
FDK: MULTI-750A/E SERVICE MAINTAIN BOOK

WARNING:

The above PANELS and COVERS should be removed if the "OWNER" has necessary technical ability to carry out the required adjustment only.

Suitable TEST-EQUIPMENT and TOOLS must be available. Otherwise refer to DEALER or DISTRIBUTOR for service or repair.

Always ensure that all semi-conductor/devices are connected the right-way around and that are not touching one another. Failure to observe this may result in permanent damage. Thank you.

F.D.K. Fukuyama Electronics Co.,Ltd.
Tokyo,Japan.

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PRINTED BOARD REFERENCE:

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CODE NUMBER:	BOARD NAME:	QTY:	BOARD NUMBER:
315	TX-POWER UNIT	1	500138A
417	TX-RX UNIT	1	500139A
915	S.S.B UNIT	1	500124A
514	P.L.L. UNIT w/SUB-UNIT	1/1	500140B (Main) 500144 (Sub)
717	CH - SW UNIT	1	500125B
719	DISPLAY UNIT	1	500126
913	TONE-BURST UNIT	1	500149A

NOTE: Reference number are should be shown on the parts list.

ATTENTION: A brand new unit MUST BE work properly,except loose or remove a connector during transportation. So,please DO NOT touch or adjustment before above CONNECTOR/CONNECTIONS.

PROVIDES MEASUREMENT:
 =====

NOTE

The trouble isolation of problems to the defective components is most easily accomplished by the use of a VTVM or a VOM/OSCILLOSCOPE and normal transistor servicing techniques. Refer that signal trace must be made to the applicable schematic diagram to determine the circuit figure or values. Except, logical circuit. The logical circuit must apply SYNCROSCOPE or LOGIC - TESTER, may otherwise damage permanent particularly a CPU I.C.

Should need servicing measurement unit as under the following.

- | | | |
|----|-------------------------------------|--|
| 1) | V.O.M | More than 1M ohm, input resistance, voltage range 1 - 50Volts D.C. |
| 2) | Audio Voltmeter | More than 1M ohm input resistance, Meter range 10mV - 30V, Frequency range 100Hz - 10KHz. |
| 3) | R.F - VTVM | More than 1M ohm/2pF capacitance input impedance, Meter range 10mV - 50V, Frequency range more than 150MHz. |
| 4) | A.F Generator
(Audio Oscillator) | More than 1 volt output level, 600 ohm output impedance, Frequency range 300Hz to 3,000Hz available. |
| 5) | R.F Wattmeter or
Dummy Load | Impedance 50 -52 ohm, Power capacity More than 20 - 30watts continuous duty. |
| 6) | Frequency Counter | Frequency range 10MHz to 150MHz, Less than 50mV input sensitivity. |
| 7) | S.Signal Generator | Output frequency range 140-150MHz, (10.7MHz fixed frequency, if available) Output level -10dB to +80dB (0 dBu - 120dBu) and Modulation 0 - +/-5KHz at 1,000Hz. |
| 8) | Oscilloscope | Input impedance, More than 1M ohm and Frequency range more than 5MHz. |
| 9) | SYNCROSCOPE

(if available) | Input impedance, More than 1M ohm/2pF and Frequency more than 50MHz. |

PROVIDES MEASUREMENT:
=====

- | | | |
|-----|--------------------------------------|--|
| 10) | Sweep Generator
(if available). | Center frequency 145 or 146MHz,
Frequency deviation +/-3KHz at Max.
Output voltage more than 0.1Vrms. |
| 11) | Linear Detector
(if available). | Frequency range 140 - 150MHz, Input
sensitivity 100 - 120dBu, Frequency
deviation 0 - +/-5KHz, 0 - +/-10KHz. |
| 12) | A.F Dummy Resistor | 1 - 2 Watts Carbon Resistor, approx.
8 ohm. |
| 13) | Spectrum Analyzer
(if available.) | Input impedance, more than 1M ohm at
2pF. Frequency range 0 - 1,000MHz or
more. |
| 14) | Directional coupler | Attenuation level "Thru/-40dB" or
"T-pad type". Frequency linearity
upto 300-500MHz. |

EXPRESS INFORMATION:
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The F.D.K Quality Control Department most recommendable inspection/failure part under above shown. However may possible each case a part/unit of difference under the conditions, please remind or recognize with this most general cases before applying service or maintenance.

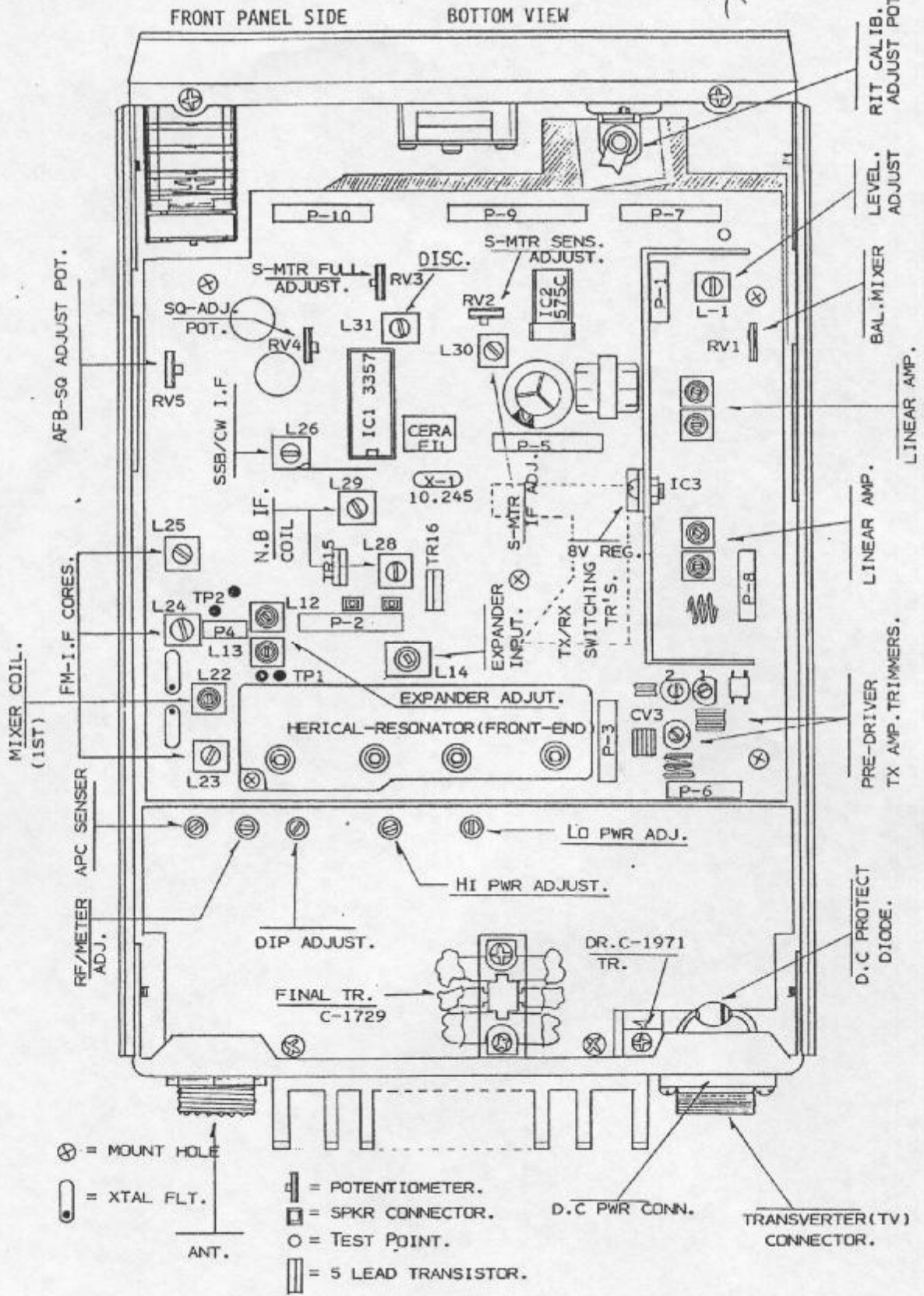
POINT:

CAUSES:

- | | |
|---|---|
| 1) TR-27 TX/RX D.C Switching
(Receiver board). Transistor. | Not display F.I.D(frequency),
S/RF meter full scale. Seems like
"Transmitting" or not transmit. |
| 2) Connector connections.
(Receiver board) | Loose the connection between the
plug pins. May loosing during
transportation, vibration and shocks. |
| 3) Potentiometer.
(Receiver board) | May sometimes not proper contact
of potentiometer. (all kind) |
| 4) Antenna Switching Diode.
(TX-Power unit). D4,MI-301. | Breakable or weakee, Receiver weak
sensitivity or way down. If shorted,
should also be change D3 diode. |
| 5) Antenna Switching Diode.
(TX-Power unit). D3,MI-301. | Breakage or short. No RF-output
power. |
| 6) Thru Hole Pin connection.
(Receiver board). | Not proper soldering or connection.
May resolder if improper pin's or
between the foil pattern. |

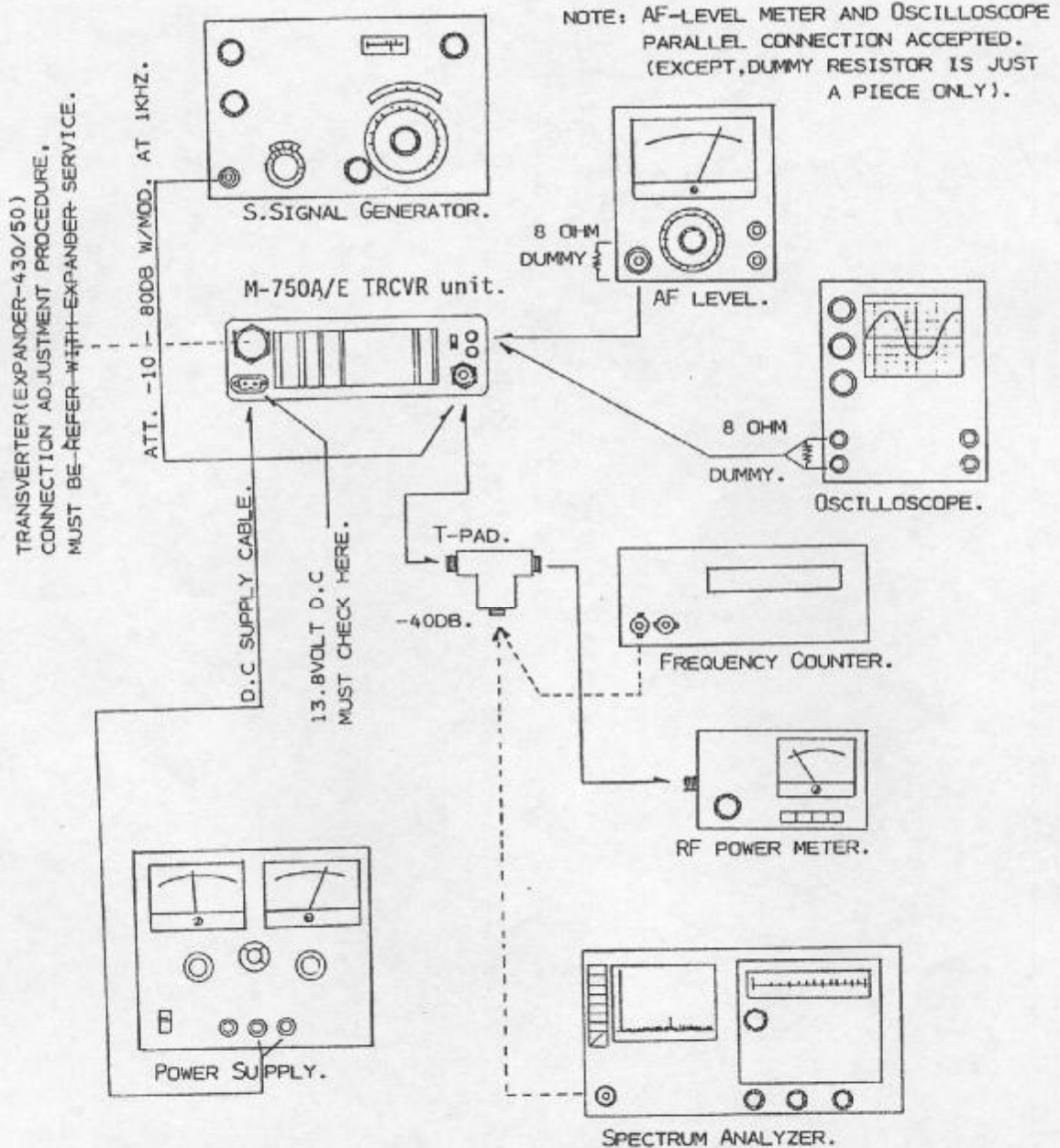
GENERAL ADJUSTMENT POINT:

TX-LINEAR/RECEIVER/PWR UNIT



MEASUREMENT CONNECTION PROCEDURE:

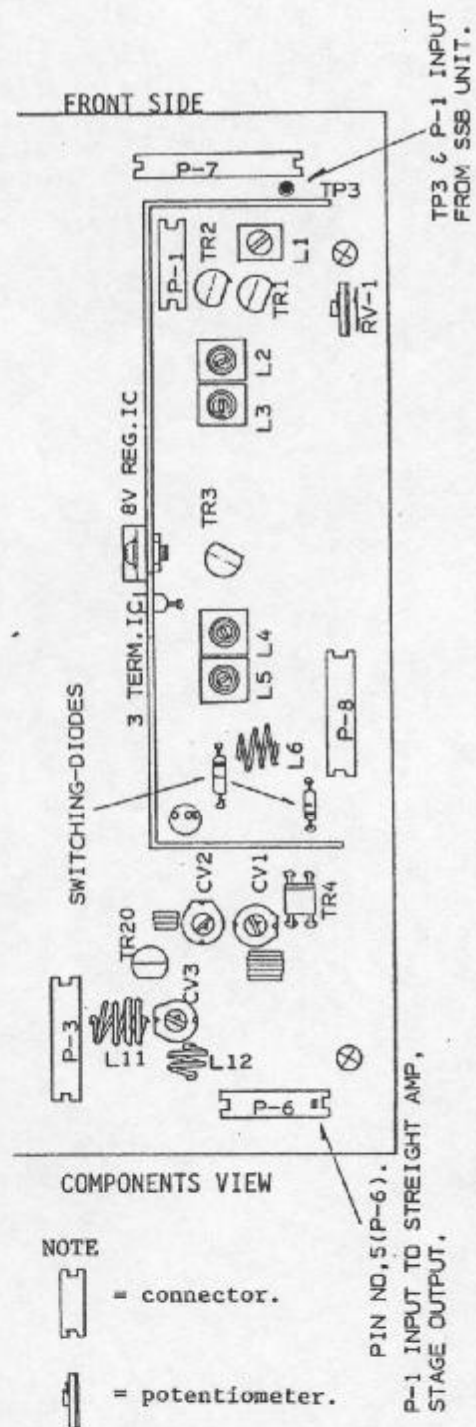
TRANSMIT/RECEIVE TEST



NOTE: USING CABLE MUST BE COAXIAL (50-52 OHM) CONNECTION CABLES LENGTH AS PROPER'S.

RECEIVER/TRANSMITTER UNIT:
=====

ADJUSTMENT PROCEDURE



Set the transceiver SSB mode. Microphone input level -50dBm at 1,000Hz.

NOTE: TP-3 and P-1 is connected with foil side pattern.

Set the Transceiver frequency at the 146.050MHz (center of the frequency) in the band.

Adjust the L2, L3 maximum level, and L4, L5 also. Used have see above an RF output power level, if not appear with it. RF-VTVM level meter put in to the "P-6" No,5 pin output terminal.

NOTE: The RV-1 BALANCED pot adjusting is, an RF output power connect with a SPECTRUM ANALYZER, which if appeared near-by sprurious adjusted minimum point. (Adjust with max. power position only).

The Transceiver MODE switch change to the "FM" position.

NOTE: Frequency should be stay with center of the band (146.050 or 145.050MHz).

Now, adjust the CV-1, CV-2 and CV-3 trimmers full output power.

NOTE: L-11 & L-12 coils spread, which makes 4MHz range type.

RECEIVER/TRANSMITTER UNIT:

ADJUSTMENT PROCEDURE

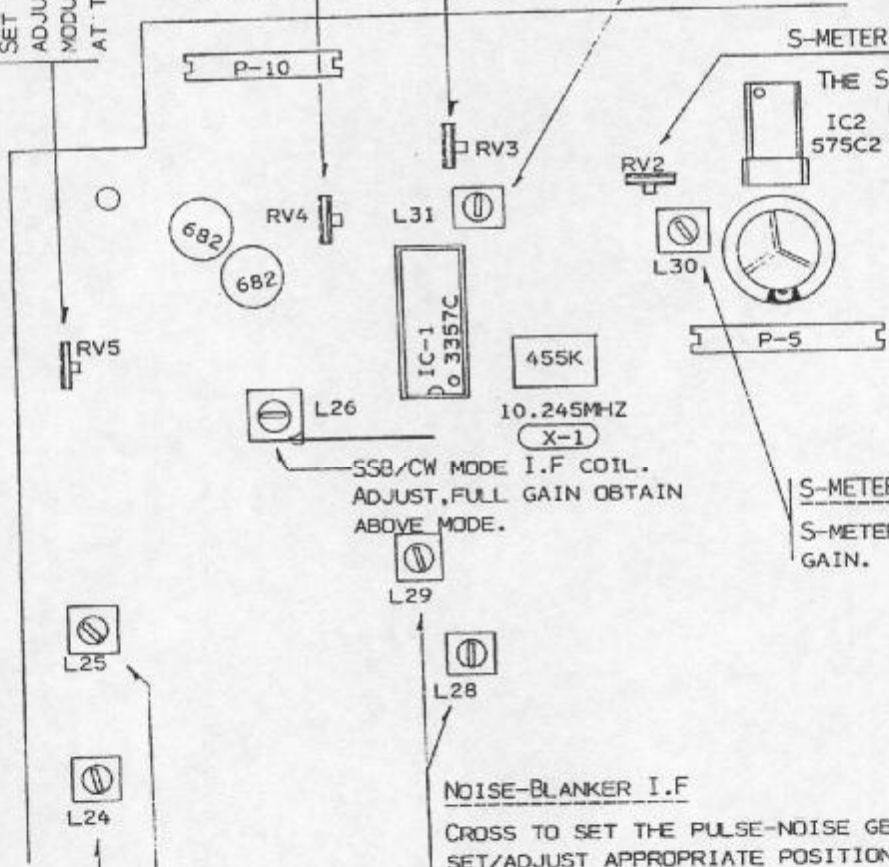
AFB-SQUELCH ADJUST.
SET THE S.G 5KHZ NO-MODULATION,
ADJUST WITH SAME POSITION OF A
MODULATION/NON-MODULATION LEVEL
AT THIS POT.

S-MTR FULL SCALE ADJUST.
SET THE S.G LEVEL 29DBU, AND
ADJUST THE FULL SCALE POINT.

SQUELCH ADJUST POINT.
THE SQUELCH KNOB FULL
CLOCKWISE, SET THE LEVEL
-1DBU POINT. (NO-MOD.)

DISCRIMINATOR COIL.
145.050 OR 146.050MHZ,
+/-3.5KHZ 1,000HZ MOD.
DETECTION LEVEL MAXIMUM.
SEE; BY OSCILLOSCOPE.

FRONT SIDE / COMPONENTS VIEW



S-METER SENS. ADJUST.
THE S.G LEVEL 9DBU.
IC2 METER LEVEL AT
575C2 THE S-3 POINT.

SSB/CW MODE I.F. COIL.
ADJUST, FULL GAIN OBTAIN
ABOVE MODE.

S-METER I.F. GAIN
S-METER OBTAINED FULL
GAIN.

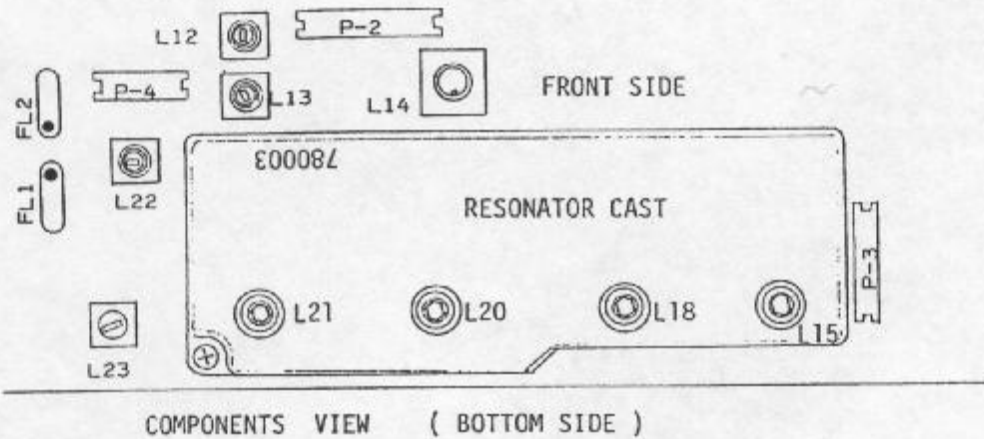
NOISE-BLANKER I.F.
CROSS TO SET THE PULSE-NOISE GENERATOR,
SET/ADJUST APPROPRIATE POSITION FOR BOTH
COILS.

F.M MODE I.F GAIN COILS.
ADJUST THE FM MODE AT FULL GAIN.
SET THE FREQUENCY 145.050 OR 146.050MHZ,
CENTER OF THE FREQUENCY.
NOTE: L23/L24 AND L25 (3 CORES).

RECEIVER/TRANSMITTER UNIT:

ADJUSTMENT PROCEDURE

RESONATOR TUNING:



THIS SIDE VIEW.

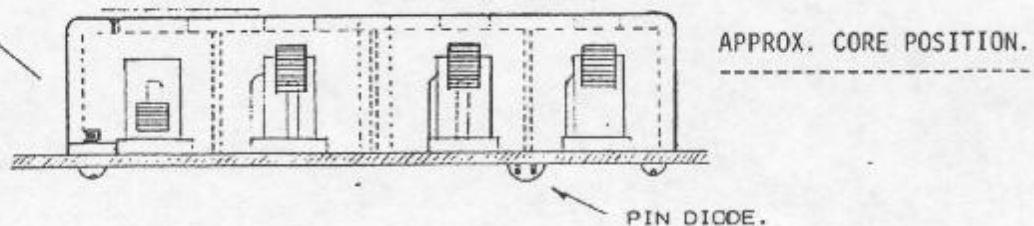
NOTE: This RESONATOR frequency realignment "Band-Spread" or "Narrow Range" requirement only.

- 1) Set the measurement condition (Receiver adjustment) for RECEIVER SENSITIVITY adjustment procedure.
- 2) The L-21 way-pull out the core. (temporarily removed).
- 3) The receiver dial frequency set to the 147.950MHz or 145.950MHz. Others core obtained full gain until reduceable minimum Signal-Generator attenuator level.
- 4) Set the Signal-Generator at 144.050MHz (lower range), and put into the L-20 core.

A L-20 core into slowly, until lower frequency range gain maximum obtained.

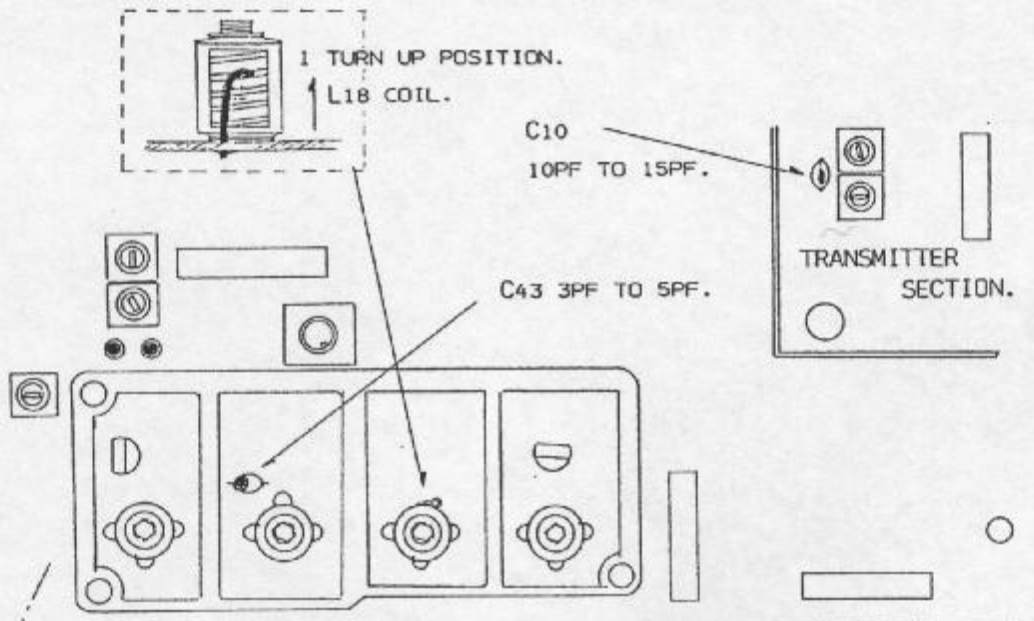
NOTE: Upper and Lower frequency range adjustment very critical, the Signal-Generator as reduceable as possible attenuator level. Appropriated reading by S-meter level from 0 - 3.

REAR SIDE CUT VIEW



RECEIVER/TRANSMITTER UNIT:
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MODIFICATION METHOD



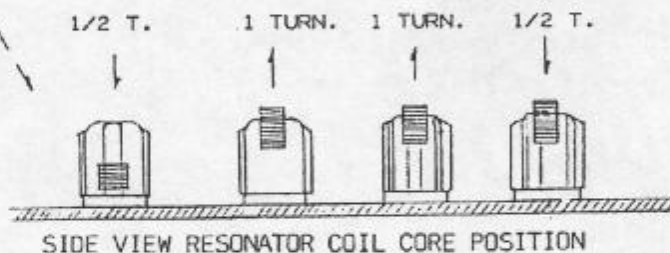
RECEIVER TOP VIEW (REMOVED RESONATOR CAN).

MODIFICATION 2MHz(750E) to 4MHz(750A) PROCEDURE:

Change above C43 3pF capacitor to 5pF capacitor and C10 10pF to 15pF capacitor. Move a L18 coil tap position up right 1 turn. (Soldering properly & clean)

NOTE: Before, must change it the CH-SW logical function operation (See above CH-SW modification page).

Check the receiver sensitivity at 144.050/145.050/146.050 and 147.950MHz. If stay with 2MHz core position, may move shown under above core position only.



SIDE VIEW RESONATOR COIL CORE POSITION

NOTE: Transmitter section is may not necessary to move L4,L5 cores if properly obtained output power.

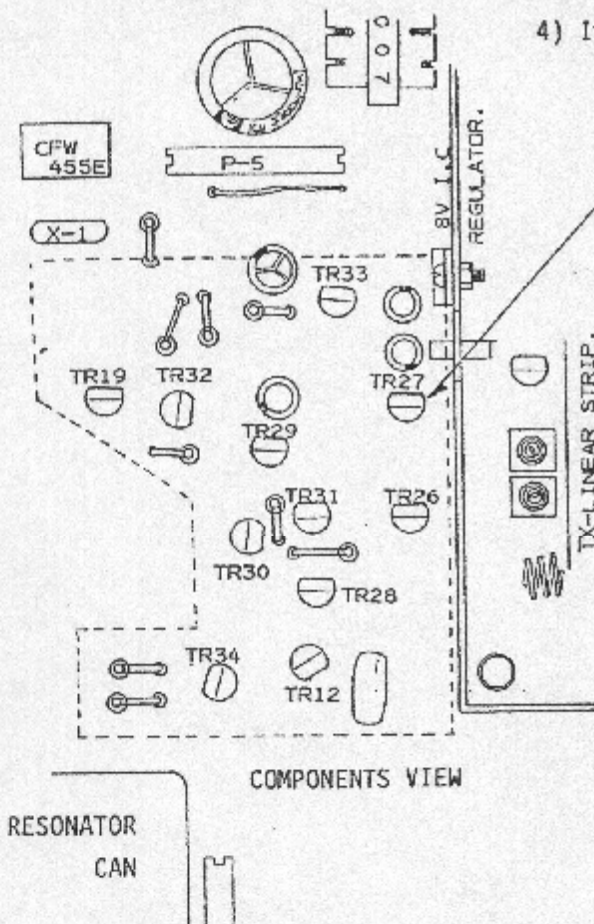
RECEIVER/TRANSMITTER UNIT:

TX/RX-DC SWITCHING

*The MULTI-750A/E transceiver, if in case under above conditions?

- 1) S-Meter "Full way over indication.
- 2) No-Transmission/No Reception.
- 3) Under seems like "Transmitting".
- 4) If, in case DC 8V line shorted.

FRONT SIDE / BOTTOM VIEW



MOST WEAK TRANSISTOR.

This transistor is 8V D.C TX/RX Switching control. If it electrical short/shock's may break.




The D.C 8V line controls for TX and RX switching from the 3 terminal 8 Volts REGULATOR I.C line. If it upper above conditions, may check this transistor.

When replace it, as same of A-950 or 2SA-509. Please refer with "EXPRESS- INFORMATION PAGE.

COMPONENTS VIEW

RESONATOR CAN

MARKING NOTE:

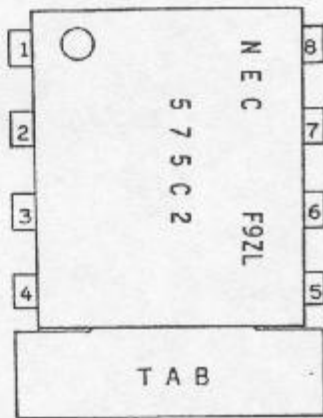
-  = Transistor.
-  = Diode.
-  = Capacitor.

TX/RX UNIT:

DEVICE FUNCTION

uPC-575C2 AUDIO AMPLIFIER:

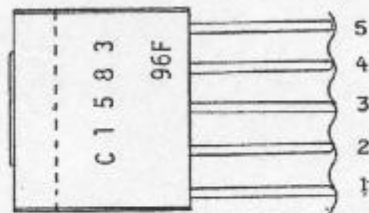
2 watts type audio amp I.C.



- 1) Audio input.
- 2) Differential/Bias
- 3) Freq.comp
- 4)
- 5) Output
- 6) Vcc (13.5volts)
- 7) Freq. comp
- 8) Freq. comp
- TAB) GND.radiator

uPC-575C2 TOP VIEW

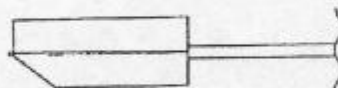
2SC-1583 Small Signal Transistor:



- 5) 1) Base (No,1)
- 4) 2) Collector (No,1)
- 3) 3) Emitter (common)
- 2) 4) Collector (No,2)
- 1) 5) Base (No,2)

REAR VIEW

Low Noise type differential amp.



SIDE VIEW

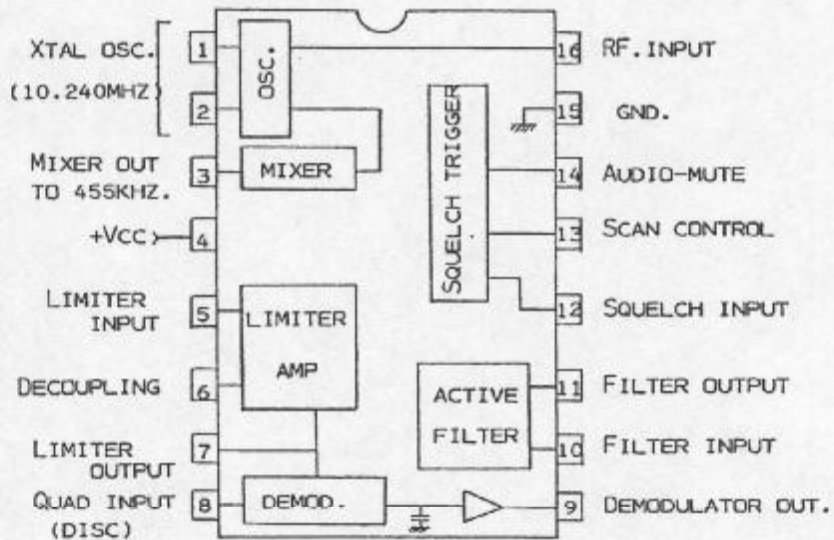
TX/RX UNIT:
=====

DEVICE FUNCTION

MC-3357

Under show that the device contained a Mixer, Local Oscillator, Limiter Amplifier, Quadrature-detector with amplifier, Active Filter amplifier and Squelch switching.

The unit supply voltage is 6 volts and current is approximately 3 mA typical.



MC-3357P TOP VIEW

TRANSMITTER POWER UNIT:

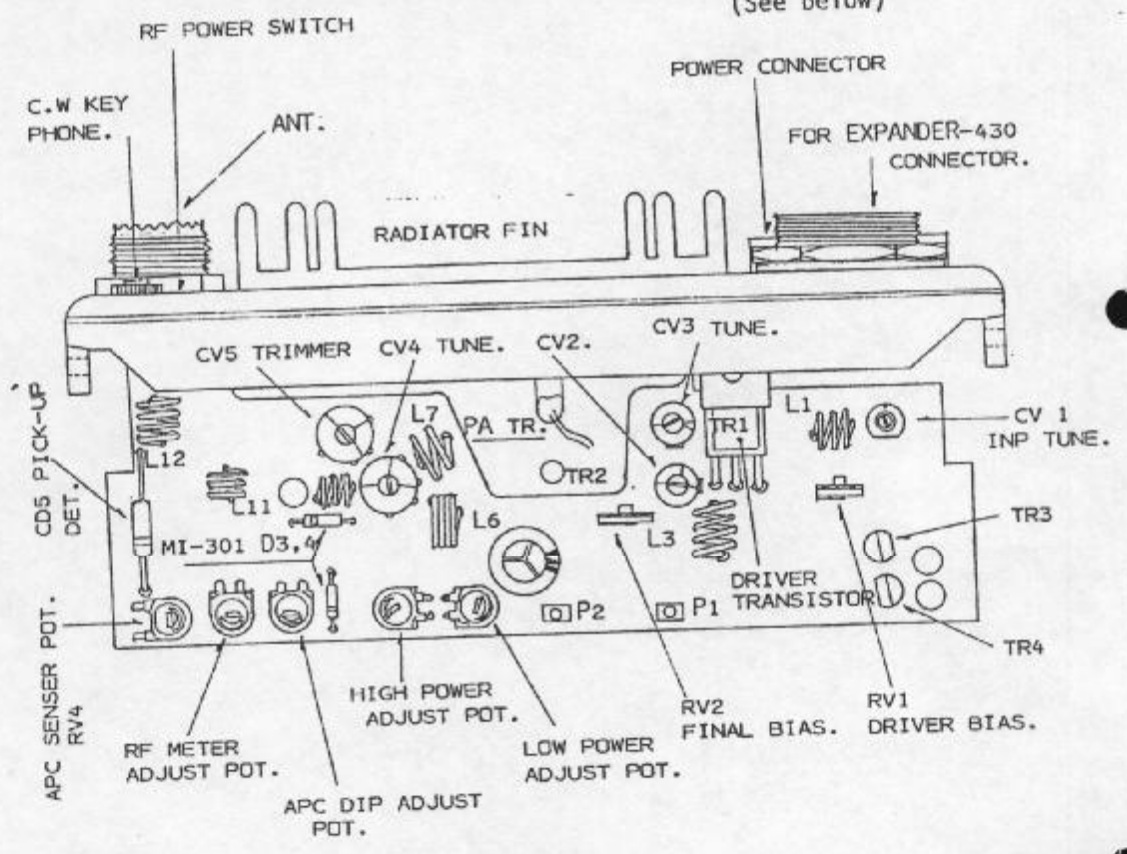
GENERAL ADJUSTMENT:

1) REMOVAL TX-POWER UNIT:

Remove four beside flat screws. May not necessary if only tuning trimmers. See above (CH-SW/PLL/SSB) unit side.

2) CONFIRMATION IDLING CURRENT:

Remove the P-1 connector (removal method as same as speaker) then plug between V.O.M. Check the current (See below)



50mA (+/-5%) at SSB mode without audio. If its right, next of P-2 (Final transistor side). Same as remove a wire from the white connector. Put into between the V.O.M check the current 75mA (+/-5%) at same mode. For both proper adjustment by RV1 and RV2 pot's.

3) CONFIRMATION RF OUTPUT POWER:

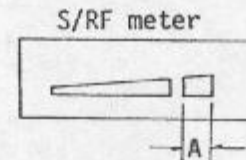
More than 15watts obtained at 24dBm input and 13.8V D.C input. Then reduce or control by RV6 pot to 12W.

TRANSMITTER POWER UNIT:
=====

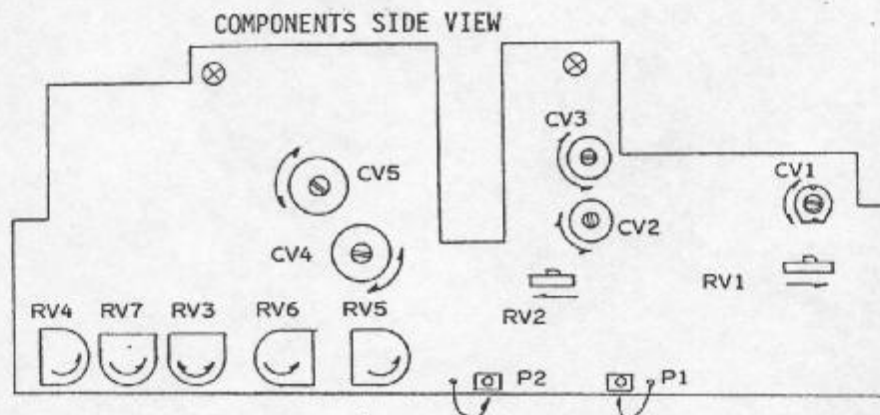
ADJUSTMENT DIRECTION:

4) Adjustment procedure; (Marking arrow for increase direction).

- RV-1: TR-1 idling adjustment.
- RV-2: TR-2 idling adjustment.
- RV-3: Dip adjustment.
- RV-4: A.P.C sensor level adjustment.
- RV-5: Low Power adjustment.
- RV-6: High Power adjustment.
- RV-7: RF Meter adjustment. →



SHOWN ABOVE ARROW'S FOR INCREASE DIRECTION.



5) A.P.C adjustment;

Set the frequency at 145.050 or 146.050MHz, V.O.M probe at the CD-8(Cathde side)voltage by RV4. Set the DIP point by RV4 pot. (Proper set voltage approx. 0.4V or less).

6) ALC adjustment;

Set the ALC voltage(approx.4V)by RV4 before dropping point. (Refer with 5) APC adj.if not properly may adjust the L-10 to L-12 coils).

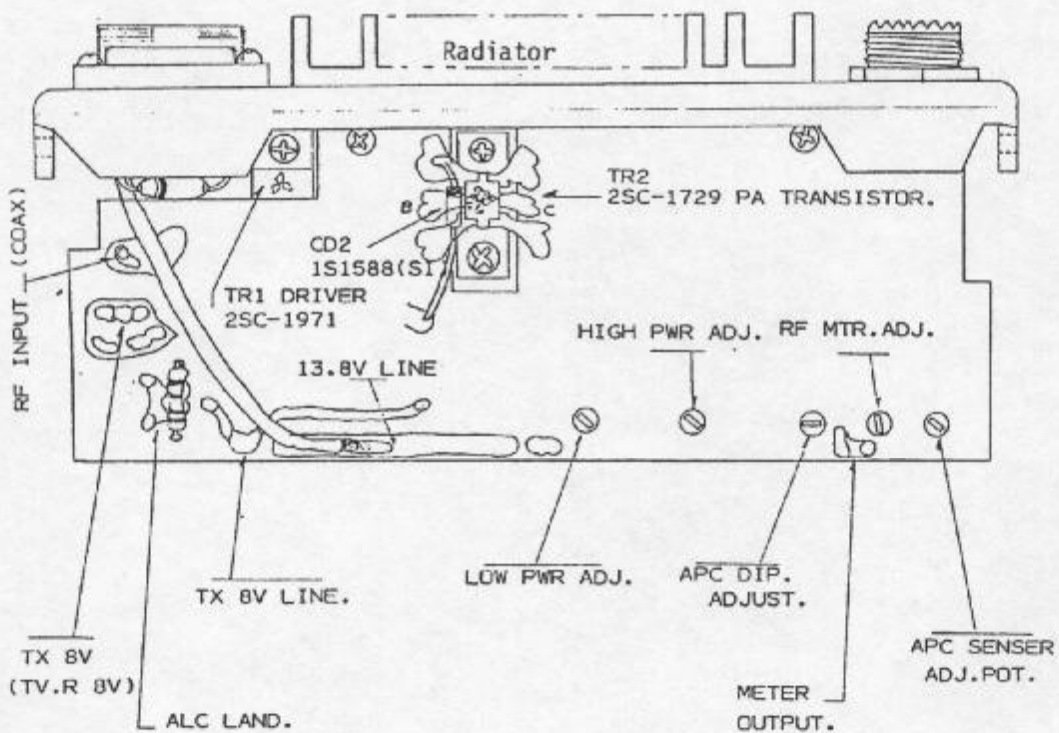
7) Spurious confirmation;

Check the spurious by Spectrum Analyzer, should be less than 65dB below carrier from entire the range. (RF output at less than 12W typical).

TRANSMITTER POWER UNIT:

FOIL SIDE CONNECTION:

Ref: Above front (components side) page adjustment procedure.

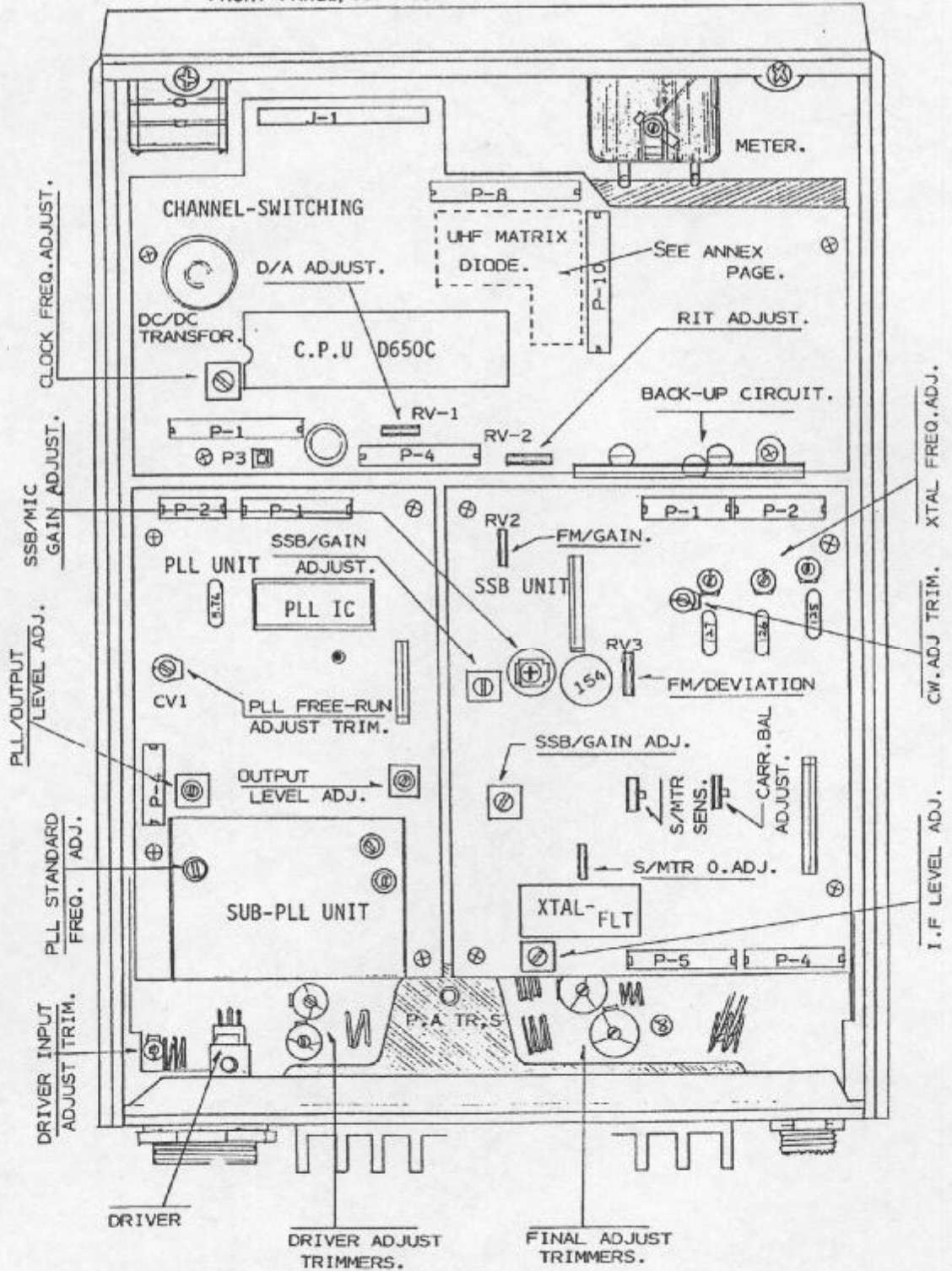


NOTE: Tuning correction must be center of the frequency (145.050/146.050MHz).

GENERAL ADJUSTMENT POINT:

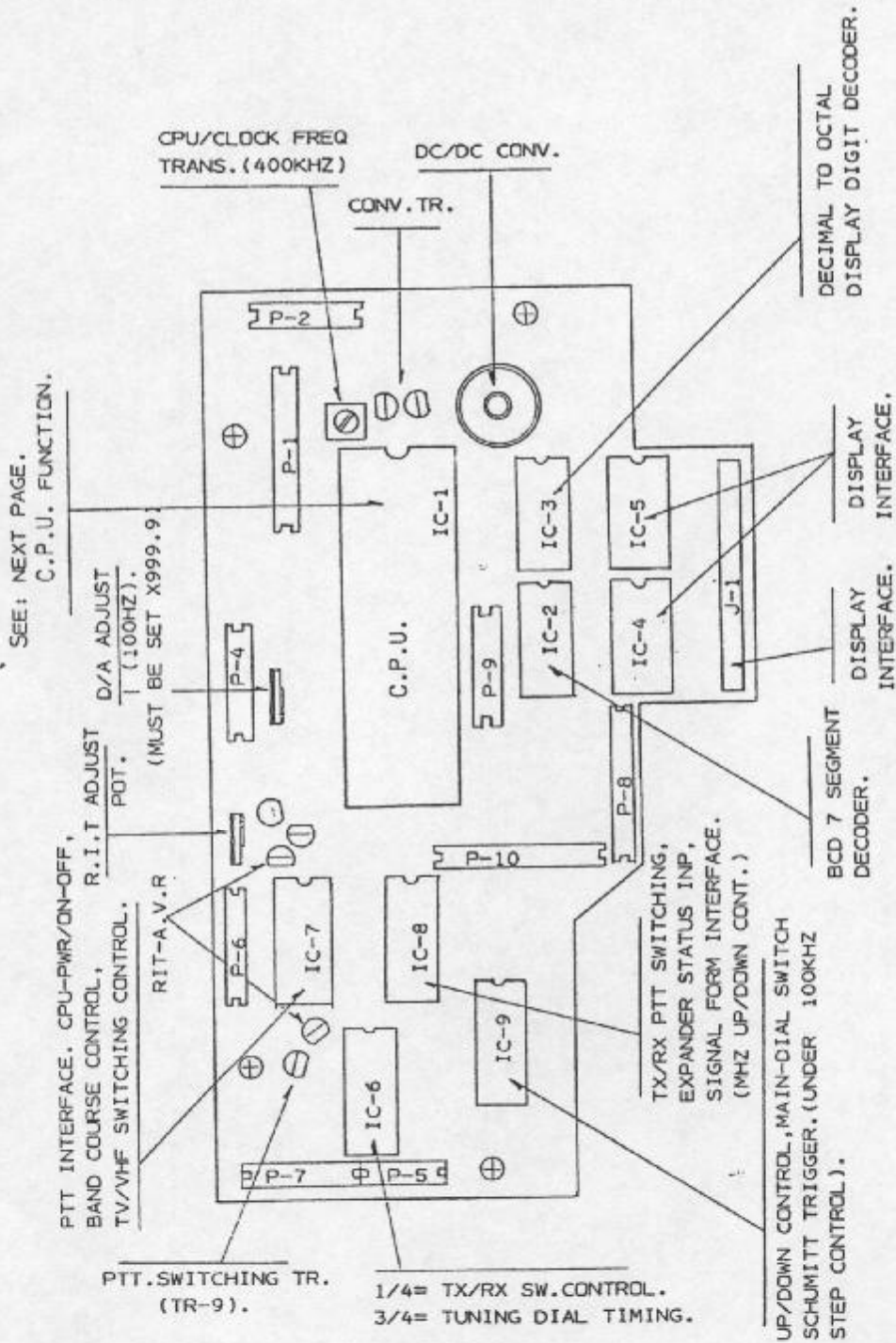
PLL/SSB/CH-SW UNIT

FRONT PANEL/TOP VIEW



CHANNEL-SWITCHING UNIT:

DEVICE FUNCTION



COMPONENTS SIDE VIEW

THIS SIDE FRONT PANEL

CHANNEL-SWITCHING UNIT:

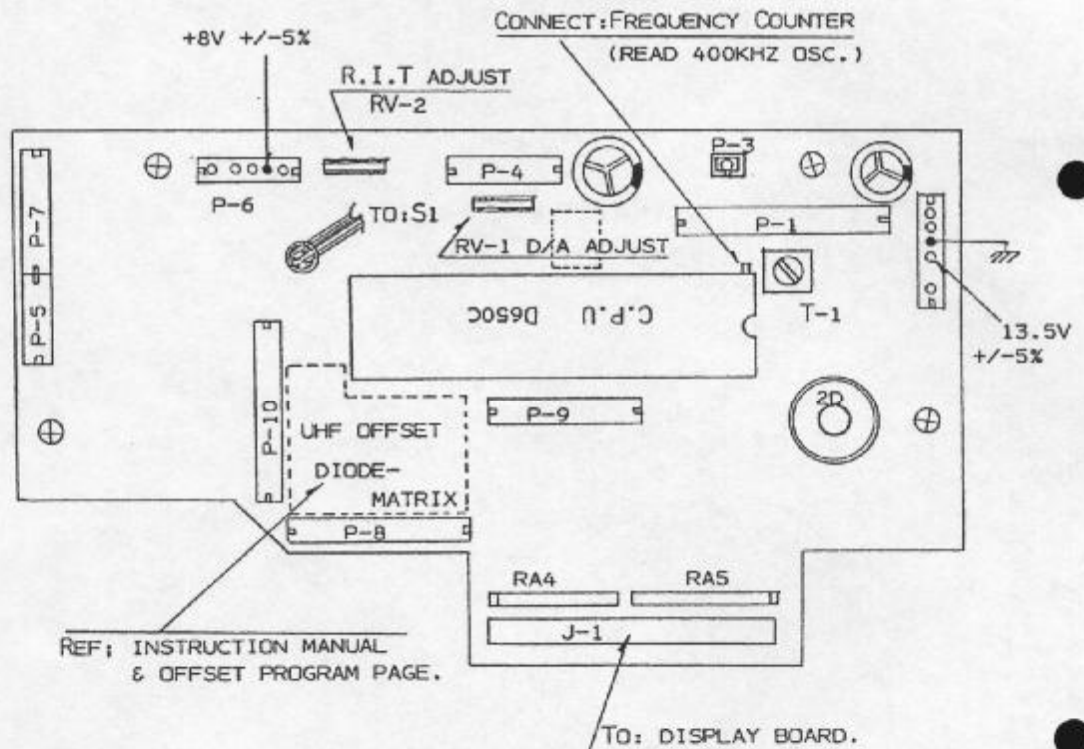
CONFIRMATION

1) CLOCK FREQUENCY ADJUSTMENT;

The Frequency Counter connect at the shown figure point. Adjust the frequency 400KHz by T-1 core.

2) R.I.T ADJUSTMENT;

R.I.T switch ON,during reception.The Frequency counter probe at the CD-10 Diode(anode side,upper view from component).The R.I.T control knob should be center position at the "0" adjust the RV-2 potentiometer.



3) DIGITAL/ANALOGUE OUTPUT;

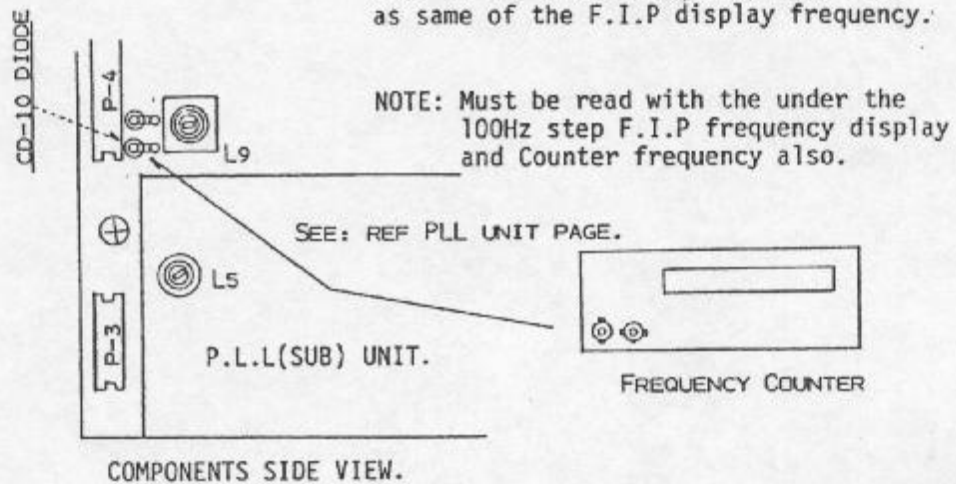
The Frequency Counter probe connect to the "CD-10" diode. Set the "Main Dial" frequency at 144.999.9MHz, and adjust this RV-1 as same frequency on the Frequency Counter.

To be continue next page.

CHANNEL-SWITCHING UNIT:
=====CONFIRMATION

3) DIGITAL/ANALOGUE OUTPUT ADJUSTMENT:

Connect the Frequency Counter probe to the "CD-10" diode, frequency read with as same of the F.I.P display frequency.



4) D/A OUTPUT FREQUENCY CONFIRMATION:

Used Frequency Counter PLL frequency confirmation MUST BE accuracy.

145.000.0MHz = 145.000.0 on the Frequency Counter.

However, D/A adjustment procedure must be F.I.P display;

144.999.9MHz or 145.999.9MHz only.

CAUTION:

The C.P.U(D-650C), DO NOT REMOVE from the printed board, should be handling under comprehension of the C.P.U up to handled only, may should be ask to dealer or distributor.

CHANNEL-SWITCHING UNIT:

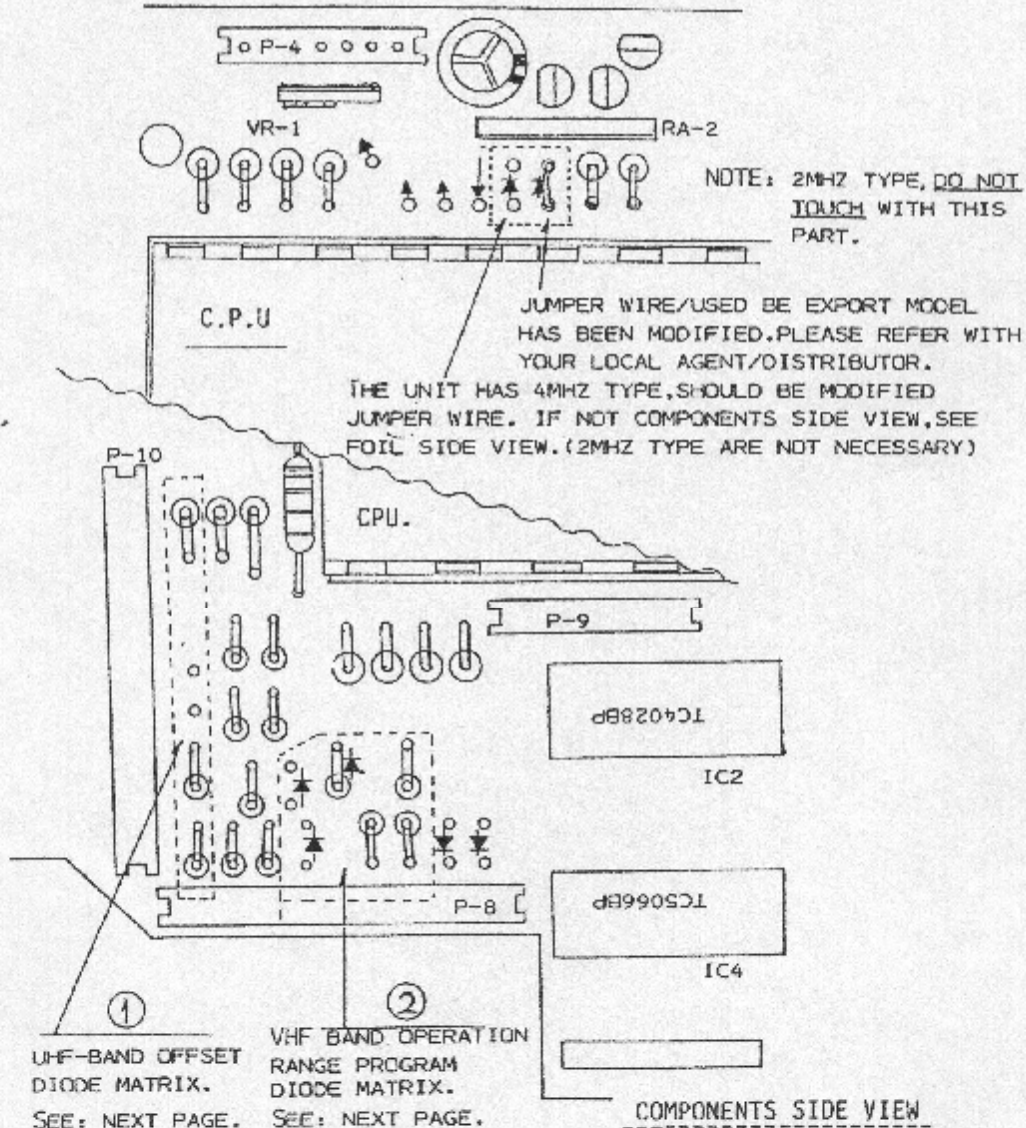
DIODE-MATRIX PROGRAM

1) Transmitter operation confirmation;

The unit 2MHz type, just one side jumper wire (right side) only, if operation for 4MHz type, should be modified to left side jumper wire.

NOTE: Shown above two DIODE marking position only. (See also FOIL side view).

COMPONENTS SIDE VIEW



CHANNEL-SWITCHING UNIT:
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DIODE-MATRIX PROGRAM

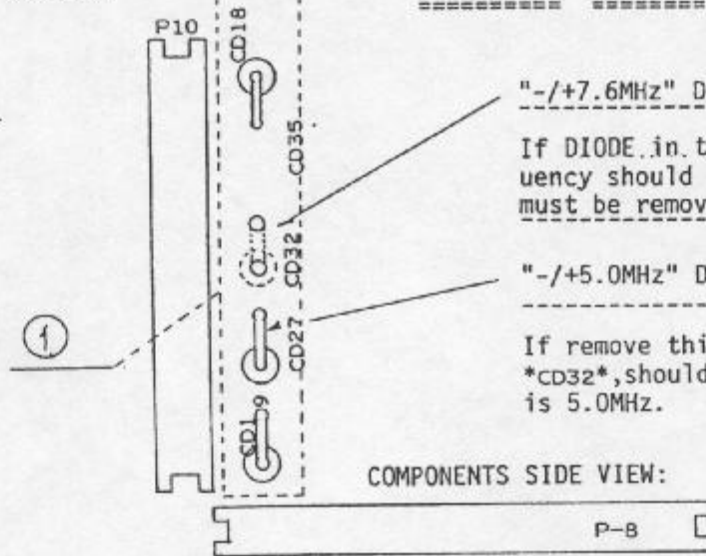
2) UHF BAND OFFSET PROGRAM;

This MULTI-750A/E can program three(3)way UHF offset frequencies.

Available frequency as follows;

-/+1.6MHz, -/+5.0MHz, -/+7.6MHz
=====

SAMPLE SHOWN OFFSET FREQ,
-/+1.6MHz(except dot
diode).



"-/+7.6MHz" DIODE:

If DIODE in to this position, frequency should be 7.6MHz OFFSET. But, must be removed *CD27* diode.

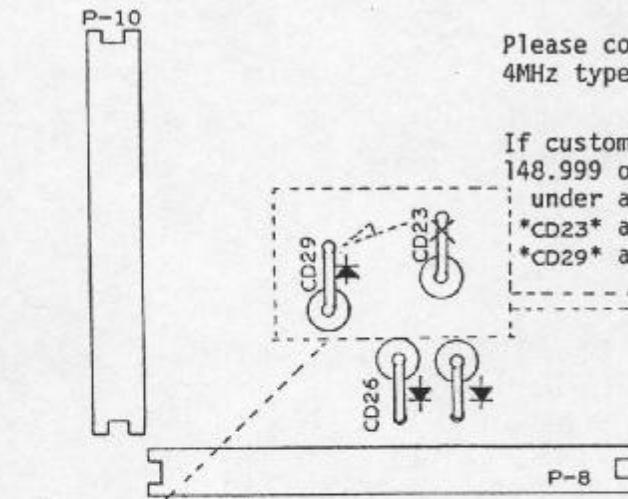
"-/+5.0MHz" DIODE:

If remove this DIODE or removed at *CD32*, should be operation frequency is 5.0MHz.

3) 144-148.999.9MHz OPERATION PROGRAM:

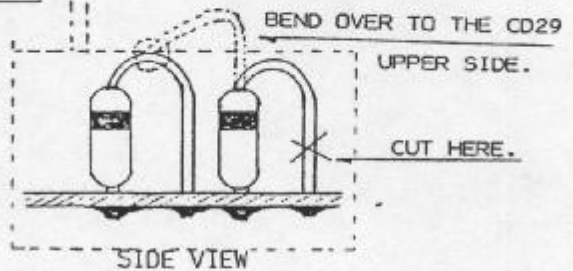
Please confirm "present" your set 2MHz or 4MHz type operation unit.

If customers required to receiving 146 to 148.999 or 147.999 to 148.999MHz, Please see under above shown modification diagram.
CD23 anode side cut, then solder to the *CD29* anode side.



NOTE: The Transmitter and Receiver operation frequency range are not properly, should be need proper realignment.

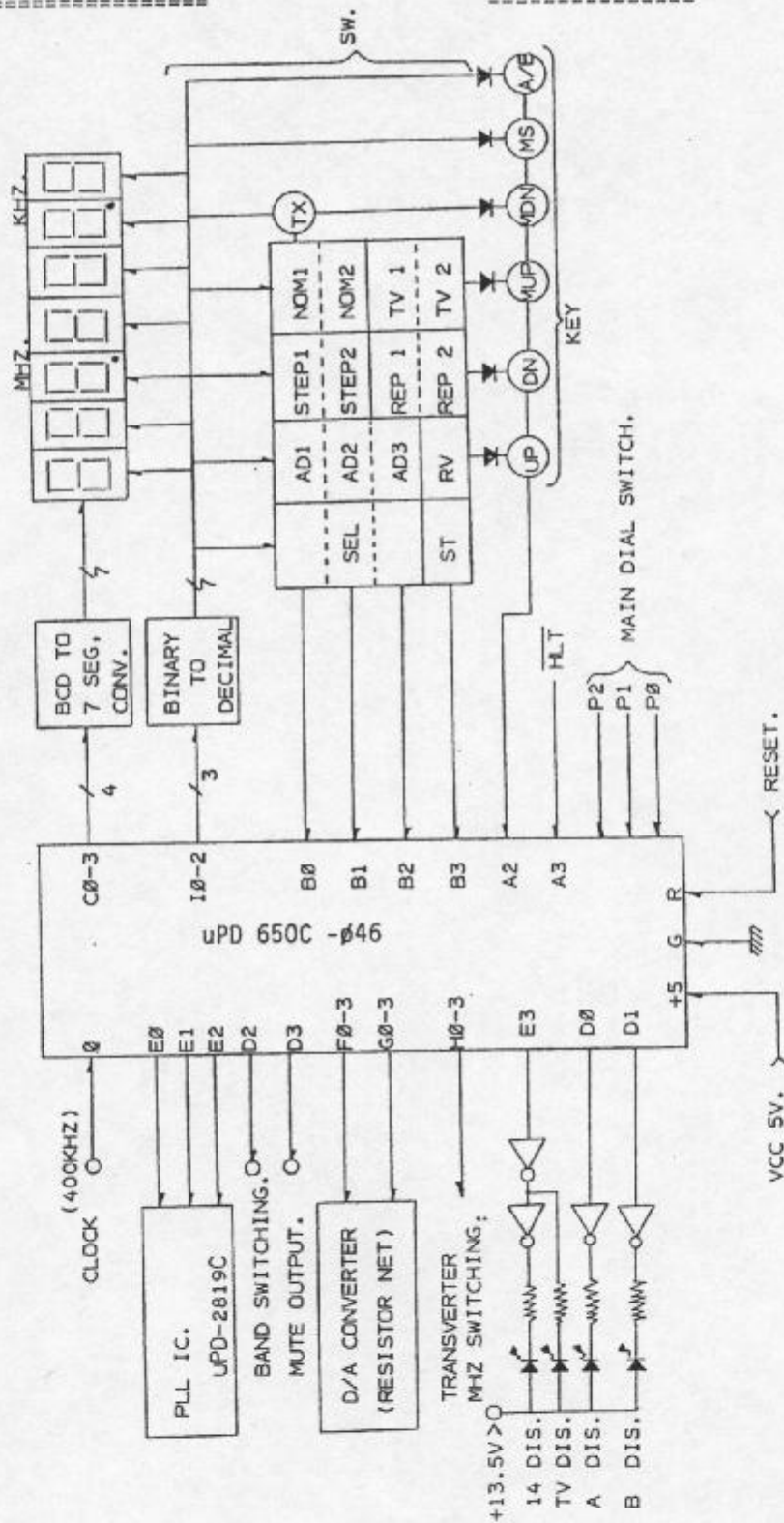
NOTE: DIODE DIRECTION MUST BE ANODE SIDE UPRIGHT.



CHANNEL-SWITCHING UNIT:

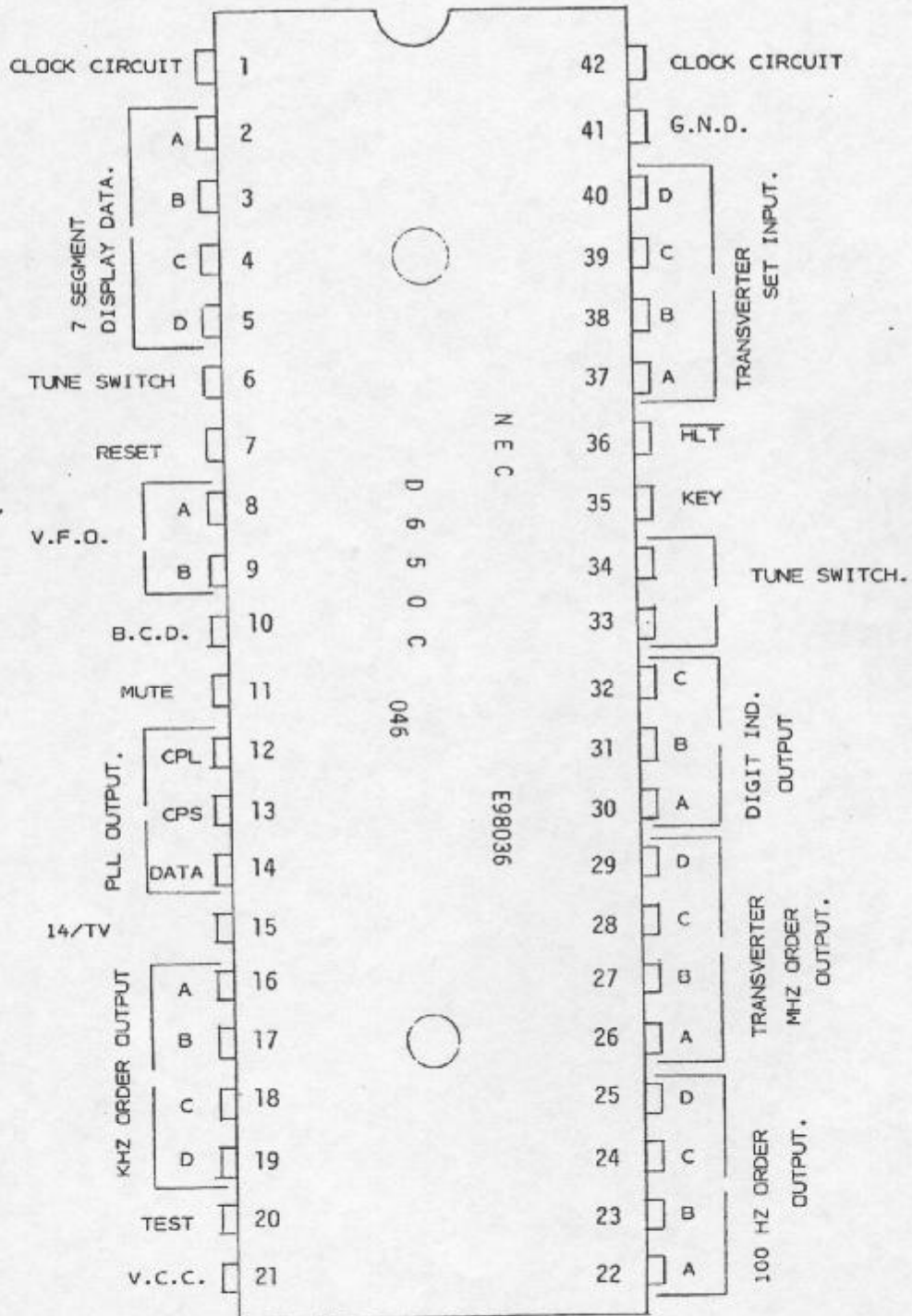
DEVICE FACILITY

M-750 CPU CONNECTION/FUNCTIONS.



CHANNEL-SWITCHING UNIT:
=====

DEVICE FUNCTION



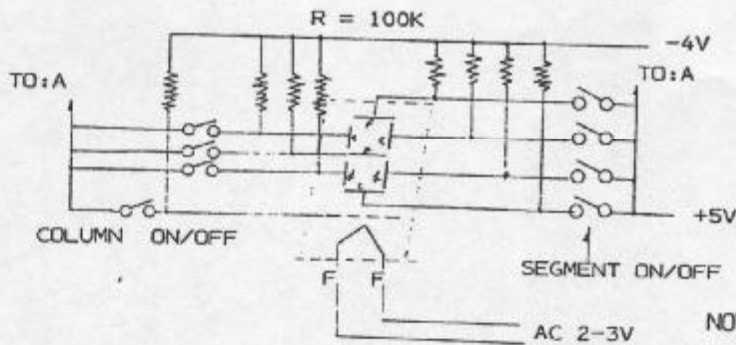
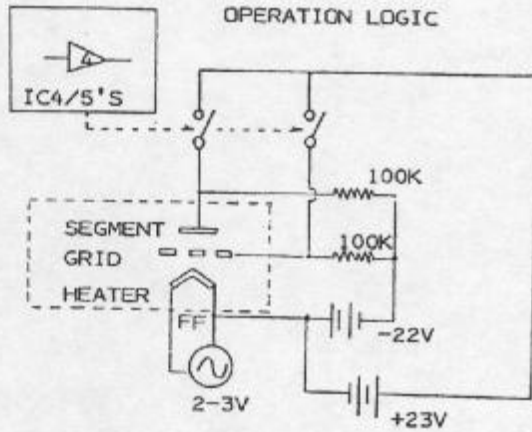
NOTE: CPU FROM TOP VIEW.

CHANNEL SWITCHING UNIT:

F.I.P LOGIC

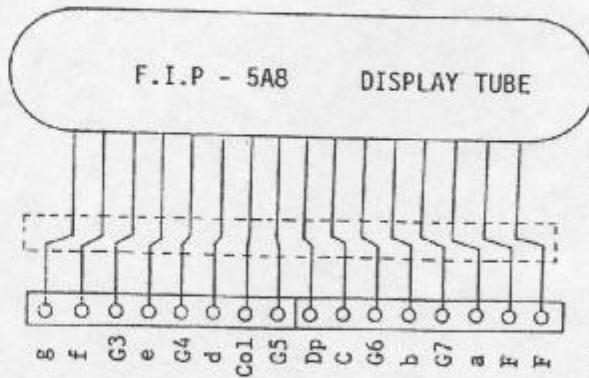
FIP SYMBOL FUNCTION:

- G3 : First(MHz)column.
- G4 : Second(100KHz)column.
- G5 : Third(10KHz)column.
- G6 : Fourth(1KHz)column.
- G7 : Fifth(100Hz)column.
- a-g : each segments.
- Dp : Dot segment.
- F : Filament(heater).



NOTE: VOLTAGE FROM CHASSIS AND MEASURED BY VOM.

ACTUAL CONNECTION:



NOTE: NUMBER AND LETTER REFER WITH SCHEMATIC-DIAGRAM.

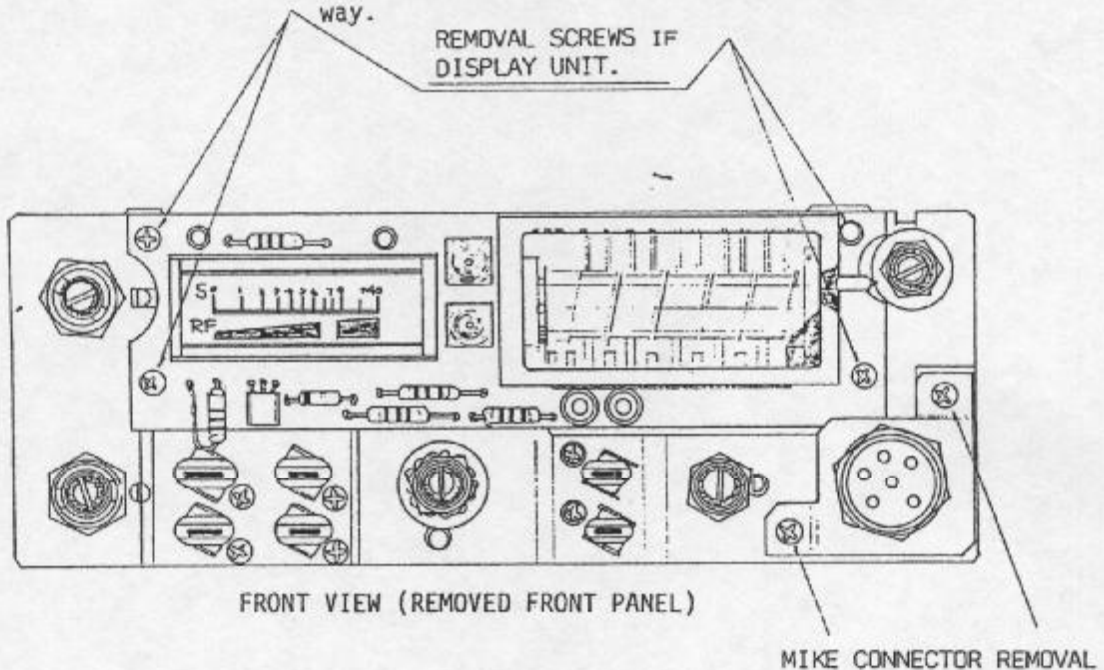
See above explanation & Schematic(CH-SW)J1 conn.

FRONT SIDE VIEW.

CH-SW/DISPLAY UNIT:
=====

REMOVAL METHOD

- 1) Remove TOP and BOTTOM cover from the transceiver. Remove also both side alminum hanger rail for both philips type screws.
- 2) Pull out all knobs from the front panel,except push bottom switches.
- 3) If removal only DISPLAY UNIT,under above shown screws remove. Move only vertical to horizontal way.

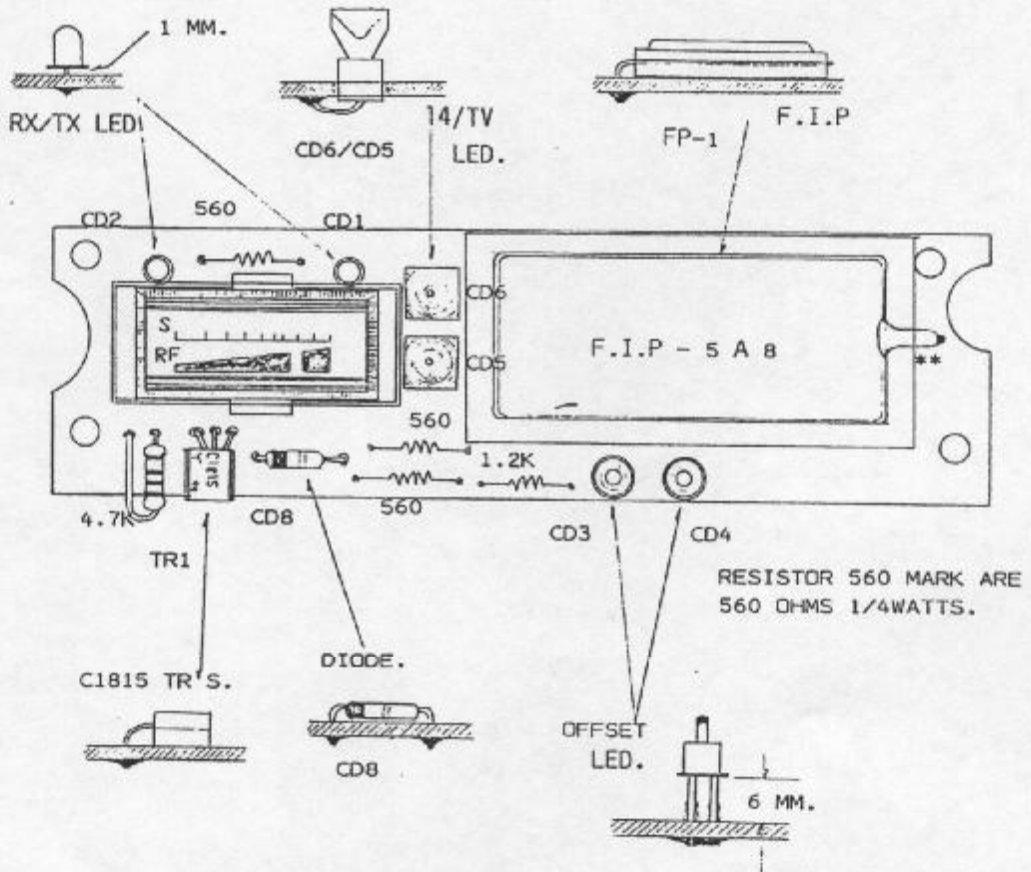


- 4) If removal whole front panel,remove for both end middle philips screws from the chassis. Remove also all connectors from the main chassis body.
- 5) If replace into are knobs,knob position counter-clockwise(except Main Dial)then fit into above marking start positions.
- 6) F.I.P Display output leads removal,pull out slowly do not bend or nick above ribbon wires.

CH-SW/DISPLAY UNIT:

COMPONENTS REPLACEMENT

DISPLAY BOARD FROM FRONT VIEW
(Removed front panel).



REF:

- TR1 = 2SC-1815 TRANSISTOR.
- CD1 = AR3432S
- CD2 = PG3432SX
- CD3 = AR2133D
- CD4 = AR2133D
- CD5 = RLD9-232PCS
- CD6 = RLD9-332ACS
- CD8 = 1S1588(SILICON TYPE).

NOTE: ** HANDLING CAREFULLY THIS POINT.
(IF GETTER IS WHITE IT,NEED REPLACE)

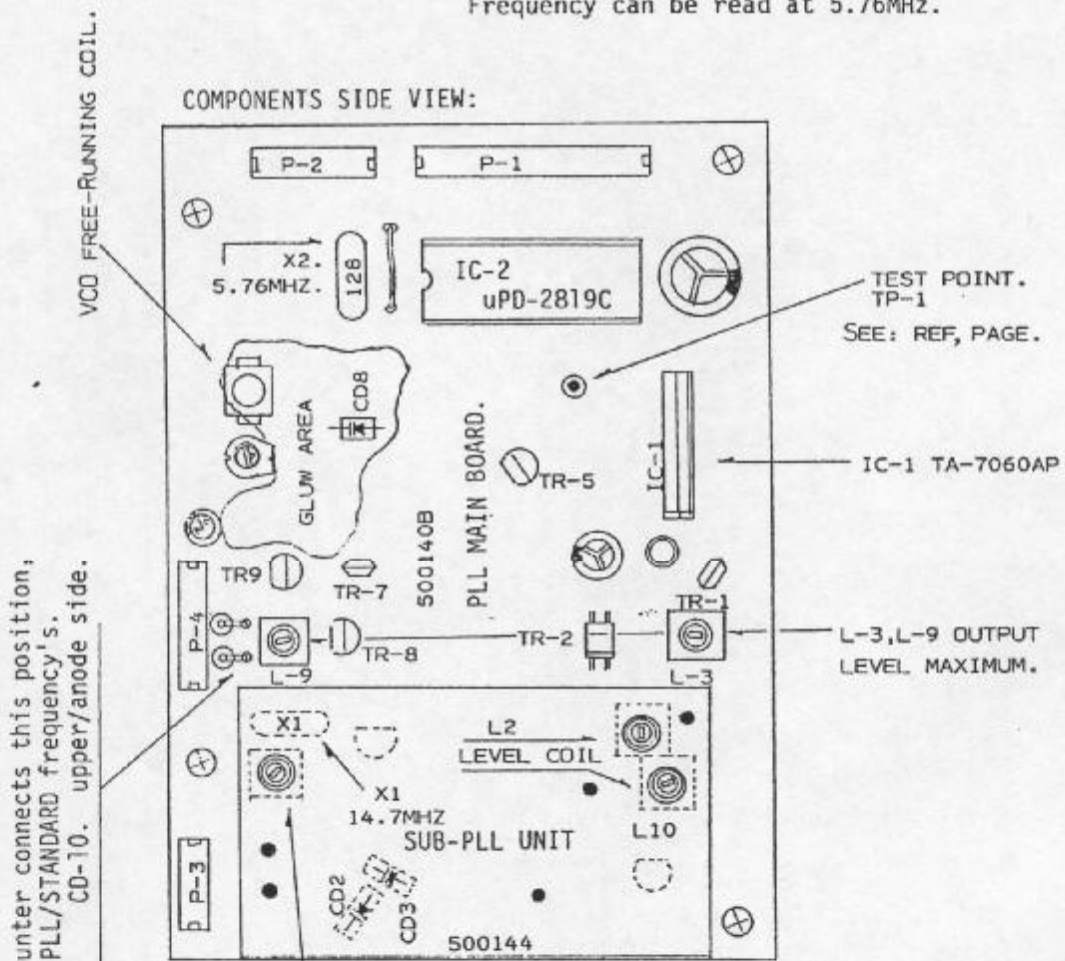
P.L.L (SUB-PLL) UNIT:
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1) FREQUENCY CONFIRMATION:

Front F.I.P display frequency set the 145.000.0MHz.

The Frequency Counter connect to the TP-1(Test Point). Frequency can read 136-137MHz(free-running) by the CV-1.

The Counter probe connect to the R-36, Frequency can be read at 5.76MHz.



Frequency Counter connects this position, if tune the PLL/STANDARD frequency's. CD-10. upper/anode side.

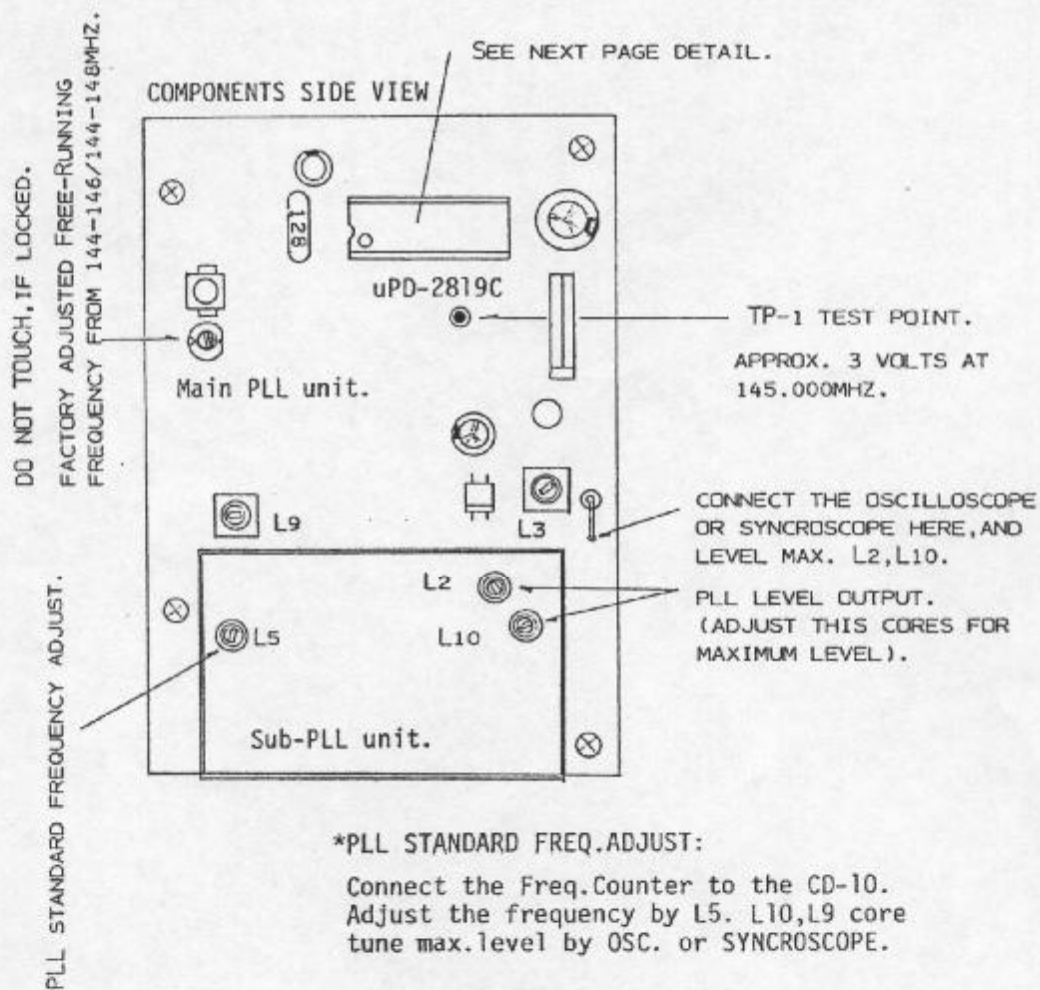
2) P.L.L STANDARD FREQUENCY ADJUSTMENT:

Set the dial frequency at 145.000.0MHz. The Frequency Counter probe connect to the CD-10 diode(upper/anode). An output frequency MUST BE 134.300MHz +/-100Hz, adjust the L-5 core. This is STANDARD PLL frequency,so MUST be tune precise.

L5.

P.L.L (SUB-PLL) UNIT:

CONFIRMATION PROCEDURE:



*PLL STANDARD FREQ.ADJUST:

Connect the Freq.Counter to the CD-10.
Adjust the frequency by L5. L10, L9 core
tune max.level by OSC. or SYNCROSCOPE.

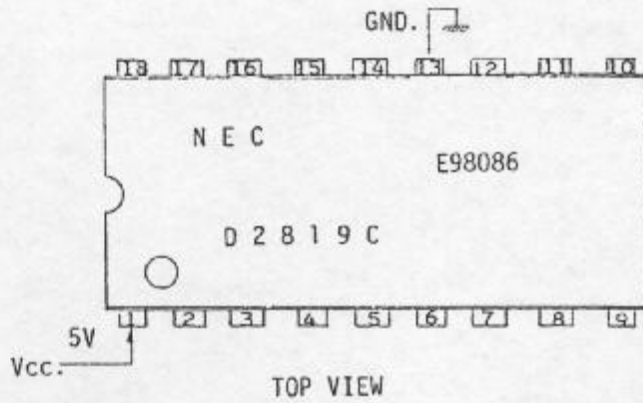
*PLL SUB UNIT LEVEL ADJUST:

OSC. or SYNCROSCOPE connect at the R54
resistor(See above fig.)and adjust the
L2, L10.

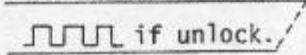
P.L.L (SUB-PLL) UNIT:
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DEVICE FUNCTION/VOLTAGE:

uPD-2819C PLL I.C:

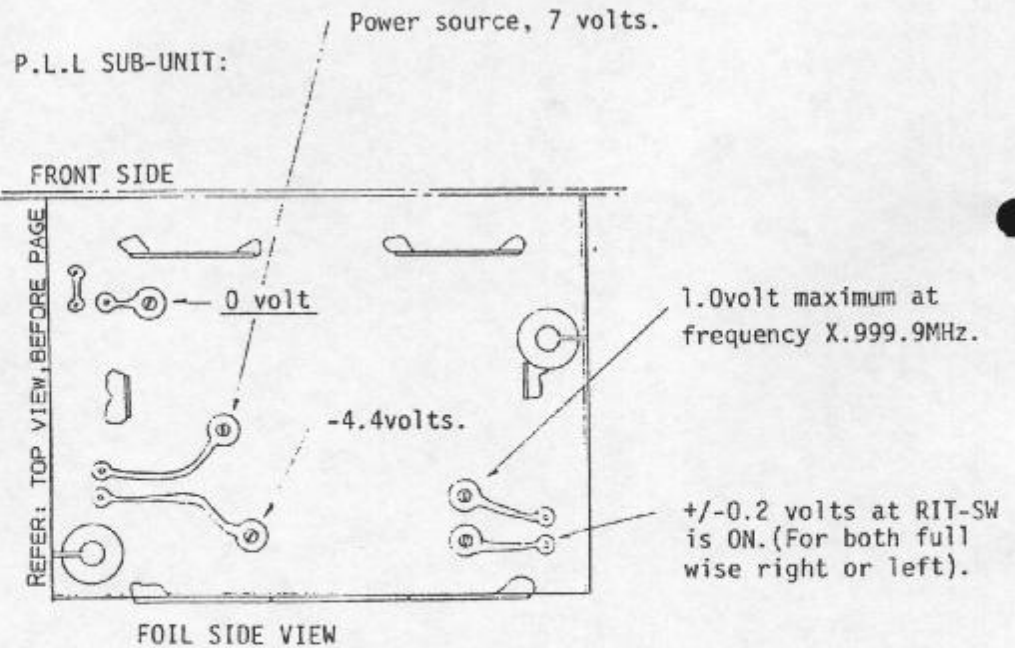


- No,1 Vdd (5Volts)
- No,2 Crystal input(OSC.)
- No,3 Crystal input(OSC.)
- No,4 Clock out 1.(360KHz)
- No,5 Check term.
- No,6 Clock out 2.(25Hz)
- No,7 Unlock check term.
- No,8 Phase-Detector output.



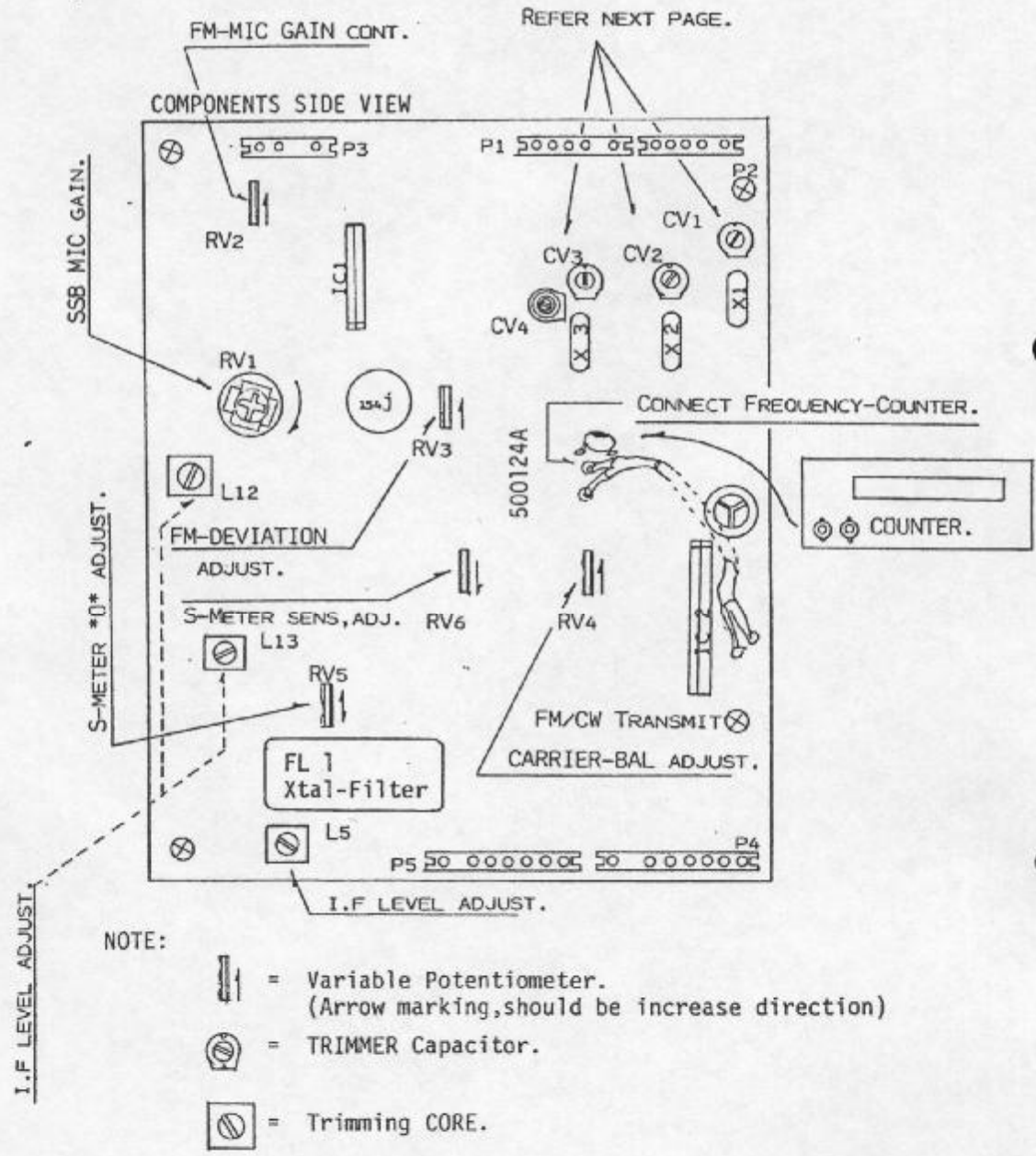
- No,9 Freq.comparator(Check-term.)
- No,10 " " (" ")
- No,11 ---
- No,12 ---
- No,13 Vss (GND)
- No,14 Program Counter input
- No,15 " " " (No-used)
- No,16 } Divider input "N"
- No,17 }
- No,18 }

NOTE: if locked,no output.



SSB UNIT:

ADJUSTMENT PROCEDURE



SSB UNIT:
=====

ADJUSTMENT PROCEDURE

Reference: X 1 = 10.7000 MHz (125) FM local Carrier.
X 2 = 10.7015 MHz (126) SSB/LSB mode.
X 3 = 10.6993 MHz (127) CW-TX mode Carrier.
10.6985 MHz (127) SSB/USB mode.

Adjustment:

- 1) X 1 The Frequency Counter probe connect to the C 41 or hot side coaxial-cable. Set the MODE switch to the FM position, then TRANSMIT. Adjust the frequency 10.700MHz +/-100Hz.
- 2) X 2 Set the MODE switch at LSB position, Trimming the CV 2 for 10.7015MHz +/-50Hz.
- 3) X 3 10.6993 MHz = Set the MODE position at the CW, and TRANSMIT. Frequency adjust the 10.6993MHz by the CV 3 trimmer.
- X 3 10.6985 MHz = Set the MODE switch at USB/SSB position. Trimming with the CV 3 for 10.6985MHz +/-50Hz.

NOTE: X 3 crystal using for both SSB/USB position and CW mode, however, may necessary for both trimming CV 3 & CV 4.

4) SSB-IF stage adjustment.

Set the all about A.F level meter or Oscilloscope at the Audio output. Tune the Audio output level maximum by L 12 and L 13.

5) CARRIER OUTPUT adjustment.

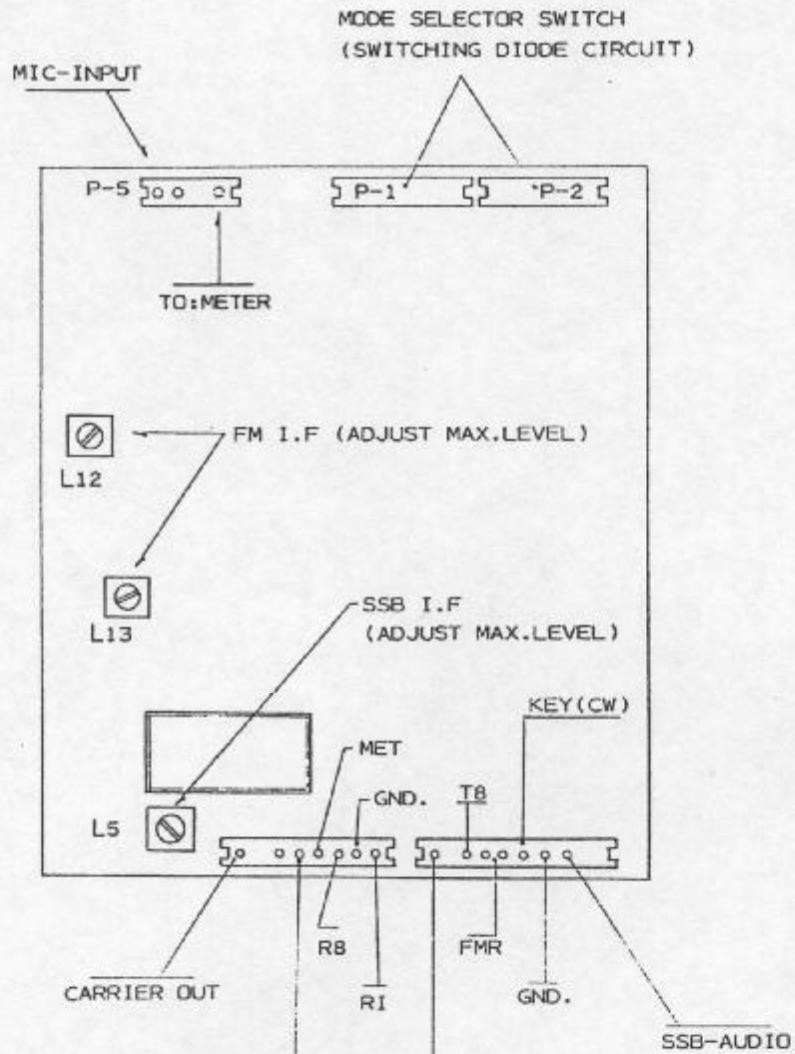
Set the L 5 core maximum level.

6) CARRIER-BALANCE adjustment.

FM position or CW position for TRANSMIT. Output level 250mW(Carrier)level(TP 3 RX-TX) at the SSB T0 according with same level with this(RV 4) pot.

SSB UNIT:
 =====

CONNECTION WIRES:

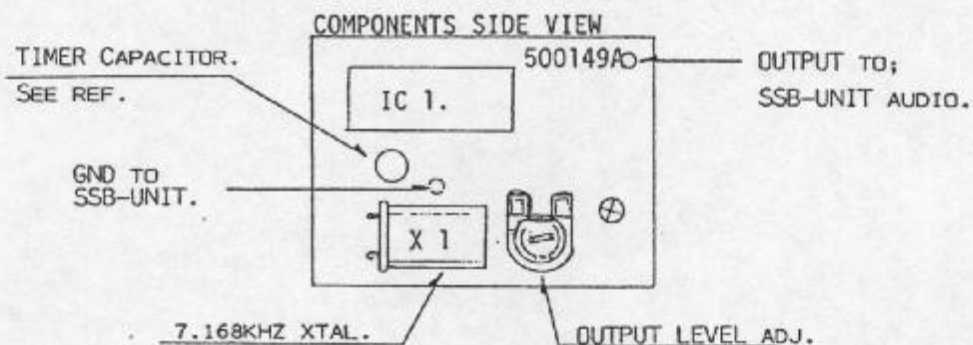


NOTE:
 RB = RECEIVER 8 VOLTS.
 T8 = TRANSMIT 8 VOLTS.
 FMR = FM MODE RECEIVER SIGNAL.
 RI = RECEIVER LINE(SSB/CW)

TONE-BURST UNIT:
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ADJUSTMENT/ACCESSORY

NOTE: THIS UNIT HAS WITH EUROPEAN PURPOSE UNIT
M-750A/E TRANSCEIVER ONLY. IF NOT ATTACHED
WITH THIS UNIT, SHOULD BE U.S. TYPE OF UNIT.



TIMER CAPACITOR REFERENCE:

1.0uF = approx. 1 sec (present time duration).
1.5uF = approx. 1.5 sec
2.0uF = approx. 2.0 sec
3.0uF = approx. 3.0 sec

NOTE: Capacitor, should be used "Dipped-tantalum type capacitor only.

Adjustment deviation:

Audio deviation level +/-5KHz(factory-pre-adjusted), however may not exceed +/-3.5KHz 70% modulation at this OUTPUT LEVEL pot.