TRANSCEIVER SC-901X

SINGLE SIDEBAND
COMMUNICATIONS EQUIPMENT

GENERAL DYNAMICS | ELECTRONICS

MILITARY PRODUCTS DIVISION—ROCHESTER

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CHAPTER I
GENERAL DESCRIPTION

1.1 DESCRIPTION

Transceiver SC-901X (Transceiver), is a digitally-tuned unit capable of generating and receiving single sideband and AM transmissions in the 2- to-30 megacycle range. A total of 28,000 channels spaced one kilocycle apart are available.

1.1.1 The Transceiver unit is housed in a moisture-sealed case incorporating slides that permit removal of the chassis, as well as tilting forward or backward at 90 degrees for easy servicing. The chassis is fastened to the case with front-mounted screws and internal shock pins.

1.1.2 This unit is 7 inches high, 17-3/8 inches wide, 18-1/8 inches deep and weighs 47 pounds.

1.2 EQUIPMENT REQUIRED BUT NOT SUPPLIED

Equipment required but not supplied is listed below:

1. Handset H-169/U
2. Microphone connector AN30-57-6
3. Power connector MS3106R28-12S(C)
4. Signal connector MS3106R20-27P
5. RF connectors (4 required) BNC, UG88/U
6. RF cable RG58/U
7. External power source-see paragraph 1.4
8. Remote control--remote control box SC-666208-181 with microphone, Romwell No. 10367
9. Rack adapters

1.3 QUICK REFERENCE DATA

Frequency Range	2 to 30 MC in 1 KC increments.
Modes of Operation	Upper sideband, Lower sideband and compatible AM.
Power Input Requirements	External -35 watts Receive, 75 watts Transceive.
Frequency Stability	1 part in 10^7 per week.
Output Impedance	50 ohms.
Recommended Antennas (with coupler)	35 foot whip, 15 foot probe, 25 foot center-fed whip.
Transmitter Output	.25 watts PEP. .0625 watts AM.
Harmonic and Spurious Response	-50 db.
Intermodulation Distortion	-35 db.
Carrier Suppression	-50 db.
Opposite Sideband Suppression	-50 db.
Audio Inputs	Handset 600-ohms balanced line.
Receiver Sensitivity	1 UV for 10 db S + N/N.
Image Rejection	-80 db.
IF Rejection	-80 db nominal.
Receiver AGC-step type	rise time-3 MS, hang time 600 MS, fall time 200 MS.
Audio Output	600-ohm unbalanced -15MW. 600-ohm balanced -60 MW. 1 watt with external speaker amplifier.

1.4 ASSOCIATED EQUIPMENT

The Transceiver is designed for a dual purpose: as part of a vehicular radio communications system, or for use as portable manpack equipment in the field. When used as part of the SC-901 system, the Transceiver is powered by voltages produced in the SC-901A Power Amplifier-Power Supply, using self-contained battery power or vehicular power.

1.4.1 Alternately, the Power Supply SC-901S can be used to provide all necessary voltages from a 115-volt AC source. It also provides intercabling connections between a 100-watt or 1000-watt power amplifier and an automatic antenna coupler.

1.4.2 Semi-automatic Antenna Coupler SC-905C is recommended for use with the SC-901 system.

1.5 INSTALLATION

1.5.1 Unpacking and Handling. Because the Transceiver is an accurately calibrated piece of precision equipment, rough handling should be avoided. Extreme caution should be exercised when removing the unit from the packing container to prevent damage to the controls and connectors. Handles are provided on the front panel for lifting or carrying the equipment.

1.5.2 Power Requirements. The Transceiver is designed to operate in conjunction with Power Amplifier-Power Supply SC-901A, but can be operated separately

by supplying 6.3 volts AC at 2 amperes, 255 volts DC at 40 milliamperes, 26.5 volts DC at 600 milliamperes and -30 volts DC at 10 milliamperes. See figure 1-1 and 6-1.

1.5.3 Installation Layout. The Transceiver should be installed as close to its power amplifier (if used) as possible to minimize RF cable lengths. It may be table or rack mounted in a standard 19-inch relay rack using rack adapters. DC power connections should be made through J1. Control and signal connections should be made to J3. See paragraph 1.2 for a list of connectors required. See figure 6-1. RF connections from the power amplifier and antenna should be made with RG-58/U and BNC connectors. See figure 6-1.

1.5.3.1 Connect the handset to J2 (located on the front panel). Use connector listed in paragraph 1.3.

1.5.3.2 An external frequency standard can be connected to J7 (see figure 1-1), to synchronize the Transceiver to a 5 MC standard. Alternately, the internal frequency standard can be used to synchronize other units or for test purposes by connecting to J6.

NOTE

The Transceiver chassis should be connected to the system ground using braid or bus wire to insure minimum radiation of internal frequencies.

1.5.4 Inspection and Adjustments. Because of the rugged construction of the Transceiver, relocation should have no effect on adjustment. Before applying power to the unit, the following checks should be made:

1. Check for external damage to indicators, controls and connectors.
2. Verify that all electronic plug-in assemblies are secure in their respective sockets.
3. Check that V1 and V2, in the RF Amplifier, are secure in their respective sockets.

1.5.5 Interference Reduction. As a precaution against possible interference with or from the Transceiver, operate the unit with the case closed and the captive screws run-up-tight. Be sure that the unit is connected to the system ground. The use of sheilded cables on all connections to J1 and J3 are recommended if maximum interference reduction is to be achieved.

1.5.6 Preparation for Reshipment. To prepare the unit for reshipment, repackage the unit in the same container it was shipped in, and in the reverse order of unpacking.

1.5.6.1 If the original packaging material is not available, proceed as follows:

1. Enclose the unit in a cardboard container. Use padding between the connectors and controls to protect from pressure. Enclose the sides in padding.
2. Place unit in a packing crate on a shock pad. Place shock pads around unit so it cannot move. Place shock pad on top of unit and secure crate cover.
3. Mark crate cover "OPEN THIS END."

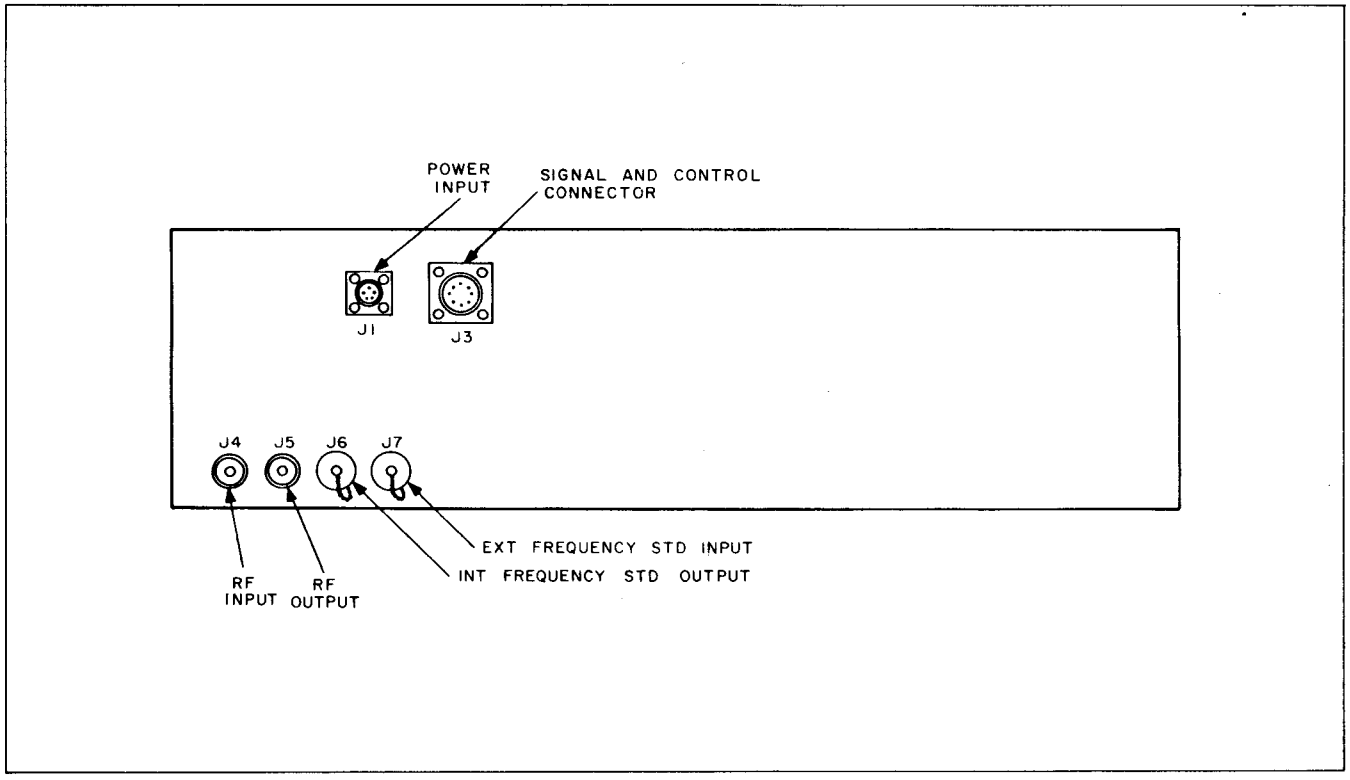


Figure 1-1. Transceiver SC901X, Rear View

CHAPTER II

OPERATORS SECTION

2.1 FUNCTIONAL OPERATION

2.1.1 General. Transceiver SC-901X is designed to receive and transmit upper sideband (USB), lower sideband (LSB) or AM transmissions in the 2-to-30 megacycle range. The Transceiver consists of a main frame and eight electronic plug-in assemblies. Power, signal and remote audio connections are made to connectors mounted on the rear panel. Local audio is connected to the unit via a front-mounted connector. All controls required for normal operation of the unit are located on the front panel.

2.1.2 Operation. (See figure 2-1)

2.1.2.1 Transmit. In the transmit mode of operation, audio intelligence from the microphone portion of the handset is applied to the Transmitter Audio unit for amplification. An AGC and compressor circuit holds the audio to a specific level suitable for application to the Mode Selector unit.

2.1.2.1.1 In the Mode Selector, the audio signal is translated to the 500 KC IF signal and passed through mode filters. The composite signal is then amplified in the Transmitter IF unit. Peak and average power control circuits, operated by voltages developed in the power amplifier (external), automatically adjust the gain of this unit.

2.1.2.1.2 The signal is then fed to the Translator Synthesizer, a group of five electronic plug-in sub-assemblies. The reference frequencies, developed in the Frequency Standard, are divided into various sub-frequencies. These are used to stabilize oscillators supplying injection frequencies to the RF Translator in a manner determined by the setting of the tuning dials.

2.1.2.1.3 Three mixers and associated bandpass filters translate the audio signal from the 500 KC IF to the HF intermediate frequency selected by the digital frequency controls.

2.1.2.1.4 The RF Amplifier, a two-stage vacuum tube circuit, amplifies the signal to the output power of .25 watts. Selectivity is determined by four tuned circuits automatically switched for each megacycle by a motor-driven turret assembly. The assembly inserts the proper circuit components into each tuned

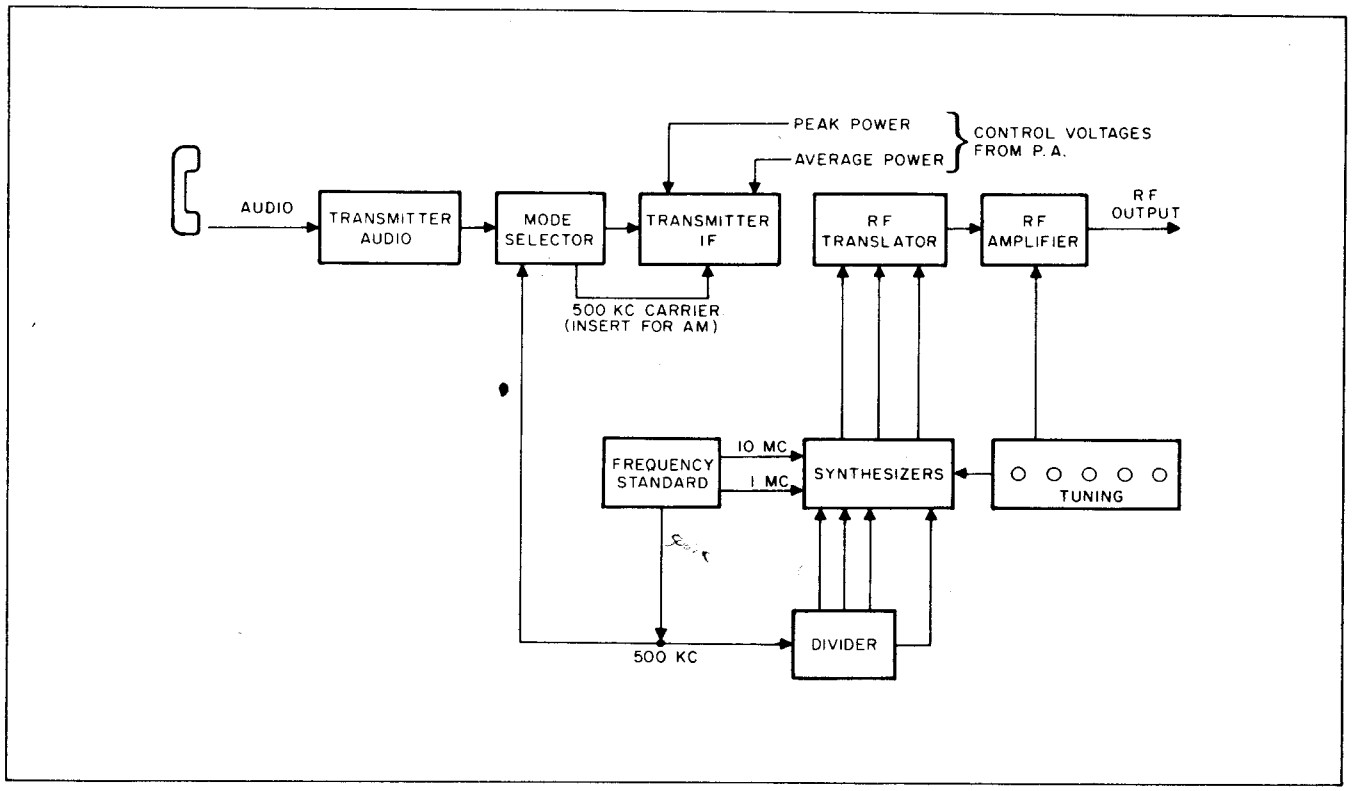


Figure 2-1. Transceiver SC-901X, Transmit Functional Block Diagram

circuit for fine tuning as controlled by the 100 KC and 10 KC tuning dials.

2.1.2.1.5 The FREQUENCY MEGACYCLES dials are set to the desired output/input frequency by the operator. Digital encoding switches produce mechanical as well as electrical tuning information used internally within the Transceiver, and externally as band switching information in the associated power amplifiers. Internally, the information is used to select the proper combinations of injection frequencies applied to the RF Translator. Separate information controls the RF turret and digital capacitors.

2.1.2.2 Receive. All of the major tuning units (see figure 2-2), perform a dual function while operating in Transmit or Receive. When a signal is captured by the antenna, it is fed to the RF Amplifier for selection and amplification. Then it is converted to the 500 KC IF signal in the RF Translator by mixing with the injection frequencies developed in the Translator Synthesizer units. Finally the 500 KC IF signal passes through the Mode Selector, where the proper mode of operation is selected by gating and filter networks.

2.1.2.2.1 The IF signal is amplified and detected, and the audio signal is amplified by the Receiver IF/Audio unit. Gain of the IF and RF amplifier is controlled by the AGC circuit. The audio signal is applied to the earphone portion of the handset.

2.1.2.2.2 Impulse type noise is sensed by the Noise Blanker unit, and is used to open the signal path prior to the narrow IF filters to provide effective noise reduction.

2.2 DESCRIPTION OF CONTROLS AND INDICATORS

The controls and indicators for the Transceiver (see figure 2-3) are listed in table 2-1.

TABLE 2-1

TRANSCEIVER SC-901X, CONTROLS AND INDICATORS

Control	Nomenclature	Function
HANDSET jack	J2	Provides connection for handset-audio and switch.
MOISTURE INDICATOR		Indicates moisture level in side case.
LIGHTS switch	S6	Selects dial lamp brilliance-OFF, DIM or BRIGHT.

TABLE 2-1 (Cont.)

TRANSCEIVER SC-901X, CONTROLS AND INDICATORS

Control	Nomenclature	Function
FUNCTION SELECTOR switch	S7	Selects OFF (power off except 24 volts DC to Frequency Standard), STD BY (heats tube filaments and Frequency Standard), TRANSCEIVE (permits unit to receive or transmit when push-to-talk switch is pressed), RECEIVE-ANT (unit operates in receive only bypassing the antenna coupler), or RECEIVE-ANT CPLR (unit receives only via antenna coupler).
MODE SELECTOR switch	S9	Selects mode of operation-USB, LSB, or AM.
LOCAL/REMOTE switch	S10	Selects operating point-handset or remote control unit.
NOISE BLANKER control	R2/S8	Turns noise blanker on or off and adjusts threshold level.
RF GAIN control	R15	Adjusts level of RF/IF gain.
AUDIO GAIN control	R16	Adjusts audio output level.
FREQUENCY MEGACYCLES dials		Selects operating frequency.

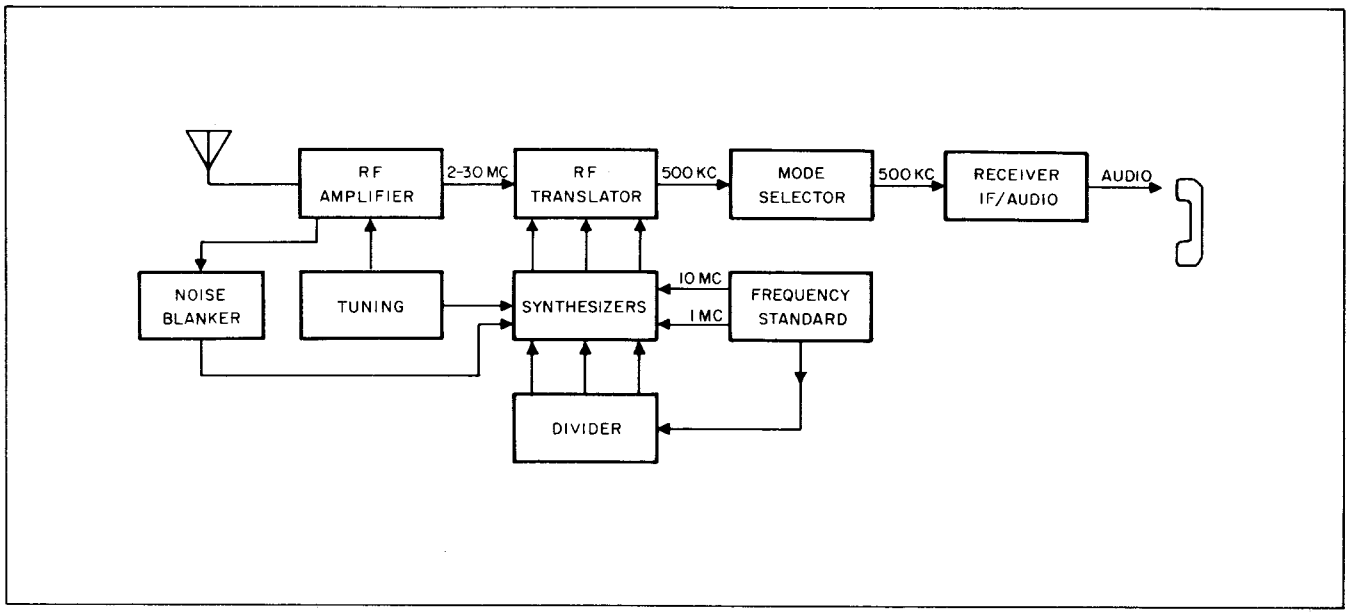


Figure 2-2. Transceiver SC-901X, Receive Functional Block Diagram

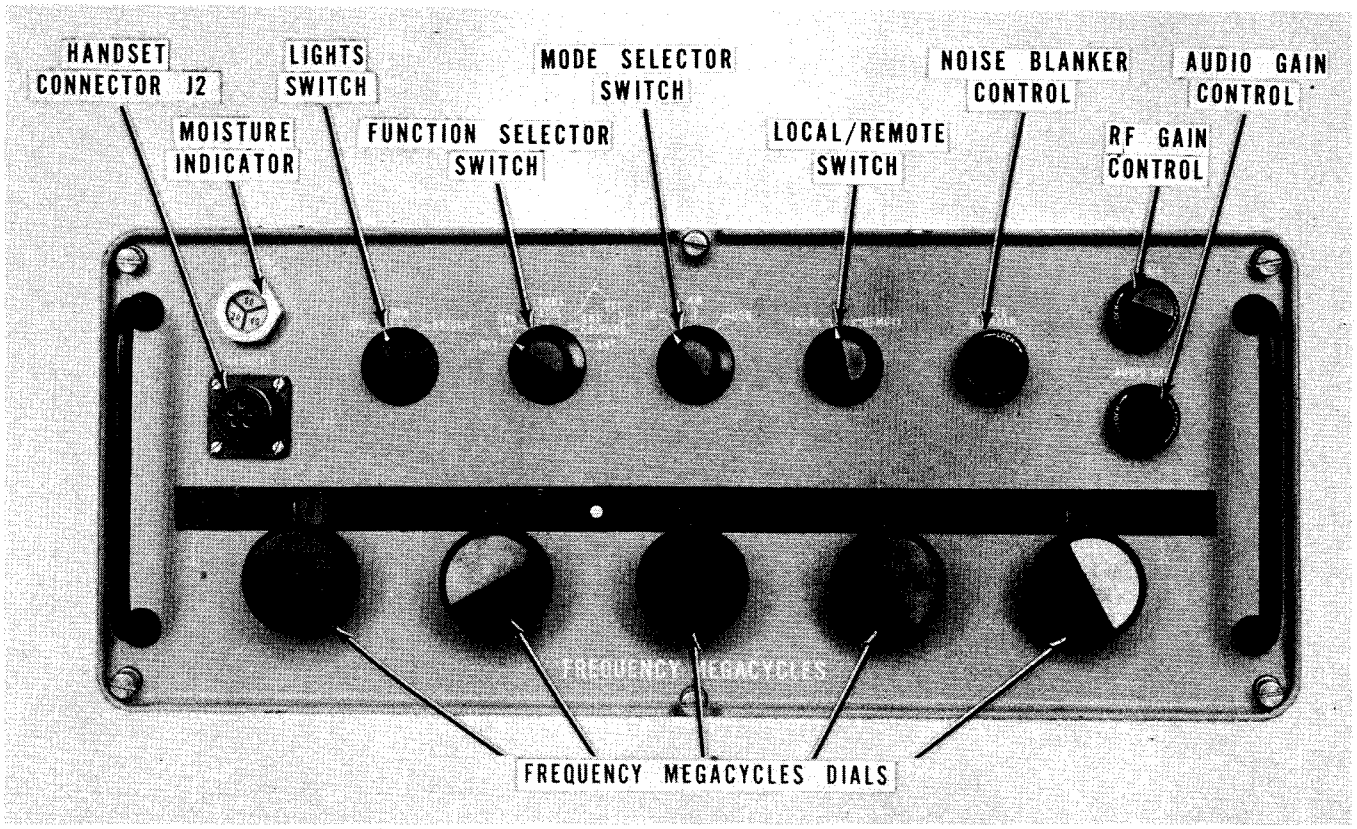


Figure 2-3. Transceiver SC-901X, Front View

2.3 OPERATING PROCEDURES

2.3.1 To operate the Transceiver, proceed as follows:

1. Turn on external power source.
2. Place FUNCTION SELECTOR switch in STD BY position. Allow a 5-minute warmup period.
3. Connect handset to J2.
4. Place the MODE SELECTOR switch to the desired position.
5. Place the LOCAL/REMOTE switch to the LOCAL position.
6. Set the FREQUENCY MEGACYCLES dials to the desired position.
7. Place the FUNCTION SELECTOR switch to TRANSCEIVE.
8. Press the push-to-talk button and begin transmitting.

2.3.2 Remote Operation. To operate the Transceiver remotely, connect the remote unit as illustrated in figure 6-1 and operate as follows:

1. Place the LOCAL/REMOTE switch in the REMOTE position.
2. PLACE THE FREQUENCY MEGACYCLES dials in the desired frequency setting. Notify the remote operator that Transceiver is ready to operate.

2.4 SHUTDOWN PROCEDURES

To shut down the Transceiver, place the FUNCTION SELECTOR switch to OFF.

2.4.1 If the unit is to be used intermittently, place the FUNCTION SELECTOR switch to STD BY.

CHAPTER III
PREVENTIVE MAINTENANCE

3.1 GENERAL

Transceiver SC-901X is a precision instrument and as such will require little maintenance. Table 3-1 lists a preventive maintenance schedule that will reduce down time if followed on a monthly basis.

TABLE 3-1

TRANSCEIVER SC-901X, PREVENTIVE MAINTENANCE

Check for	Remedy
Nicks, burrs, scratches and dust.	Smooth burrs nicks and scratches with a file. Repaint. Remove dust with a lint-free cloth.
Smooth operation of drawer slides and cams.	Clean moving parts with a lint-free cloth and trichlorethylene.
Loose or broken hardware.	Tighten loose hardware, replace broken parts.
Broken or frayed leads, broken lugs, split, chipped or broken components.	Repair or replace as required.
Broken leads or shields on jacks and connectors.	Repair or replace as required.
Interlock switch-bent or broken shafts.	Replace.
Circuit boards cracked.	Replace.
Vacuum tubes.	Check with tube tester.

CHAPTER IV
TROUBLE SHOOTING

4.1 GENERAL

This section contains data pertinent to trouble-shooting the Transceiver SC-901X. Test equipment required, initial control settings, system trouble-shooting procedures, and functional trouble-shooting procedures are listed in tabular form.

4.2 TEST EQUIPMENT AND SPECIAL TOOLS

Test equipment required to trouble-shoot the Transceiver is listed in table 4-1. No special tools are required.

TABLE 4-1

TRANSCEIVER SC-901X, TEST EQUIPMENT REQUIRED

Common Name	Model and Manufacture	Alternate
Vacuum Tube Voltmeter	Hewlett-Packard, Model 400D	Yes
Multimeter	Triplett	Yes
RF Meter	Boonton, Model 91CA	No
RF Signal Generator	Hewlett-Packard, 606A	Yes
50-ohm Dummy Load	Bird Mfg. Co., Model 32	Yes
Audio Oscillator	Hewlett-Packard, Model 500	Yes

4.3 CONTROL SETTINGS

Before attempting to trouble-shoot the Transceiver, make the following initial control settings outlined in table 4-2.

TABLE 4-2

TRANSCEIVER SC-901X, INITIAL CONTROL SETTINGS

Control	Location	Setting
Function Selector Switch	Front Panel	STD BY
Mode Selector Switch	Front Panel	LSB
LOCAL/REMOTE Switch	Front Panel	LOCAL
FREQUENCY MEGACYCLES dials	Front Panel	05.000

NOTE

Do not trouble-shoot unless a load is connected to J4, the RF output jack.

4.4 SYSTEM TROUBLE-SHOOTING

To determine if trouble exists in the Transceiver, use table 4-3.

TABLE 4-3

TRANSCEIVER SC-901X, SYSTEM TROUBLE-SHOOTING CHART

Step	Action	Normal Indication	Abnormal Indication Procedure
1.	Disconnect RF Cable from J4. Connect RF signal generator to J5. Adjust signal generator to 5 MC, at 1 uv microvolts. Place FUNCTION SELECTOR switch to TRANSCEIVE. Rock signal generator frequency between 4.997 and 5.003 MC.	Audio tone in headset.	Check receive mode.
2.	Place FUNCTION SELECTOR switch in USB. Rock signal generator between 4.997 and 5.003 MC.	Audio tone in headset.	Check receive mode.
3.	Place FUNCTION SELECTOR switch in AM. Modulate signal generator with 1000 cycles at 30%.	Audio tone in headset.	Check receive mode.
4.	Disconnect RF signal generator. Connect 50-ohm load to J5. Connect RF meter to load. Place FUNCTION SELECTOR switch in USB position. Depress push-to-talk button and speak into microphone.	Read 1.7 volts on meter.	Check transmit mode.
5.	Place MODE SELECTOR switch in LSB position. Press push-to-talk button and transmit.	Read 1.7 volts on meter.	Check transmit mode.
6.	Place MODE SELECTOR switch in LSB position. Press push-to-talk button and transmit.	Read 1.7 volts on meter.	Check transmit mode.

4.5 FUNCTIONAL TROUBLE-SHOOTING

After determining that the Transceiver is malfunctioning, use table 4-4 through 4-6 to isolate the malfunction to a defective electronic assembly. Refer to figure 4-1 for the physical location of the electronic assemblies, and figure 4-2 for the electronic assembly test points location. Before attempting to trouble-shoot the Transceiver, be sure that the associated units in the system such as the Power Supply SC-901S, Power Amplifier SC-901A or Power Amplifier SC-907-A-Power Supply SC-907S are operative and providing power input to the Transceiver.

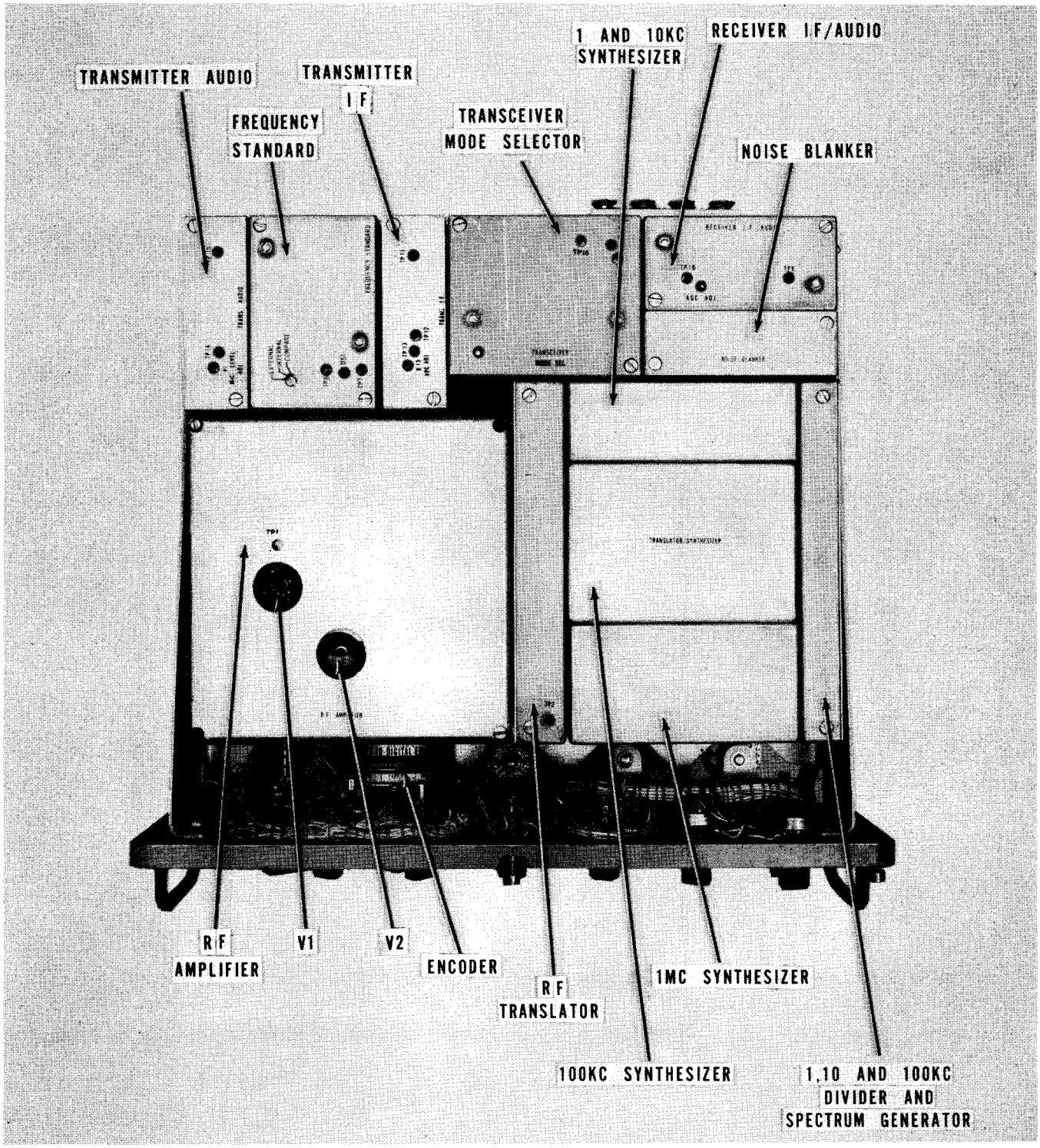


Figure 4-1. Transceiver SC-901X, Electronic Plug-in Unit, Location Diagram

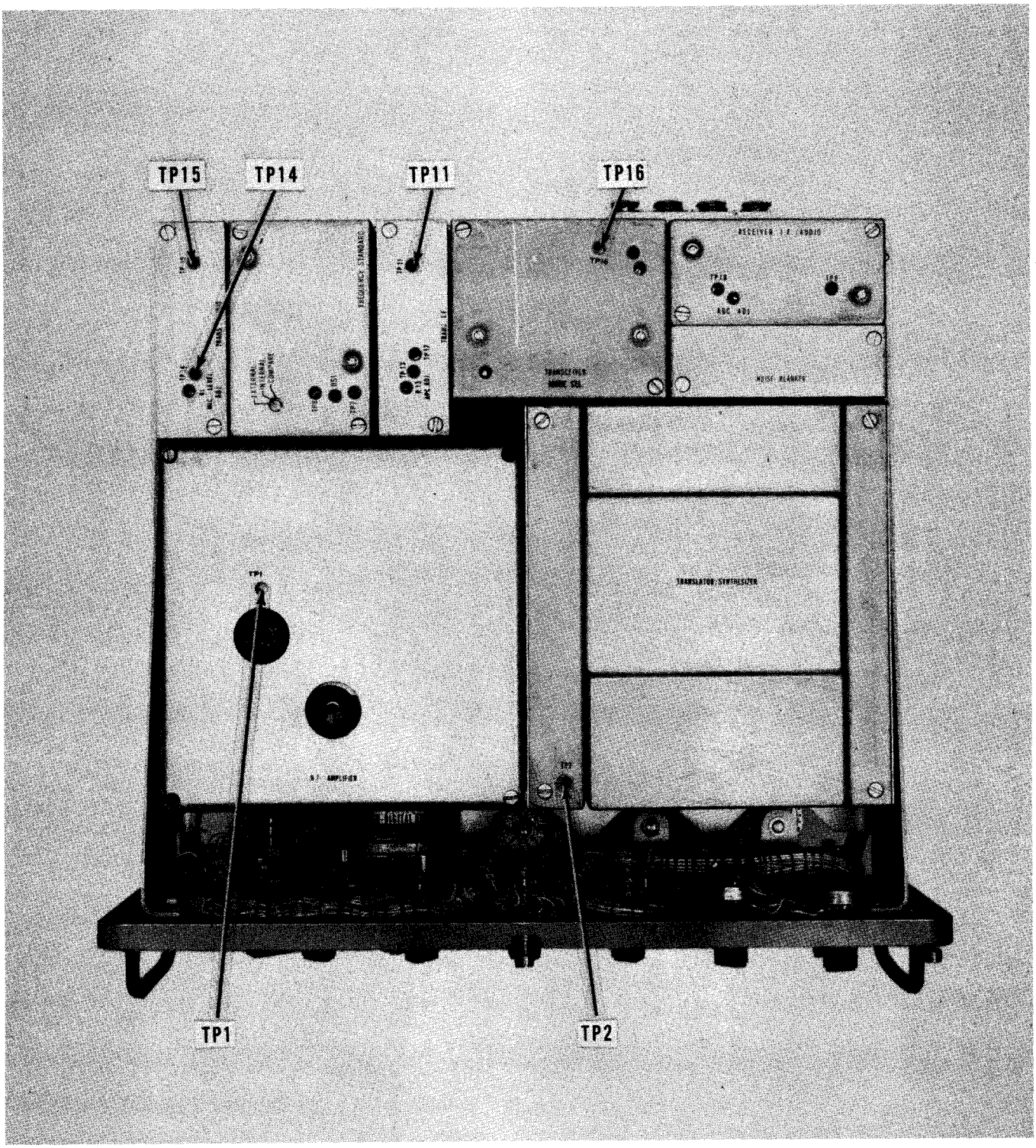


Figure 4-2. Transceiver SC-901X, Test Point Location

TABLE 4-4

TRANSCEIVER SC-901X FUNCTIONAL TROUBLE-SHOOTING CHART (RECEIVE)

Step	Preliminary Action	Normal Indication	Next Step
1.	Disconnect the Transceiver RF input cable from J4 at the rear of the Transceiver.		
2.	Place MODE SELECTOR switch in the LSB position.		
3.	Connect signal generator to TP 16 at the Transceiver Mode Selector electronic assembly.		
4.	Vary output of the signal generator between 497 KC and 503 KC at 100 microvolts.	Audio tone at handset.	If indication is normal, proceed to next step. If abnormal reading is obtained, replace the Receiver IF/Audio, Mode Selector or Frequency Standard electronic assembly.
5.	Place MODE SELECTOR switch in USB position. Repeat step 4.	Audio tone at handset.	If indication is normal, proceed to next step. If abnormal reading is obtained, replace the Receiver IF/Audio or Mode Selector electronic assembly.
6.	Place MODE SELECTOR switch in the AM position. Modulate signal generator with 1000 CPS at 30%. Repeat step 4.	Audio tone at handset.	If indication is normal, proceed to next step. If abnormal reading is obtained, replace the Receiver IF/Audio or Mode Selector electronic assembly.
7.	Place MODE SELECTOR switch in the USB position and set FREQUENCY MEGACYCLES dials to 05.000.		
8.	Connect output of signal generator to TP 2 on the Translator Synthesizer electronic assembly. Adjust signal generator output to 25 microvolts and vary output between 4.997 and 5.003 MC.	Audio tone at handset.	If indication is normal, proceed to next step. If abnormal reading is obtained, replace Translator Synthesizer, Mode Selector or Frequency Standard electronic assembly.
9.	Connect output terminals of the signal generator to J4 at the rear of the Transceiver. Adjust output of signal generator to 0.5 microvolts at 5 MC. Vary signal generator between 4.997 and 5.003 MC.	Audio tone at handset.	If indication is normal, receive function is good. If abnormal reading is obtained, replace the RF Amplifier electronic assembly.

TABLE 4-5

TRANSCEIVER SC-901X, FUNCTIONAL TROUBLE-SHOOTING CHART (TRANSMIT) LSB-USB

Step	Preliminary Action	Normal Indication	Next Step
1.	Place FUNCTION SELECTOR switch to OFF.		
2.	Remove handset from connector J2.		
3.	Place jumper wire between pins D and E of connector J2.		
4.	Terminate connector J5 with a 50-ohm load.		
5.	Connect audio oscillator between pins C (+) and B (-) of connector J2.		
6.	Adjust audio oscillator for 1000 cps.		
7.	Place FUNCTION SELECTOR switch to STD BY and allow a 2-minute warmup period. Place MODE SELECTOR switch to LSB position.		
8.	Place FUNCTION SELECTOR switch to TRANSCEIVE.		
9.	Connect VTVM across pins C and B of Connector J2.		
10.	Adjust audio oscillator for 55 mv.		
11.	Connect VTVM or equivalent to TP 14 on the Transmitter Audio electronic assembly.	55 mv	If indication is normal, proceed to next step. If abnormal reading is obtained, replace the Transmitter Audio electronic assembly.
12.	Connect VTVM or equivalent to TP 15 on the Transmitter Audio electronic assembly.	200 mv	If indication is normal, proceed to next step. If abnormal reading is obtained, adjust potentiometer R11 for 200 mv ± 1 db. If unable to adjust R11 for 200 mv, replace Transmitter Audio electronic assembly.

TABLE 4-5 (Cont.)

TRANSCEIVER SC-901X, FUNCTIONAL TROUBLE-SHOOTING CHART (TRANSMIT) LSB-USB (cont)

Step	Preliminary Action	Normal Indication	Next Step
13.	Connect RF meter to TP 16 on Mode Selector electronic assembly.	100 mv	If indication is normal, proceed to next step. If abnormal reading is obtained, replace the Mode Selector or Frequency Standard electronic assembly.
14.	Connect RF meter to TP 11 on Transmitter IF electronic assembly.	30 mv	If indication is normal, proceed to next step. If abnormal reading is obtained, remove the Transmitter Synthesizer electronic assembly and monitor voltage at TP 11 for 30 mv minimum. If voltage is still abnormal, replace the Transmitter IF electronic assembly.
15.	Connect RF meter to TP 1 on RF Amplifier electronic assembly.	20 mv	If indication is normal, proceed to next step. If abnormal reading is obtained, replace the Translator Synthesizer, RF Amplifier, or Frequency Standard electronic assembly.
16.	Connect RF meter to J5 on rear of Transceiver.	1.7 Volts Minimum	If indication is normal, the Transceiver is operative. If abnormal reading is obtained, replace the Translator Synthesizer, RF Amplifier, or Frequency Standard electronic assembly.

TABLE 4-6

TRANSCEIVER SC-901X, FUNCTIONAL TROUBLE-SHOOTING CHART (TRANSMIT-AM)

Step	Preliminary Action	Normal Indication	Next Step
1.	Place FUNCTION SELECTOR switch to OFF.		
2.	Remove handset from J2.		
3.	Place jumper wire between pins D and E of connector J2.		
4.	Terminate connector J5 with a 50-ohm load.		
5.	Connect audio oscillator between pins C (+) and B (-) of connector J2.		
6.	Adjust audio oscillator for 1000 CPS.		
7.	Place FUNCTION SELECTOR switch to STD BY and allow a 2 minute warmup.		
8.	Place MODE SELECTOR switch in AM position.		

TABLE 4-6 (Cont.)

TRANSCEIVER SC-901X FUNCTIONAL TROUBLE-SHOOTING CHART (TRANSMIT-AM)

Step	Preliminary Action	Normal Indication	Next Step
9.	Connect VTVM across pins C and B of connector J2.		
10.	Adjust audio oscillator for 55 mv.		
11.	Connect VTVM to TP 14 on the Transmitter Audio electronic assembly.	55 mv	If indication is normal, proceed to next step. If abnormal reading is obtained, replace the Transmitter Audio electronic assembly.
12.	Connect VTVM to TP 15 on the Transmitter Audio electronic assembly.	200 mv	If indication is normal, proceed to the next step. If abnormal reading is obtained, adjust potentiometer R11 for a reading of 200 mv ± 1 db. If unable to adjust to reading, replace the Transmitter Audio electronic assembly.
13.	Connect RF meter to TP 16 on Mode Selector electronic assembly.	100 mv	If indication is normal, proceed with next step. If abnormal reading is obtained, replace the Mode Selector or Frequency Standard electronic assembly.
14.	Connect RF meter to TP 11 on the Transmitter IF assembly. Momentarily disconnect the audio oscillator from J2.	30 mv	If indication is normal, proceed with next step. If abnormal reading is obtained, replace the Mode Selector or Transmitter IF electronic assembly.
15.	Reconnect the audio oscillator and note if reading increases.		If indication is normal, Transceiver is operative. If abnormal reading is obtained, replace the Mode Selector or Transmitter IF electronic assembly.

CHAPTER V
REPLACEABLE PARTS

(Replaceable Parts List to be supplied at a later date.)

CHAPTER VI

SCHEMATIC DIAGRAMS

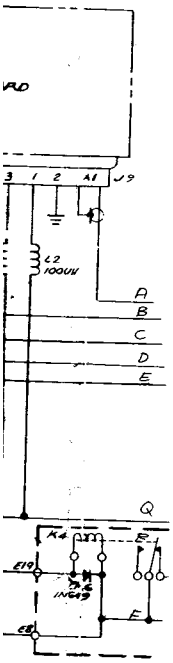
6.1 GENERAL

This chapter contains a complete set of schematic diagrams for Transceiver SC-901X.

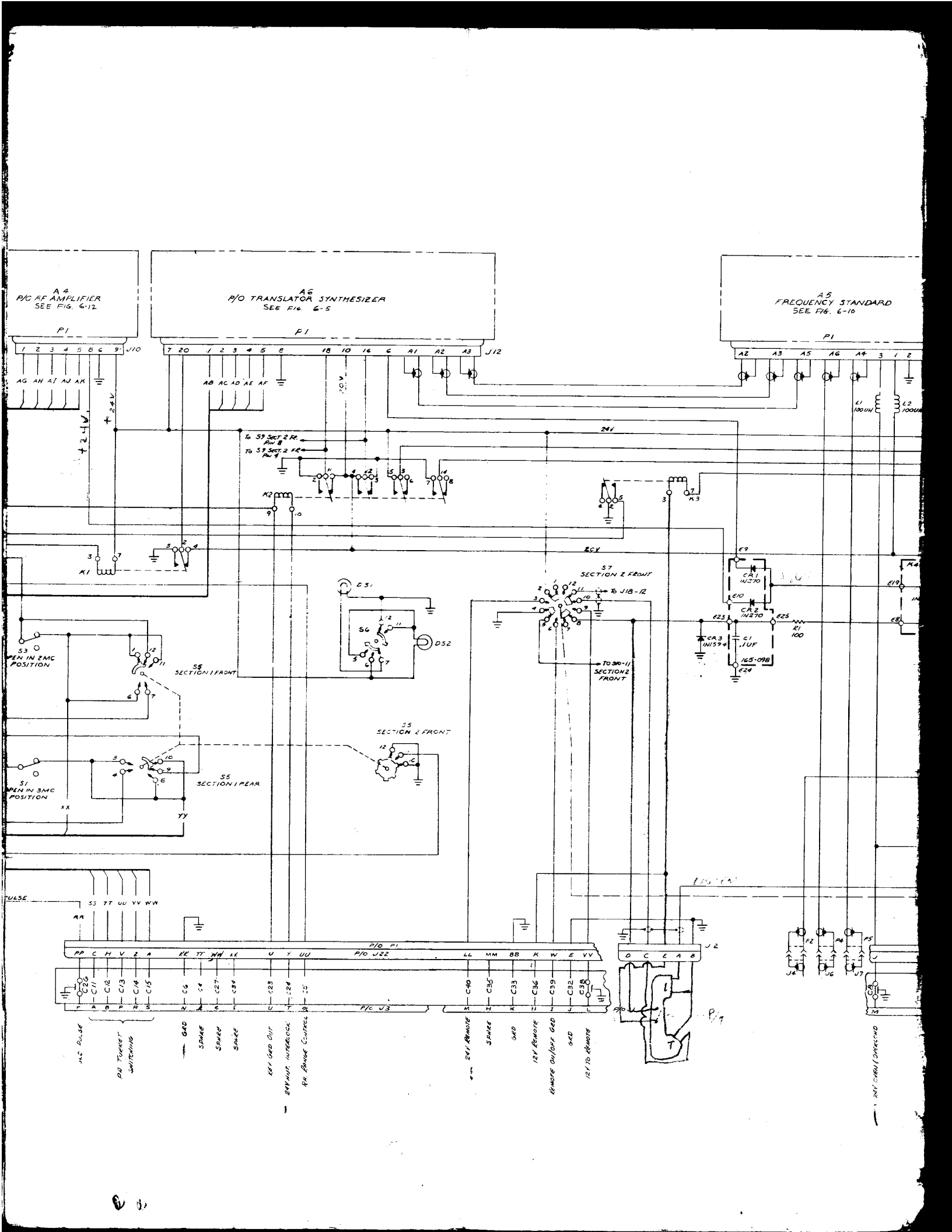
TABLE 6-1

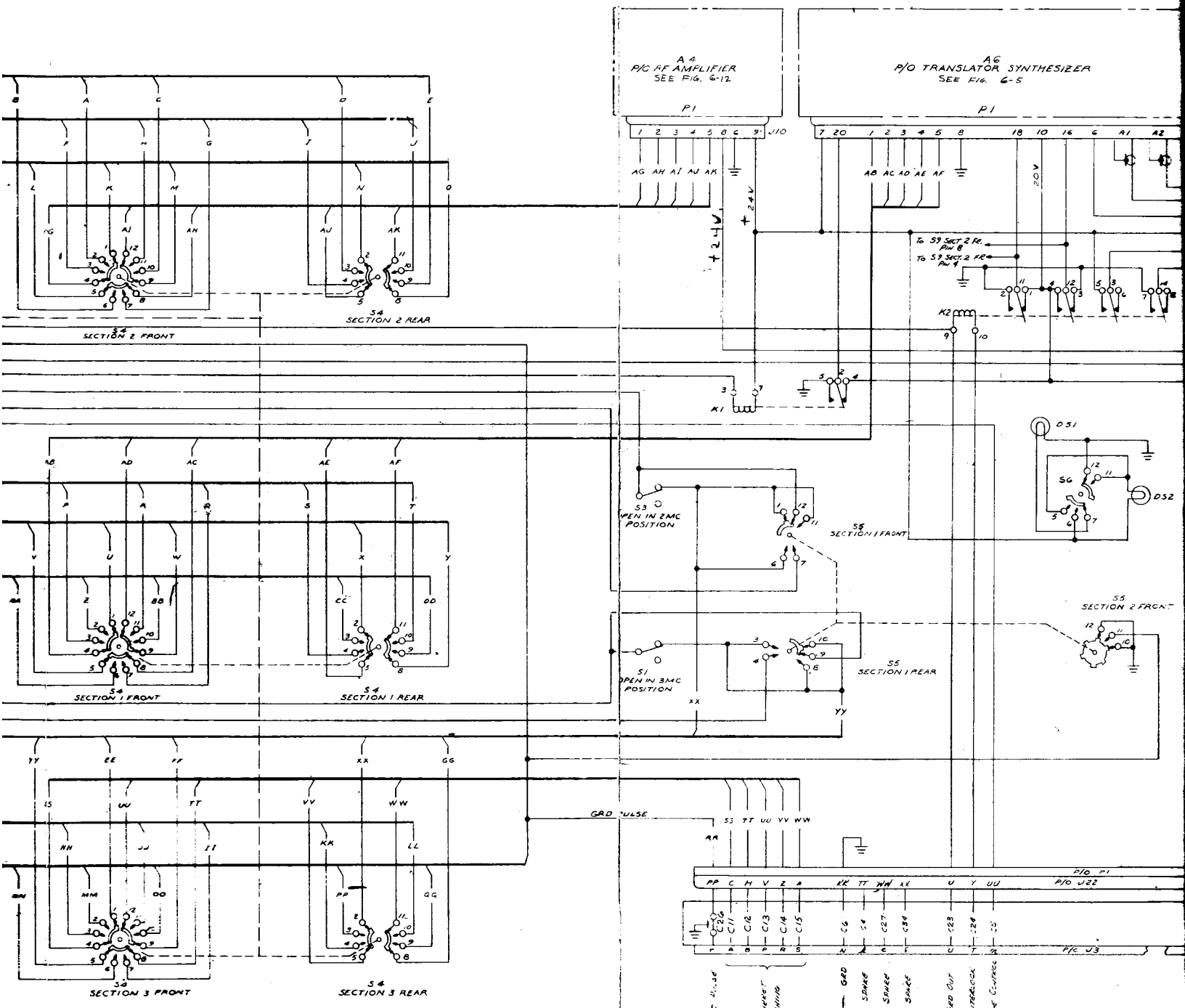
TRANSCEIVER SC-901X, SCHEMATIC DIAGRAMS

Figure No.	Title
6-1	Transceiver SC-901X, Transceiver Chassis, Schematic Diagram
6-2	Transceiver SC-901X, Transmitter Audio, Schematic Diagram
6-3	Transceiver SC-901X, Transmitter IF, Schematic Diagram
6-4	Transceiver SC-901X, Transceiver Mode Selector, Schematic Diagram
6-5	Transceiver SC-901X, Translator Synthesizer, Schematic Diagram
6-6	Transceiver SC-901X, 100 KC Synthesizer, Schematic Diagram
6-7	Transceiver SC-901X, 1 and 10 KC Synthesizer, Schematic Diagram
6-8	Transceiver SC-901X, 1, 10, 100 KC Divider and Spectrum Generator, Schematic Diagram
6-9	Transceiver SC-901X, RF Translator, Schematic Diagram
6-10	Transceiver SC-901X, Frequency Standard, Schematic Diagram
6-11	Transceiver SC-901X, 1 MC Synthesizer, Schematic Diagram
6-12	Transceiver SC-901X, Transceiver RF Amplifier, Schematic Diagram
6-13	Transceiver SC-901X, Receiver IF/Audio, Schematic Diagram
6-14	Transceiver SC-901X, Noise Blanker, Schematic Diagram
6-15	Transceiver SC-901X, Channel 2 Balanced Modulator


3
1
2
A1
U9
L2
100UU
A
B
C
D
E
Q
K4
E1
E10
E
E8


K4
G
E
M
N
D
P


A4
P/O RF AMPLIFIER
SEE FIG. 6-12
A6
P/O TRANSLATOR SYNTHESIZER
SEE FIG. 6-5
A5
FREQUENCY STANDARD
SEE FIG. 6-10
P1
J10
J12
+24V
+10V
24V
ECV
K1
K2
S3
OPEN IN 2MC POSITION
S1
OPEN IN 3MC POSITION
S5
SECTION I FRONT
S5
SECTION I REAR
S5
SECTION 2 FRONT
S7
SECTION 2 FRONT
TO J18-12
TO J18-11
SECTION2 FRONT
S6
DS1
DS2
CR1
IN370
CR2
IN270
CR3
IN5394
C1
.1UF
165-098
R1
100
L1
100UH
L2
100UH
P/O P1
P/O J22
P/C J3
J2
P/O P4
J4
J6
J7
J8
PULSE
DU TUNNET SWITCHING
GRD
SPARE
SPARE
SPARE
KEY GRD OUT
24V INTERLOCK
RX RANGE CONTROL
24V REMOTE
SPARE
GRD
12V REMOTE
REMOTE ON/OFF GRD
GRD
12V TO REMOTE
24V CIRCUIT PROTECTED



ver Chassis, Schematic Diagram (Sheet 1 of 2)

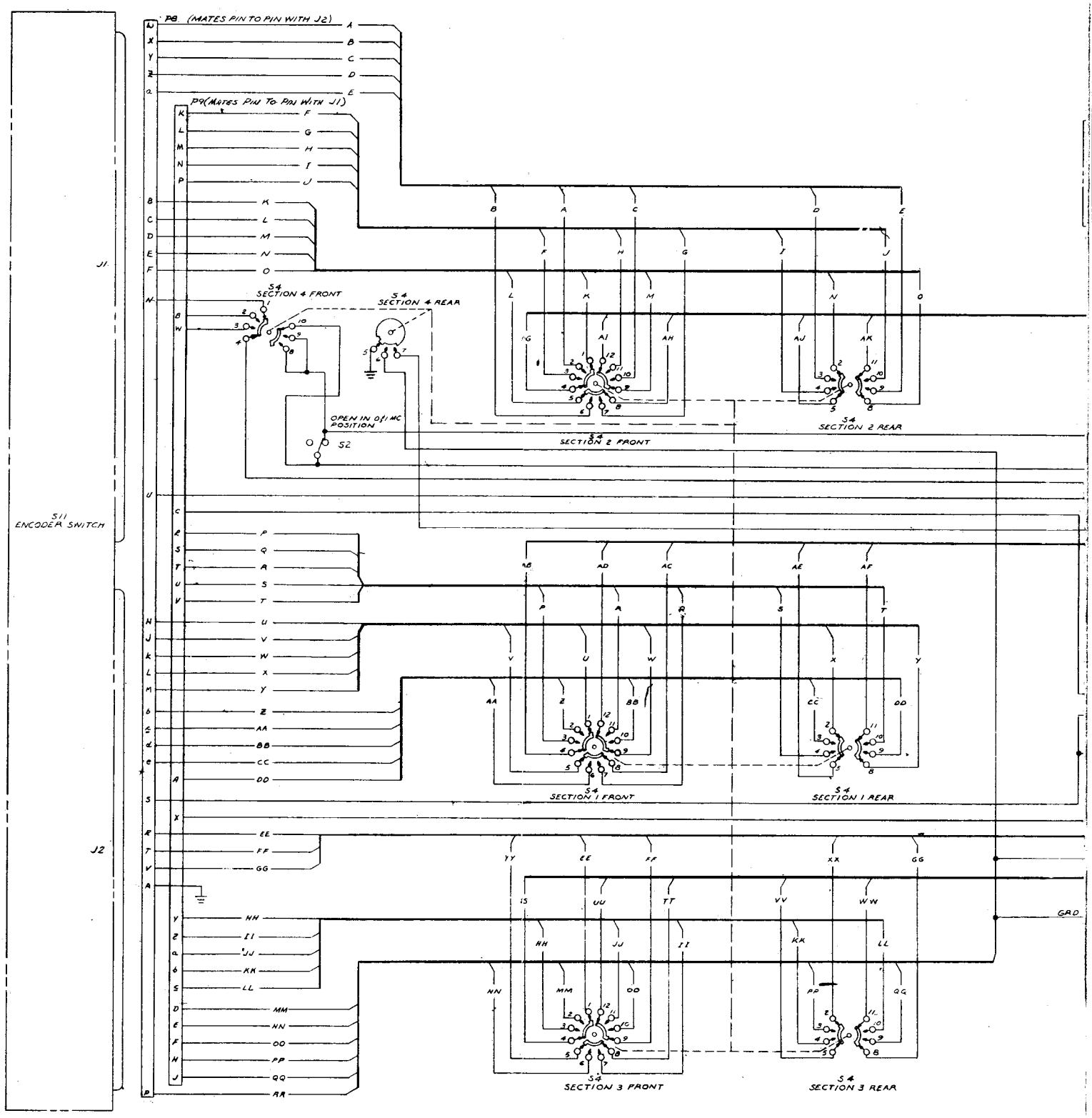
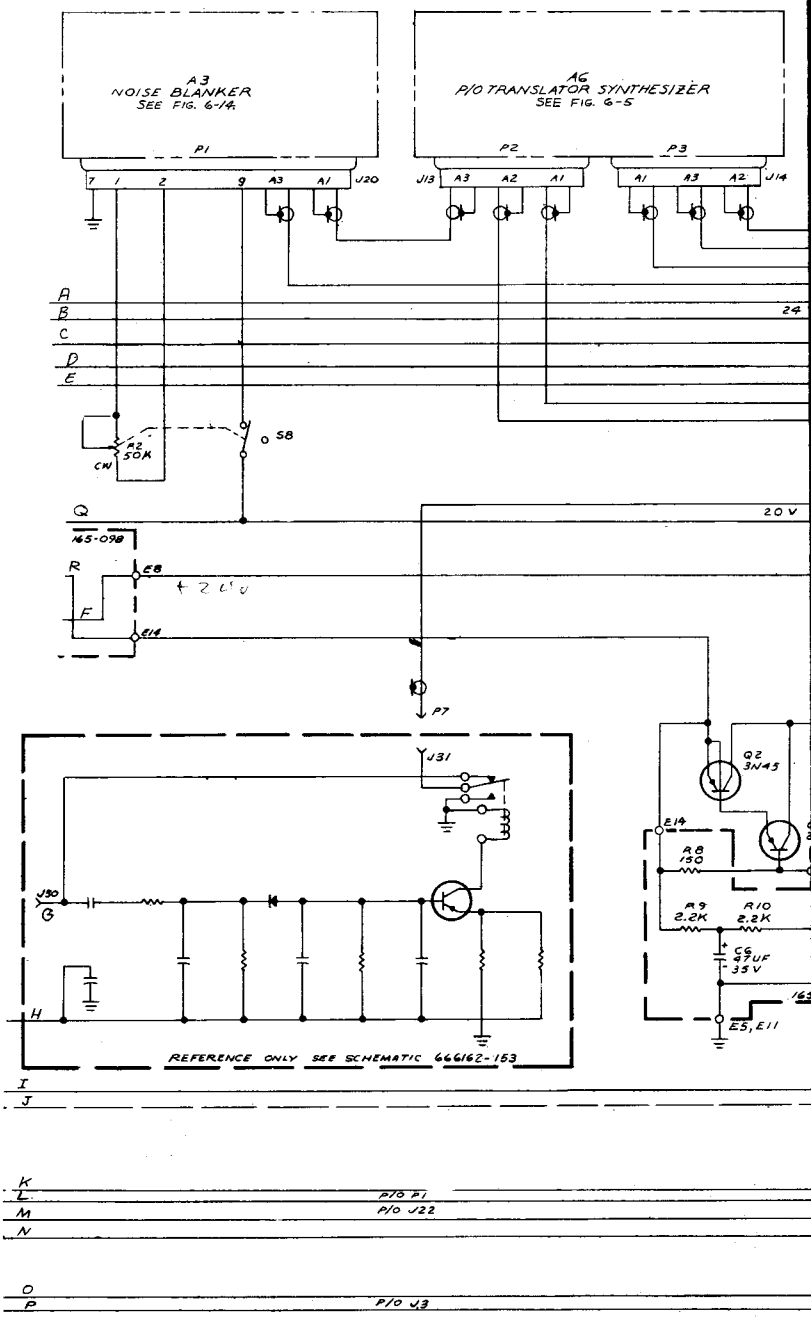
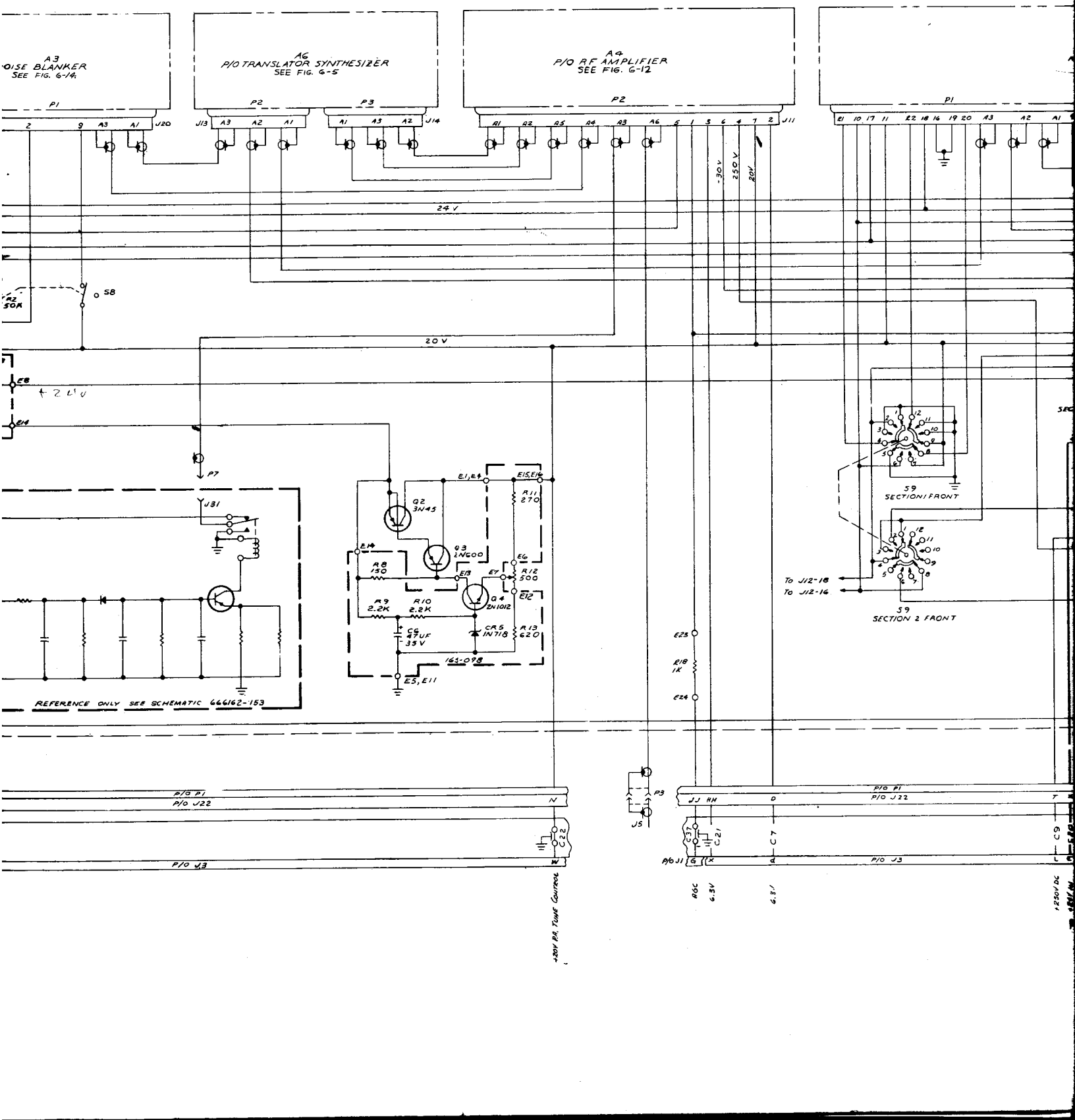
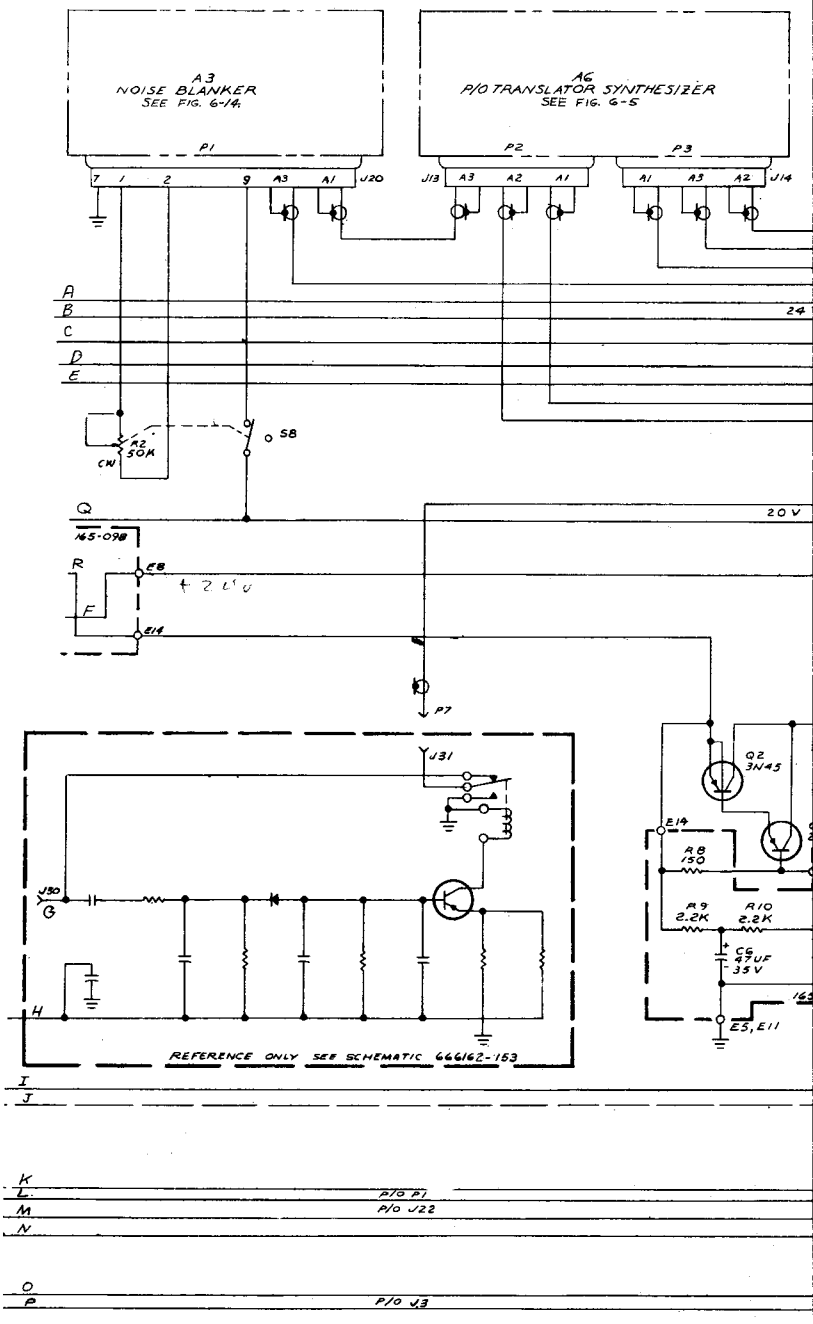
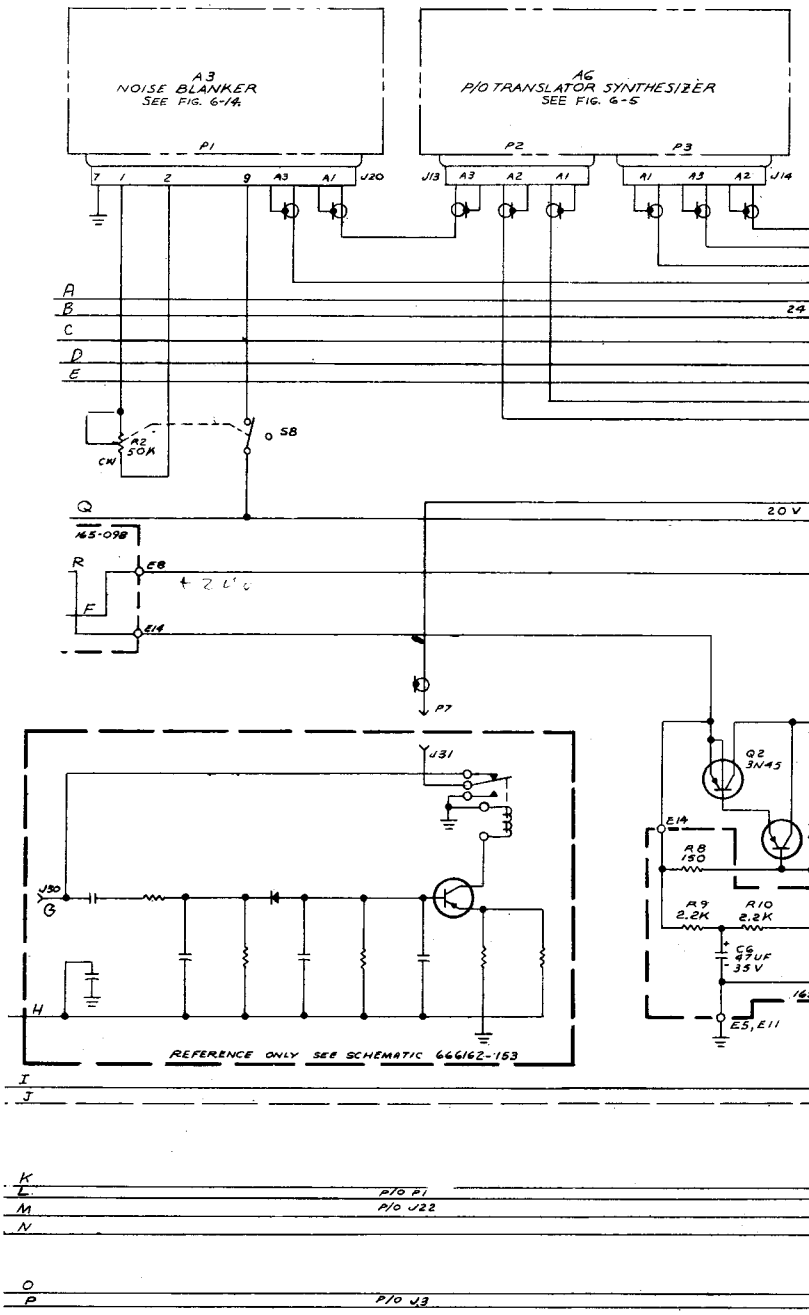


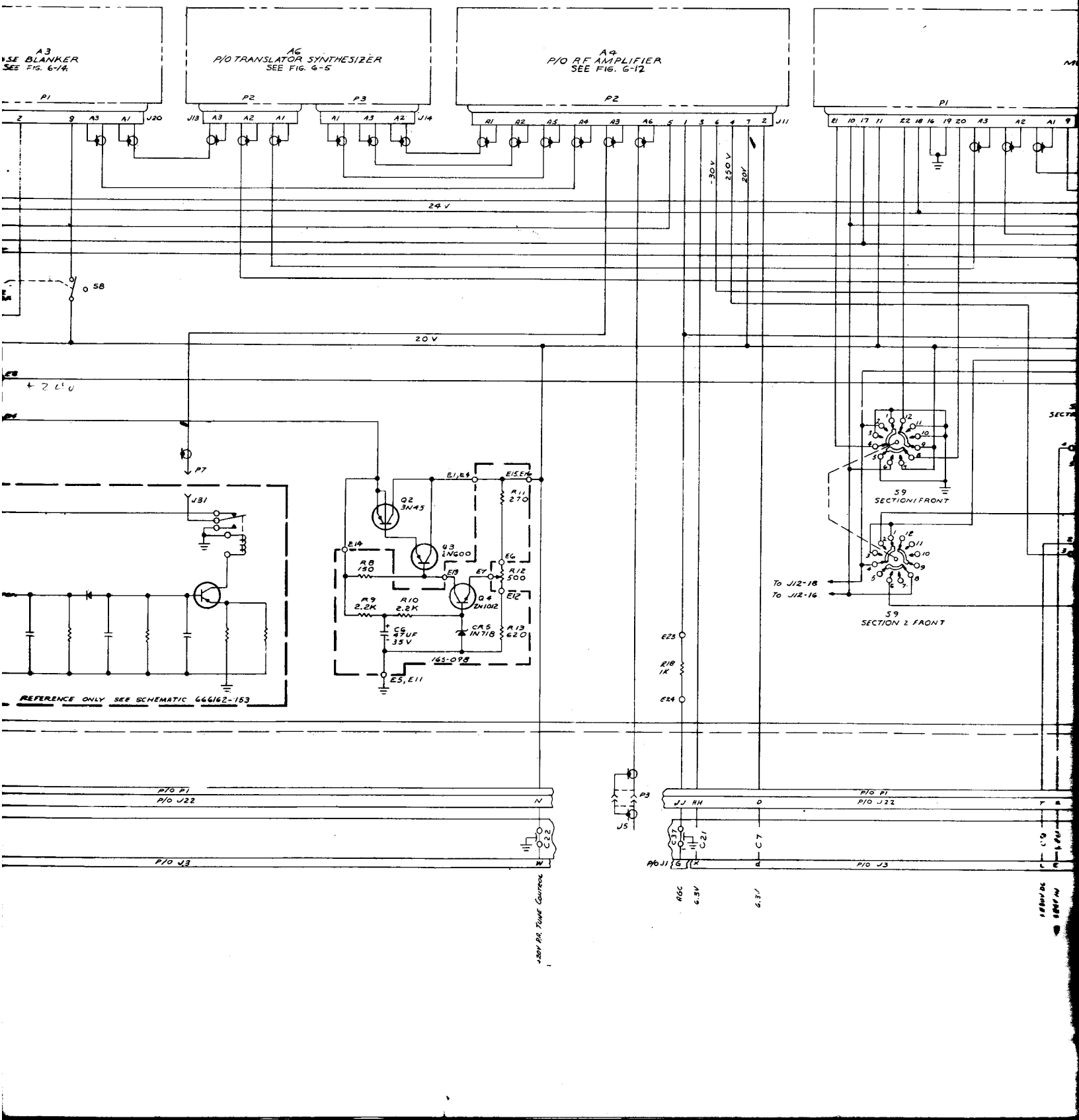
Figure 6-1. Transceiver SC-901X, Transceiver Chassis, Schematic Diagram (Sheet 1 of 2)


A3
NOISE BLANKER
SEE FIG. 6-14
A6
P/O TRANSLATOR SYNTHESIZER
SEE FIG. 6-5
P1
P2
P3
J20
J13
J14
A1
A2
A3
24
A
B
C
D
E
R2
50K
CW
S8
Q
20 V
165-098
R
F
E8
E14
+20 V
P7
J31
J30
G
H
Q2
2N45
R8
150
R9
2.2K
R10
2.2K
C6
47UF
35V
E5, E11
REFERENCE ONLY SEE SCHEMATIC 666162-153
I
J
K
L
M
N
O
P
P/O P1
P/O J22
P/O J3


A3
OISE BLANKER
SEE FIG. 6-14.
A6
P/O TRANSLATOR SYNTHESIZER
SEE FIG. 6-5
A9
P/O RF AMPLIFIER
SEE FIG. 6-12
P1
P2
P3
J20
J13
J14
J11
24 V
20 V
-30 V
250 V
S8
P7
J31
Q2 3N45
Q3 2NG00
Q4 2N1012
R8 150
R9 2.2K
R10 2.2K
R11 270
R12 500
R13 620
R18 1K
C6 47UF 35V
CR5 IN718
163-098
REFERENCE ONLY SEE SCHEMATIC 666162-153
59 SECTION 1 FRONT
59 SECTION 2 FRONT
To J12-18
To J12-16
P/O P1
P/O J22
P/O J3
P/O J1
P3
J5
C22
C21
C7
C9
+20V PA TUNE CONTROL
AGC
6.3V
6.3V
+250V DC


A3
NOISE BLANKER
SEE FIG. 6-14
A6
P/O TRANSLATOR SYNTHESIZER
SEE FIG. 6-5
P1
P2
P3
J20
J13
J14
A3
A1
A2
7
1
2
9
A
B
C
D
E
24
R2
50K
CW
S8
Q
20 V
165-098
R
F
E8
E14
+ 2 5 V
P7
J31
J30
G
H
Q2
2N45
R8
150
R9
2.2K
R10
2.2K
C6
47UF
35V
E3, E11
REFERENCE ONLY SEE SCHEMATIC 666162-153
I
J
K
L
M
N
O
P
P/O P1
P/O J22
P/O J3


A3
NOISE BLANKER
SEE FIG. 6-14
A6
P/O TRANSLATOR SYNTHESIZER
SEE FIG. 6-5
P1
P2
P3
J20
J13
J14
A
B
C
D
E
R2
50K
CW
S8
Q
20 V
165-098
R
F
E8
E14
+20 V
P7
J31
J30
G
H
REFERENCE ONLY SEE SCHEMATIC 666162-153
Q2
3N45
R8
150
R9
2.2K
R10
2.2K
C6
47UF
35 V
E5, E11
I
J
K
L
M
N
P/O P1
P/O J22
O
P
P/O J3


A3
SEE BLANKER
SEE FIG. 6-14
A6
P/O TRANSLATOR SYNTHESIZER
SEE FIG. 6-5
A4
P/O RF AMPLIFIER
SEE FIG. 6-12
P1
P2
P3
J20
J13
J14
J11
24 V
20 V
-30 V
250 V
20 V
S8
P7
J31
Q2
2N45
Q3
2NG00
Q4
2N1012
R8
150
R9
2.2K
R10
2.2K
R11
270
R12
500
R13
620
C6
47UF
35V
CR5
IN718
163-098
E1,E4
E15,E16
E14
E13
E7
E6
E12
E5,E11
E23
R18
1K
E24
REFERENCE ONLY SEE SCHEMATIC 666162-153
S9
SECTION I FRONT
S9
SECTION 2 FRONT
To J12-18
To J12-16
P/O P1
P/O J22
P/O J3
P3
J5
C22
C21
C7
AGC
6.3V
6.3V
J20V PA TUNE CONTROL

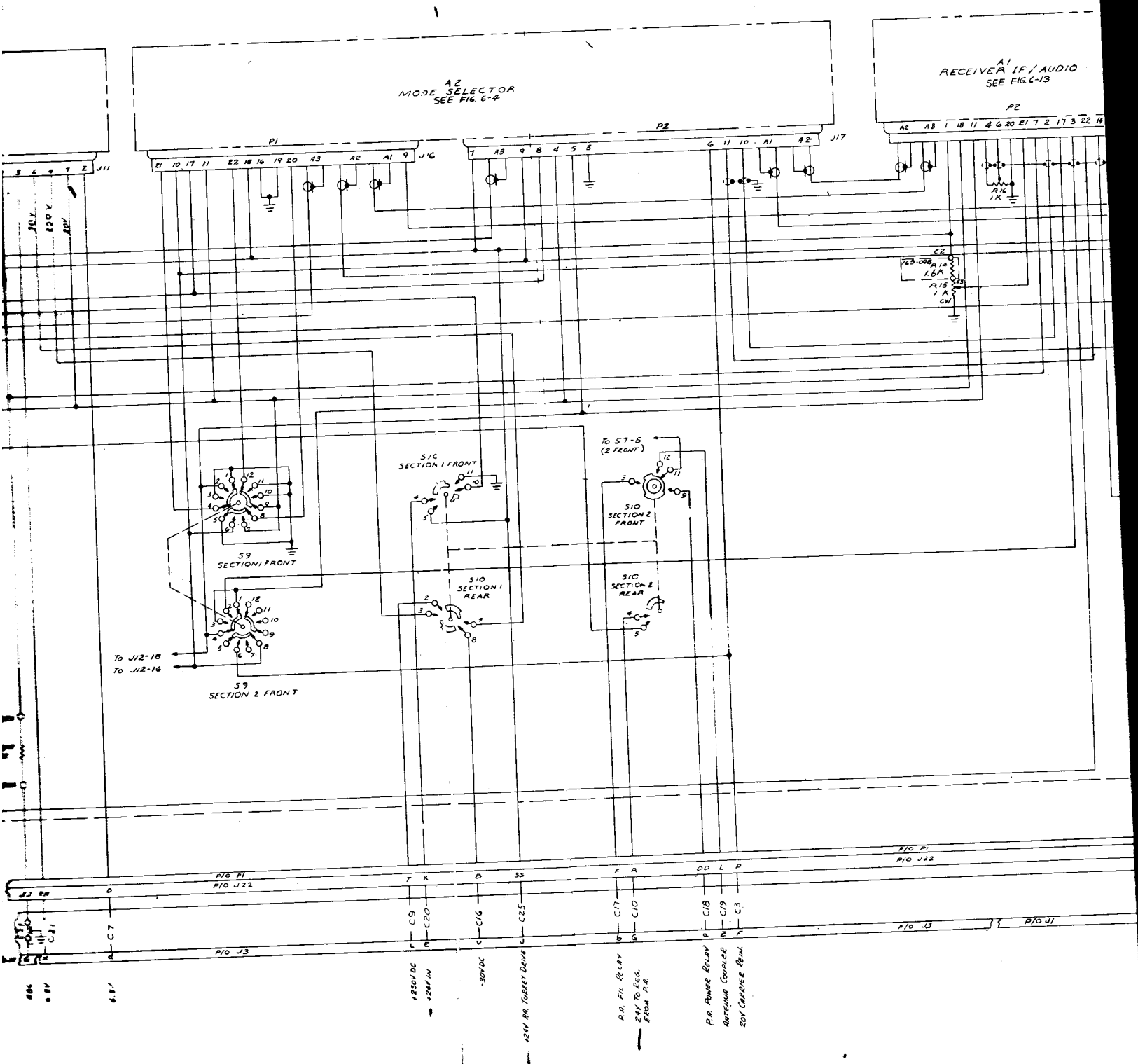


Figure 6-1. Transceiver S

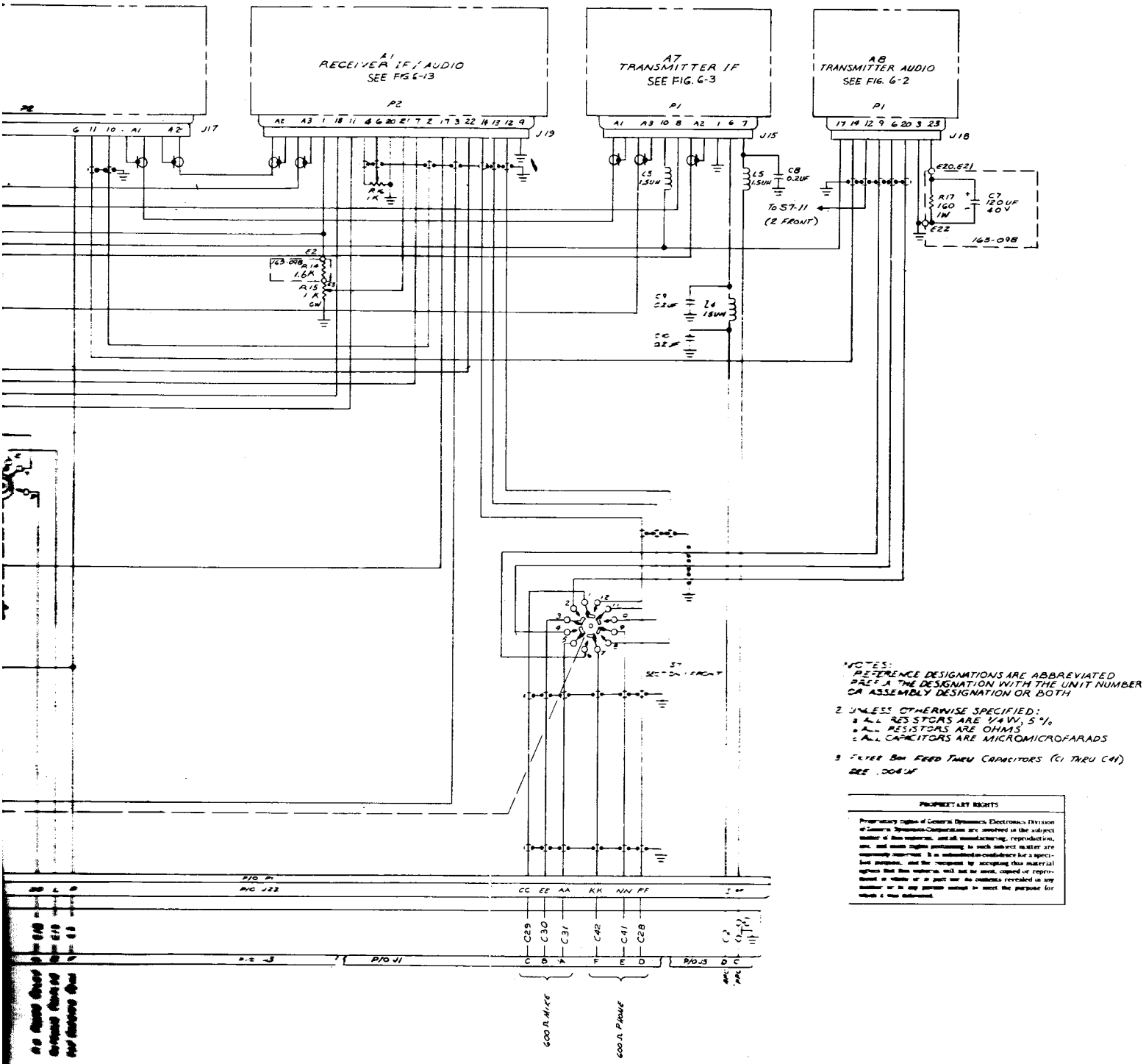
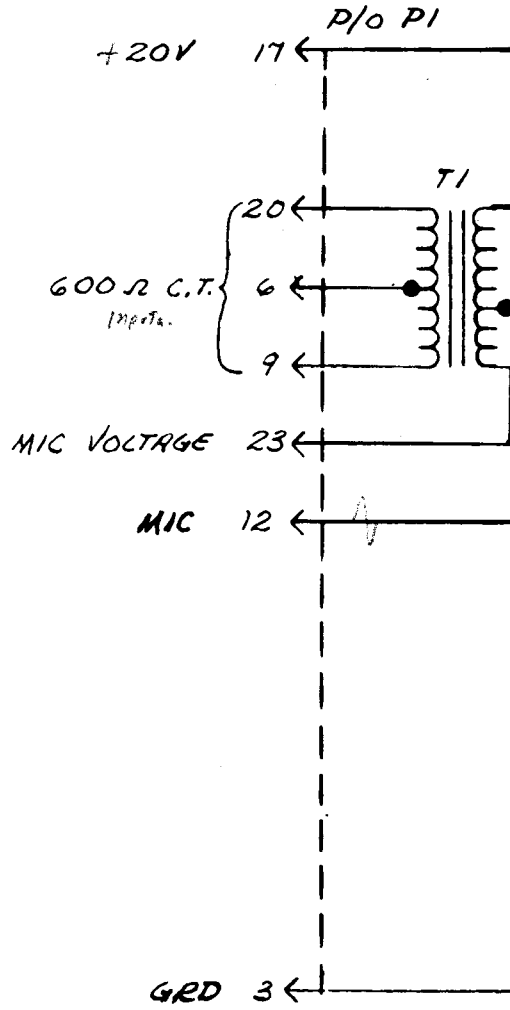
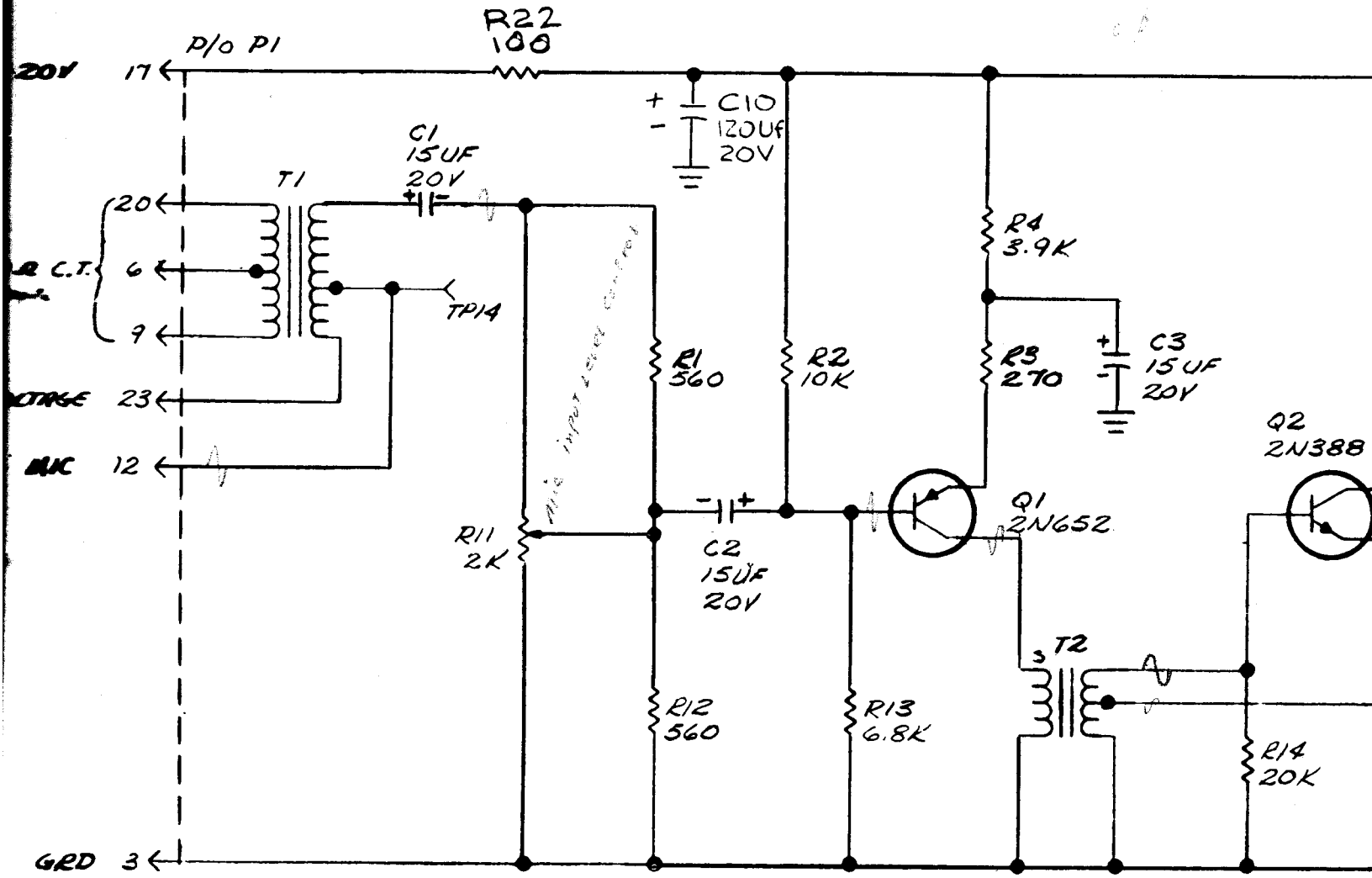
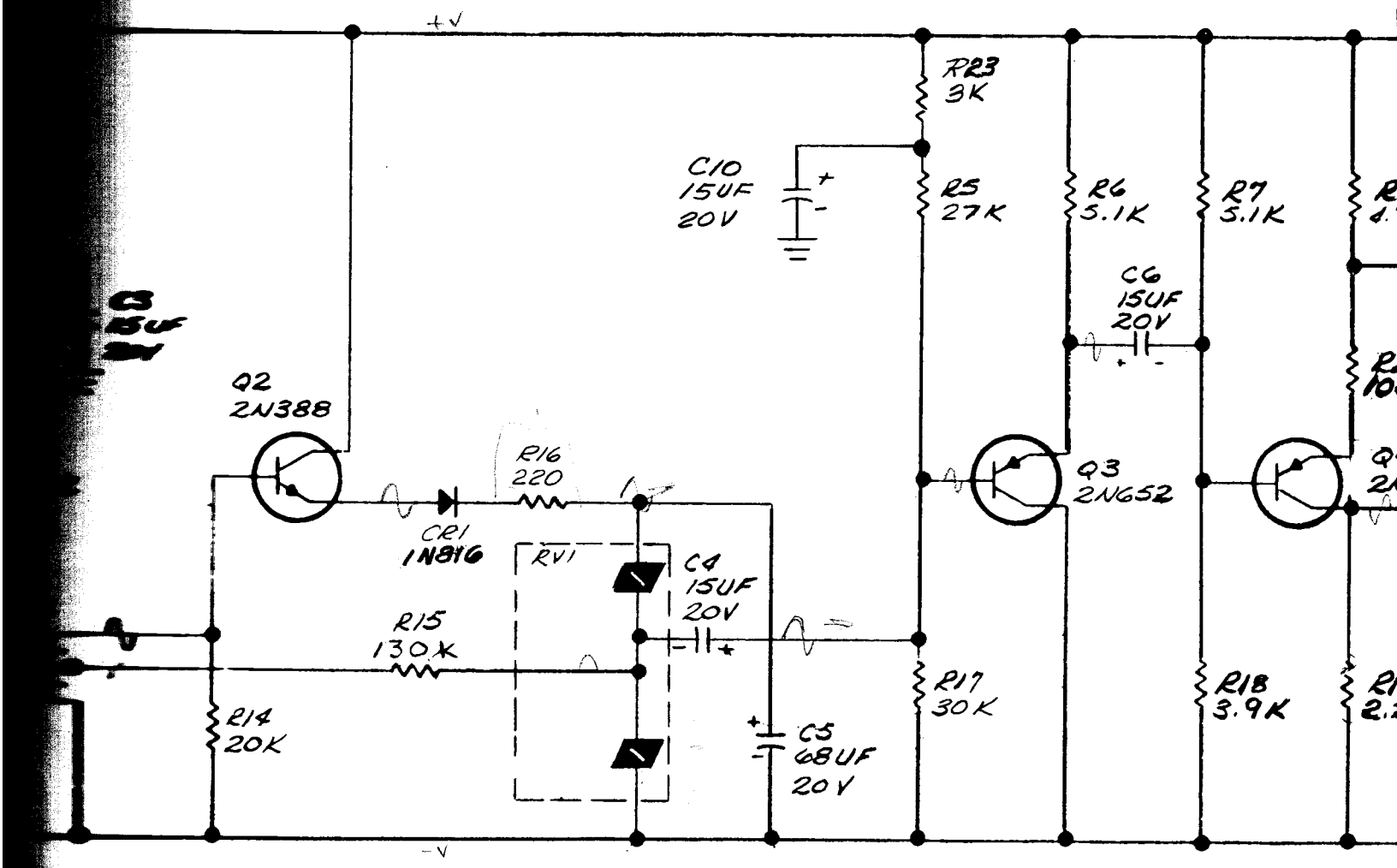


Figure 6-1. Transceiver SC-901X, Transceiver Chassis, Schematic Diagram (Sheet 2 of 2)


P/O P1
+20V
17
T1
20
600Ω C.T.
Inputs.
6
9
MIC VOLTAGE
23
MIC
12
GRD
3

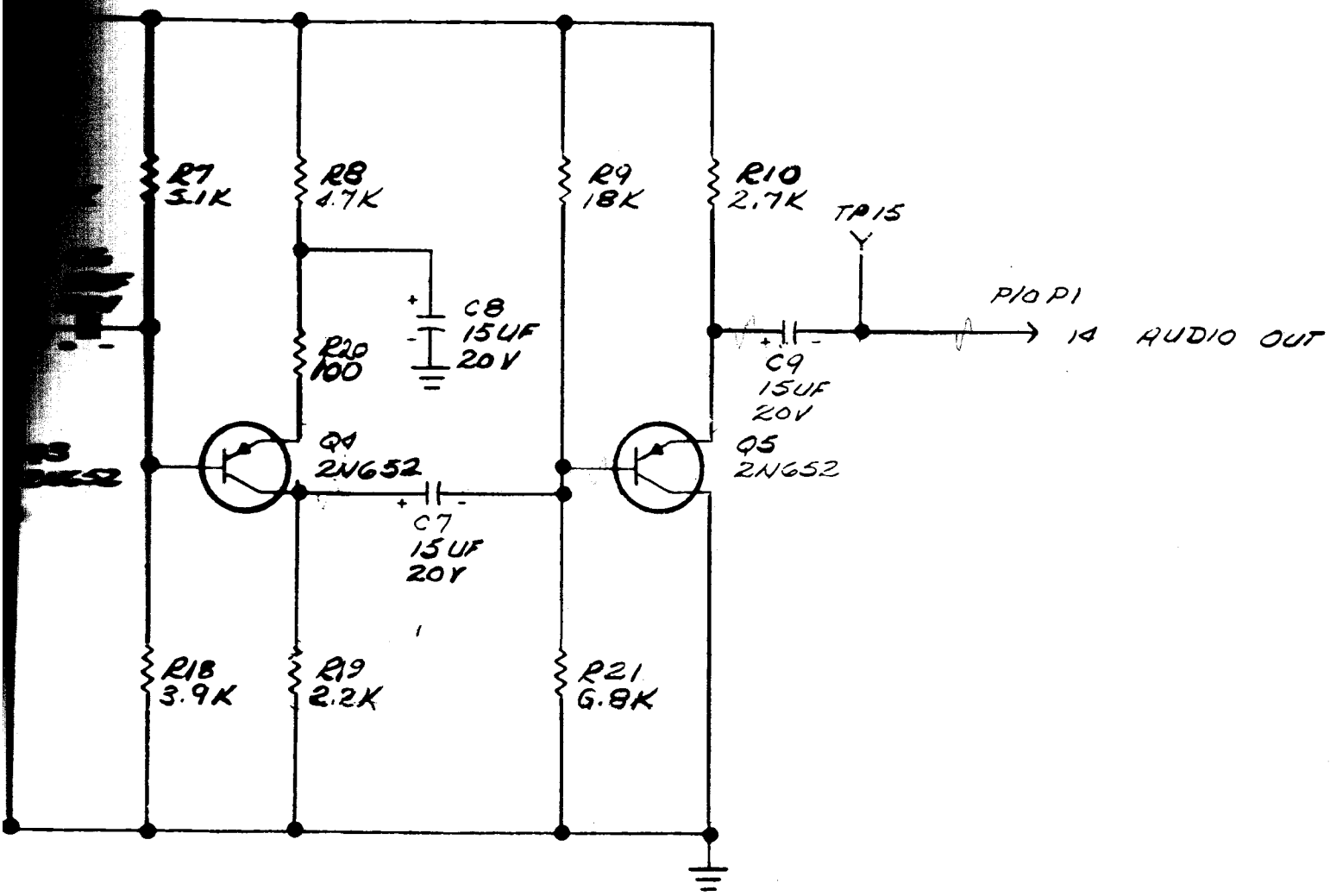




NOTES :~

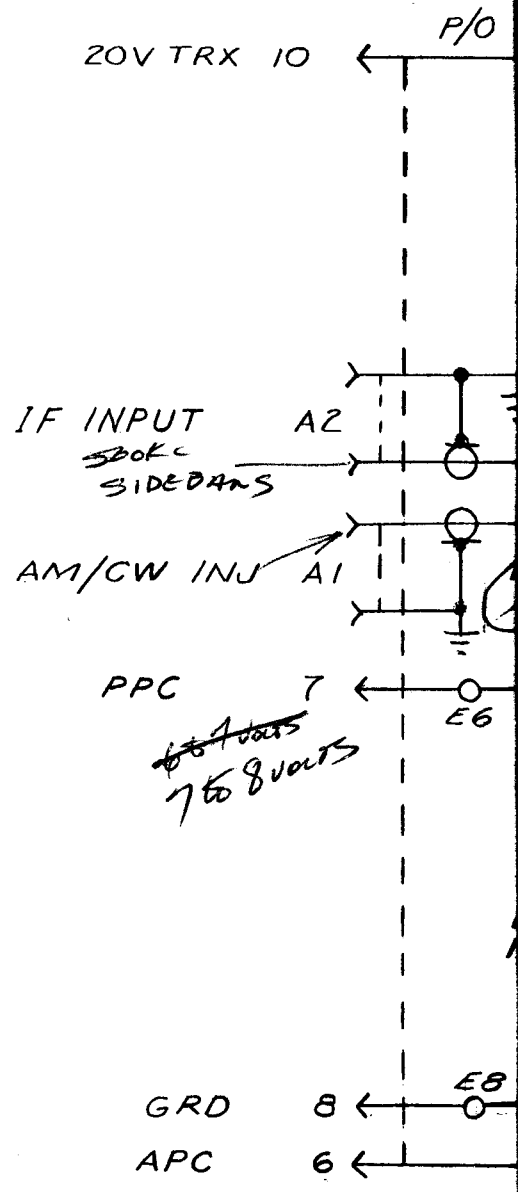
1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPECIFIED:
   a. ALL RESISTORS ARE OHMS
   b. ALL RESISTORS ARE 1/4W, 5%

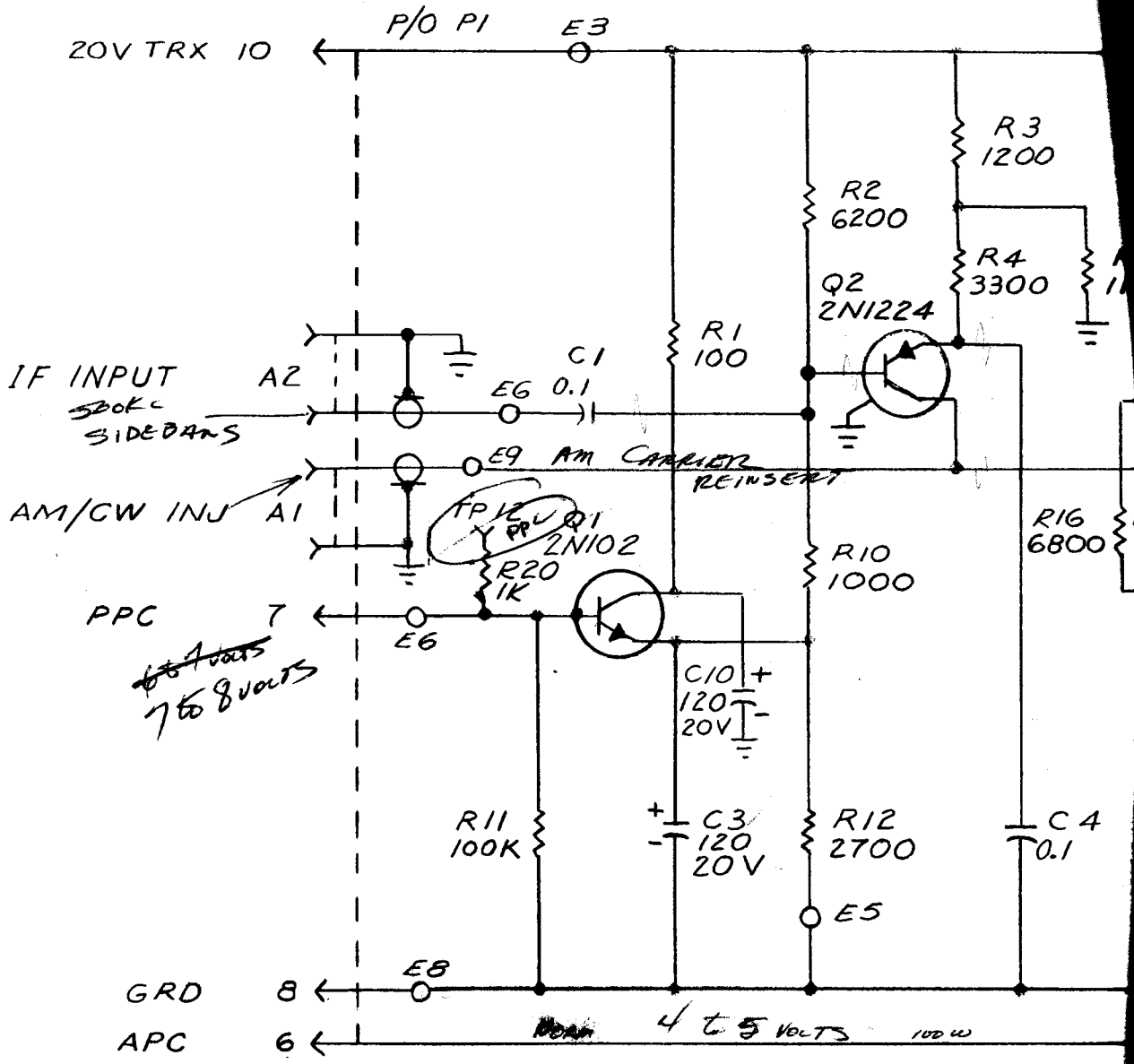
Figu



EE ABBREVIATED.
N THE UNIT NUMBER
OR BOTH.
ED:
S
5%

Figure 6-2. Transceiver SC-901X, Transmitter Audio, Schematic Diagram

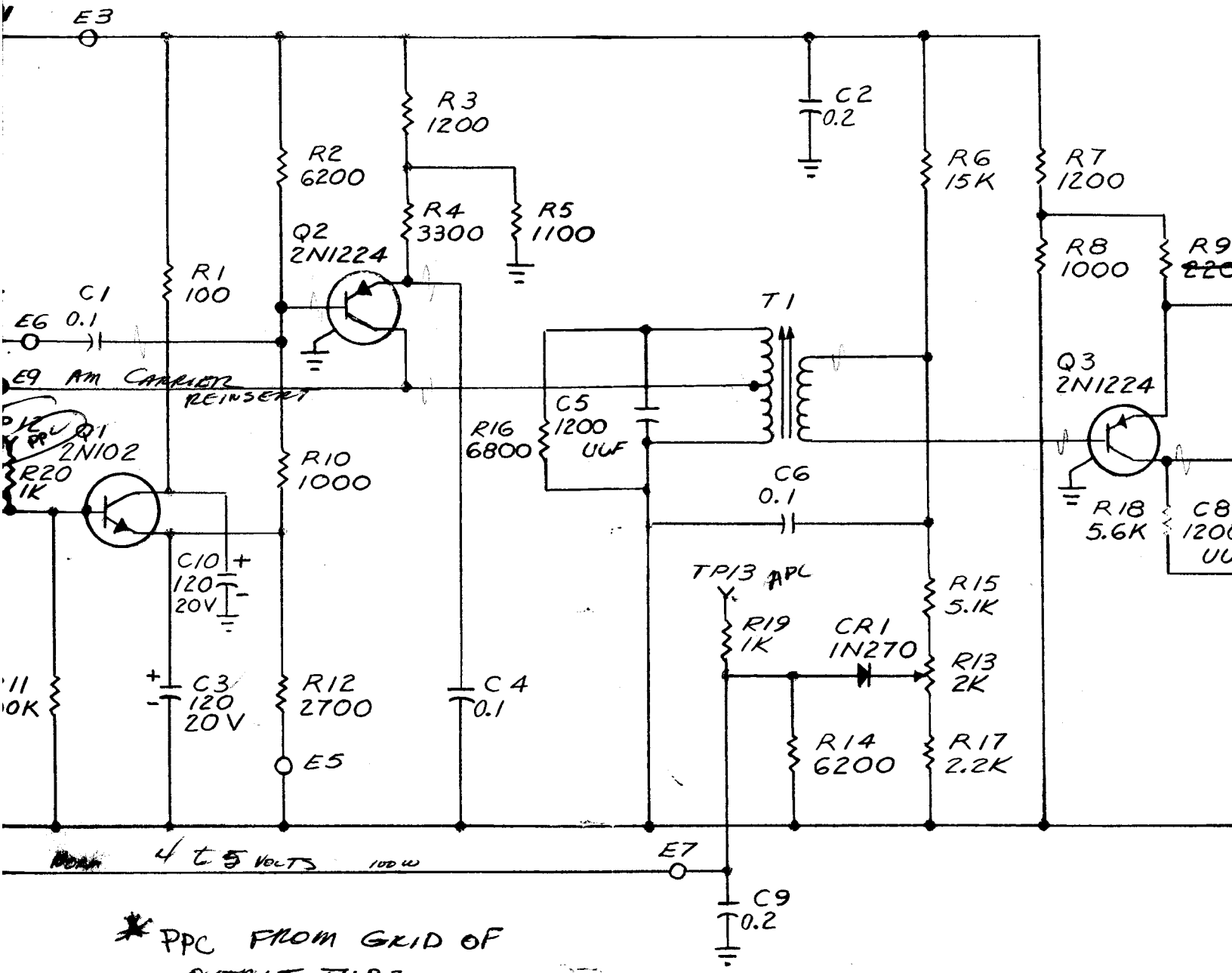

P/O
20V TRX 10
IF INPUT A2
~~50K~~
SIDEBANDS
AM/CW INJ A1
PPC 7
E6
~~6 to 7 volts~~
7 to 8 volts
E8
GRD 8
APC 6



* PPC FROM GRID OF OUTPUT TUBE. SENSES MODULATION CHANGE

① APC ADJUST
122 V OUT 90 mA
50Ω AM ONLY

② PPC ADJUST
225 VOLT WITH
2 TONE MODULATION



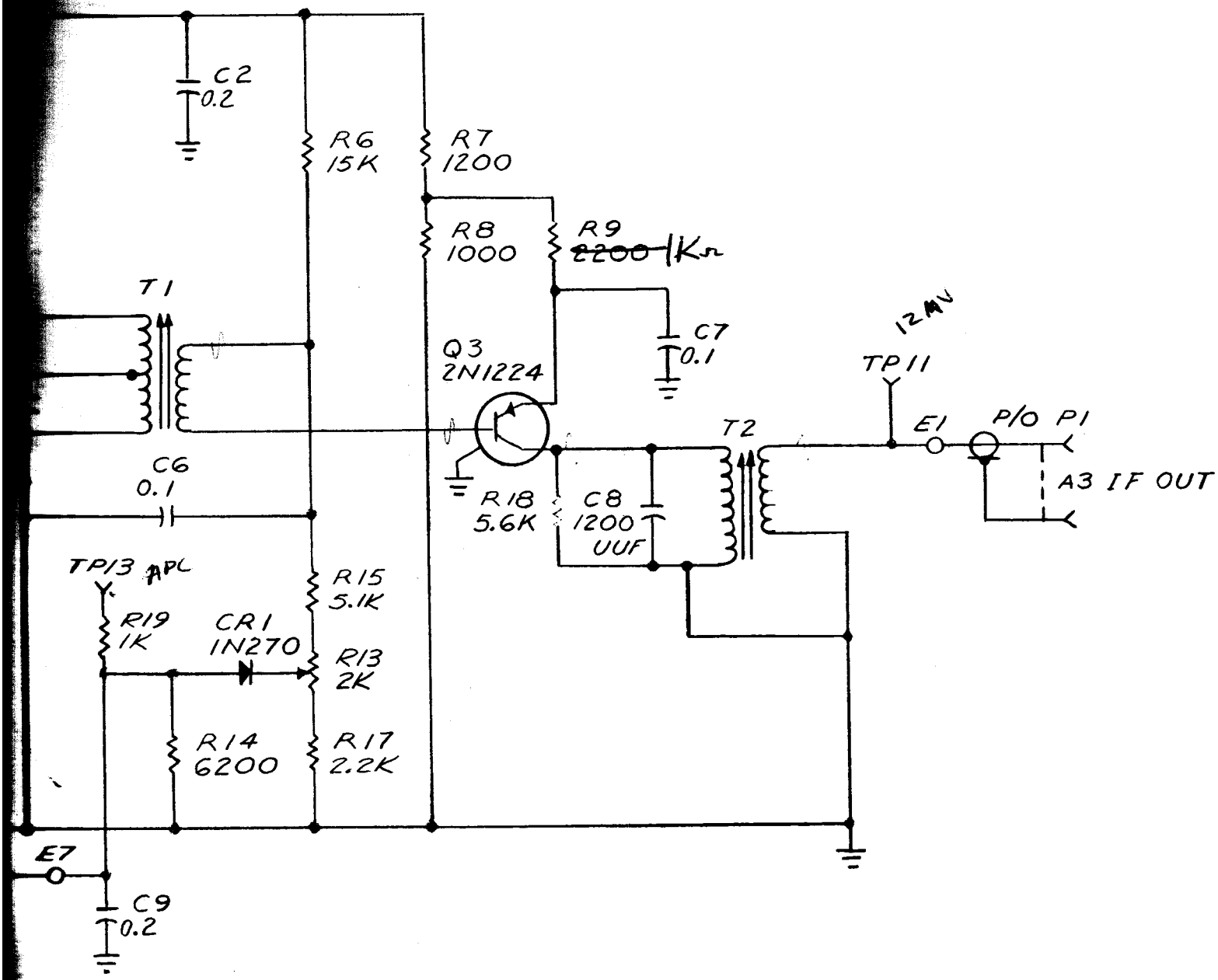
* PPC FROM GRID OF OUTPUT TUBE SENSES MODULATION CHANGE

① APC ADJUST 122 V OUT 90 SA 50Ω AM ONLY

② PPC ADJUST 225 VOLT WATT 2 TONE MODULATION

NOTES:
1. REFERENC
PREFIX TH
OR ASSEMB
2. UNLESS O
a. ALL
b. ALL R
c. ALL C

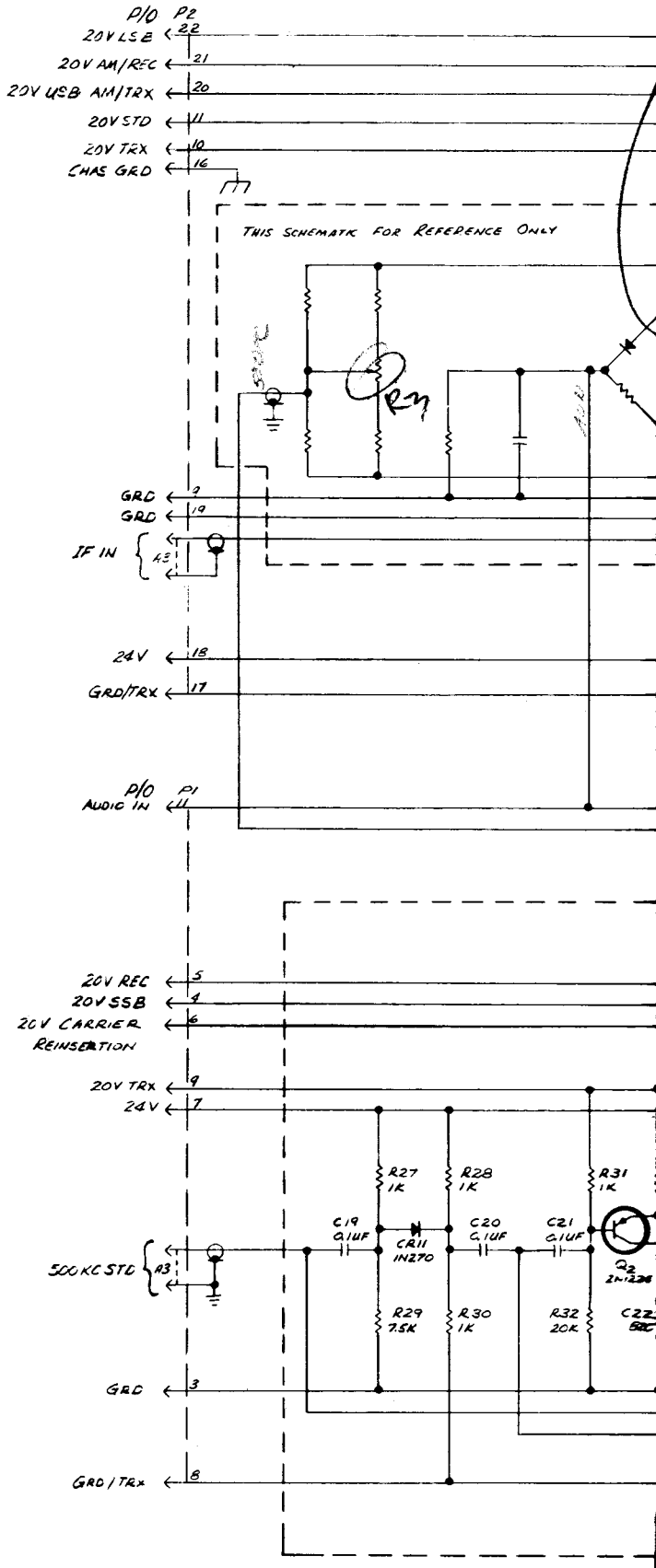
Figure 6-3. Transceiver SC-901X

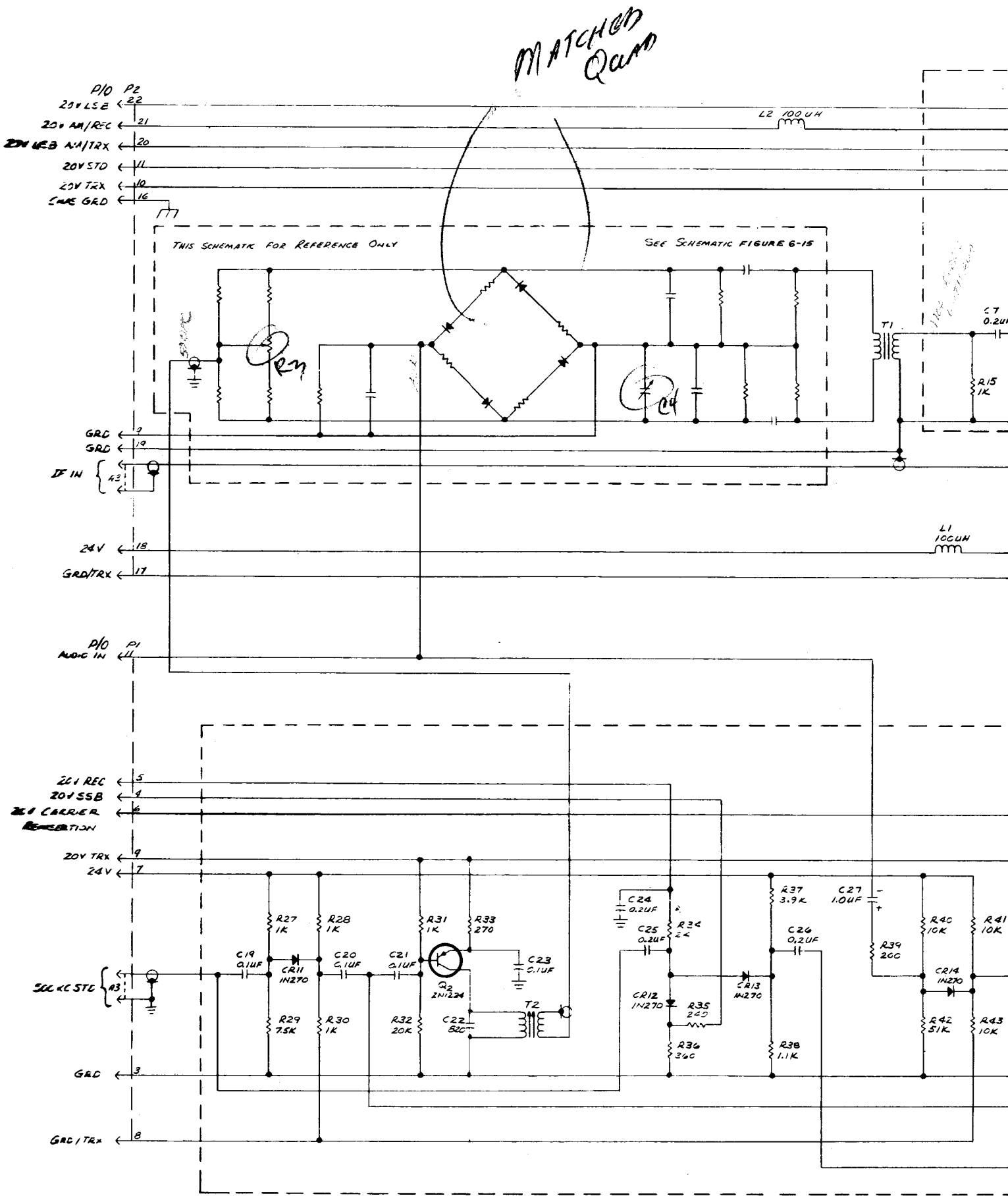


NOTES:
1. REFERENCE DESIGNATIONS ARE ABBREVIATED PREFIX THE DESIGNATION WITH UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.

2. UNLESS OTHERWISE SPECIFIED:
   a. ALL RESISTORS ARE IN OHMS
   b. ALL RESISTORS ARE 1/4 W, 5%
   c. ALL CAPACITORS ARE MICRO FARADS

Figure 6-3. Transceiver SC-901X, Transmitter IF, Schematic Diagram


P/O P2
20V LSB
20V AM/REC
20V USB AM/TRX
20V STD
20V TRX
CHAS GRD
THIS SCHEMATIC FOR REFERENCE ONLY
GRD
GRD
IF IN
24V
GRD/TRX
P/O P1
AUDIO IN
20V REC
20V SSB
20V CARRIER REINSERTION
20V TRX
24V
500 KC STD
GRD
GRD/TRX
R27 1K
R28 1K
R31 1K
C19 0.1UF
CR11 IN270
C20 0.1UF
C21 0.1UF
R29 7.5K
R30 1K
R32 20K


MATCHED QUAD
P/O P2
20V LSB
20V AM/REC
20V USB AM/TRX
20V STD
20V TRX
CMN GRD
L2 100UH
THIS SCHEMATIC FOR REFERENCE ONLY
SEE SCHEMATIC FIGURE 6-15
T1
C7 0.2UF
R15 1K
GRD
GRD
IF IN
24V
GRD/TRX
L1 100UH
P/O P1
AUDIO IN
20V REC
20V SSB
20V CARRIER RECEPTION
20V TRX
24V
SEC OF STD
GRD
GRD/TRX
R27 1K
R28 1K
R29 7.5K
R30 1K
R31 1K
R32 20K
R33 270
C19 0.1UF
C20 0.1UF
C21 0.1UF
C22 82C
C23 0.1UF
CR11 IN270
Q2 2N1224
T2
C24 0.2UF
C25 0.2UF
R34 2K
R35 220
R36 360
CR12 IN270
CR13 IN270
R37 3.9K
C26 0.2UF
R38 1.1K
C27 1.0UF
R39 200
R40 10K
R41 10K
CR14 IN270
R42 51K
R43 10K

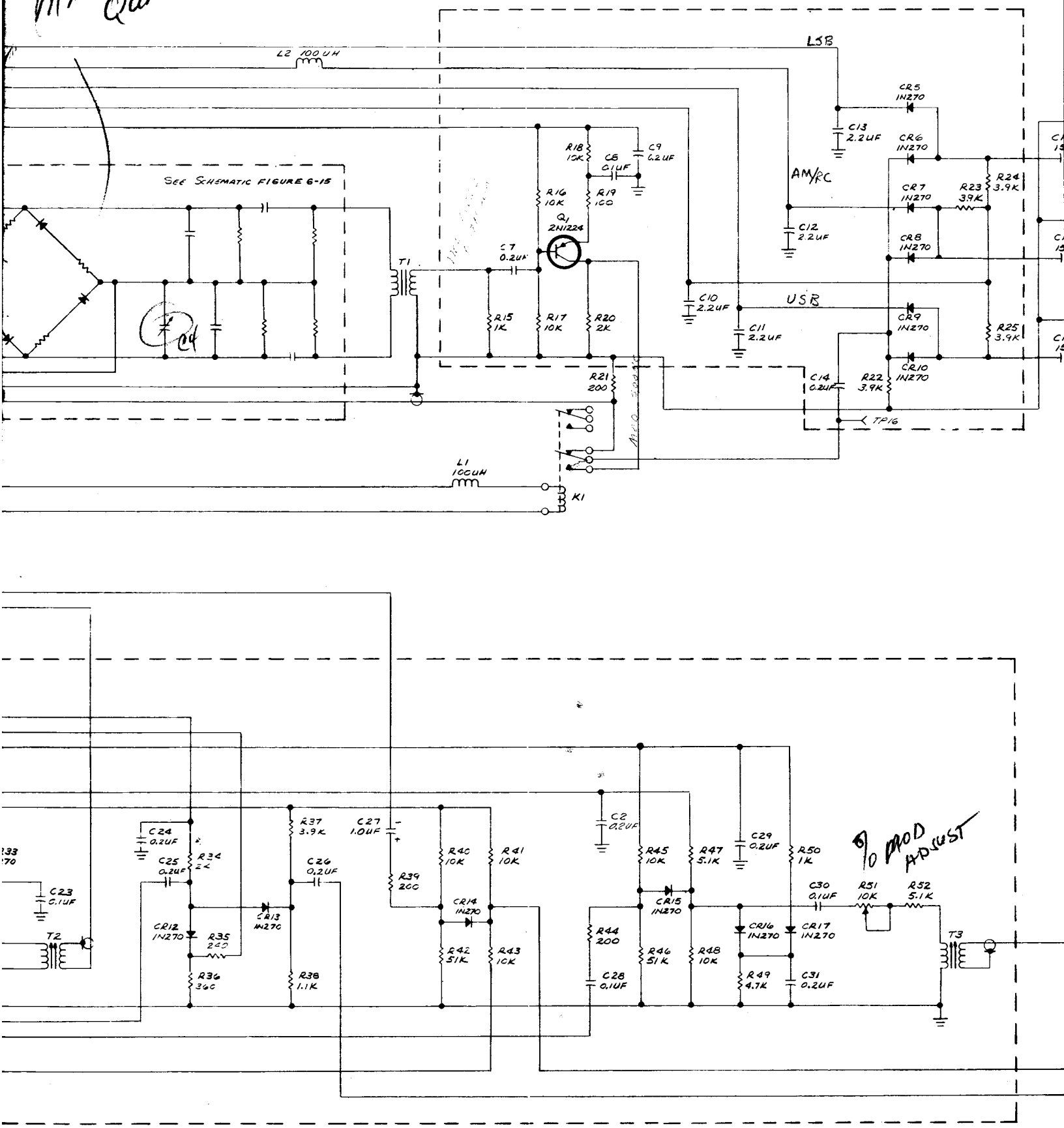


Figure 6-4. Transceiver SC-901X,

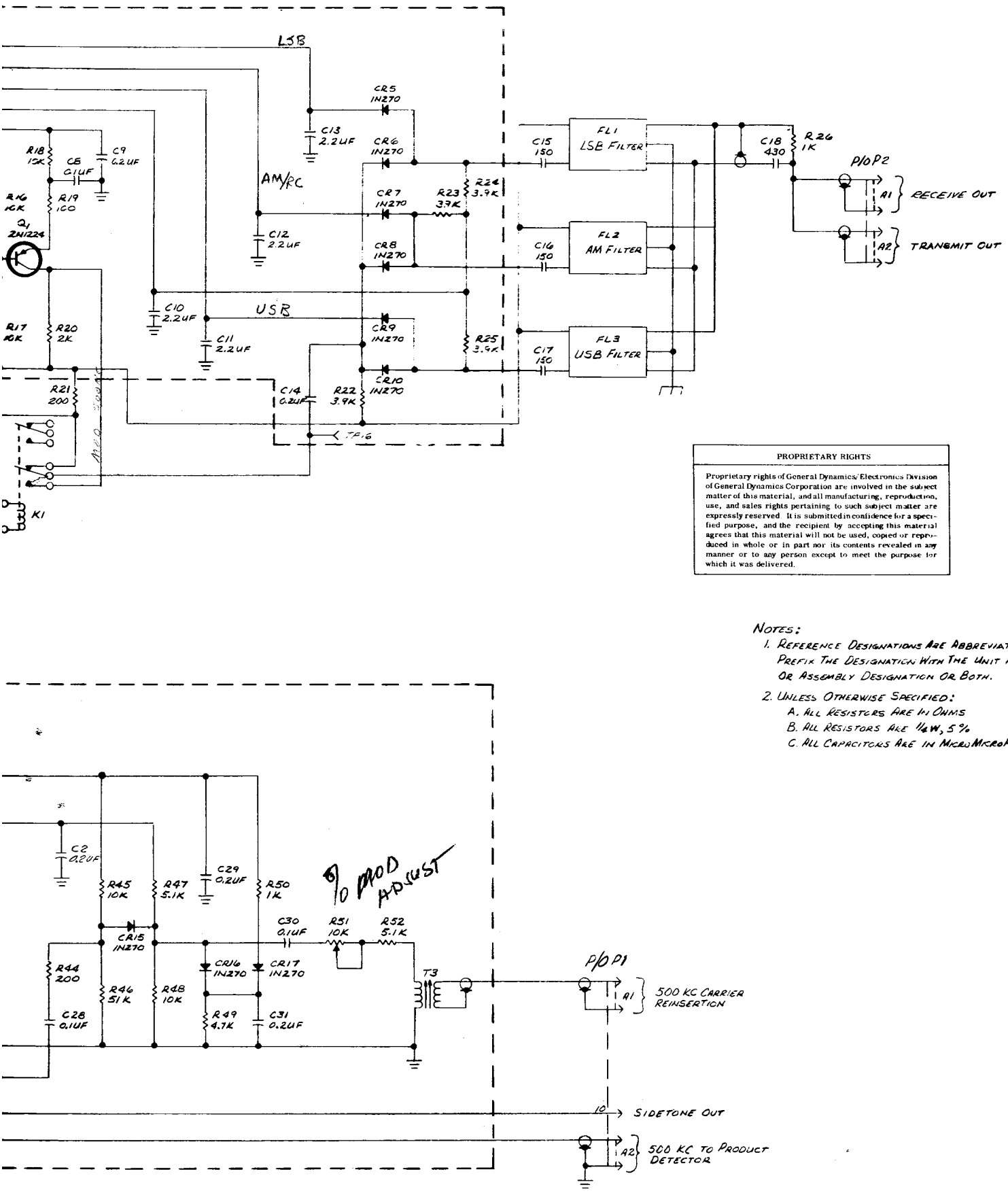
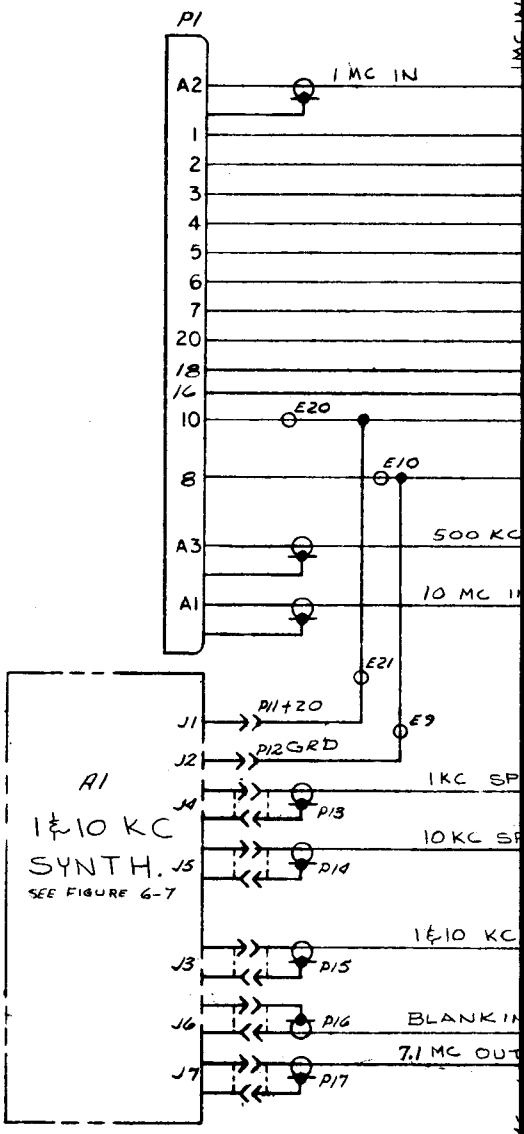
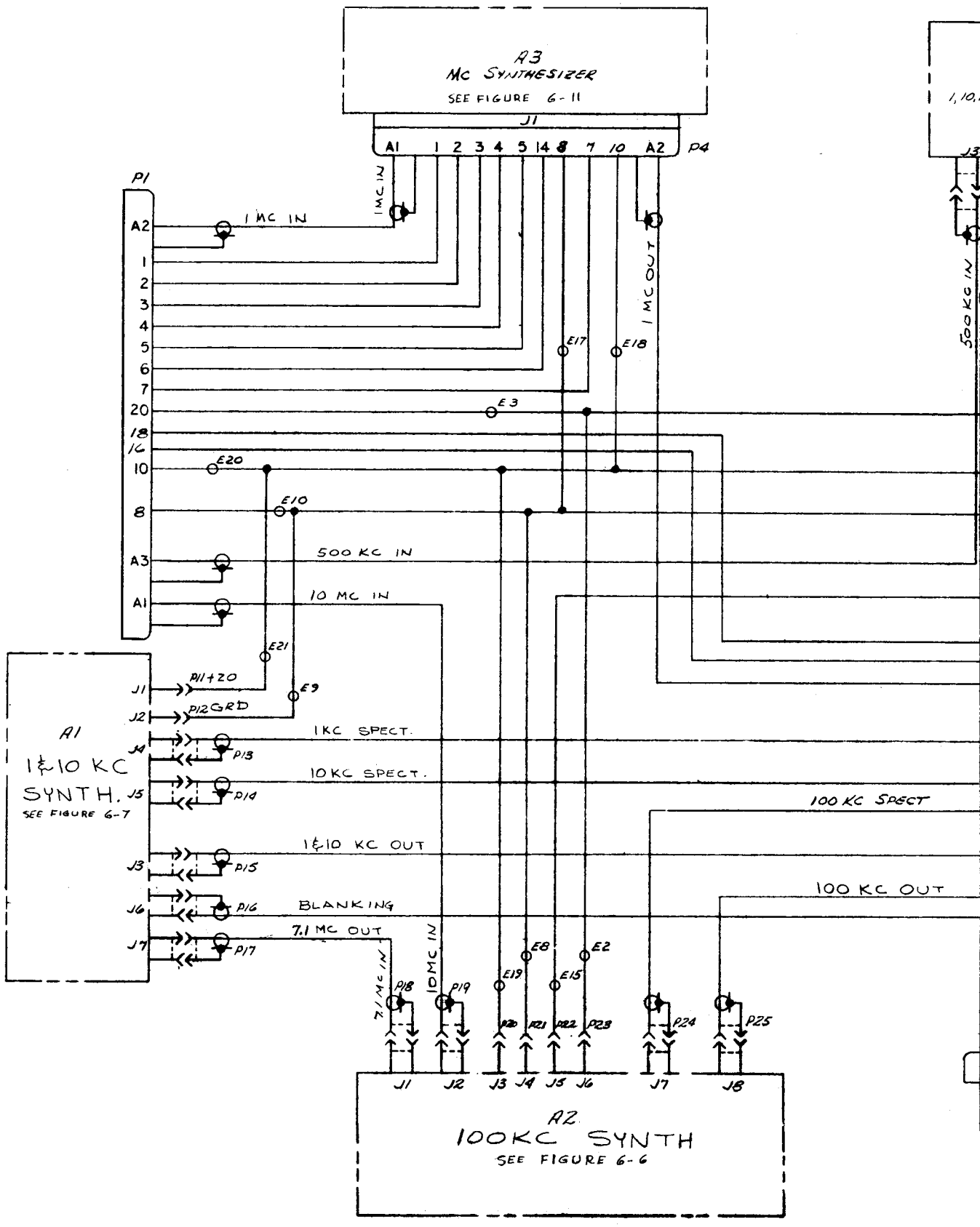


Figure 6-4. Transceiver SC-901X, Transceiver Mode Selector, Schematic Diagram


P1
A2
1
2
3
4
5
6
7
20
18
16
10
8
A3
A1
1 MC IN
E20
E10
500 KC
10 MC I
E21
E9
J1
J2
J4
J5
J3
J6
J7
P11+20
P12 GRD
P13
P14
P15
P16
P17
A1
1 & 10 KC
SYNTH.
SEE FIGURE 6-7
1KC SP
10KC SP
1&10 KC
BLANK I
7.1 MC OUT


A3
MC SYNTHESIZER
SEE FIGURE 6-11
J1
A1 1 2 3 4 5 14 8 7 10 A2 P4
1 MC IN
1 MC OUT
P1
A2
1
2
3
4
5
6
7
20
18
16
10
8
A3
A1
E17
E18
E3
E20
E10
500 KC IN
10 MC IN
E21
E9
P11+20
P12GRD
A1
1&10 KC
SYNTH.
SEE FIGURE 6-7
J1
J2
J4
J5
J3
J6
J7
P13
P14
P15
P16
P17
1KC SPECT.
10KC SPECT.
1&10 KC OUT
BLANKING
7.1 MC OUT
100 KC SPECT
100 KC OUT
7.1 MC IN
10 MC IN
P18
P19
E19
E8
E15
E2
P20
P21
P22
P23
P24
P25
J1
J2
J3
J4
J5
J6
J7
J8
A2
100KC SYNTH
SEE FIGURE 6-6

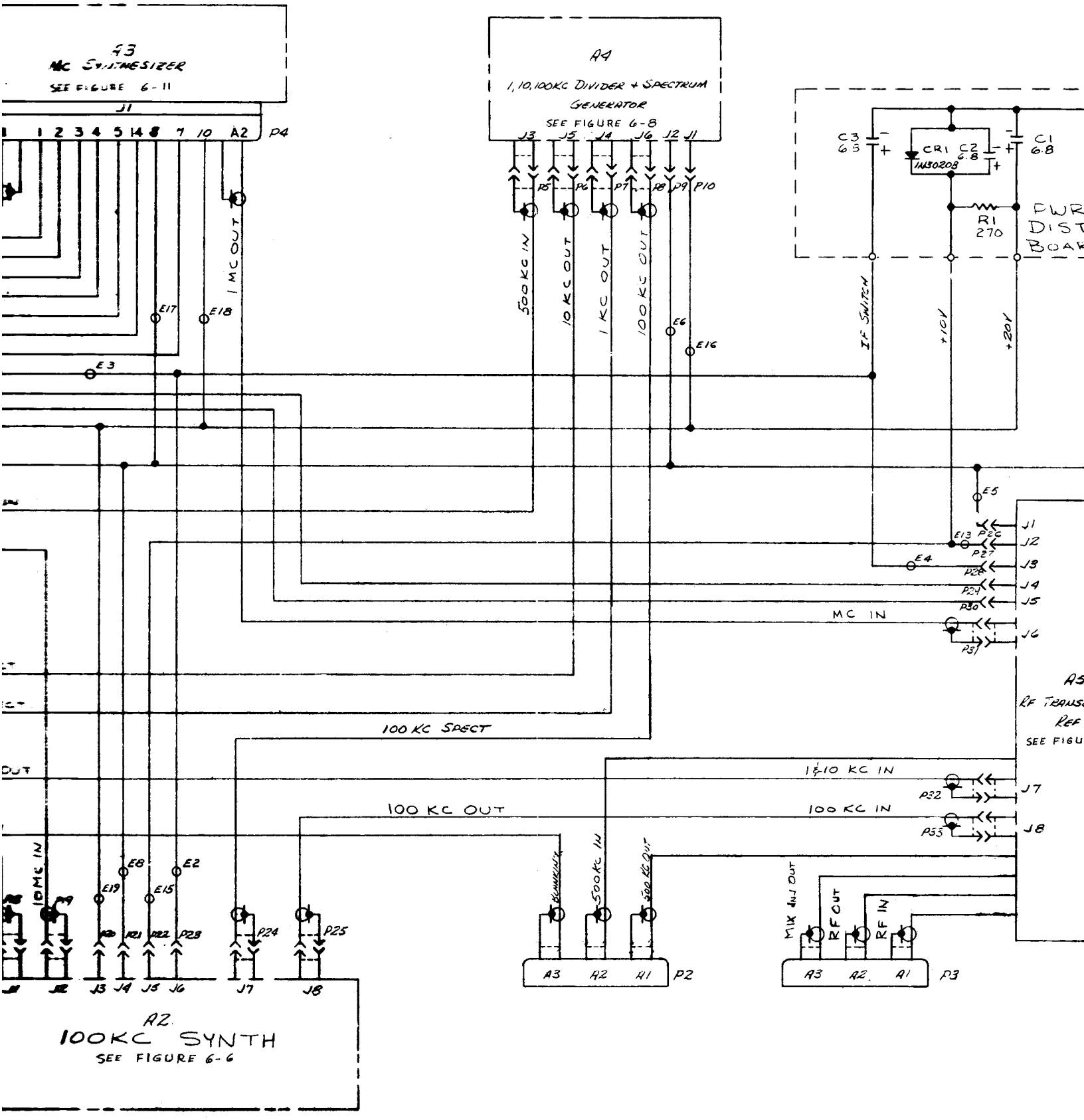
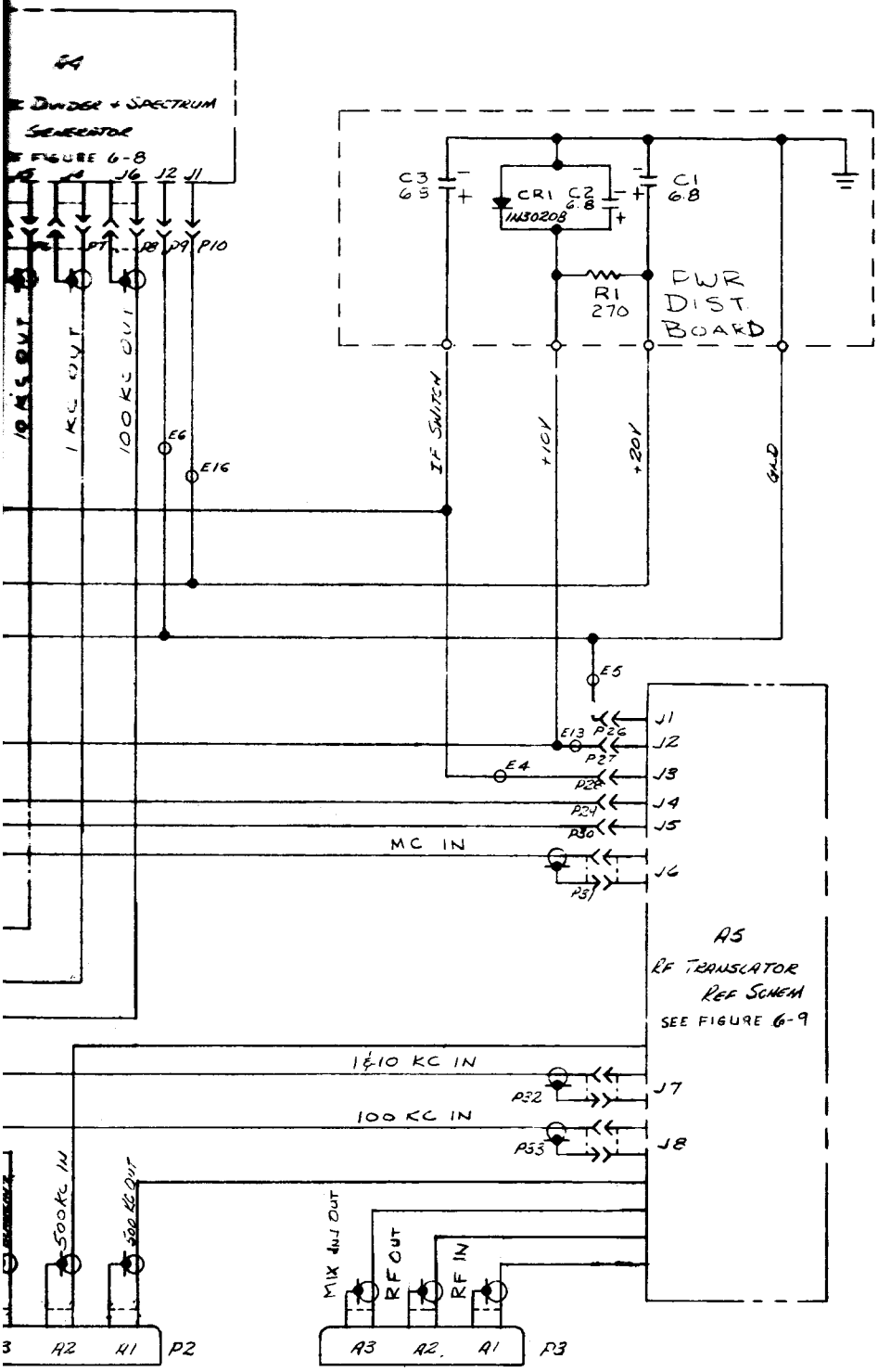


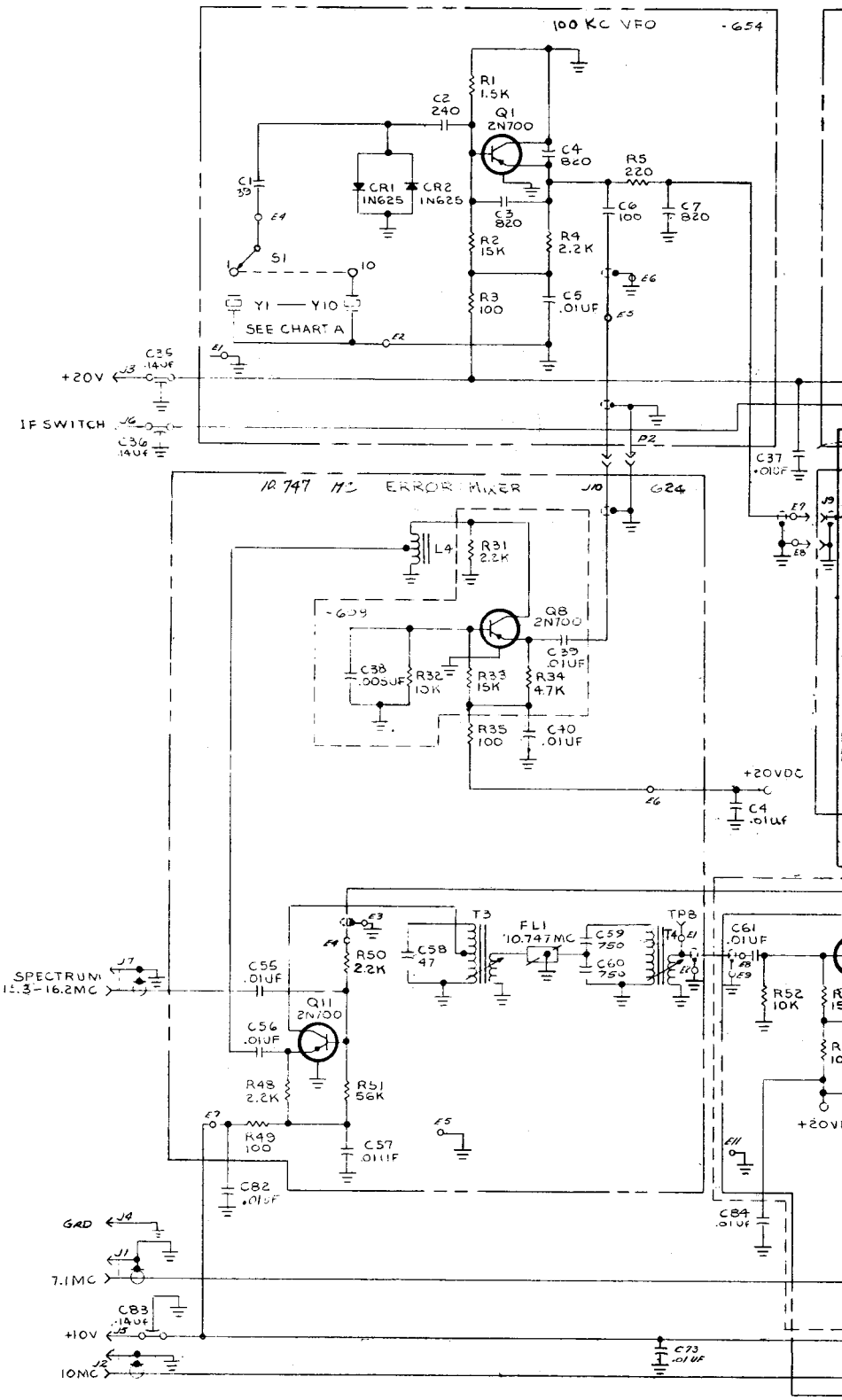
Figure 6-5. Transceiver SC-901

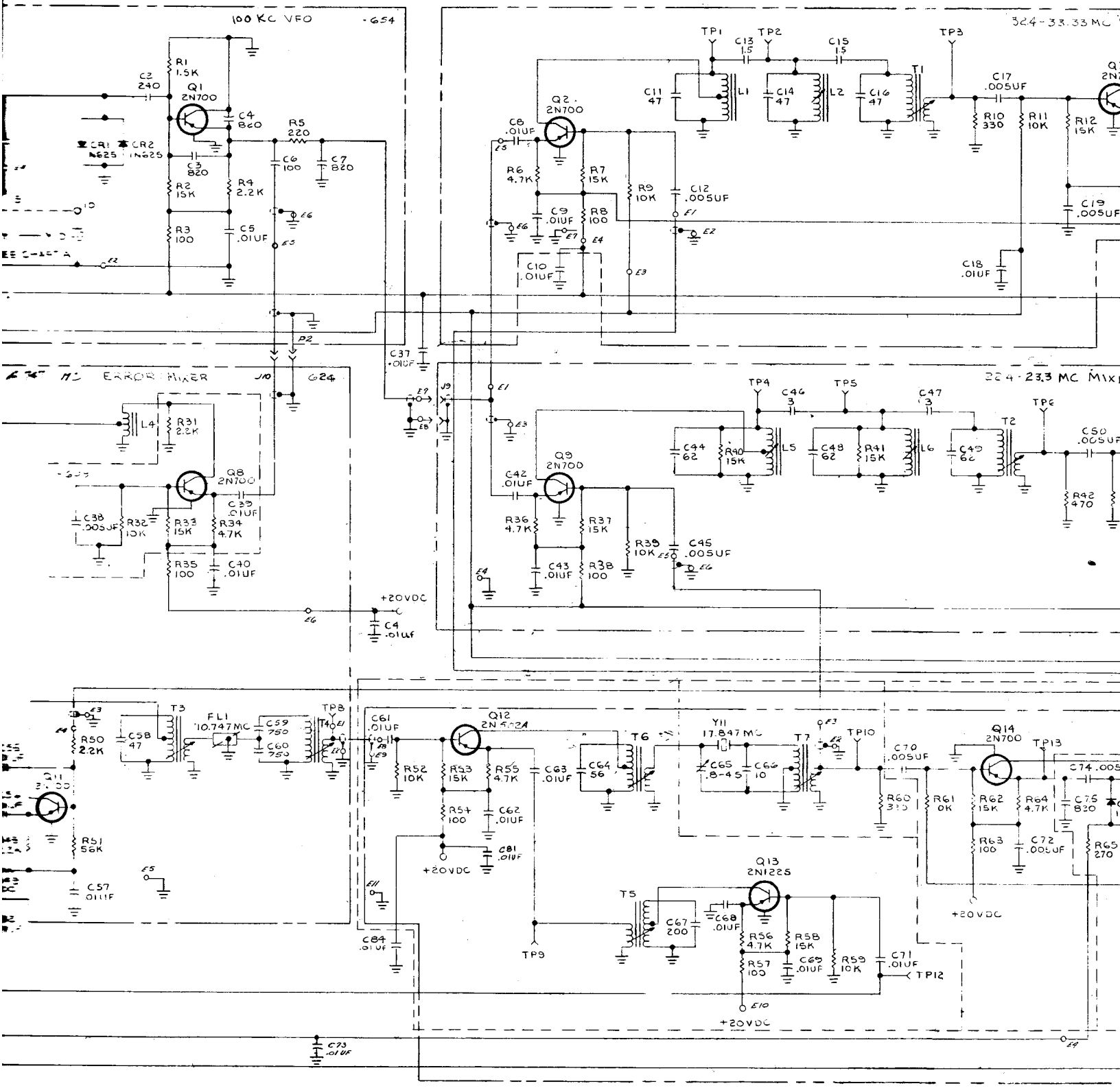


NOTES:-

1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSY DESIGNATION OR BOTH.
2. a. UNLESS OTHERWISE SPECIFIED
   a. RESISTOR VALUES IN OHMS
   b. CAPACITOR VALUES IN MICROMICROFARDS
   c. ALL RESISTORS 1/4W, ±5%

Figure 6-5. Transceiver SC-901X, Translator Synthesizer, Schematic Diagram


100 KC VFO -654
R1 1.5K
C2 240
Q1 2N700
C4 820
R5 220
C1 39
CR1 1N625
CR2 1N625
C3 820
C6 100
C7 820
R2 15K
R4 2.2K
S1
10
E4
E6
Y1 — Y10
SEE CHART A
R3 100
C5 .01UF
E5
E2
E1
C35 .14UF
+20V
J3
IF SWITCH
J6
C36 .14UF
P2
C37 .01UF
10.747 MC ERROR MIXER
J10
G24
L4
R31 2.2K
-654
Q8 2N700
C38 .005UF
R32 10K
R33 15K
R34 4.7K
C39 .01UF
R35 100
C40 .01UF
+20VDC
E6
C4 .01uf
T3
FL1 10.747MC
TP8
C59 750
C60 750
C61 .01UF
E3
E4
R50 2.2K
C58 47
SPECTRUM 15.3-16.2MC
J7
C55 .01UF
Q11 2N700
C56 .01UF
R48 2.2K
R51 56K
E7
R49 100
C57 .0111F
E5
C82 .01UF
R52 10K
E11
C84 .01UF
GRD
J4
J1
7.1MC
C83 .1UF
+10V
J5
J2
10MC
C73 .01 UF


100 KC VFO
-654
324-33.33 MC
224-23.3 MC MIX
ERROR MIXER
J10
G24
R1 1.5K
C2 240
Q1 2N700
C4 820
R5 220
C6 100
C7 820
C3 820
R2 15K
R4 2.2K
R3 100
C5 .01UF
P2
C37 .01UF
Q2 2N700
C8 .01UF
R6 4.7K
R7 15K
R8 100
R9 10K
C12 .005UF
C9 .01UF
C10 .01UF
TP1
TP2
TP3
C13 1.5
C15 1.5
C11 47
C14 47
C16 47
L1
L2
T1
C17 .005UF
R10 330
R11 10K
R12 15K
C19 .005UF
C18 .01UF
L4
R31 2.2K
Q8 2N700
C38 .005UF
R32 10K
R33 15K
R34 4.7K
C39 .01UF
R35 100
C40 .01UF
+20VDC
C4 .01uf
TP4
TP5
TP6
C46 3
C47 3
C44 62
R40 15K
L5
C48 62
R41 15K
L6
C49 62
T2
C50 .005UF
R42 470
Q9 2N700
C42 .01UF
R36 4.7K
R37 15K
R39 10K
C45 .005UF
C43 .01UF
R38 100
T3
FL1 10.747MC
C59 750
C60 750
TP8
C61 .01UF
Q12 2N502A
R52 10K
R53 15K
R55 4.7K
C63 .01UF
R54 100
C62 .01UF
C81 .01UF
+20VDC
T6
C64 56
Y11 17.847MC
C65 .8-45
C66 10
T7
TP10
C70 .005UF
R60 330
R61 0K
Q14 2N700
TP13
R62 15K
R64 4.7K
C75 820
R63 100
C72 .005UF
R65 270
+20VDC
Q11
R50 2.2K
C58 47
R51 56K
C57 .01UF
Q13 2N1225
T5
C67 200
C68 .01UF
R56 4.7K
R58 15K
R57 100
C69 .01UF
R59 10K
C71 .01UF
TP12
TP9
C84 .01UF
+20VDC
C73 .01UF

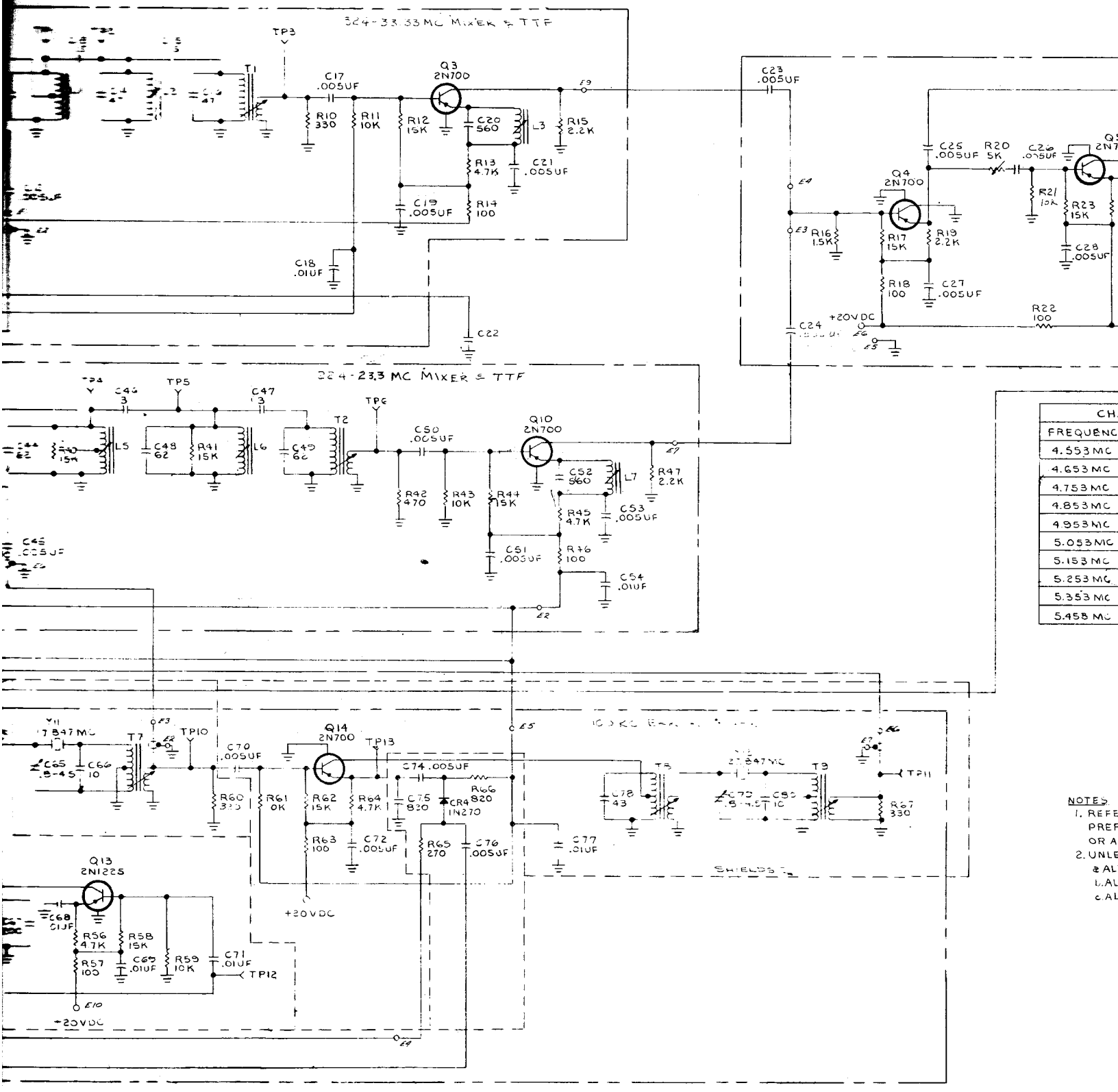


Figure 6-6. Transc

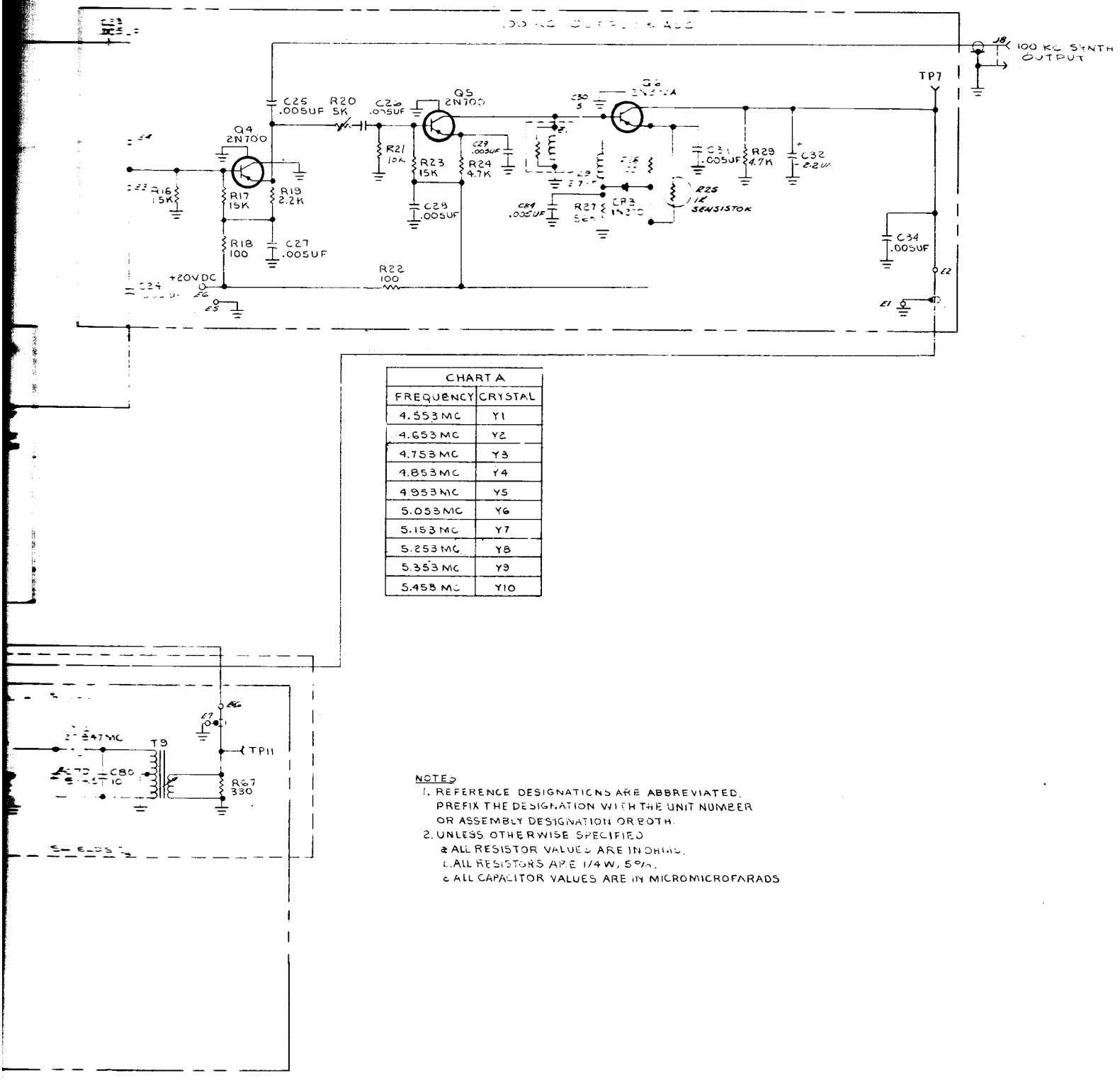
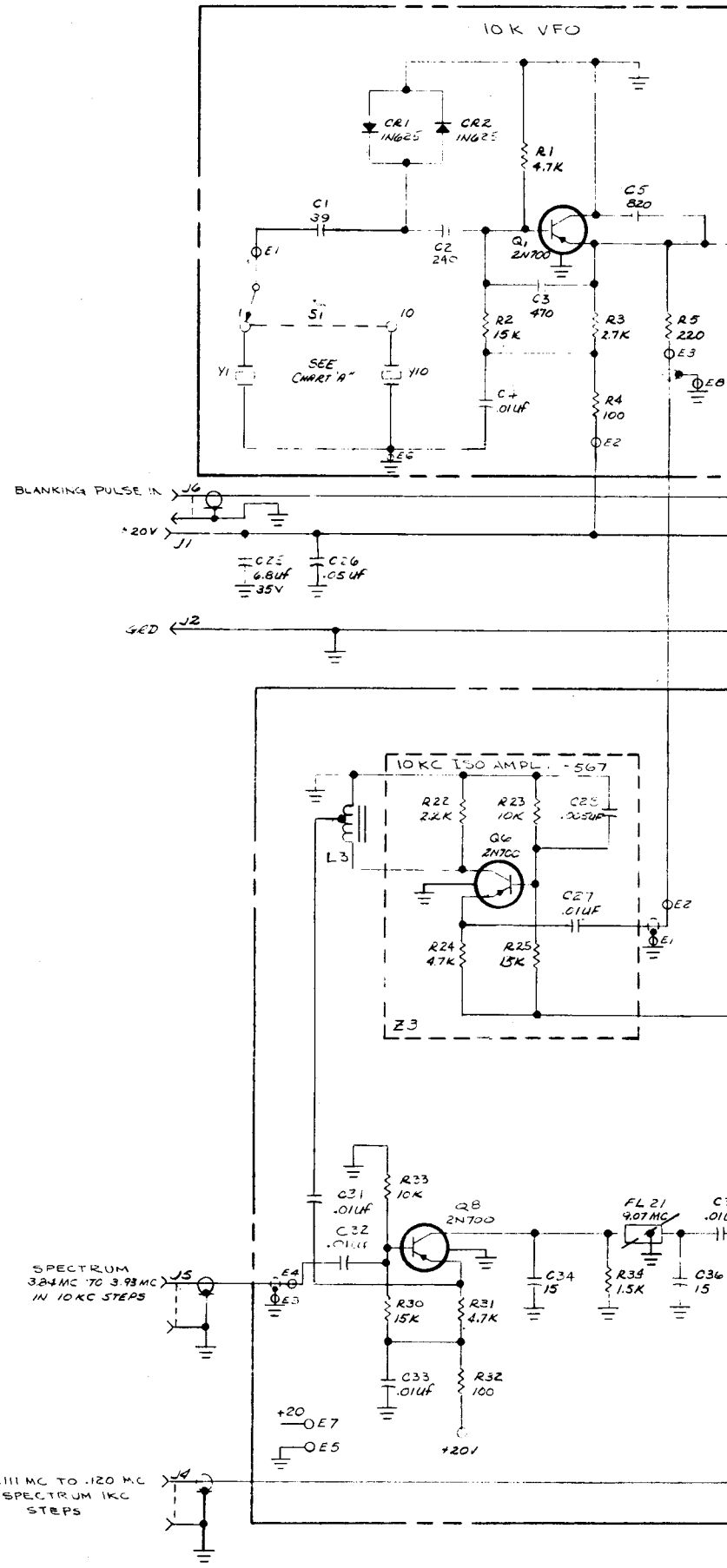
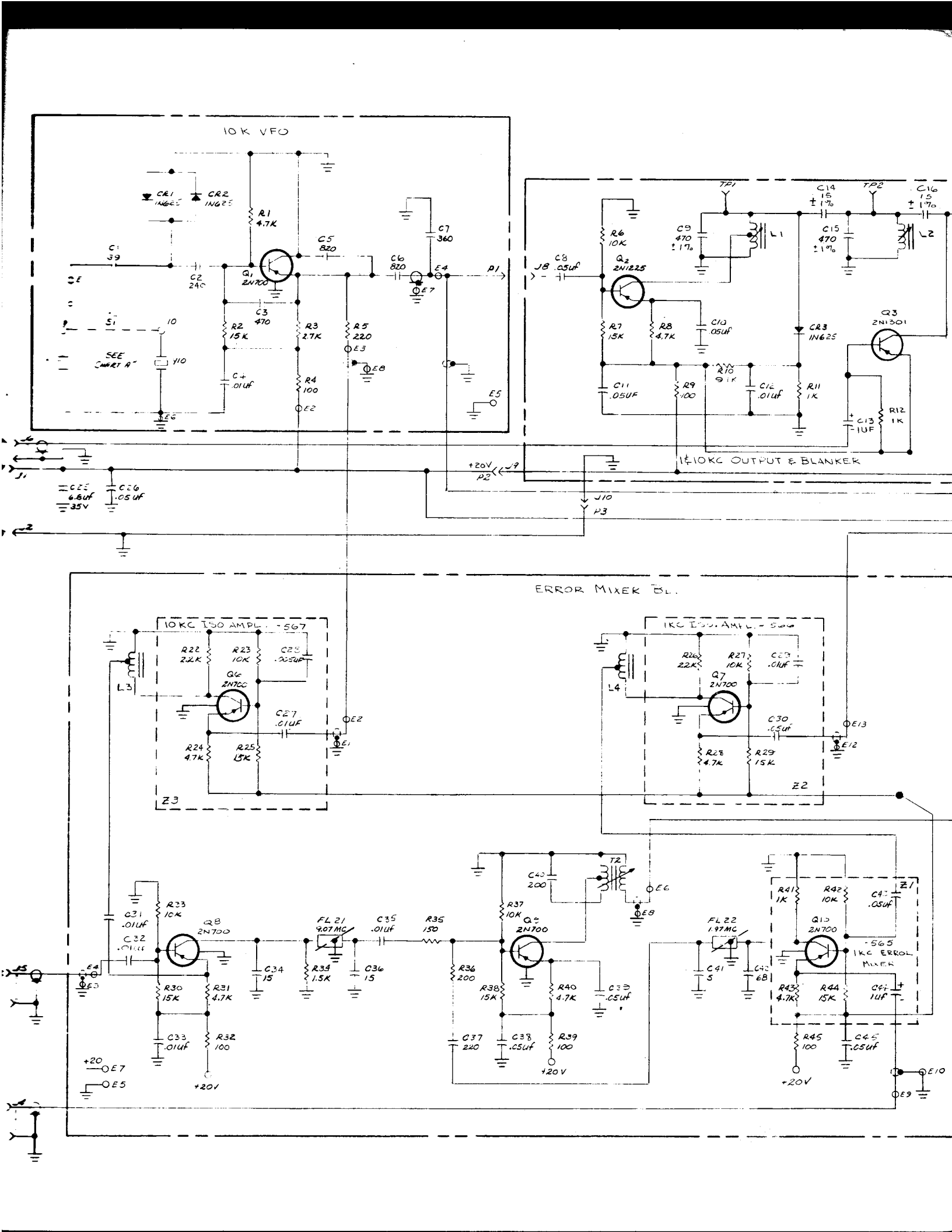


CHART A	
FREQUENCY	CRYSTAL
4.553 MC	Y1
4.653 MC	Y2
4.753 MC	Y3
4.853 MC	Y4
4.953 MC	Y5
5.053 MC	Y6
5.153 MC	Y7
5.253 MC	Y8
5.353 MC	Y9
5.458 MC	Y10

NOTES
1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPECIFIED
   a. ALL RESISTOR VALUES ARE IN OHMS.
   b. ALL RESISTORS ARE 1/4 W, 5%.
   c. ALL CAPACITOR VALUES ARE IN MICROMICROFARADS

Figure 6-6. Transceiver SC-901X, 100 KC Synthesizer, Schematic Diagram


10K VFO
CR1 1N625
CR2 1N625
R1 4.7K
C1 39
C2 240
Q1 2N700
C5 820
E1
S1
10
SEE CHART 'A'
Y1
Y10
C3 470
R2 15K
R3 2.7K
R5 220
E3
E8
C4 .01uf
R4 100
E2
E6
BLANKING PULSE IN
J6
+20V
J1
C25 6.8uf 35V
C26 .05uf
GED
J2
10KC ISO AMPL. - 567
R22 2.2K
R23 10K
C25 .005uf
L3
Q6 2N706
C27 .01uf
E2
E1
R24 4.7K
R25 15K
Z3
C31 .01uf
R33 10K
Q8 2N706
C32 .01uf
FL 21 9.07MC
SPECTRUM 3.84MC TO 3.93MC IN 10KC STEPS
J5
E4
E3
C34 15
R34 1.5K
C36 15
R30 15K
R31 4.7K
C33 .01uf
R32 100
+20
E7
E5
+20V
.111 MC TO .120 M.C SPECTRUM 1KC STEPS
J4


10K VFO
CR1 IN625
CR2 IN625
R1 4.7K
C1 39
C2 240
Q1 2N700
C3 470
C5 820
C6 820
C7 360
R2 15K
R3 2.7K
R5 220
R4 100
C4 .01uf
S1
10
Y10
SEE CHART A
E1
E2
E3
E4
E5
E6
E7
E8
P1
J8 .05uf
Q2 2N1225
R6 10K
R7 15K
R8 4.7K
C10 .05uf
C11 .05UF
R9 100
R10 9.1K
C12 .01uf
R11 1K
CR3 IN625
Q3 2N1301
C13 1UF
R12 1K
TP1
TP2
C14 15 ±1%
C15 470 ±1%
C16 15 ±1%
C9 470 ±1%
L1
L2
1ST 10KC OUTPUT & BLANKER
+20V
P2
J9
J10
P3
J1
J2
C25 6.8uf 35V
C26 .05 uf
ERROR MIXER BL.
10KC ISO AMPL. - 567
R22 22K
R23 10K
C28 .005uf
Q6 2N700
C27 .01UF
R24 4.7K
R25 15K
L3
Z3
1KC ISO. AMPL. - 567
R26 22K
R27 10K
C29 .01uf
Q7 2N700
C30 .05uf
R28 4.7K
R29 15K
L4
Z2
C31 .01uf
C32 .01uf
R33 10K
Q8 2N700
R30 15K
R31 4.7K
C33 .01uf
R32 100
+20
E7
E5
+20V
C34 15
FL 21 9.07 MC
R34 1.5K
C36 15
C35 .01uf
R35 150
C40 200
T2
E6
E8
R37 10K
Q9 2N700
R36 200
R38 15K
R40 4.7K
C39 .05uf
C37 220
C38 .05uf
R39 100
+20 V
FL 22 1.97MC
C41 5
C42 68
R41 1K
R42 10K
C43 .05uf
Q10 2N700
R43 4.7K
R44 15K
C44 1uf
R45 100
C45 .05uf
+20V
Z1
.565 1KC ERROL MIXER
E9
E10
E11
E12
E13

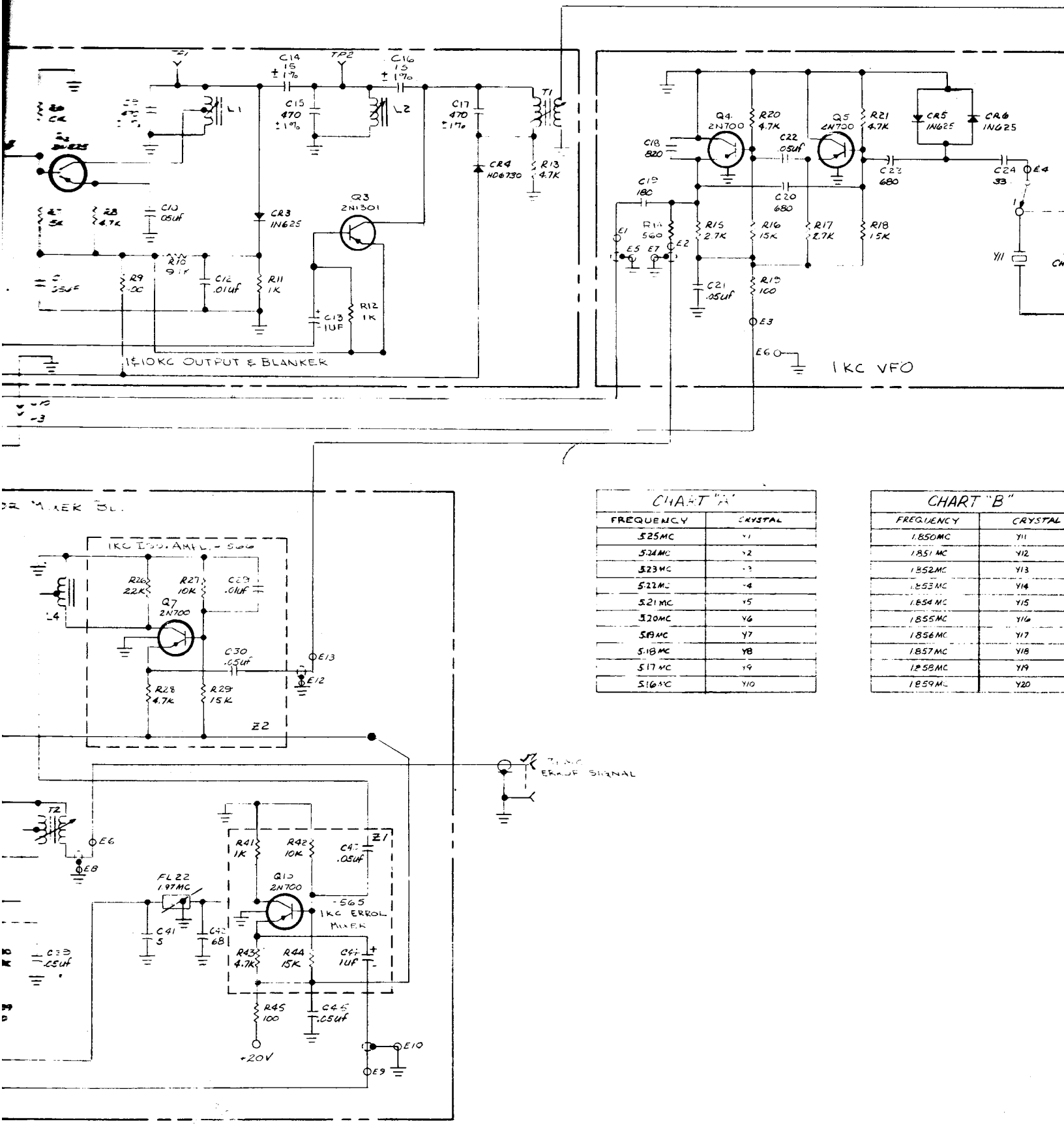


CHART "A"	
FREQUENCY	CRYSTAL
5.25MC	Y1
5.24MC	Y2
5.23MC	Y3
5.22MC	Y4
5.21MC	Y5
5.20MC	Y6
5.19MC	Y7
5.18MC	Y8
5.17MC	Y9
5.16MC	Y10

CHART "B"	
FREQUENCY	CRYSTAL
1.850MC	Y11
1.851MC	Y12
1.852MC	Y13
1.853MC	Y14
1.854MC	Y15
1.855MC	Y16
1.856MC	Y17
1.857MC	Y18
1.858MC	Y19
1.859MC	Y20

Figure 6-7. Transcei

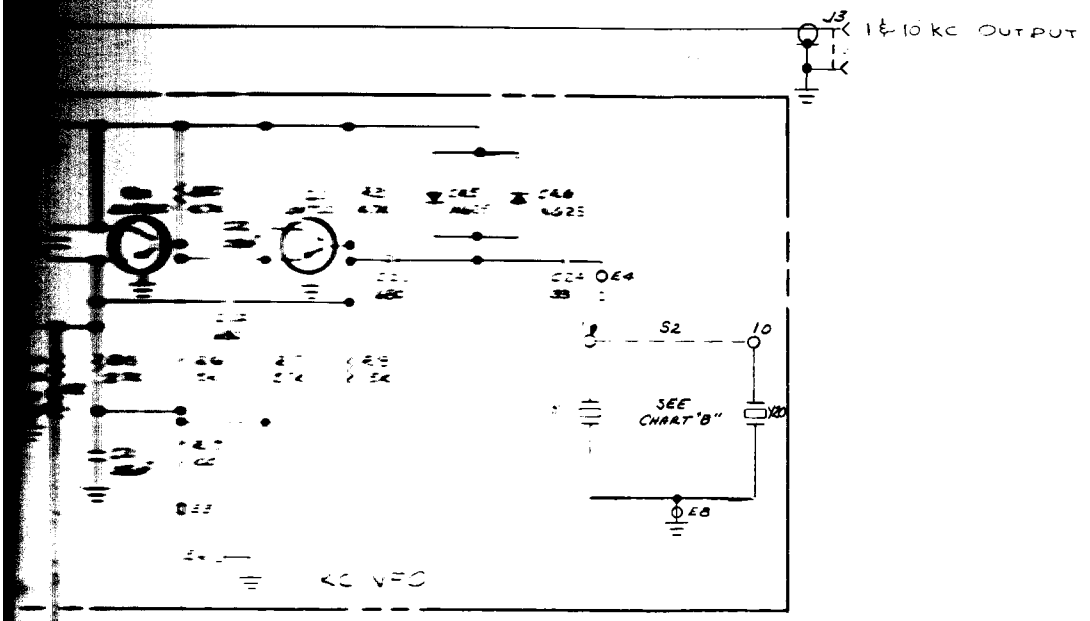


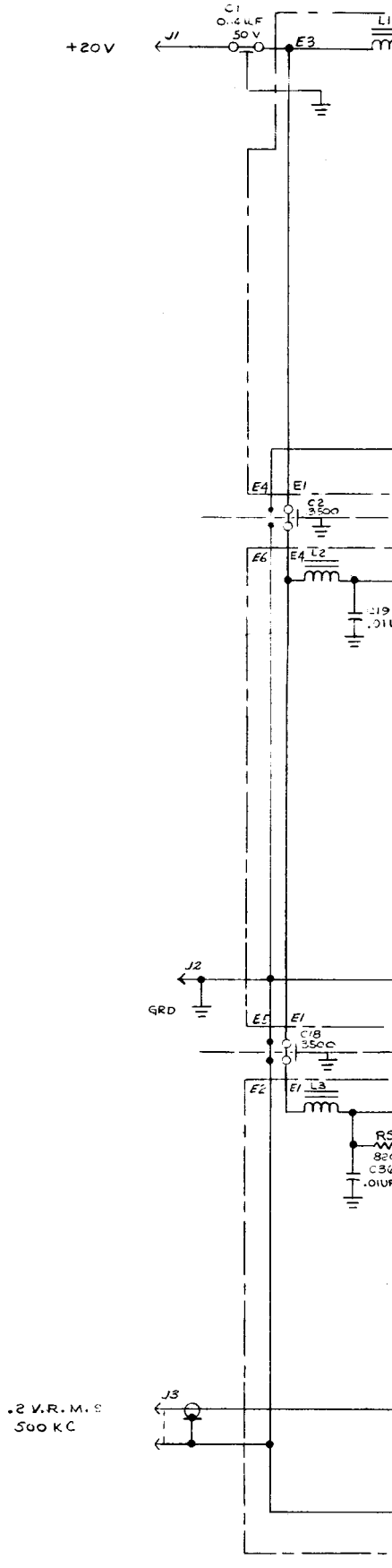
CHART "A"	
[illegible]	CRYSTAL
[illegible]	[illegible]
[illegible]	Y2
[illegible]	Y3
[illegible]	Y4
S2 [illegible]	Y5
[illegible]	Y6
[illegible]	Y7
[illegible]	Y8
[illegible]	Y9
[illegible]	Y10

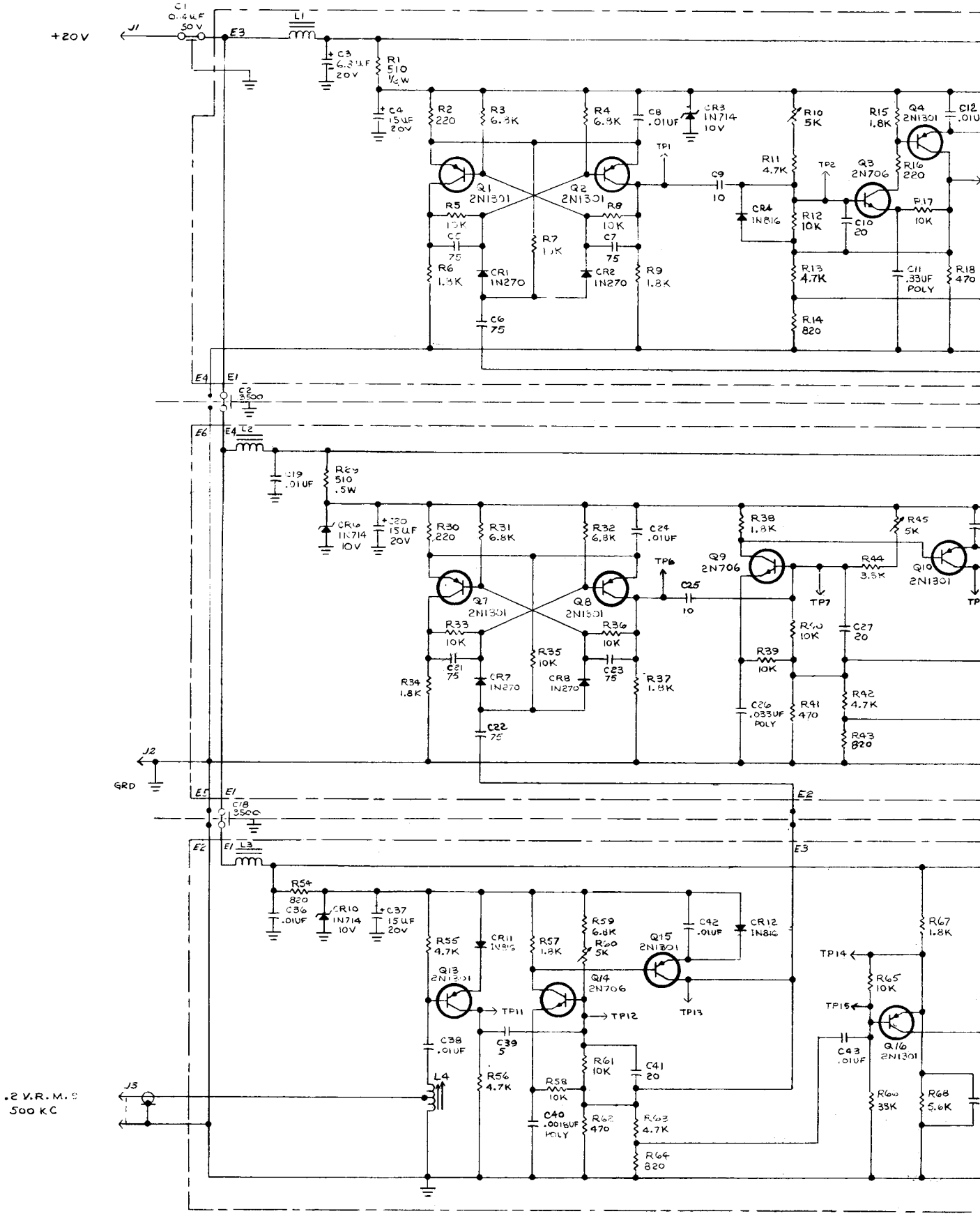
CHART "B"	
FREQUENCY	CRYSTAL
1.850MC	Y11
1.851 MC	Y12
1.852MC	Y13
1.853MC	Y14
1.854 MC	Y15
1.855MC	Y16
1.856MC	Y17
1.857MC	Y18
1.858MC	Y19
1.859MC	Y20

NOTES:

1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPECIFIED:
   a. RESISTOR VALUES ARE IN OHMS.
   b. CAPACITOR VALUES ARE IN MICROMICROFARADS.
   c. ALL RESISTORS 1/4 W, 5%.

Figure 6-7. Transceiver SC-901X, 1 and 10 KC Synthesizer, Schematic Diagram


+20V
J1
C1
0.4 MF
50 V
E3
L1
E4
E1
C2
3500
E6
E4
L2
.01U
J2
GRD
E5
E1
C18
3500
E2
E1
L3
R5
820
C30
.01UF
.2 V.R.M.S
500 KC
J3


+20V
J1
C1
0.4 UF
50 V
L1
C3
6.8 UF
20V
R1
510
½W
C4
15 UF
20V
R2
220
R3
6.8K
R4
6.8K
C8
.01UF
CR3
1N714
10V
R10
5K
R15
1.8K
Q4
2N1301
C12
.01U
TP1
R11
4.7K
TP2
Q3
2N706
R16
220
Q1
2N1301
Q2
2N1301
C9
10
CR4
1N816
R5
10K
R8
10K
C5
75
C7
75
R7
10K
R12
10K
C10
20
R17
10K
R6
1.8K
CR1
1N270
CR2
1N270
R9
1.8K
R13
4.7K
C11
.33UF
POLY
R18
470
C6
75
R14
820
E4
E1
C2
3500
E6
E4
L2
C19
.01UF
R29
510
.5W
CR6
1N714
10V
C20
15 UF
20V
R30
220
R31
6.8K
R32
6.8K
C24
.01UF
TP6
R38
1.8K
R45
5K
Q9
2N706
R44
3.5K
Q10
2N1301
C25
10
TP7
Q7
2N1301
Q8
2N1301
R33
10K
R36
10K
R40
10K
C27
20
C21
75
R35
10K
C23
75
R39
10K
R34
1.8K
CR7
1N270
CR8
1N270
R37
1.8K
C26
.033UF
POLY
R41
470
R42
4.7K
C22
75
R43
820
J2
GRD
E5
E1
C18
3500
E2
E2
E1
L3
E3
R54
820
C36
.01UF
CR10
1N714
10V
C37
15 UF
20V
R55
4.7K
CR11
1N816
R57
1.8K
R59
6.8K
R60
5K
Q15
2N1301
C42
.01UF
CR12
1N816
R67
1.8K
Q13
2N1301
Q14
2N706
TP11
TP12
TP13
TP14
R65
10K
TP15
C38
.01UF
C39
5
Q16
2N1301
C43
.01UF
R61
10K
C41
20
L4
R56
4.7K
R58
10K
R66
33K
R68
5.6K
C40
.0018UF
POLY
R62
470
R63
4.7K
R64
820
J3
.2 V.R.M.S
500 KC

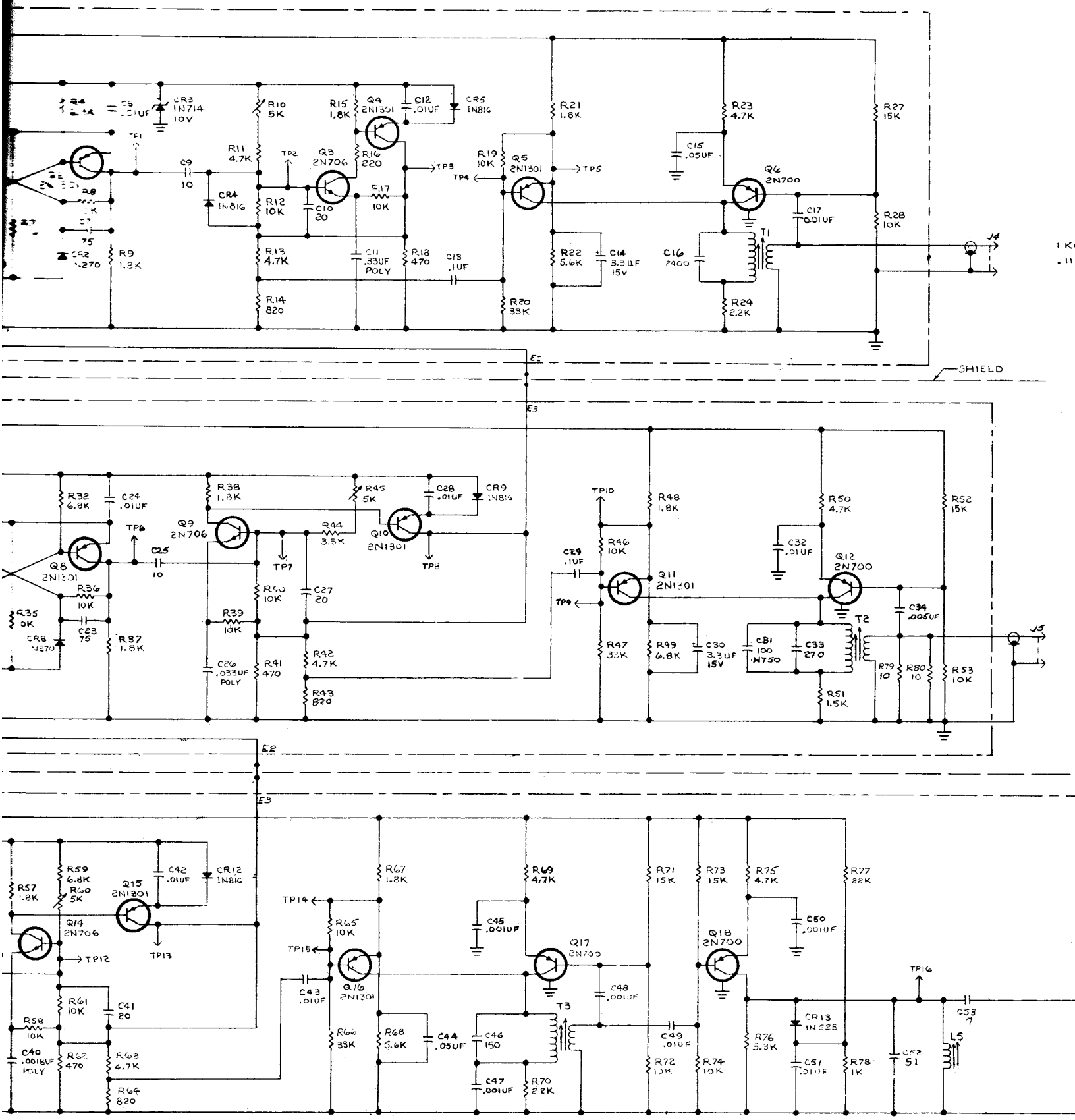
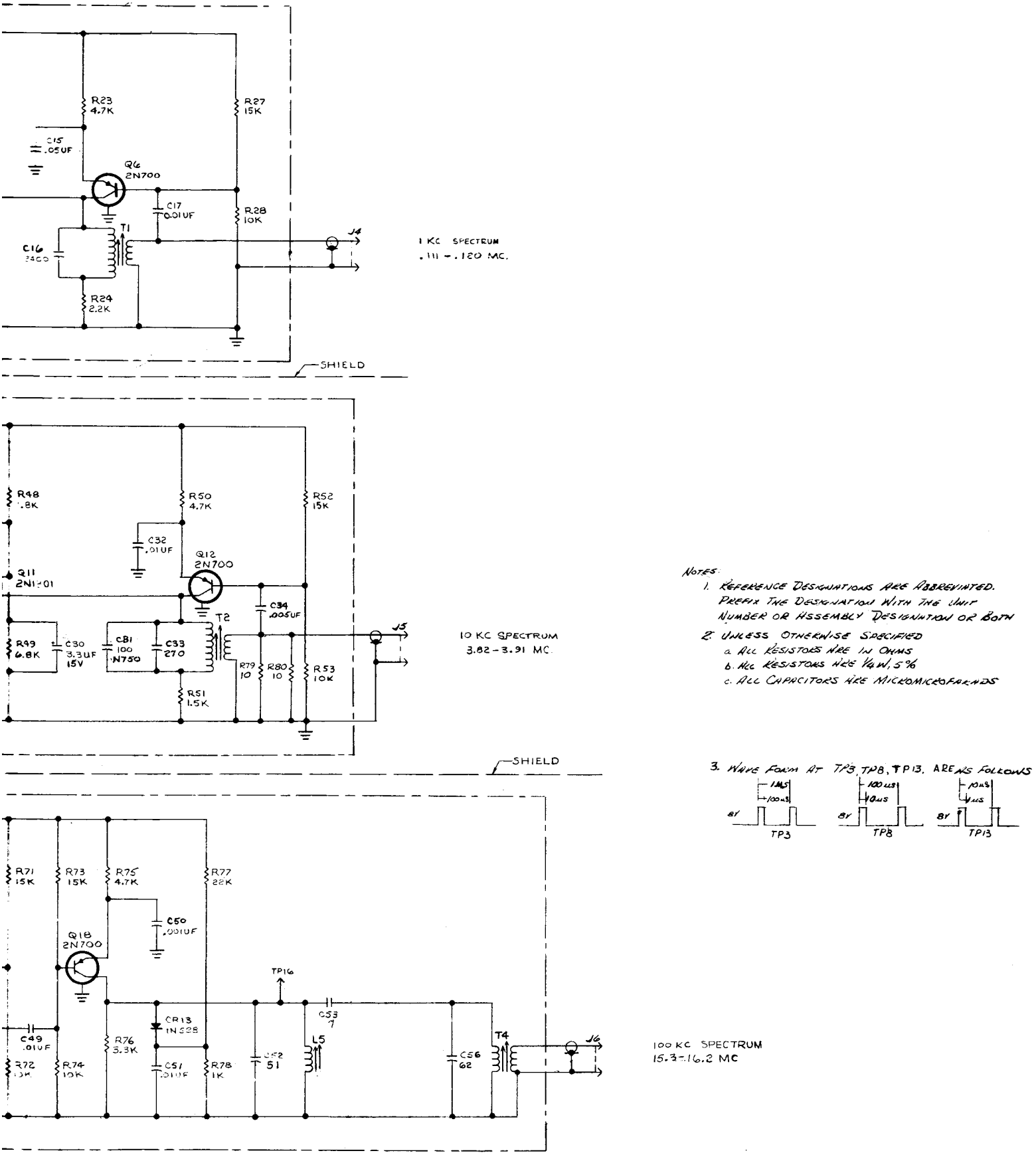


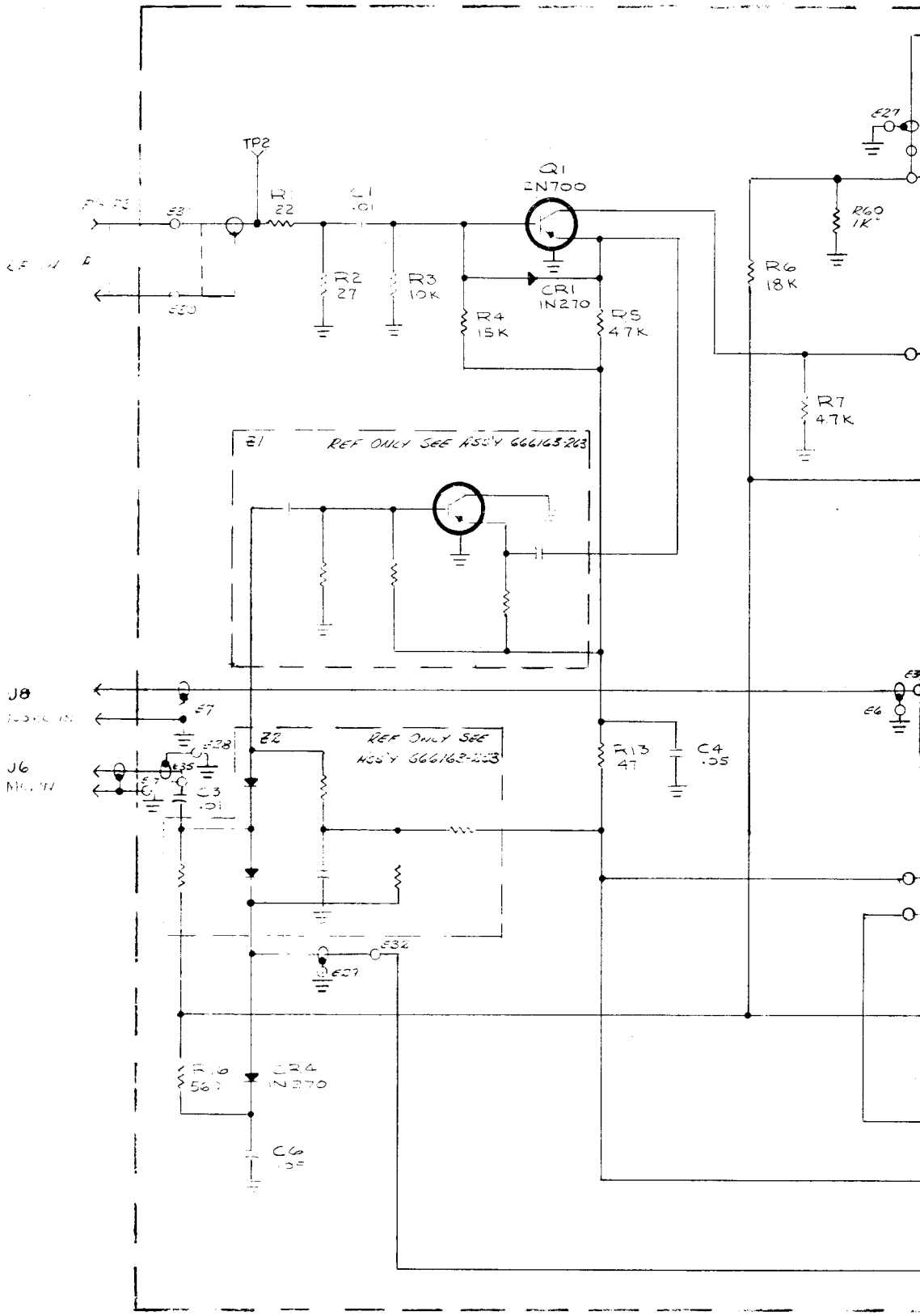
Figure 6-8. Transceiver SC-901X

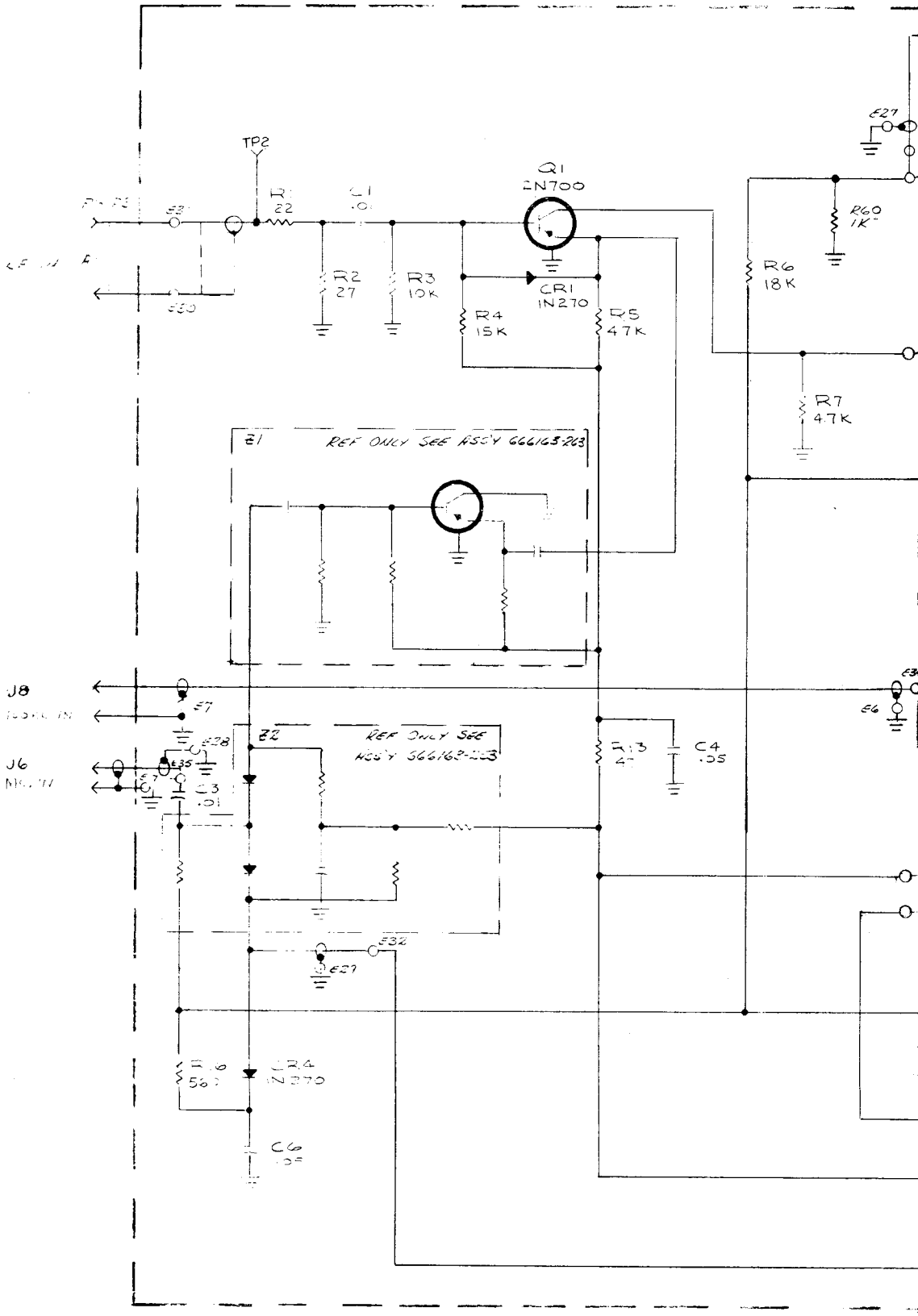


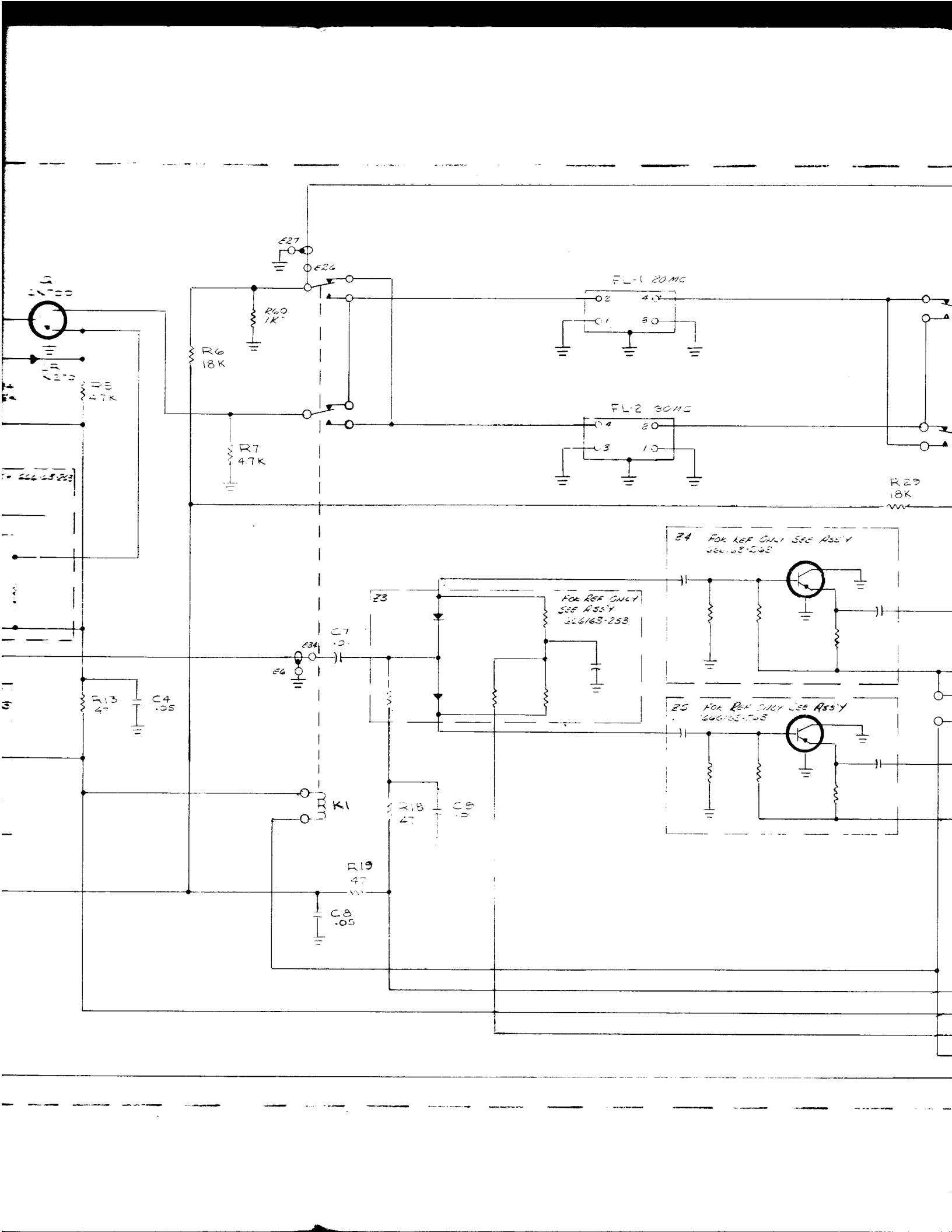
NOTES:

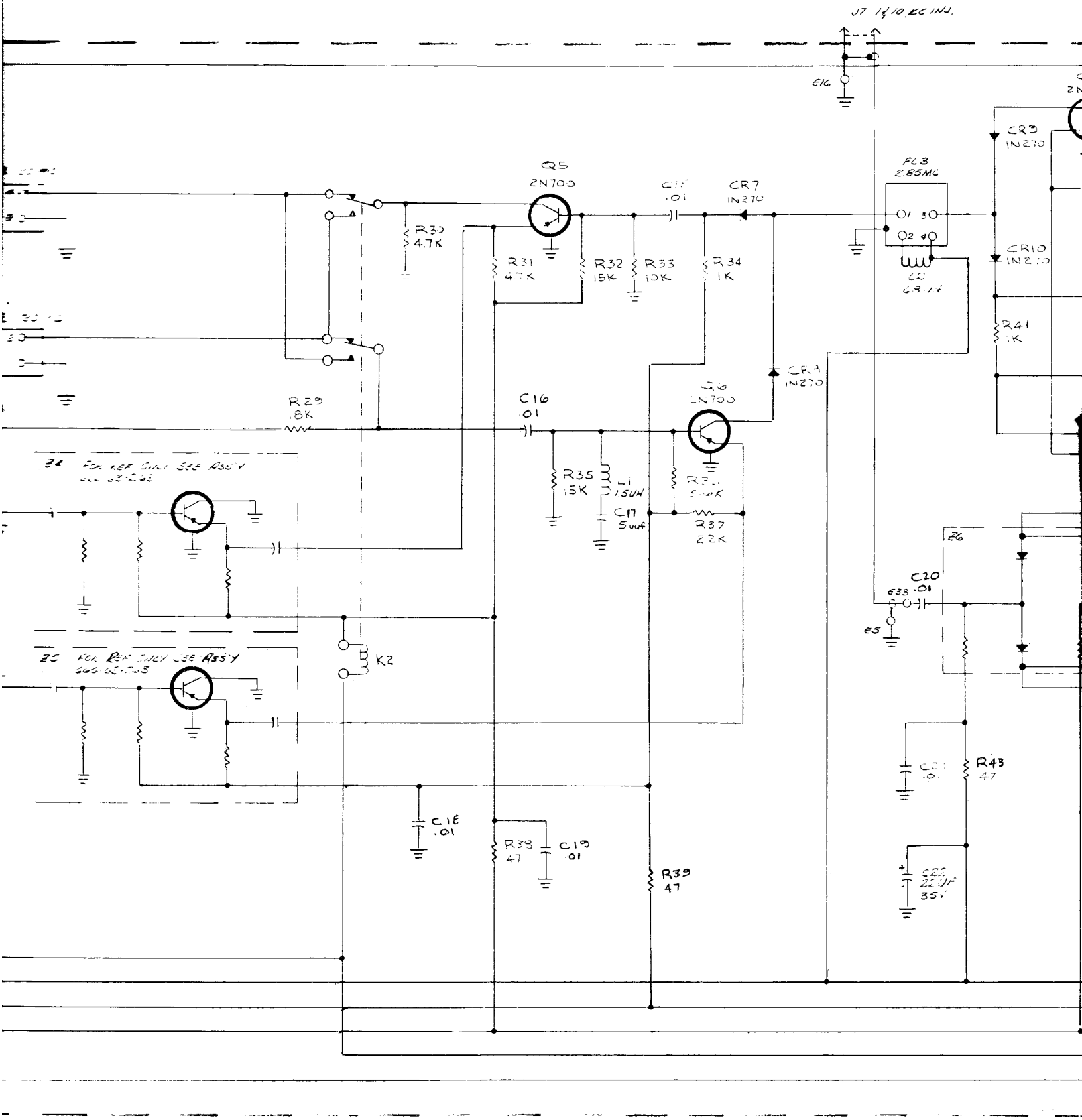
1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH
2. UNLESS OTHERWISE SPECIFIED
   a. ALL RESISTORS ARE IN OHMS
   b. ALL RESISTORS ARE 1/4 W, 5%
   c. ALL CAPACITORS ARE MICROMICROFARADS
3. WAVE FORM AT TP3, TP8, TP13, ARE AS FOLLOWS

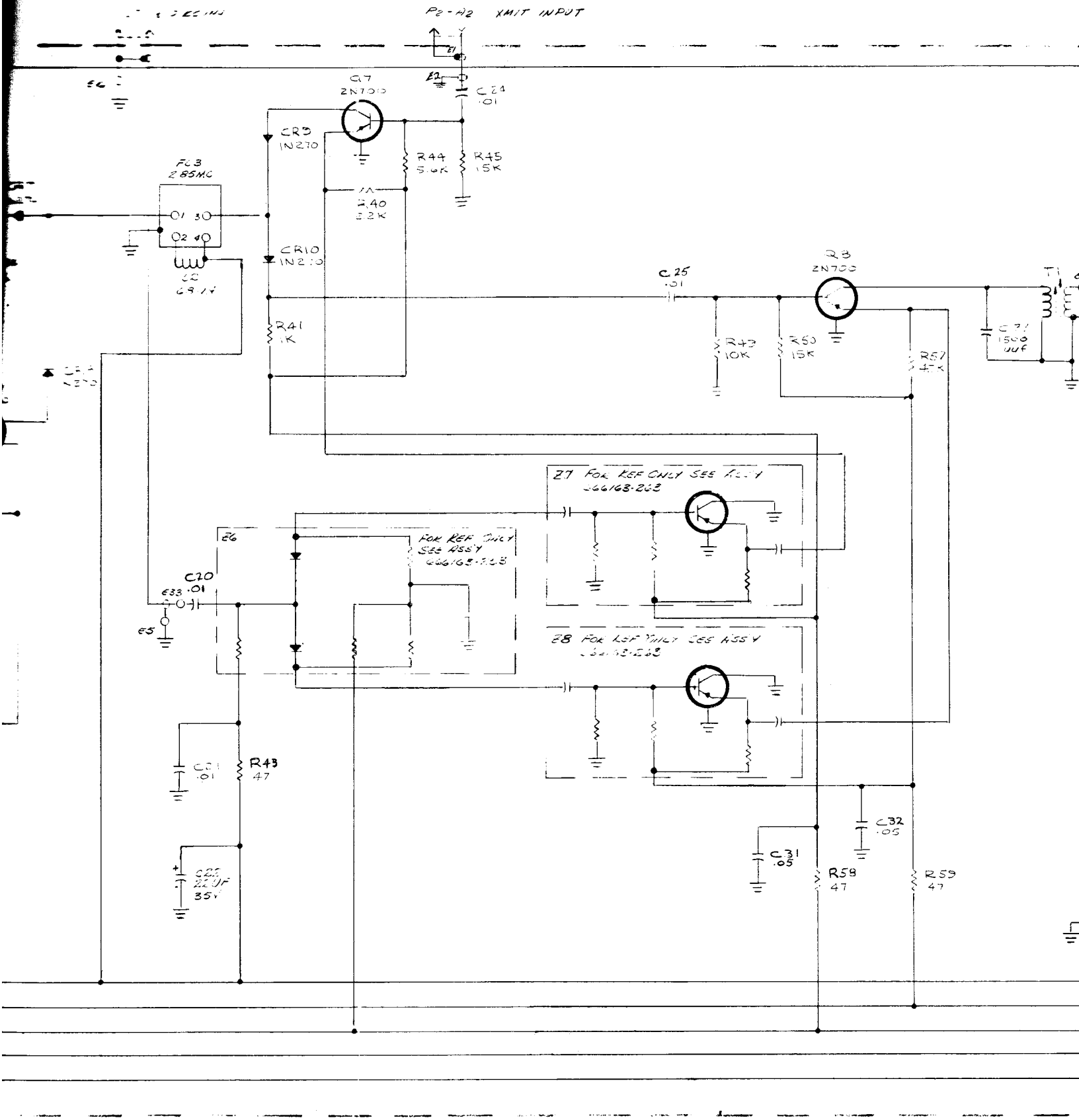
Figure 6-8. Transceiver SC-901X, 1, 10, 100 KC Divider and Spectrum Generator, Schematic Diagram


TP2
Q1
2N700
R1
22
C1
.01
R2
27
R3
10K
R4
15K
CR1
1N270
R5
4.7K
R6
18K
R60
1K
R7
4.7K
E27
E1
REF ONLY SEE ASS'Y 666163-203
E2
REF ONLY SEE
ASS'Y 666163-203
J8
J6
E7
E28
E35
C3
.01
R13
47
C4
.05
E32
E27
R16
56
CR4
1N270
C6
.05
E3
E6

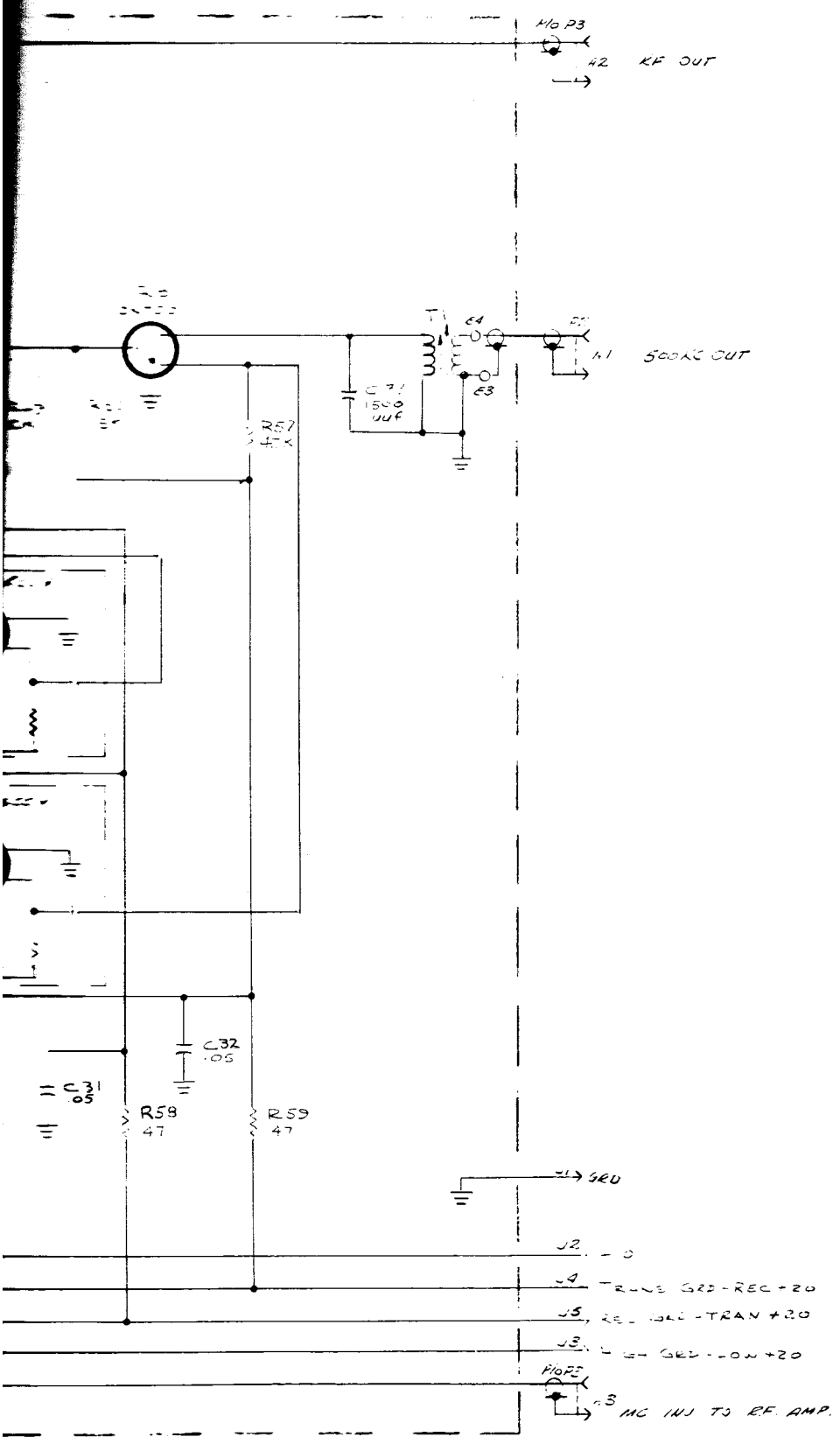

TP2
Q1
2N700
R2
27
R3
10K
R4
15K
CR1
1N270
R5
4.7K
R6
18K
R60
1K
R7
4.7K
E27
E1
REF ONLY SEE ASS'Y 666163-203
J8
E7
E2
REF ONLY SEE
ASS'Y 666163-203
J6
E28
E35
C3
.01
R13
47
C4
.05
E32
E29
CR4
1N270
C6
.05
E6


E27
E26
R60
1K
R6
18K
FL-1 20 MC
FL-2 30 MC
R5
47K
R7
47K
R29
18K
Z4 FOR REF ONLY SEE ASS'Y 666163-268
Z3 FOR REF ONLY SEE ASS'Y 666163-253
Z5 FOR REF ONLY SEE ASS'Y 666163-258
E34
E6
C7
.01
R13
47
C4
.05
K1
R18
47
C9
.01
R19
47
C8
.05


J7 1st LO INJ.
E16
Q5
2N706
C15
.01
CR7
IN270
FL3
2.85MC
CR9
IN270
CR10
IN270
R30
4.7K
R31
4.7K
R32
15K
R33
10K
R34
1K
R41
1K
R29
18K
C16
.01
Q6
2N706
CR8
IN270
R35
15K
L1
1.5UH
C17
5uuf
R37
22K
K2
E6
C20
.01
E33
E5
R43
47
C18
.01
R38
47
C19
.01
R39
47
C22
22uf
35v


P2-A2 XMIT INPUT
Q7 2N7000
C24 .01
CR9 1N270
R44 5.6K
R45 15K
FL3 2.85MC
1A 2.40 2.2K
CR10 1N270
L2 .69 μH
C25 .01
Q8 2N7000
R41 1K
R43 10K
R50 15K
R51 4.7K
C26 1500 μμF
Z7 FOR REF ONLY SEE ASS'Y 366163-263
Z8 FOR REF ONLY SEE ASS'Y 366163-263
E6
FOR REF ONLY SEE ASS'Y 366163-263
C20 .01
E33
E5
C21 .01
R43 47
C22 22 μF 35V
C31 .05
C32 .05
R58 47
R59 47

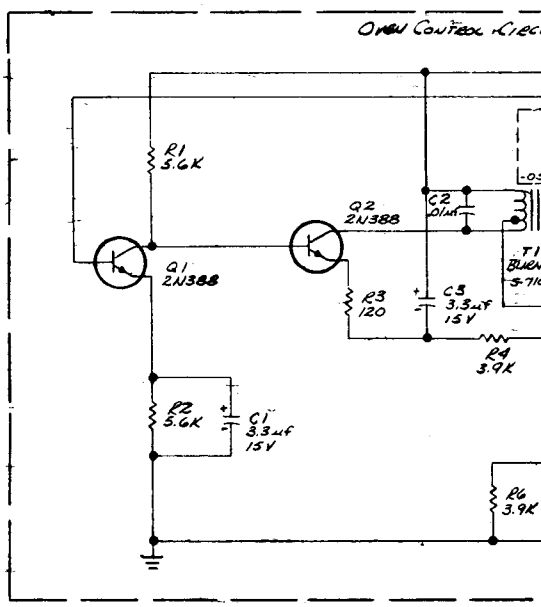
Figure

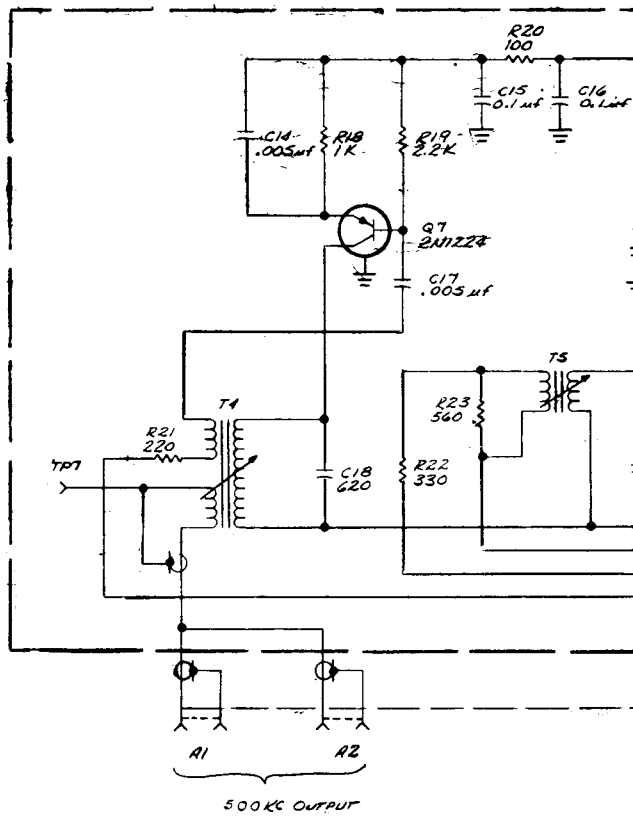


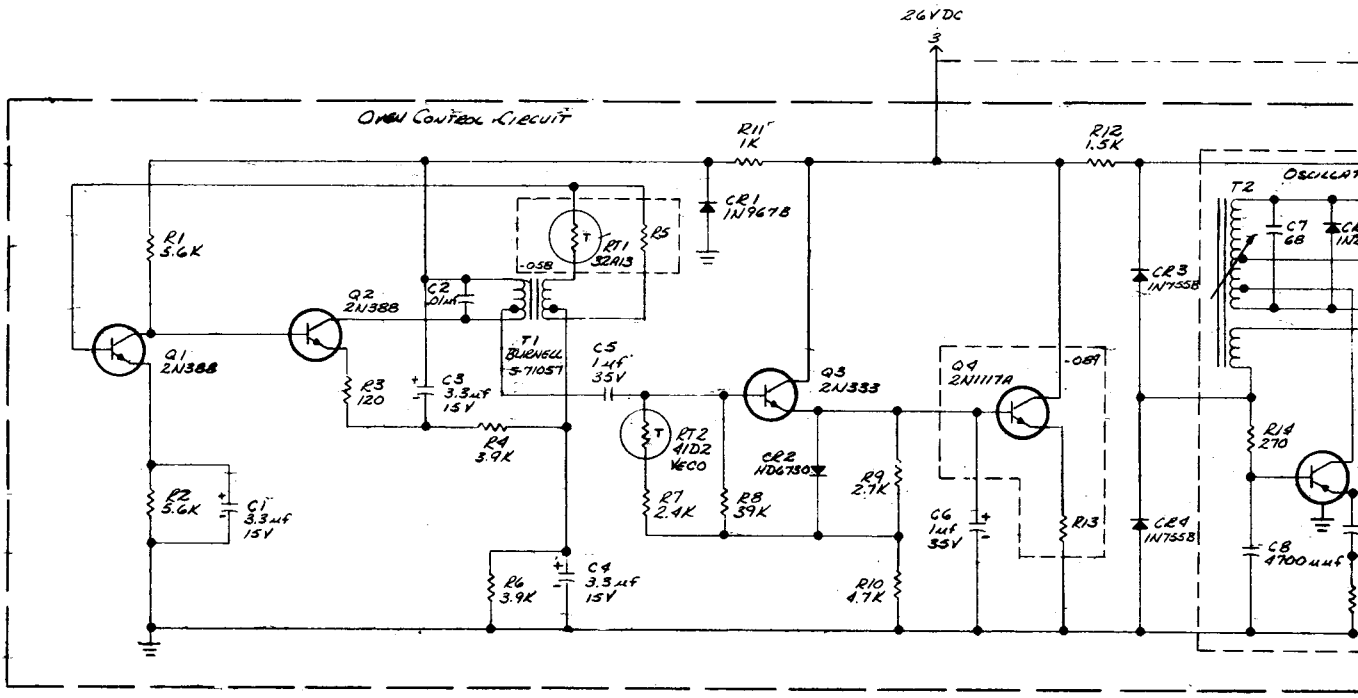
NOTES:

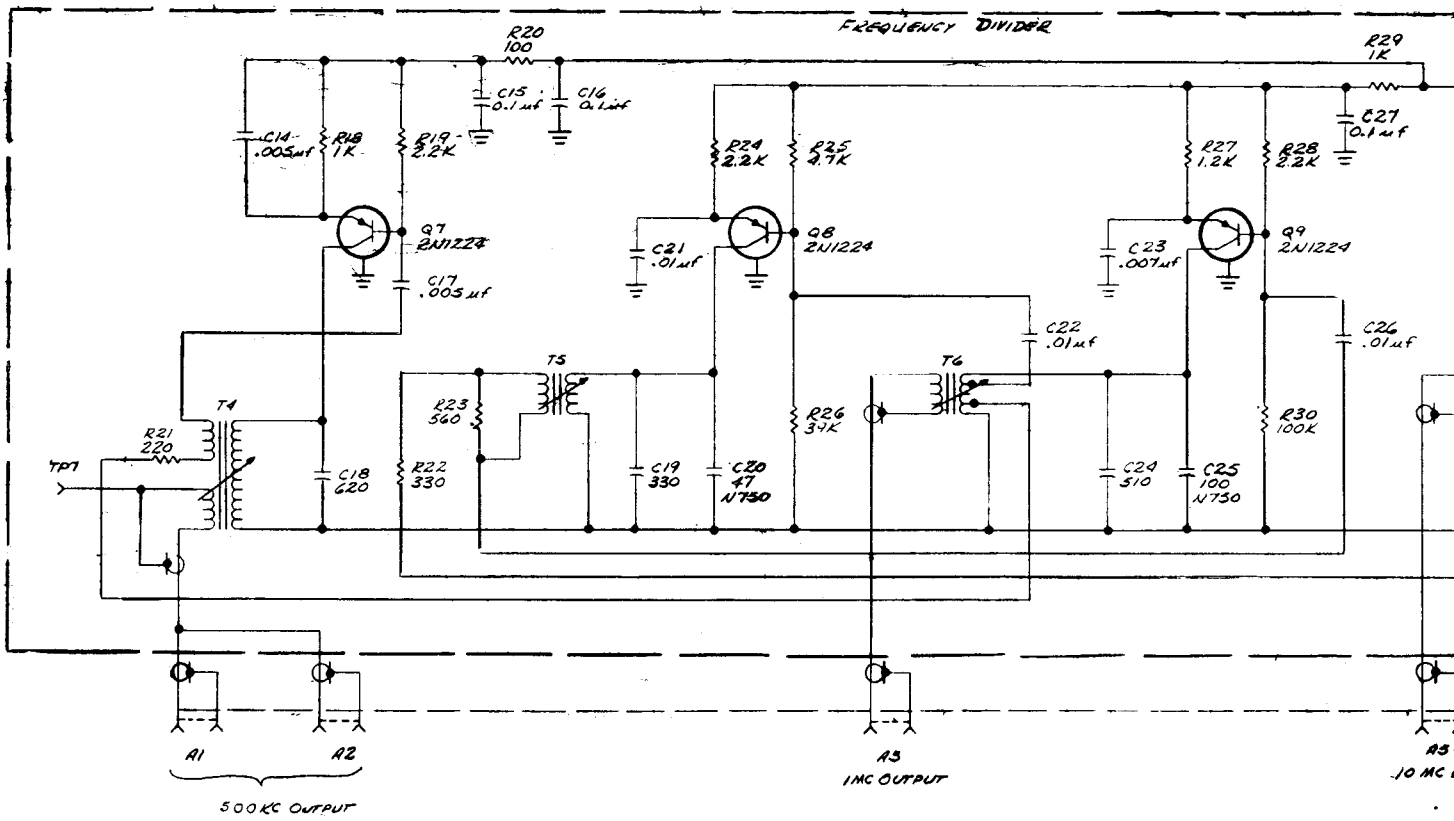
1. REFERENCE DESIGNATIONS ARE ABBREVIATED PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH
2. UNLESS OTHERWISE SPECIFIED
   a. RESISTOR VALUES IN OHMS
   b. CAPACITOR VALUES IN MICROFARADS
   c. ALL RESISTORS ½ W, 5%

Figure 6-9. Transceiver SC-901X, RF Translator, Schematic Diagram


R1
5.6K
Q2
2N388
C2
.01uf
Q1
2N388
R3
120
C3
3.3uf
15V
R4
3.9K
R2
5.6K
C1
3.3uf
15V
R6
3.9K


R20
100
C15
0.1 uf
C16
0.1uf
C14
.005uf
R18
1K
R19
2.2K
Q7
2N1224
C17
.005 uf
T5
T4
R23
560
R21
220
TP1
C18
620
R22
330
A1
A2
500KC OUTPUT


26 V DC
OVEN CONTROL CIRCUIT
R11 1K
R12 1.5K
CR1 1N967B
TP1 32A13
R5
Q2 2N388
C2 .01μf
T1 BURNELL S-7105T
Q1 2N388
R1 5.6K
R3 120
C3 3.3μf 15V
C5 1μf 35V
Q3 2N333
Q4 2N1117A
RT2 41D2 VECO
R4 3.9K
R7 2.4K
R8 5.9K
CR2 ND67130
R9 2.7K
R10 4.7K
C6 1μf 35V
R13
R2 5.6K
C1 3.3μf 15V
R6 3.9K
C4 3.3μf 15V
CR3 1N755B
CR4 1N755B
T2
C7 68
R14 270
C8 4700μμf


FREQUENCY DIVIDER
R20 100
R29 1K
C15 0.1μf
C16 0.1μf
C27 0.1μf
C14 .005μf
R18 1K
R19 2.2K
R24 2.2K
R25 4.7K
R27 1.2K
R28 2.2K
Q7 2N1224
Q8 2N1224
Q9 2N1224
C17 .005μf
C21 .01μf
C23 .007μf
C22 .01μf
C26 .01μf
T5
T6
T4
R21 220
TP1
R23 560
R22 330
C18 620
C19 330
C20 47 N750
R26 39K
C24 510
C25 100 N750
R30 100K
A1
A2
A3
500 KC OUTPUT
1MC OUTPUT
10 MC

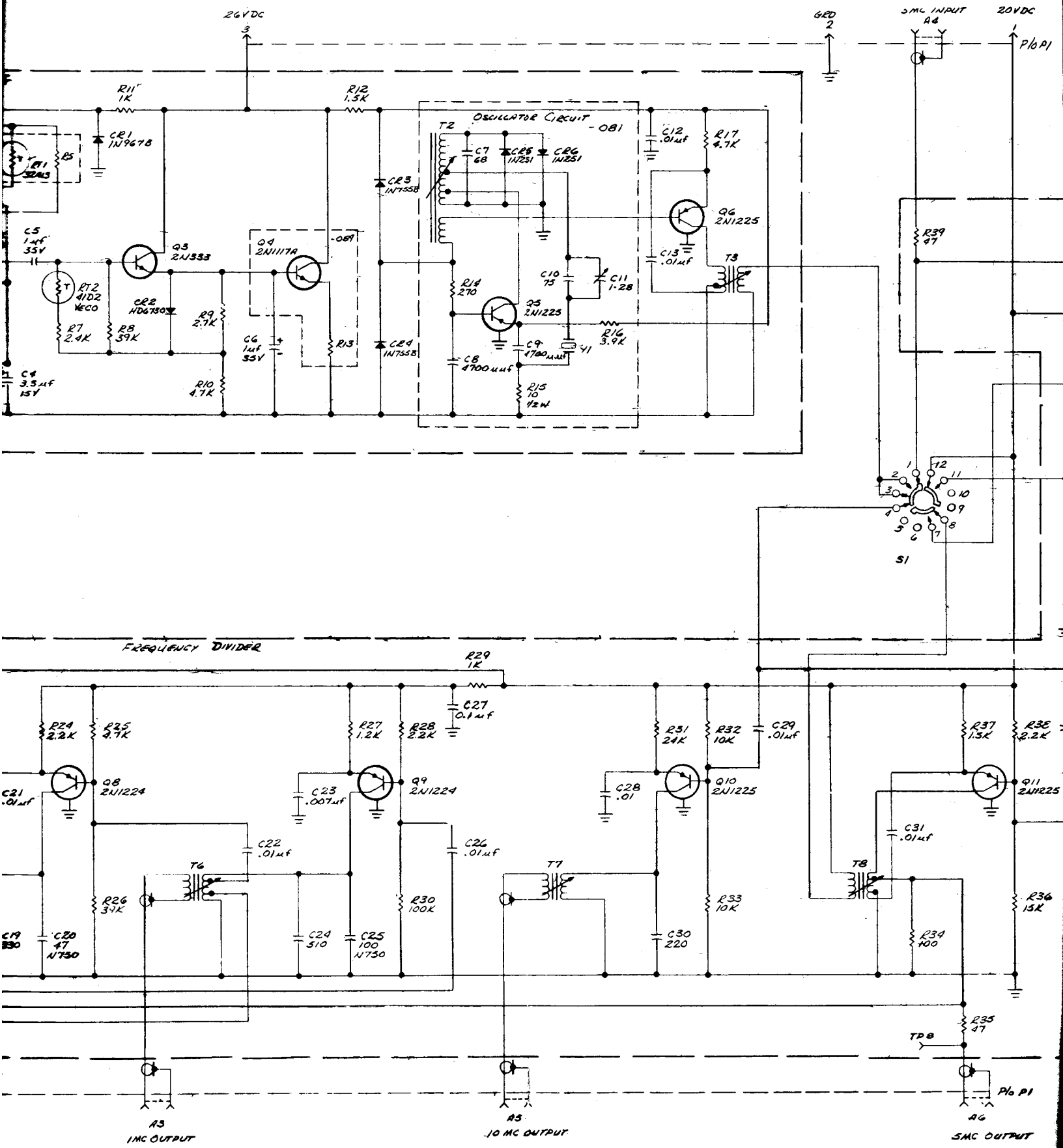
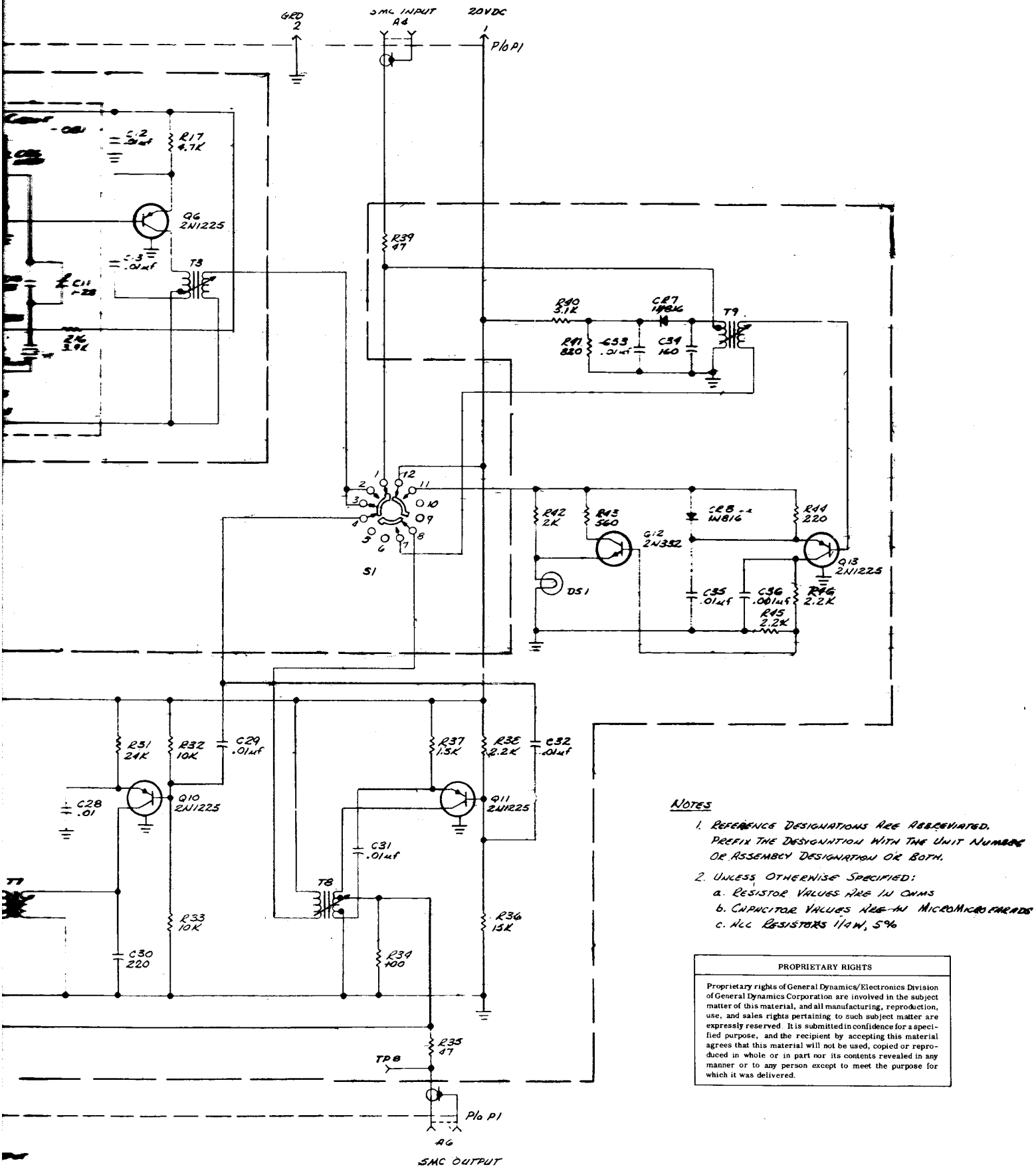


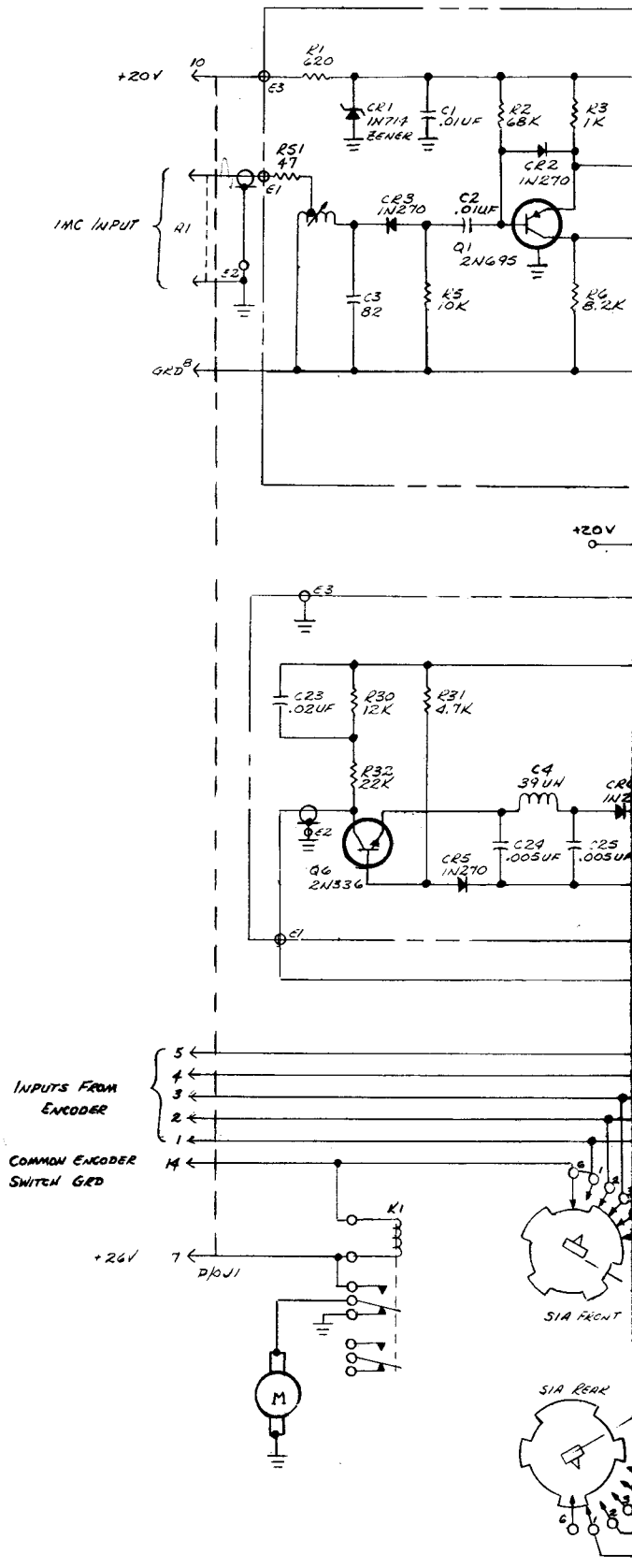
Figure 6-10. Transceiver SC

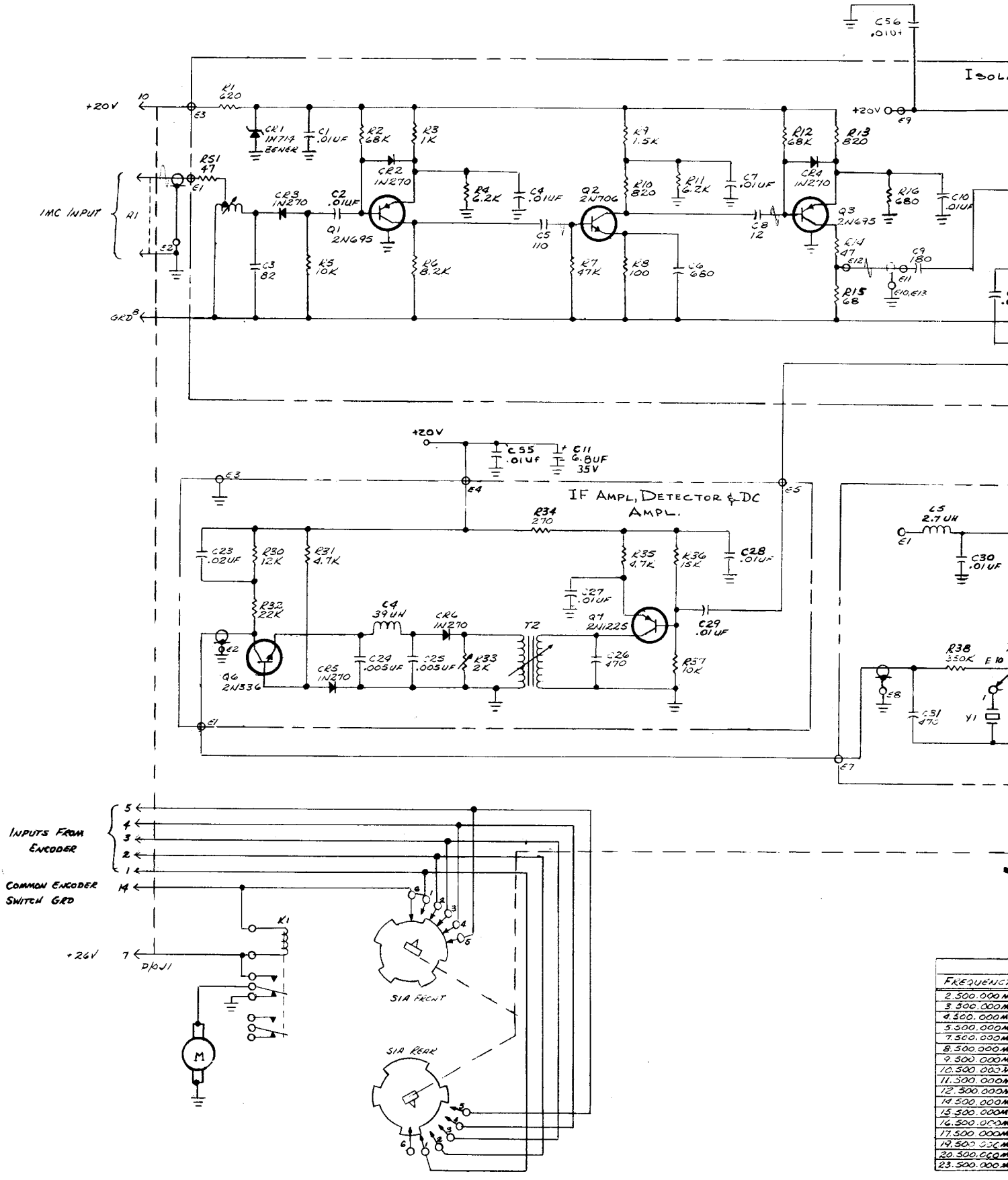


NOTES

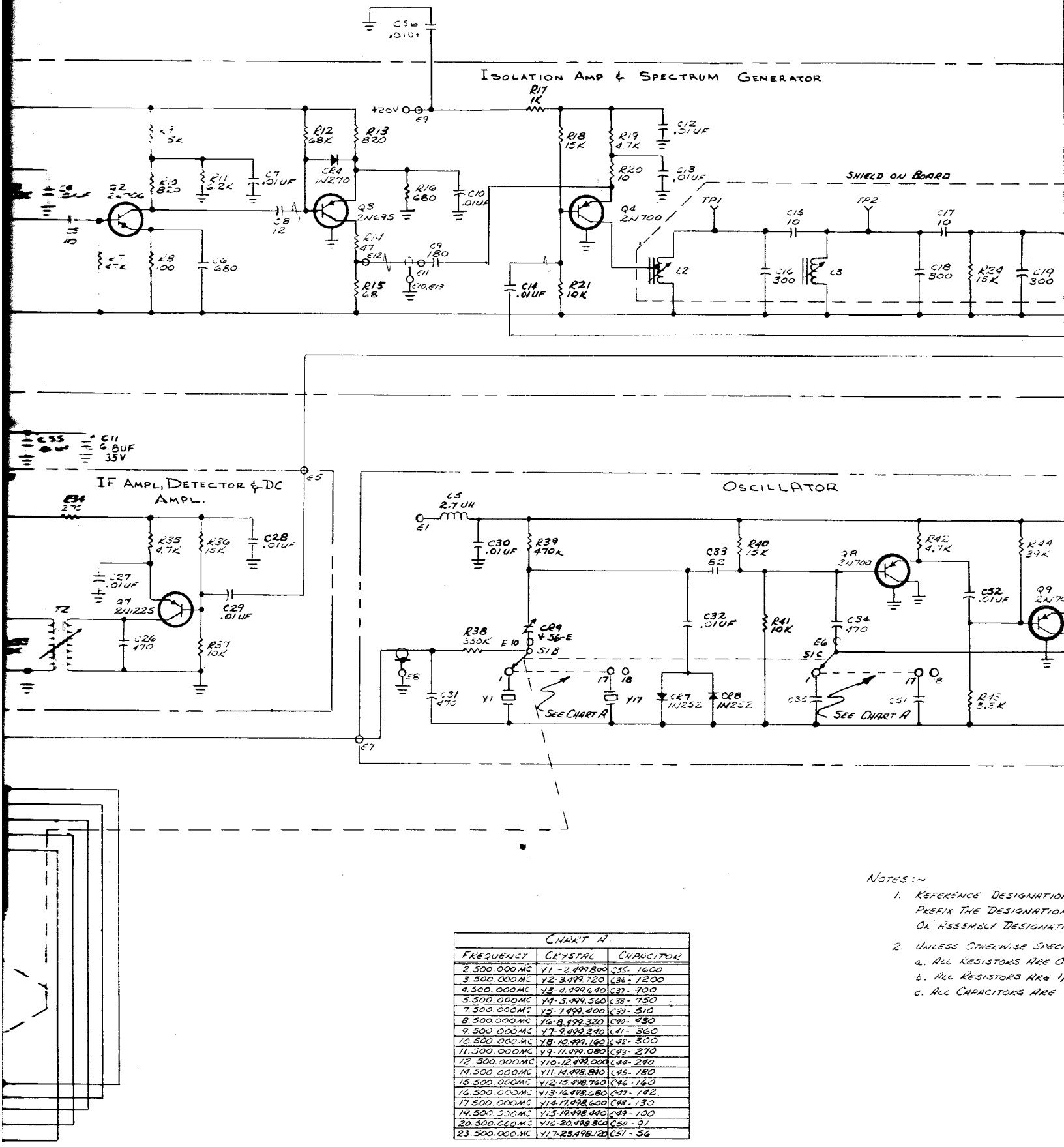
1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPECIFIED:
   a. RESISTOR VALUES ARE IN OHMS
   b. CAPACITOR VALUES ARE IN MICROMICROFARADS
   c. ALL RESISTORS 1/4W, 5%

Figure 6-10. Transceiver SC-901X, Frequency Standard, Schematic Diagram


+20V
10
E3
R1
620
CR1
IN714
ZENER
C1
.01UF
R2
68K
R3
1K
RS1
47
E1
CR2
IN270
IMC INPUT
R1
CR3
IN270
C2
.01UF
Q1
2N695
E2
C3
82
R5
10K
R6
8.2K
GRD
B
+20V
E3
C23
.02UF
R30
12K
R31
4.7K
R32
22K
C4
39UH
E2
Q6
2N336
CR5
IN270
C24
.005UF
E1
INPUTS FROM
ENCODER
5
4
3
2
1
COMMON ENCODER
SWITCH GRD
14
K1
+26V
7
D/OJ1
M
S1A FRONT
S1A REAR



FREQUENCY
2.500.000 M
3.500.000 M
4.500.000 M
5.500.000 M
7.500.000 M
8.500.000 M
9.500.000 M
10.500.000 M
11.500.000 M
12.500.000 M
14.500.000 M
15.500.000 M
16.500.000 M
17.500.000 M
19.500.000 M
20.500.000 M
23.500.000 M



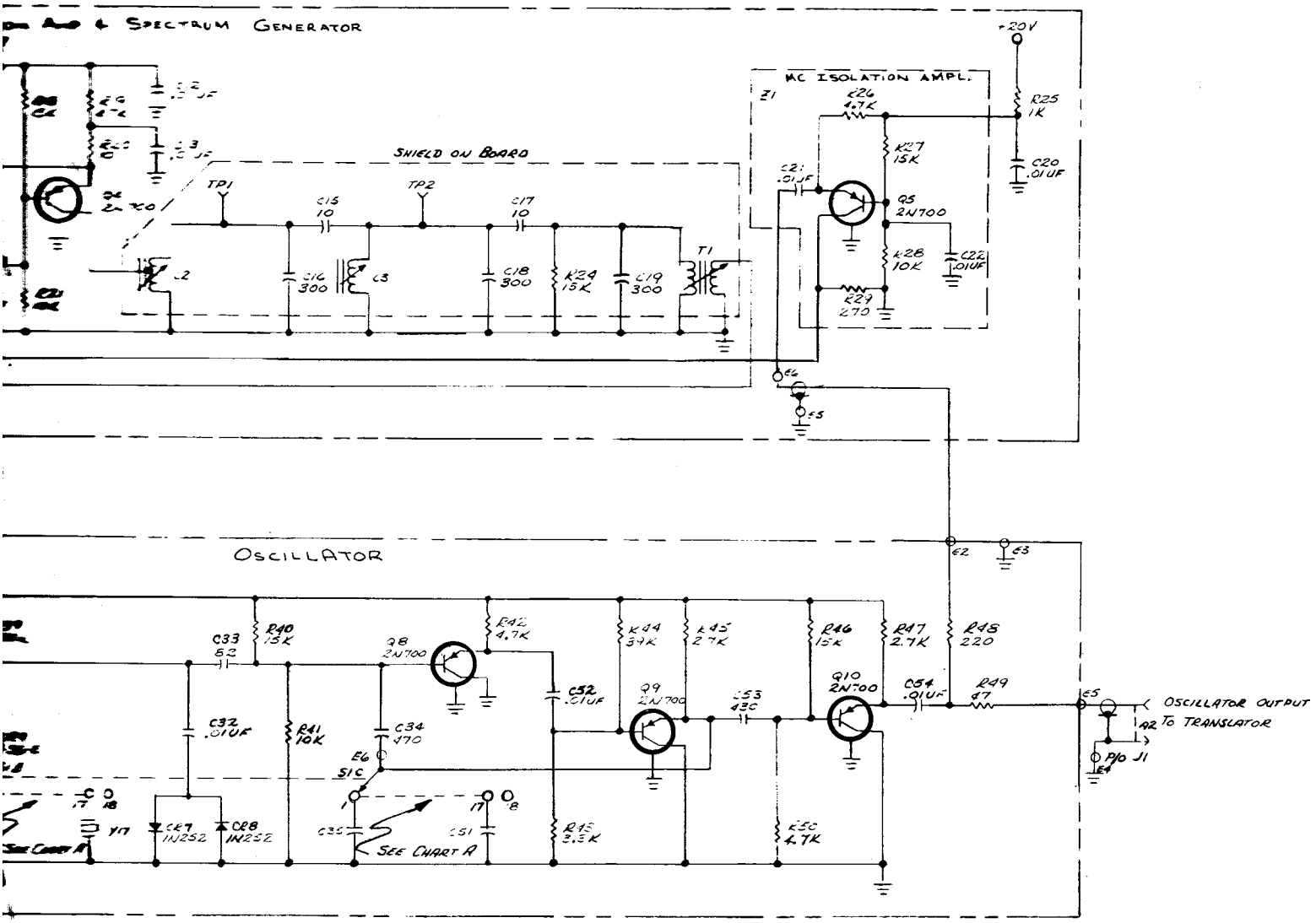
NOTES:-

1. REFERENCE DESIGNATION
   PREFIX THE DESIGNATION
   OR ASSEMBLY DESIGNATI
2. UNLESS OTHERWISE SPECI
   a. ALL RESISTORS ARE O
   b. ALL RESISTORS ARE 1,
   c. ALL CAPACITORS ARE

CHART A

FREQUENCY	CRYSTAL	CAPACITOR
2.500.000 MC	Y1 - 2.499.800	C35 - 1600
3.500.000 MC	Y2 - 3.499.720	C36 - 1200
4.500.000 MC	Y3 - 4.499.640	C37 - 900
5.500.000 MC	Y4 - 5.499.560	C38 - 750
7.300.000 MC	Y5 - 7.499.400	C39 - 510
8.500.000 MC	Y6 - 8.499.320	C40 - 450
9.500.000 MC	Y7 - 9.499.240	C41 - 360
10.500.000 MC	Y8 - 10.499.160	C42 - 300
11.500.000 MC	Y9 - 11.499.080	C43 - 270
12.500.000 MC	Y10 - 12.499.000	C44 - 240
14.500.000 MC	Y11 - 14.498.840	C45 - 180
15.500.000 MC	Y12 - 15.498.760	C46 - 160
16.500.000 MC	Y13 - 16.498.680	C47 - 142
17.500.000 MC	Y14 - 17.498.600	C48 - 130
19.500.000 MC	Y15 - 19.498.440	C49 - 100
20.500.000 MC	Y16 - 20.498.360	C50 - 91
23.500.000 MC	Y17 - 23.498.120	C51 - 56

Figure 6-11. Transceiver SC-

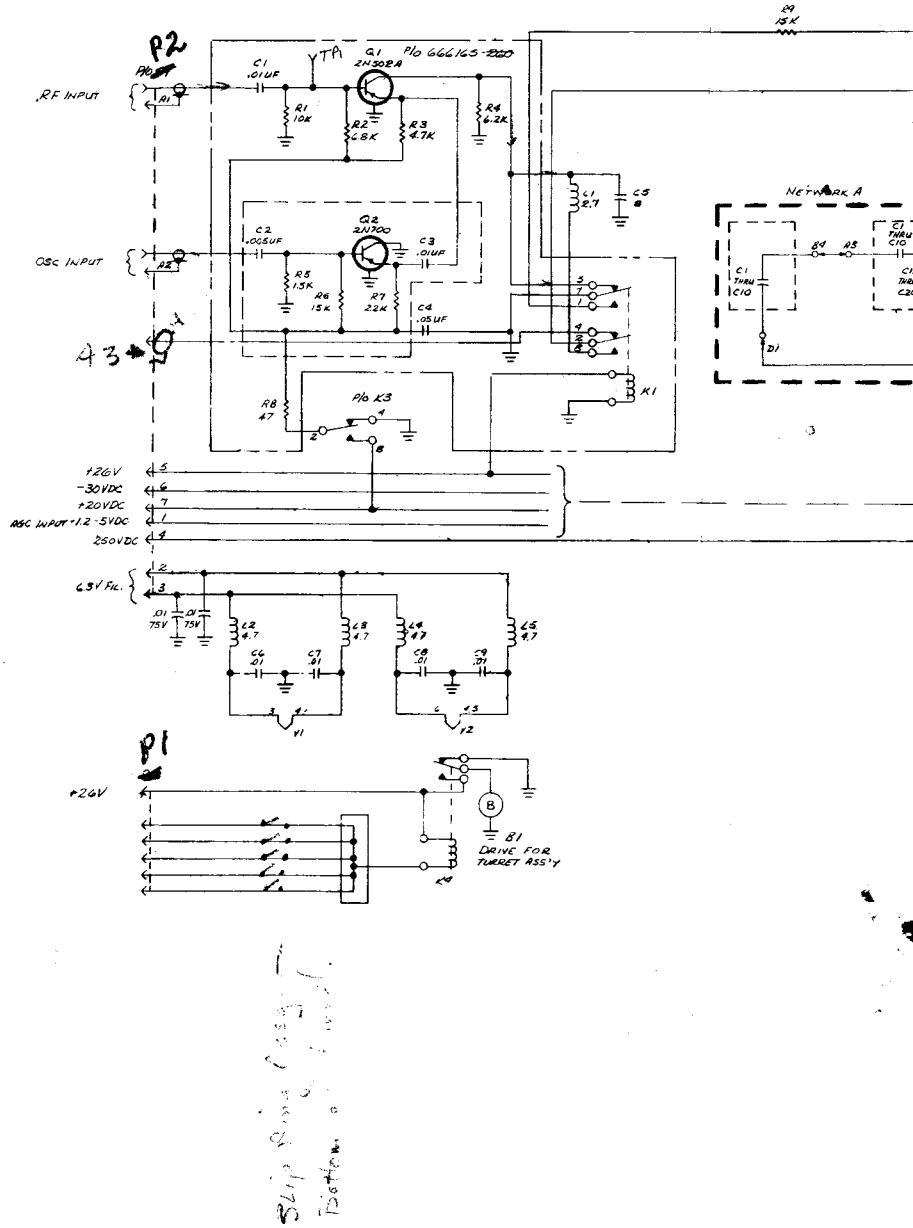


NOTES:~

1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPECIFIED:
   a. ALL RESISTORS ARE OHMS
   b. ALL RESISTORS ARE 1/4W, 5%
   c. ALL CAPACITORS ARE MICROMICROFARADS

CHART A	
CRYSTAL	CAPACITOR
[illegible]	C5 - 1600
[illegible]	C6 - 1200
[illegible]	C7 - 820
[illegible]	C8 - 750
[illegible]	C9 - 510
[illegible]	C10 - 430
[illegible]	C11 - 360
[illegible]	C12 - 330
[illegible]	C13 - 270
[illegible]	C14 - 240
[illegible]	C15 - 180
[illegible]	C16 - 160
[illegible]	C17 - 142
[illegible]	C18 - 130
[illegible]	C19 - 91
[illegible]	C20 - 56

Figure 6-11. Transceiver SC-901X, 1 MC Synthesizer, Schematic Diagram


P2
RF INPUT
OSC INPUT
Q1 P/O 6661G5-2220
2N302A
Q2
2N300
C1 .01UF
C2 .005UF
C3 .01UF
C4 .05UF
C5
R1 10K
R2 6.8K
R3 4.7K
R4 6.2K
R5 1.5K
R6 1.5K
R7 2.2K
R8 47
R9 15K
L1 2.7
P/O K3
K1
Network A
+26V
-30VDC
+20VDC
AGC INPUT +1.2 -5VDC
250VDC
6.3V FIL.
V1
V2
P1
+26V
B
B1
DRIVE FOR TURRET ASS'Y

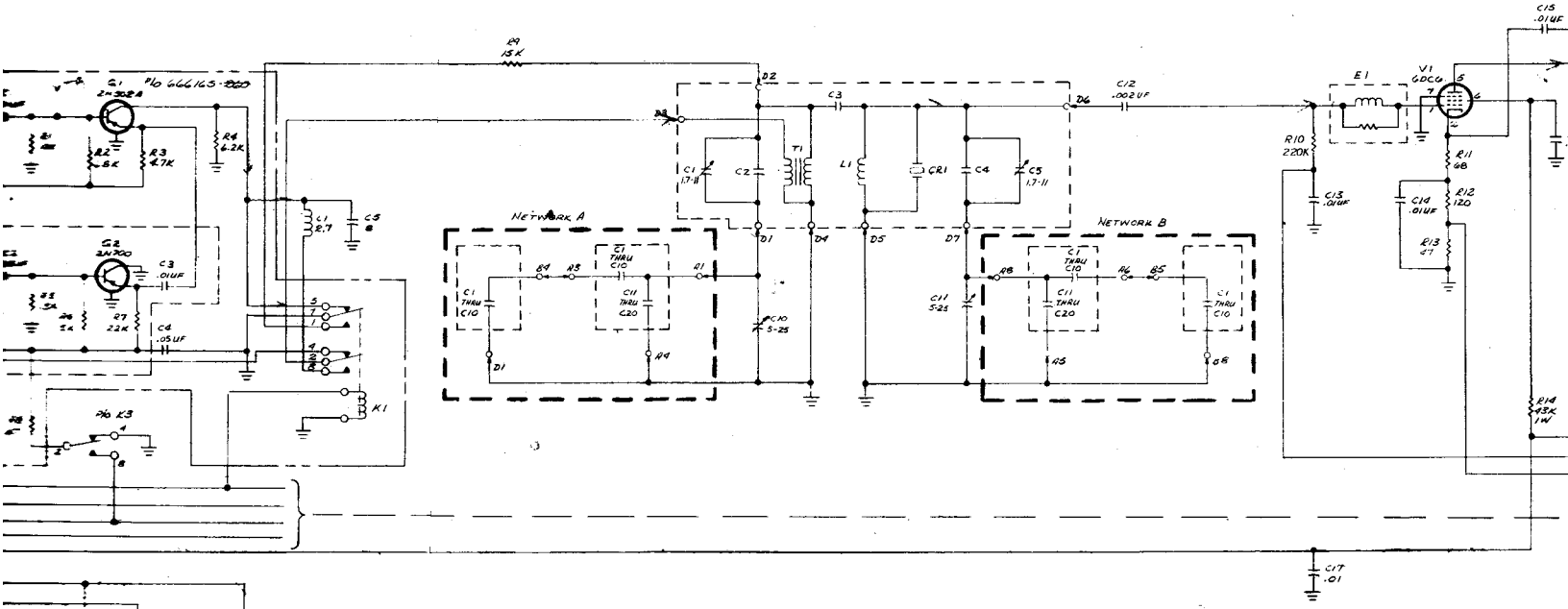


CHART A

FREQUENCY MC	CAPACITOR REF DESIG	NETWORK A	NETWORK B	NETWORK C	NETWORK
.00	C1	1034	1034	1034	103
.01	C2	998	998	998	99
.02	C3	967	964	962	96
.03	C4	936	932	928	93
.04	C5	907	902	897	90
.05	C6	879	874	867	87
.06	C7	852	847	834	84
.07	C8	828	821	812	82
.08	C9	805	797	787	79
.09	C10	783	774	763	77
.00	C1	914	874	828	87
	C11	243	246	252	24
.10	C2	793	761	724	76
	C12	209	212	216	21
.20	C3	701	673	641	67
	C13	180	183	186	18
.30	C4	626	601	574	60
	C14	155	157	160	15
.40	C5	564	542	519	54
	C15	133	135	137	13
.50	C6	512	492	473	49
	C16	116	117	118	11
.60	C7	468	451	433	45
	C17	97	101	101	101
.70	C8	430	415	395	41
	C18	86	86	86	86
.80	C9	398	394	369	39
	C19	73	78	73	7
.90	C10	369	357	348	35
	C20	62	62	62	6

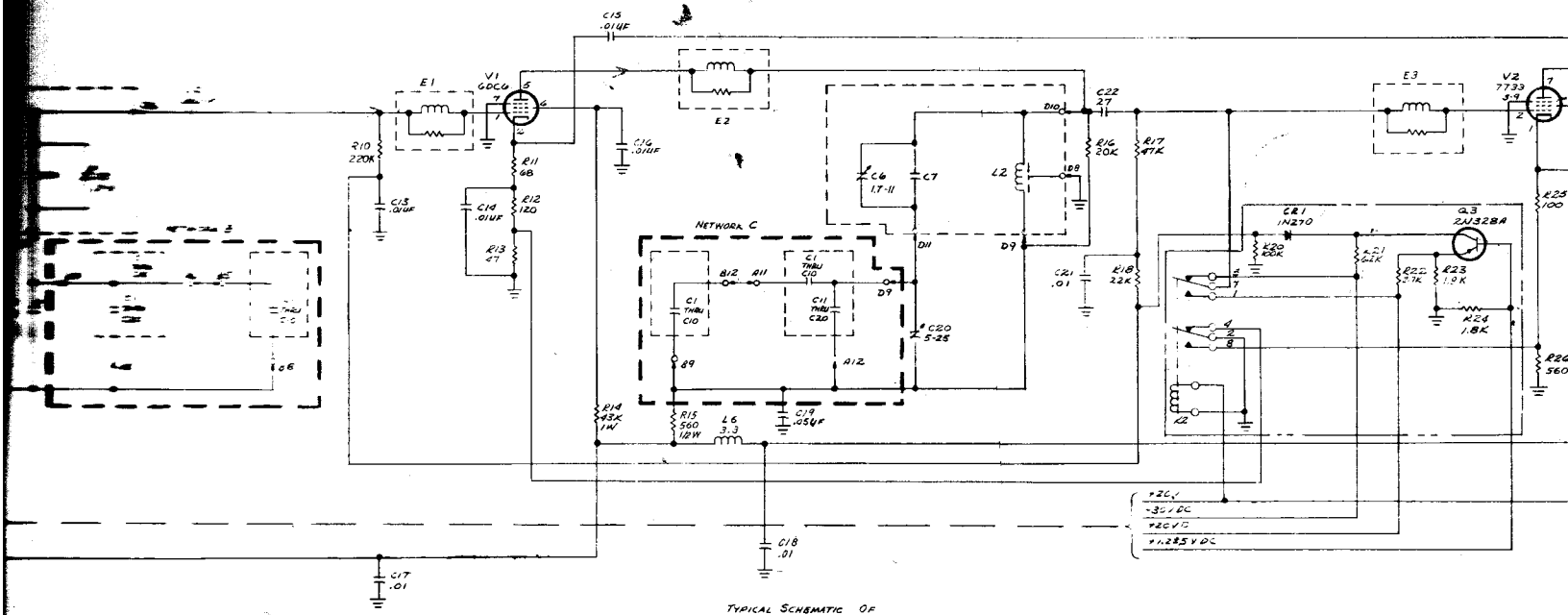
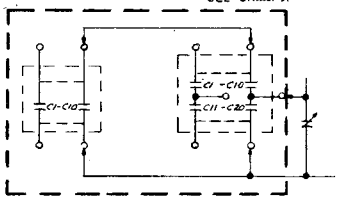
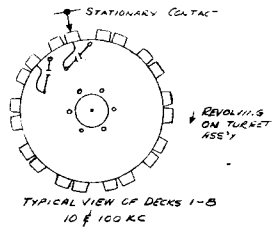


CHART A

FREQUENCY MC	CAPACITOR REF DESIG	NETWORK A	NETWORK B	NETWORK C	NETWORK D
.00	C1	1034	1034	1038	XC-1
.01	C2	998	998	998	998
.02	C3	967	964	962	962
.03	C4	936	932	928	932
.04	C5	907	902	897	902
.05	C6	879	874	867	871
.06	C7	852	847	839	847
.07	C8	828	821	812	821
.08	C9	805	797	787	797
.09	C10	783	774	763	774
.00	C1	914	874	828	874
	C11	248	246	252	246
.10	C2	795	761	724	761
	C12	209	212	216	212
.20	C3	701	673	641	673
	C13	180	183	186	183
.30	C4	626	601	574	601
	C14	155	157	160	157
.40	C5	564	542	519	541
	C15	133	135	137	135
.50	C6	512	492	473	492
	C16	116	117	118	117
.60	C7	468	451	433	451
	C17	97	101	101	101
.70	C8	430	415	395	412
	C18	86	86	86	86
.80	C9	398	384	369	384
	C19	73	73	73	73
.90	C10	349	357	343	355
	C20	62	62	62	62

TYPICAL SCHEMATIC OF NETWORKS A-D

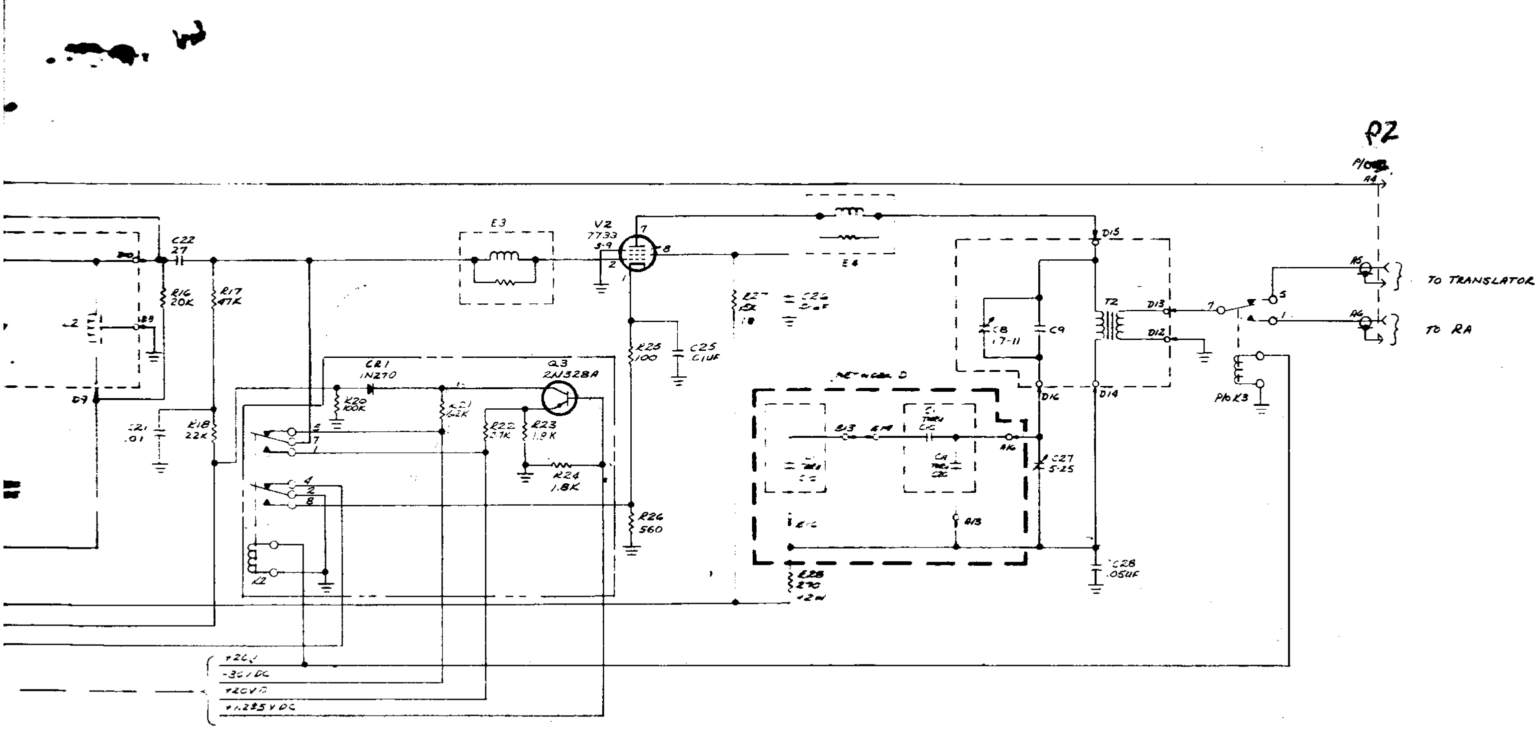




TYPICAL VIEW OF DECKS 1-8
10 & 100 KC

FREQUENCY MC	CN ASS'Y	C2	CN ASS'Y	C3	CN ASS'Y	C4	CN ASS'Y	C7	CN ASS'Y	C9
2	A2	SHORTED	A2		A2	SHORTED	A2	SHORTED	A7	SHORTED
3	A3	1243	A3		A3	1209	A3	1256	A8	1249
4	A4	619	A4		A4	626	A4	632	A9	626
5	A5	412	A5		A5	418	A5	424	A10	418
6	A6	308	A6		A6	314	A6	320	A11	314
7	A7	246	A7		A7	252	A7	258	A12	252
8	A8	204	A8		A8	209	A8	217	A13	209
9	A9	174	A9		A9	180	A9	187	A14	180
10	A10	152	A10		A10	160	A10	165	A15	160
11	A11	137	A11		A11	142	A11	147	A16	142
12	A12	122	A12		A12	128	A12	133	A17	128
13	A13	112	A13		A13	116	A13	122	A18	116
14	A14	101	A14		A14	106	A14	112	A19	106
15	A15	93	A15		A15	97	A15	103	A20	97
16	A16	86	A16		A16	93	A16	97	A21	93
17	A17	81	A17		A17	87	A17	90	A22	86
18	A18	75	A18		A18	81	A18	86	A23	81
19	A19	70	A19		A19	75	A19	81	A24	75
20	A20	67	A20		A20	73	A20	78	A25	73
21	A21	62	A21		A21	70	A21	73	A26	70
22	A22	62	A22		A22	68	A22	70	A27	65
23	A23	57	A23		A23	62	A23	67	A28	62
24	A24	53	A24		A24	62	A24	65	A29	62
25	A25	51	A25		A25	57	A25	62	A2	57
26	A26	47	A26		A26	55	A26	62	A3	55
27	A27	47	A27		A27	53	A27	58	A4	53
28	A28	47	A28		A28	51	A28	55	A5	51
29	A29	44	A29		A29	49	A29	51	A6	49

Figure 6-12. Transceiv

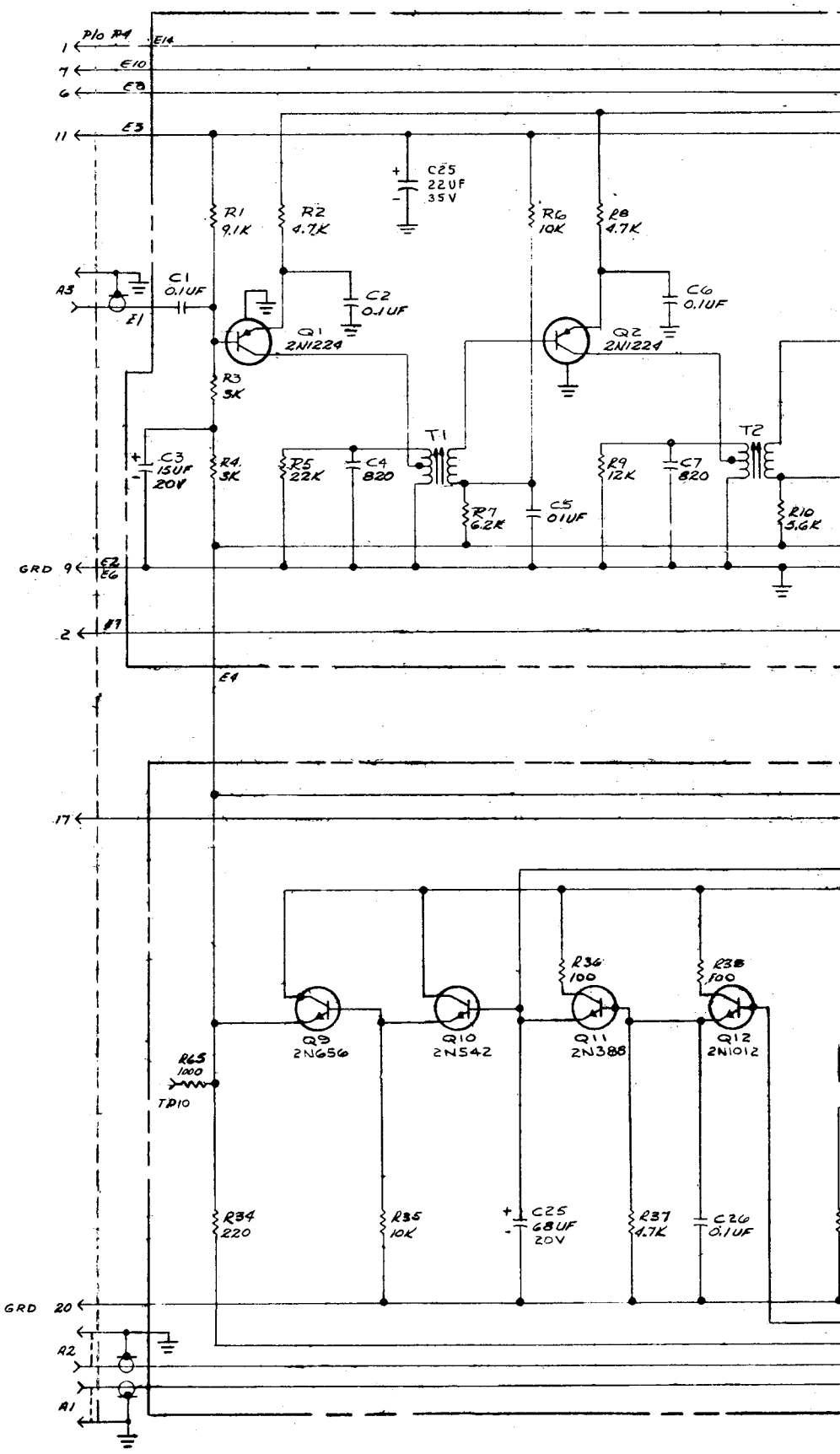


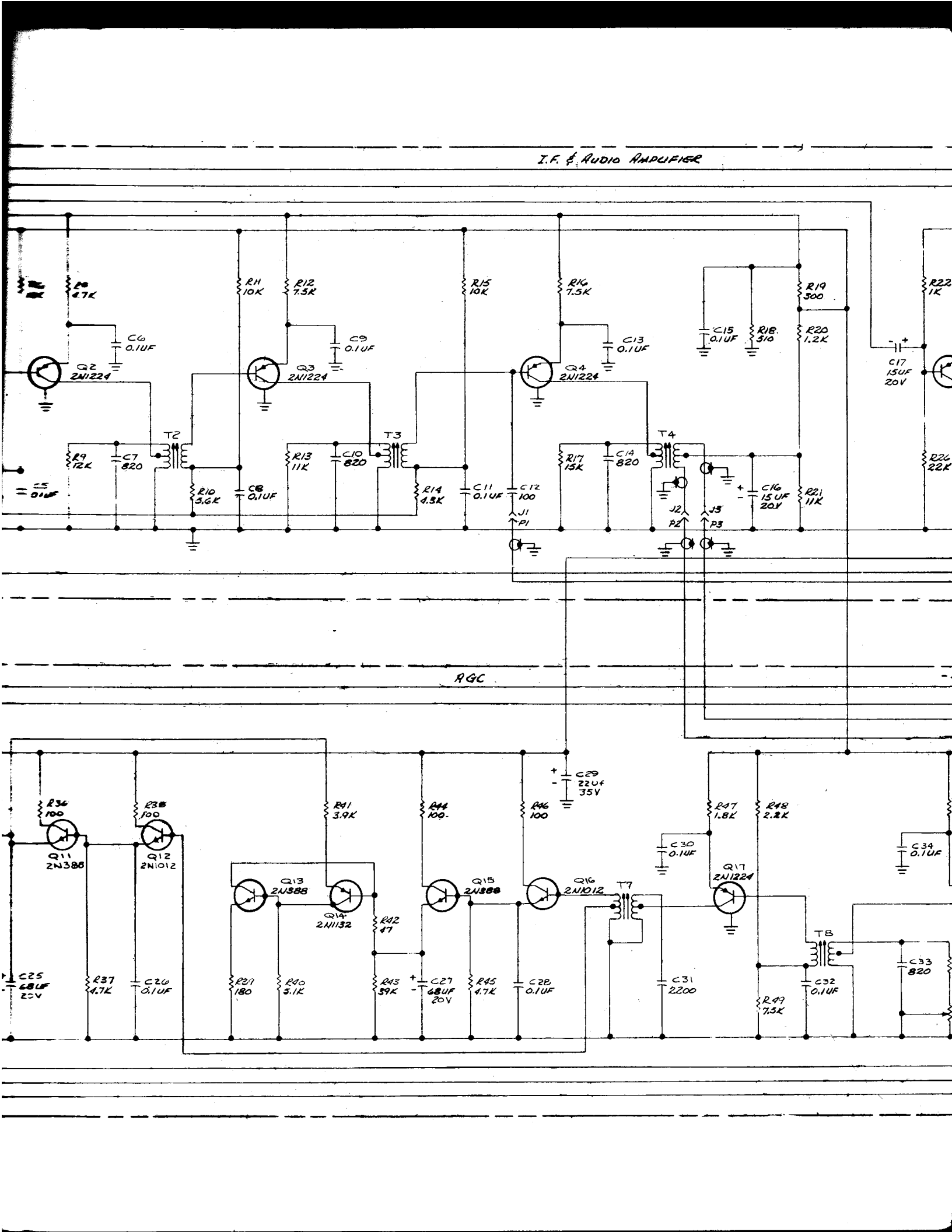
FREQUENCY MC	ON ASS'Y	C2	ON ASS'Y	C3	ON ASS'Y	C4	ON ASS'Y	C7	ON ASS'Y	C9
2	A2	SHORTED	A2		A2	SHORTED	A2	SHORTED	A7	SHORTED
3	A3	1243	A3		A3	1249	A3	1256	A8	1249
4	A4	219	A4		A4	626	A4	632	A9	626
5	A5	412	A5		A5	418	A5	424	A10	418
6	A6	308	A6		A6	314	A6	320	A11	314
7	A7	246	A7		A7	252	A7	258	A12	252
8	A8	204	A8		A8	209	A8	217	A13	209
9	A9	174	A9		A9	180	A9	.87	A14	180
10	A10	152	A10		A10	160	A10	165	A15	160
11	A11	137	A11		A11	142	A11	.47	A16	142
12	A12	122	A12		A12	128	A12	133	A17	128
13	A13	112	A13		A13	116	A13	122	A18	116
14	A14	101	A14		A14	106	A14	112	A19	106
15	A15	93	A15		A15	97	A15	103	A20	97
16	A16	86	A16		A16	93	A16	97	A21	93
17	A17	81	A17		A17	86	A17	90	A22	86
18	A18	75	A18		A18	81	A18	86	A23	81
19	A19	70	A19		A19	75	A19	81	A24	75
20	A20	67	A20		A20	73	A20	78	A25	73
21	A21	62	A21		A21	70	A21	73	A26	70
22	A22	62	A22		A22	65	A22	70	A27	65
23	A23	57	A23		A23	62	A23	67	A28	62
24	A24	53	A24		A24	62	A24	65	A29	62
25	A25	51	A25		A25	57	A25	62	A42	57
26	A26	49	A26		A26	55	A26	62	A43	55
27	A27	47	A27		A27	53	A27	56	A44	53
28	A28	47	A28		A28	51	A28	55	A45	51
29	A29	44	A29		A29	47	A29	51	A46	47

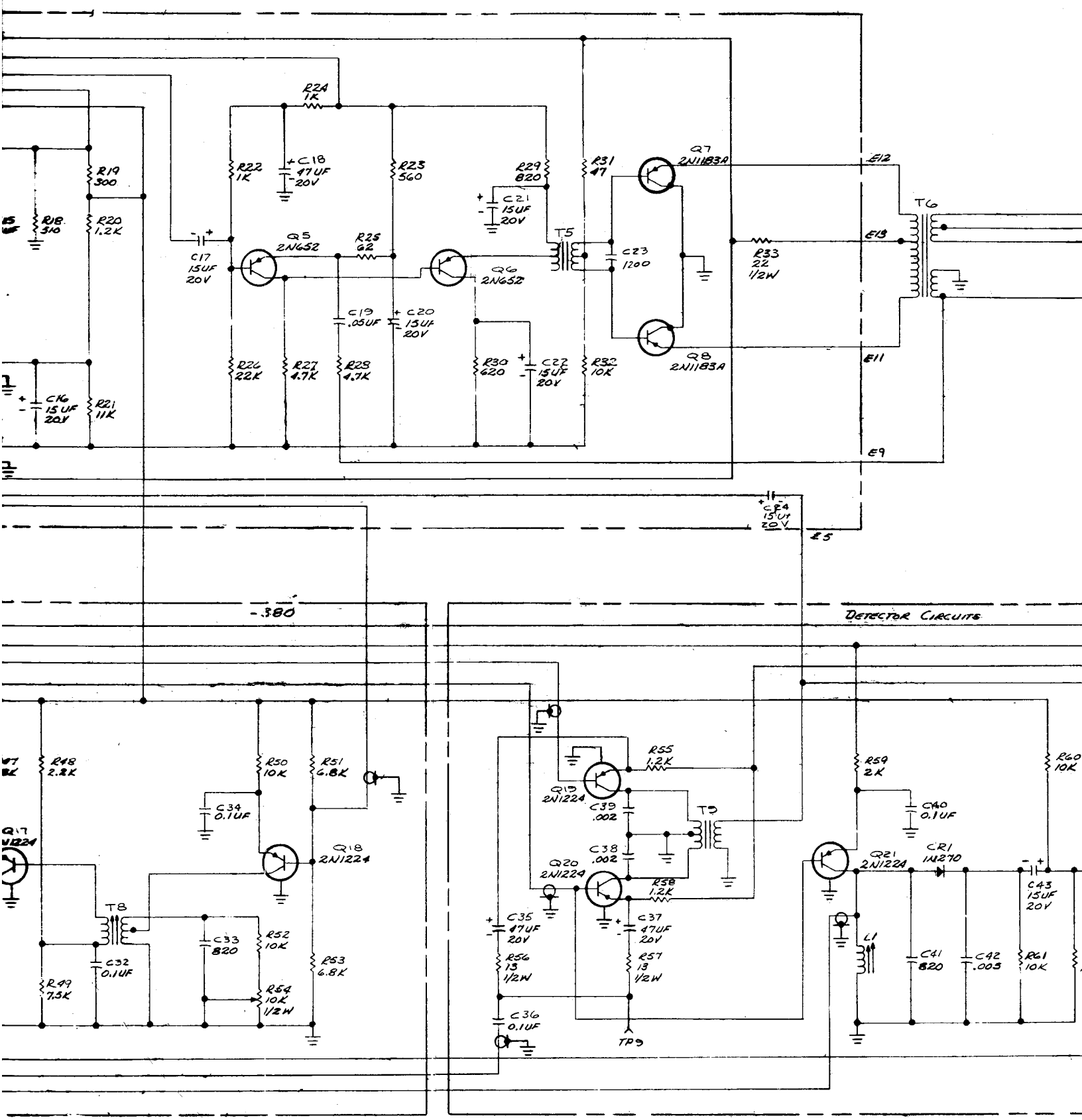
NOTES:

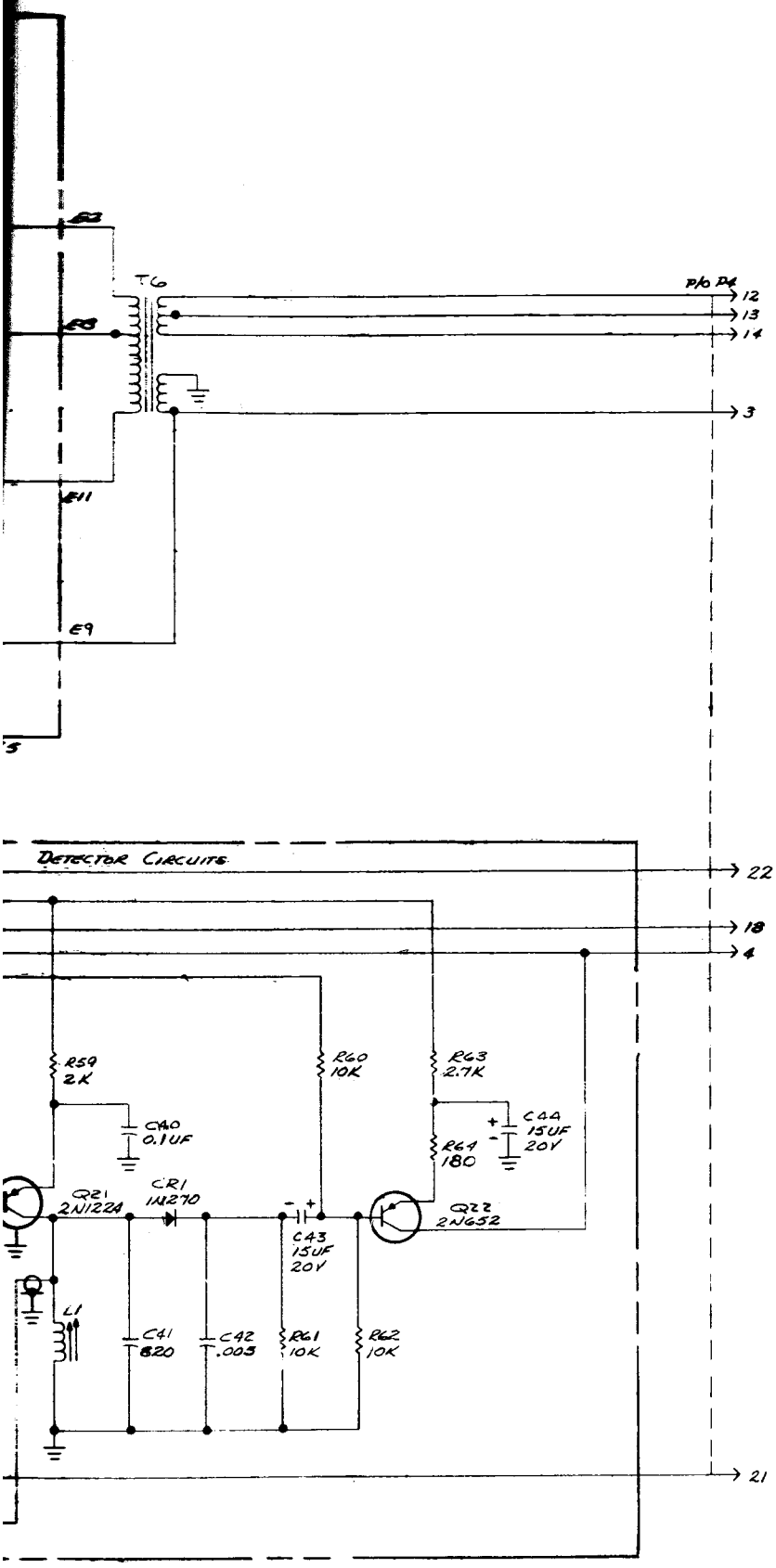
1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPECIFIED.
   - A. RESISTOR VALUES IN OHMS.
   - B. CAPACITOR VALUES IN MICRO-MICROFARADS.
   - C. RESISTORS ARE 1/4 W, 5%,
   - D. INDUCTOR VALUES IN MICROHENRIES
3. CRYSTAL USED ONLY ON 19, 20, 29 MC ASSEMBLIES

Figure 6-12. Transceiver SC-901X, Transceiver RF Amplifier, Schematic Diagram


P/O P4
E14
E10
E8
E3
1
7
6
11
C25
22UF
35V
R1
9.1K
R2
4.7K
R6
10K
R8
4.7K
A3
E1
C1
0.1UF
C2
0.1UF
C6
0.1UF
Q1
2N1224
Q2
2N1224
R3
5K
T1
T2
C3
15UF
20V
R4
5K
R5
22K
C4
820
R9
12K
C7
820
R7
6.2K
C5
01UF
R10
5.6K
GRD 9
E2
E6
2
P7
E4
17
R36
100
R38
100
Q9
2N656
Q10
2N542
Q11
2N388
Q12
2N1012
R65
1000
TP10
R34
220
R35
10K
C25
68UF
20V
R37
4.7K
C26
0.1UF
GRD 20
A2
A1


I.F. & AUDIO AMPLIFIER
R8 4.7K
R11 10K
R12 7.5K
R15 10K
R16 7.5K
R19 300
R22 1K
C6 0.1UF
C9 0.1UF
C13 0.1UF
C15 0.1UF
R18 510
R20 1.2K
C17 15UF 20V
Q2 2N1224
Q3 2N1224
Q4 2N1224
T2
T3
T4
R9 12K
C7 820
R13 11K
C10 820
R17 15K
C14 820
R22 22K
C5 .01UF
R10 3.6K
C8 0.1UF
R14 4.3K
C11 0.1UF
C12 100
C16 15 UF 20V
R21 11K
J1
P1
J2
P2
J3
P3
AGC
C29 22uf 35V
R36 100
R38 100
R41 3.9K
R44 100.
R46 100
R47 1.8K
R48 2.2K
C30 0.1UF
C34 0.1UF
Q11 2N388
Q12 2N1012
Q13 2N388
Q14 2N1132
Q15 2N388
Q16 2N1012
T7
Q17 2N1224
T8
R42 47
C25 68UF 20V
R37 4.7K
C26 0.1UF
R39 180
R40 5.1K
R43 39K
C27 68UF 20V
R45 4.7K
C28 0.1UF
C31 2200
C32 0.1UF
C33 820
R49 7.5K

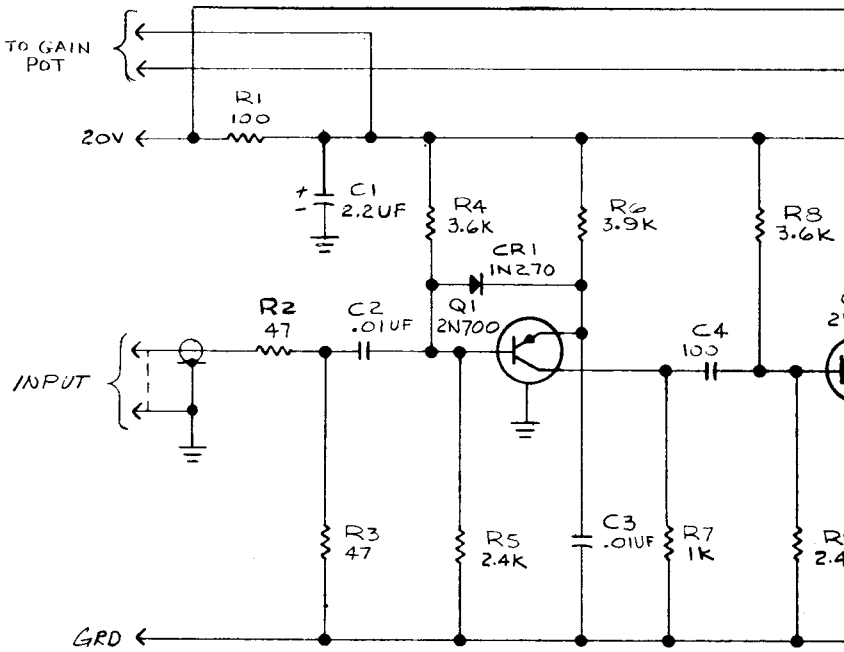

R19 300
R18 510
R20 1.2K
C16 15UF 20V
R21 11K
R22A 1K
R22 1K
C18 47UF 20V
R23 560
C17 15UF 20V
Q5 2N652
R25 62
Q6 2N652
C19 .05UF
C20 15UF 20V
R26 22K
R27 4.7K
R28 4.7K
R29 820
C21 15UF 20V
R30 620
C22 15UF 20V
R31 47
R32 10K
T5
Q7 2N1183A
C23 1200
Q8 2N1183A
R33 22 1/2W
E12
E13
E11
E9
T6
C24 15UF 20V
E5
-380
DETECTOR CIRCUITS
R48 2.2K
R50 10K
R51 6.8K
C34 0.1UF
Q18 2N1224
T8
C33 820
R52 10K
R53 6.8K
C32 0.1UF
R49 7.5K
R54 10K 1/2W
R55 1.2K
Q19 2N1224
C39 .002
T7
C38 .002
Q20 2N1224
R58 1.2K
C35 47UF 20V
C37 47UF 20V
R56 13 1/2W
R57 13 1/2W
C36 0.1UF
TP9
R59 2K
R60 10K
C40 0.1UF
Q21 2N1224
CR1 1N270
C43 15UF 20V
L1
C41 820
C42 .005
R61 10K

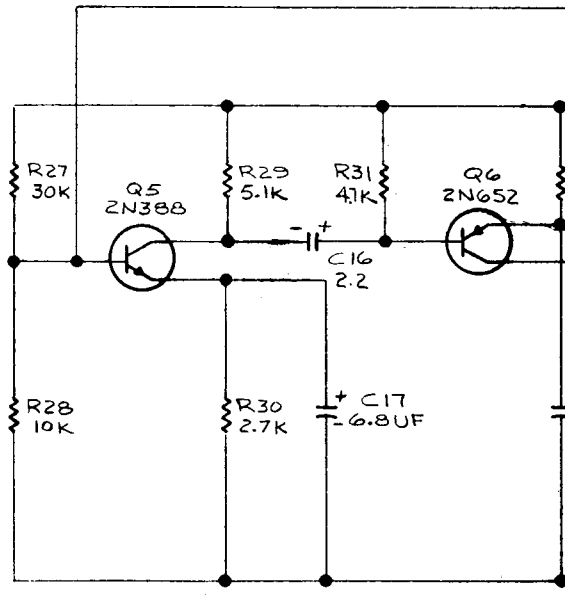


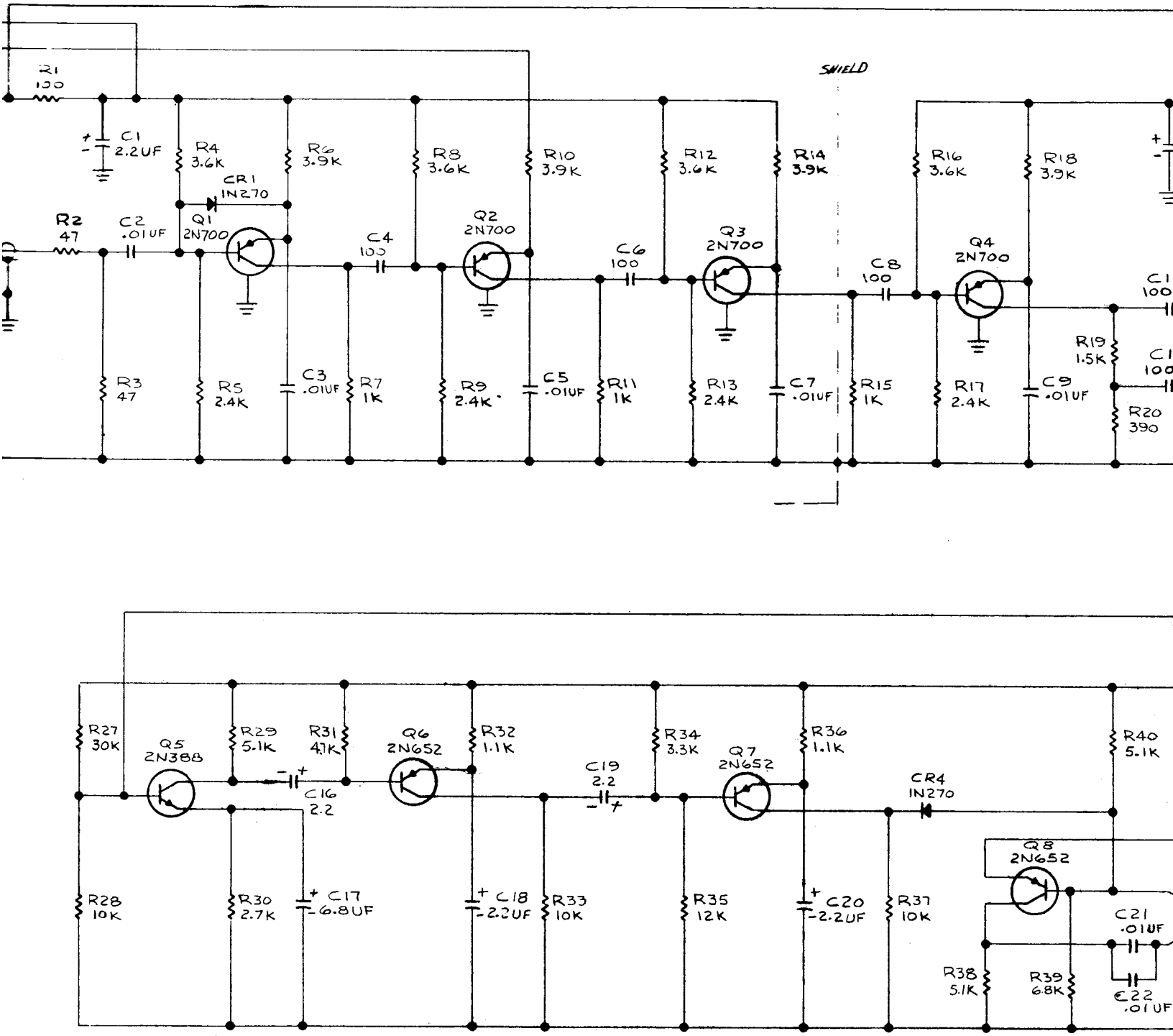
NOTES:

1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPECIFIED:-
   a. ALL RESISTORS ARE OHMS
   b. ALL RESISTORS ARE 1/4W, ±5%
   c. ALL CAPACITORS ARE MICROMICROFARADS

Figure 6-13. Transceiver SC-901X, Receiver IF/Audio, Schematic Diagram


TO GAIN POT
20V
R1 100
C1 2.2UF
R4 3.6K
R6 3.9K
R8 3.6K
CR1 IN270
Q1 2N700
R2 47
C2 .01UF
C4 100
INPUT
R3 47
R5 2.4K
C3 .01UF
R7 1K
GRD


R27 30K
Q5 2N388
R29 5.1K
R31 4.1K
Q6 2N652
C16 2.2
R28 10K
R30 2.7K
C17 6.8UF


R1
100
C1
2.2UF
R4
3.6K
R6
3.9K
CR1
IN270
R8
3.6K
R10
3.9K
R12
3.6K
R14
3.9K
SHIELD
R16
3.6K
R18
3.9K
R2
47
C2
.01UF
Q1
2N700
C4
100
Q2
2N700
C6
100
Q3
2N700
C8
100
Q4
2N700
R19
1.5K
R3
47
R5
2.4K
C3
.01UF
R7
1K
R9
2.4K
C5
.01UF
R11
1K
R13
2.4K
C7
.01UF
R15
1K
R17
2.4K
C9
.01UF
R20
390

R27
30K
Q5
2N388
R29
5.1K
R31
4.7K
C16
2.2
Q6
2N652
R32
1.1K
C19
2.2
R34
3.3K
Q7
2N652
R36
1.1K
CR4
IN270
R40
5.1K
Q8
2N652
R28
10K
R30
2.7K
C17
6.8UF
C18
2.2UF
R33
10K
R35
12K
C20
2.2UF
R37
10K
C21
.01UF
R38
5.1K
R39
6.8K
C22
.01UF

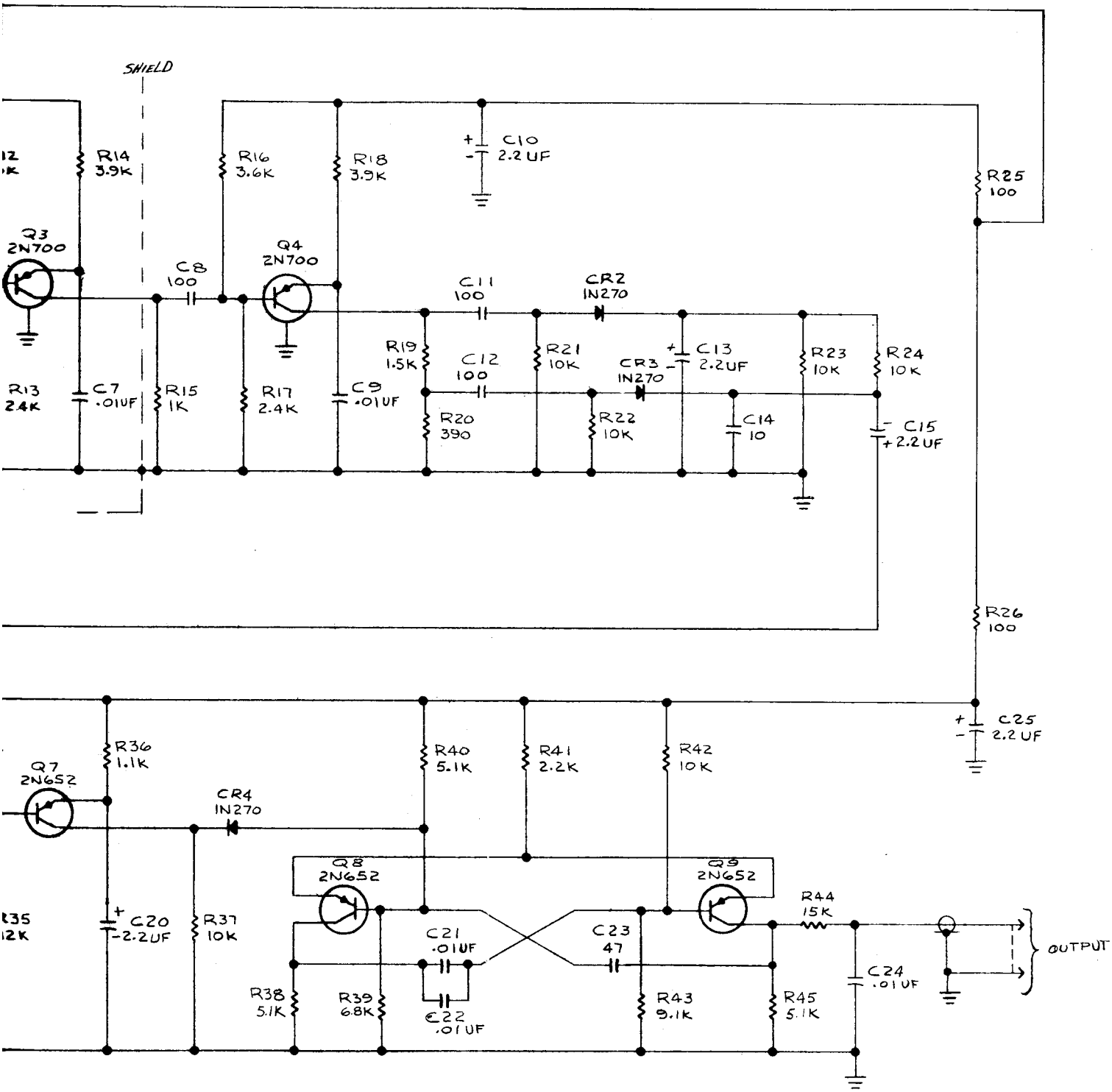
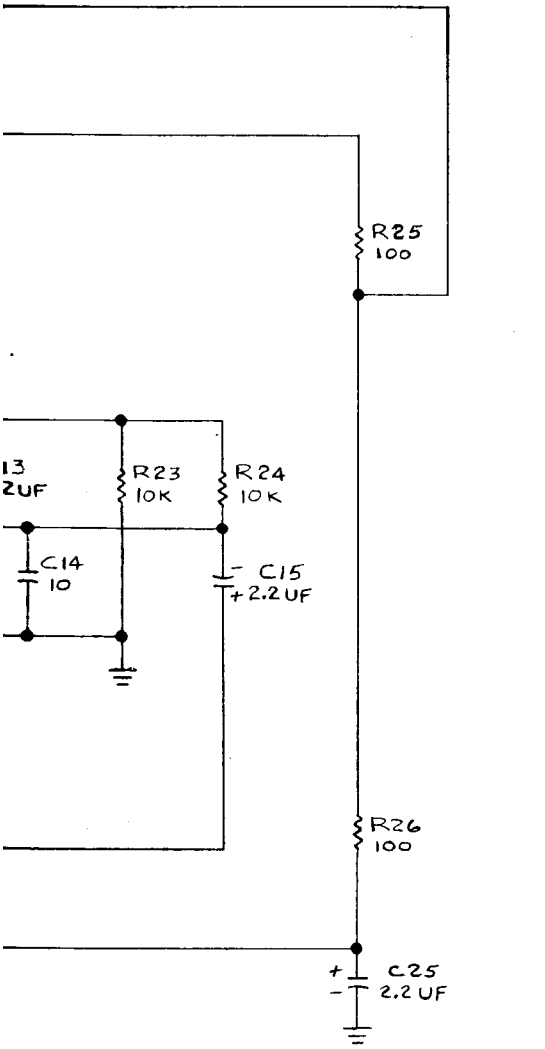
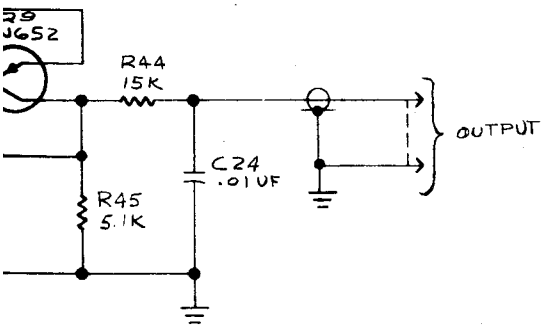


Figure 6-14. Tra

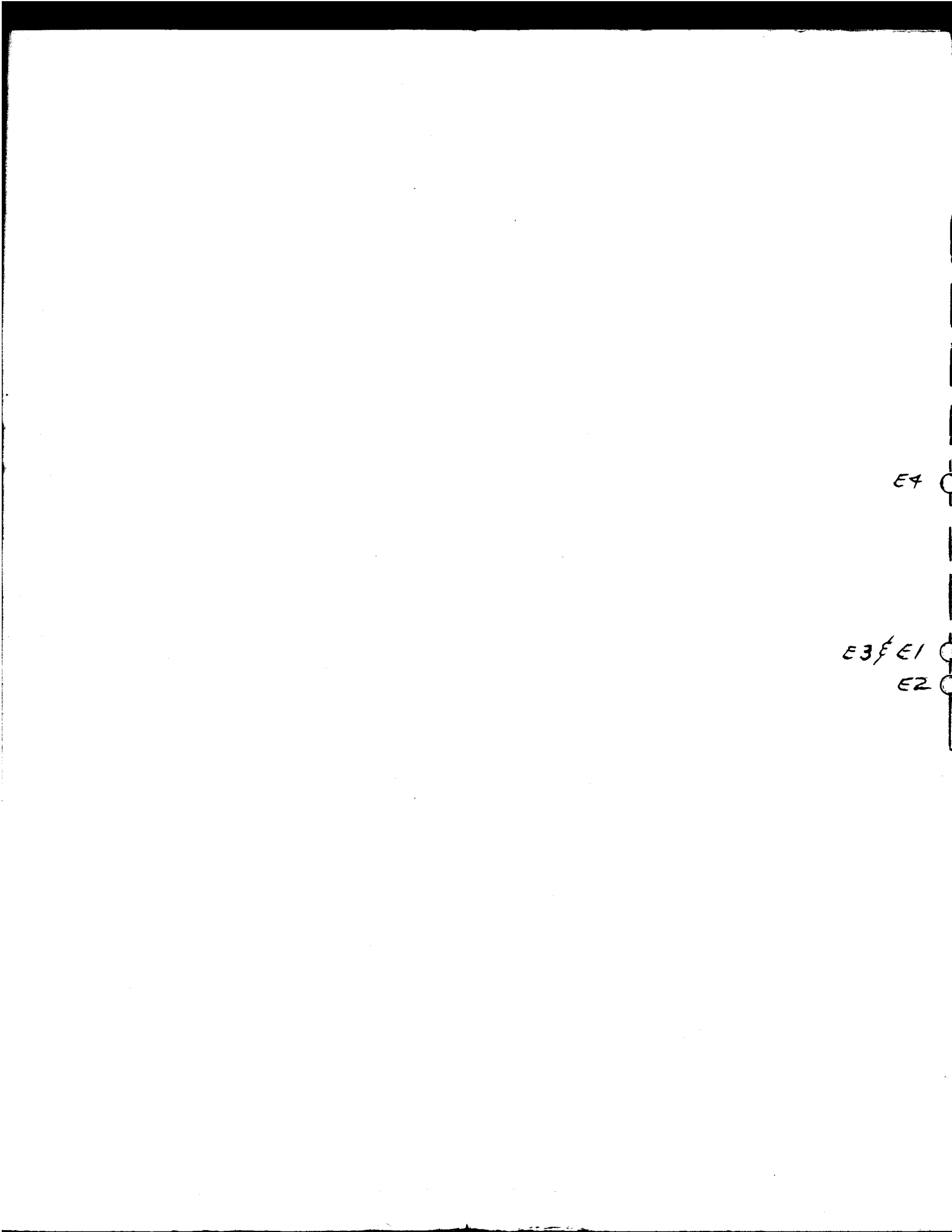


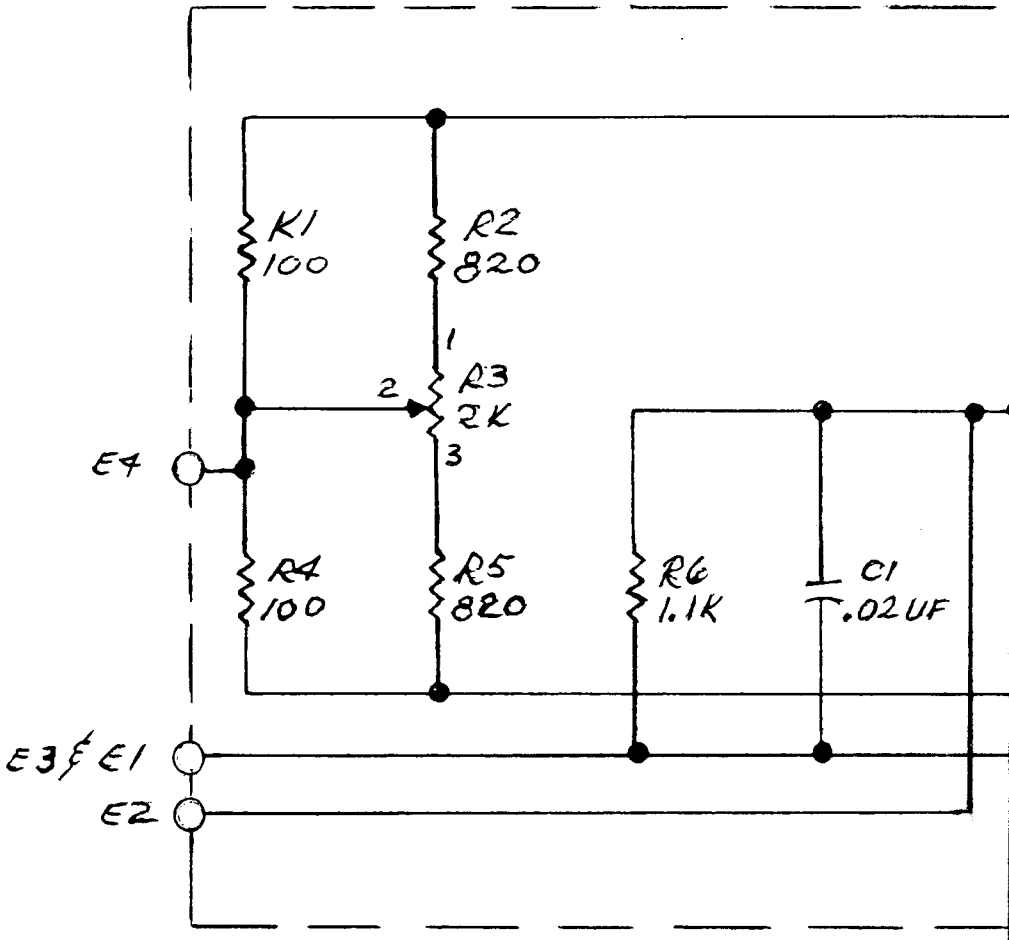


NOTES

1. REFERENCE DESIGNATIONS ARE ABBREVIATED. PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPECIFIED,
   a. ALL RESISTOR VALUES ARE IN OHMS.
   b. ALL RESISTORS ARE 1/4 W 5%
   c. ALL CAPACITOR VALUES ARE IN MICROMICROFARADS.

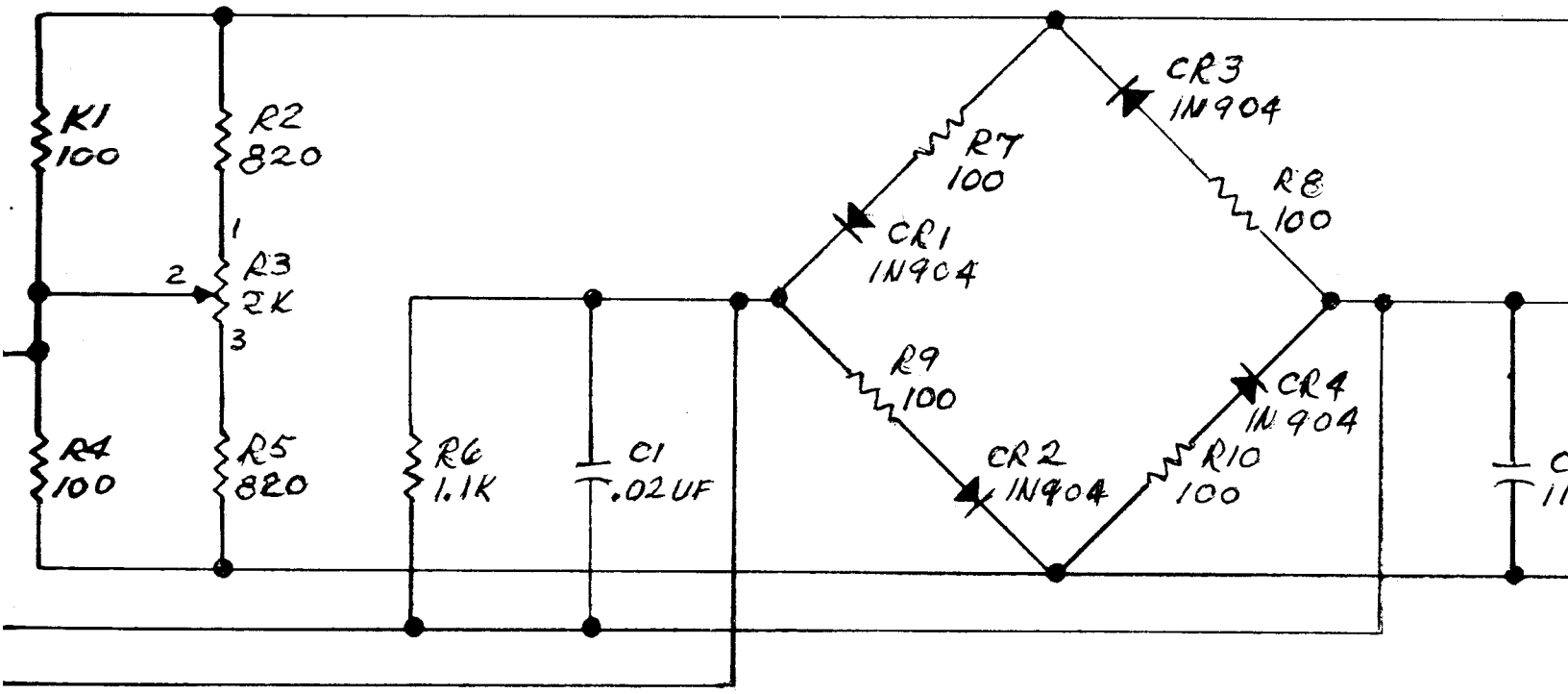
Figure 6-14. Transceiver SC-901X, Noise Blanks, Schematic Diagram


E4
E3 & E1
E2



NOTES :-

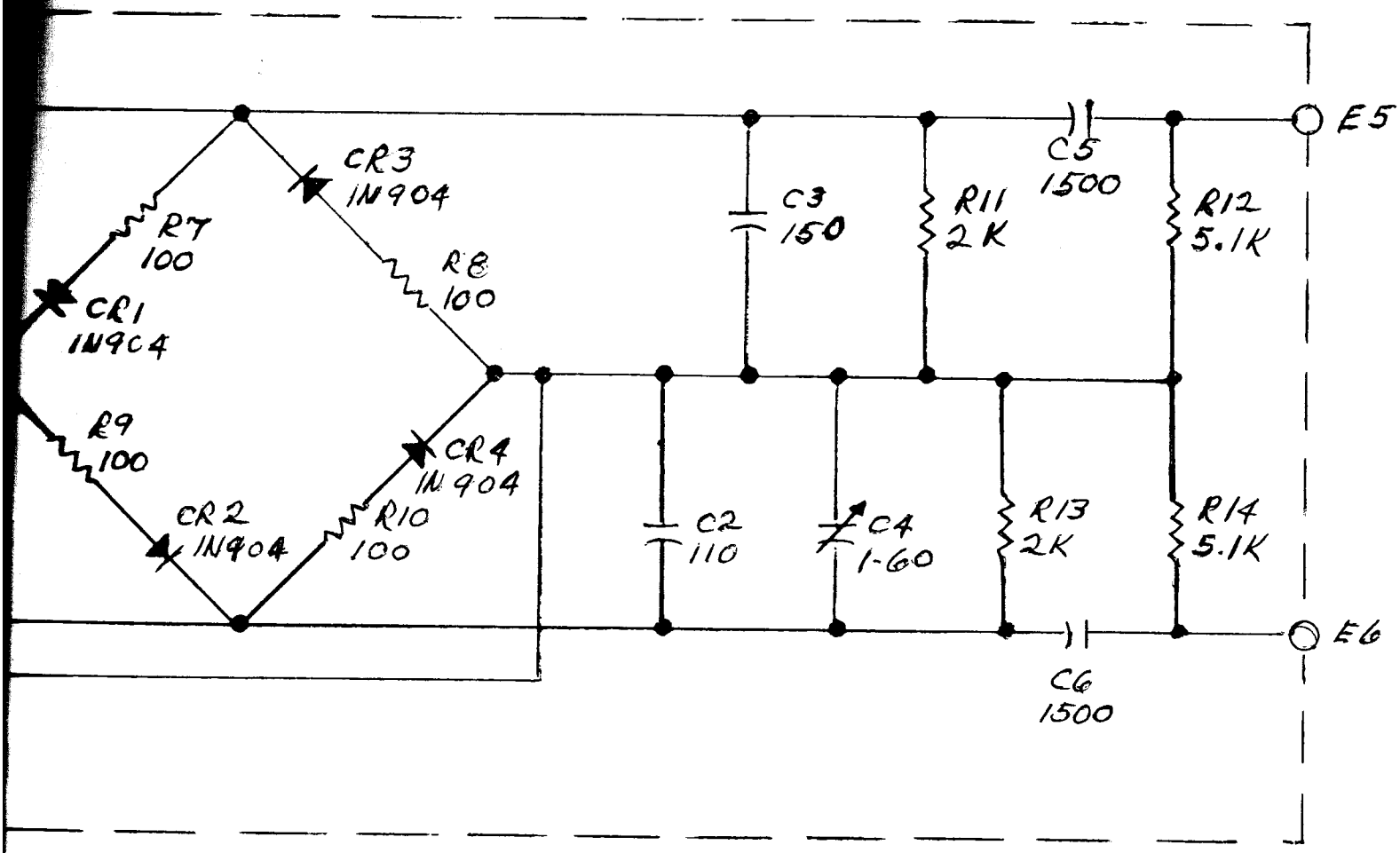
1. REFERENCE DESIGNATIONS
   THE DESIGNATION WITH TA
   DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPE
   a. ALL RESISTORS ARE O
   b. ALL RESISTORS ARE ½
   c. ALL CAPACITORS ARE



NOTES:-

1. REFERENCE DESIGNATIONS ARE ABBREVIATED PREFIX THE DESIGNATION WITH THE UNIT NUMBER OR ASSEMBLY DESIGNATION OR BOTH.
2. UNLESS OTHERWISE SPECIFIED
   a. ALL RESISTORS ARE OHMS
   b. ALL RESISTORS ARE 1/4W, 5 %
   c. ALL CAPACITORS ARE MICROMICROFARADS

Figure 6-15. Transceiver S



RE ABBREVIATED PREFIX
UNIT NUMBER OR ASSEMBLY

FIED
ES
, 5 %
CROMICROFARADS

Figure 6-15. Transceiver SC-901X, Channel 2 Balanced Modulator