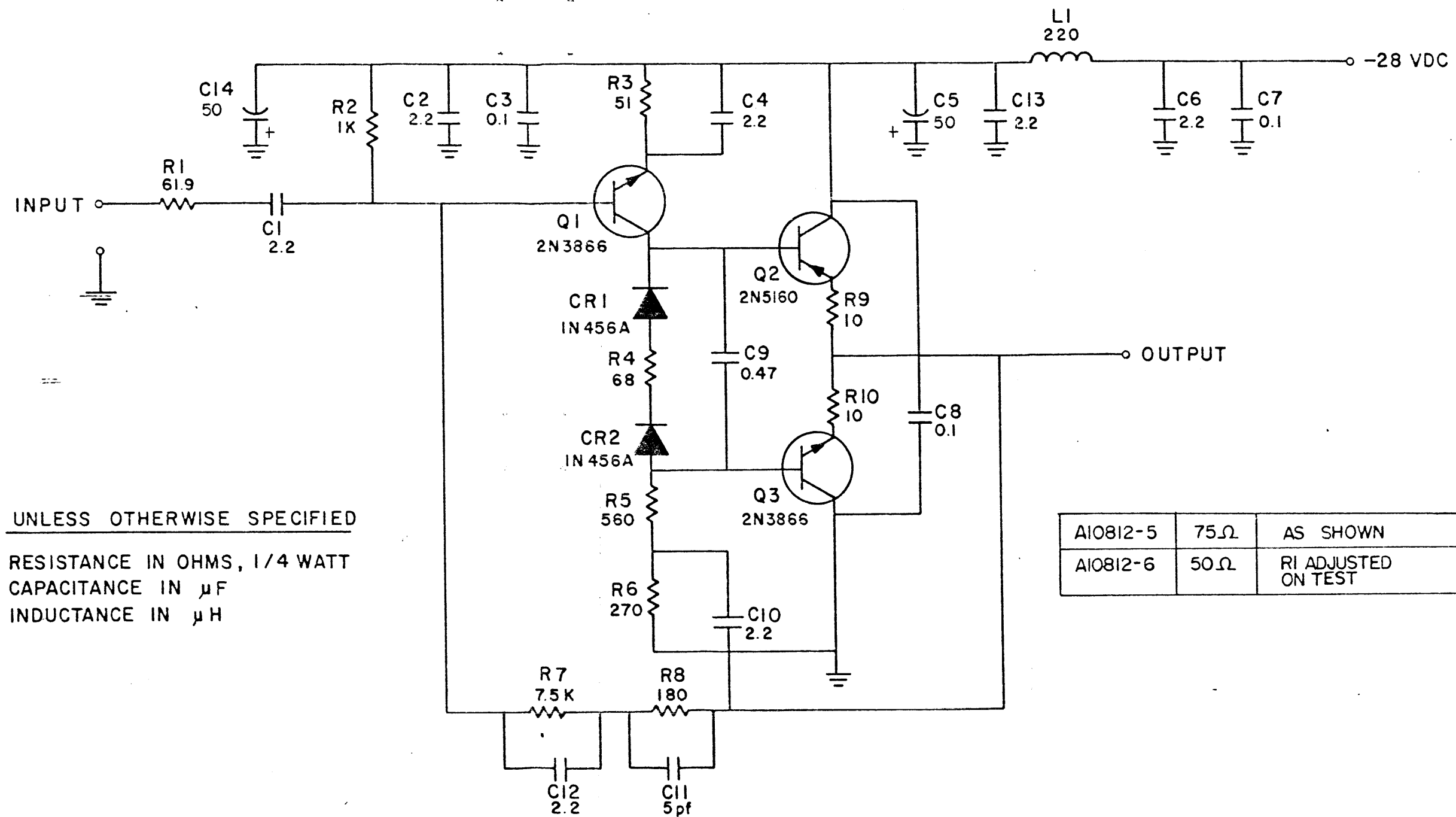
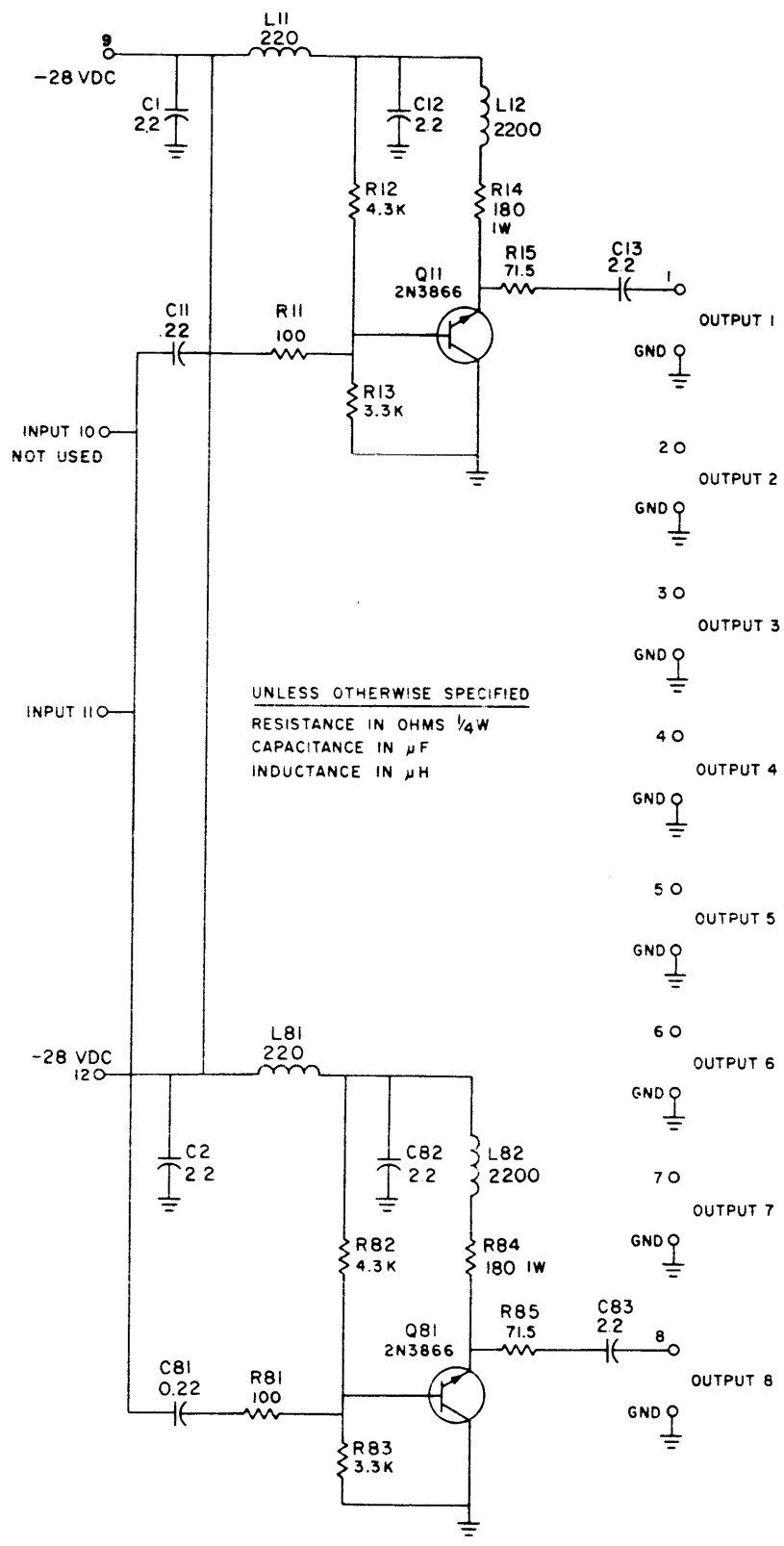


FIGURE
 PRE-AMPLIFIER

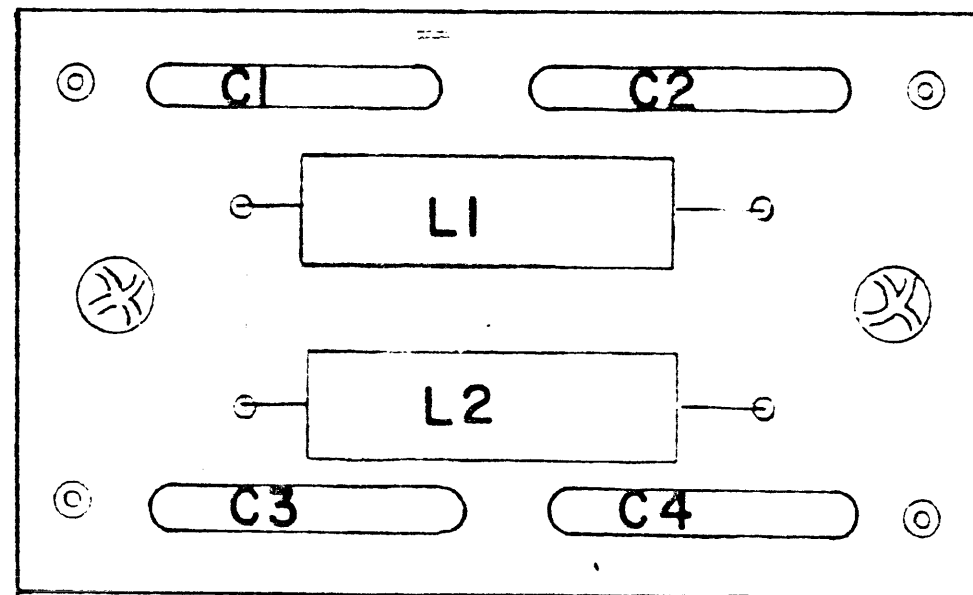


UNLESS OTHERWISE SPECIFIED
 RESISTANCE IN OHMS 1/4W
 CAPACITANCE IN μF
 INDUCTANCE IN μH

	R15	R85
A10791-5	75Ω	71.5Ω
A10791-6	50Ω	52.3Ω

FIGURE
 (8) OUTPUT ASSEMBLY A10791-()

REF SYMBOL	DESCRIPTION	TMC PART NUMBER
C1,C2 C3,C4	CAPACITOR: Fixed	CC100-32
L1,L2	COIL: Fixed	CL105-1



A5780
(FLI)

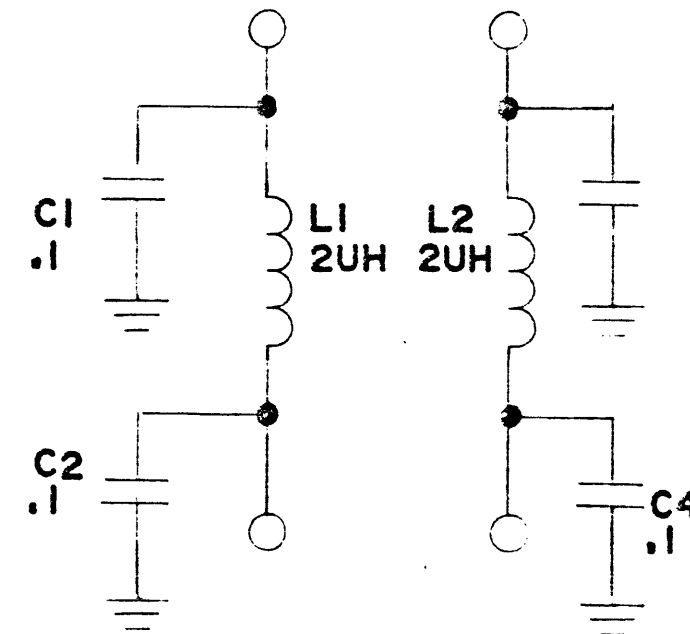


Figure 7-6

AC Filter Diagram

Part Number	Description	Used On	Qty	Symbol Number
PC819	PRINTED CIR. BD.	A5782	1	
TF447	TRANS. POWER	A5782	2	T1, T2

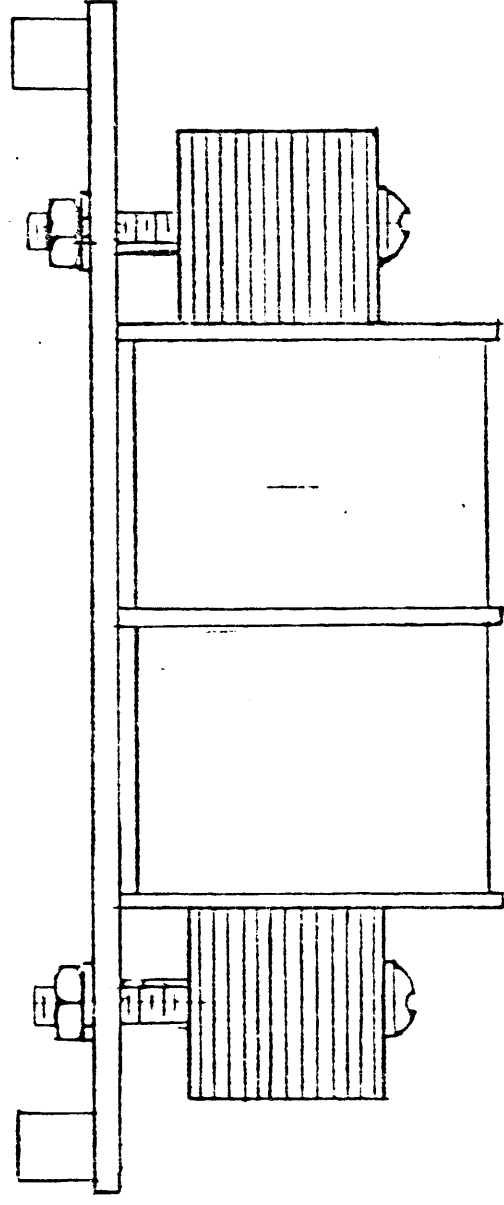
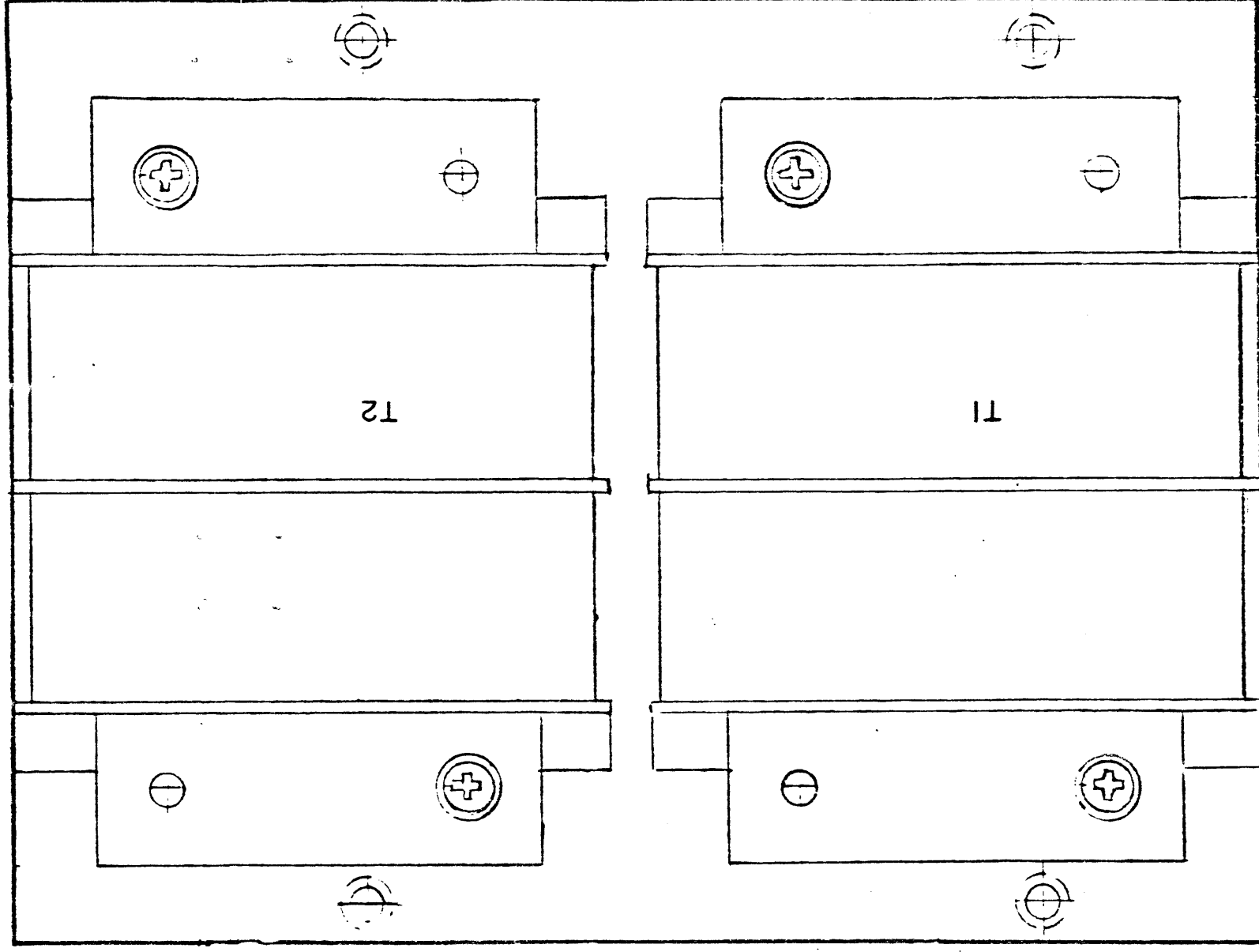


Figure 7-7

TRANSFORMER POWER ASSY.
A5782