

Service Manual

CB TRANSCEIVER

Model JACKSON

UT-547C/D

uniden[®]
CORPORATION

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A. SPECIFICATIONS

1. GENERAL

| | | |
|-----------------------------|---|--|
| Channel and Frequency Range | : | 226 A Band 26.065 - 26.505 MHz B Band 26.515 - 26.955 MHz C Band 26.965 - 27.405 MHz D Band 27.415 - 27.855 MHz E Band 27.865 - 28.315 MHz |
| Crystals | : | 3 |
| Microphone | : | 600 ohms, Dynamic Type |
| Speaker | : | 8 ohms, 3 W |
| Antenna Connector | : | M Type |
| Jacks & Connectors | : | Mic 4P EXT. SP -3.5Ø PA. SP -3.5Ø DC Power -3P |
| Controls | : | Channel Selector, Mode Selector FM-AM-USB-LSB, Mic Gain, ON/OFF Power Switch & Volume, ON/OFF PA Switch & Squelch, RF Gain, Coarse, Fine, Band Selector A-B-C-D-E, Noise Blanker/ ANL Switch, Roger Beep Switch, S/RF-Mod Switch and +10 kHz - Normal Switch |
| Meter | : | RF Output Power, Signal Strength and Modulation |
| Illumination | : | Channel Number Indication (LED) RX, TX Indication (LED), Meter Lamp |
| Size | : | 7.784"(W) X 2.36"(H) X 11.22"(D) |
| Weight | : | 5 Pounds (2.2 kgs) |
| Accessories | : | DC Power Cable with Built-in Fuse, Microphone and Microphone Hanger |

2. MEASUREMENT CONDITIONS

| | | |
|--|---|-------------------|
| a) Power Source | : | 13.8 V (DC) |
| b) Antenna Impedance | : | 50 ohms |
| c) Test Temperature | : | 25 ½C |
| d) AM Modulation Frequency | : | 1 kHz |
| e) FM Modulation Frequency | : | 1 kHz |
| f) SSB Modulation Frequency, Two Tone | : | 500 Hz & 2.400 Hz |
| g) Mean Signal Input Level | : | 1.000 uV |
| h) Reference AM Modulation Percentage | : | 1 kHz 30% |

- i) Reference FM Deviation : 1.5 kHz
- j) Reference Audio Output Power : 0.5 W
- k) Audio Frequency : 1 kHz
- l) Audio Output Load : 8 ohms Resistive

3. TRANSMITTER

| | <u>UNIT</u> | <u>NOMINAL</u> | <u>LIMIT</u> | |
|--|---------------------------|----------------|--------------|-------|
| a) Frequency Tolerance at 25 ½ (5 Minutes after Switch on) | AM Hz | ± 300 | ± 1.500 | |
| | SSB Hz | ± 300 | ± 1.500 | |
| | FM Hz | ± 300 | ± 1.500 | |
| b) Carrier Power | AM W | 10.0 | 8.0 - 14.0 | |
| | FM W | 10.0 | 8.0 - 14.0 | |
| c) PEP Power, Two Tone, SSB | Wpep | 21.0 | 18.0 - 26.0 | |
| d) Spurious & Harmonic Emission | AM dB | -50 | -40 | |
| | SSB dB | -50 | -40 | |
| | FM dB | -50 | -40 | |
| e) Carrier Suppression | SSB dB | -55 | -40 | |
| f) Unwanted Sideband Suppression (at 2.500 Hz 4 Wpep 16 dB Single tone) | SSB dB | -50 | -40 | |
| g) Battery Drain at no Modulation | AM mA | 3.000 | 4.500 | |
| | SSB mA | 800 | 1.500 | |
| | FM mA | 3.000 | 4.500 | |
| h) Battery Drain | Am : MAX Modulation | mA | 3.000 | 4.500 |
| | SSB: MAX Wpep, Two Tone | mA | 3.000 | 4.500 |
| | FM : MAX Modulation | mA | 3.000 | 4.500 |
| i) Modulation Frequency Response (1 kHz, 0dB reference) | Lower at 450 Hz | AM dB | -4 | -10 |
| | | SSB dB | -4 | -10 |
| | | FM dB | -4 | -10 |
| | Lower at 2.5 kHz | AM dB | -4 | -10 |
| | | SSB dB | -4 | -10 |
| | | FM dB | -4 | -10 |
| j) Microphone Sensitivity | AM : For 50% Modulation | mV | 1.0 | 2.0 |
| | SSB: For 10 Wpep Output | mV | 1.0 | 2.0 |
| | FM : For 1 kHz Deviation | mV | 1.0 | 2.0 |
| k) AMC Range | AM : 50 - 100% Modulation | dB | 50 | 40 |
| | SSB: | dB | 50 | 40 |

| 4. <u>RECEIVER (ANL/NB Switch off)</u> | <u>UNIT</u> | <u>NOMINAL</u> | <u>LIMIT</u> |
|---|-------------|----------------|---------------|
| a) Max Sensitivity | AM uV | 0.5 | 2.0 |
| | SSB uV | 0.25 | 1.0 |
| b) Sensitivity for 10dB S/N | AM uV | 0.5 | 2.0 |
| | SSB uV | 0.25 | 1.0 |
| FM : 20dB S/N | FM uV | 0.5 | 3.0 |
| c) AGC Figure of Merit, 50 mV for 10dB change in Audio Output | AM dB | 80 | 70 |
| | SSB dB | 80 | 70 |
| d) Overall Audio Fidelity at 6dB down | | | |
| Upper Frequency | AM Hz | 2.000 | 1.500 - 3.000 |
| | SSB Hz | 3.000 | 2.000 - 4.500 |
| | FM Hz | 2.500 | 1.500 - 4.000 |
| Lower Frequency | AM Hz | 300 | 100 - 500 |
| | SSB Hz | 300 | 100 - 500 |
| | FM Hz | 300 | 100 - 500 |
| e) Adjacent Channel Selectivity (10 kHz 1 GEN) | AM dB | 70 | 60 |
| f) Maximum Audio Output Power | AM W | 4.0 | 3.0 |
| | SSB W | 4.0 | 3.0 |
| | FM W | 4.0 | 3.0 |
| g) Audio Output Power at 10% THD | AM W | 2.5 | 2.0 |
| | SSB W | 2.5 | 2.0 |
| | FM W | 2.5 | 2.0 |
| h) RF Gain Control Range | AM dB | 55 | 30 - 70 |
| | SSB dB | 55 | 30 - 70 |
| | FM dB | 55 | 30 - 70 |
| i) S/N Ratio at 1mV Input | AM dB | 30 | 25 |
| | FM dB | 35 | 25 |
| j) Squelch Sensitivity at Threshold | AM uV | 0.5 | 2.0 |
| | SSB uV | 0.5 | 2.0 |
| | FM uV | 0.5 | 2.0 |
| k) Squelch Sensitivity at Tight | AM uV | 1.000 | 250 - 4.000 |
| | SSB uV | 1.000 | 250 - 4.000 |
| | FM uV | 1.000 | 250 - 4.000 |
| l) S Meter Sensitivity at "S-9" (No Modulation) | AM uV | 100 | 25 - 400 |
| | SSB uV | 100 | 25 - 400 |
| | FM uV | 100 | 25 - 400 |
| m) Image Rejection Ratio | AM dB | 65 | 50 |
| | SSB dB | 65 | 50 |
| | FM dB | 65 | 50 |
| n) IF Rejection Ratio | AM dB | 85 | 70 |
| | SSB dB | 85 | 70 |
| | FM dB | 85 | 70 |
| o) Oscillator Dropout Voltage | AM V | 9 | 11 |
| | SSB V | 9 | 11 |
| | FM V | 9 | 11 |

| | <u>UNIT</u> | <u>NOMINAL</u> | <u>LIMIT</u> |
|--|-------------|----------------|-----------------|
| p) Battery Drain at No Signal | AM mA | 500 | 800 |
| | SSB mB | 500 | 800 |
| | FM mA | 500 | 800 |
| q) Battery Drain at Max. Audio Output | AM mA | 1.000 | 1.500 |
| | SSB mA | 1.000 | 1.500 |
| | FM mA | 1.000 | 1.500 |
| r) Clarifier Range | AM kHz | ± 7.0 | More than ± 5.0 |
| | SSB kHz | ± 7.0 | More than ± 5.0 |
| | FM kHz | ± 7.0 | More than ± 5.0 |
| 5. <u>PUBLIC ADDRESS</u> | | | |
| a) Output Power at 10% Distortion | W | 2.5 | 2 |

NOTE :

- 1) Shall have reverse polarity protection and operable with positive or negative grounding
- 2) Operating Power Voltage : 13.8V + 15 - 20% DC

B. INSTALLATION

1. LOCATION

Plan the location of the transceiver and microphone bracket before starting the installation. Select a location that is convenient for operation and does not interfere with the driver or passenger in the vehicle. In automobiles, the transceiver is usually mounted to the dash panel with the microphone bracket beside it.

2. MOUNTING AND CONNECTION

This radio is supplied with a universal mounting bracket. The transceiver is held in the bracket by the four thumb screws supplied, permitting adjustment to the most convenient angle. The bracket must be mounted with the screws supplied. The mounting surface must be mechanically strong. Proceed as follows to mount the transceiver :

- a) After you have determined the most convenient location in your vehicle, hold the radio with the mounting bracket in the exact location desired. If nothing interferes with mounting it in the desired position, remove the mounting bracket thumb screws and mark the mounting holes using the bracket as a template. Before drilling the holes, make sure nothing will interfere with the installation of the mounting screws. Drill the holes and mount the bracket and then install the radio.
- b) Connect the antenna cable plug to the standard receptacle on the rear panel. Most CB antennas are terminated with a type PL-259 plug which mates with the receptacle on the rear panel.
- c) Connect the DC power input wire with the fuse (red) to +12V DC. This wire extends from a plug which connects to the rear panel. In automobile installations, +12V DC is usually obtained from the accessory contact on the ignition switch. This prevents the set being left on accidentally when the driver leaves the car and also permits operating the radio without the engine running. You can locate the

accessory contact on most ignition switches by tracing the power wire from the AM broadcast receiver in the car.

- d) Connect the black wire to ground. This is usually the chassis of the car. Any convenient location with good electrical contact may be used. (remove paint).

Note : See ground connection under GENERAL INFORMATION for more detail.

- e) Mount the microphone hanger on the side of the unit or near the unit, using the screws supplied.

C. GENERAL INFORMATION

1. GROUND CONNECTION

This radio may be installed and used in any 12V DC negative or positive ground system vehicle.

- a) Negative ground system : Connect the Red power lead from the radio to the positive or (+) battery terminal or other convenient point, and connect the Black power lead to the chassis or vehicle frame or (-) battery terminal.
- b) Positive ground system : In the cases of positive ground system, connect the Black power lead from the radio to the negative or (-) battery terminal or other convenient point, and connect the Red power lead to the chassis or vehicle frame or (+) battery terminal.

2. ANTENNA

This radio is designed to operate into a 50 ohm CITIZENS RADIO antenna. Best result will be obtained from your transceiver if you use good antenna and properly install your antenna. (Refer to the antenna installation instructions included with your antenna.)

A vertically polarized quarter-wavelength whip antenna provides the most reliable operation and greater range. The shorter loaded-type whip antennas are more attractive, compact and adequate for applications where the maximum possible distance is not required. Also, the loaded whip antennas do not present the problems of height imposed by the full quarter-wavelength whip.

When installed in a boat, the transceiver will operate most efficiently when the antenna used has been especially designed for marine applications.

Mobile whip antennas utilize the metal body of the vehicle as a ground plane. When mounted on a corner of the vehicle, they are slightly directional, in the direction of the body of the vehicle. For all practical purposes, however, the radiation pattern is non-directional. A slight directional characteristic will be observed only at extreme distances. A standard antenna connector (Type

SO-239) is provided on the transceiver for easy connection to a standard PL-259 cable termination.

Before installing the transceiver in a boat, consult your dealer for information regarding an adequate grounding system and prevention of electrolysis between fittings in the hull and water.

3. BASE STATION OPERATION

To operate the transceiver from your home or office, using regular house current as the power source, you will require a separate power supply capable of supplying 5 amps at a 13.8V DC output with a nominal input voltage of 220 volts AC, 50/60 Hz.

Simply connect the red (+) and black (-) leads to the transceiver to the corresponding DC terminals of the power supply.

NOTE : Do not attempt to operate this transceiver by connecting directly to 220V AC. When an AC power supply is used with the transceiver for base station operation any Citizens Band beam, dipole, ground plane or vertical antenna may be used. A ground plane vertical antenna will provide the most uniform horizontal coverage.

4. REMOTE SPEAKER

The external speaker jack (EXT. SPKR) on the rear panel is used for remote receiver monitoring. The external speaker should have 8 ohms impedance. When the external speaker is plugged in, the internal speaker is disconnected.

5. PUBLIC ADDRESS

An external 8 ohm 4-watt speaker must be connected to the (PA SPKR) jack located on the rear panel when the transceiver is used as a public address system. The speaker should be directed away from the microphone to prevent acoustic feedback. Physical separation or isolation of the microphone and speaker is important when operating the PA at high output levels.

6. OPERATING INSTRUCTIONS

The JACKSON operates on 226 AM/FM channels, 226 Upper Side Band channels and 226 Lower Side Band channels.

When you receive the SSB signal in the proper mode (USB or LSB),

audio sound may be either too high pitched or low pitched, indicating that your receiver may not be tuned to the exact same frequency as the transmitter to which it is listening. The JACKSON is equipped with a Clarifier. By tuning the Clarifier, you can slightly change the frequency of the receiver, so you get a normal tone.

D. OPERATING CONTROLS

Your JACKSON, designed for ease of operation, is provided with the following operating controls :

1. OFF/ON VOLUME : To turn the transceiver on, rotate the control clockwise past click. To turn the transceiver off, rotate the control counterclockwise past click. Rotate the control clockwise for a comfortable audio level.
2. SQUELCH : The squelch control is normally set to a position which eliminates undesired background noise with no signal present. With the audio adjusted to a satisfactory level, rotate the squelch control clockwise to the point where the sound from the speaker is cut off. In this position, there will be no sound from the speaker until a signal is received. In order to hear weak signals, it may be necessary to rotate the squelch control counterclockwise, allowing some background noise to be heard.
3. P.A. SWITCH (on SQUELCH) CONTROL : Full counterclockwise rotation of the squelch control engages the PA function. The PA function should not be used unless an external speaker is connected. In the squelch (or CB) position, the PA function is disabled and the radio will transmit and receive on the selected channel.
4. MODE SELECTION : This switch selects AM, FM, USB, or LSB mode of operation. This selector changes the mode of operation of both transmitter and receiver simultaneously. Set the selector to the mode on which you wish to communicate.
5. MIKE GAIN : This control is used to adjust, as required, microphone input sensitivity for optimum amount of modulation in transmit. President Electronics citizen's band transceivers have been designed to permit the user to attain levels of modulation up to 100 % depending on the setting of the microphone gain control, using the microphone provided with the unit. President's automatic compression and peak limiting circuits assure maximum modulation with minimum distortion.

6. RF GAIN : This control is used primarily to optimize reception in strong signal areas. Gain is reduced by counterclockwise rotation of the control.
7. CLARIFIER : The clarifier control is normally set to the center position. This feature has several uses and can greatly enhance receiver operation. First, if a received signal is slightly off frequency, this control can be operated as required to optimize the receiver frequency. The effectiveness of this clarifier feature under these conditions can be observed either by listening for a more readable signal at the speaker or by noting the S-meter reading when the clarifier control is operated. Another effective application of this control is in eliminating adjacent channel interference from strong signals. Operate this control, as required, to obtain minimum adjacent channel interference.
8. METER MODE SWITCH :

S/RF Position : Meter indicates relative transmitter output power when transmitting, input signal strength when receiving.

MOD Position : Meter indicates average percentage of modulation.
9. NB/ANL SWITCH : When switch is placed in NB/ANL position, the Automatic Noise Limiter and the RF Noise Blanker are activated simultaneously.
10. + 10KHZ FREQUENCY SHIFT SWITCH : When switch is placed in + 10KHz position, frequency is shifted 10KHz up. On following channels, a channel can be used by setting this switch to + 10KHz position.

| <u>Normal</u> | <u>+ 10 KHz</u> |
|---------------|-----------------|
| 3 | 3A |
| 7 | 7A |
| 11 | 11A |
| 15 | 15A |
| 19 | 19A |

11. BAND SWITCH : This switch is used to select the band of frequency.
12. CHANNEL SELECTOR : This switch is used to select any one of the 40 Citizens Band channels. Channel 9 has been reserved for emergency communications involving immediate safety of life of individuals or

immediate protection of property.

13. ROGER BEEP SWITCH : When this switch is placed in the ROGER BEEP position, your radio automatically transmits the audio sign at the end of your transmission. The listener can easily note your transmission is over through the sign.

E. ALIGNMENT PROCEDURES

1. ALIGNMENT OF PLL & CARRIER OSCILLATOR PORTION

a) Test Equipment Required

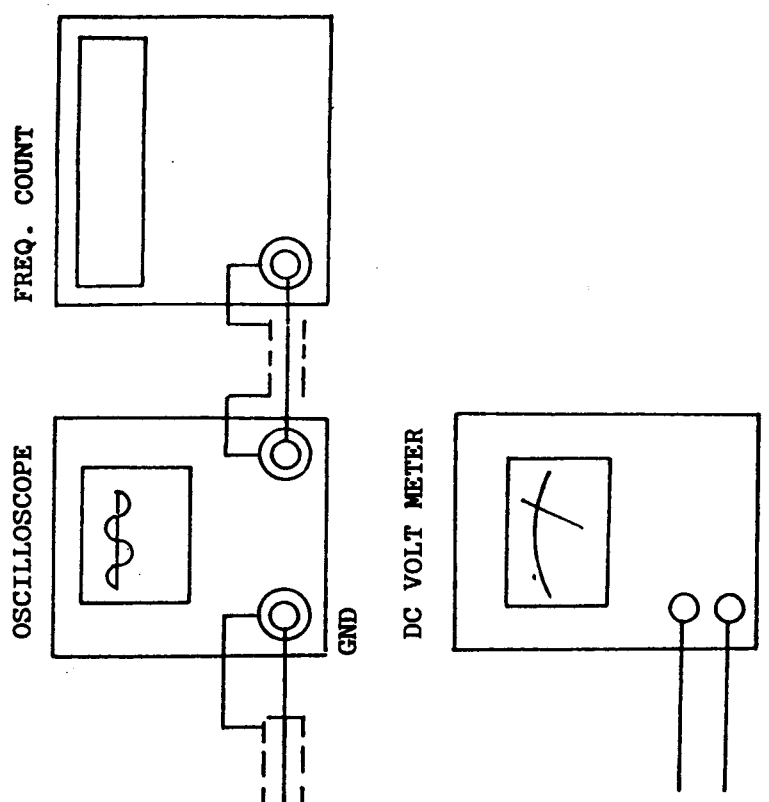
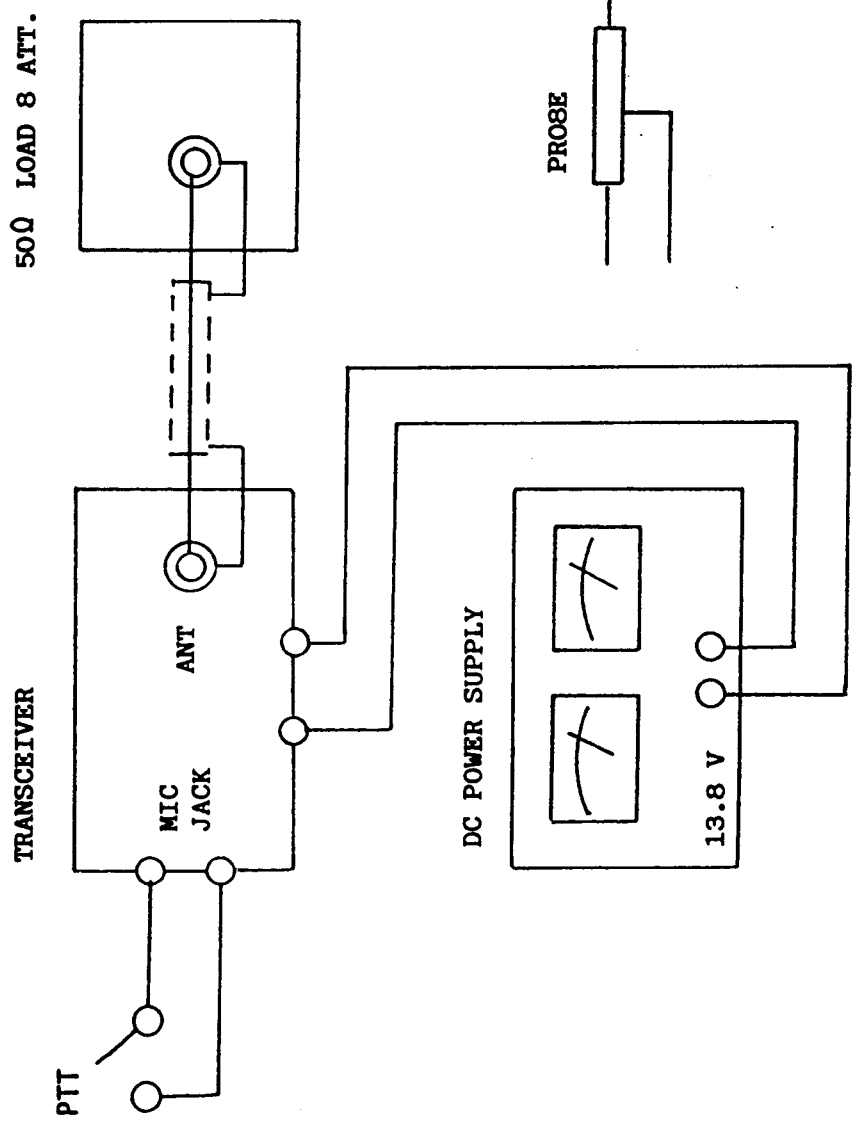
- Oscilloscope
- DC Power Supply (13.8V)
- Frequency Counter (0 - 50MHz)
- DC Voltmeter

b) Alignment Procedure

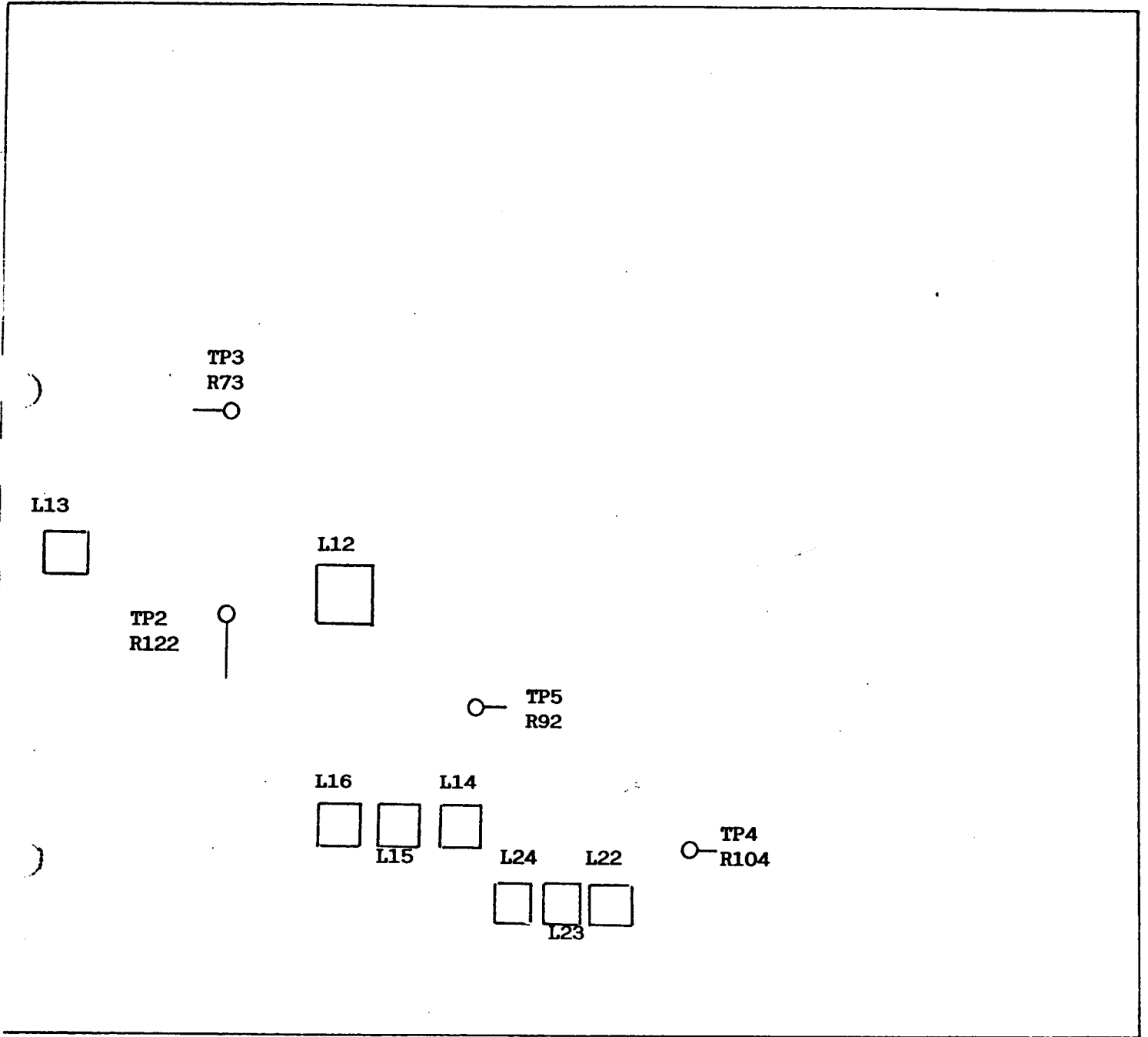
| STEP | PRESET TO | ADJUSTMENT | REMARKS |
|------|--|------------|--|
| 1 | Channel : 40 Mode : AM, RX. Clari : Center Band : E PA/CB : CB | L12 | Connect DC Voltmeter to TP-2 (R122). Adjust for 6.0V \pm 0.1V on DC Voltmeter. Confirm 2V to A Band Channel 1. |
| 2 | Same as above except BAND : C Channel : 19 Mode : AM.FM, RX | L13 | Connect Oscilloscope to TP-3 (R73). Adjust for maximum reading on Oscilloscope. |
| 3 | Same as above | L14 | Connect Frequency Counter to TP-3 (R73). Adjust for 16.490MHz \pm 20Hz on the Frequency Counter. |
| 4 | Same as Step 2 except Mode : USB, RX | L15 | Connect Frequency Counter to TP-3 (R73). Adjust for 16.4925MHz \pm 20Hz on the Frequency Counter. |
| 5 | Same as Step 4 except Mode : LSB, RX | L16 | Connect Frequency Counter to TP-3 (R73). Adjust for 16.4875MHz \pm 20Hz on the Frequency Counter. |
| 6 | Same as above | L24 | Connect Frequency counter to TP-4 (R104). Adjust for 10.6975MHz \pm 20Hz on the Frequency Counter. |

| STEP | PRESET TO | ADJUSTMENT | REMARKS |
|------|---|------------|---|
| 7 | Same as Step 4 | L23 | Connect Frequency counter to TP-4 (R104). Adjust for 10.6925MHz \pm 20Hz on the Frequency counter. |
| 8 | Same as Step 4 except Mode : AM, TX | L22 | Connect Frequency counter to TP-5 (R82). Adjust for 10.695MHz \pm 20Hz on the Frequency counter. |

c) Test Equipment Connection (see following page)



ALIGNMENT POINTS



2. ALIGNMENT OF TRANSMITTER PORTION

a) Test Equipment Required

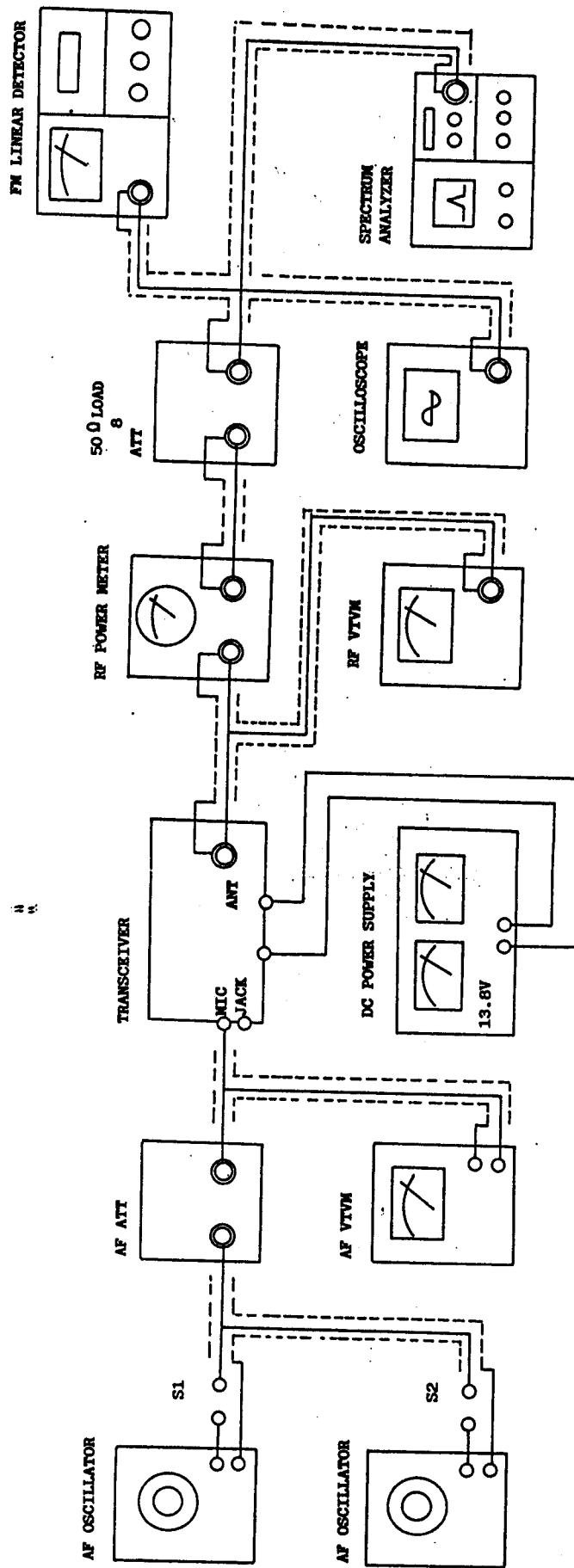
- AF Signal Generator (1) for 500Hz and 1.000Hz
- AF Signal Generator (2) for 2.400Hz
- AF VTVM (150mV full scale)
- RF VTVM (50V full scale)
- RF Powermeter (10W Max. Thruline type)
- 50 ohm Dummy Load
- Oscilloscope
- Harmonic Meter
- DC Voltmeter
- DC Ammeter (150mA full scale)

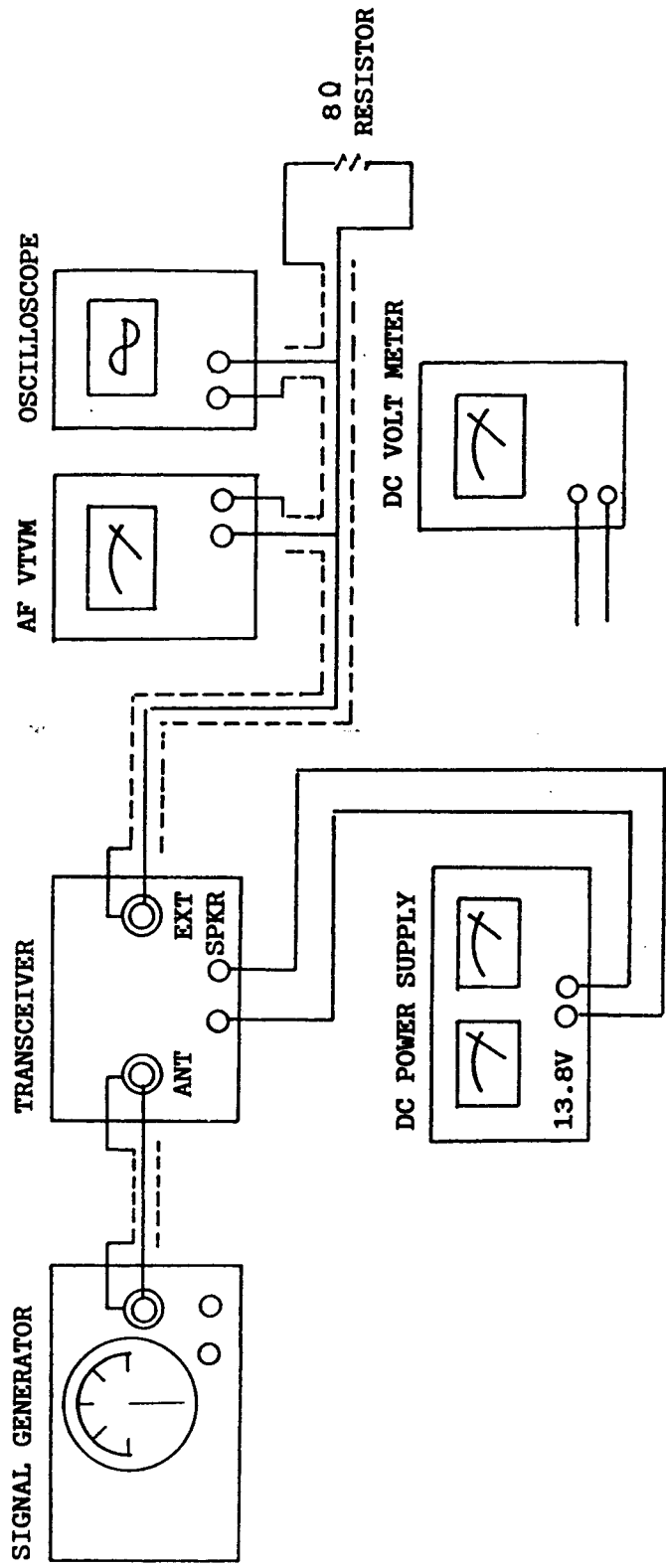
b) Alignment Procedure

| STEP | PRESET TO | ADJUSTMENT | REMARKS |
|------|---|------------|--|
| 1 | Channel : 19 Band : C Mode : USB, TX. No Modulation MIC GAIN : CW PA/CB : CB | VR10 | Disconnect the PC-834AA from Check Point of Main P.C.Board and connect DC Ammeter to TP-8(+), TP-6(-). Adjust for 50mA on DC Ammeter. |
| 2 | Same as Step 1 | VR9 | Connect DC Ammeter to TP-8(+), TP-7(-). Adjust VR9 to obtain the current 80mA. |
| 3 | Mode : USB | L42 | Disconnect the DC Ammeter. Connect PC-834AA to Check Point of Main P.C.Board. Connect power meter, RF VTVM and Oscilloscope. Set VR8 CW maximum. Turn the Cor of L42 CW maximum at the bottom. |
| 4 | Same as above | L41,43,49 | Adjust coils for the maximum indication. While then, keep output voltage under 25V by adjusting SG. |
| 5 | Same as above | L42 | Set E Band Channel 40, adjust for maximum reading and then set A Band Channel 1, adjust for minimum difference from E Band Channel 40. |
| 6 | Channel : 19 Band : E Mode : USB 2 Tone AF SG : 30mV | L30 | Adjust L30 to obtain the maximum indication on the RF VTVM. |

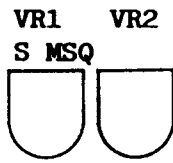
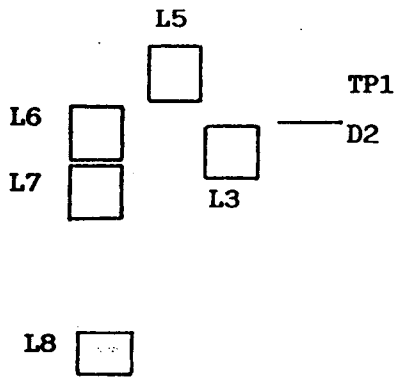
| STEP | PRESET TO | ADJUSTMENT | REMARKS |
|------|---|------------|--|
| 7 | same as above | VR8 | Adjust VR3 to obtain RF output of 32.4V on the RF VTVM. |
| 8 | Same as Step 1 | VR5 | Adjust VR5 to obtain the minimum carrier leakage between USB and LSB. |
| 9 | Mode : AM, TX. No Modulation Channel : 19 Band : E | VR11 | Adjust VR11 to obtain RF carrier power of 10W on RF Power meter. |
| 10 | Same as above except Push SW : S/RF | VR7 | Adjust for the needle of Built-in Meter to blank zone of TX Power Meter. |
| 11 | Same as above except AF SG : 30mV 1KHz Mod. | VR12 | Adjust VR12 to obtain 90% (negative) modulation. |
| 12 | Same as above except mode : FM | VR4 | Connect Deviation meter. Adjust for 3kHz Deviation on Deviation meter. |
| 13 | Channel : 19 Band : C Push SW : MOD | VR3 | Set AF SG to 50% Modulation, then add 16dB. Adjust VR3 to 100% modulation indication on the transceiver meter. |
| 14 | Channel : 19 Band : C No Modulation Mode : AM | VR6 | Adjust Transmitter Frequency for 27.185MHz \pm 100Hz. |

c) Test Equipment Connection (see following page)





ALIGNMENT POINTS



3. ALIGNMENT OF RECEIVER PORTION

a) Test Equipment Required

- RF SSG
- DC Voltmeter
- AF VTVM
- Oscilloscope

b) Alignment Procedure

Connect the AF VTVM and 8 ohm dummy load to EXT SP Jack during the alignment of receiver portion.

| STEP | PRESET TO | ADJUSTMENT | REMARKS |
|------|--|---------------|---|
| 1 | Channel : 19 Band : C NB/ANL : OFF MOD, S/RF : S/RF PA/SQL : SQL Clari : Center RF GAIN : CW AF VOL : CW MODE : AM | | Set RF SG to Channel 19 with 30%, 1KHZ modulation. |
| 2 | Same as above | L6 | Turn the core of L8 to CW. maximum at the bottom. |
| 3 | Same as above | L5, 7, 8 9 | Set the Unit to C Band Channel 19 AM, adjust coils for maximum reading. |
| 4 | Same as above | L6 | Set the unit to C Band Channel 1 AM (SSG Channel 1), adjust for maximum reading and then set 1/4 turn CCW. |
| 5 | Same as above | VR1 | Set the SSG to 100uV output with no-modulation. Adjust VR1 to obtain "S-9" on transceiver's meter. |
| 6 | Same as above | VR2 | Adjust VR2 to turn off the squelch circuit when SSG output comes up to 1000uV. |
| 7 | Same as step 1 except MODE : USB | L3 | Set SSG to C Band Channel 18 USB with no-modulation, and output level is 5uV. Connect Oscilloscope to TP-1 (D2) so that adjust for maximum reading. |
| 8 | Same as Step 1 except Mode : FM | L4 | Set the SSG to FM 1KHz, 1.5KHz Deviation 1mv. Adjust L4 to obtain the maximum indication on Oscilloscope. |

ALIGNMENT POINTS

BIAS

L33

BIAS

L30



VR10

VR9

TP7



TP6

TP8

VR7
RF.M

VR9
ALC



VR12
AMC



VR11
AM PWR

L40

L41



L43

VR3
MOD.M



VR4
DEV



VR5
CARRIER



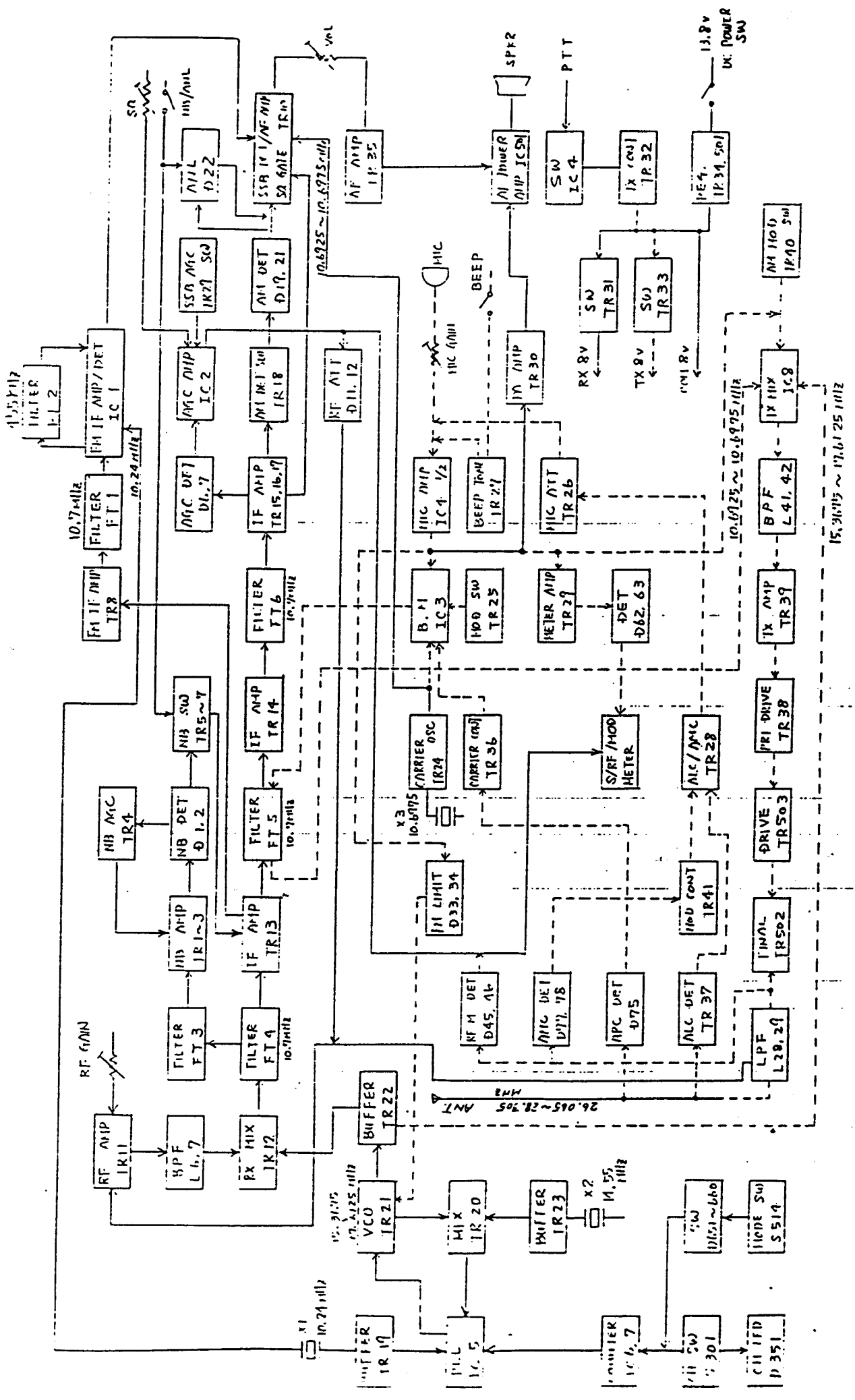
VR6
TX. FREQ.



F. FREQUENCIES

| CHANNEL | A BAND MHZ | B BAND MHZ | C BAND MHZ | D BAND MHZ | E BAND MHZ |
|---------|---------------|---------------|---------------|---------------|---------------|
| 1 | 26.065 | 26.515 | 26.965 | 27.415 | 27.865 |
| 2 | .075 | .525 | .975 | .425 | .875 |
| 3 | .085 | .535 | .985 | .435 | .885 |
| 4 | .105 | .555 | 27.005 | .455 | .905 |
| 5 | .115 | .565 | .015 | .465 | .915 |
| 6 | .125 | .575 | .025 | .475 | .925 |
| 7 | .135 | .585 | .033 | .485 | .935 |
| 8 | .155 | .605 | .055 | .505 | .955 |
| 9 | .165 | .615 | .065 | .515 | .965 |
| 10 | .175 | .625 | .075 | .525 | .975 |
| 11 | .185 | .635 | .085 | .535 | .985 |
| 12 | .205 | .655 | .105 | .555 | 28.005 |
| 13 | .215 | .665 | .115 | .565 | .015 |
| 14 | .225 | .675 | .125 | .575 | .025 |
| 15 | .235 | .685 | .135 | .585 | .035 |
| 16 | .255 | .705 | .155 | .605 | .055 |
| 17 | .265 | .715 | .165 | .615 | .065 |
| 18 | .275 | .725 | .175 | .625 | .075 |
| 19 | .285 | .735 | .185 | .635 | .085 |
| 20 | .305 | .755 | .205 | .655 | .105 |
| 21 | .315 | .765 | .215 | .665 | .115 |
| 22 | .325 | .775 | .225 | .675 | .125 |
| 23 | .355 | .805 | .255 | .705 | .155 |
| 24 | .335 | .785 | .235 | .685 | .135 |
| 25 | .345 | .795 | .245 | .695 | .145 |
| 26 | .365 | .815 | .265 | .715 | .165 |
| 27 | .375 | .825 | .275 | .725 | .175 |
| 28 | .385 | .835 | .285 | .735 | .185 |
| 29 | .395 | .845 | .295 | .745 | .195 |
| 30 | .405 | .855 | .305 | .755 | .205 |
| 31 | .415 | .865 | .315 | .765 | .215 |
| 32 | .425 | .875 | .325 | .775 | .225 |
| 33 | .435 | .885 | .335 | .785 | .235 |
| 34 | .445 | .895 | .345 | .795 | .245 |
| 35 | .455 | .905 | .355 | .805 | .250 |
| 36 | .465 | .915 | .365 | .815 | .265 |
| 37 | .475 | .925 | .375 | .825 | .275 |
| 38 | .485 | .935 | .385 | .835 | .285 |
| 39 | .495 | .945 | .395 | .845 | .295 |
| 40 | .505 | .955 | .405 | .855 | .305 |

G. BLOCK DIAGRAM

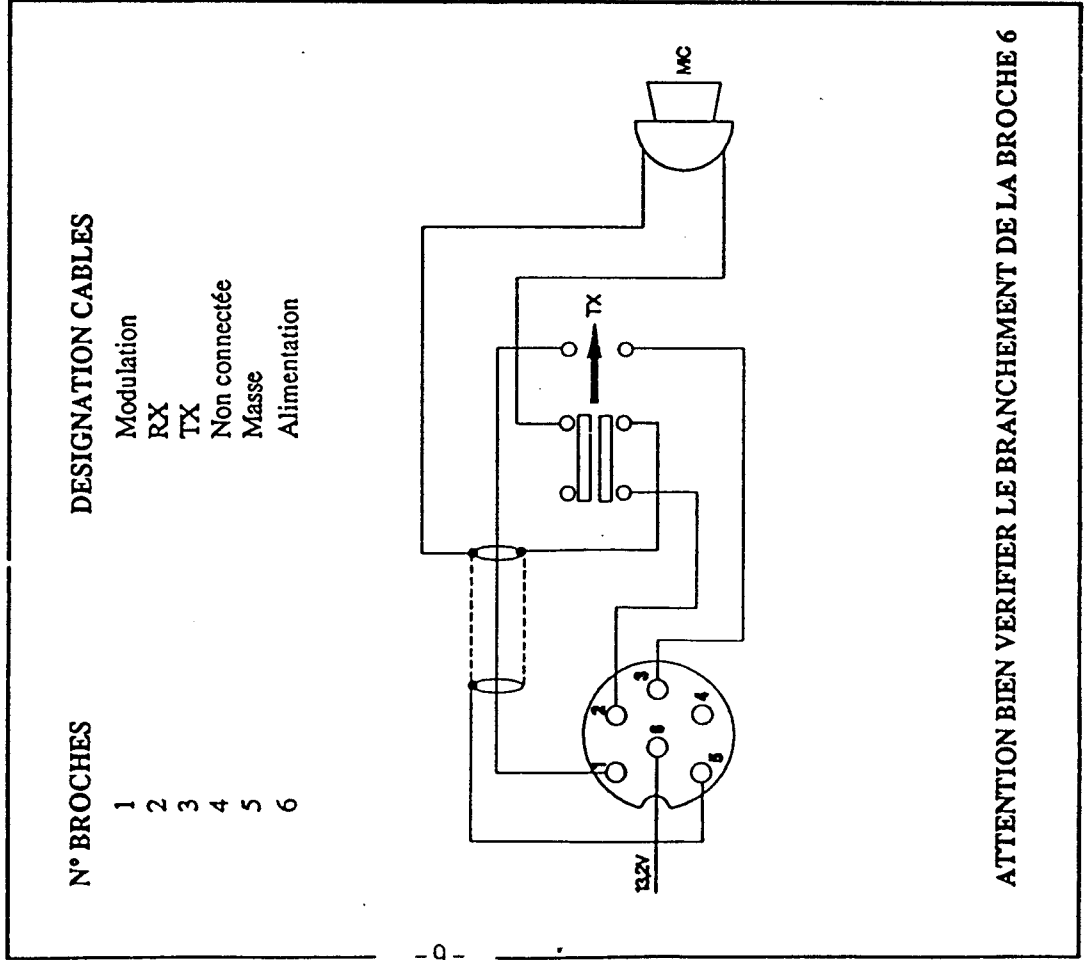


JACKSON
UT-547
BLOCK DIAGRAM

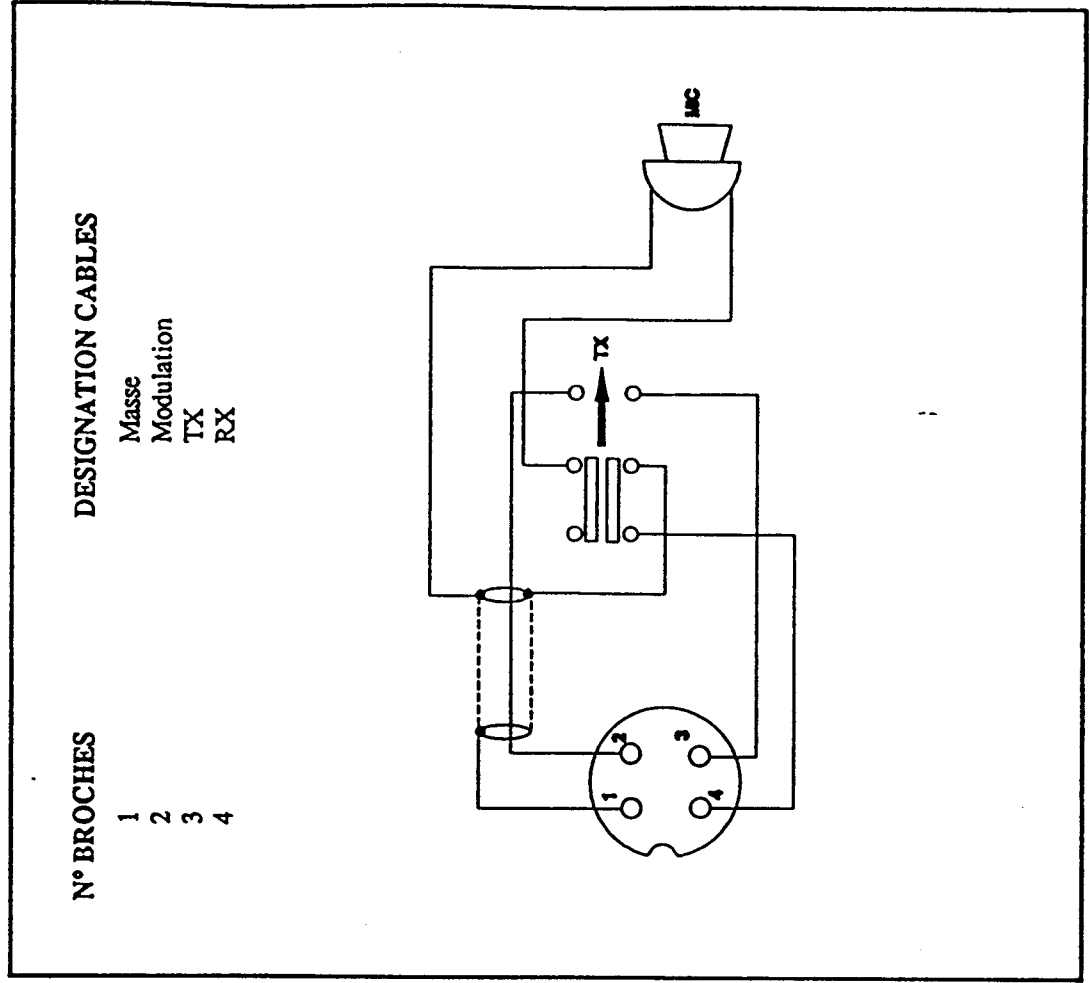
--- TX
--- RX

H. SCHEMATIC DIAGRAMS/WIRING DIAGRAM/PC BOARDS

BRANCHEMENT PRISE MICRO 6 BROCHES NC 518



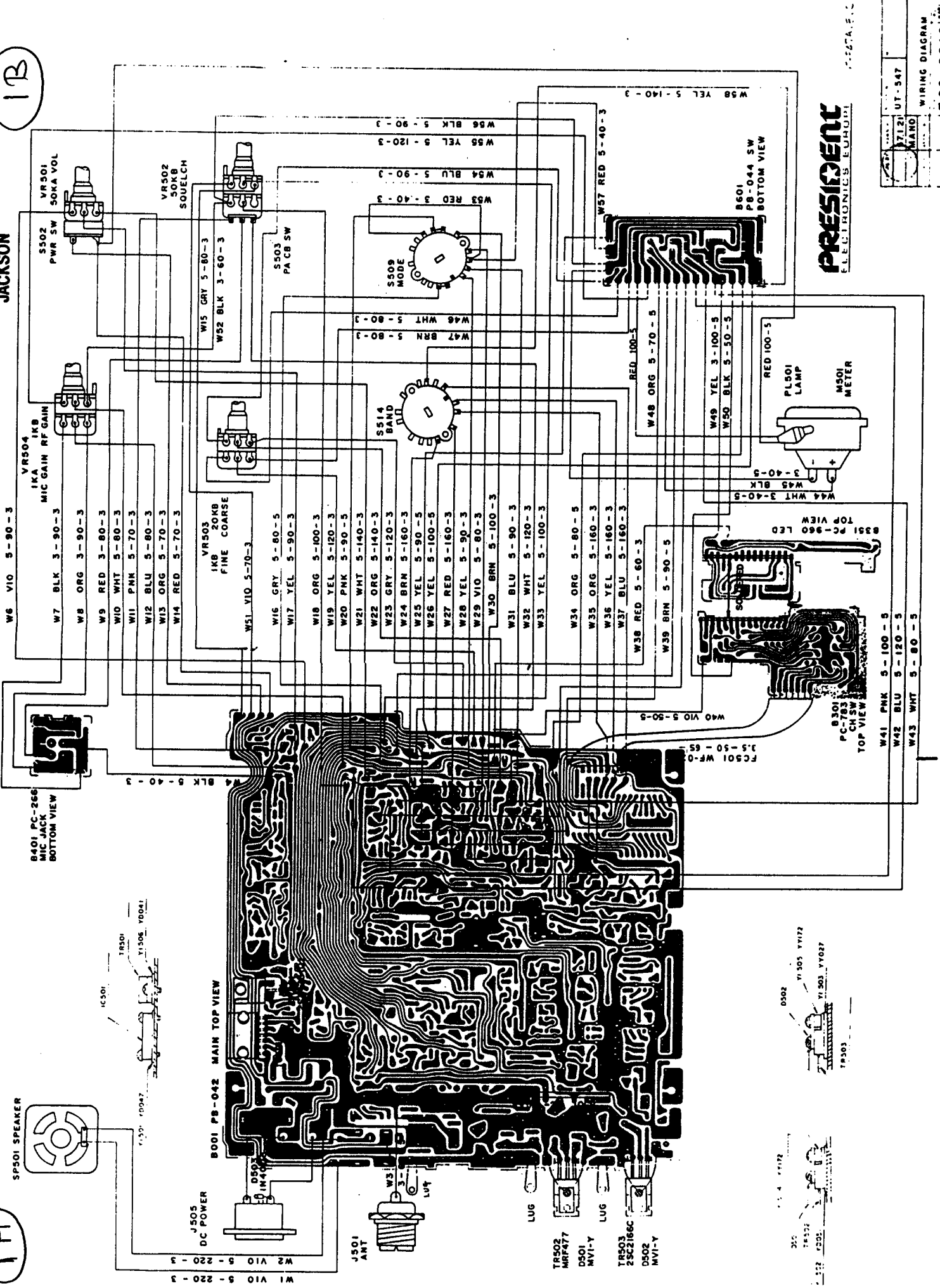
BRANCHEMENT PRISE MICRO 4 BROCHES NC 514



1A

1B

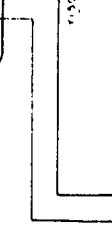
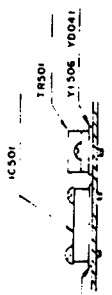
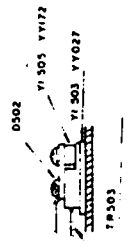
JACKSON



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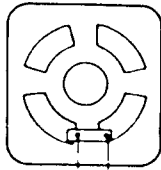
7/12/71 UT-547
 WARD
 WIRING DIAGRAM
 E32-2212

1-7-71

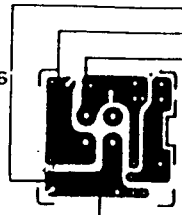


119

SP501 SPEAKER



B401 PC-266
MIC JACK
BOTTOM VIEW



IC501

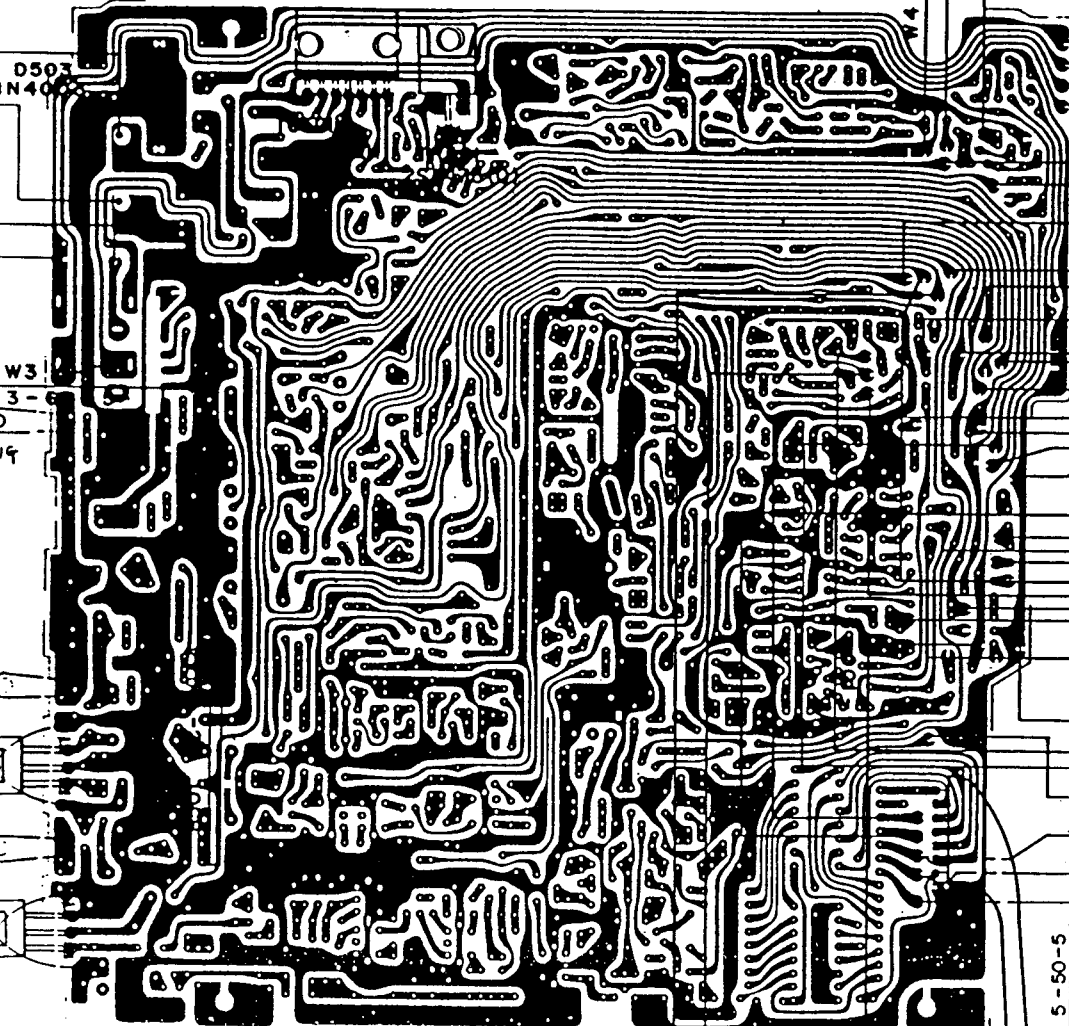
TR501

Y1501 Y0047 Y1506 Y0041



J505
DC POWER

B001 PB-042 MAIN TOP VIEW



W1 V10 5-220-3
W2 V10 5-220-3

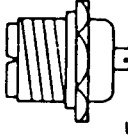
W4 BLK 5-40-3

W6
W7
W8
W9
W10
W11
W12
W13
W14

W16
W17
W18
W19
W20
W21
W22
W23
W24
W25
W26
W27
W28
W29

W31
W32
W33
W34
W35
W36
W37
W38 RED
W39 BRN

J501
ANT



W31
3-6
LUG

TR502
MRF477

D501
MVI-Y

TR503
2SC2166C

D502
MVI-Y

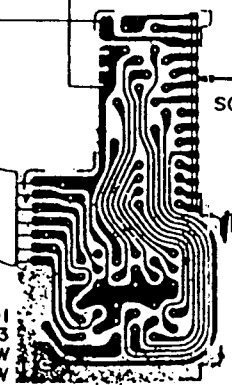
LUG

LUG

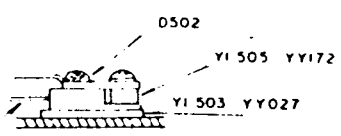
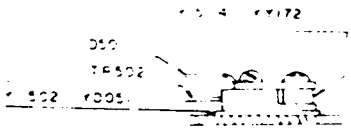
FC501 WF-0
3.5-50-65

W40 V10 5-50-5

B301
PC-783
CH SW
TOP VIEW



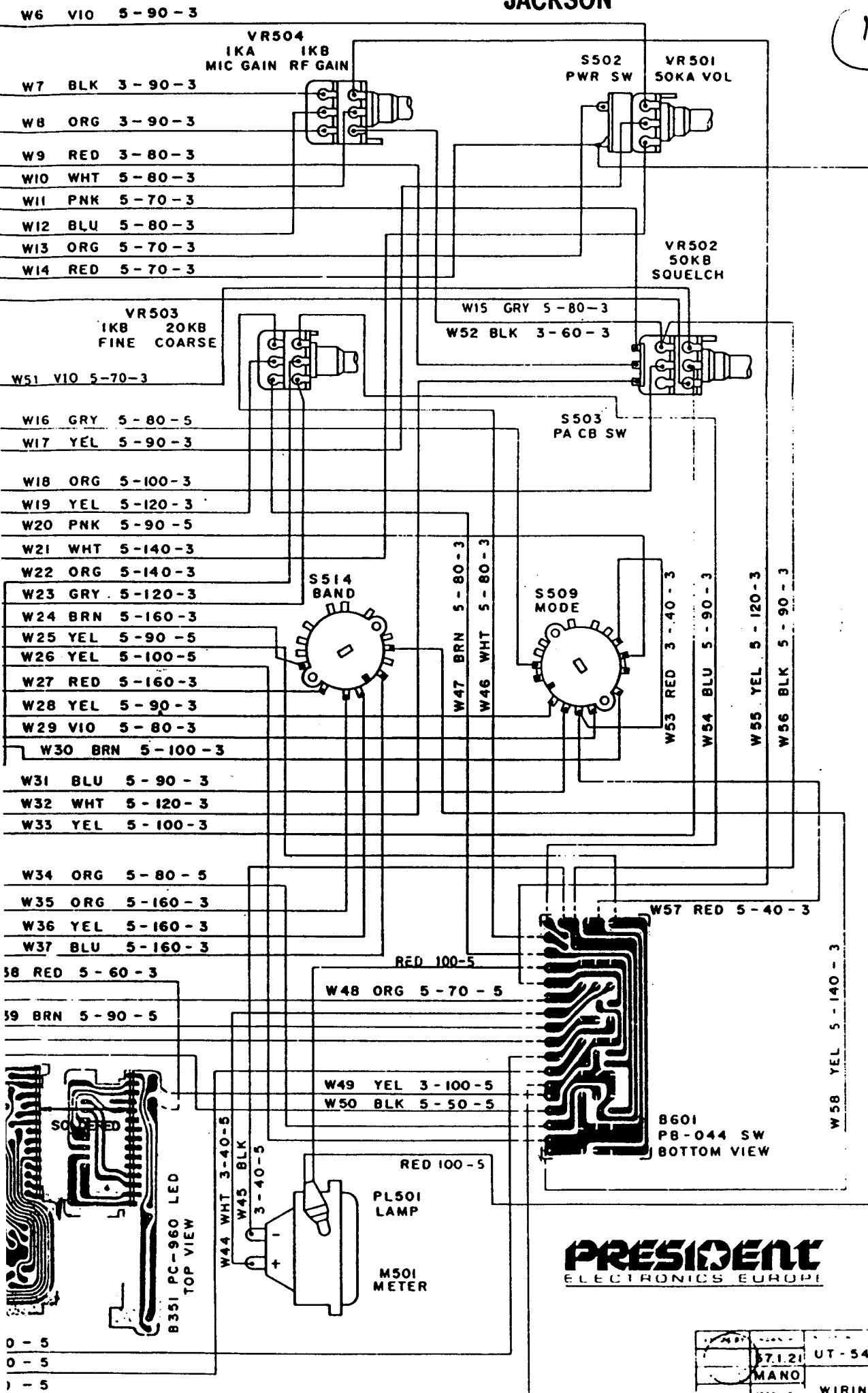
W41 PNK 5-100-5
W42 BLU 5-120-5
W43 WHT 5-80-5



TR503

JACKSON

1B

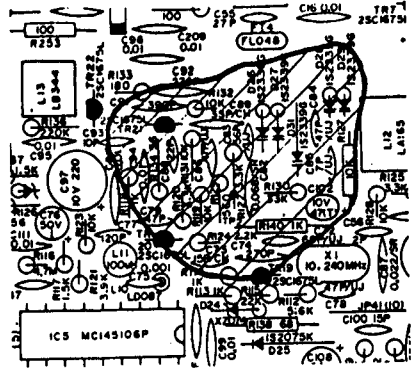


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7-227A.F.C

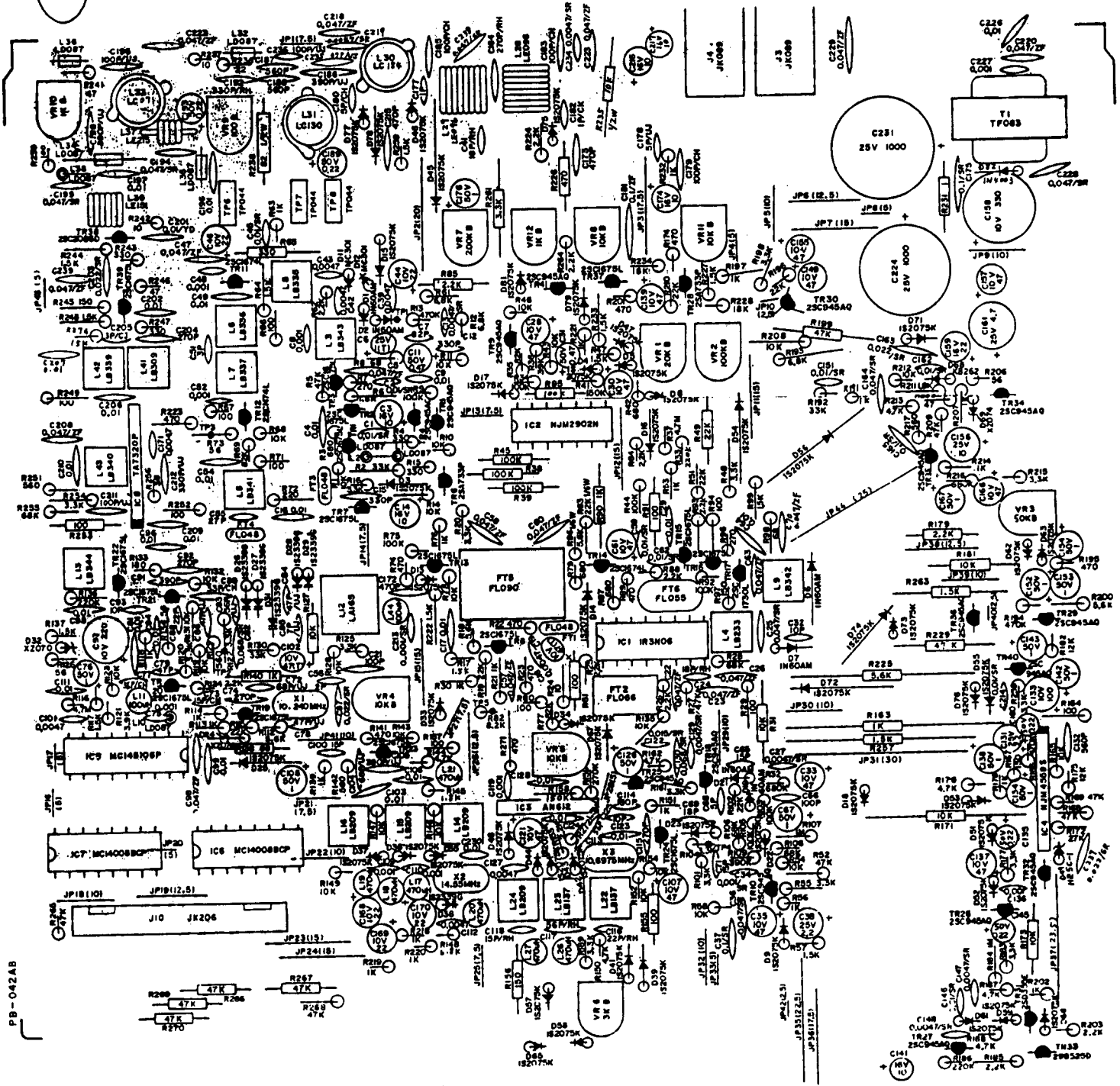
| | |
|----------|----------------|
| 7.1.21 | UT-547 |
| MANO | WIRING DIAGRAM |
| E32-2212 | |

2B



THIS DRAWING IS UNLESS OTHERWISE NOTED IN THE TITLE BLOCK IS THE PROPERTY OF PRESIDENT ELECTRONICS EUROPE AND IS TO BE KEPT IN CONFIDENTIALITY. UNLESS OTHERWISE NOTED.

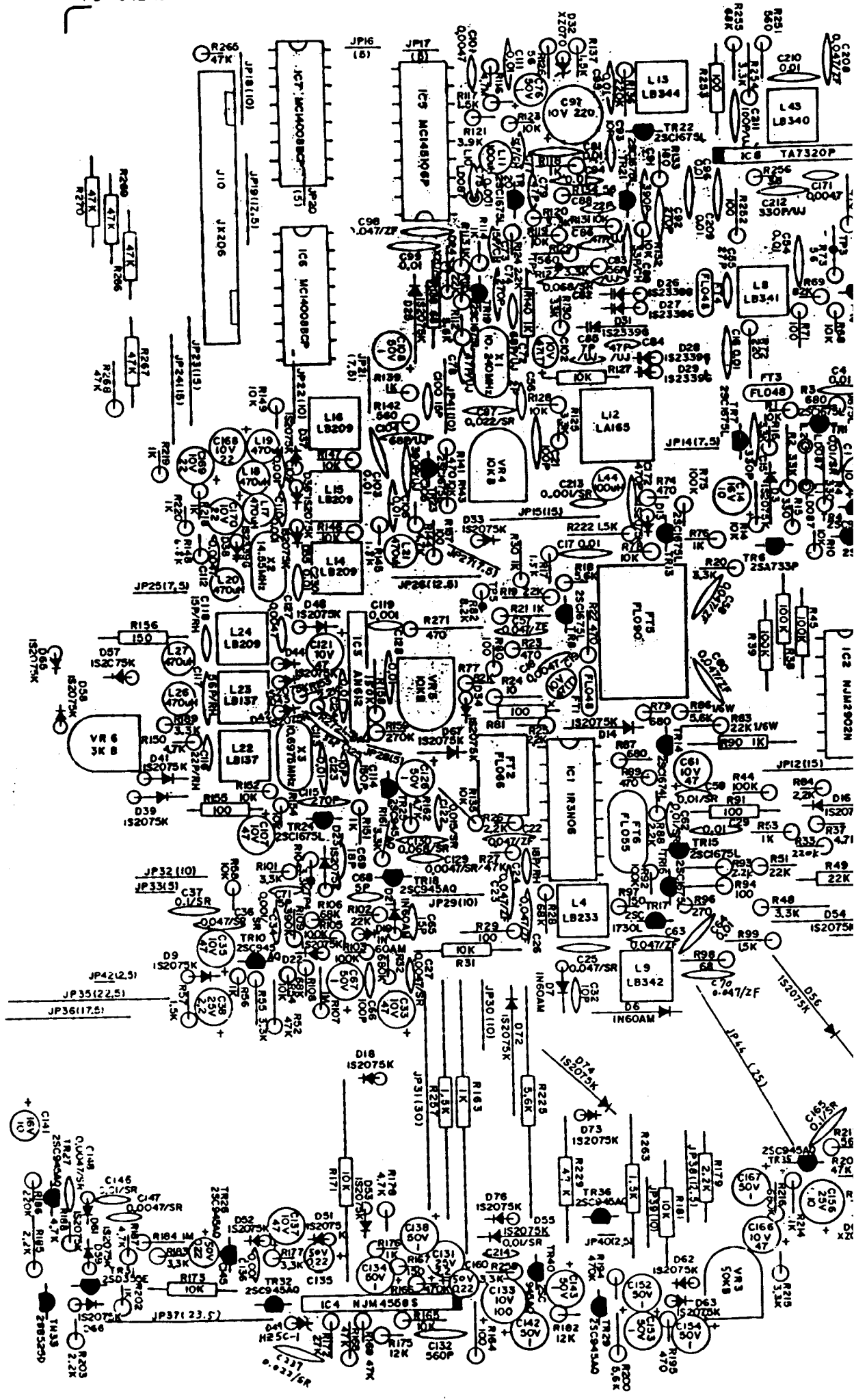
| | |
|------------|--------------------------|
| UT-547 | MAIN PCB |
| TAMARA | PRINTS ASSEMBLY TOP VIEW |
| E22-4674 | |
| MIDEN C088 | |



PB-042AB

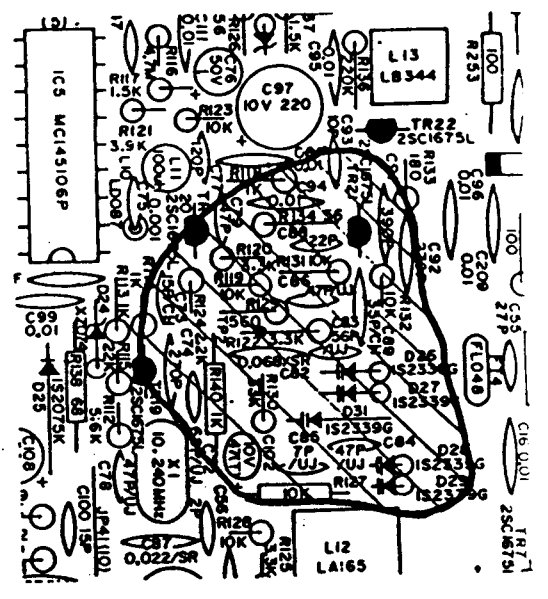
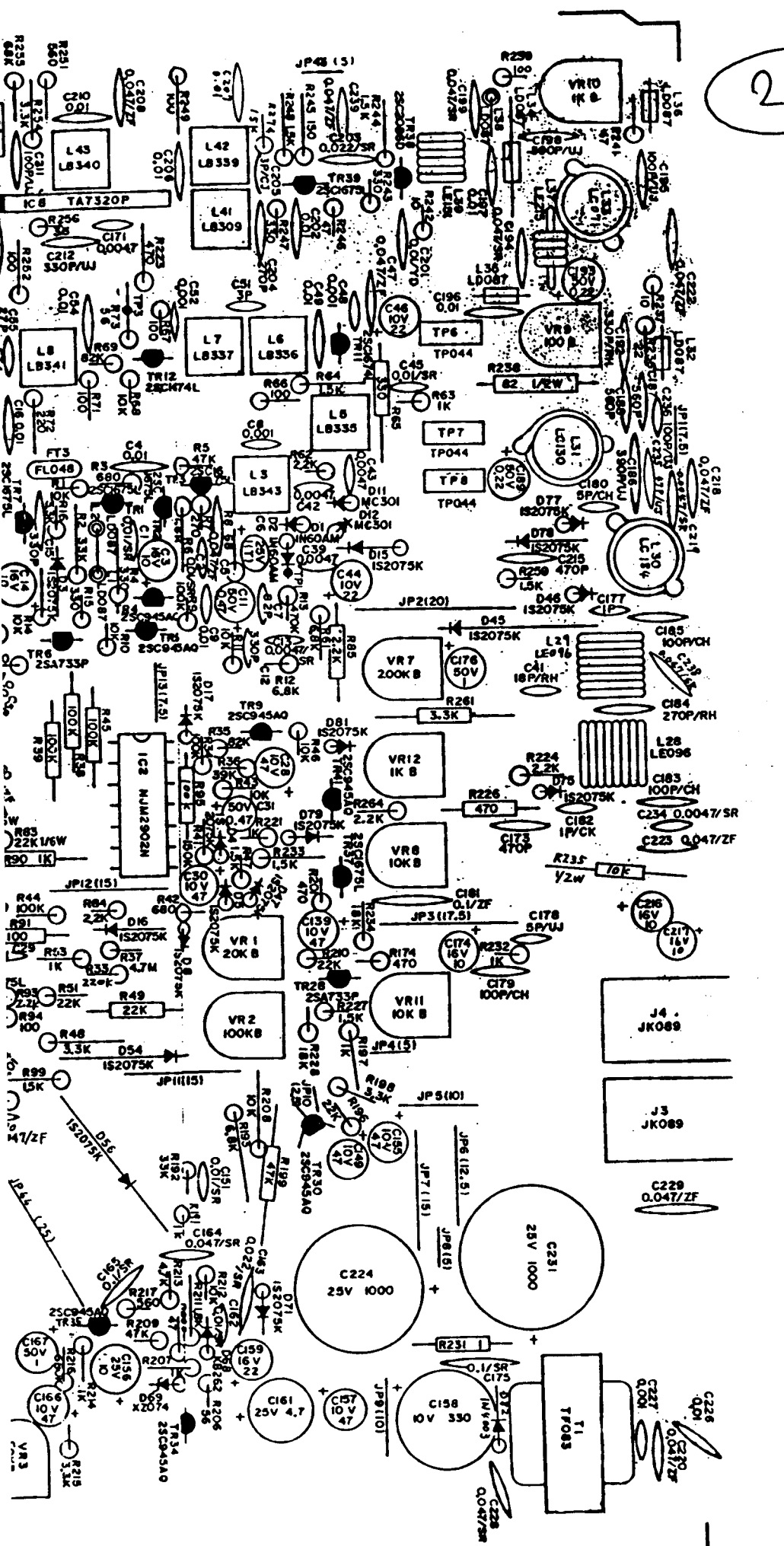
2A

2A



2B

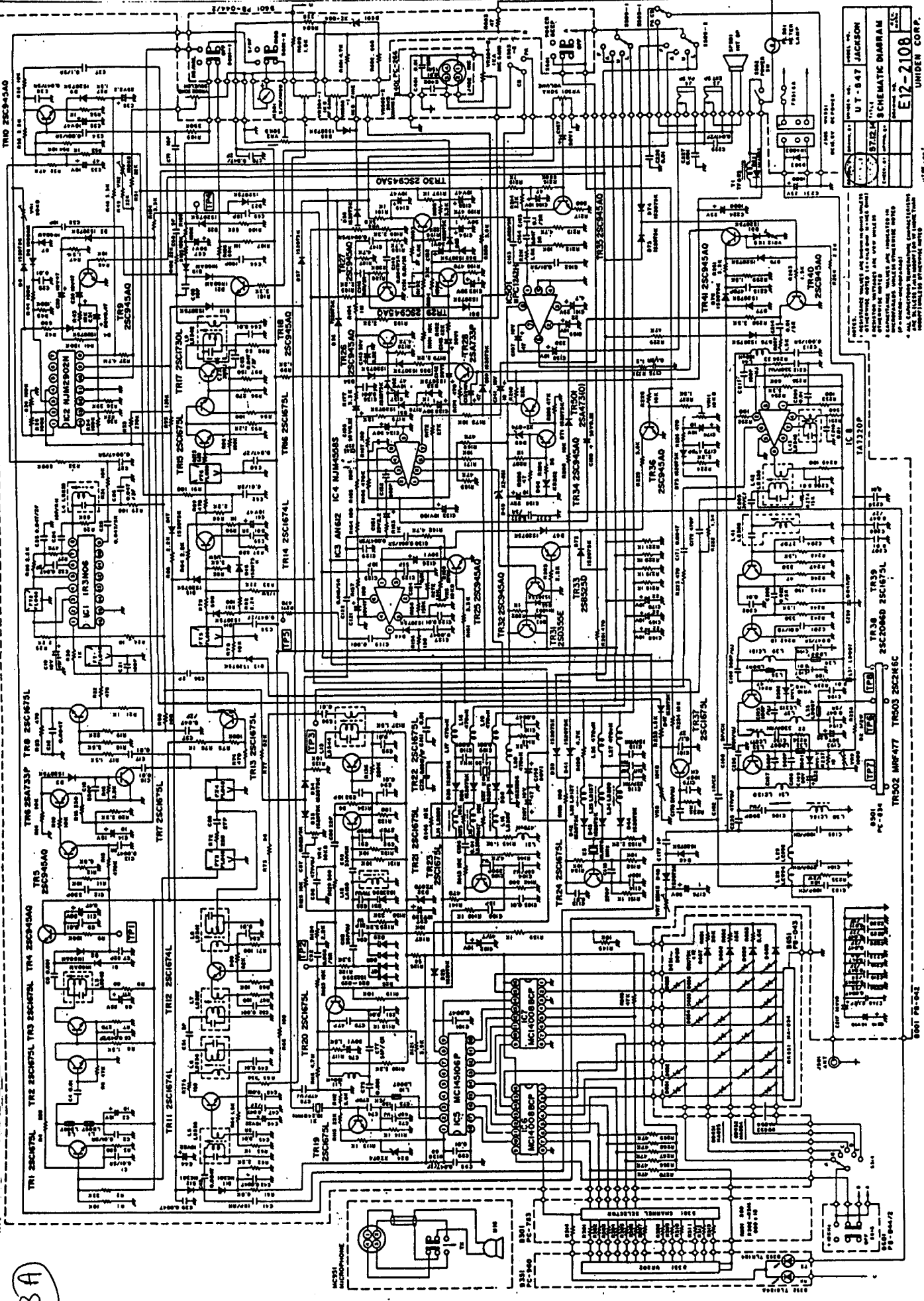
PRESIDENT ELECTRONICS EUROPE



NOTE:
 1. RESISTOR WATTAGES ARE 1/4W UNLESS OTHERWISE NOTED.
 2. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE ±10% MORE THAN UNLESS OTHERWISE NOTED.

| | |
|-----------------|-------------------------|
| 58.1.11 | UT-547 |
| TANAKA | MAIN PCB |
| | PARTS ASSEMBLY TOP VIEW |
| E22-4674 | |
| INDEN COP | |

3A

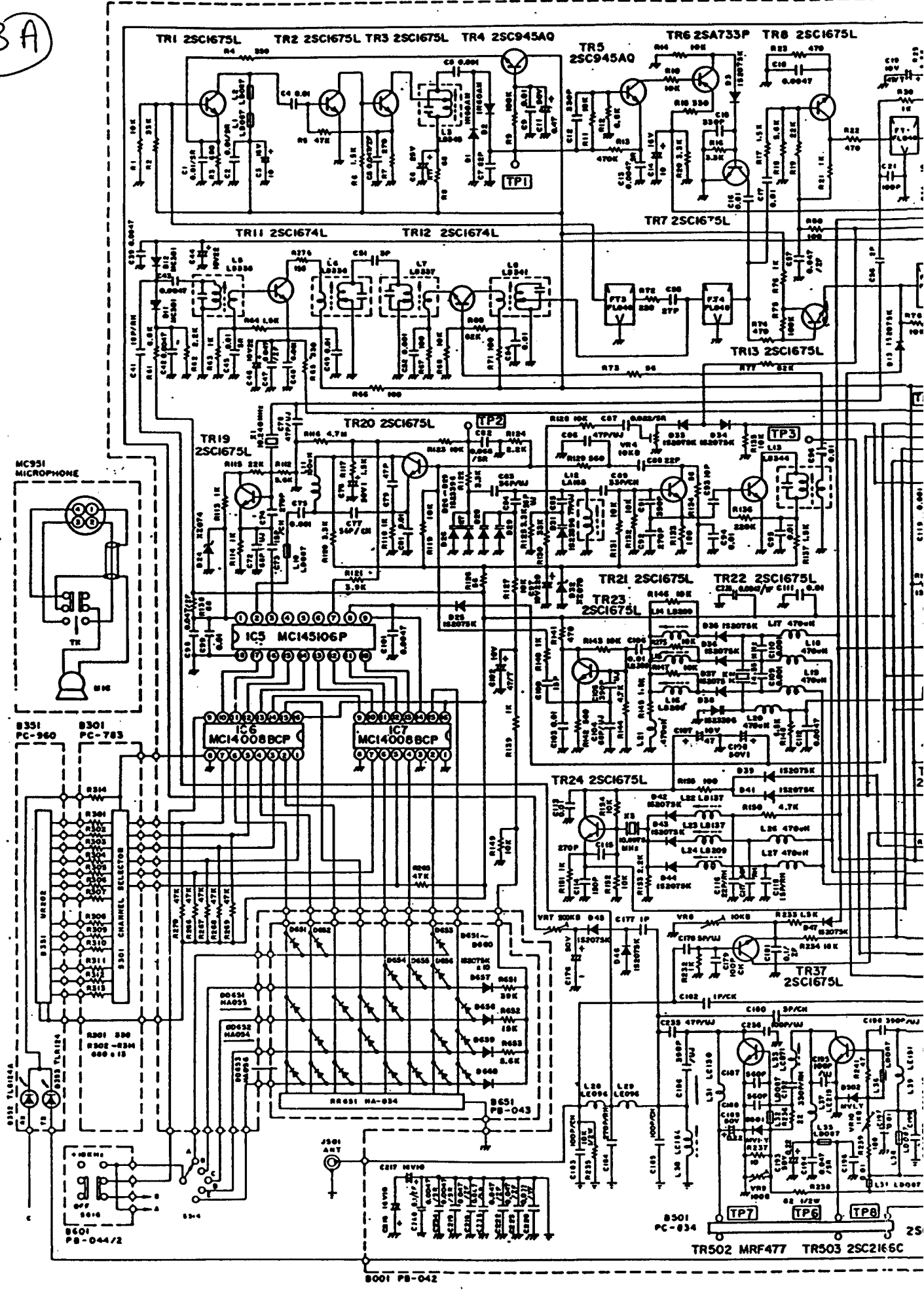


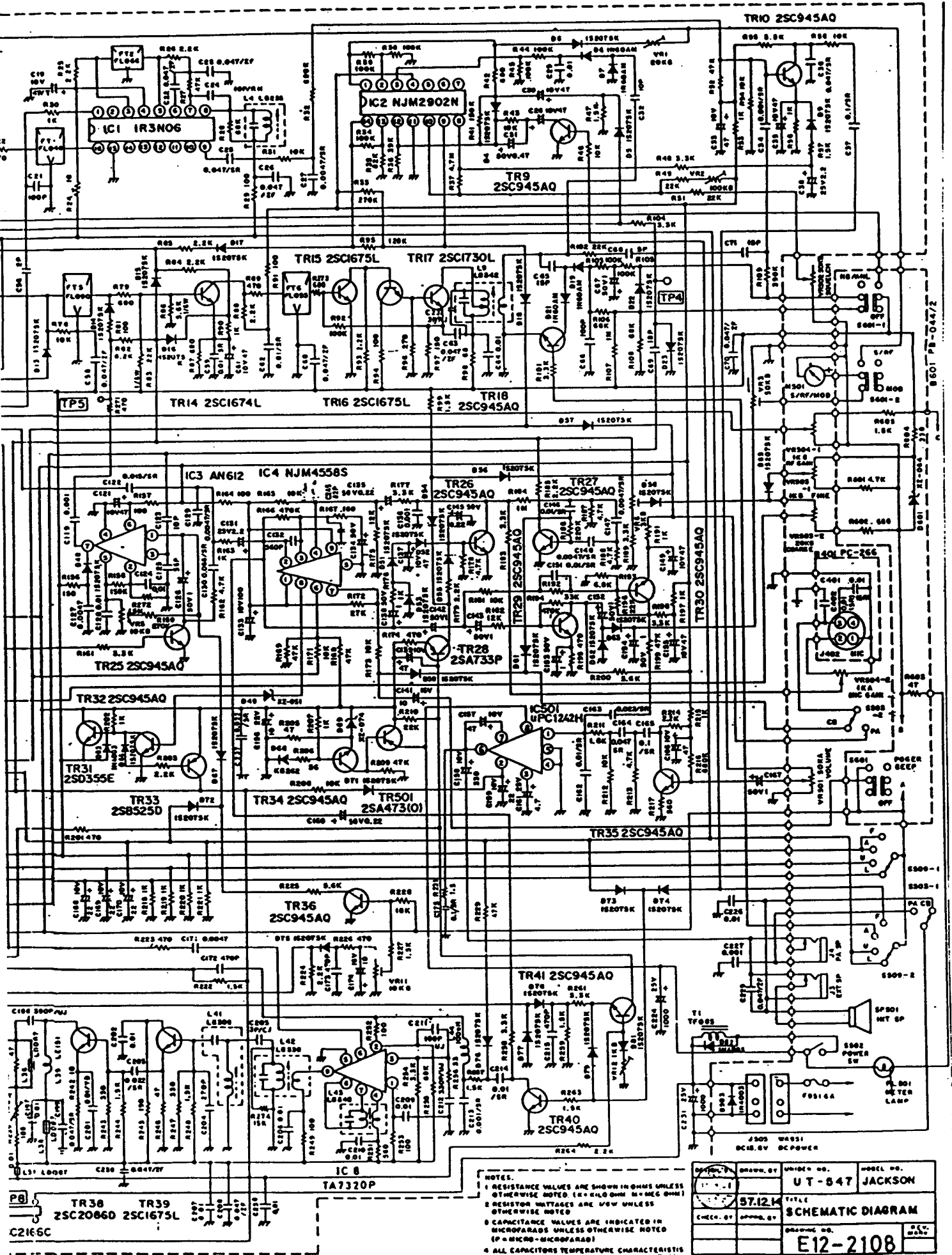
NOTE: 1. ALL COMPONENTS MUST BE OF THE QUALITY SPECIFIED IN THE PART NUMBER. 2. ALL COMPONENTS MUST BE OF THE QUALITY SPECIFIED IN THE PART NUMBER. 3. ALL COMPONENTS MUST BE OF THE QUALITY SPECIFIED IN THE PART NUMBER.

U.T. - 847 JACKSON
 SIZE
 SCHEMATIC DIAGRAM
 E1Z-2108
 UNIDEN CORP.

PRESIDENT

3A





NOTES:
 1 RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED (K = KILO OHM M = MEG OHM)
 2 RESISTOR VOLTAGES ARE 1/8W UNLESS OTHERWISE NOTED
 3 CAPACITANCE VALUES ARE INDICATED IN MICROFARADS UNLESS OTHERWISE NOTED (P = MICRO-MICROFARAD)
 4 ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE 5% (LESS THAN 100PPM) OR 1% (MORE THAN 100PPM) UNLESS OTHERWISE NOTED

| | | | |
|--------------|------------|-------------------|---------|
| 57.12K | UNIDEN NO. | UT-847 | JACKSON |
| TITLE | | SCHEMATIC DIAGRAM | |
| DRAWING NO. | | E12-2108 | |
| UNIDEN CORP. | | | |

TR38 TR39
 2SC2086D 2SC1675L
 C2165C

8501 PB-047/2

8500-1
 8503-1

8509-2
 8509-1

8502
 8501

LISTE PIECES DETACHEES JACKSON

LISTE PIECES DETACHEES JACKSON

1

| CODE | DESIGNATION | QTE/MOD. | CODE | DESIGNATION | QTE/MOD. |
|-------|-----------------------|----------|-------|---------------------------|----------|
| BC003 | BOBINE LD-087 | 8 | DC008 | DIODE 1N4003 | 2 |
| BC004 | BOBINE LE-096 | 2 | DC007 | DIODE MV-1Y | 2 |
| BC005 | BOBINE LE-151 | 1 | DC010 | DIODE ZENER XZ-051 | 1 |
| BC008 | BOBINE LE-215 | 1 | DC011 | DIODE ZENER XZ-070 | 1 |
| BC009 | SELF LZ-016 100UH | 2 | DC012 | DIODE ZENER XZ-074 | 2 |
| BC010 | SELF LZ-016 470UH | 7 | DC013 | DIODE ZENER XZ-064 | 1 |
| BC011 | TRANSFORMATEUR TF-083 | 1 | DC014 | DIODE HA-034 | 1 |
| BC015 | BOBINE LC-071 | 2 | DC015 | DIODE HA-054 | 1 |
| BC016 | BOBINE LC-130 | 1 | DC016 | DIODE HA-055 | 1 |
| BR003 | BOBINE LA-165 | 1 | DC017 | DIODE HA-056 | 1 |
| BR015 | BOBINE LB-137 | 2 | DV002 | DIODE 1S2339G | 6 |
| BR016 | BOBINE LB-209 | 4 | DV003 | DIODE KB-262 | 1 |
| BR022 | BOBINE LB-233 | 1 | HM001 | MICROPHONE MK-221 | 1 |
| BR023 | BOBINE LB-309 | 1 | HP001 | HAUT-PARLEUR SP-053 | 1 |
| BR024 | BOBINE LB-335 | 1 | IL001 | CICUIT INTEGRE MC14008BCP | 2 |
| BR025 | BOBINE LB-336 | 1 | IP001 | CIRCUIT INTEGRE UPC1182H | 1 |
| BR026 | BOBINE LB-337 | 1 | IR001 | CIRCUIT INTEGRE AN612 | 1 |
| BR027 | BOBINE LB-339 | 1 | IR005 | CIRCUIT INTEGRE NJM2902N | 1 |
| BR028 | BOBINE LB-340 | 1 | IR006 | CIRCUIT INTEGRE NJM4558S | 1 |
| BR029 | BOBINE LB-341 | 1 | IR007 | CIRCUIT INTEGRE TA7320P | 1 |
| BR030 | BOBINE LB-342 | 1 | IR008 | CIRCUIT INTEGRE IR3N06 | 1 |
| BR031 | BOBINE LB-343 | 1 | IS002 | CIRCUIT INTEGRE MC145106P | 1 |
| BR032 | BOBINE LB-344 | 1 | JX001 | JACK JK-089 | 2 |
| DC001 | DIODE 1N60 AM | 6 | JX002 | JACK JK-052 | 1 |
| DC005 | DIODE 1S2075K | 63 | JX003 | JACK JK-068 | 1 |
| DC007 | DIODE MC-301 | 2 | JX004 | JACK JK-206 | 1 |

LISTE PIECES DETACHEES JACKSON

LISTE PIECES DETACHEES JACKSON

2

| CODE | DESIGNATION | QTE/MOD. | CODE | DESIGNATION | QTE/MOD. |
|-------|-------------------------------|----------|-------|----------------------|----------|
| JX005 | JACK JK-087 | 1 | TX002 | TRANSISTOR 2SC945A-Q | 16 |
| JX006 | JACK JK-075 | 1 | TX003 | TRANSISTOR 2SC1674-L | 3 |
| DA001 | AFFICHEUR UR-202D | 1 | TX004 | TRANSISTOR 2SC1675-L | 16 |
| DX001 | LED TLR-124 RED | 1 | TX005 | TRANSISTOR 2SC1730-L | 1 |
| DX002 | DIODE / LED TLG-124A GREEN | 1 | TX009 | TRANSISTOR 2SB525-D | 1 |
| PF001 | FILTRE FL-048 SFE10.7MS2-M | 3 | TX010 | TRANSISTOR 2SC2086-D | 1 |
| PF002 | FILTRE FL-066 | 1 | TX011 | TRANSISTOR 2SD355-E | 1 |
| PF004 | FILTRE FL-055 10M-7A1 | 1 | VM002 | VU-METRE MT-221 | 1 |
| PF005 | FILTRE FL-090 UMF-058 | 1 | | | |
| PQ002 | QUARTZ 10.6975 | 1 | | | |
| PQ005 | QUARTZ 10.240 QX-074 | 1 | | | |
| PQ006 | QUARTZ 14.550 | 1 | | | |
| QX002 | FACE AVANT JACKSON | 1 | | | |
| RV002 | POTENTIOMETRE RV-320 50KA | 1 | | | |
| RV003 | POTENTIOMETRE RV-447 50KB | 1 | | | |
| RV004 | POTENTIOMETRE RV-485 1KB.1KA | 1 | | | |
| RV005 | POTENTIOMETRE RV-560 20KB.1KB | 1 | | | |
| SS001 | COMMUTATEUR SR-208 | 1 | | | |
| SX001 | FUSIBLE FS-014 6A | 1 | | | |
| SX002 | COMMUTATEUR SR-187 | 1 | | | |
| SX004 | COMMUTATEUR SW-317 | 1 | | | |
| SX005 | COMMUTATEUR SR-342 | 1 | | | |
| TB001 | TRANSISTOR 2SA473-0 | 1 | | | |
| TH001 | TRANSISTOR 2SC2166-C | 1 | | | |
| TH003 | TRANSISTOR MRF-477 | 1 | | | |
| TX001 | TRANSISTOR 2SA733-P | 2 | | | |