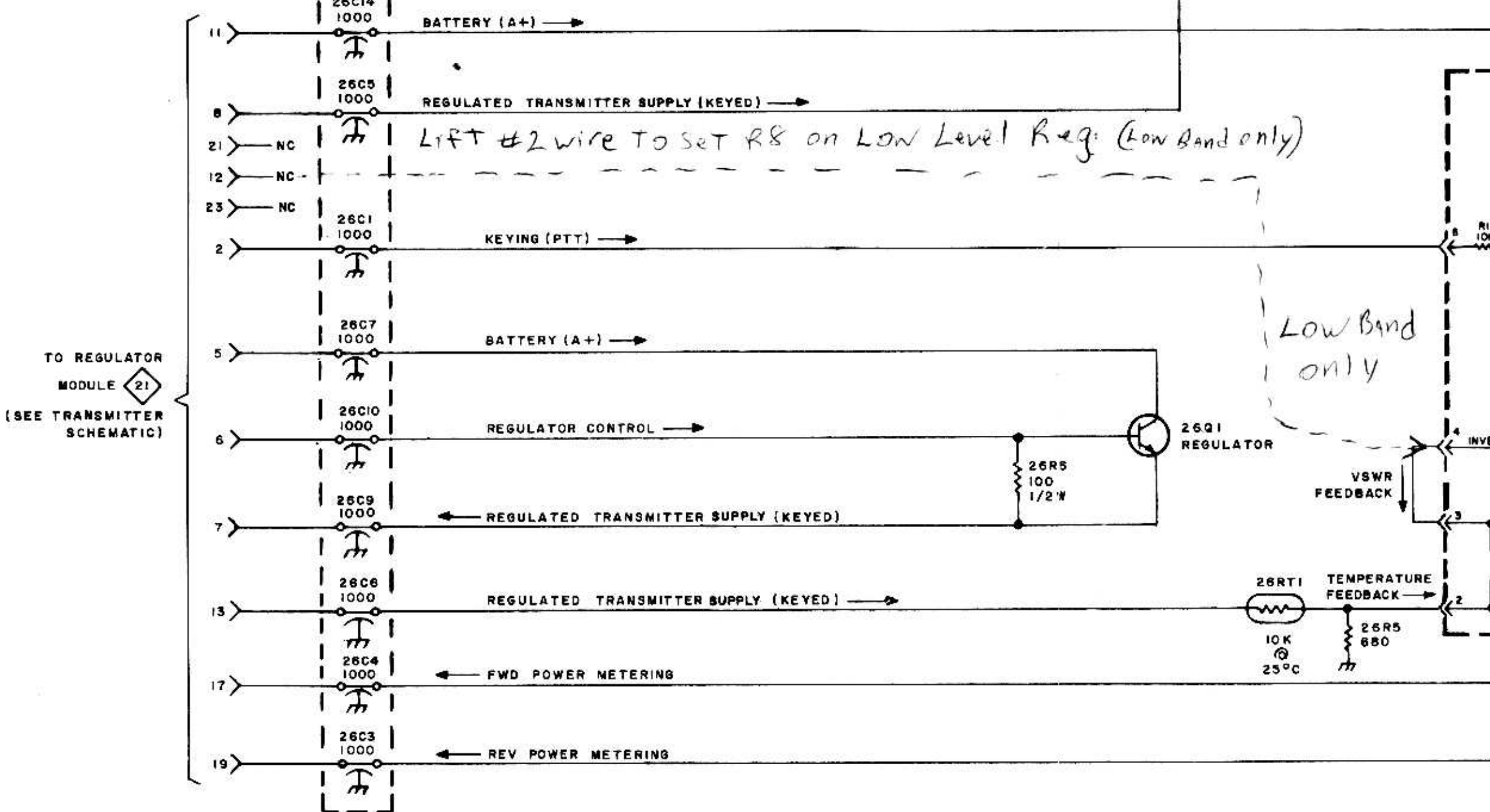
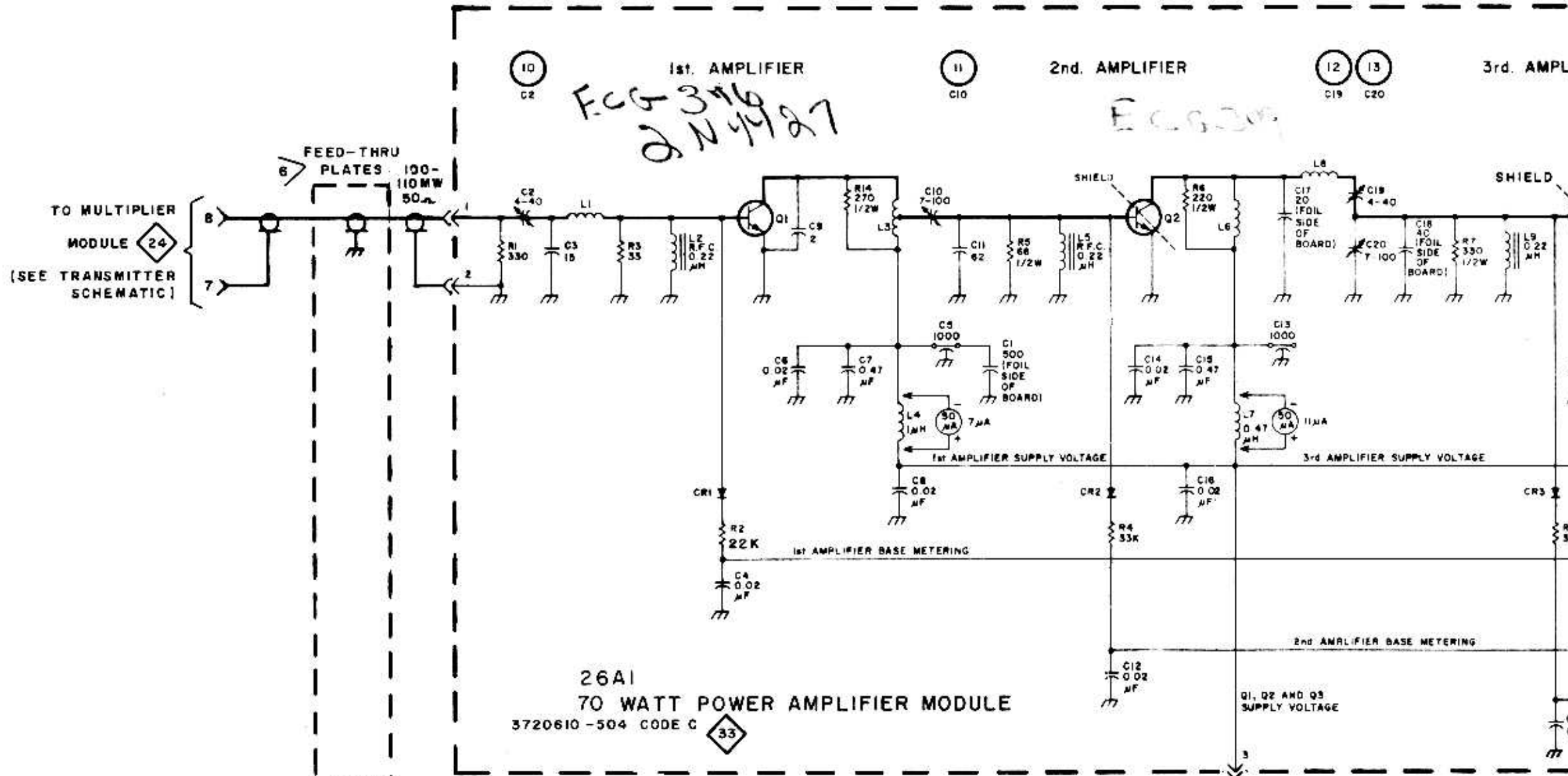
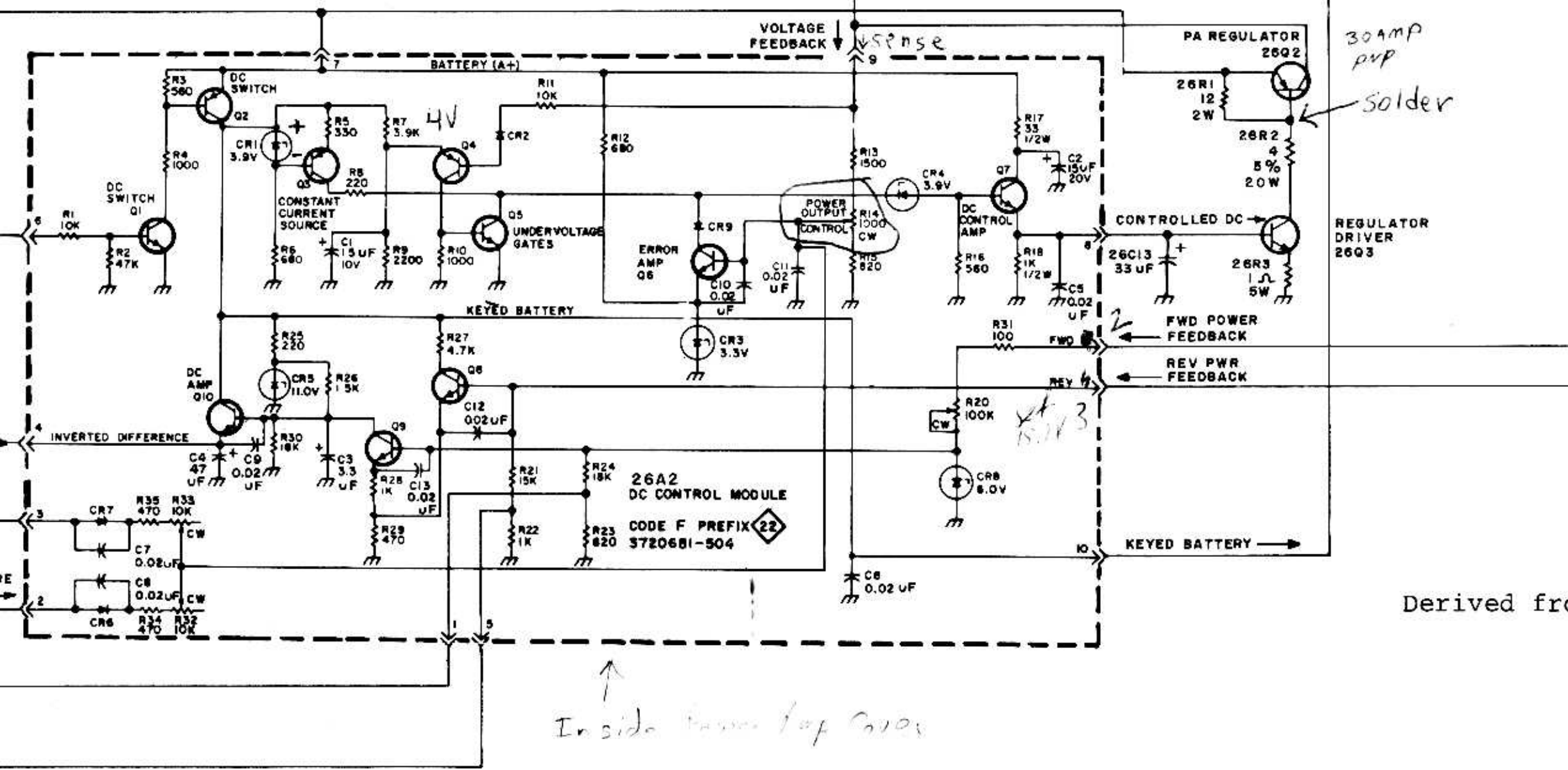
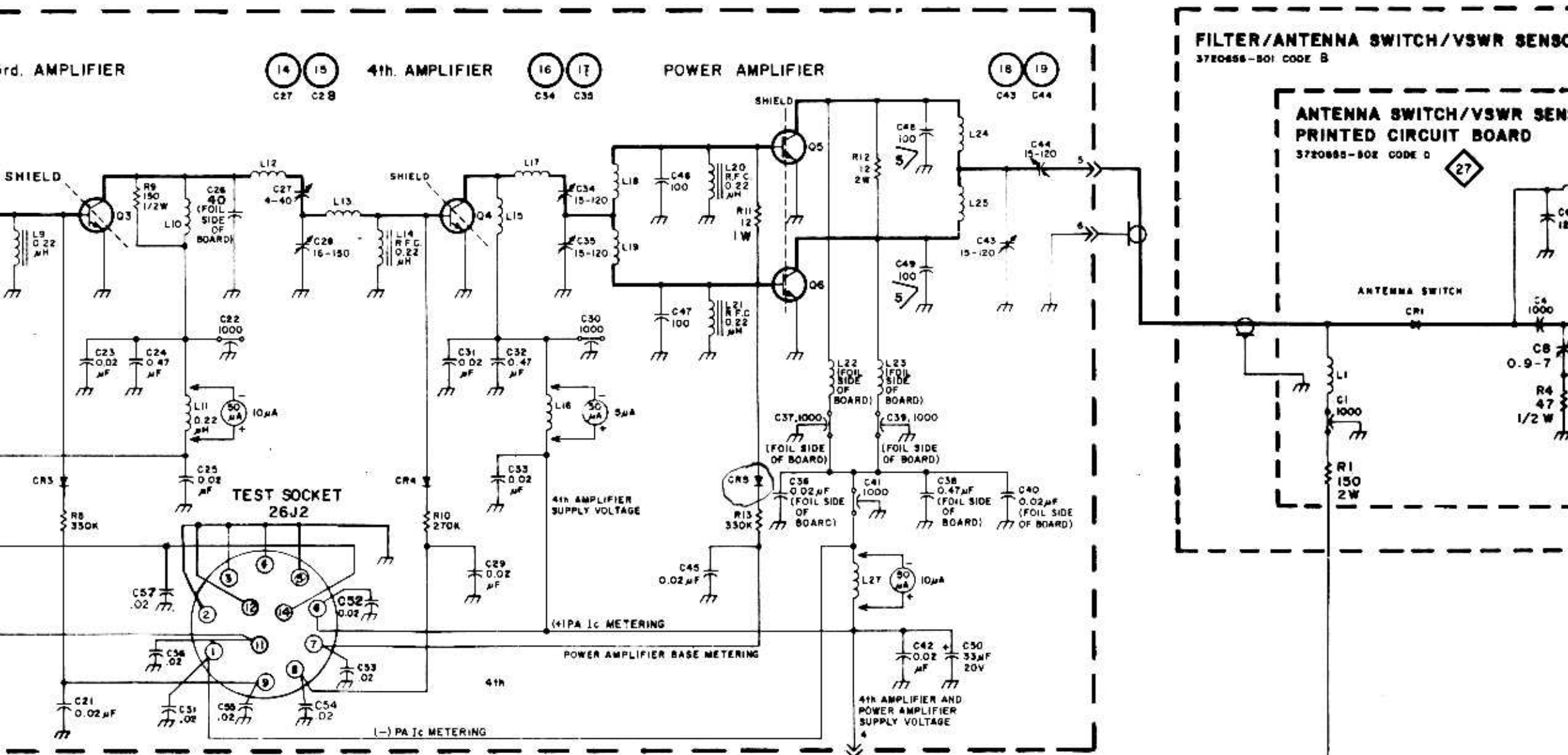


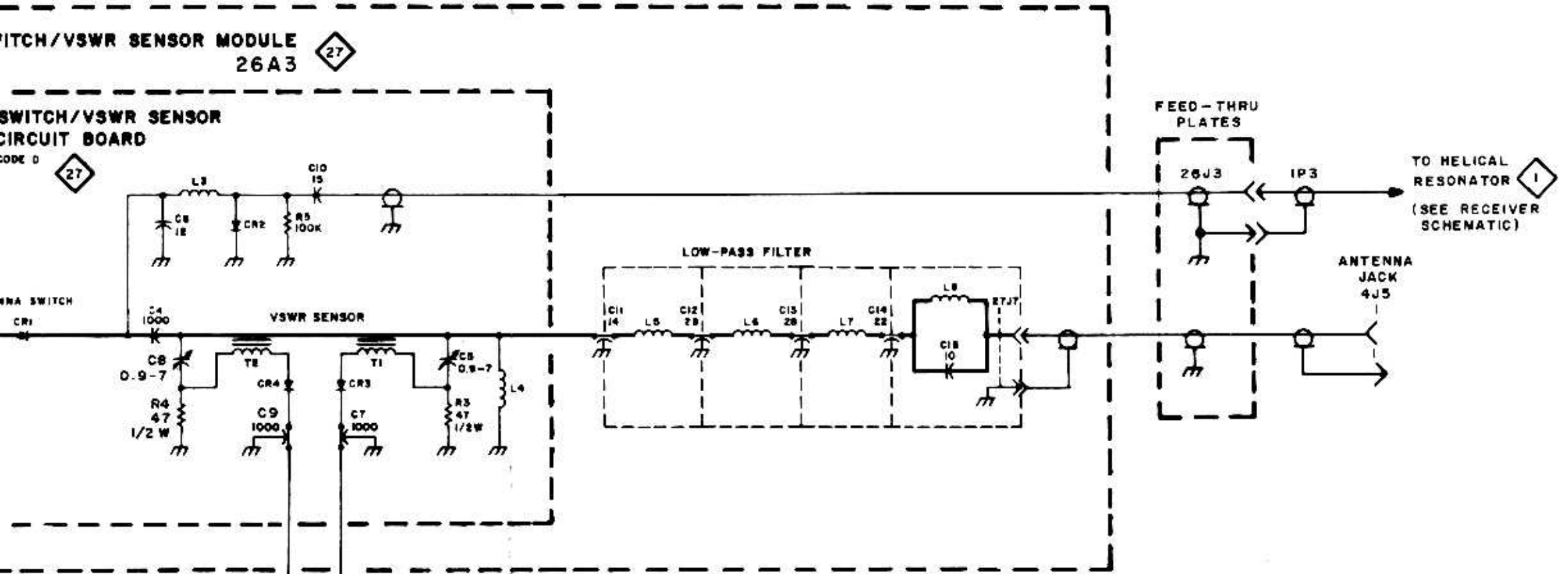
185-245-1





↑  
Inside Power Top Cover

Derived from



NOTES:

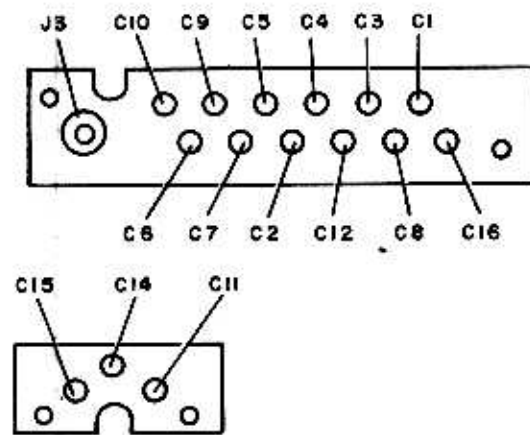
1. ALL RESISTANCE VALUES ARE IN OHMS, 10%, 1/4W, UNLESS OTHERWISE NOTED.
2. ALL CAPACITANCE VALUES ARE IN PICOFARADS, UNLESS OTHERWISE NOTED.
3. TEST SOCKET CONNECTIONS AND CORRESPONDING TEST METER SWITCH POSITIONS:

SWITCH POSITIONS	26J2 PIN CONNECTIONS		26J2 TOP VIEW
A	14	12	
B	11	5	
C	9	4	
D	8	3	
E	7	2	
F	6	1	

4.  $\textcircled{10}$  = TUNING ADJUSTMENTS  
C2

5.  $\triangle$  C48 & C49 ARE NOT USED IN THE 132-148 MHz BAND.

6.  $\triangle$  FEEDTHRU PLATES:



Derived from 3747116

Figure 8. 150 MHz, 70 Watt Power Amplifier Schematic Diagram

22 REPLACEMENT PARTS

Symbol	Stock No.	Drawing No.	Description
	421017	3720681-504	DC CONTROL MODULE-CODE F P/L 3720681-504 Rev 1B
22C1	255900	3457334-451	Tantalum, 1.5UF 10% 10V
22C2	231679	3457334-156	Tantalum, 1.5UF 20% 20V
22C3	249692	3457334-093	Tantalum, 3.3UF 20% 15V
22C4	421435	3457334-095	Tantalum, 4.7UF 20% 15V
22C5	233878	3463453-118	Ceramic, 0.02MFD, +80-20%, 25V
22C6			
Thru	232752	3460490-015	Disc, 0.02MFD +80-20% 25V
22C13			
22CR1	249694	3731199-006	Diode, Zener 3.9V
22CR2	242522	3464611-001	Diode, Silicon
22CR3	421481	3731199-104	Diode, Zener 3.3V 5%
22CR4	421009	3722331-102	Diode, Zener 3.9V 5%
22CR5	246976	3457639-005	Diode, Zener 11.0V
22CR6	242522	3464611-001	Diode, Silicon
22CR7	242522	3464611-001	Diode, Silicon
22CR8	421004	3720731-006	Diode, Zener 6.0V 5%
22CR9	242522	3464611-001	Diode, Silicon
22Q1	242758	3468182-001	Transistor, Silicon
22Q2			
Thru	242760	3468183-001	Transistor, Silicon
22Q4			
22Q5	242758	3468182-001	Transistor, Silicon
22Q6	242758	3468182-001	Transistor, Silicon
22Q7	230254	3463099-001	Transistor, Silicon
22Q8			
Thru	242758	3468182-001	Transistor, Silicon
22Q10			
22R1	218499	99206-074	10K Ohms 10% 1/4W
22R2	108871	99206-082	47K Ohms 10% 1/4W
22R3	227741	99206-059	560 Ohms 10% 1/4W
22R4	108865	99206-062	1000 Ohms 10% 1/4W
22R5	219458	99206-056	330 Ohms 10% 1/4W
22R6	285442	99206-060	680 Ohms 10% 1/4W
22R7	285405	99206-069	3900 Ohms 10% 1/4W
22R8	218758	99206-054	220 Ohms 10% 1/4W
22R9	108866	99206-066	2200 Ohms 10% 1/4W
22R10	108865	99206-062	1000 Ohms 10% 1/4W
22R11	218499	99206-074	10K Ohms 10% 1/4W
22R12	227741	99206-059	560 Ohms 10% 1/4W
22R13	219459	99206-064	1500 Ohms 10% 1/4W
22R14	236640	3463187-008	Variable, 1000 Ohms
22R15	300690	99206-061	820 Ohms 10% 1/4W
22R16	227741	99206-059	560 Ohms 10% 1/4W
22R17	502033	82283-044	33 Ohms 10% 1/2W
22R18	502210	82283-062	1000 Ohms 10% 1/2W
22R20	249930	3463187-010	100K Ohms
22R21	108869	99206-076	15K Ohms 10% 1/4W
22R22	108865	99206-062	1000 Ohms 10% 1/4W
22R23	300690	99206-061	820 Ohms 10% 1/4W
22R24	108870	99206-077	18K Ohms 10% 1/4W
22R25	218758	99206-054	220 Ohms 10% 1/4W
22R26	219459	99206-064	1500 Ohms 10% 1/4W
22R27	300739	99206-070	4700 Ohms 10% 1/4W
22R28	108865	99206-062	1000 Ohms 10% 1/4W
22R29	108864	99206-058	470 Ohms 10% 1/4W



## REPLACEMENT PARTS

Symbol	Stock No.	Drawing No.	Description
22R30	108870	99206-077	18K OHMS 10% 1/4W
22R31	108861	99206-050	100 OHMS 10% 1/4W
22R32	249929	3463187-009	VARIABLE, 10K OHMS
22R33	249929	3463187-009	VARIABLE, 10K OHMS
22R34	108864	99206-058	470 OHMS 10% 1/4W
22R35	108864	99206-058	470 OHMS 10% 1/4W
	248228	8985442-001	WASHER, INSULATOR, FOR Q7
	228124	3450797-003	CONTACT PIN, (PACKAGE OF 5)
			PA REGULATOR COMPONENTS - MOUNTED EXTERNAL TO THE DC CONTROL MODULE - NOT PART OF P/L 3720681-504
	249711	3731353-001	REGULATOR TRANSISTOR (PNP)
	232628	3463100-001	DRIVER TRANSISTOR (NPN)
	240143	3463424-001	REGULATOR TRANSISTOR SOCKET
	240243	3464535-001	DRIVER TRANSISTOR SOCKET
	522012	99126-039	12 OHMS, 10% 2W
	256444	3465422-036	4 OHMS, 5% 20W
	249693	3450123-072	1 OHM, 10% 5W



# REPLACEMENT PARTS

Symbol	Stock No.	Drawing No.	Description
	419423	3720655-501	FILTER/ANTENNA SWITCH/VSWR SENSOR MODULE-CODE B P/L 3720655-501 REV 16
27C11	428066	3723114-020	Feed-Thru, 14PFD 5% 500V
27C12	428064	3723114-022	Feed-Thru, 28PFD 5% 500V
27C13	428064	3723114-022	Feed-Thru, 28PFD 5% 500V
27C14	428065	3723114-022	Feed-Thru, 22PFD 5% 500V
27C15	219668	757607-014	Mica, 10PFD 40.5PFD 500V
27J7	104039	8848262-002	Phono Jack
27L5	418668	3720929-003	Coil-Filter
27L6	418667	3720929-002	Coil-Filter
27L7	418667	3720929-002	Coil-Filter
27L8	418666	3720929-001	Coil-Filter
	248538	3454702-001	Screw, Taptite "6-32 x 1/4" (6 Used)
		3720655-502	Antenna Switch/VSWR Sensor Printed Circuit Board - Code D  P/L 3720655-502 REV 16
27C1	112720	3450097-003	Feed-Thru, 1000PF
27C2	418657	3731259-278	Variable, 4-40PF
27C3	300196	3731348-258	Mica, 1000PF 5% 500V
27C4	300196	3731348-258	Mica, 1000PF 5% 500V
27C5	249696	3731259-276	Variable, 0.9-7PF
27C6	300546	3731348-212	Mica, 12PF 5% 500V
27C7	112720	3450097-003	Feed-Thru, 1000PF
27C8	249696	3731259-276	Variable, 0.9-7PF
27C9	112720	3450097-003	Feed-Thru, 1000PF
27C10	300196	3468205-206	Mica, 15 PF 5% 500V
27CR1	431850	3727085-001	Diode - PIN
27CR2	431852	3727085-003	Diode - PIN
27CR3	242522	3464611-001	Diode - Silicon
27CR4	242522	3464611-001	Diode - Silicon
27L1	243248	3465844-139	Choke - R.F., 2.2UH 20%
27L2	418669	3720918-001	Coil - Switch
27L3	418670	3468336-060	Coil - Switch
27L4	243248	3465844-139	Choke - R.F., 2.2UH 20%
27R1	522115	99126-052	150 Ohms 10% 2W
27R2	223769	99206-086	100,000 Ohms 10% 1/4W
27R3	502047	82283-046	47 Ohms 10% 1/2W
27R4	502047	82283-046	47 Ohms 10% 1/2W
27R5	223769	99206-086	100,000 Ohms 10% 1/4W
	228192	3450825-001	Socket 0.093 Diameter (5 Used) (Package of 5)

33 **REPLACEMENT PARTS**

Symbol	Stock No.	Drawing No.	Description
			60W POWER AMPLIFIER MODULE-CODE F P/L 3720610-502 REV 39
			70W POWER AMPLIFIER MODULE - CODE C P/L 3720610-504 REV 39
33C1	419266	8845610-004	Mica, 500PF
33C2	247782	3731259-228	Variable, 40 PF, 4-40 PF
33C3	217378	757607-016	Mica, 15PF, $\pm 0.5$ PF, 500V
33C4	232752	3460490-005	Disc, 0.02MF +80-20%, 25V
33C5	244868	3450097-003	Feed-Thru, 1000PF
33C6	232752	3460490-005	Disc, 0.02MF +80-20%, 25V
33C7	240655	3467259-106	Tantalum, 0.47MF, 20%, 35V
33C8	232752	3460490-005	Disc, 0.02MF, -80-20% 25V
33C9	223038	757607-003	Mica, 2PF, $\pm 0.5$ PF, 500V
33C10	247779	3731259-029	Variable, 7-100 PF
33C11	300182	757607-130	Mica, 62PF, $\pm 0.5$ PF 500V
33C12	232752	3460490-005	Disc, 0.02MF, -80-20%, 25V
33C13	113931	3450092-002	Stand-Off, 1000PF
33C14	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C15	240655	3467259-106	Tantalum, 0.4MF 0.47MF, 20% 35V
33C16	232752	3460490-005	Disc, 0.02MF, -80-20%, 25V
33C17	247777	3464264-008	Mica, 20 PF, 10%, 500V
33C18	094765	3464264-002	Mica, 40 PF, 10%, 500V
33C19	247778	3731259-028	Variable, 4-40 PF
33C20	247779	3731259-029	Variable, 7-100 PF
33C21	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C22	113931	3450092-002	Stand-Off, 1000PF
33C23	232752	3460490-005	Disc, 0.02MF +80-20%, 25V
33C24	240655	3467259-106	Tantalum, 0.47MF, 20%, 35V
33C25	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C26	094765	3464264-002	Mica, 40 PF, 10%, 500V
33C27	247778	3731259-028	Variable, 4-40 PF
33C28	247780	3731259-030	Variable, 16-150 PF
33C29	232752	3460490-005	Disc, 0.02MF +80-20%, 25V
33C30	113931	3450092-002	Stand-Off, 1000PF
33C31	232752	3460490-005	Disc, 0.02MF, +80-20% 25V
33C32	240655	3467259-106	Tantalum, 0.47MF, 20%, 35V
33C33	232752	3460490-005	Disc, 0.02MF +8
33C34	418656	3468291-308	Variable, 15-120PF
33C35	418656	3468291-208	Variable, 15-120PF
33C36	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C37	244868	3450097-003	Feed-Thru, 1000PF
33C38	240655	3467259-106	Tantalum, 0.47MF, 20%, 35V
33C39	244868	3450097-003	Feed-Thru, 1000PF
33C40	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C41	244868	3450097-003	Feed-Thru, 1000PF
33C42	232752	3460490-005	Disc, 0.02MF, -80-20%, 25V
33C43	418656	3468291-208	Variable, 15-120PF
33C44	418656	3468291-308	Variable, 15-120PF
33C45	232752	3460490-005	Disc, 0.02MF, -80-20%, 25V
33C46	420927	3464264-015	Mica, 100PFD, 10%, 500V
33C47	420927	3464264-015	Mica, 100PFD, 10%, 500V
33C48	420927	3464264-015	Mica, 100PFD, 10%, 500V
33C49	420927	3464264-015	Mica, 100PFD, 10%, 500V
33C50	265248	3457334-160	Tantalum, 33MFD, 20%, 20V
33C51 Thru 33C57	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33CR1 Thru 33CR5	242522	3464611-001	Diode
33L1	419425	3731371-001	Coil-Q1 Base Tuning
33L2	242527	3465844-115	Choke, RF Q1 Base, 0.22UH
33L3	419427	3731371-003	Coil-Q1 Collector Feed



## REPLACEMENT PARTS (continued)

Symbol	Stock No.	Drawing No.	Description
33L4	243280	3465844-131	Choke-Q1 Filter, 1UH
33L5	242527	3465844-115	Choke-RF Q2 Base, 0.22UH
33L6	419426	3731371-002	Coil-Q2 Collector Feed
33L7	232000	3465844-123	Choke-Q2 Filter, 0.47UH
33L8	419428	3731371-004	Coil-Q2 Collector Tuning
33L9	242527	3465844-115	Choke-RF Q3 Base, 0.22UH
33L10	419426	3731371-002	Coil-Q3 Collector Feed
33L11	242527	3465844-115	Choke-Q3 Filter, 0.22UH
33L12	419428	3731371-004	Coil-Q3 Collector Tuning
33L13	418671	3720908-001	Inductor-Q4 Base Tuning
33L14	242527	3465844-115	Choke-RF Q4 Base, 0.22UH
33L15	419426	3731371-002	Coil-Q4 Collector Feed
33L16	419429	3740536-003	Choke Q4 Filter
33L17			Coil-Q4 Collector Tuning-Part of Printed Circuit Board
33L18	418660	3740536-001	Coil-Q5 Base Tuning
33L19			Coil-Q6 Base Tuning-Part of L18
33L20	242527	3465844-115	Choke-RF Q5 Base, 0.22UH
33L21	242527	3465844-115	Choke-RF Q6 Base, 0.22UH
33L22	418663	3740536-005	Coil-Q5 Collector Feed
33L23	418662	3740536-004	Coil-Q6 Collector Feed
33L24	418661	3740536-002	Coil-Q5 Collector Tuning
33L25			Coil-Q6 Collector Tuning-Part of L24
33L27	418664	3740536-006	Coil-PA DC Feed
33Q1	247994	3457845-001	Transistor
33Q2	247995	3457846-001	Transistor
33Q3	247996	3457847-001	Transistor
33Q4	247997	3457847-002	Transistor
33Q5	420978	3720923-001	Transistor (502 only)
33Q5	427981	3720923-002	Transistor (504 only)
33Q6	420978	3720923-001	Transistor (502 only)
33Q6	427981	3720923-002	Transistor (504 only)
33R1	219458	99206-056	330 Ohms 10% 1/4W
33R2	219459	99206-078	2200 Ohms 10% 1/4W
33R3	233931	99206-044	33 Ohms 10% 1/4W
33R4	285404	99206-080	33,000 Ohms 10% 1/4W
33R5	502068	82283-048	68 Ohms 10% 1/2W
33R6	502122	82283-054	220 Ohms 10% 1/2W
33R7	502133	82283-056	330 Ohms 10% 1/2 W
33R8	259309	99206-092	330,000 Ohms 10% 1/4W
33R9	502115	82283-052	150 Ohms 10% 1/2W
33R10	232687	99206-091	270,000 Ohms 10% 1/4W
33R11	512012	90496-039	12 Ohms 10% 1W
33R12	522012	99126-039	12 Ohms 10% 2W
33R13	259309	99206-092	330,000 Ohms 10% 1/4W
33L4	502127	82283-055	270 Ohms 10% 1/2W
	228518	3720910-001	Bead-Ferrox
	221163	990104-105	Screw, Machine Pan Head #4-40
	223124	3450797-003	Pin, Bead Chain (Package of 5)
	419609	3457312-009	Mylar Insulating Washer



- ↳
1. voltage Reg. - R14
  2. Short Circuit Protect
  3. FWD Power Sensing
  4. Rev " "
  5. Over Heat protect



## TECHNICAL DATA

RF Input Frequency 148-174 MHz	RF Output Power 85 Watts (as adjusted)
RF Input Power 125 mW	DC Power Requirements 10.7 volts, 2-3 amperes 12.0 volts, 13-15 amperes

## DESCRIPTION

### GENERAL

The Power Amplifier Module contains five stages of amplification. Refer to the module schematic diagram while reading the following descriptions.

#### 1st AMPLIFIER – Q1

The first amplifier stage, Q1, has C2/C3/L1/L2/R3 in the base circuit for tuning and impedance matching. Metering of the RF signal level on the base of Q1 is provided by metering diode CR1, with R2 serving as a multiplier resistor for a 50  $\mu$ A meter. In the collector circuit, L3/C10/C11/L5/R5 are the frequency determining and impedance matching components. The DC supply for the stage is obtained through pin 3 from the 11.3 volt regulator on the Regulator Module.

#### 2nd AMPLIFIER – Q2

The second amplifier stage, Q2, has L3/C10/C11/L5/R5 in the base circuit for tuning and impedance matching. Metering of the RF signal level on the base of Q2 is provided by metering diode CR2, with R4 serving as a multiplier resistor for a 50  $\mu$ A meter. In the collector circuit, C17/L8/C19/C20/C18 provide tuning and impedance matching. The DC supply for the stage is obtained through pin 3 from the 11.3 volt regulator on the Regulator Module.

#### 3rd AMPLIFIER – Q3

The third amplifier stage, Q3, has C17/L8/C19/C20/C18 in the base circuit for tuning and impedance matching. Metering of the RF signal level on the base of Q3 is provided by metering diode CR3, with R8 serving

as a multiplier resistor for a 50  $\mu$ A meter. C26/L12/C27/C28/L13 tune the collector circuit and match its impedance to the base of Q4. The DC supply for the stage is obtained through pin 3 from the 11.3 volt regulator on the Regulator Module.

#### 4th AMPLIFIER – Q4

The fourth amplifier stage, Q4, has C26/L12/C27/C28/L13 in the base circuit for tuning and impedance matching. Metering of the RF signal level on the base of Q4 is provided by metering diode CR4, with R10 serving as a multiplier resistor for a 50  $\mu$ A meter. L17/C34/C35 tune the collector and couple the signal to the power amplifier stage input (base) circuit. The DC supply voltage for Q4 is the power amplifier feed, obtained through pin 4 from the regulator transistors mounted in the Power Amplifier casting.

#### POWER AMPLIFIER – Q5/Q6

The power amplifier stage is the last stage of amplification in the transmitter string. The stage consists of transistors Q5 and Q6 in a parallel configuration. L18/L20/C46 in the Q5 base circuit, and L19/L21/C47 in the Q6 base circuit provide impedance matching between the Q4 tuned circuit (L17/C34/C35) and the respective transistor bases. Metering of the RF signal level at the stage input is provided by metering diode CR5, with R13 serving as a multiplier resistor for a 50  $\mu$ A meter. In the collector circuit, C48/C49/L24/L25/C25/C43/C44 provide tuning and impedance matching. The DC supply voltage for the stage is obtained through pin 4 from the regulator transistors mounted on the power amplifier casting. L27 serves as a shunt for a 50  $\mu$ A meter to measure the total stage collector current.

## REPLACEMENT PARTS

Symbol	Stock No.	Drawing No.	Description
			60W POWER AMPLIFIER MODULE-CODE F P/L 3720610-502 REV 39
			70W POWER AMPLIFIER MODULE - CODE C P/L 3720610-504 REV 39
33C1	419266	8845610-004	Mica, 500PF
33C2	247782	3731259-228	Variable, 40 PF, 4-40 PF
33C3	217378	757607-016	Mica, 15PF, $\pm 0.5$ PF, 500V
33C4	232752	3460490-005	Disc, 0.02MF +80-20%, 25V
33C5	244868	3450097-003	Feed-Thru, 1000PF
33C6	232752	3460490-005	Disc, 0.02MF +80-20%, 25V
33C7	240655	3467259-106	Tantalum, 0.47MF, 20%, 35V
33C8	232752	3460490-005	Disc, 0.02MF, -80-20% 25V
33C9	223038	757607-003	Mica, 2PF, $\pm 0.5$ PF, 500V
33C10	247779	3731259-029	Variable, 7-100 PF
33C11	300182	757607-130	Mica, 62PF, $\pm 0.5$ PF 500V
33C12	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C13	113931	3450092-002	Stand-Off, 1000PF
33C14	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C15	240655	3467259-106	Tantalum, 0.4MF 0.47MF, 20% 35V
33C16	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C17	247777	3464264-008	Mica, 20 PF, 10%, 500V
33C18	094765	3464264-002	Mica, 40 PF, 10%, 500V
33C19	247778	3731259-028	Variable, 4-40 PF
33C20	247779	3731259-029	Variable, 7-100 PF
33C21	232752	3460490-005	Disc, 0.02MF, -80-20%, 25V
33C22	113931	3450092-002	Stand-Off, 1000PF
33C23	232752	3460490-005	Disc, 0.02MF -80-20%, 25V
33C24	240655	3467259-106	Tantalum, 0.47MF, 20%, 35V
33C25	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C26	094765	3464264-002	Mica, 40 PF, 10%, 500V
33C27	247778	3731259-028	Variable, 4-40 PF
33C28	247780	3731259-030	Variable, 16-150 PF
33C29	232752	3460490-005	Disc, 0.02MF -80-20%, 25V
33C30	113931	3450092-002	Stand-Off, 1000PF
33C31	232752	3460490-005	Disc, 0.02MF, +80-20% 25V
33C32	240655	3467259-106	Tantalum, 0.47MF, 20%, 35V
33C33	232752	3460490-005	Disc, 0.02MF +8
33C34	418656	3468291-308	Variable, 15-120PF
33C35	418656	3468291-208	Variable, 15-120PF
33C36	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C37	244868	3450097-003	Feed-Thru, 1000PF
33C38	240655	3467259-106	Tantalum, 0.47MF, 20%, 35V
33C39	244868	3450097-003	Feed-Thru, 1000PF
33C40	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C41	244868	3450097-003	Feed-Thru, 1000PF
33C42	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C43	418656	3468291-208	Variable, 15-120PF
33C44	418656	3468291-308	Variable, 15-120PF
33C45	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33C46	420927	3464264-015	Mica, 100PFD, 10%, 500V
33C47	420927	3464264-015	Mica, 100PFD, 10%, 500V
33C48	420927	3464264-015	Mica, 100PFD, 10%, 500V
33C49	420927	3464264-015	Mica, 100PFD, 10%, 500V
33C50	265248	3457334-160	Tantalum, 33MFD, 20%, 20V
33C51 Thru 33C57	232752	3460490-005	Disc, 0.02MF, +80-20%, 25V
33CR1 Thru 33CR5	242522	3464611-001	Diode
33L1	419425	3731371-001	Coil-Q1 Base Tuning
33L2	242527	3465844-115	Choke, RF Q1 Base, 0.22UH
33L3	419427	3731371-003	Coil-Q1 Collector Feed



## REPLACEMENT PARTS (continued)

Symbol	Stock No.	Drawing No.	Description
33L4	243280	3465844-131	Choke-Q1 Filter, 1UH
33L5	242527	3465844-115	Choke-RF Q2 Base, 0.22UH
33L6	419426	3731371-002	Coil-Q2 Collector Feed
33L7	232000	3465844-123	Choke-Q2 Filter, 0.47UH
33L8	419428	3731371-004	Coil-Q2 Collector Tuning
33L9	242527	3465844-115	Choke-RF Q3 Base, 0.22UH
33L10	419426	3731371-002	Coil-Q3 Collector Feed
33L11	242527	3465844-115	Choke-Q3 Filter, 0.22UH
33L12	419428	3731371-004	Coil-Q3 Collector Tuning
33L13	418671	3720908-001	Inductor-Q4 Base Tuning
33L14	242527	3465844-115	Choke-RF Q4 Base, 0.22UH
33L15	419426	3731371-002	Coil-Q4 Collector Feed
33L16	419429	3740536-003	Choke Q4 Filter
33L17			Coil-Q4 Collector Tuning-Part of Printed Circuit Board
33L18	418660	3740536-001	Coil-Q5 Base Tuning
33L19			Coil-Q6 Base Tuning-Part of L18
33L20	242527	3465844-115	Choke-RF Q5 Base, 0.22UH
33L21	242527	3465844-115	Choke-RF Q6 Base, 0.22UH
33L22	418663	3740536-005	Coil-Q5 Collector Feed
33L23	418662	3740536-004	Coil-Q6 Collector Feed
33L24	418661	3740536-002	Coil-Q5 Collector Tuning
33L25			Coil-Q6 Collector Tuning-Part of L24
33L27	418664	3740536-006	Coil-PA DC Feed
33Q1	247994	3457845-001	Transistor
33Q2	247995	3457846-001	Transistor
33Q3	247996	3457847-001	Transistor
33Q4	247997	3457847-002	Transistor
33Q5	420978	3720923-001	Transistor (502 only)
33Q5	427981	3720923-003	Transistor (504 only)
33Q6	420978	3720923-001	Transistor (502 only)
33Q6	427981	372093-003	Transistor (504 only)
33R1	219458	99206-056	330 Ohms 10% 1/4W
33R2	219459	99206-078	2200 Ohms 10% 1/4W
33R3	233931	99206-044	33 Ohms 10% 1/4W
33R4	285404	99206-080	33,000 Ohms 10% 1/4W
33R5	502068	82283-048	68 Ohms 10% 1/2W
33R6	502122	82283-054	220 Ohms 10% 1/2W
33R7	502133	82283-056	330 Ohms 10% 1/2 W
33R8	259309	99206-092	330,000 Ohms 10% 1/4W
33R9	502115	82283-052	150 Ohms 10% 1/2W
33R10	232687	99206-091	270,000 Ohms 10% 1/4W
33R11	512012	90496-039	12 Ohms 10% 1W
33R12	522012	99126-039	12 Ohms 10% 2W
33R13	259309	99206-092	330,000 Ohms 10% 1/4W
3314	502127	82283-055	270 Ohms 10% 1/2W
	228518	3720910-001	Bead-Ferrox
	221163	990104-105	Screw, Machine Pan Head #4-40
	223124	3450797-003	Pin, Bead Chain (Package of 5)
	419609	3457312-009	Mylar Insulating Washer

## EMERGENCY SUBSTITUTES-SOLID STATE DEVICES

In the event of a semiconductor failure, the exact replacement found in the replacement parts list should be used. In an emergency, to minimize equipment downtime, the following common semiconductor types may be temporarily used. However, use of these substitutes may result in degraded system performance.

Component Designation	Emergency Substitute	RCA S/K #	Component Designation	Emergency Substitute	Device Mark
33CR1	1N914	247994	33Q1	ECG 346	2N4427 3457845-001
33CR2	1N914	247995	33Q2	ECG 347	MM1601 3457846-001
33CR3	1N914	247996	33Q3	ECG 349	MM1602 3457847-001
33CR4	1N914	247997	33Q4	ECG 351	MM1603 3457847-002
33CR5	1N914	420978	33Q5	ECG 320	use exact replacement
			33Q6	ECG 320	use exact replacement

RCA DW #

Sylvania-Phillips ECG replacements

Cumberland Electronics  
233-5883

## PRODUCTION VARIATIONS

The production level of the module is indicated by a legend (example: CODE C) stamped on the module near the identifying drawing number. The following table lists the differences between the various production levels. To determine the difference between a given production level and the level shown on the pathfinder, schematic and replacement parts list, note the differences tabulated for the desired level and all subsequent levels.

### 60/70 WATT POWER AMPLIFIER MODULES

Current Version: 3720610-502 CODE F

Current Version: 3720610-504 CODE C

Code Level Difference	Instruction Book Reference	Changes for Code Level Difference			
		Symbol	Stock No.	Drawing No.	Description
A-D (502)	Component Values	33C26	236333	3464264-004	Mica, 10pF, 10%, 500V
		33C51 thru 33C57			NOT USED
D-F (502) A-C (504)	Component Values	Symbol	Stock No.	Drawing No.	Description
		33R2	219459	99206-064	1500 ohms 10% 1/4W

