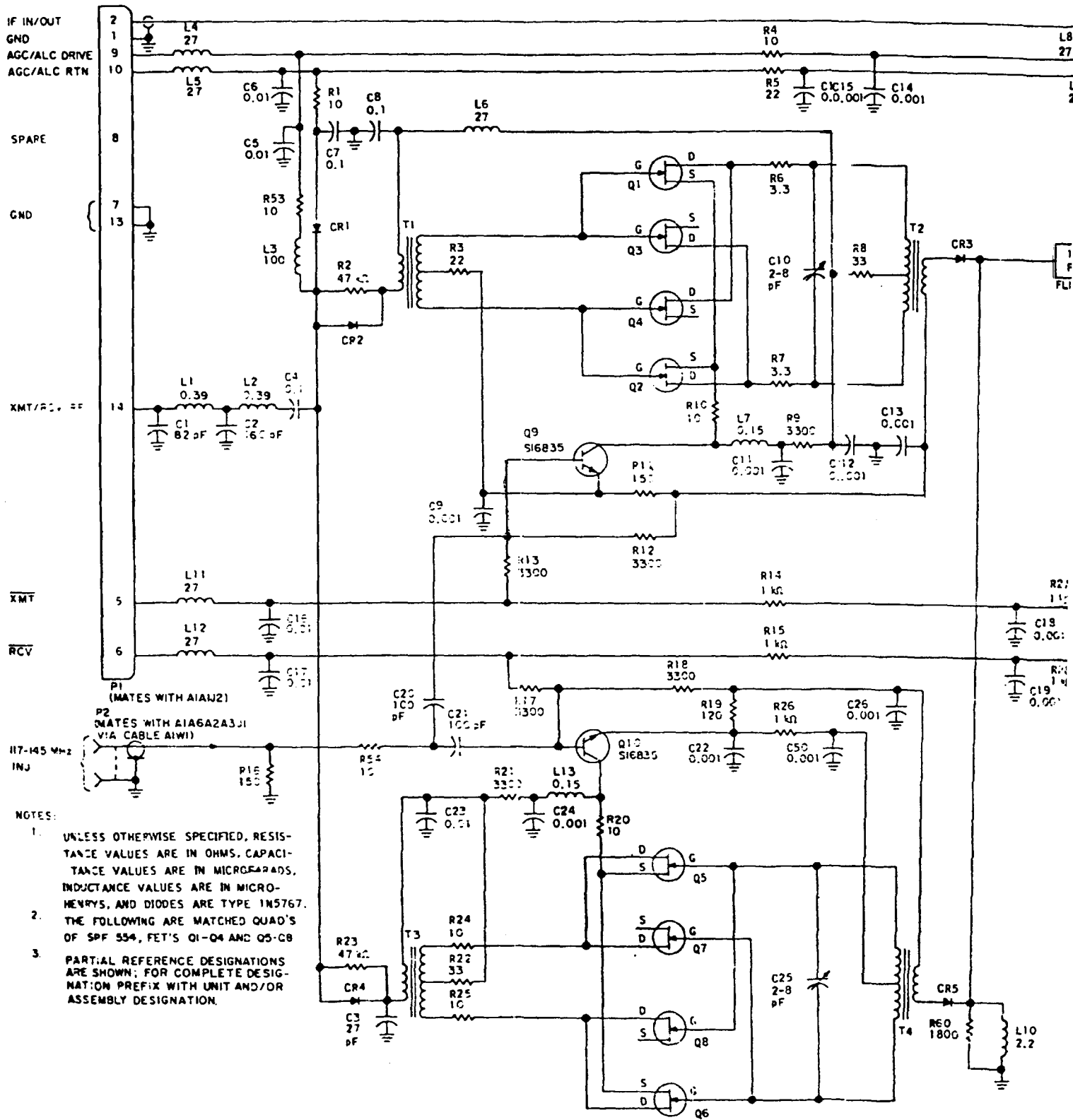
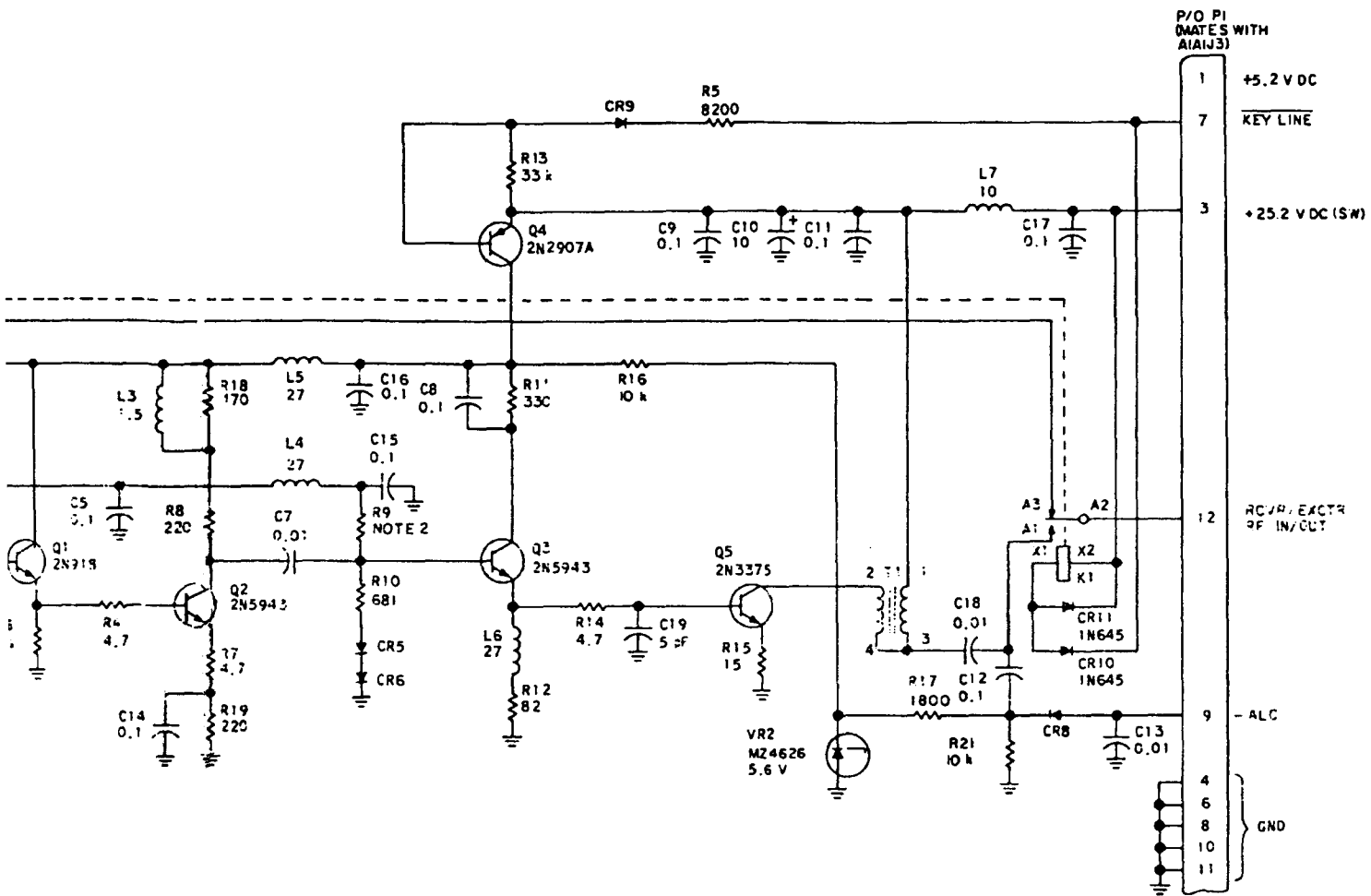


628-4251  
TP4-22:7-0:4

Figure 4-2. Mixer A1A2, Schematic Diagram

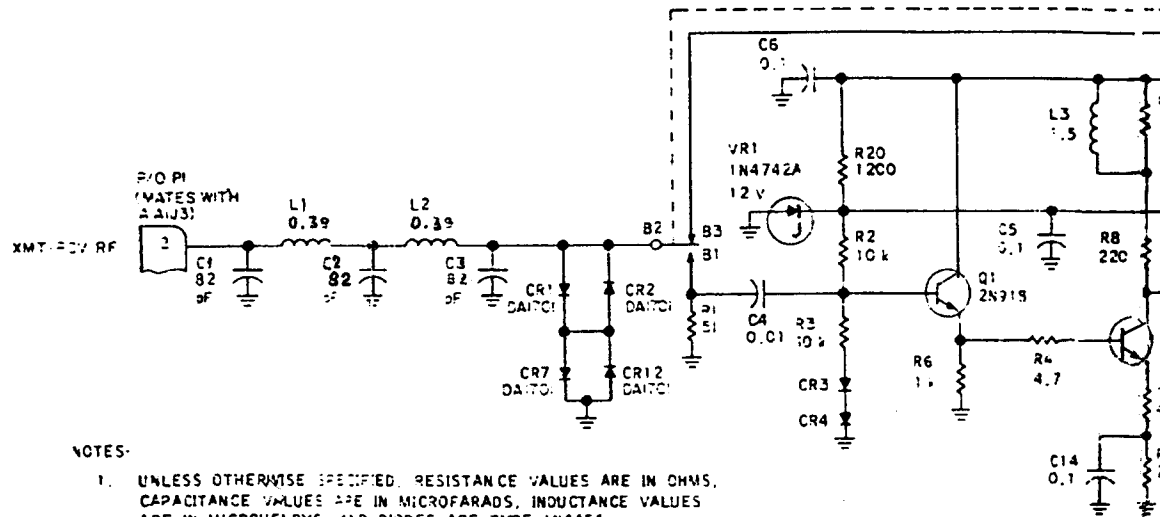




628-4252  
TP4-4661-014

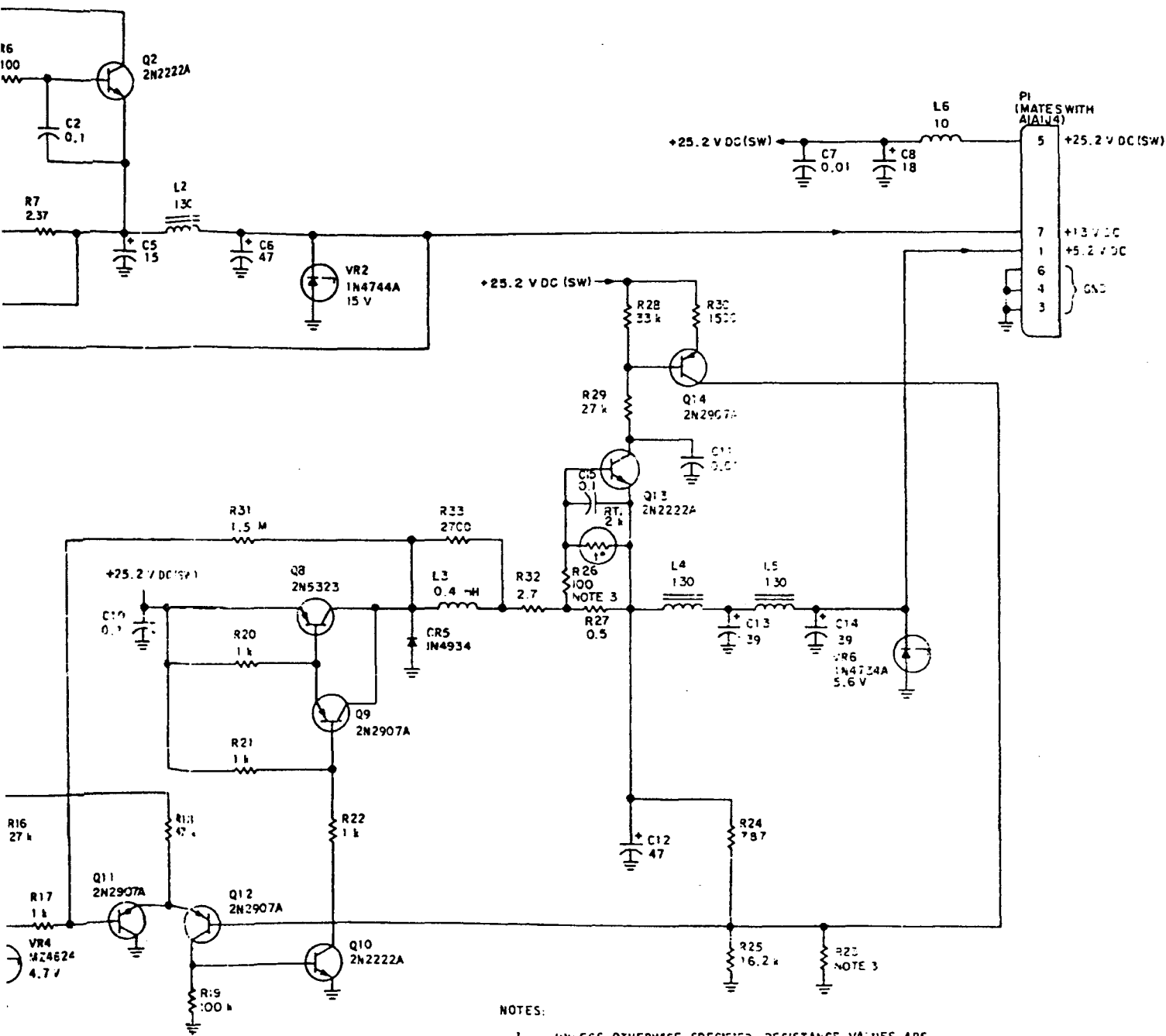
Figure 4-3. Broadband Amplifier A1A3.  
Schematic Diagram

4-7/4-8 (Blank)



NOTES-

1. UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, INDUCTANCE VALUES ARE IN MICROHENRYS AND DIODES ARE TYPE 1N4454.
2. FINAL VALUE OF R9 SELECTED IN TEST, NOMINAL VALUE 3320.



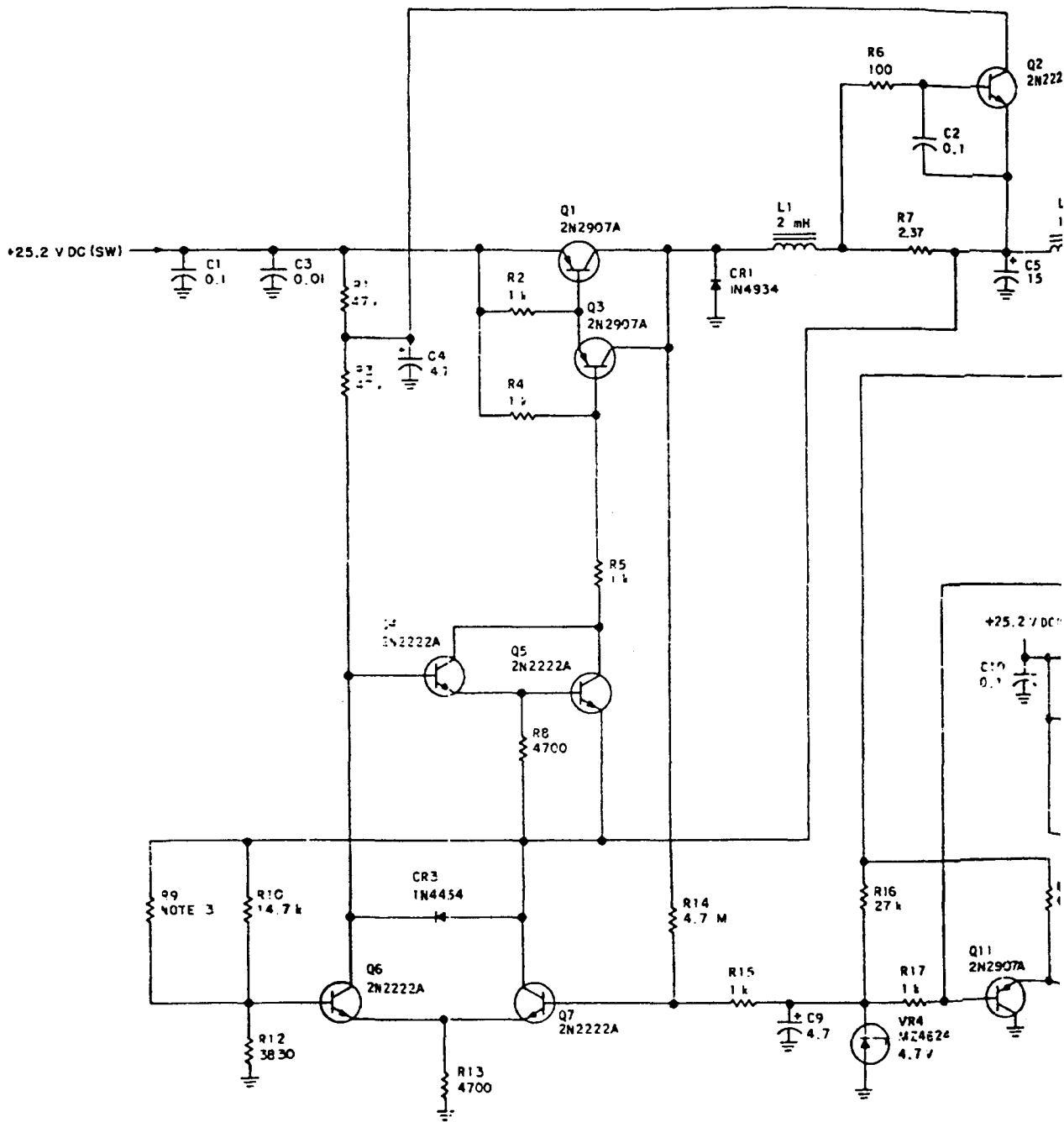
NOTES:

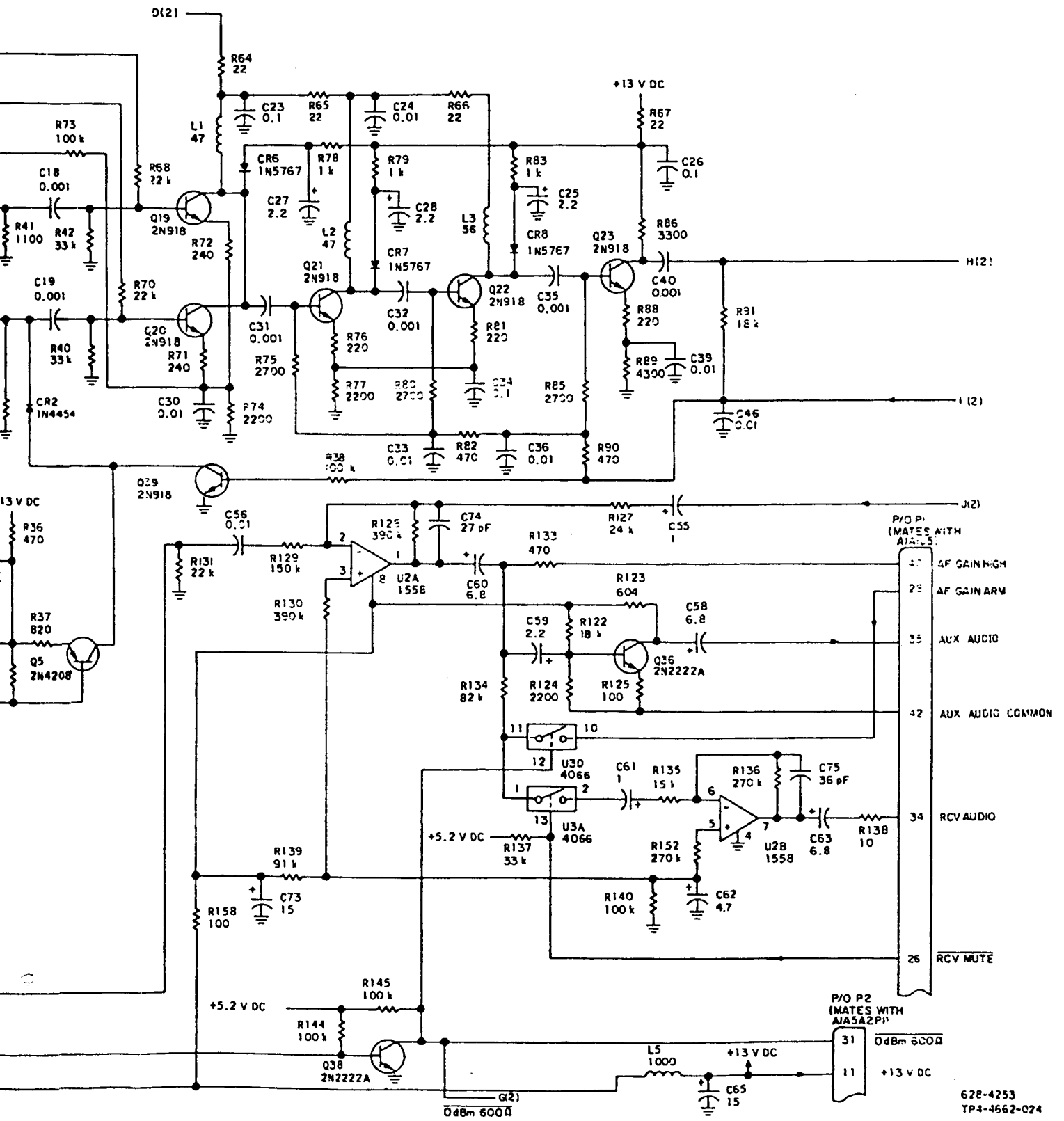
1. UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, AND INDUCTANCE VALUES ARE IN MICROHENRYS.
2. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATION, PREFIX UNIT AND/OR ASSEMBLY DESIGNATION.
3. VALUES ARE SELECTED IN TEST

629-4750  
TR4-4554-014

Figure 4-4. Power Supply A1A4.  
Schematic Diagram

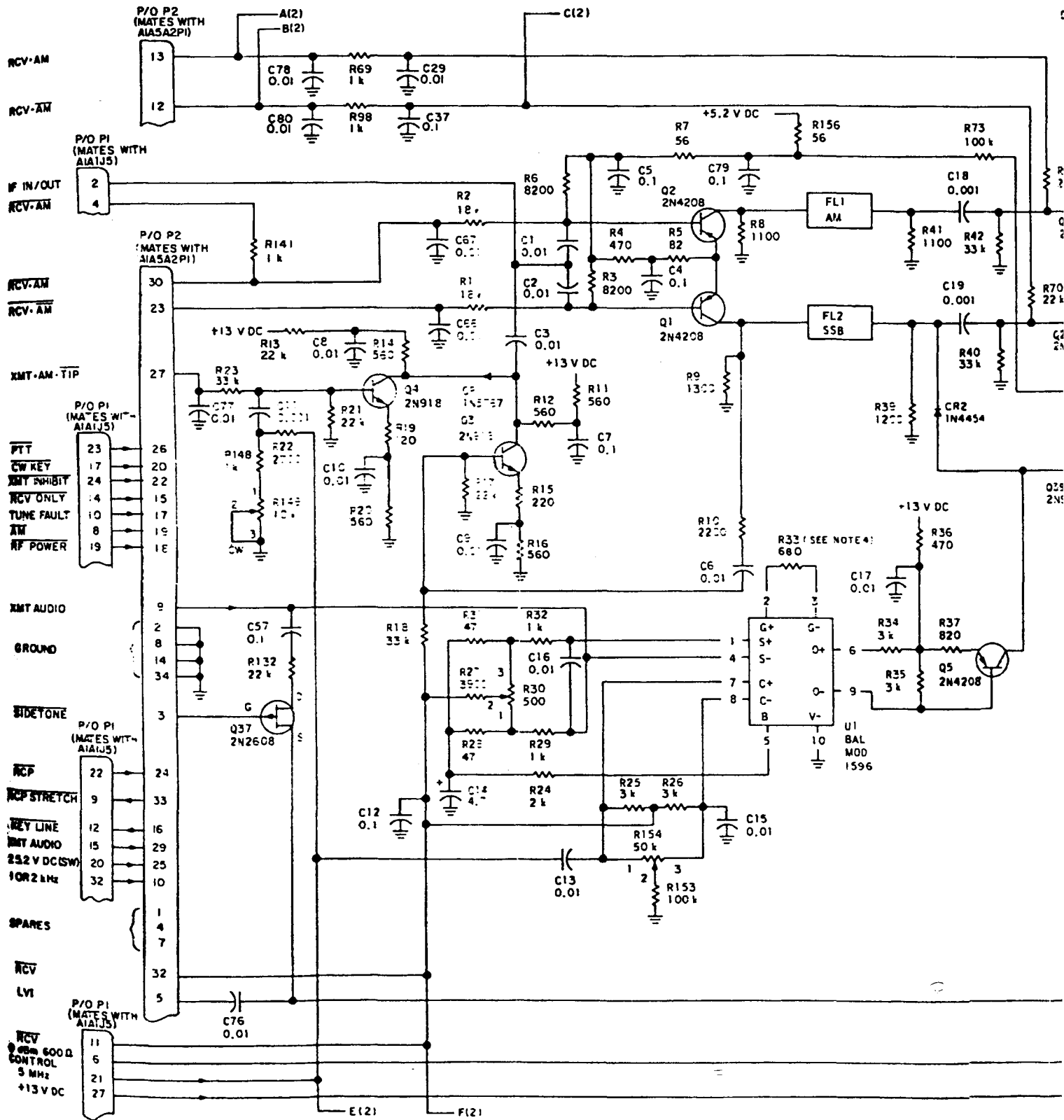
4-9/4-10 (Blank)



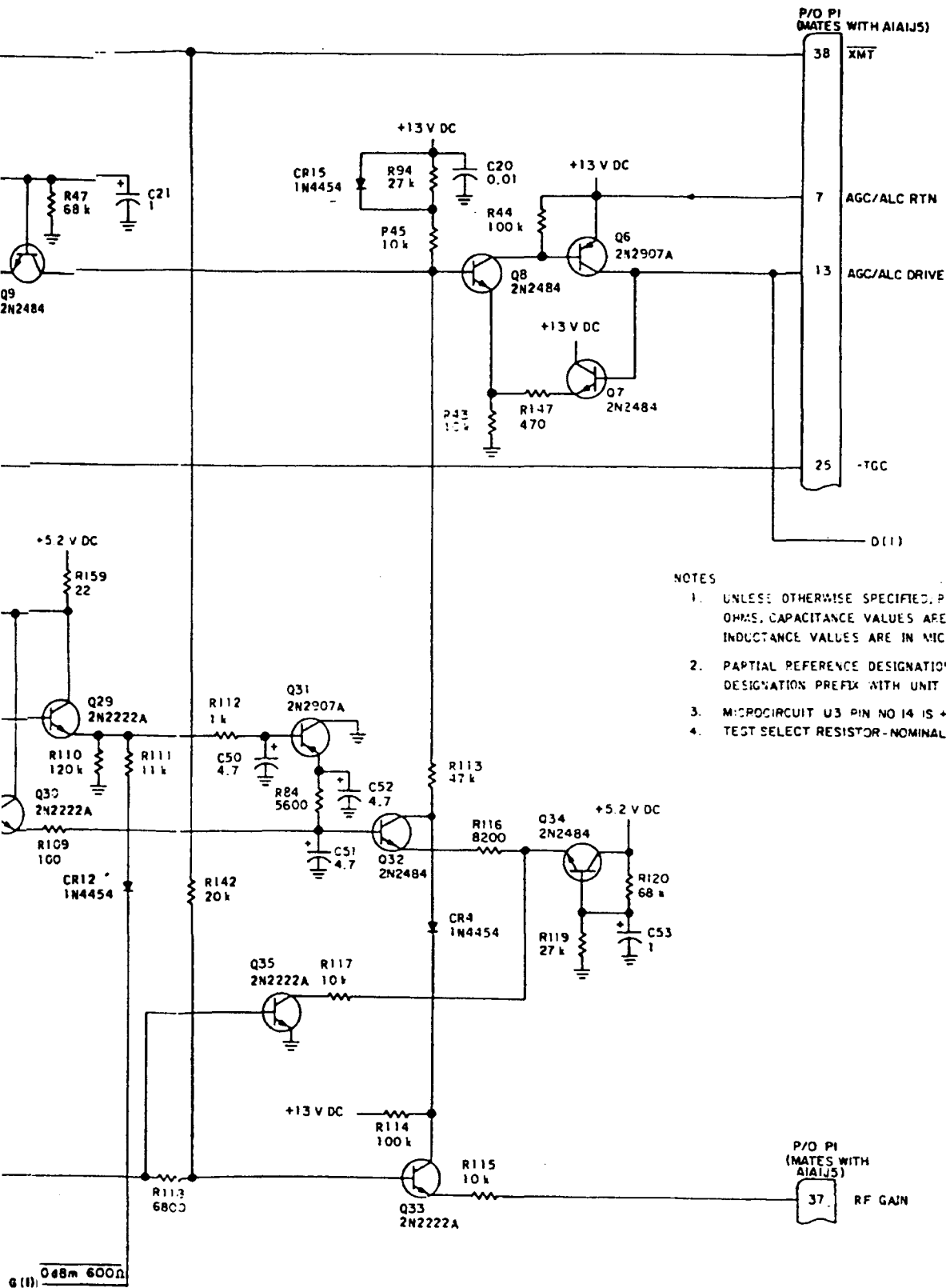


628-4253  
TP4-4662-024

Figure 4-5. If/Af A1A5A1, Schematic Diagram (Sheet 1 of 2)





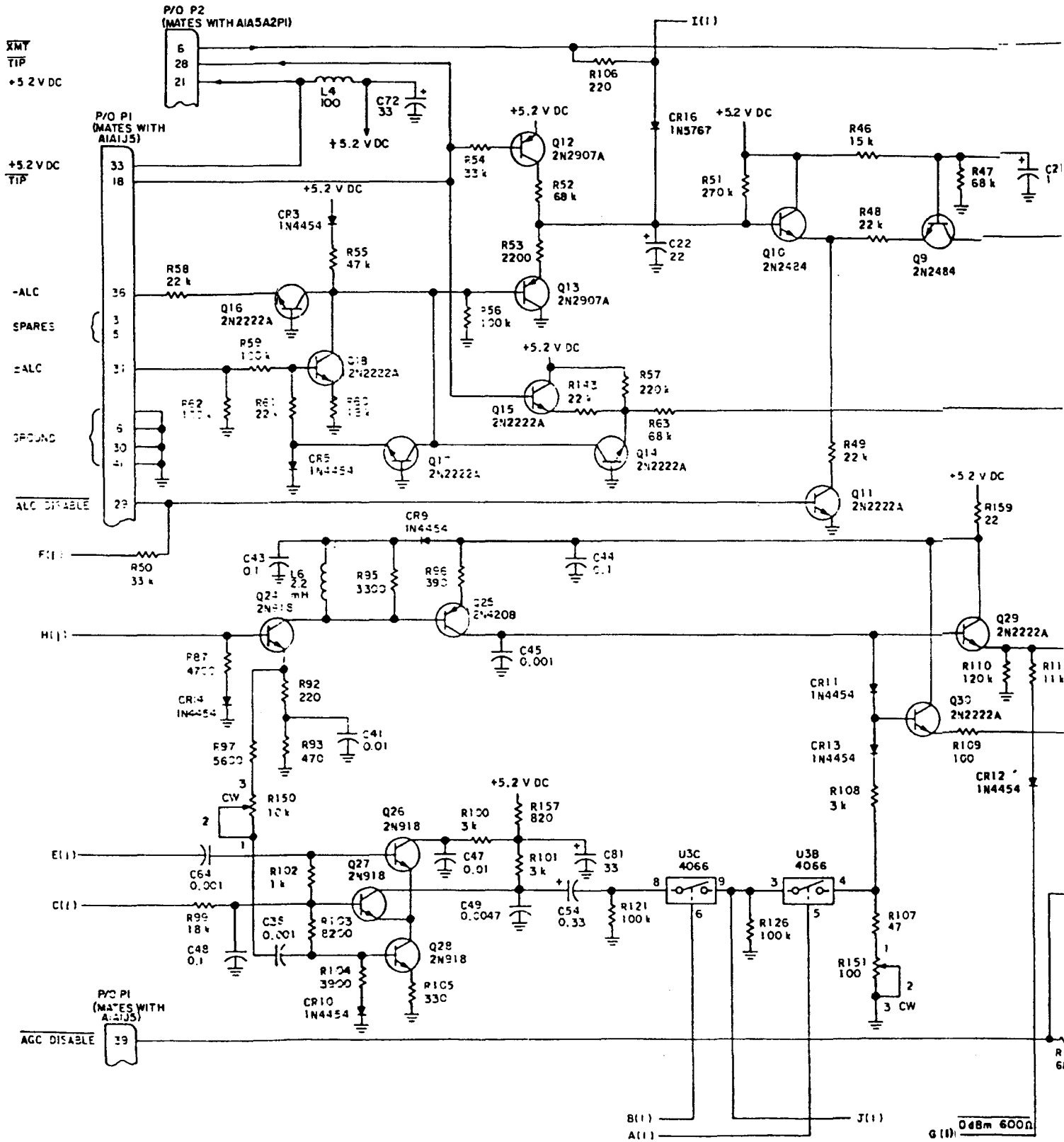


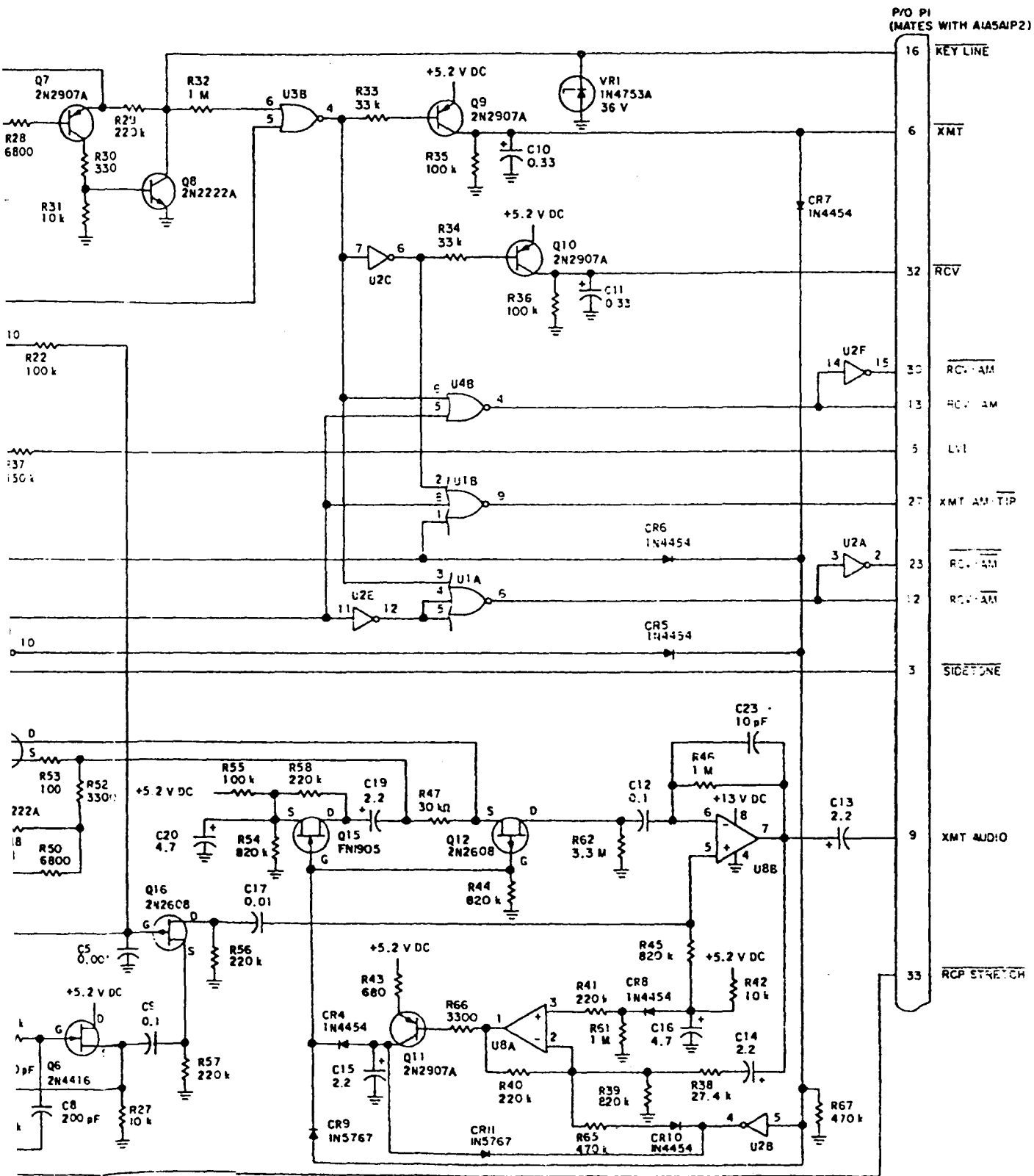
NOTES

1. UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, AND INDUCTANCE VALUES ARE IN MICROHENRYS.
2. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. FOR COMPLETE DESIGNATION PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION.
3. MICROCIRCUIT U3 PIN NO 14 IS +5.2 V DC AND PIN NO 7 IS GROUND.
4. TEST SELECT RESISTOR - NOMINAL VALUE 620 OHMS.

628-4253  
 YP4-4682-024

Figure 4-5. If/Af A1A5A1, Schematic Diagram (Sheet 2)





670-1204  
TP4-763-0-4

Figure 4-6. Logic/Tx A1A5A2, Schematic Diagram

4-15/4-16 (Blank)



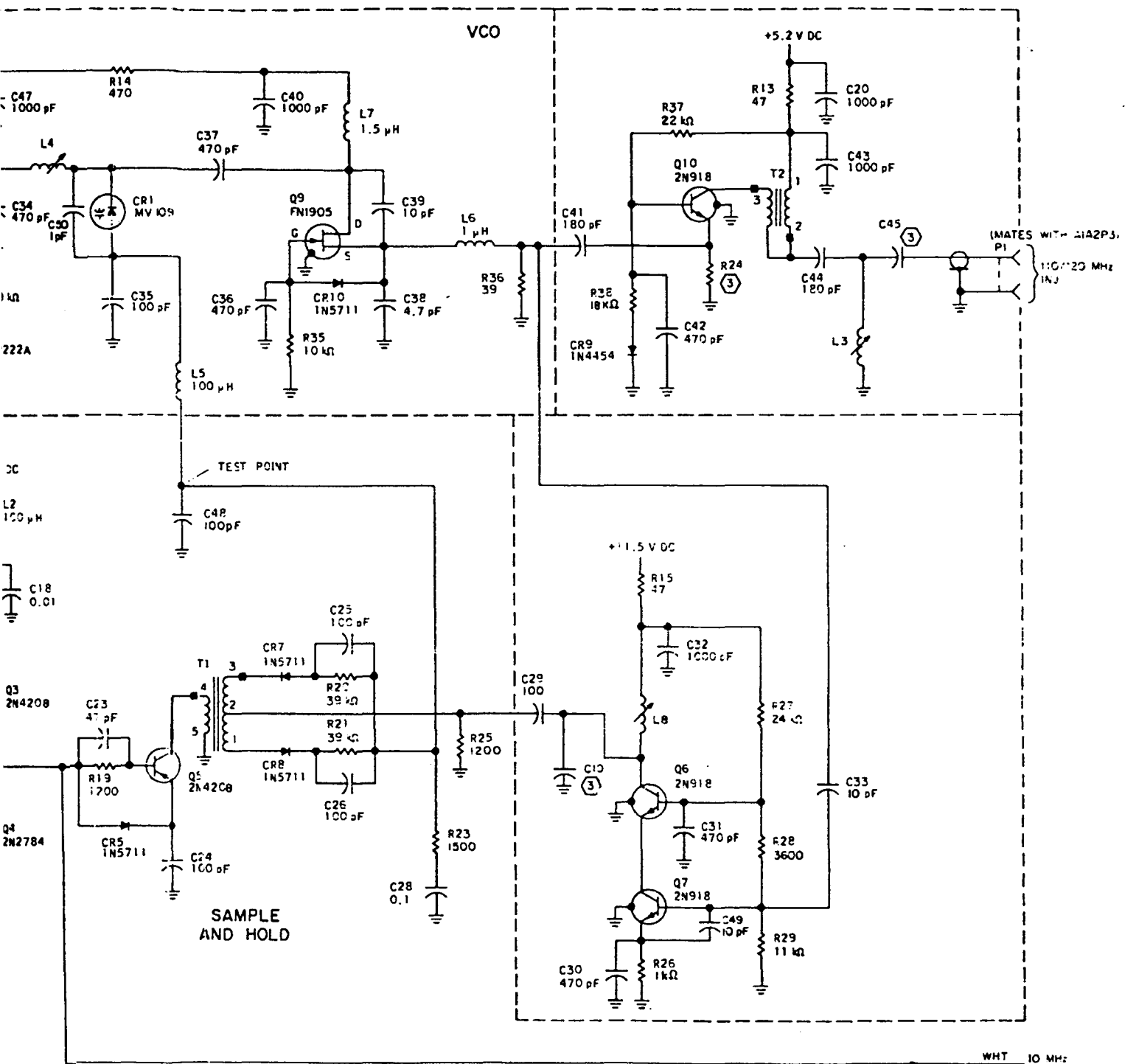


Figure 4-7. Frequency Standard A1A6A1A1, Schematic Diagram

NOTES:

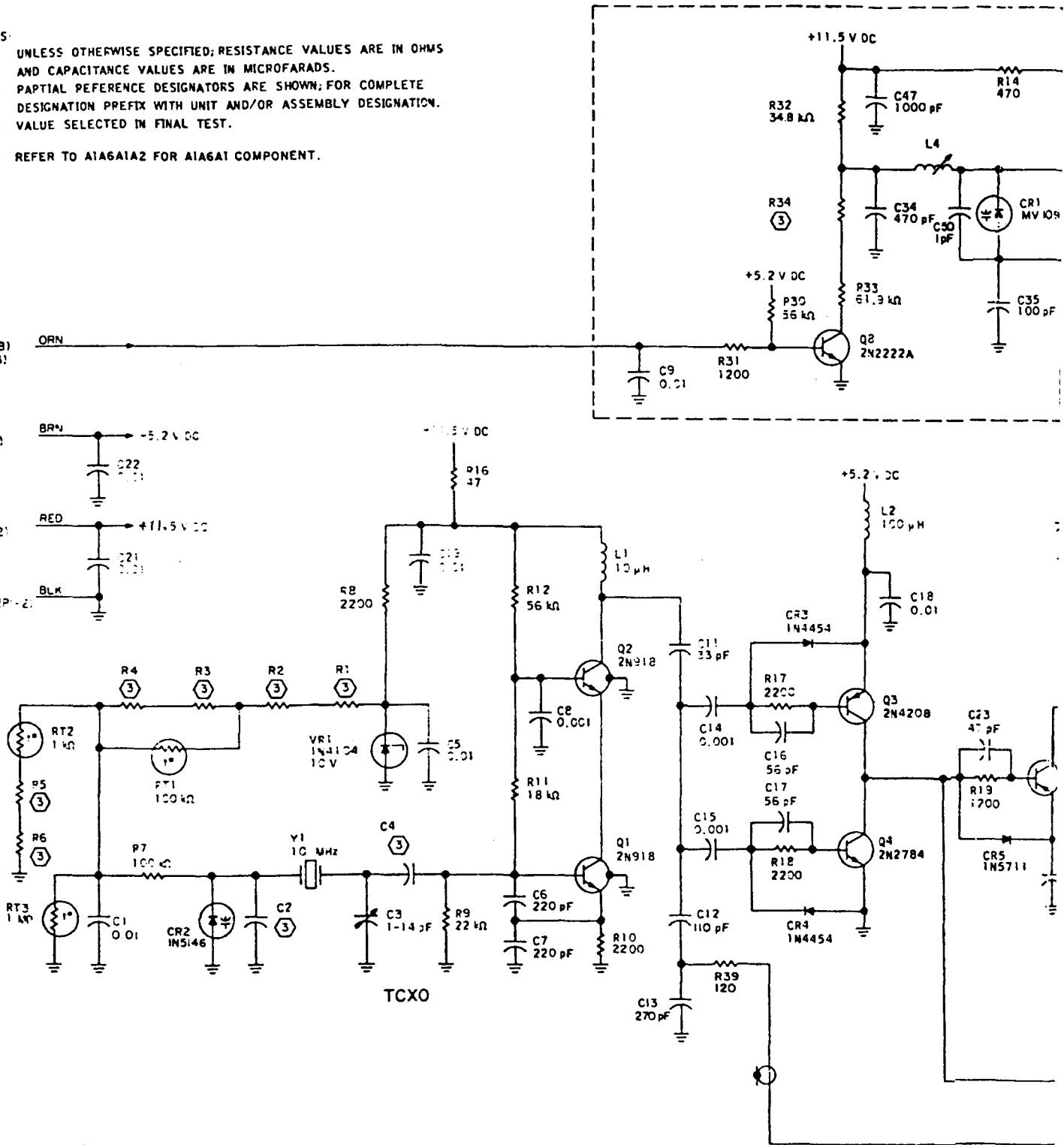
- ① UNLESS OTHERWISE SPECIFIED; RESISTANCE VALUES ARE IN OHMS AND CAPACITANCE VALUES ARE IN MICROFARADS.
- ② PARTIAL REFERENCE DESIGNATORS ARE SHOWN; FOR COMPLETE DESIGNATION PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION. VALUE SELECTED IN FINAL TEST.
- ③ REFER TO A1A6A1A2 FOR A1A6A1 COMPONENT.

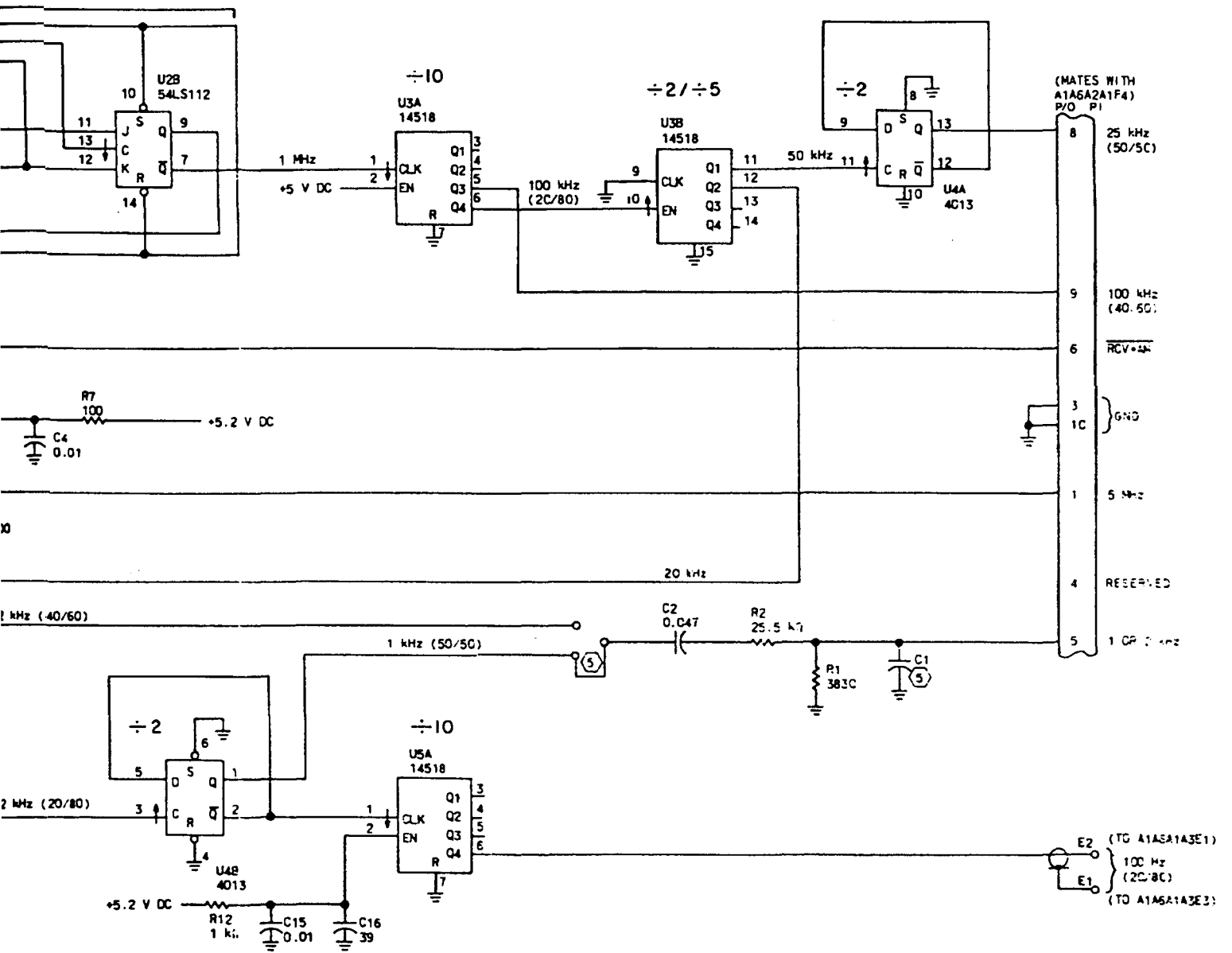
USB/LSB (=USB)  
(FROM A1A6A1L3)  
④

+5.2 V DC  
(FROM A1A6A1L1)  
④

+11.5 V DC  
(FROM A1A6A1L2)  
④

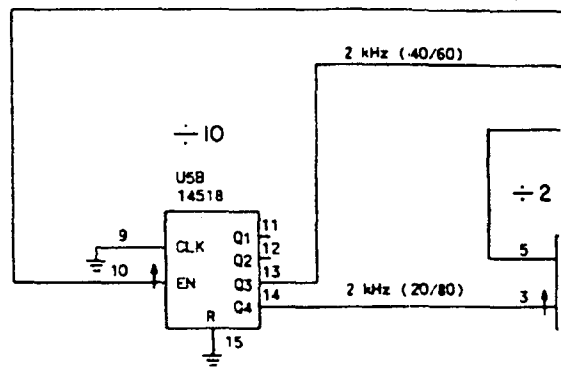
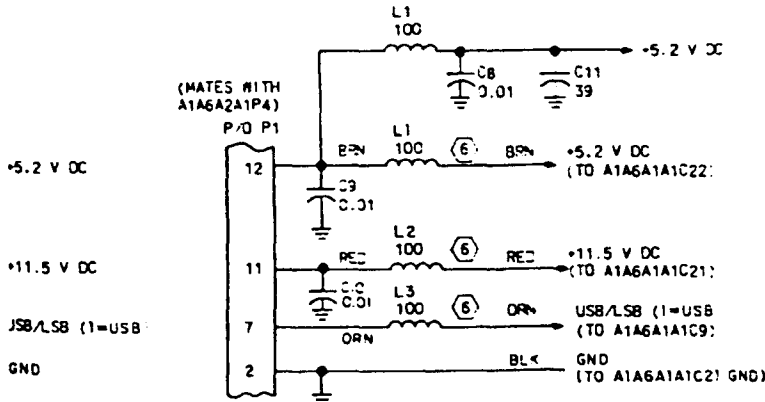
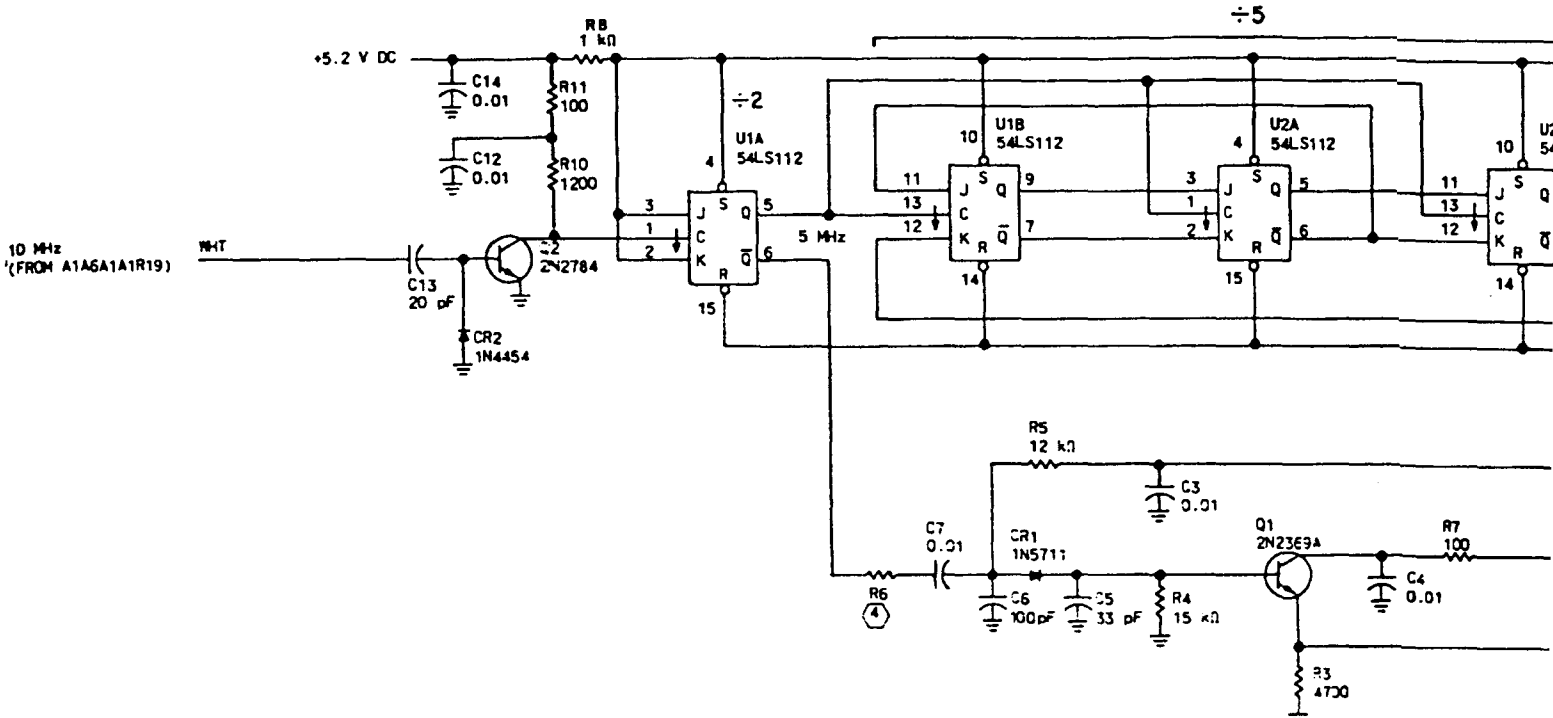
GND  
(FROM A1A6A1A2P-2)  
④





635-0135

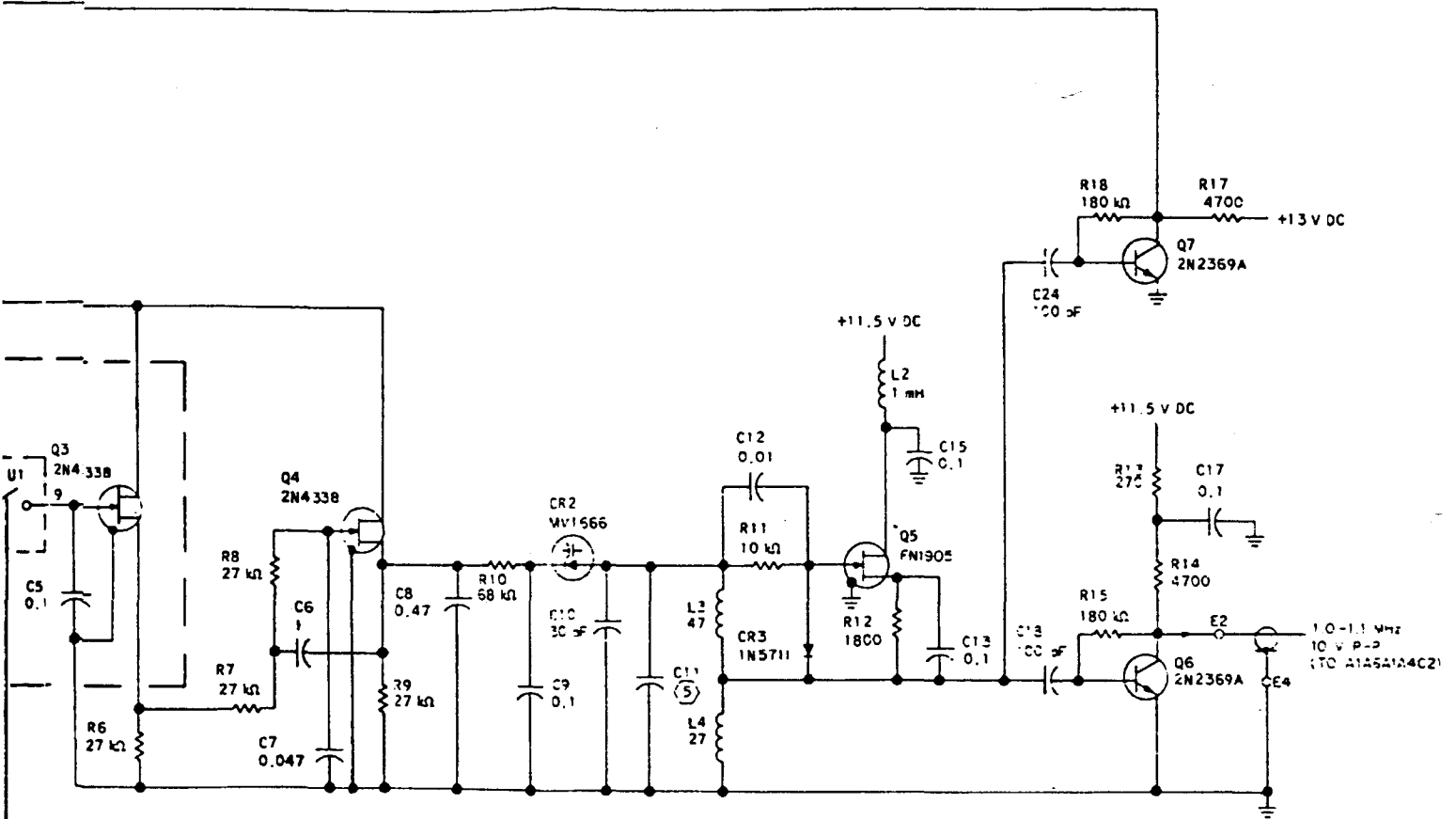
Figure 4-8. Fixed Frequency Divider  
A1A6A1A2 Schematic Diagram



- NOTES:
- ① UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS AND INDUCTANCE VALUES ARE IN MICROHENRYS
  - ② PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATION, PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION.
  - ③ MICROCIRCUIT POWER AND GROUND INFORMATION:  
 U1,U2 -- PIN 14 IS +5.2 V DC PIN 7 IS GROUND  
 U3 -- PIN 16 IS +5 V DC PIN 8 IS GROUND  
 U4 -- PIN 14 CONNECTS TO +5.2 V DC THRU R12 PIN 7 IS GROUND  
 U5 -- PIN 16 CONNECTS TO +5.2 V DC THRU R12 PIN 8 IS GROUND
  - ④ FINAL VALUE IS SELECTED IN TEST.
  - ⑤ 1 OR 2 kHz STRAPPING OPTION.  
 -001: 1 kHz, C1 = 0.1 uF  
 -002: 2 kHz, C1 = 0.047 uF
  - ⑥ LOCATED ON A1A6A1.

+5.2 V DC





- NOTES:
- ① UNLESS OTHERWISE SPECIFIED ALL RESISTANCE VALUES ARE IN OHMS, ALL CAPACITANCE VALUES ARE IN MICROFARADS, AND ALL INDUCTANCE VALUES ARE IN MICROHENRYS.
  - ② PARTIAL REFERENCE DESIGNATIONS ARE SHOWN FOR COMPLETE DESIGNATION PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION.
  - ③ UNLESS CONNECTION TO POWER AND GROUND ARE SHOWN PIN 14 IS +13V AND PIN 7 IS GROUND EXCEPT

TYPE	POWER		GROUND
	PIN	VOLT	
4029	16	+13	8
4049	1	+13	8
4066			7

④ MICROCIRCUIT TYPES

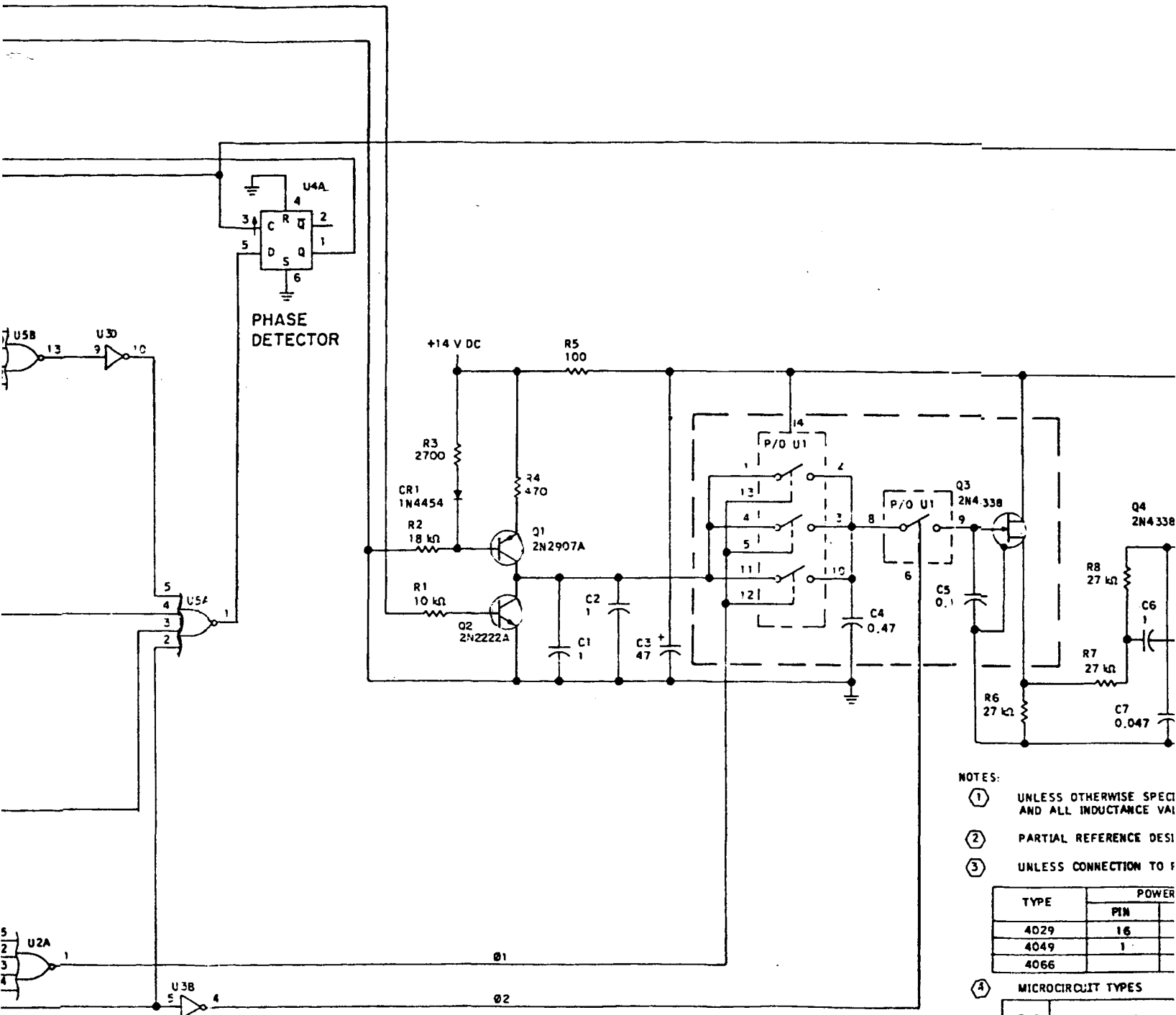
TENS	UNITS									
	0	1	2	3	4	5	6	7	8	9
0		4066	4002	4049	4013	4002	4029	4029	4029	4029

- ⑤ VALUE SELECTED IN TEST.
- ⑥ LOCATED ON A1A6A1.

635-0137  
TP4-5199-215

Figure 4-9. Lf Phase-Lock Loop A1A6A1A3 Schematic Diagram

4-21/4-22 (Blank)



PHASE DETECTOR

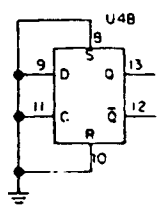
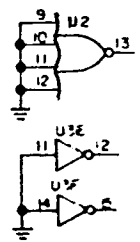
- NOTES:
- ① UNLESS OTHERWISE SPECIFIED AND ALL INDUCTANCE VALUES ARE IN MILLIHENRIES
  - ② PARTIAL REFERENCE DESIGNATION
  - ③ UNLESS CONNECTION TO POWER SUPPLY

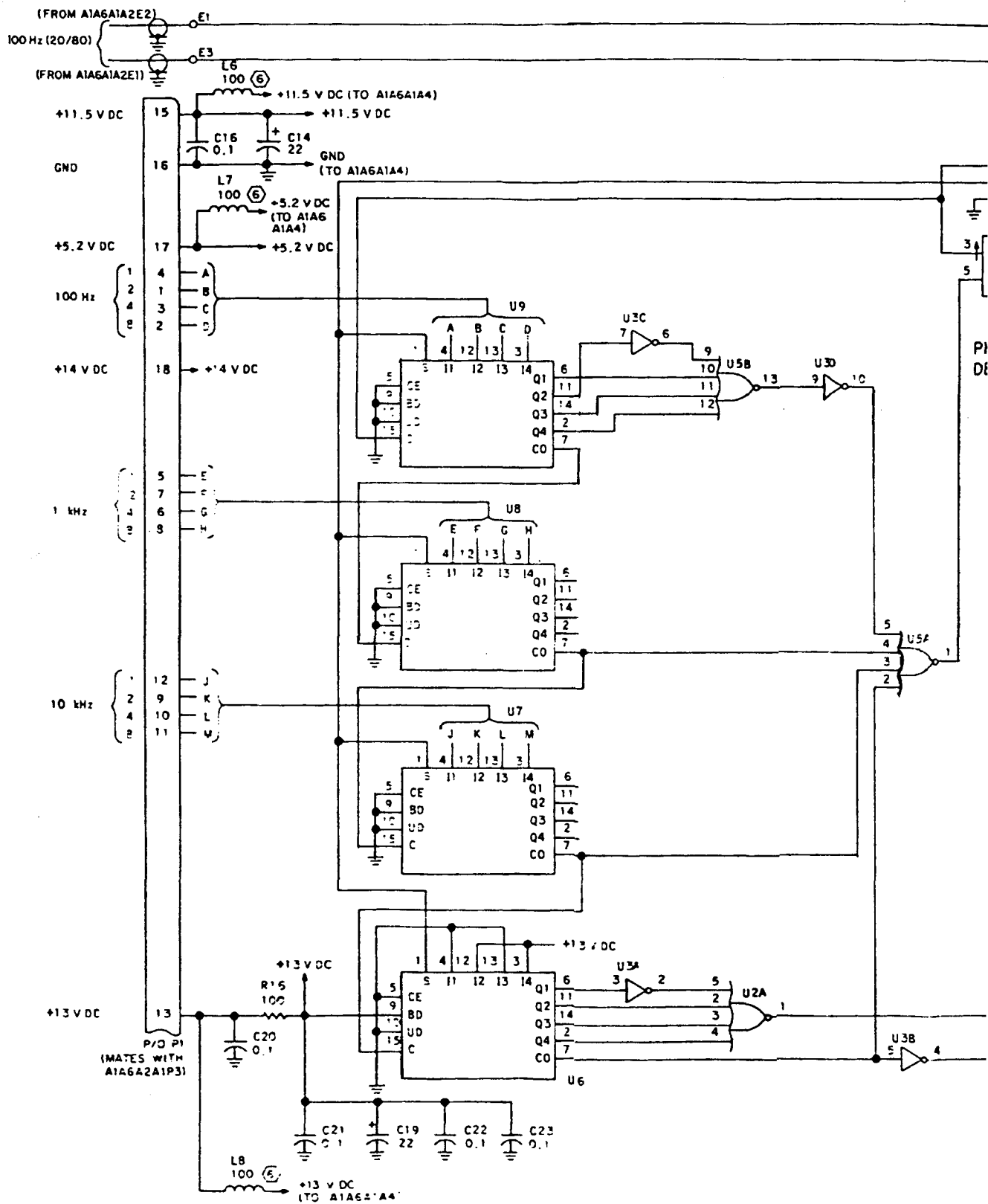
TYPE	POWER	
	PIN	
4029	16	
4049	1	
4066		

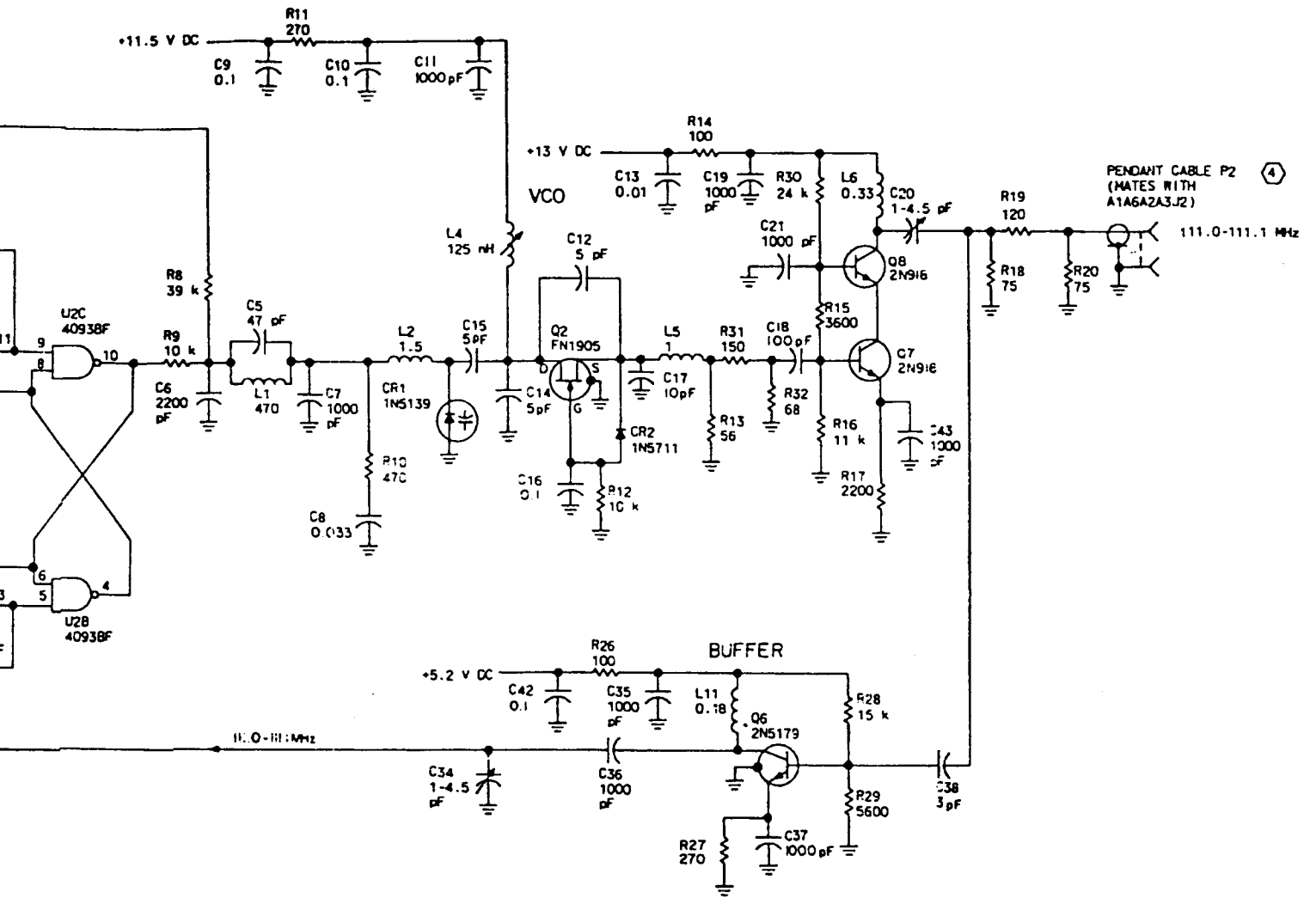
④ MICROCIRCUIT TYPES

TENS	0	1	2
0		4066	401

- ⑤ VALUE SELECTED IN TEST PROCEDURE
- ⑥ LOCATED ON A1A6A1.

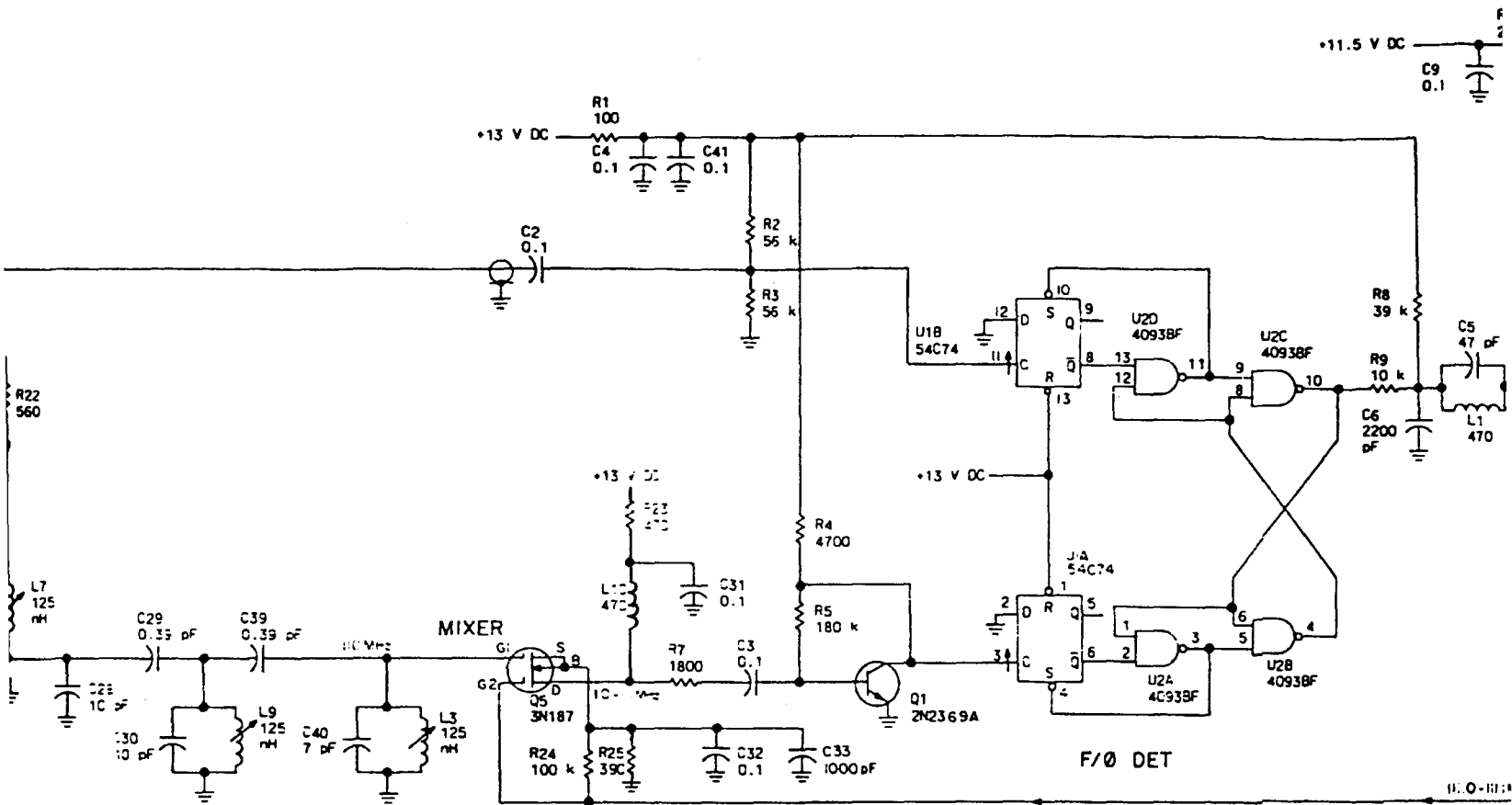






635-0136  
TPA-0074-015

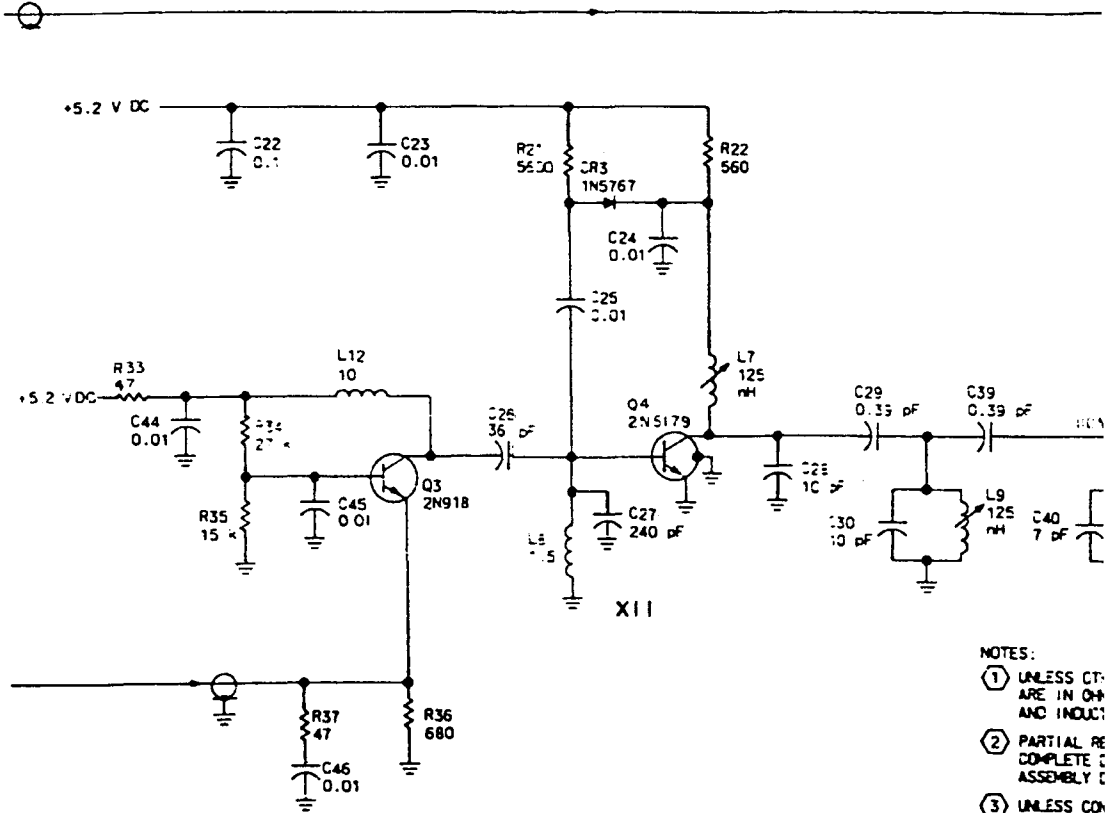
Figure 4-10. Frequency Converter  
A1A6A1A4, Schematic Diagram



NOTES:

- ① UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS AND INDUCTANCE VALUES ARE IN MICROHENRYS.
- ② PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. FOR COMPLETE DESIGNATION, PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION.
- ③ UNLESS CONNECTIONS TO POWER AND GROUND ARE SHOWN, MICROCIRCUIT PIN NO. 14 IS +13 V DC AND PIN NO. 7 IS GROUND.
- ④ LOCATED ON A1A6A1.
- ⑤ REFER TO A1A6A1A3 FOR A1A6A1 COMPONENT.

1.0-1.1 MHz 10 V P-P  
(FROM A1A6A1A3E2)



10 MHz  
(FROM A1A6A1A1R35)

+5.2 V DC  
(FROM A1A6A1L7)  
⑤

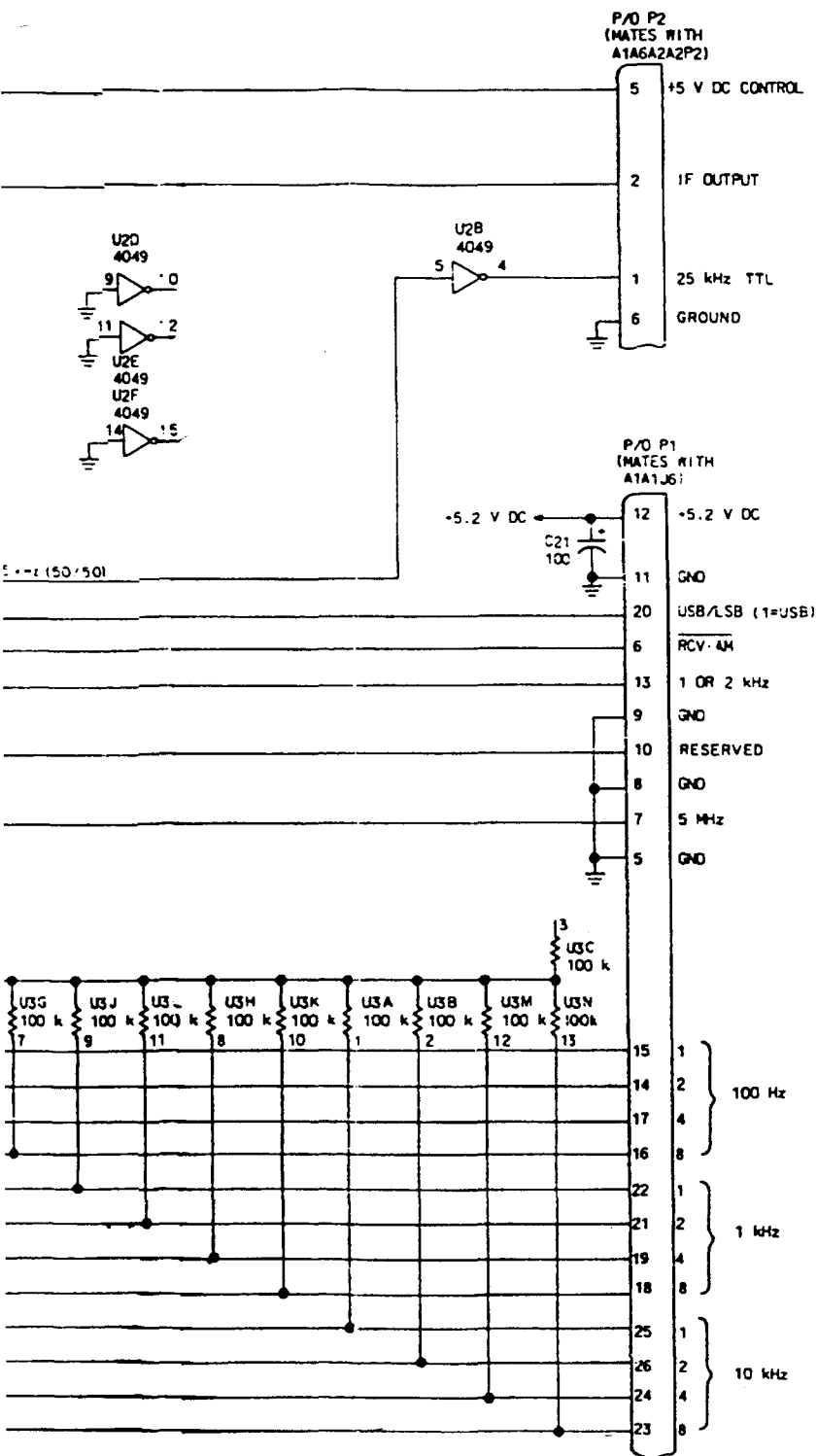
+13 V DC  
(FROM A1A6A1L8)  
⑤

+11.5 V DC  
(FROM A1A6A1L6)  
⑤

GND  
(FROM A1A6A1A3P1-16,  
E-K)

NOTES:

- ① UNLESS OTHERWISE SPECIFIED, ALL CAPACITORS ARE IN PFD AND INDUCTORS ARE IN NH.
- ② PARTIAL REVISIONS ARE SHOWN IN COMPLETE ASSEMBLY DRAWING.
- ③ UNLESS OTHERWISE SPECIFIED, ALL COMPONENTS ARE TO BE SHOWN, MICROPHONIC AND PIN NUMBERING.
- ④ LOCATED ON BOARD.
- ⑤ REFER TO DRAWING A1A6A1A3P1-16.



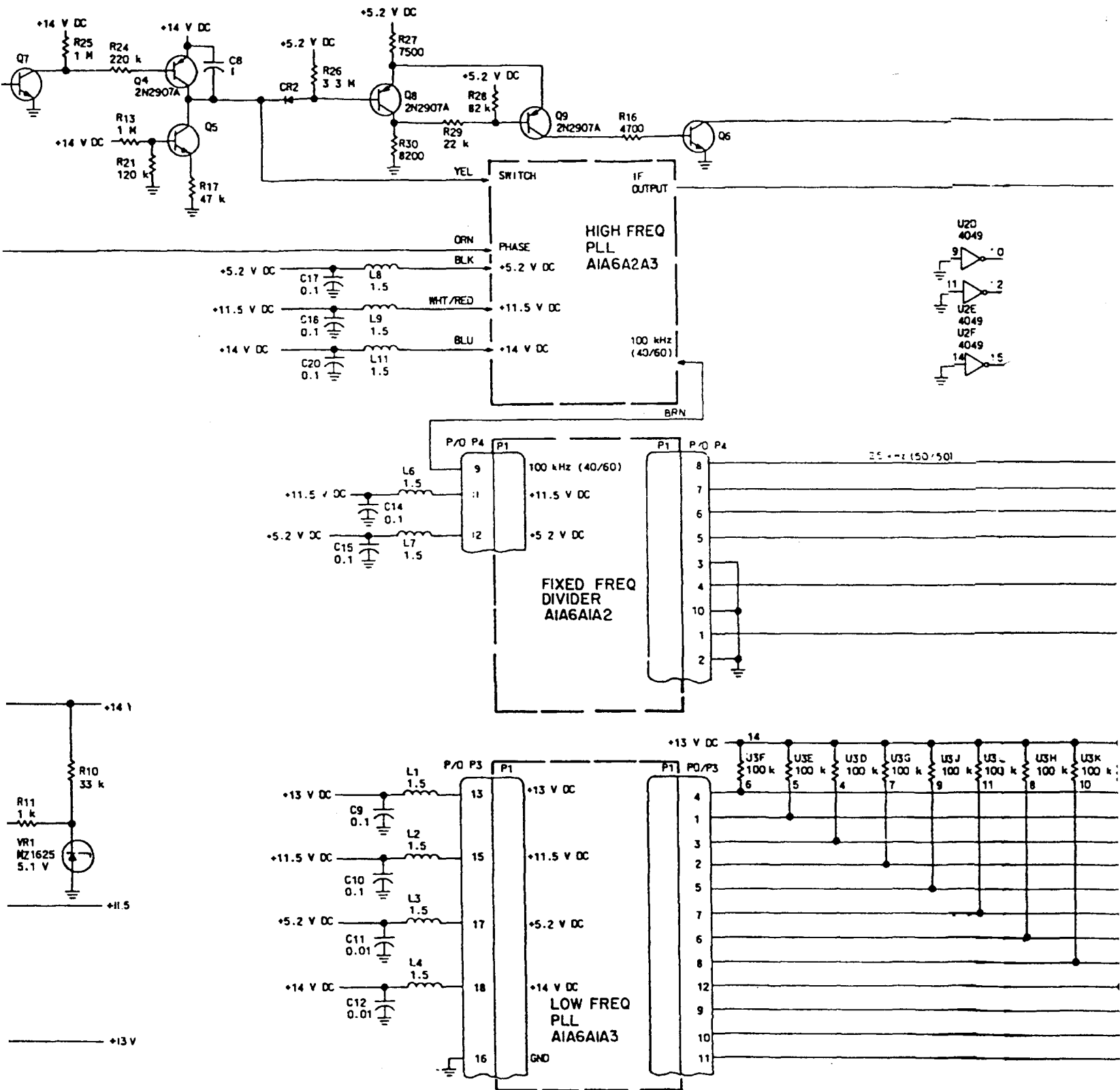
NOTES:

- ① UNLESS OTHERWISE SPECIFIED RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICRO-FARADE, AND INDUCTANCE VALUES ARE IN MICRO-HENRYS.
- ② UNLESS OTHERWISE NOTED, DIODES ARE TYPE 1N4454 AND TRANSISTORS ARE TYPE 2N2222A.
- ③ UNLESS CONNECTION TO POWER AND GROUND ARE SHOWN, MICROCIRCUIT PIN NO. 1 IS +5.2 V DC AND PIN NO. 8 IS GROUND, EXCEPT 1558 WHERE MICROCIRCUIT PIN NO. 8 IS +13 V DC AND PIN NO. 4 IS GROUND.
- ④ PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATION, PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION.
- ⑤ VALUE SELECTED DURING FINAL TEST

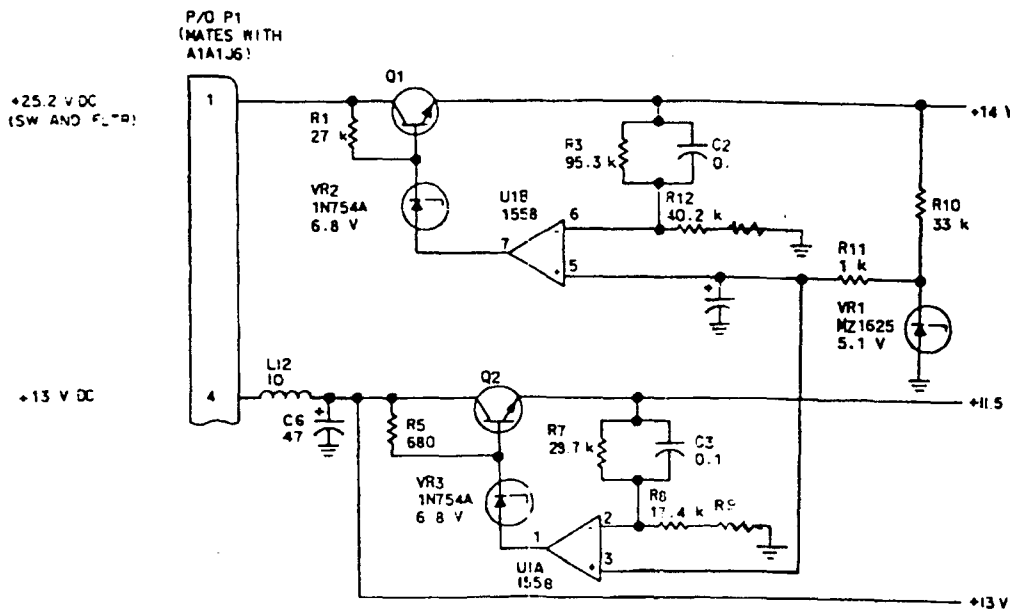
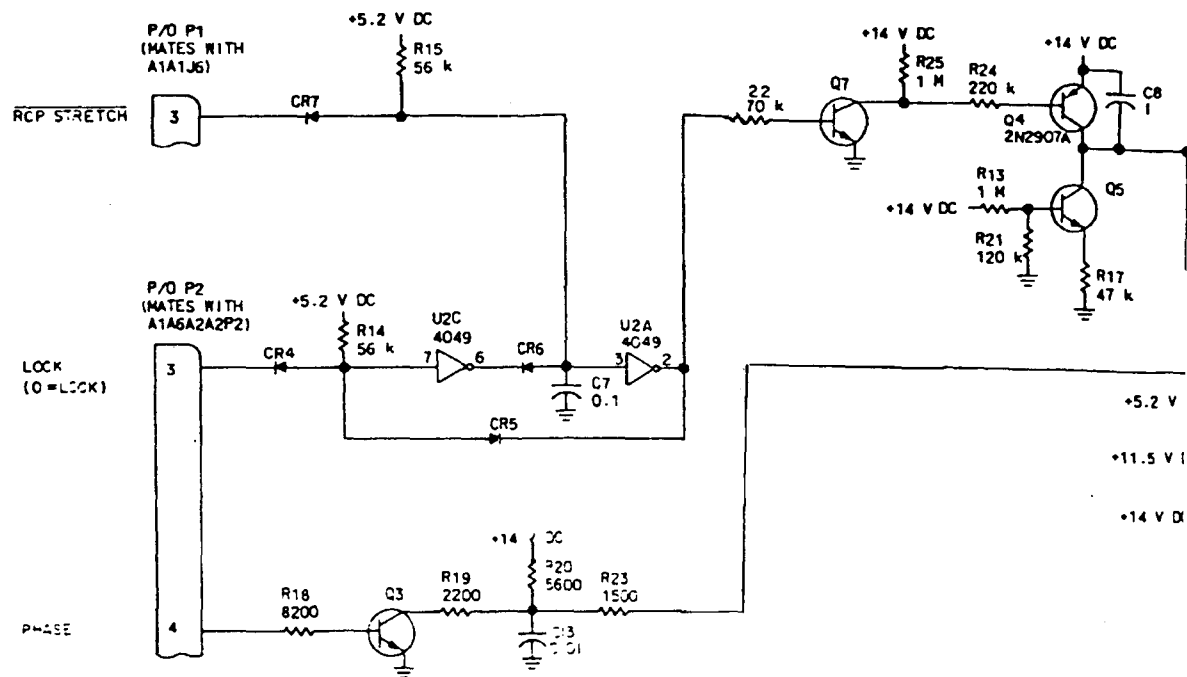
635-C142  
TPA-0071-C15

Figure 4-11. Voltage Regulator A1A6A2A1 Schematic Diagram

4-25/4-26 (Blank)







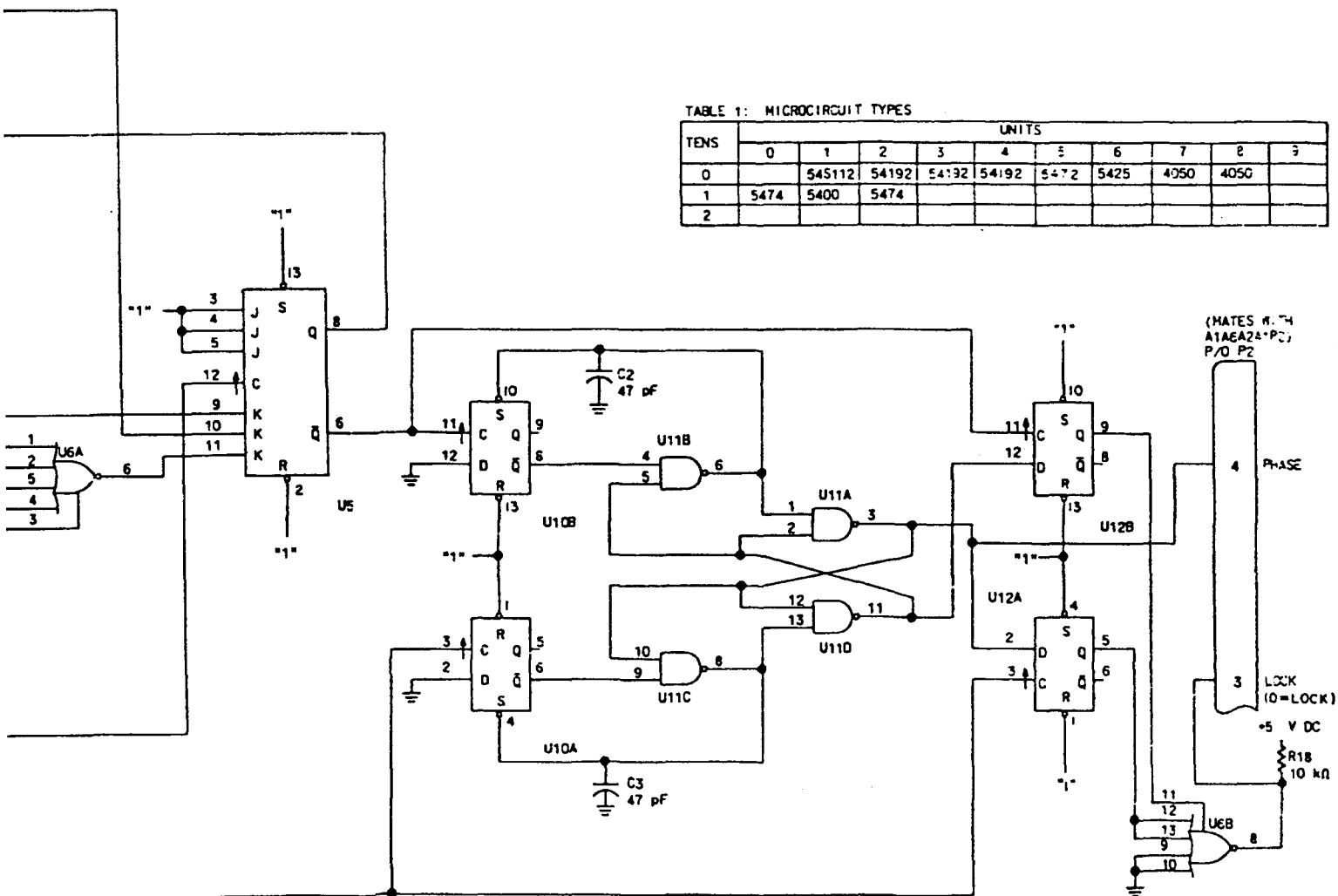


NOTES:

- ① UNLESS OTHERWISE SPECIFIED; RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, AND DIODES ARE TYPE 1N4454
- ② PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATION, PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION.
- ③ UNLESS CONNECTIONS TO POWER AND GROUND ARE SHOWN; MICROCIRCUIT PIN NO. 14 IS +5 V DC AND PIN NO. 7 IS GROUND. EXCEPT: U1,U2,U3,U4, PIN NO. 16 IS +5 V DC AND PIN NO. 8 IS GROUND U7,U8, PIN NO. 1 IS +5.2 V DC AND PIN NO. 8 IS GROUND
- ④ C1 VALUE IS 1000 pF ON 601-3875-001 AND 51 pF ON 601-3875-002.

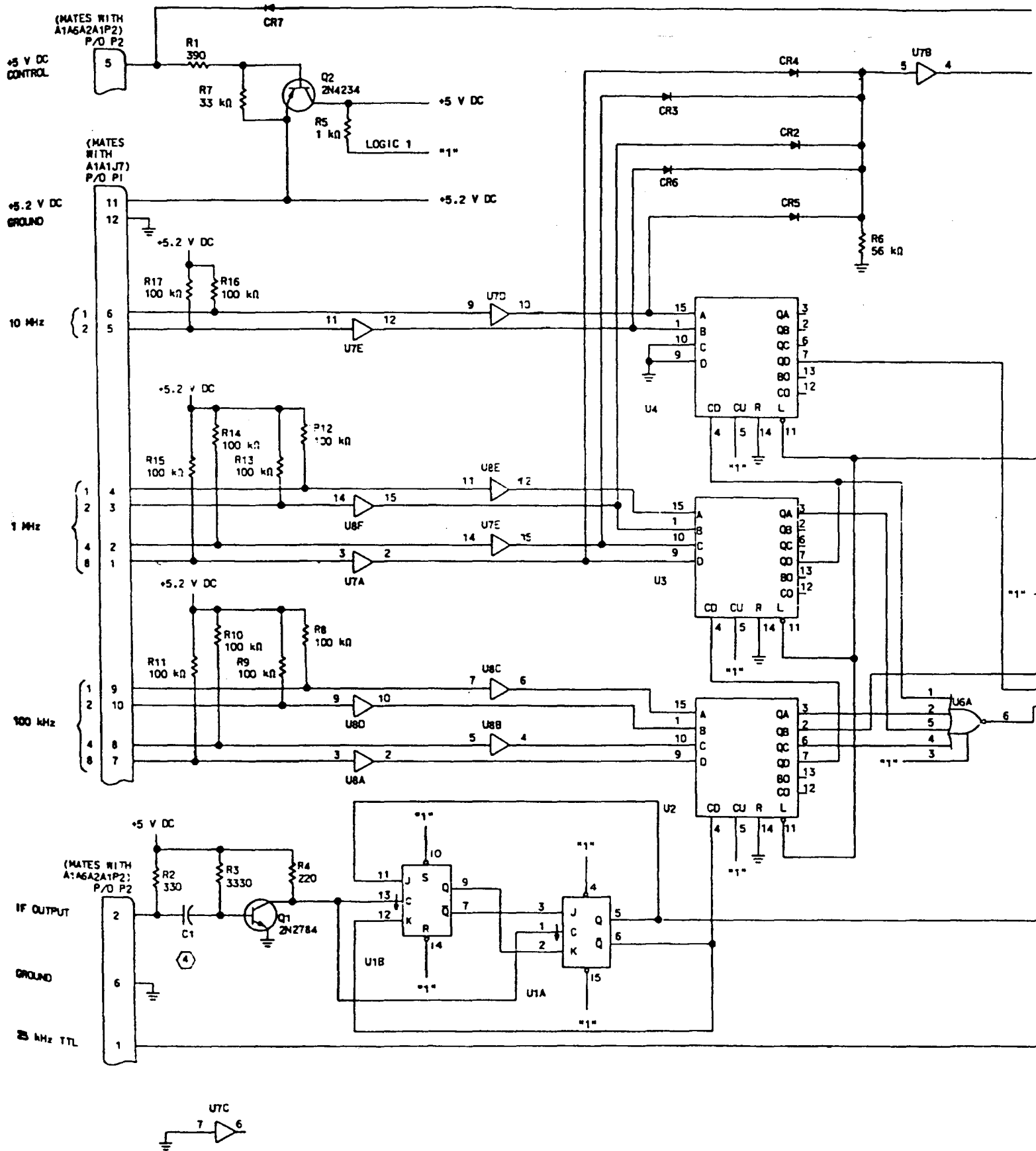
TABLE 1: MICROCIRCUIT TYPES

TENS	UNITS									
	0	1	2	3	4	5	6	7	8	9
0		545112	54192	54192	54192	5472	5425	4050	4050	
1	5474	5400	5474							
2										



635-0143

Figure 4-12. Variable Frequency Divider A1A6A2A2, Schematic Diagram



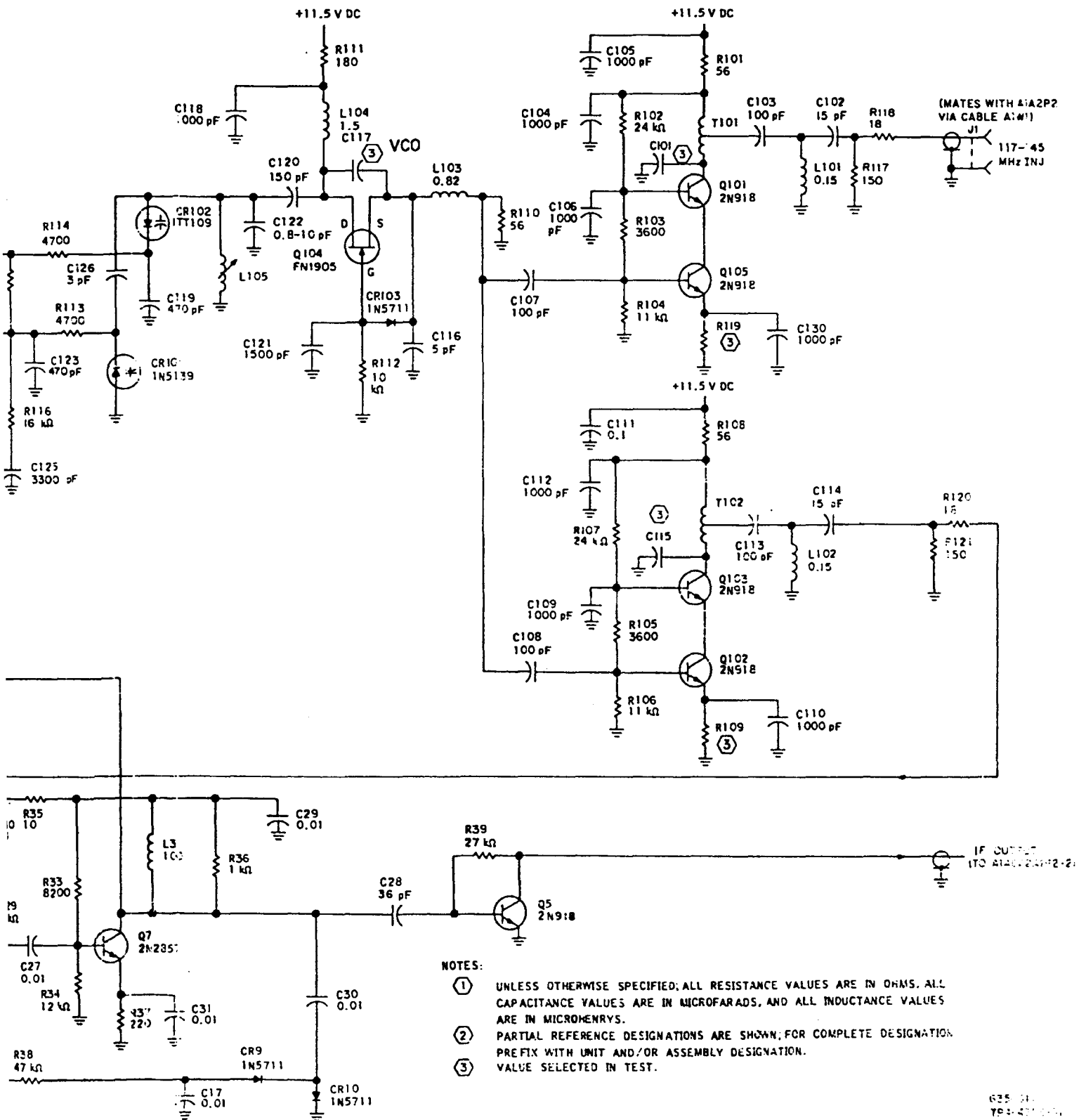
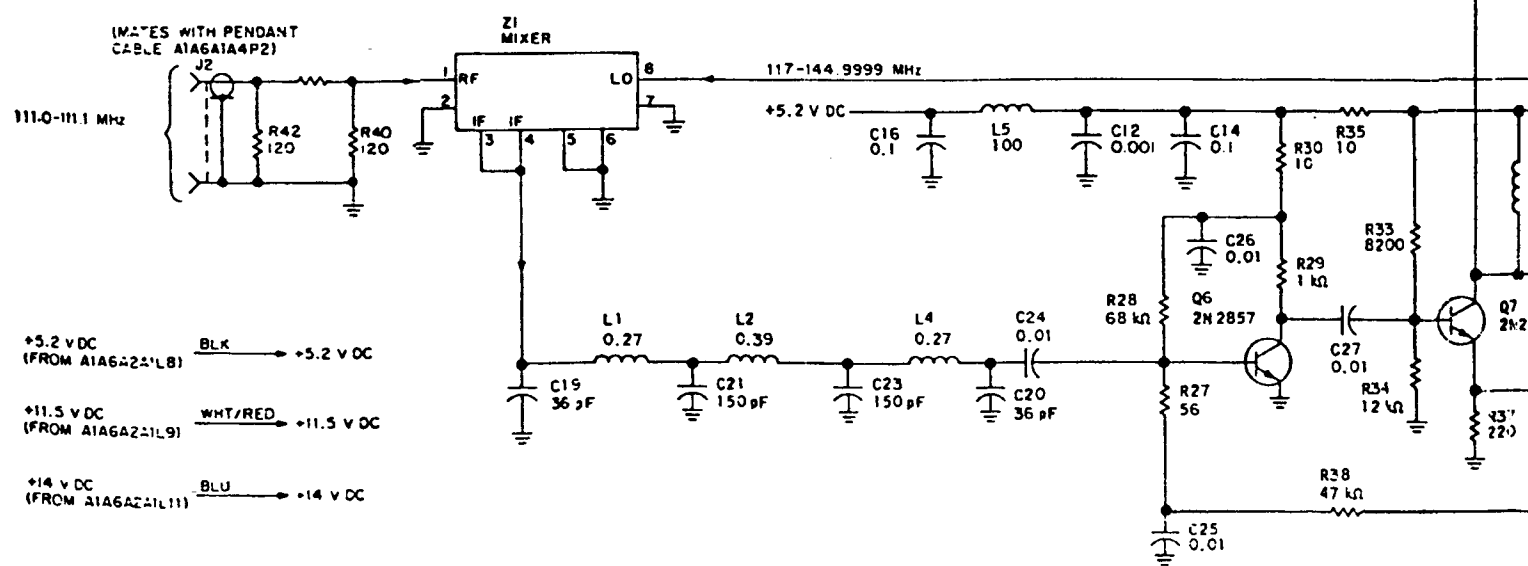
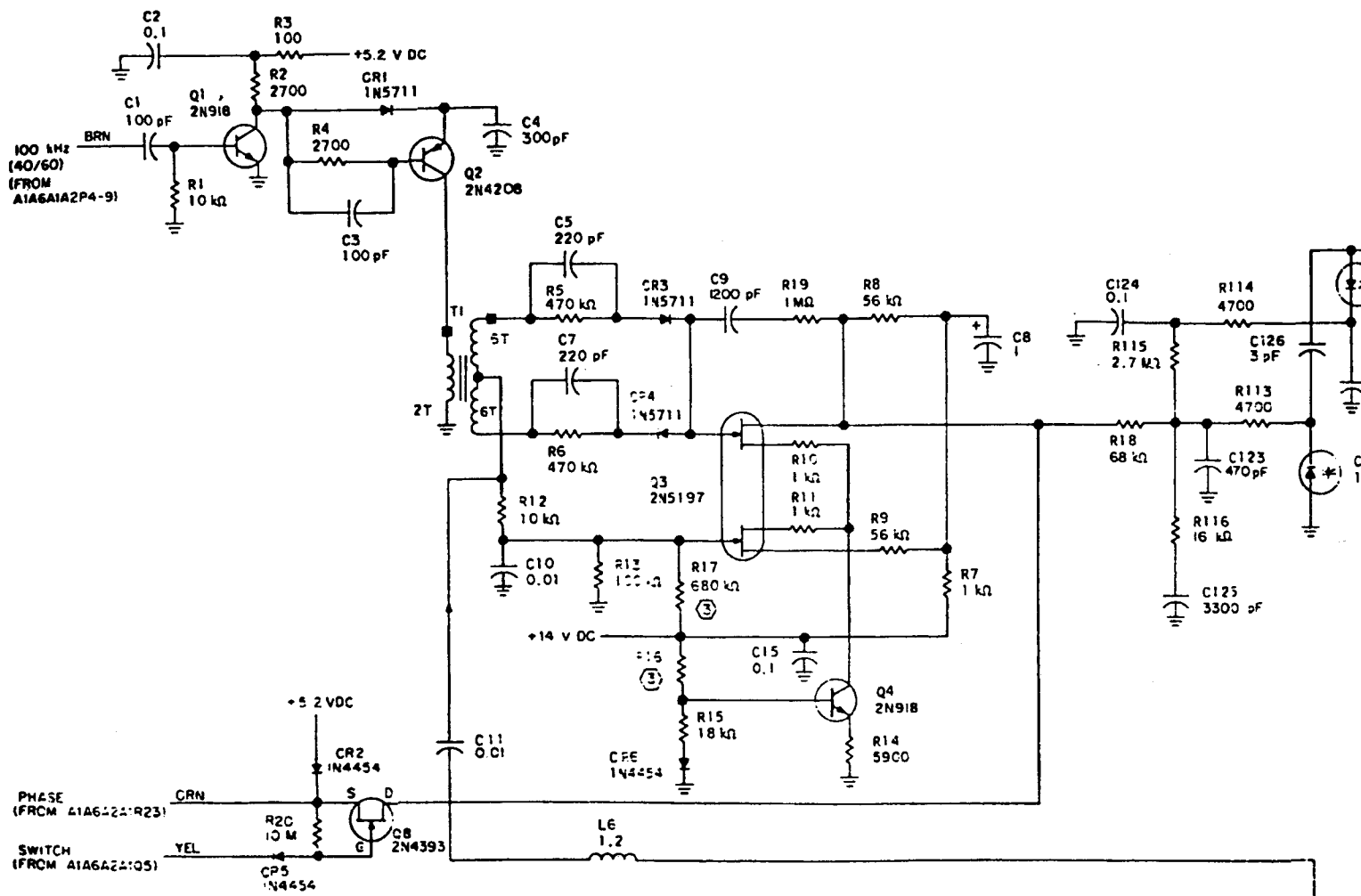
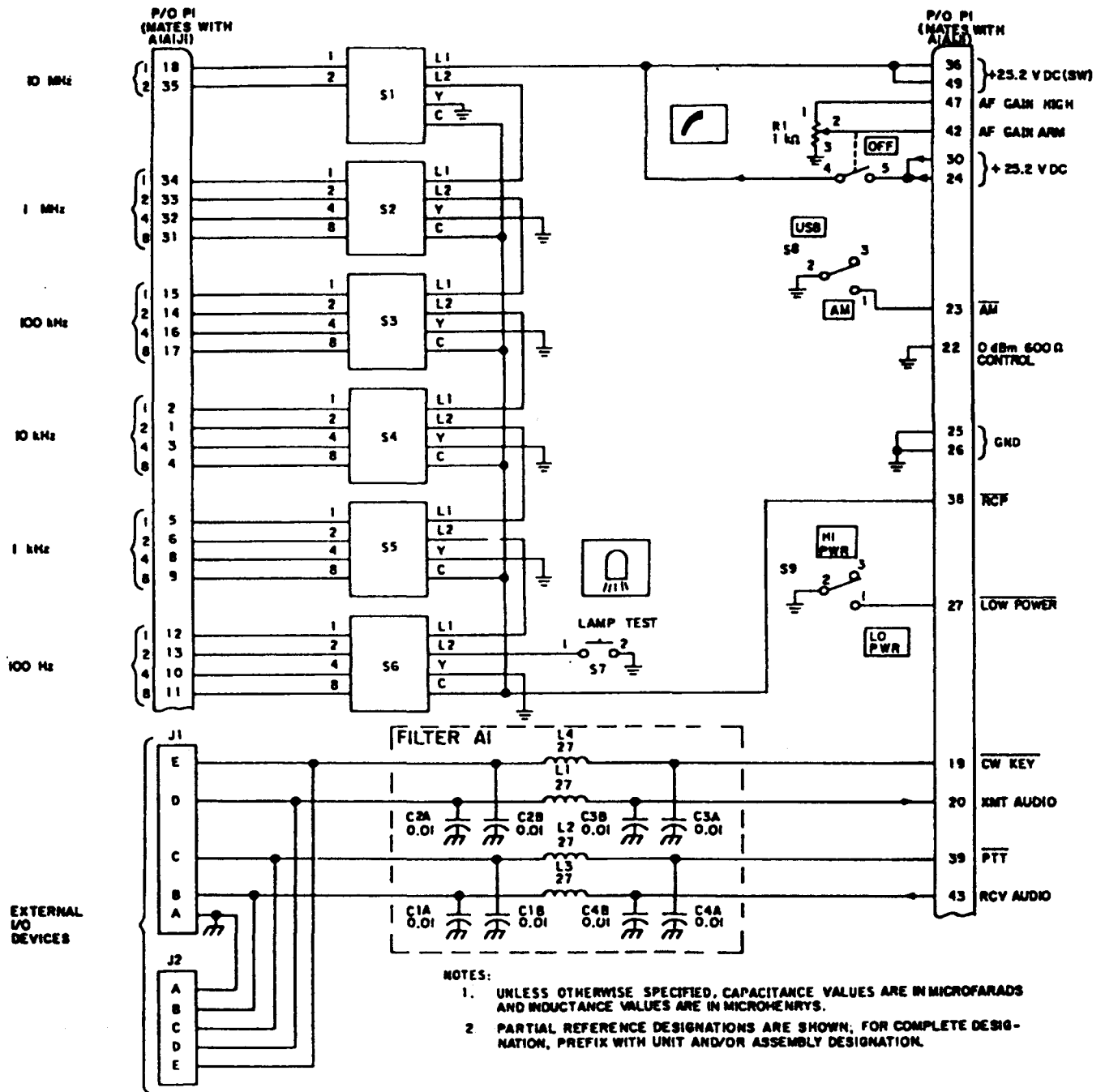


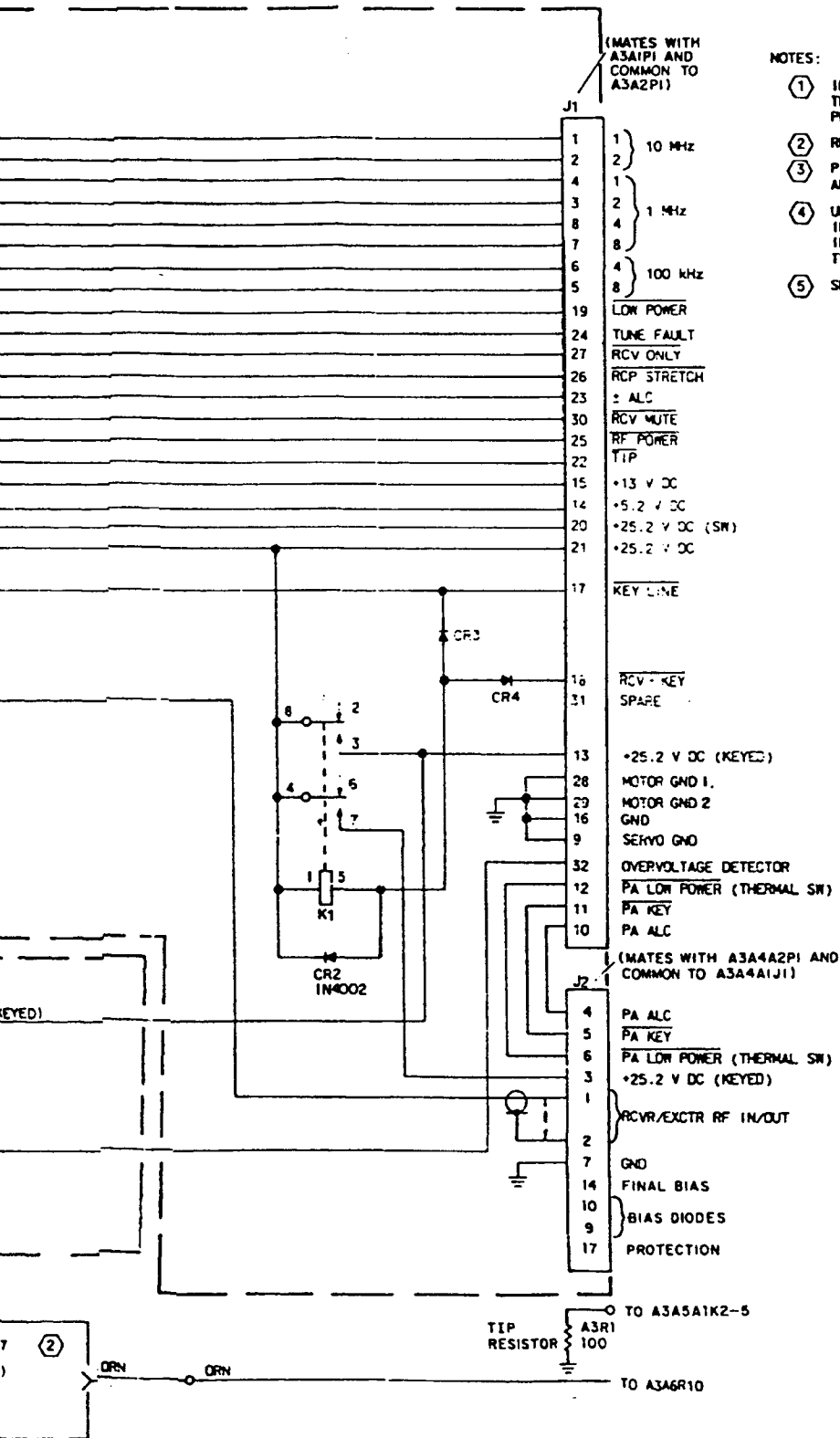
Figure 4-13. Hf Phase-Lock Loop A1A6A1A3 Schematic Diagram





628-4248

Figure 4-14. Receiver-Transmitter Control  
Az C-5310/URC, Schematic Diagram



NOTES:

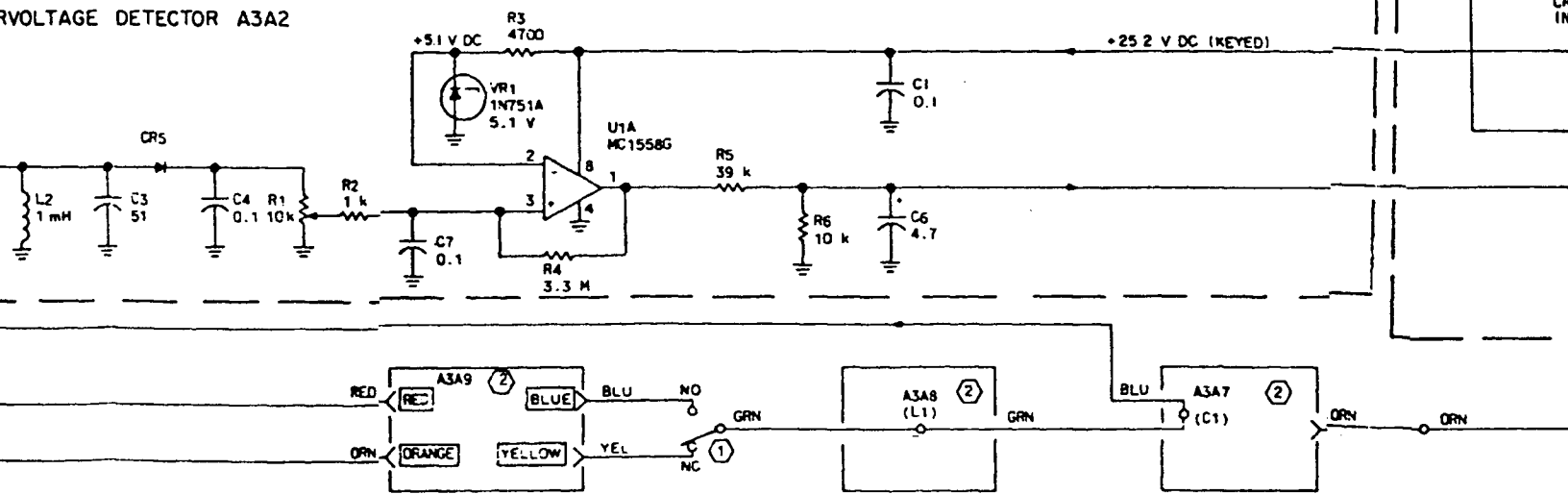
- ① INSERTION OF THE RHIP ANTENNA MECHANICALLY CHANGES THE CIRCUIT FROM NORMALLY CLOSED TO NORMALLY OPEN POSITION.
- ② REFER TO SCHEMATIC OF THIS ASSEMBLY.
- ③ PINS 4 THRU 18, 31, 38, 39, 40, 44, 46, 49 AND 51 ON A3J1 ARE SPARES.
- ④ UNLESS OTHERWISE SPECIFIED RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, AND INDUCTANCE VALUES ARE 100 μH, AND DIODES ARE TYPE 1N4454.
- ⑤ SPARE FUSE

639-0325  
1PA 0072-015

Figure 4-15. Amplifier-Coupler A3,  
AM-5280/URC, Schematic Diagram  
4-33/4-34 (Blank)

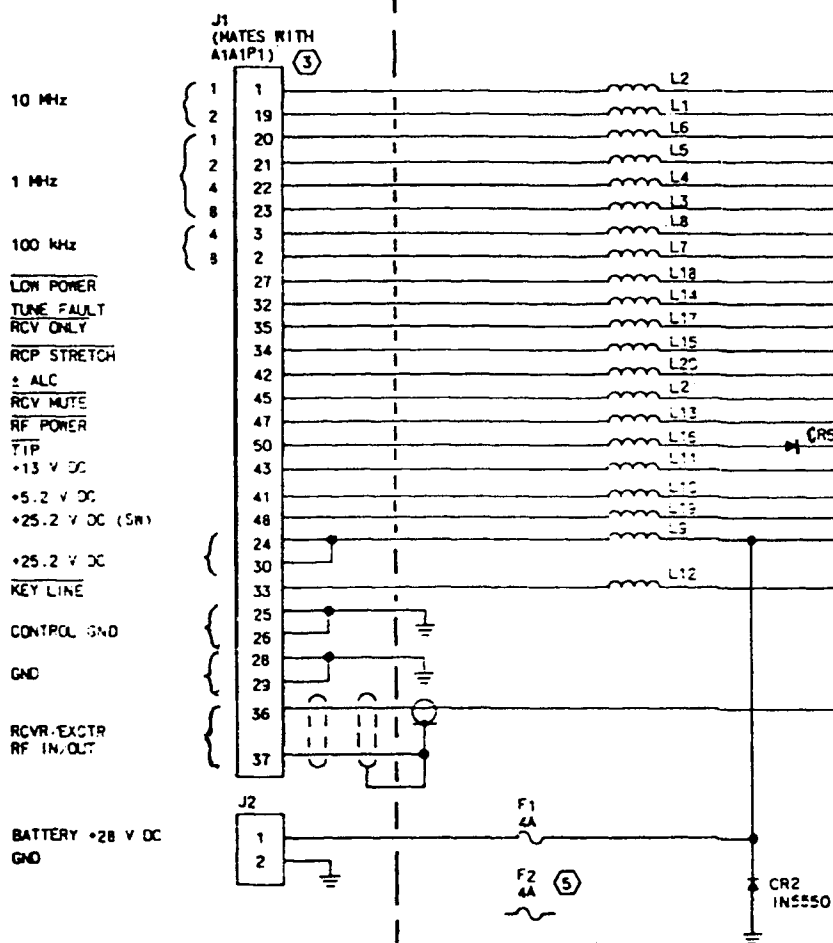
FILTER BOARD A3A1

VOLTAGE DETECTOR A3A2

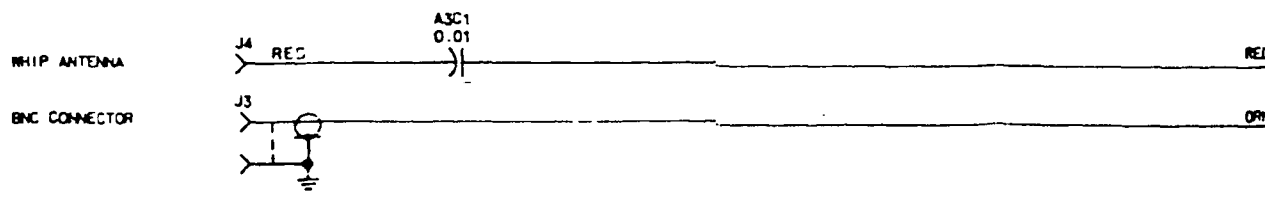
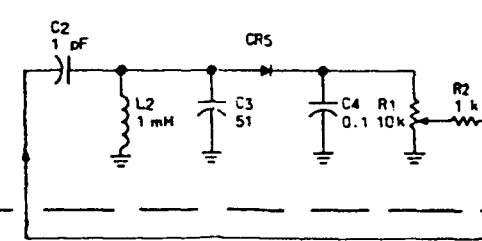


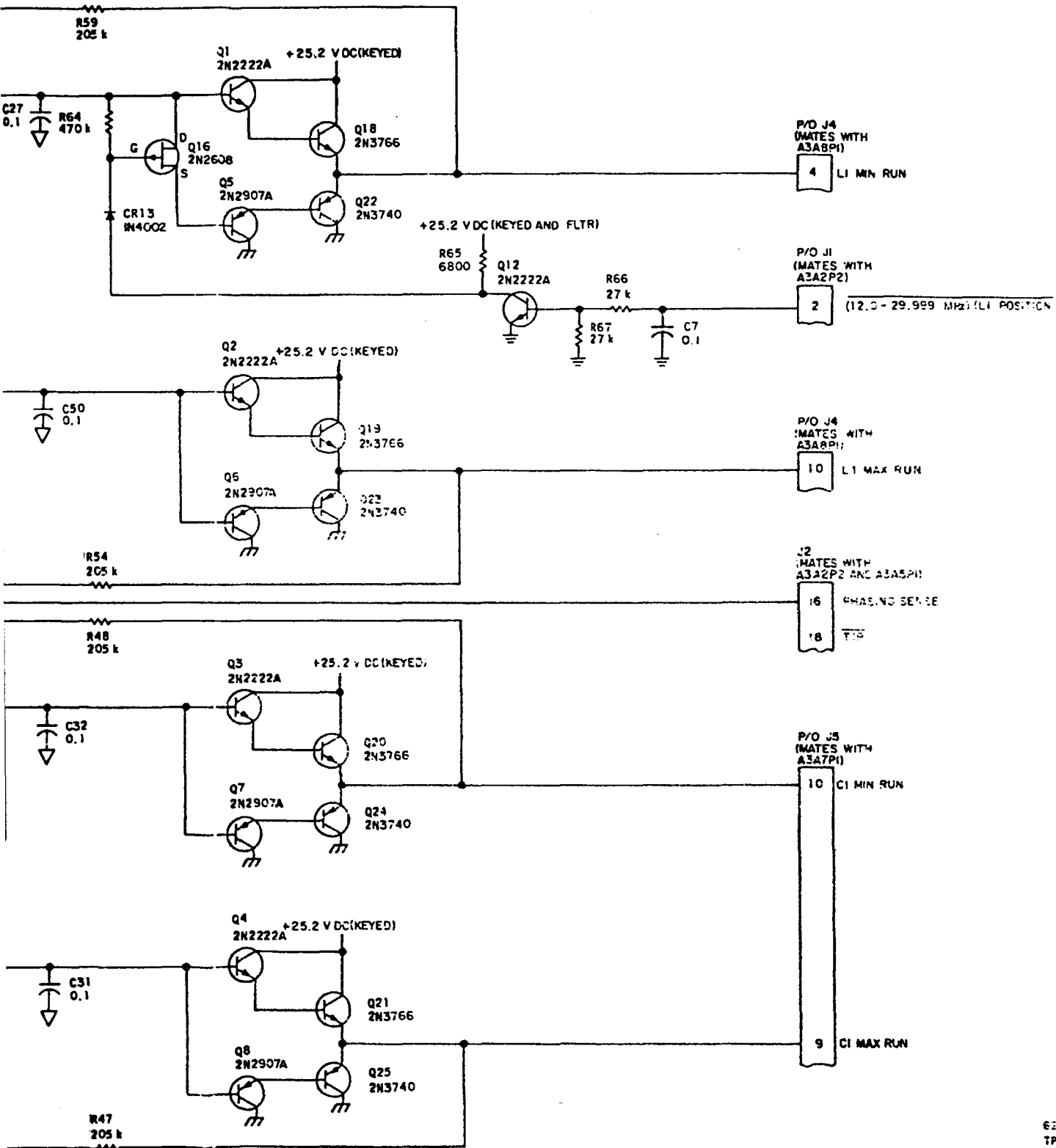


FILTER BOARD A3A1



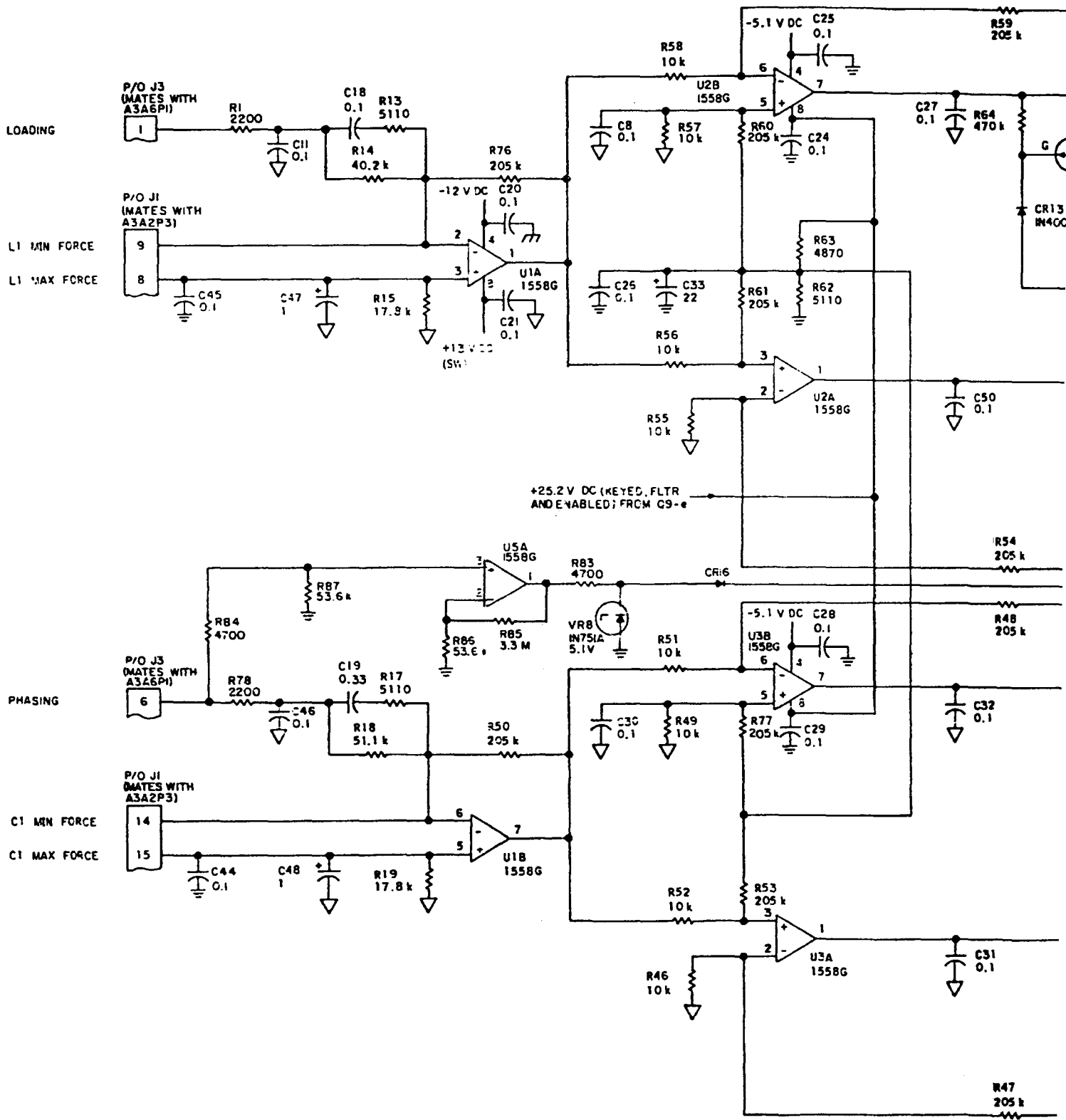
OVERVOLTAGE DETECTOR A3A2

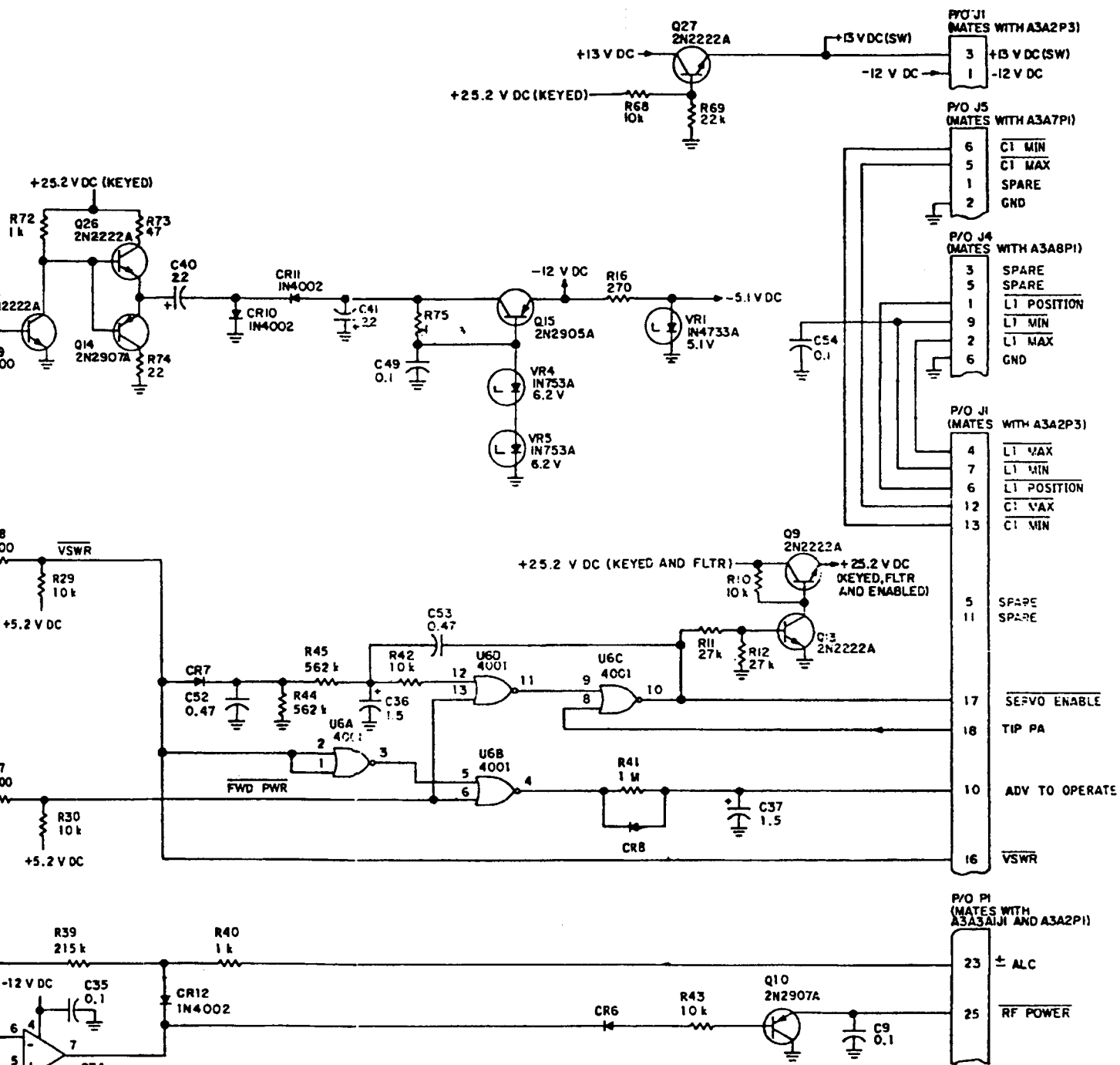




628-270  
TP4-4615-024

Figure 4-16. Servo Amplifier A3A1.  
Schematic Diagram (Sheet 1 of 2)



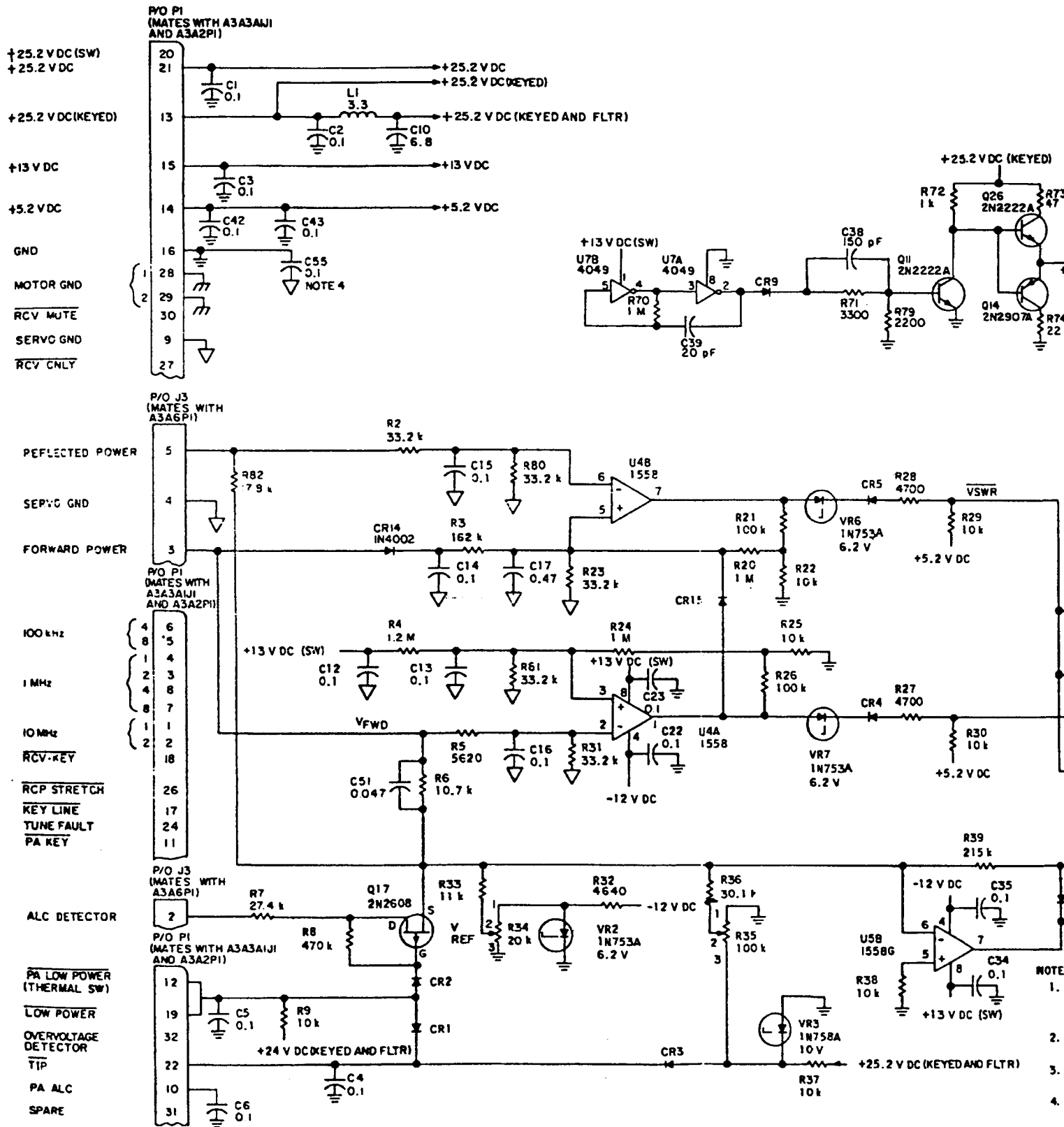


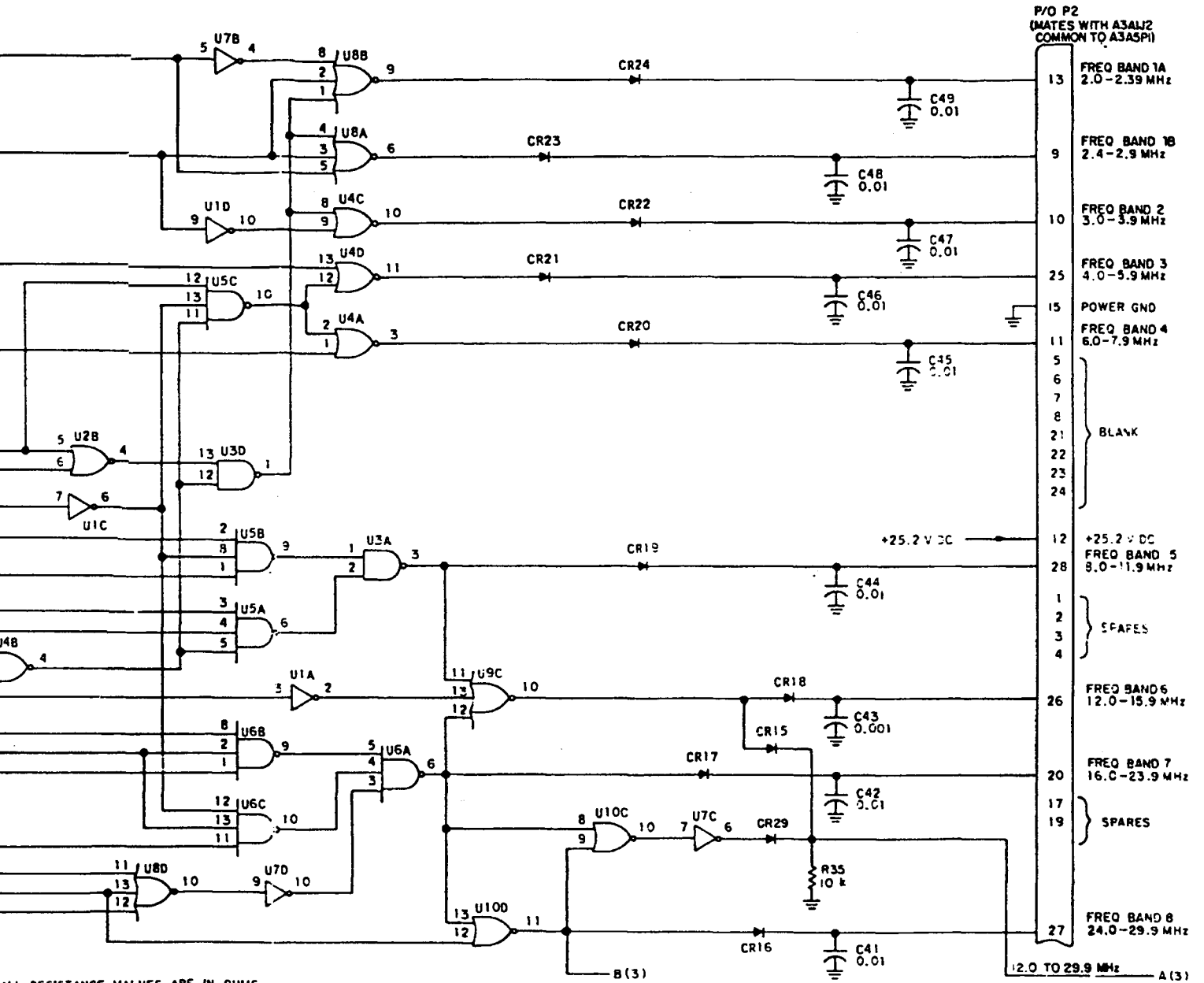
NOTES:

1. UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, INDUCTANCE VALUES ARE IN MILLIHENRYS, AND DIODES ARE TYPE 1N4454.
2. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATION, PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION.
3. UNLESS CONNECTION TO POWER AND GROUND ARE SHOWN; MICROCIRCUIT PIN NO. 14 IS +5 V DC AND PIN NO. 7 IS GROUND.
4. C55 USED ON MCN 1 THRU 16 ONLY.

628-4270  
TP4-4615-024

Figure 4-16. Servo Amplifier A3A1, Schematic Diagram (Sheet 2)





ALL RESISTANCE VALUES ARE IN OHMS,  
IN MICROFARADS, AND ALL DIODES ARE

IONS ARE SHOWN; FOR COMPLETE DESIGNATION  
SEMBLY DESIGNATION.

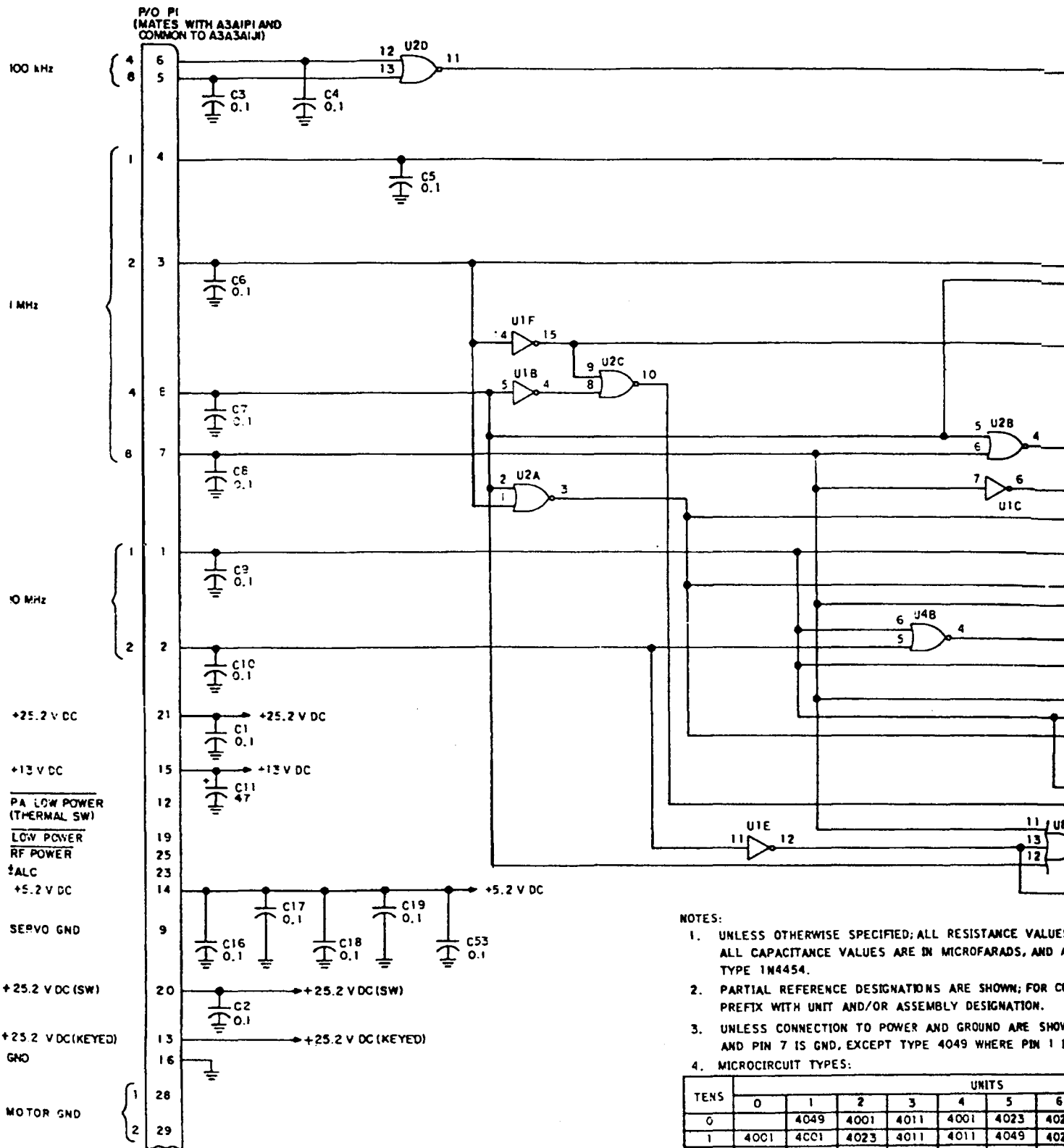
AND GROUND ARE SHOWN PIN 14 IS +5V DC  
PE 4049 WHERE PIN 1 IS +5V DC AND PIN 8 IS GND.

UNITS						
	4	5	6	7	8	9
1	4001	4023	4023	4049	4025	4025
1	4011	4049	4023	4011	4025	4011

628-4269  
TP4-4614-034

Figure 4-17. Control Logic A3A2,  
Schematic Diagram (Sheet 1 of 3)

4-39/4-40 (Blank)



- NOTES:
- UNLESS OTHERWISE SPECIFIED; ALL RESISTANCE VALUES ALL CAPACITANCE VALUES ARE IN MICROFARADS, AND A TYPE 1N4454.
  - PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR CO PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION.
  - UNLESS CONNECTION TO POWER AND GROUND ARE SHOWN AND PIN 7 IS GND, EXCEPT TYPE 4049 WHERE PIN 1 IS
  - MICROCIRCUIT TYPES:

TENS	UNITS						
	0	1	2	3	4	5	6
0		4049	4001	4011	4001	4023	4023
1	4001	4001	4023	4011	4011	4049	4023
2	4011	4023	4049				

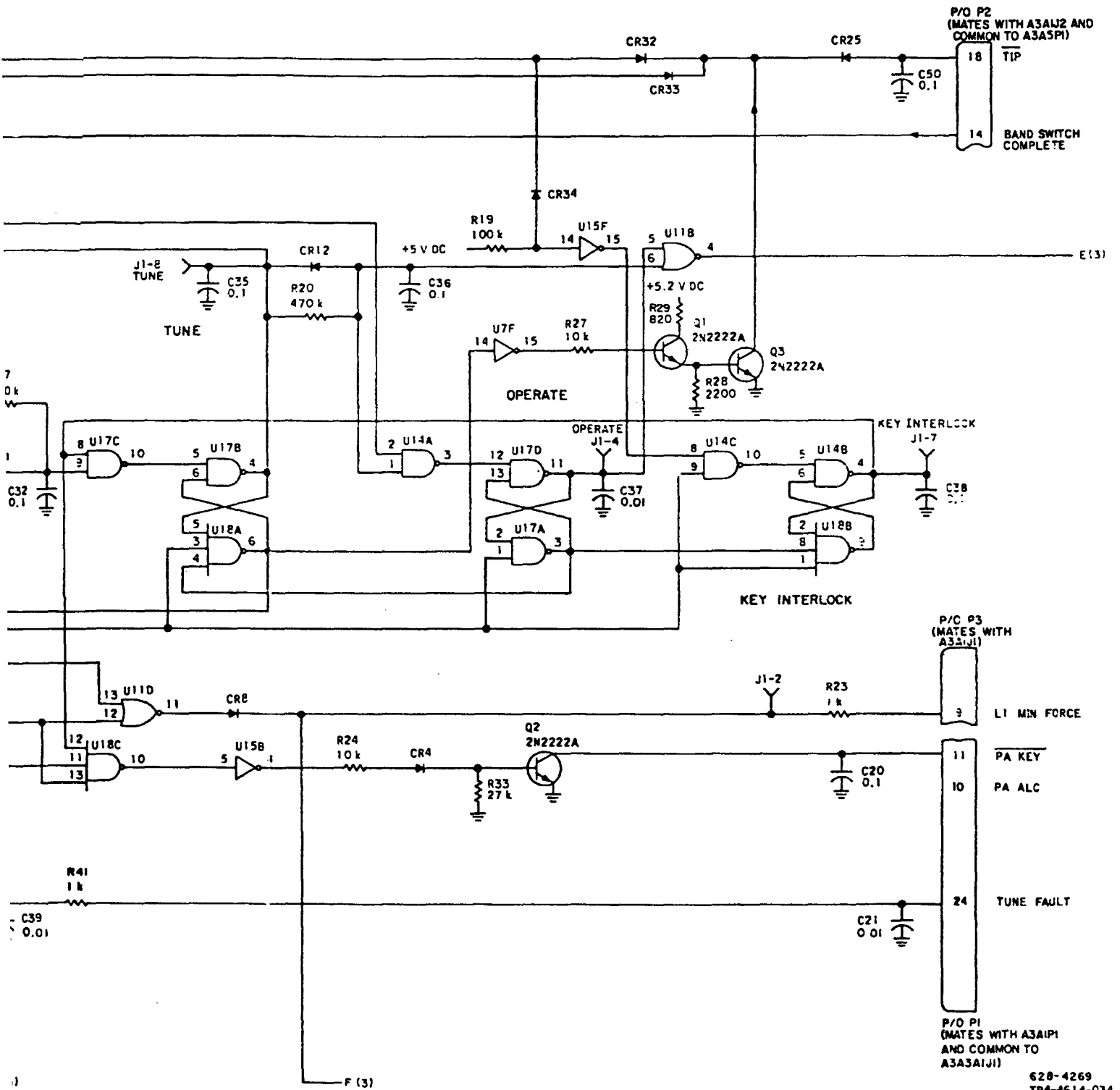


Figure 4-17. Control Logic A3A2, Schematic Diagram (Sheet 2)



