

FT-8500

Technical Supplement



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Cut out the label at the right and place it behind the clear plastic window in the spine of the manual binder.

FT - 8500
Technical Supplement



This manual provides the technical information necessary for servicing the FT-8500 Dual-Band mobile amateur transceiver.

Servicing this equipment requires expertise in handling surface-mount chip components. Attempts by non-qualified persons to service this equipment may result in permanent damage not covered by the warranty, and may be illegal in some countries.

Two PCB layout diagrams are provided for each double-sided board in this transceiver. Each side of the board is referred to by the type of the

majority of components installed on that side ("leaded" or "chip-only"). In most cases one side has only chip components, and the other has either a mixture of both chip and leaded components (trimmers, coils, electrolytic capacitors, ICs, etc.), or leaded components only.

While we believe the information in this manual to be correct, Yaesu Musen assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.

Specification

General

Frequency Range:	(Rx) 110~174 MHz 410~500 MHz (Tx) 144~148 MHz 430~450 MHz
Channel Steps:	5, 10, 12.5, 15, 20, 25 & 50 kHz
Repeater Shift:	±600 kHz , ±5 MHz (programmable)
Emission Type:	F3, F2
Supply Voltage:	11.7 ~ 15.9 VDC
Current Consumption:	VHF UHF
Receive:	less than 1 A
Transmit(high):	11.5 A 9.0 A
(mid):	6.0 A 5.0 A
(low):	4.5 A 4.0 A
Operating Temp. Range:	-20 to + 60° C
Case Size (WHD):	140 × 40 × 160 mm w/ oknobs
Weight (approx.):	1.1 kg (2.4 lb)

Receiver

Circuit Type:	Double-conversion superheterodyne
IFs:	45.05 MHz & 455 kHz (VHF) 58.525 MHz & 455 kHz (UHF)
12-dB SINAD Sensitivity:	< 0.18 µV (main) < 0.25 µV (sub)
Selectivity(-6/-60 dB):	12/24 kHz
Image Rejection:	better than 70 dB
Squelch Sensitivity:	better than 0.13 µV
AF Output:	2 W @ 8Ω for 5% THD
AF Output Impedance:	4~16Ω (8-Ω internal speaker)

Transmitter

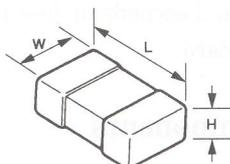
	VHF	UHF
RF Output(high):	50 W	35 W
	10 W	10 W
	5 W	5 W
Modulation System:	Variable reactance	
Maximum Deviation:	± 5 kHz	
FM Noise (@ 1 kHz):	Better than -40 dB	
Spurious Emissions:	> 60 dB below carrier	
Microphone Type:	2-kΩ condenser	

Specification subject to change without notice.

Chip Component Information

The diagrams below indicate some of the distinguishing features of common chip components.

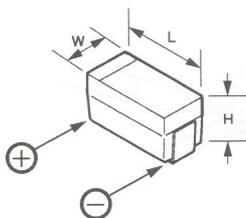
Ceramic Capacitors



(Unit: mm)

Type	L	W	H
2125	2.0	1.25	0.35~0.50
1608	1.6	0.8	0.65~0.95
1005	1.0	0.5	0.45~0.55

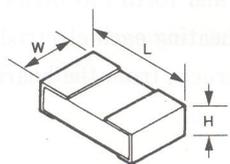
Tantalum Capacitors



(Unit: mm)

Type	L	W	H
P	2.0	1.25	1.2
A	3.2	1.6	1.6
B	3.4	2.8	1.9
C	5.8	3.2	2.3

Resistors



Indicated Letters

1 2 3 4
5 6 7 8
9 0 .

(Unit: mm)

Type	L	W	H
1/10	2.0	1.25	0.5
1/16	1.6	0.8	0.45
1/16S	1.0	0.5	0.35

Type RMC 1/10W, 1/16W

Marking* 100, 222, 473 ...

473

Ten unit	One unit	Multiplier code
0	0	10 ⁰
1	1	10 ¹
2	2	10 ²
3	3	10 ³
4	4	10 ⁴
5	5	10 ⁵
6	6	10 ⁶
7	7	10 ⁷
8	8	10 ⁸
9	9	10 ⁹

Examples:

100 = 10 Ω
222 = 2.2k Ω
473 = 47k Ω

Chip Component Information

Replacing Chip Components

Chip components are installed at the factory by a series of robots. The first one places a spot of adhesive resin at the location where each part is to be installed, and later robots handle and place parts using vacuum suction.

For single-sided boards, solder paste is applied to the board is then baked to harden the resin and flow the solder. For double-sided boards, no solder paste is applied, but the board is baked (or exposed to UV light) to cure the resin before dip-soldering.

In our laboratories and service shops, small quantities of chip components are mounted manually by applying a spot of resin, placing with tweezers, and then soldering by very small dual streams of hot air (without physical contact during soldering). We remove the parts by first removing solder using a vacuum suction iron, which applies a light, steady vacuum at the iron tip, and then breaking the adhesive with tweezers.

The special vacuum soldering/de-soldering equipment is recommended if you expect to do a lot of chip replacements. Otherwise, it is usually possible to remove and replace chip components with only a tapered, temperature controlled soldering iron, a set of tweezers and braided copper solder wick.

Soldering iron temperature should be below 280°C (536F).

Precautions for Chip Replacement

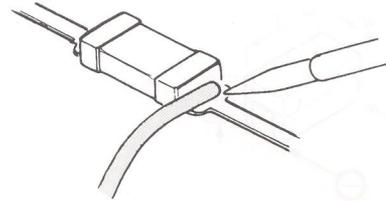
Do not disconnect a chip forcefully, or the foil pattern may peel off the board.

Never re-use a chip component. Dispose of all removed chip components immediately to avoid mixing with new parts.

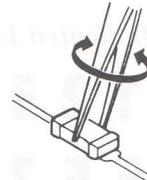
Limit soldering time to 3 seconds or less to avoid damaging the component and board.

Removing Chip Components

- Remove the solder at each joint, one joint at a time, using solder wick wetted with non-acidic flux as shown below. Avoid applying pressure, and do not attempt to remove the tinning from the chip's electrode.



- Grasp the chip on both sides with tweezers, and gently twist the tweezers back and forth (to break the adhesive bond) while alternately heating each electrode. Be careful to avoid peeling the foil traces from the board. Dispose of the chip when removed.



- After removing the chip, use the copper braid and soldering iron to wick away any excess solder and smooth the land for installation of the replacement part.

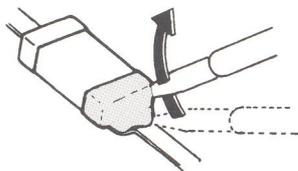
Installing a Replacement Chip

As the value of some chip components is not indicated on the body of the chip, be careful to get the right part for replacement.

- Apply a small amount of solder to the land on one side where the chip is to be installed. Avoid using too much solder, which may cause bridging (shorting to other Parts).



- Hold the chip with tweezers in the desired position, and apply the soldering iron with a motion line that is indicated by the arrow in the diagram below. Do not apply heat for more than 3 seconds.



- Remove the tweezers and solder the electrode on the other side in the manner just described.

Chip Component Information

Notes:

Installing a Replacement Chip

As the value of some chip components is not indicated on the body of the chip, be careful to get the right part for replacement.

* Apply a small amount of solder to the lead on one side where the chip is to be installed. Avoid using too much solder, which may cause bridging between adjacent leads.

Hold the chip with tweezers in the correct position and apply the soldering iron with a motion that is indicated by the arrow in the diagram below. Do not use heat for more than 5 seconds.



Remove the tweezers and hold the electron on the chip in the manner just described.

Transceiver Disassembly & PCB Access

144M-Main Unit Access

- Remove 2 screws from each side of the top and bottom cover and 2 from the top (Figure 1).

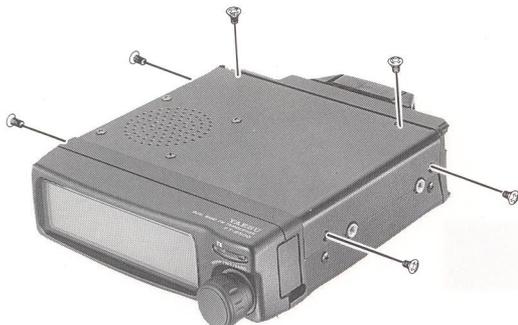


Figure 1.

- Tilt the rear of the top cover upward, unplug the speaker wire connector from J1001 on the 144M-Main Unit, then slide it out from the chassis (Do not use force to remove the top cover). This exposes the component side of the 144M-Main Unit (Figure 2).

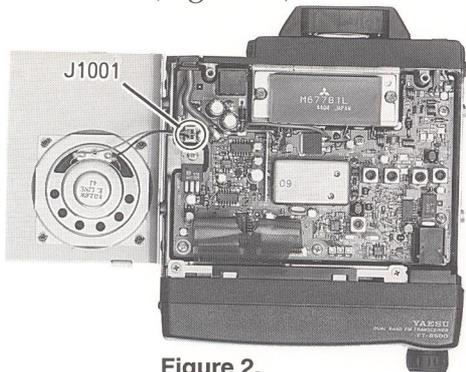


Figure 2.

430M-Main Unit Access

- Place the set upside-down, and remove 2 screws from each side of the bottom cover and 2 from the top (Figure 3).

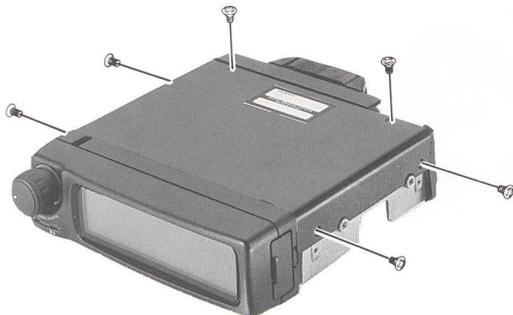


Figure 3.

- Tilt the rear of the bottom cover upward, then slide it out from the chassis, to expose the component side of the 430M-Main Unit.

CNTL Unit Access

- After removing the top and bottom covers, to remove the front panel by slightly prying open the latch on the side of the transceiver. Next, slide the panel out ward and away from the transceiver.
- Remove 2 screws from both the top and bottom of the front sub panel. And remove a screw from front sub panel (Figure 4).

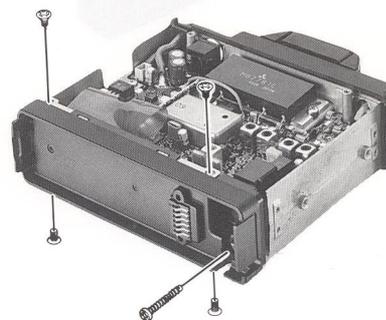


Figure 4.

- Pull the front sub panel to slightly from the transceiver, and unplug the connector from J3001 on the CNTL Unit, to expose the CNTL Unit.

DISP Unit Access

- After removing the front panel from the transceiver, remove 2 screws from rear side of the front panel (Figure 5).

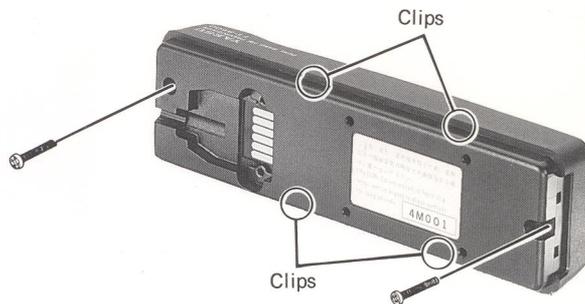


Figure 5.

Transceiver Disassembly & PCB Access

- Carefully separate the rear case from the front panel (it clips at 2 points at both the top and bottom edges). Disconnect the flat ribbon cable from CN1 on the DISP Unit to expose the DISP Unit (Figure 6.).

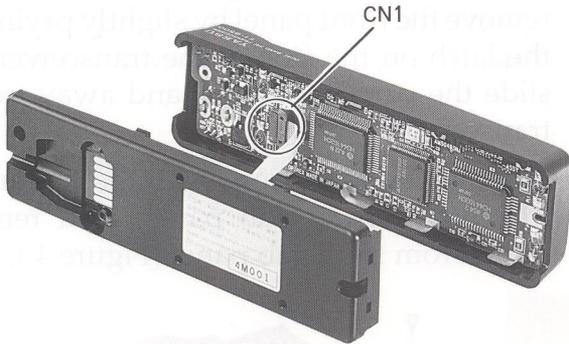


Figure 6.



Figure 7.



Figure 8.

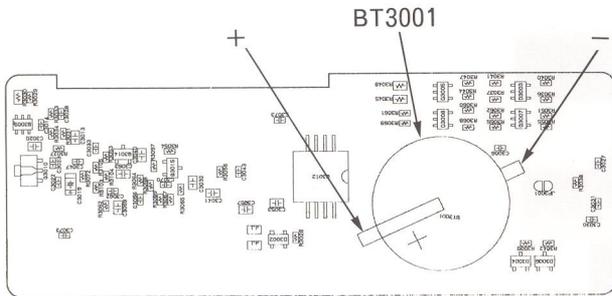


Figure 9.

Lithium Battery & Pilot Lamp Replacement

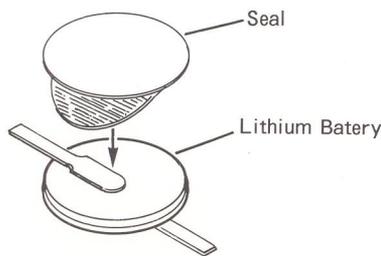
Lithium Battery Replacement

- ❑ Remove the top and bottom covers, and the front sub panel. Locate Lithium Battery BT3001 (P/N Q9000552) on the front side of the CNTL Unit PCB. Note the polarity and correct mounting of the cell terminals.
- ❑ Unsolder the battery terminals and remove the old cell.



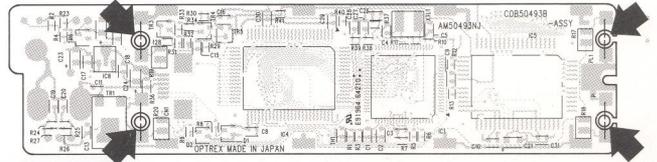
Note: Do not dispose of the old battery in fire, and ensure small children cannot play with, or possibly ingest the cell.

- ❑ Mount the replacement cell in the similar manner, observing proper polarity when installing it. Next peel off the adhesive backing from the insulating seal (P/N R8118690), and place the seal on top of the cell.



Pilot Lamp Replacement

- ❑ Remove and separate the front panel as previously described. Note the location of the 4 lamps, as indicated below.



- ❑ To remove a failed lamp, use a low wattage soldering iron and forceps to unsolder and free each lead, then gently lift the bulb out of the hole.
- ❑ Install replacement bulbs in the reverse manner, then reassemble the transceiver case.

Lithium Battery & Pilot Lamp Replacement

Notes:

Remove and separate the front panel as previously described. Note the location of the lamps, as indicated below.



To remove a failed lamp, use a low voltage soldering iron and forceps to unsolder each free lead, then gently lift the bulb from the hole.

Install replacement bulbs in the reverse manner, then reassemble the transmitter case.

Remove the top and bottom covers and the front end panel. Locate Lithium battery BT3001 (1.5 V CR2032) on the front side of the CTL Unit PCB. Note the polarity and correct mounting of the cell terminals.

Unsolder the battery terminals and remove the old cell.



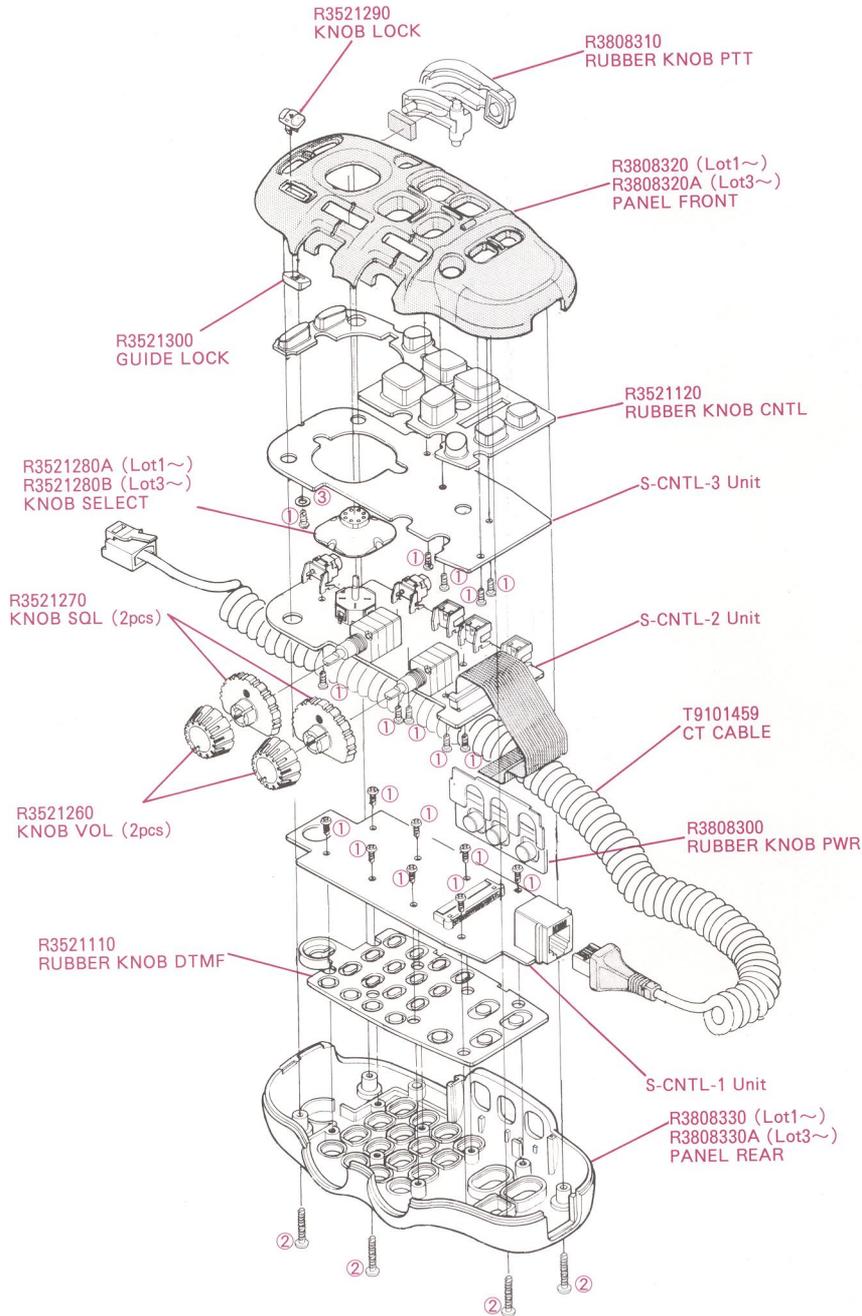
Note the support of the old battery in the case and reattach with children's safety caps to prevent contact with the cell.

Mount the replacement cell in the similar manner, observing proper polarity when installing it. Next peel off the adhesive backing from the insulating seal (V/N 18818690) and place the seal on top of the cell.



FS-10 Screw List			
REF.	YAESU P/N	Description	Qty.
①	U9900012	TAPTITE SCREW M2×4	18
②	U23112007	TAPTITE SCREW M2×12B	4
③	U70001001	PLAIN WASHER FW2	1

REF.	YAESU P/N	Description
①	U07430107	P
②	U20306001	B
③	U24205001	T
④	U24205002	T
⑤	U24206007	T
⑥	U24210007	T
⑦	U31204007	O
⑧	U34206001	T
⑨	U43112007	T
⑩	U9900057	T

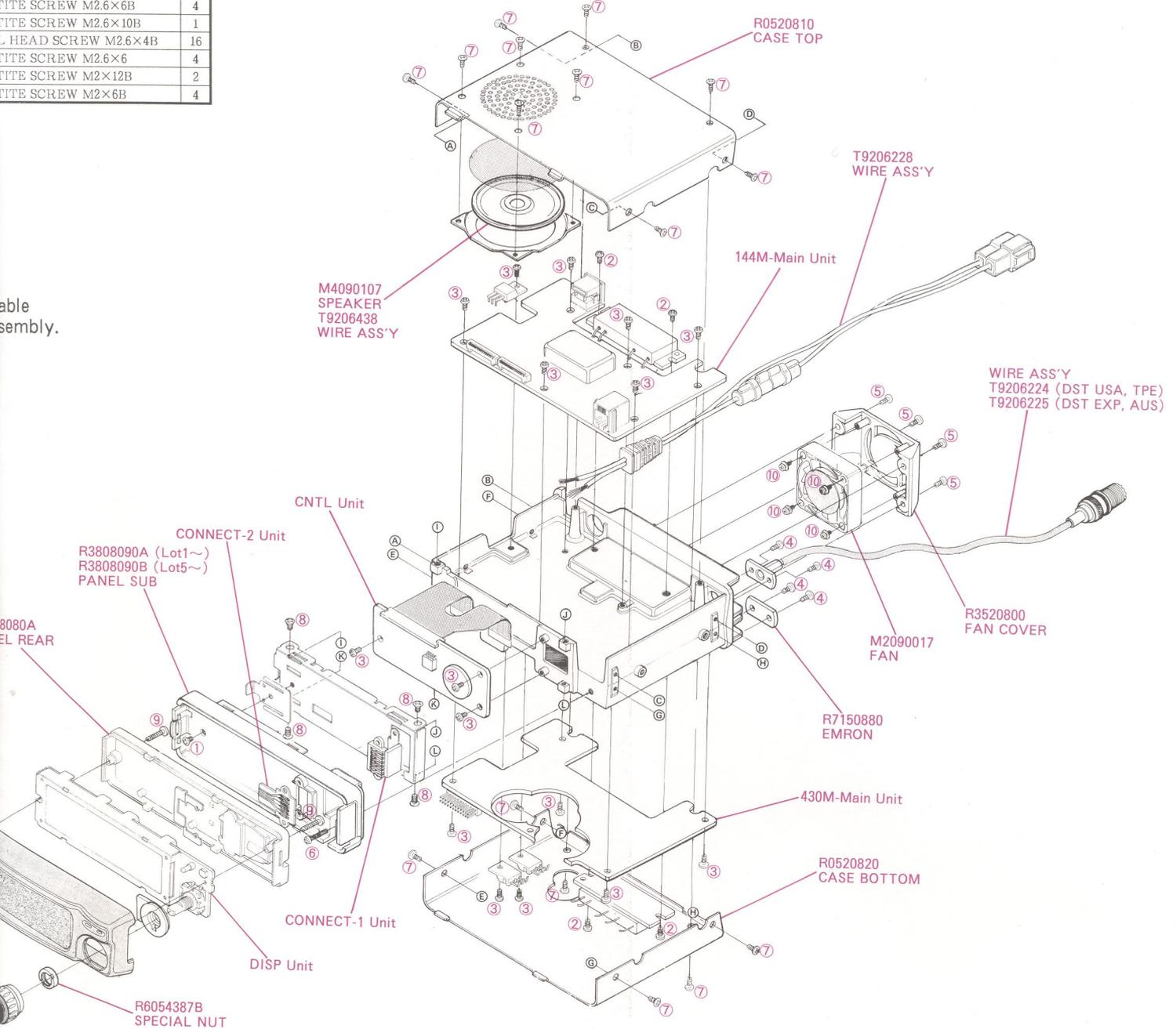


Non-designated parts are available as part of a designated

Exploded View & Miscellaneous Parts

Screw List	
Description	Qty.
HEAD SCREW M2.6×3B #1	1
WING HEAD SCREW M3×6	4
WING NUT M2.6×5	19
WING NUT M2.6×5NI	4
WING NUT M2.6×6B	4
WING NUT M2.6×10B	1
WING NUT M2.6×4B	16
WING NUT M2.6×6	4
WING NUT M2×12B	2
WING NUT M2×6B	4

able
sembly.



The FT-8500 has been carefully aligned at the factory for the specified performance across the amateur band. Realignment should therefore not be necessary except in the event of a component failure. All component replacement and service should be performed only by an authorized Yaesu representative, or the warranty policy may be voided.

The following procedures cover the sometimes critical and tedious adjustments that are not normally required once the transceiver has left the factory. However, if damage occurs and some parts subsequently be replaced, realignment may be required. If a sudden problem occurs during normal operation, it is likely due to component failure; realignment should not be done until after the faulty component has been replaced.

We recommend that servicing be performed only by authorized Yaesu service technicians who are experienced with the circuitry and fully equipped for repair and alignment. Therefore, if a fault is suspected, contact the dealer from whom the transceiver was purchased for instructions regarding repair. Authorized Yaesu service technicians realign all circuits and make complete performance checks to ensure compliance with factory specifications after replacing any faulty components.

Those who do undertake any of the following alignments are cautioned to proceed at their own risk. Problems caused by unauthorized attempts at realignment are not covered by the warranty policy. Also, Yaesu must reserve the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners.

Under no circumstances should any alignment be attempted unless the normal function and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly pinpointed and any faulty components replaced, and the need for realignment determined to be absolutely necessary.

The following test equipment (and thorough familiarity with its correct use) is necessary for

complete realignment. Correction of problems caused by misalignment resulting from use of improper test equipment is not covered under the warranty policy. While most steps do not require all of the equipment listed, the interactions of some adjustments may require that more complex adjustments be performed afterwards. Do not attempt to perform only a single step unless it is clearly isolated electrically from all other steps. Have all test equipment ready before beginning, and follow all of the steps in a section in the order presented.

Required Test Equipment

- RF Signal Generator with calibrated output level at 500 MHz
- Deviation Meter (linear detector)
- Oscilloscope
- AC Voltmeter
- SINAD Meter
- Inline Wattmeter with 5% accuracy at 500 MHz
- Regulated DC Power Supply adjustable from 10 to 17 VDC, 15A
- 50- Ω Dummy Load: 100W at 500 MHz
- Frequency Counter: 0.2 ppm accuracy at 500 MHz
- AF Signal Generator
- DC Voltmeter: high impedance
- DC Ammeter 15 A
- Spectrum Analyzer
- VHF/UHF Sampling Coupler

Alignment

Alignment Preparation & Precautions

A 50- Ω dummy load and inline wattmeter must be connected to the main antenna jack in all procedures that call for transmission, except where specified otherwise. Correct alignment is not possible with an antenna.

After completing one step, read the following step to determine whether the same test equipment will be required. If not, remove the test equipment (except dummy load and wattmeter, if connected) before proceeding.

Correct alignment requires that the ambient temperature be the same as that of the transceiver

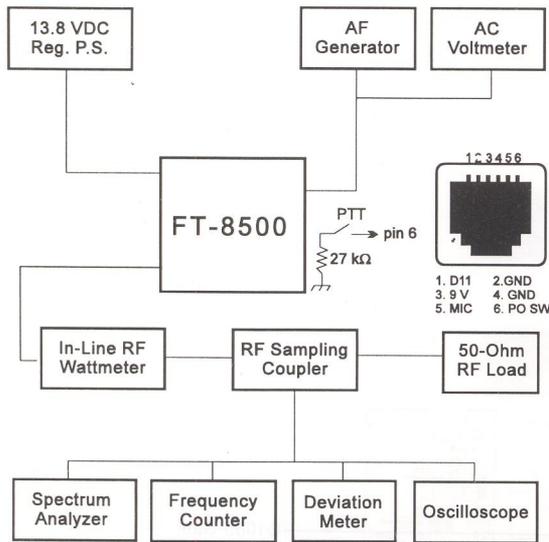
and test equipment, and that this temperature be held constant between 20 and 30° C (68 ~ 86° F). When the transceiver is brought into the shop from hot or cold air it should be allowed some time for thermal equalization with the environment before alignment.

Whenever possible, alignments should be made with oscillator shields and circuit boards firmly affixed in place. Also, the test equipment must be thoroughly warmed up before beginning.

Note: Signal levels in dB referred to in the alignment procedure are based on 0 dB μ = 0.5 μ V.

PLL & Transmitter

Set up the test equipment as shown for transmitter alignment. Maintain the supply voltage at 13.8V DC for all steps.



PLL VCV (Varactor Control Voltage) for VHF Band

Connect the positive lead of the DC voltmeter to the gate of Q1005 Gate on the 144M-Main Unit, as indicated in the figure, and the negative lead to chassis ground.

VHF Band

- Refer to the chart below, transmit and adjust coil **TC302** on the 144M-VCO Unit for the indicated voltage at that listed frequency. Adjust **TC301** as necessary for the required voltage while receiving.

Rx & Tx VCV Alignment Data							
MAIN				SUB			
Frequency		Voltage		Frequency		Voltage	
Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
146	146	3.0 V	1.8 V	-	-	-	-
440	430	3.0 V	2.2 V	145	-	2.0 V	-

UHF Band

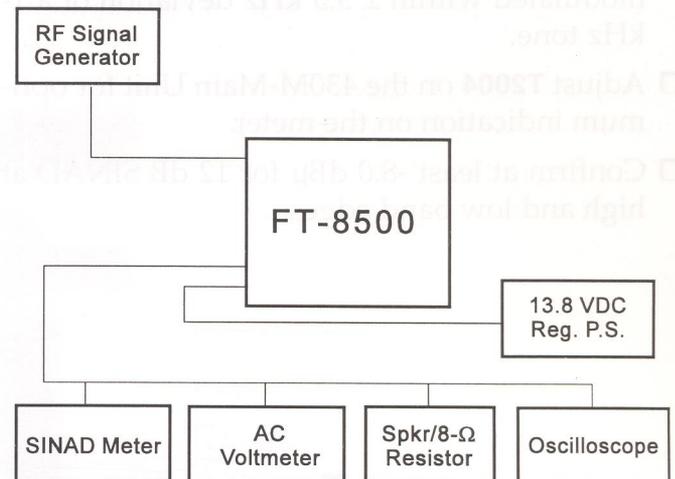
Connect the positive lead of the DC voltmeter to the test point labeled **VCV** on the 430M-Main Unit.

- Tune to the required channel, transmit and adjust **TC402** on the 430M-VCO Unit for the voltage indicated in the table.
- While receiving, adjust **TC401** for the corresponding voltage for that frequency.

- Next, set the transceiver SUB band, and adjust **TC2001** on the 430M-Main Unit for the voltage indicated in the table.

Receiver

Set up the test equipment as shown below for receiver alignment.



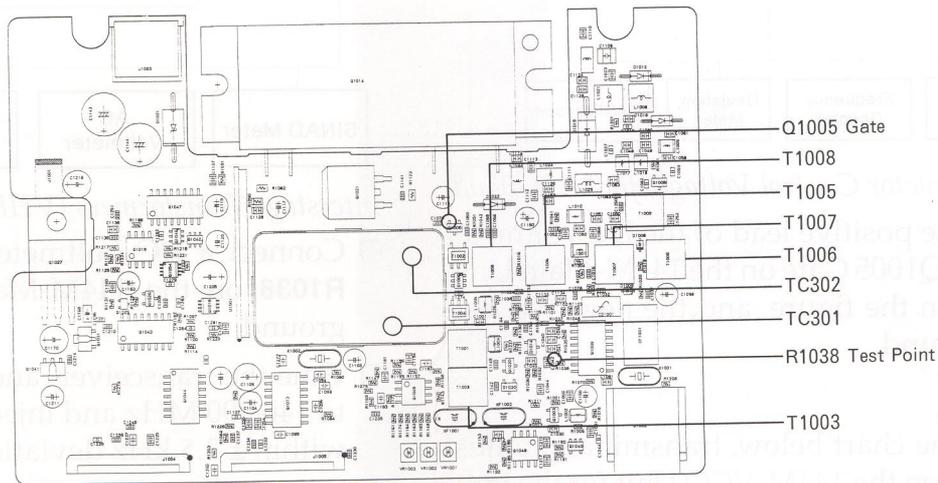
Interstage Transformers (VHF Band)

- Connect a DC Voltmeter between test point **R1038** on the 144M-Main Unit and chassis ground.
- Tune the transceiver and RF signal generator to 146.000 MHz and inject a signal modulated within ± 3.5 kHz deviation of a 1-kHz tone.
- Adjust **T1003** and **T1005~T1008** on the 144M-Main Unit for optimum indication on the meter.
- Confirm at least -8.0 dB μ for 12 dB SINAD at high and low band edges.

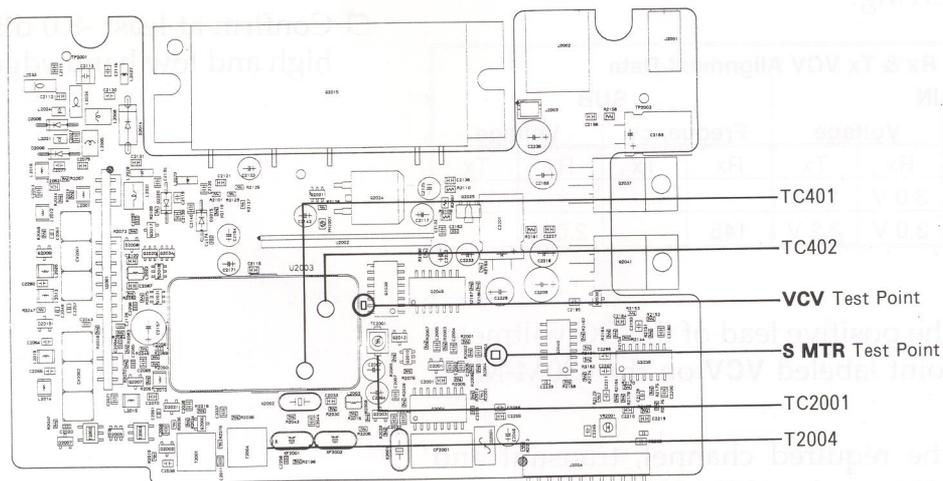
Alignment

Interstage Transformers (UHF Band)

- ❑ Connect a DC Voltmeter between the test point labeled **S MTR** on the 430M-Main Unit and chassis ground.
- ❑ Tune the transceiver and RF signal generator to 440.000 MHz and inject a +20 dB μ RF signal modulated within ± 3.5 kHz deviation of a 1-kHz tone.
- ❑ Adjust **T2004** on the 430M-Main Unit for optimum indication on the meter.
- ❑ Confirm at least -8.0 dB μ for 12 dB SINAD at high and low band edges.



144M-Main Unit Alignment Point



430M-Main Unit Alignment Point

The remainder of transceiver alignment is accomplished by recalling a special pre-programmed alignment routine. This simplifies many previously complex discrete component settings and adjustments with digitally-controlled settings via the FS-10 Controller.

Transceiver adjustments using this routine include (UHF & VHF) :

- PLL Reference Adjustment
- Power Output Adjustment (Hi/Mid/Lo)
- Modulation Adjustment
- DC Reference Adjustment
- Scan Center-Stop (- , +)
- Squelch Preset (tight, threshold)
- S-Meter Adjustment (S-1, S-Full)

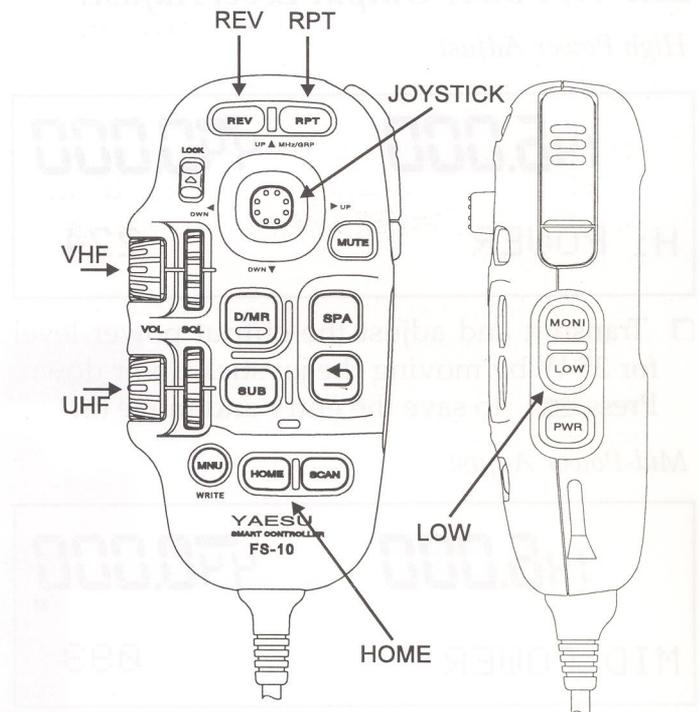
To recall the routine program, set the transceiver to 440.000 MHz, then turn the power off. Next press and hold the **LOW**, **REV** and *lower* (UHF) VOL knob on the FS-10 together while powering the radio on again.

The alignment routine is active, and the display appears as below, awaiting joystick input.



In the alignment routine, each adjustment is selected in sequence by moving the joystick *right* or *left*. After this point, alignment is performed by injecting a signal of a required frequency or level and transmitter output power level adjustments are performed moving the joystick *up* or *down*. When the proper input or output level has been reached, the setting is saved by pressing *inward* on the joystick or else the **HOME** button.

During each alignment, the dot-matrix display shows the presently selected alignment at the left and two or three digits which are the digital reference level. These correspond to the digital level which matched the correct input or output levels for each transceiver setting from the last-performed alignment. These digits only

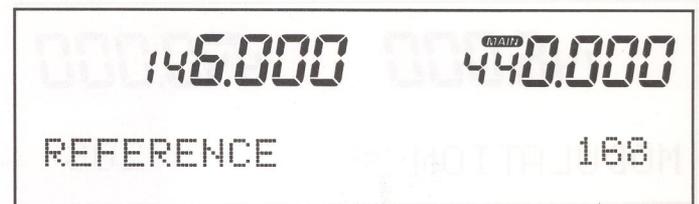


serve as a reference and have no quantitative value.

Pressing **HOME** after a level setting or adjustment has been made writes the entry into memory, to exit the alignment sub-routine and return the display indications to normal, press **LOW**. After performing the system alignment in its entirety (UHF & VHF), individual settings can be returned to and adjusted should the need arise.

UHF Alignment

UHF PLL Frequency Reference

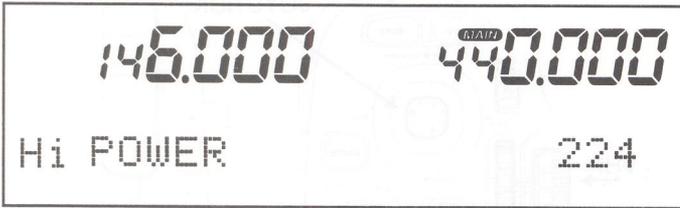


- Move the joystick once to the right. With the wattmeter, dummy load and frequency counter connected the antenna jack, transmit and move the joystick up/down so that the counter frequency is within $\pm 100\text{Hz}$ of 440.000 MHz.

Alignment

UHF TX Power Output Level Adjust.

High Power Adjust



- Transmit and adjust the output power level for 35 W by moving the joystick up or down. Press **HOME** to save the entry and move on.

Mid-Power Adjust



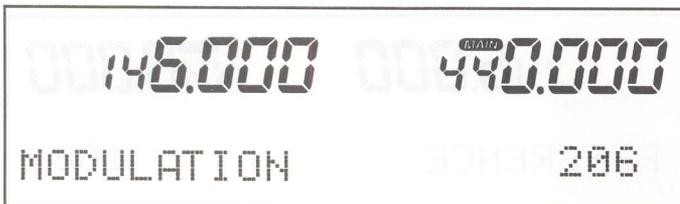
- Key the transceiver and adjust the joystick for 10 W, then press **HOME** to save the entry and move on.

Low Power Adjust



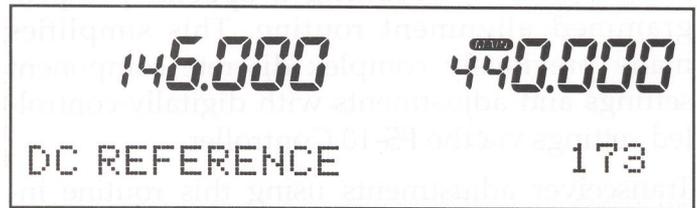
- Key the transceiver and adjust the joystick for 5 W, then press **HOME**.

Modulation



- While transmitting, adjust the AF generator level for 50 mV output at 1-kHz to the **MIC** jack.
- Adjust the joystick (up/dwn) for 4.5 kHz \pm 100 Hz deviation, then press **HOME**.

DC Reference



- Using a digital voltmeter, adjust the DC supply voltage to precisely 13.8 VDC, then press **HOME**.

UHF Scan Center-Stop

- Offset



- Inject a +20 dB μ signal of 439.998-MHz (\pm 3.5 kHz deviation of a 1-kHz tone), then press **HOME**.

+ Offset



- Inject a +20 dB μ signal of 440.002 MHz (\pm 3.5 kHz deviation of a 1-kHz tone), then press **HOME**.

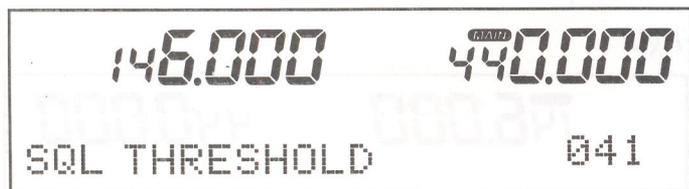
UHF Squelch Preset

Tight



- Inject a -3 dB μ signal of 440.000 MHz (\pm 3.5 kHz deviation of a 1-kHz tone), then press **HOME**.

Threshold



- Inject a -11 dB μ signal of 439.998-MHz (\pm 3.5 kHz deviation of a 1-kHz tone), then press **HOME**.

S-1 Adjust (single segment)



- Inject a -3.0 dB μ signal of 440.000-MHz (\pm 3.5 kHz deviation of a 1-kHz tone), then press **HOME**.

S-Meter Full Adjust (all segments)



- Inject a +25 dB μ RF signal of 440.000 MHz (\pm 3.5 kHz deviation at 1-kHz) at the antenna input, then press **HOME**.

This completes the UHF internal alignment routine, to save all settings and exit, press **LOW**, the normal frequency display will return.

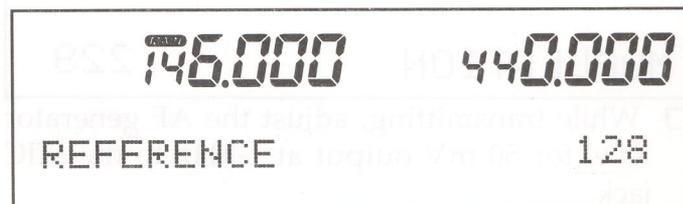
VHF Alignment

To recall the VHF alignment routine, set the transceiver to 146.000 MHz, then turn the power off. Next press and hold the **LOW**, **REV** and upper (VHF) VOL knob together on the FS-10 while powering the radio on again (**POWER**).



The alignment routine is active, and the display appears as below, awaiting joystick input.

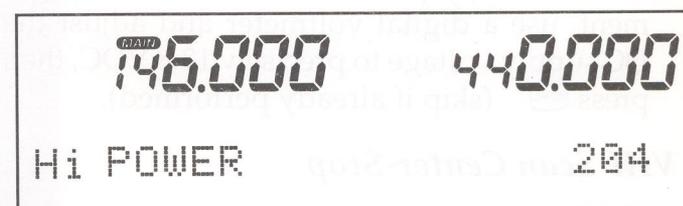
VHF PLL Frequency Reference



- Move the joystick once to the right. With the wattmeter, dummy load and frequency counter connected the antenna jack, transmit and move the joystick up/down so that the counter frequency is within \pm 100Hz of 146.000 MHz.

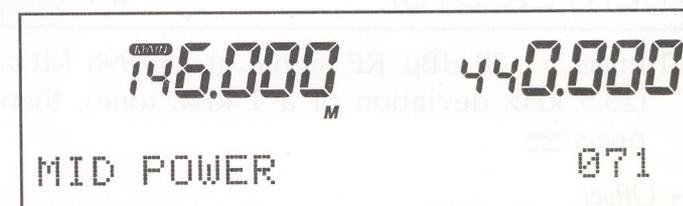
VHF TX Power Output Level Adjust.

High Power Adjust



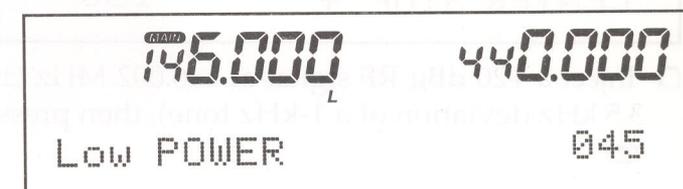
- Transmit and adjust the output power level for 50 W by moving the joystick up or down. Press **HOME** to save the entry and move on.

Mid-Power Adjust



- Transmit and adjust the joystick for 10 W, then press **HOME** to save the entry and move on.

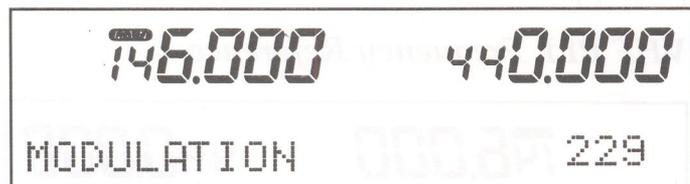
Low Power Adjust



- Transmit and adjust the joystick for 5 W, then press **HOME**.

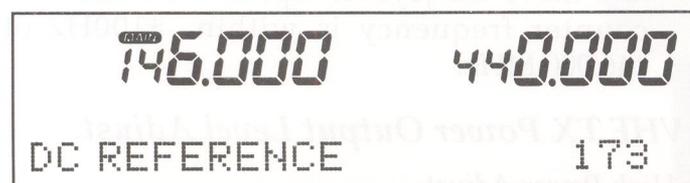
Alignment

Modulation



- While transmitting, adjust the AF generator level for 50 mV output at 1-kHz to the MIC jack.
- Adjust the joystick (up/dwn) for 4.5 kHz \pm 100 Hz deviation, then press **HOME**.

DC Reference



- If not already performed in the UHF alignment, use a digital voltmeter and adjust the DC supply voltage to precisely 13.8 VDC, then press **HOME** (skip if already performed).

VHF Scan Center-Stop

- Offset



- Inject a +20 dB μ RF signal at 145.998 MHz (\pm 3.5 kHz deviation of a 1 kHz tone), then press **HOME**.

+ Offset



- Inject a +20 dB μ RF signal at 146.002 MHz (\pm 3.5 kHz deviation of a 1-kHz tone), then press **HOME**.

VHF Squelch Preset

Tight



- Inject a -3 dB μ RF signal of 146.000 MHz (\pm 3.5 kHz deviation of a 1 kHz tone), then press **HOME**.

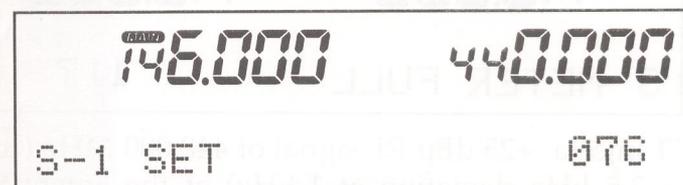
VHF S-Meter Adjustment

Threshold



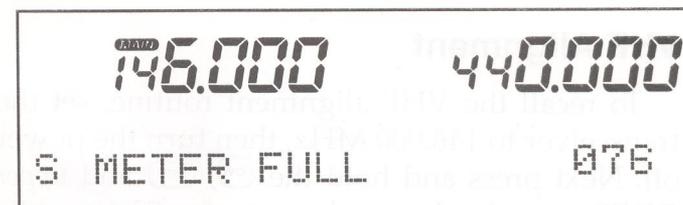
- Inject a -11 dB μ RF signal of 146.000 MHz (\pm 3.5 kHz deviation of a 1 kHz tone), then press **HOME**.

S-1 Adjust (single segment)



- Inject a 0 dB μ RF signal of 146.000 MHz (\pm 3.5 kHz deviation of a 1 kHz tone), then press **HOME**.

S-Meter Full Adjust (all segments)



- Inject +25 dB μ RF signal of 146.000 MHz (\pm 3.5 kHz deviation at 1-kHz) at the antenna input, then press **HOME** to step to the next setting.

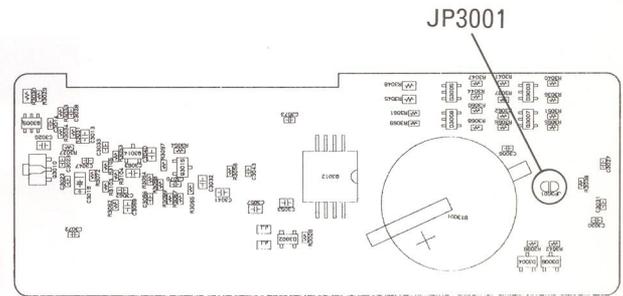
This completes the VHF internal alignment routine, to save all settings and exit, press **LOW**, the normal frequency display will return.

CPU Reset

As a last resort, if you are unable to gain control of the transceiver, the FT-8500 can be reset from the FS-10 controller to clear all settings, memories, channel step and repeater shifts to their factory defaults.

To do this, hold **D/MR**, **REV** and **ENT** depressed while turning on the transceiver. If CPU problems remain after performing the soft reset, a hard CPU reset may be performed as follows.

- Turn the transceiver off and disconnect all cables.
- Separate the front control head from the main transceiver body.
- Remove the 5 screws from the interface unit. Remove the unit to expose the control unit.
- Locate and momentarily short jumper pad JP3001 on the control unit as shown in the graphic.
- Reassemble the transceiver.
- If problems persist after performing both resets, contact your Yaesu dealer.



JP3001 Location

Alignment

Notes:



- 1. Turn the transceiver off and disconnect all cables.
- 2. Separate the front control head from the main transceiver body.
- 3. Remove the 5 screws from the front panel. Remove the unit to expose the control unit.
- 4. Locate and momentarily short jumper pad JP3801 on the control unit as shown in the graphic.
- 5. Reassemble the transceiver.
- 6. If problems persist after performing both tests, contact your Yaseo dealer.

The FT-8500 electronics consists of five major boards: the 144M and 430M-Main Units, DISP Unit, Smart Controller (FS-10) and the Control Unit, and numerous minor boards that mount on these. The Main Unit include the receiver front ends, IF and PLL subsystem ICs, and support daughter boards for transmit stages, local VCOs, supply regulation and switching circuits, the microprocessors and tone generator/decoder chips. While reading this description, you can refer to the block diagram for an overview of the major circuit blocks, and to the schematic diagrams for component details.

Antenna Duplexer

Incoming RF from the antenna jack passes through a 450-MHz high-pass and low-pass filter network on the 430M- Main Unit before application to two band-switching networks: coil L2031, diode D2014 and capacitor C2146, C2147, C2148, C2152, and resistor R2115, on the 430M-Main Unit for UHF signals; and coil L1025, diode D1012, D1013, & D1019 and capacitor C2146, C2147, C2148, C2152 and resistor R2115 on the 144M-Main Unit for VHF signals. These networks filter VHF signals from the UHF receiver and UHF signals from the VHF receiver, allowing each band to operate independently while sharing the same antenna connection.

VHF Reception

VHF signals passed by the duplexer are applied to a varactor-tuned band-pass filter consisting of T1006, T1007, D1001, D1002, D1008, D1009, before RF amplification by Q1002 (SGM2016M). The amplified RF is passed through another RF amplifier Q1001 (3SK131-V12), then band-pass filtered again by varactor-tuned resonators T1005, T1008, D1004, D1005, D1010, D1011, diode switch D1003 (DAN235K) and applied to the Diode Balanced Mixer T1002, T1004, D1006.

Buffered 155.05 ~ 219.05-MHz output from the 144M-VCO Unit is amplified by Q1007 (2SC3356) and applied to the 1st mixer. The resulting 45.05-MHz 1st mixer product is passed through monolithic crystal filter XF1001, XF1002 to strip away all but the desired signal, which is then amplified by Q1003 (2SC2714Y) before de-

livery to FM IF subsystem IC Q1009 (MC3372ML), containing the 2nd mixer, 2nd local oscillator, limiter amplifier, noise amplifier, S-meter amplifier and squelch gates. A 2nd local signal is generated from 45.505-MHz crystal X1001, which produces the 455-kHz 2nd IF when mixed with the 1st IF signal within Q1009. The 2nd IF is passed through ceramic filter CF1001 to strip away unwanted mixer products, and is then applied to the limiter amp in Q1009, which removes amplitude variations in the 455-kHz IF before detection of the speech by ceramic discriminator CD1001.

VHF Squelch Control

When no carrier is received, noise at the output of the detector stage in Q1009 is amplified and band-pass filtered by the noise amp section of Q1009 and the network between pins 9 and 10, and then rectified by D1014. The resulting DC squelch control voltage is passed to pin 77 of CPU Q3011. While no carrier is received, pin 11 of Q1047 remains low, signaling pin 11 of shift register Q1047 (μ PD4094BG) which causes the BUSY indication on the display when the squelch is open. VHF receiver audio is prevented from passing through analog gate Q3011 pin 9 while no signal is being received, and during transmission.

When a carrier appears at the discriminator, noise is removed from the output, causing pin 9 of Q3011 to activate the BUSY indicator. The microprocessor then checks for CTCSS tone and DTMF decoder chip Q3008 (TC35305F) for CTCSS or DTMF code squelch information, respectively. If not transmitting and tone squelch is not activated, or if the received tone matches that programmed, the microprocessor stops scanning, if active, and allows audio to pass through amplifier IC Q2037, Q2041 (TDA2003H) to the loudspeaker.

VHF Single-Band Dual Receive

When VHF single-band dual receive operation is active, a portion of the received VHF RF signal passes through the bandpass, lowpass filters and antenna switching network to the RF amplifier Q1002 (SGM2016M). The amplified RF signal is passed through the bandpass filter con-

Circuit Description

sisting of C1027, C1048, C1049, C1063, C1080, L1009 L1017 & L2018, and amplified again by Q1008 (2SC3356-R24), and fed through the diode switch D2007 (DAN235K) to the 430M-Main Unit.

In the 430M-Main Unit, the VHF signal is passed through diode switch D2007 (DAN235K) to the Diode Balanced Mixer consisting of T2002, T2003 & D2003 (ND487C1T). A local signal for sub-receiver passes through C2104, C2108, C2110, C2114, C2127, TC2001, L2026, L2030, D2013, Q2013 and RF amplifier Q2014 (2SC3356-R24), Q2008 (2SC3356-R24). The 2nd local signal passes through the low-pass filter consisting of the C2059, C2067, C2072, C2273 & L2016 and diode switch D2010 (DAN235K) to the Diode Balanced Mixer. The resulting 58.525MHz sub-receiver 1st IF signal is received just as a VHF signal would be in UHF operation.

VHF AF Output

Detected audio from pin 9 of Q1009 passes through the de-emphasis network consisting of R1048 & C1078, and highpass filter consisting of Q1017-3 (NJM2902M) & associated circuitry and squelch gate, then applied to the pin 11 of Q1013 (M51132FP) to pin 14 of Q2040 (μ PD4053BG).

Normally, the VHF AF signal appears from pin 12 of Q2040, then passes through AF amplifier Q2035-4 (NJM2902M), lowpass filter Q2035-3 to audio amplifier Q2037 (TDA2003H). The amplified audio signal is applied to the loudspeaker.

When an external speaker is connected to the UHF SPKR jack on the rear panel, the VHF AF signal is applied from pin 2 of Q2040, then passes through AF amplifier Q2035-4, and lowpass filtered by Q2035-3 before application to audio amplifier Q2037 (TDA2003H). Amplified audio is delivered via the UHF SPKR jack to the external speaker.

UHF Reception

The UHF signal passes through band-pass filter CV2001 to RF amplifier Q2001 (SGM2016M). The RF is amplified again by Q2002 (SGM2016M), then passes through diode switch D2004 (DAN235K) before passing through band-pass filter CV2002 and is applied to the Diode Balanced Mixer consisting of T2002, T2003 & D2003 (ND487C1T).

A local signal generated from the 430M-VCO Unit is fed through diode switch D2011 (DAN235K) to buffer amplifier Q2007 (2SC3356-R24). The buffered local signal then passes through the lowpass filter consisting of C2070, C2071 & L2015 and another diode switch D2010 (DAN235K), before application to the Diode Balanced Mixer.

The resulting 58.525 MHz 1st IF signal product is passed through monolithic crystal filter XF2001, XF2002 to strip away all but the desired signal, which is then amplified by Q2003 (2SC2714Y) before delivery to FM IF subsystem IC Q2004 (MC3372ML), which contains the 2nd mixer, 2nd local oscillator, limiter amplifier, noise amplifier, S-meter amplifier.

A 2nd local signal is generated from 58.07MHz crystal X2001, to produce the 455kHz 2nd IF when mixed with the 1st IF signal within Q2004. The 2nd IF passes through ceramic filter CF2001 (CFW455E) to strip away unwanted mixer products, and is then applied to the limiter amp in Q2004, which removes amplitude variations in the 455 kHz IF before detection of speech by ceramic discriminator CD2001 (CDB455C7).

UHF Single-Band Dual Receive

When UHF single-band dual receive operation is active, a portion of the received UHF RF passes through highpass & lowpass filters and antenna switching network before reaching RF amplifier Q2001 (SGM2016M). The amplified RF signal is passed through the bandpass filter consisting of C2052, C2053, C2068, 2069, C2077, L2012 & L2018, and amplified again by Q2006 (2SC3356-R24), and is then fed through the diode switch D2019 (DAN235K) to the 144M-Main Unit.

In the 144M-Main Unit, the UHF signal passes through diode switch D1007 (HSU277) to the Diode Balanced Mixer consisting of T1002, T1004 & D1006 (ND487C1T).

A local signal for sub-receiver generated from the 144M-VCO Unit is fed through diode switch D1018 (DAN235K) to doubler Q1006 (2SC3356-R24). The doubled local signal passes through the highpass filter consisting of the C1043, C1057, C1087, C1088 & L1011 and another diode switch D1016 (DAN235K) to the Diode Balanced Mixer D1006.

The resulting 45.05MHz sub-receiver 1st IF signal is received just as a VHF signal would be in VHF operation.

UHF Squelch Control

When no carrier present, noise at the output of the detector stage in Q2004 is bandpass filtered by the filter amp section of Q2004 and associated circuit. The filtered noise signal is rectified by D2001 (MA716), and the resulting DC squelch control voltage is applied to pin 73 of CPU Q3011 (M37702E8) on the CNTL Unit.

When a carrier appears at the discriminator, noise is removed from the output, causing pin 6 of Q2039 (μ PD4094BG) to go low, signaling microprocessor Q3011 to activate the SQL gate consisting of the Q2012 (DTC124EK) & Q2010 (TC4S66F).

UHF Audio

Detected audio from pin 9 of Q2004 is passed through the de-emphasis circuit consisting of R2012 & C2018, a highpass filter consisting of Q2009-2 (M5223FP) & associated circuit and squelch gate, then is applied to pin 11 of Q2044 (M51132FP).

Normally, the UHF AF signal appears from pin 2 of Q2040, and then passes through AF amplifier Q2035-4 (NJM2902M), lowpass filter Q2035-3 and on to audio amplifier Q2037 (TDA2003H). The amplified audio signal is then applied to the loudspeaker.

When an external speaker is connected to the UHF SPKR jack on the rear panel, the UHF AF signal appearing from pin 1 of Q2040 passes

through AF amplifier Q2035-1, lowpass filter Q2035-2 and on to audio amplifier Q2041 (TDA2003H). The amplified audio signal is delivered via the UHF SPKR jack to the external speaker.

Transmit Signal Path

The modulated signal is input from condenser microphone MC4101(WM-54BM) built into the FS-10 (Smart Controller). The AF high frequency component is pre-emphasized by C1179, C1191, R1142, R1145, R1160, and Q1032-1 (M5223FP) and amplified by the microphone amplifier circuit. Then, the modulated signal is subjected to amplitude limiting by an IDC circuit made up of C1180, R1141, R1146, R1149, and Q1032-2 (M5223FP). The signal is buffer amplified C1183, R1148, R1143, R1158, and Q1048-2 (M5223FP), and then passes through a splatter filter consisting of C1181, C1187, C1193, C1194, R1147, R1155, R1156, R1157, and R1172. During 145 MHz transmission, the modulated signal is input to Pin 15 of the Q1013 (M51132FP) electronic volume, adjusted to the maximum frequency deviation preset by the Q3011 (M37702E8) CPU of the CNTL Unit, output from Pin 16 of the Q1013 electronic volume, and input to Pin 4 of the 144M-VCO Unit. In the case of 435 MHz band transmission, the modulated signal is input to Pin 15 of the Q2044 (M51132FP) electronic volume, adjusted to the maximum frequency deviation preset by the Q3011 CPU, output from Pin 16 of the Q2044 electronic volume, and input to Pin 4 of the 430M-VCO Unit.

DTMF, BEEP, tone or tone burst signals for transmit are generated from the CNTL Unit and input to the buffer amplifier circuit. During any tone transmission, microphone audio is muted by Q1050 (IMD3).

VHF Transmit Signal

The modulated signal input to Pin 4 (MOD terminl) of the 144M-VCO Unit is frequency-modulated by the transmitting VCO made up of D306 (1SV229), D307 (1SV230), Q304 (2SC3356-R24), etc.

The frequency-modulated signal is buffer-amplified by Q305 (2SC3356R24) and output from Pin 9 of the 144M-VCO Unit.

Circuit Description

The signal output from Pin 9 of the 144M-VCO Unit is buffer-amplified by Q1015 (2SC3356-R24) and input to Pin 1 of the 144-DRIVE Unit.

The signal output from Pin 14 of the 144-DRIVE Unit is input for amplification to Pin 1 of the Q1014 power module (M67781L) and output from Pin 4 of the power module. The power module is gain-controlled by the APC circuit.

Power module output passes through a low-pass filter made up of C1109, C1111, C1113, C1114, C1126, L1022, and L1024 to the antenna switch circuit and further to the duplexer circuit, and is output to the antenna from the antenna terminal.

VHF Tx APC

A portion of power module output is rectified by Schottky diode D1022 (1SS97), etc. and input to the APC circuit made up of Q1023 (FMS1), Q1022 (IMX1), and Q1021 (2SA1870E) as a DC voltage which is proportional to the output level of the power module.

The control data for RF output levels are set by CPU Q3011 (M37702E8) on the CNTL Unit. This control data is sent to D/A converted Q1044 (M62354FP), from which a voltage appropriate to the control data input to Q1023 is derived.

Q1023 (FMS1) differentially-amplifies the rectified DC voltage from the power module and the reference voltage from the D/A converter. Q1022 (IMX1) converts these into the control voltage for Q1021. The Q1021 (2SA1870E) APC control circuit outputs an APC voltage appropriate to the control voltage and varies the APC voltages at Pin 2 of the power module and Pin 12 of the 144-DRIVE Unit, thereby controlling transmitter output. It is possible to select 'High,' 'Mid,' or 'Low' for the transmission output.

When the PLL circuit is unlocked during transmission, Pin 2 of the Q1033 (SC370651F) turns 'H' and an unlock signal is output from Q1035 (2SA1586Y). This unlock signal is input to Q1022 (IMX1) via diode switch D1023 (DAN202K) to stop the operation of Q1022 (IMX1). At the same time, Q1021 (2SA1870E) APC control circuit stops operating, causing APC voltage to become 0 V. Transmission is stopped when the APC voltage of the power module and 144-DRIVE Unit,

respectively, becomes 0 V. During reception, a voltage similar to an unlock signal is input to Q1022 (IMX1) and as the APC voltage of the power module and 144-DRIVE Unit becomes 0 V, transmission is disabled.

UHF Transmit Signal

The modulated signal that is input to Pin 4 (MOD terminal) of the 430M-VCO Unit is frequency-modulated by the transmitting VCO made up of D406 (1SV229), D407 (1SV230), Q403 (2SC3356-R24), etc.

The signal is buffer-amplified by Q404 (2SC3356-R24) and output from Pin 9 of the 430M-VCO Unit.

The signal from Pin 9 of the 430M-VCO Unit is buffer amplified by the Q2016 (2SC3356-R24) and input to Pin 1 of the 430-DRIVE Unit.

The signal from Pin 14 of the 430-DRIVE Unit is input for amplification to Pin 1 of power module Q2015 (M57788MR) and output from Pin 4 of the power module. The power module is gain-controlled by the APC circuit.

The output from the power module passes through a low-pass filter made up of C2121, C2131, C2135, C2275, L2028, and L2029 to the antenna switch circuit, on to the duplexer circuit, and finally to the antenna from the antenna terminal of the 144M-Main Unit.

UHF Tx APC circuit

A portion of the output from the power module is rectified by Schottky diodes D2015 (1SS97) and D2020 (1SS97), etc. and input to the APC circuit made up of Q2020 (IMD3), Q2021 (FMS1), and Q2024 (2SA1870E) as a DC voltage which is proportional to the output level of the power module.

The control data value for a RF power output level is preset by CPU Q3011 (M37702E8) of the CNTL Unit. This control data is sent to D/A converter Q2046 (M62354FP), from which a voltage appropriate to the control data value is input to Q2020 as a reference voltage.

Q2020 (FMS1) differentially-amplifies the rectified DC voltage from the power module and the reference voltage from the D/A converter. Q2021

(IMX1) converts this difference into the control voltage for Q2014. APC controller Q2024 (2SA1870E) outputs an appropriate control voltage and varies the APC voltage at Pin 2 of the power module and Pin 12 of the 430-DRIVE Unit, thereby controlling the RF output level. It is possible to select 'High,' 'Mid,' or 'Low' for RF output power levels.

When the PLL circuit is unlocked during transmission, Pin 2 of Q2032 (SC370651F) turns 'H' and an unlock signal is output from Q2036 (2SA1586Y). This unlock signal is input to Q2021 (IMX1) via diode switch D2016 (DAN202K) to disable Q2021(IMX1). At the same time, APC controller Q2024 (2SA1870E) voltage becomes 0 V, thus disabling transmission from the power module and 430-DRIVE Unit. During reception, as a voltage similar to the unlock signal is input to Q2021 (IMX1) and the APC voltage of the power module and 430-DRIVE Unit becomes 0 V, the transmission is disabled.

VHF PLL

The PLL circuit consists of a Q1033 (SC370651F), comparative frequency divider, reference frequency divider, phase comparator, charge pump, shift register, latch, etc.

The output from Pin 9 of the 144M-VCO Unit is frequency-divided by the comparative frequency divider according to the frequency dividing ratio data that is associated with the setting frequency input from the CPU. It is then input to the phase comparator.

The 12.8 MHz frequency of the reference oscillator circuit made up of X1002 and Q1029 (2SC2812-L6) is divided by the reference frequency divider into 2,560 or 2,048 parts to become 5 kHz or 6.25 kHz comparative reference frequencies, which are added to the phase comparator. Either of the comparative reference frequencies is selected according to frequency step: 5 kHz is selected for the 5/10/15/20 kHz steps, and 6.25 kHz is selected for the 12.5/25/50 kHz steps.

The phase comparator compares the phase between the frequency-divided oscillation frequency of the VCO circuit and the comparative reference frequency (5 kHz or 6.25 kHz) and out-

puts a pulse corresponding to the phase difference. This pulse is integrated by the charge pump and loop filter into a control voltage (VCV) to control the oscillation frequency of the VCO circuit.

When the power is turned on or the tx/rx operation is switched, the frequency during frequency change and the frequency dividing ratio data for the reference frequency divider are serially transmitted from the CPU to the divider. This serial data is converted by the shift register and latch into parallel data to control the reference frequency divider and comparative frequency divider.

The presence or absence of a phase difference as the result of comparison by the phase comparator is output as a UL signal from the lock detector circuit inside the PLL IC. This signal is input to the APC circuit to disable transmission when the PLL circuit is unlocked.

UHF PLL

The PLL circuit consists of a Q2032 (SC370651F), comparative frequency divider, reference frequency divider, phase comparator, charge pump, shift register, latch, etc.

The output from Pin 9 of the 430M-VCO Unit is frequency-divided by the comparative frequency divider according to the frequency dividing ratio data associated with the set frequency sent from the CPU. It is then input to the phase comparator.

The 12.8 MHz frequency of the reference oscillator circuit made up of X2002 and Q2029 (2SC2812-L6) is divided by the reference frequency divider into 2,560 or 2,048 parts to become 5 kHz or 6.25 kHz comparative reference frequencies, which are input to the phase comparator. Either of the comparative reference frequencies is selected according to frequency step: 5 kHz is selected for the 5/10/15/20 steps, and 6.25 kHz is selected for the 12.5/25/50 steps.

The phase comparator compares the phase between the frequency-divided oscillation frequency of the VCO circuit and the comparative reference frequency (5 kHz or 6.25 kHz) and outputs a pulse corresponding to the phase differ-

Circuit Description

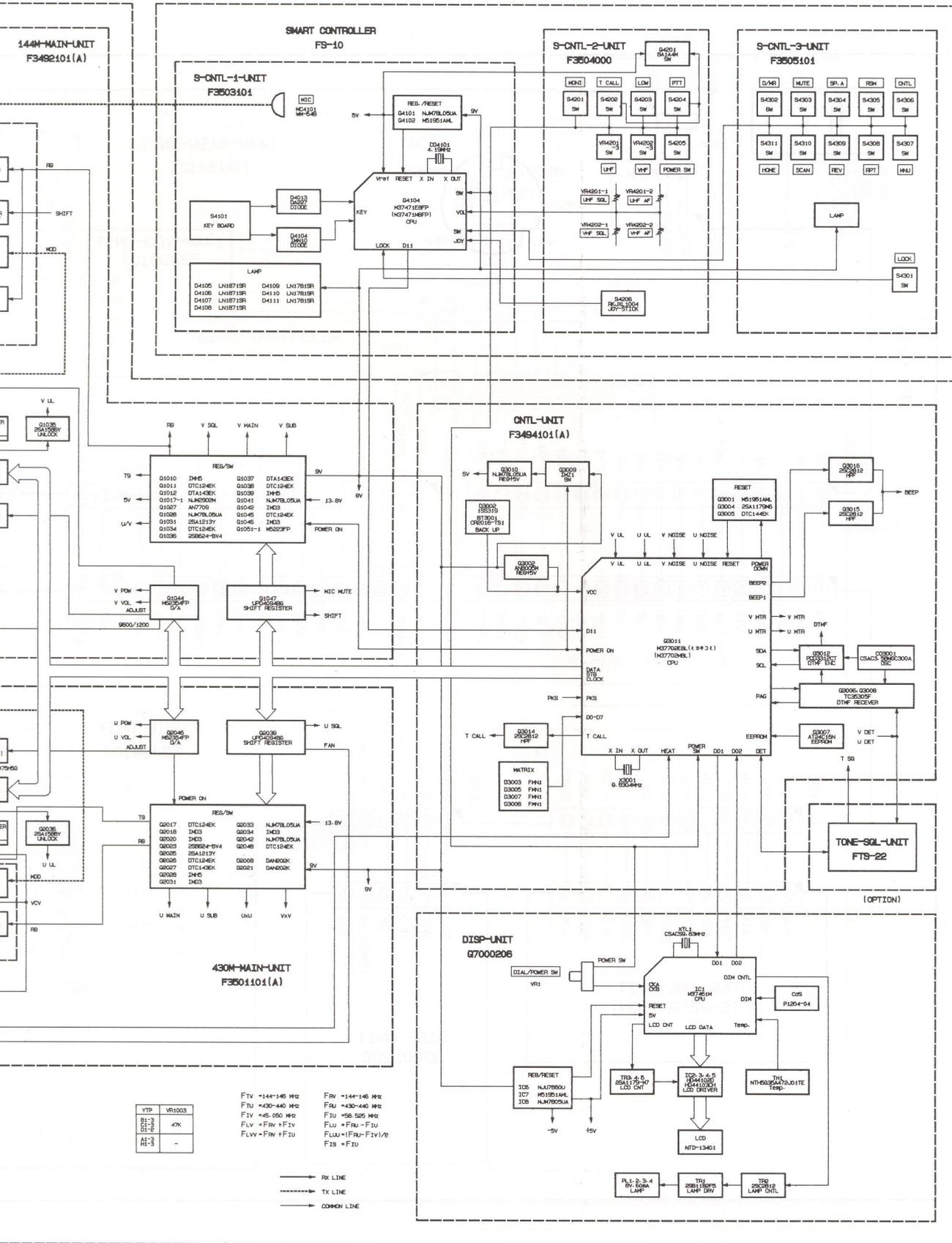
ence. This pulse is integrated by the charge pump and loop filter into a control voltage (VCV) to control the oscillation frequency of the VCO circuit.

When the power is turned on or tx/rx operation is switched, the frequency during frequency switching and the frequency dividing ratio data for the reference frequency divider are sent serially from the CPU to the PLL IC. This serial data

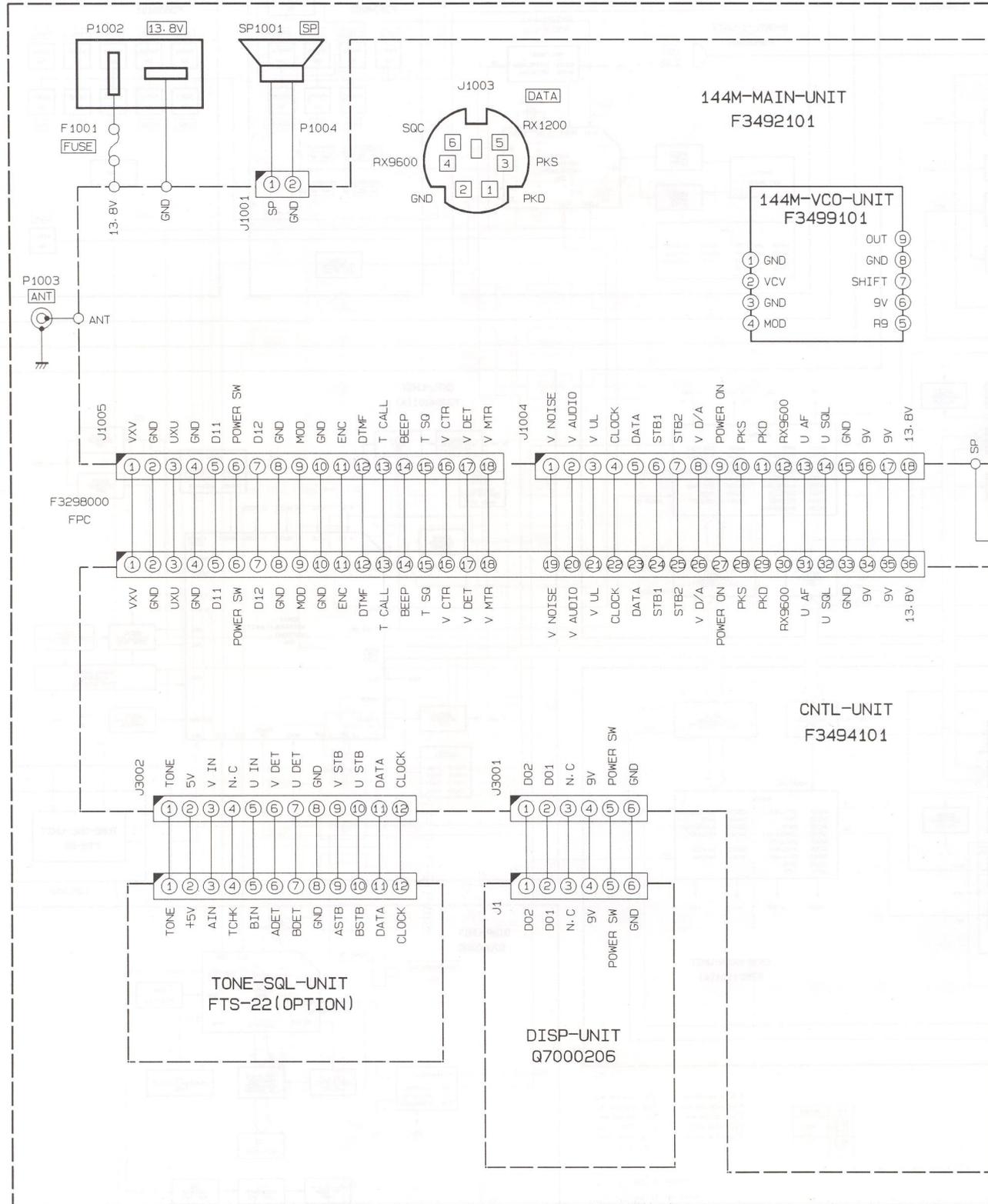
is converted by the shift register and latch into parallel data to control the reference frequency divider and comparative frequency divider.

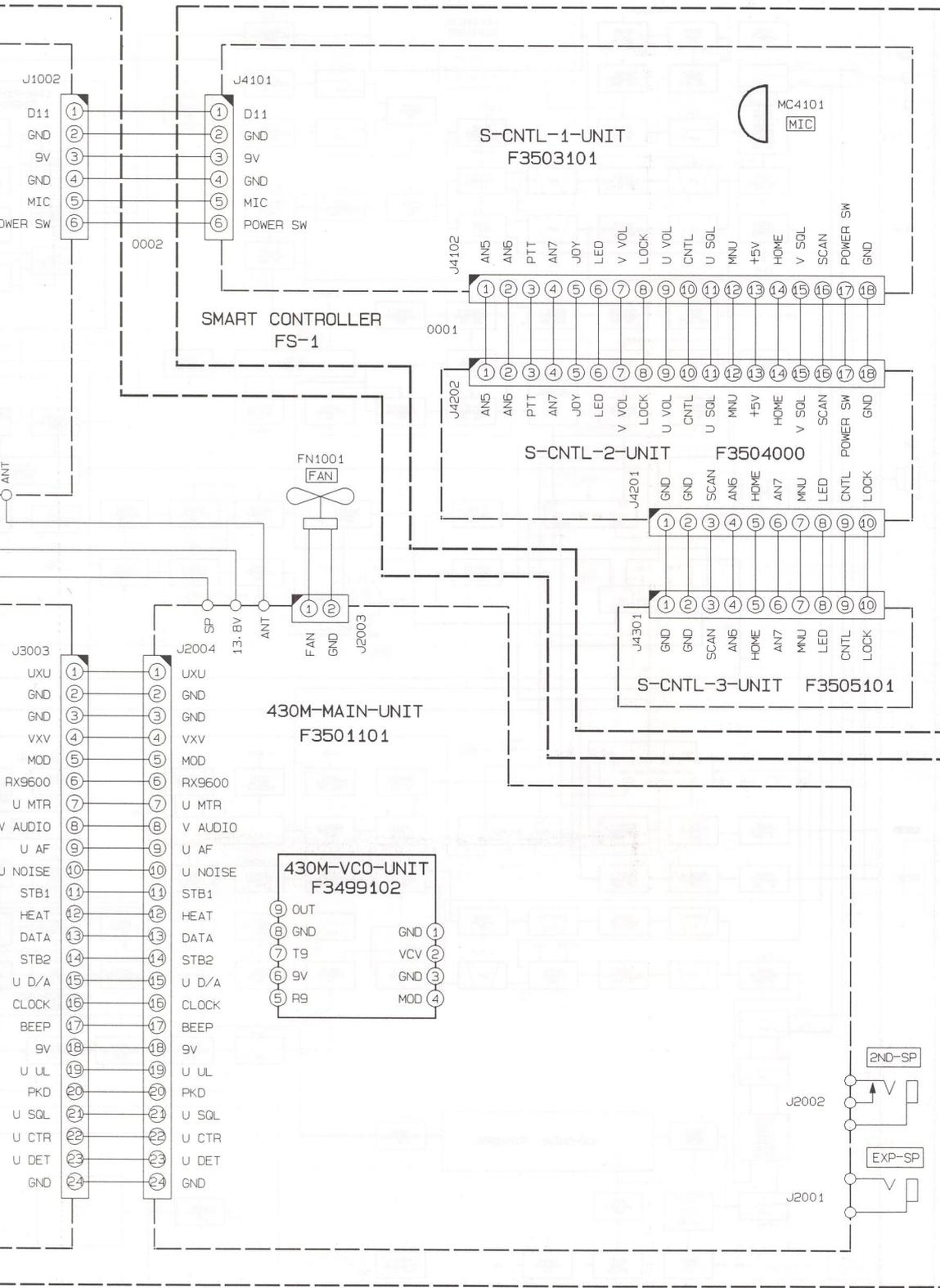
The presence or absence of a phase difference as the result of comparison by the phase comparator is output as a UL signal from the lock detector circuit inside the PLL IC. This signal is input to the APC circuit to disable transmission when the PLL circuit is unlocked.

Block Diagram

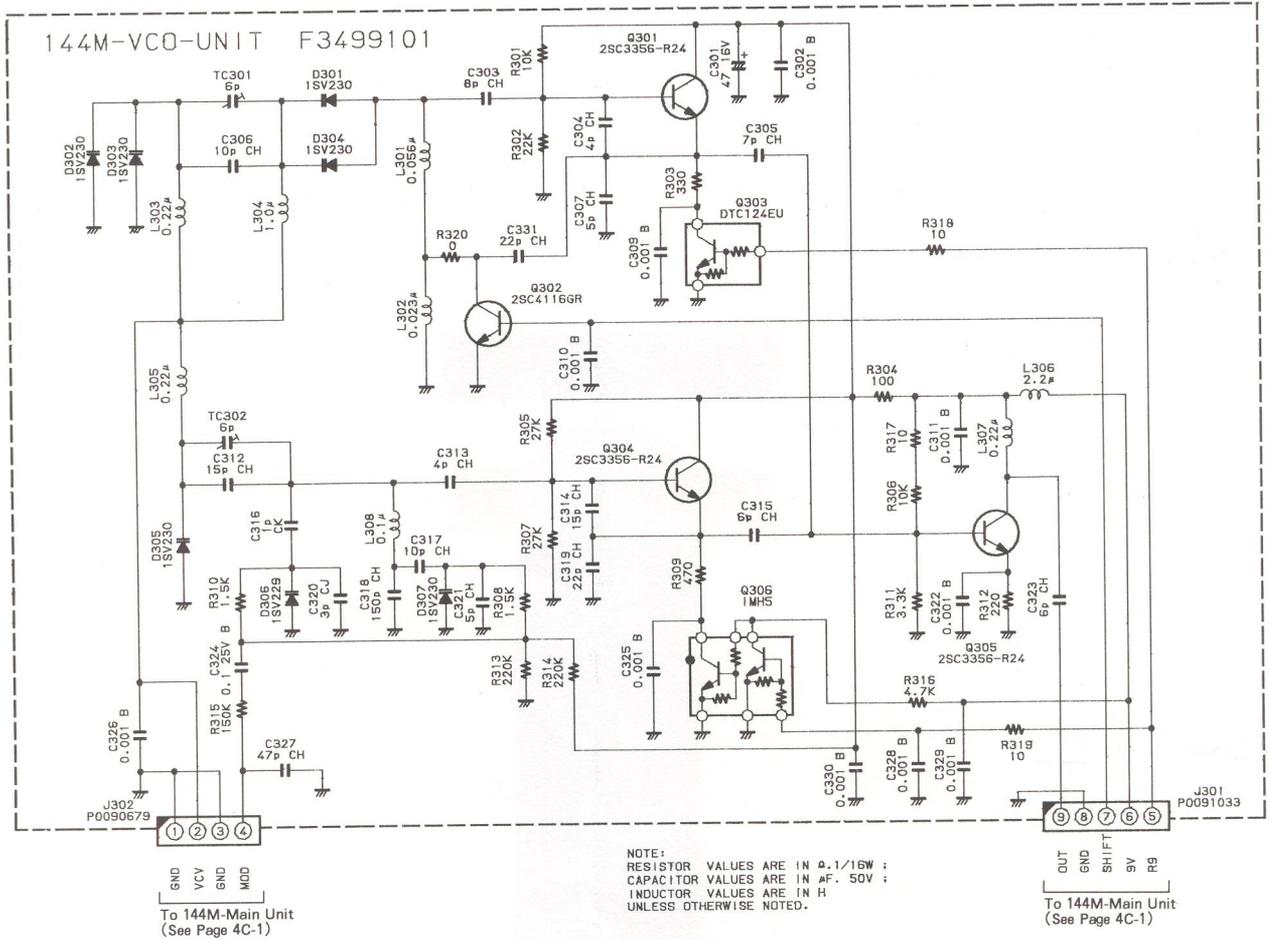


Interconnection Diagram

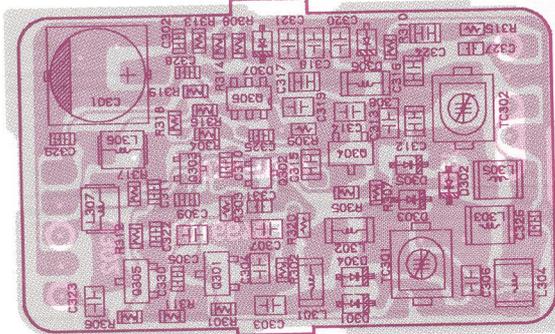




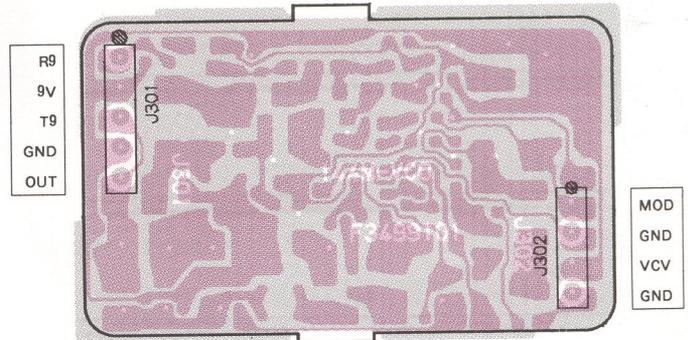
Circuit Diagram



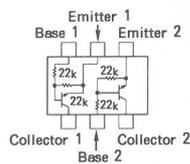
Parts Layout



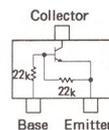
obverse view of component side



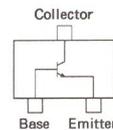
obverse view of connector side



IMH5 (H5)
(Q306)



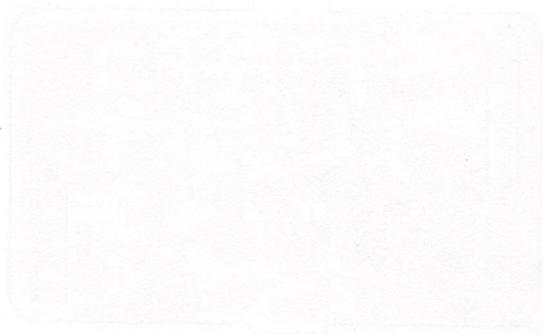
DTC124EU (25)
(Q303)



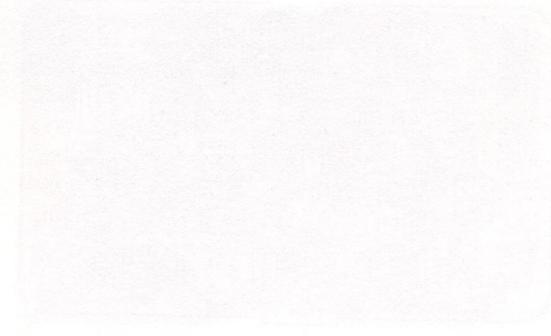
2SC3356 (R24)
(Q301, 304, 305)
2SC4116GR (LG)
(Q302)



Parts Layout



Reverse view of component side



Reverse view of component side

25C336 (H21)
 (C031, 304, 305)
 25C336R (L.C.)
 (C032)

D1C136U (2P)
 (C033)

14M5 (H2)
 (C034)

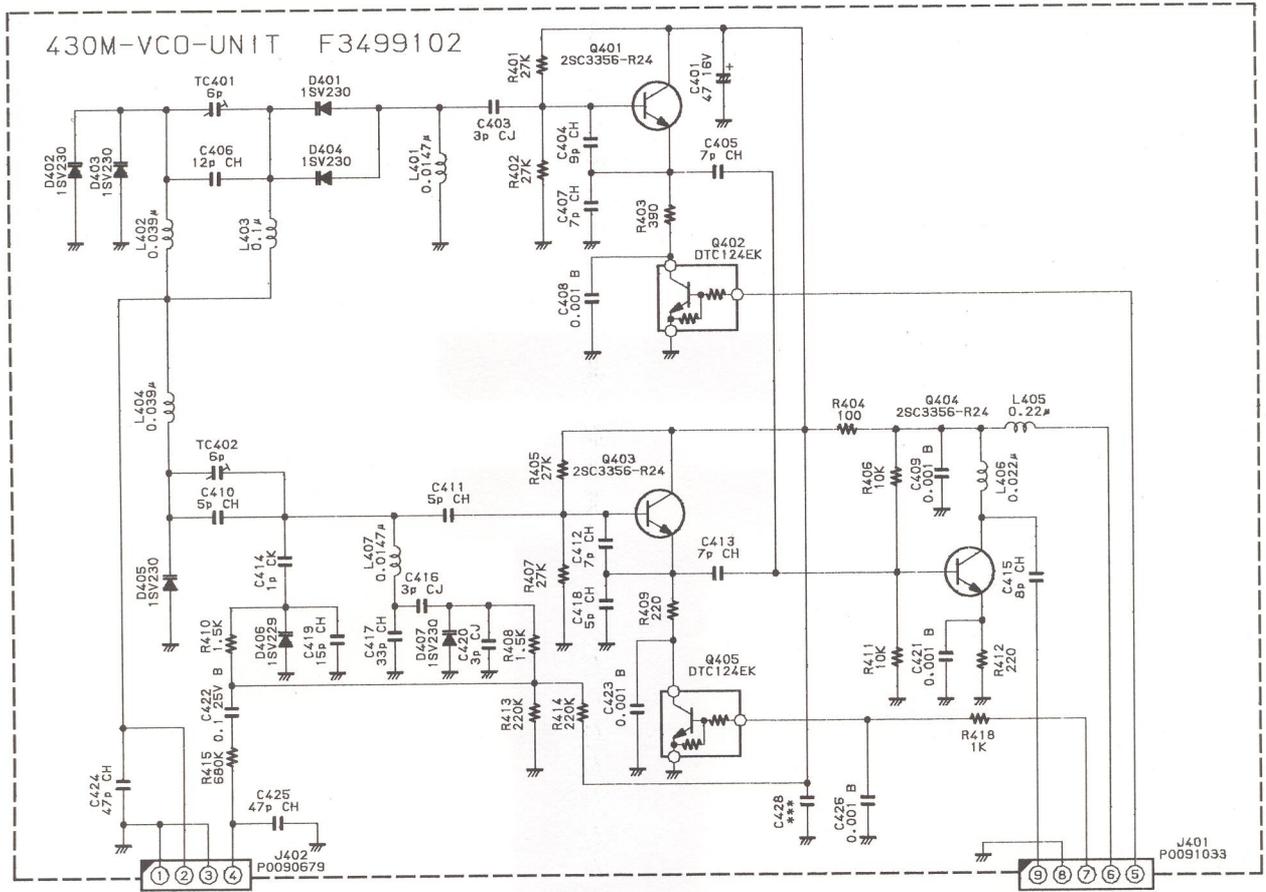
Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
*** 144-VCO UNIT ***									
	PCB with Components					CA1243001			
	Printed Circuit Board					F3499101			
C 0301	AL. ELECTRO. CAP.	47uF	16V		ECEV1CA470P	K48120003			
C 0302	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0303	CHIP CAP.	8pF	50V	CH	GRM40CH080D50PT	K22170209			
C 0304	CHIP CAP.	4pF	50V	CH	GRM40CH040C50PT	K22170205			
C 0305	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208			
C 0306	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211			
C 0307	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206			
C 0309	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0310	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0311	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0312	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215			
C 0313	CHIP CAP.	4pF	50V	CH	GRM40CH040C50PT	K22170205			
C 0314	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215			
C 0315	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207			
C 0316	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202			
C 0317	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211			
C 0318	CHIP CAP.	150pF	50V	CH	GRM40CH151J50PT	K22170239			
C 0319	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219			
C 0320	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204			
C 0321	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206			
C 0322	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0323	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207			
C 0324	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 0325	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0326	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0327	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227			
C 0328	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0329	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0330	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0331	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219			
D 0301	DIODE				1SV230 TPH3	G2070126			
D 0302	DIODE				1SV230 TPH3	G2070126			
D 0303	DIODE				1SV230 TPH3	G2070126			
D 0304	DIODE				1SV230 TPH3	G2070126			
D 0305	DIODE				1SV230 TPH3	G2070126			
D 0306	DIODE				1SV229 TPH3	G2070256			
D 0307	DIODE				1SV230 TPH3	G2070126			
J 0301	CONNECTOR				9210B-1-05-T	P0091033			
J 0302	CONNECTOR				9210B-1-04-T	P0090679			
L 0301	CHIP COIL	0.056uH			LQN1A56NJ04	L1690257			

144M-VCO Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
L 0302	CHIP COIL	0.023uH			LQN1A23NJ04	L1690252			
L 0303	CHIP COIL	0.22uH			LQN2AR22K	L1690003			
L 0304	CHIP COIL	1.0uH			LQH3N1ROM02M00-	L1690075			
L 0305	CHIP COIL	0.22uH			LQN2AR22K	L1690003			
L 0306	M. RFC	2.2uH			ELJ-FA2R2MF	L1690399			
L 0307	M. RFC	0.22uH			ELJ-FAR22MF	L1690396			
L 0308	CHIP COIL	0.1uH			LQN1AR10J04	L1690260			
Q 0301	TRANSISTOR				2SC3356-T2B R24	G3333567D			
Q 0302	TRANSISTOR				2SC4116GR TE85R	G3341167G			
Q 0303	TRANSISTOR				DTC124EU T107	G3070045			
Q 0304	TRANSISTOR				2SC3356-T2B R24	G3333567D			
Q 0305	TRANSISTOR				2SC3356-T2B R24	G3333567D			
Q 0306	TRANSISTOR				IMH5 T108	G3070027			
R 0301	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103			
R 0302	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223			
R 0303	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331			
R 0304	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101			
R 0305	CHIP RES.	27K	1/16W	5%	RMC1/16 273JATP	J24185273			
R 0306	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103			
R 0307	CHIP RES.	27K	1/16W	5%	RMC1/16 273JATP	J24185273			
R 0308	CHIP RES.	1.5K	1/16W	5%	RMC1/16 152JATP	J24185152			
R 0309	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471			
R 0310	CHIP RES.	1.5K	1/16W	5%	RMC1/16 152JATP	J24185152			
R 0311	CHIP RES.	3.3K	1/16W	5%	RMC1/16 332JATP	J24185332			
R 0312	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221			
R 0313	CHIP RES.	220K	1/16W	5%	RMC1/16 224JATP	J24185224			
R 0314	CHIP RES.	220K	1/16W	5%	RMC1/16 224JATP	J24185224			
R 0315	CHIP RES.	150K	1/16W	5%	RMC1/16 154JATP	J24185154			
R 0316	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472			
R 0317	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100			
R 0318	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100			
R 0319	CHIP RES.	10	1/16W	5%	RMC1/16 100JATP	J24185100			
R 0320	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000			
TC0301	TRIMMER CAP.	6pF			TZBX4Z060AA110T00	K91000207			
TC0302	TRIMMER CAP.	6pF			TZBX4Z060AA110T00	K91000207			
	SHIELD CASE					R0149190A			

Circuit Diagram

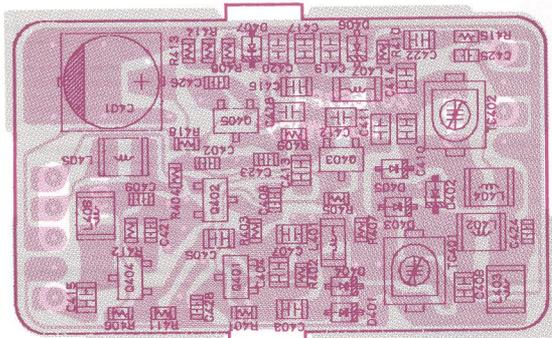


NOTE:
RESISTOR VALUES ARE IN Ω , 1/16W ;
CAPACITOR VALUES ARE IN μ F, 50V ;
INDUCTOR VALUES ARE IN H
UNLESS OTHERWISE NOTED.

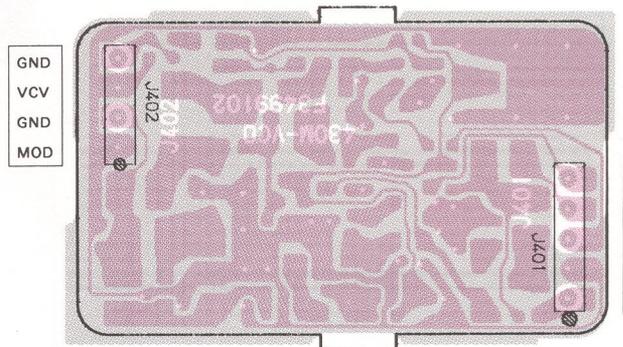
OUT GND T9 9V R9
To 430M-Main Unit
(See Page 4D-1)

To 430M-Main Unit
(See Page 4D-1)

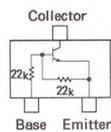
Parts Layout



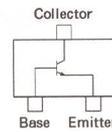
obverse view of component side



obverse view of connector side



DTC124EK (25)
(Q402, 405)



2SC3355 (R24)
(Q401, 403, 404)

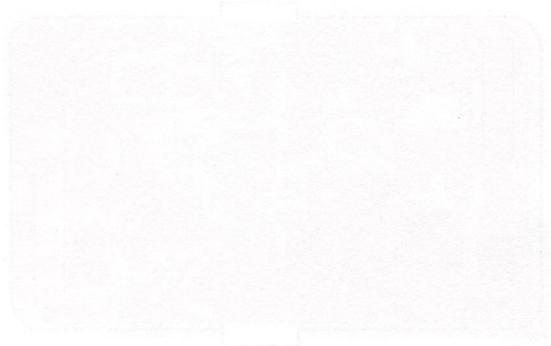


FIG. 1

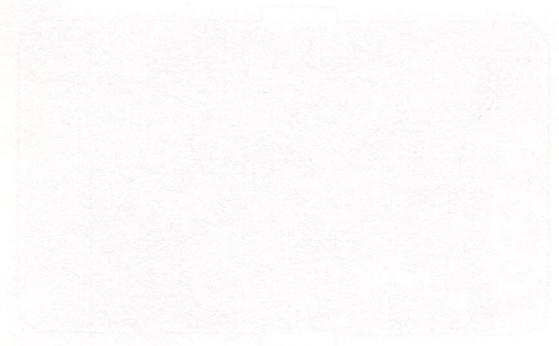
Wiring Diagram

FIG. 2

Parts Layout



Reverse view of component side



Obverse view of component side

(C901, 403, 404)
25C238B (R2A)

(C902, 408)
01C12AK (2B)

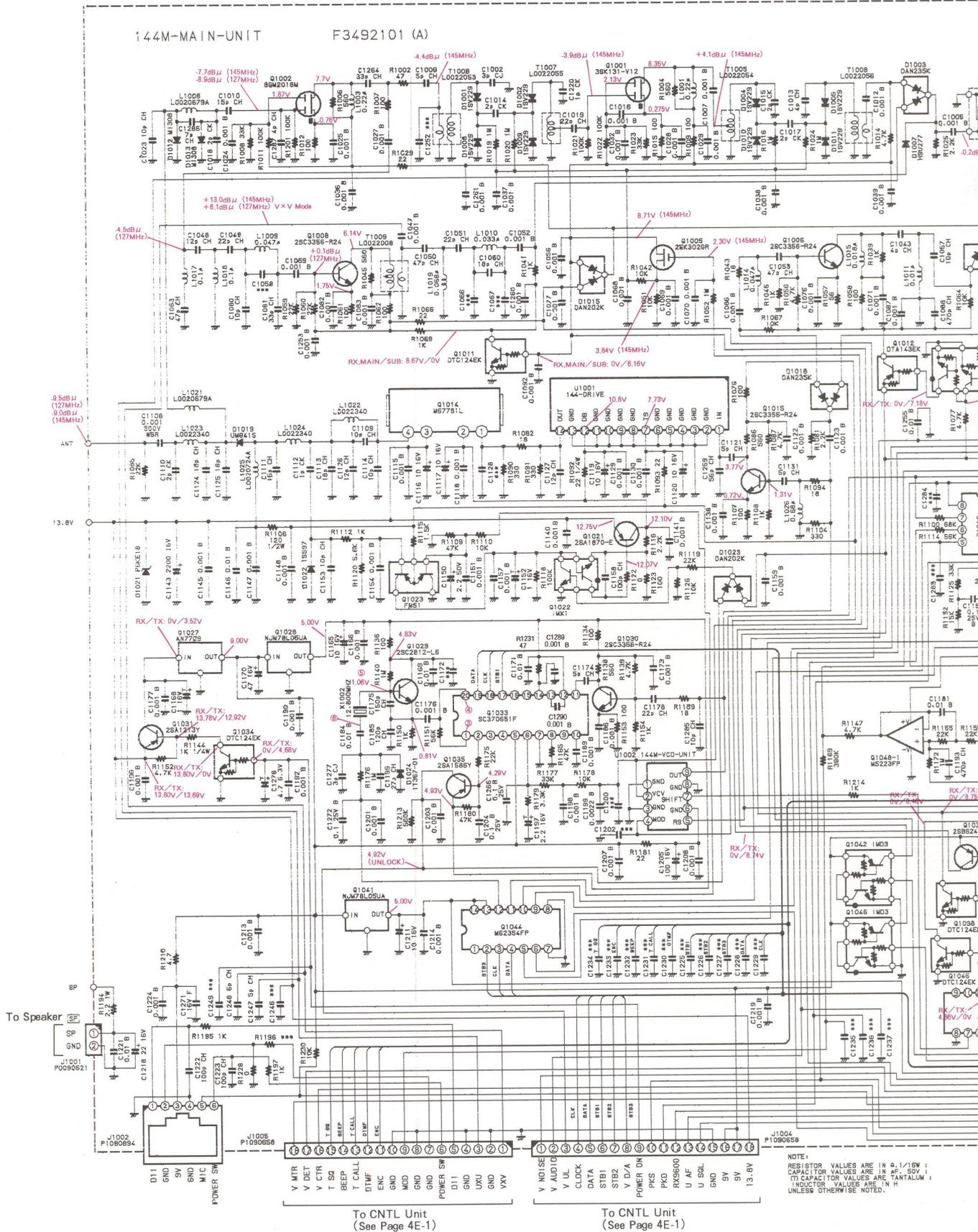
Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
*** 430-VCO UNIT ***										
	PCB with Components					CA1244001				
	Printed Circuit Board					F3499102				
C 0401	AL. ELECTRO. CAP.	47uF	16V		ECEV1CA470P	K48120003				
C 0403	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204				
C 0404	CHIP CAP.	9pF	50V	CH	GRM40CH090D50PT	K22170210				
C 0405	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208				
C 0406	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213				
C 0407	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208				
C 0408	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 0409	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 0410	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 0411	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 0412	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208				
C 0413	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208				
C 0414	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202				
C 0415	CHIP CAP.	8pF	50V	CH	GRM40CH080D50PT	K22170209				
C 0416	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204				
C 0417	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223				
C 0418	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 0419	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 0420	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204				
C 0421	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 0422	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 0423	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 0424	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227				
C 0425	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227				
C 0426	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
D 0401	DIODE				1SV230 TPH3	G2070126				
D 0402	DIODE				1SV230 TPH3	G2070126				
D 0403	DIODE				1SV230 TPH3	G2070126				
D 0404	DIODE				1SV230 TPH3	G2070126				
D 0405	DIODE				1SV230 TPH3	G2070126				
D 0406	DIODE				1SV229 TPH3	G2070256				
D 0407	DIODE				1SV230 TPH3	G2070126				
J 0401	CONNECTOR				9210B-1-05-T	P0091033				
J 0402	CONNECTOR				9210B-1-04-T	P0090679				
L 0401	CHIP COIL	0.0147uH			LQN1A15NJ04	L1690251				
L 0402	CHIP COIL	0.039uH			LQN2A39NM	L1690006				
L 0403	CHIP COIL	0.1uH			LQN2AR10K	L1690011				
L 0404	CHIP COIL	0.039uH			LQN2A39NM	L1690006				
L 0405	CHIP COIL	0.22uH			LQN2AR22K	L1690003				
L 0406	CHIP COIL	0.022uH			LQN2A22NM	L1690002				

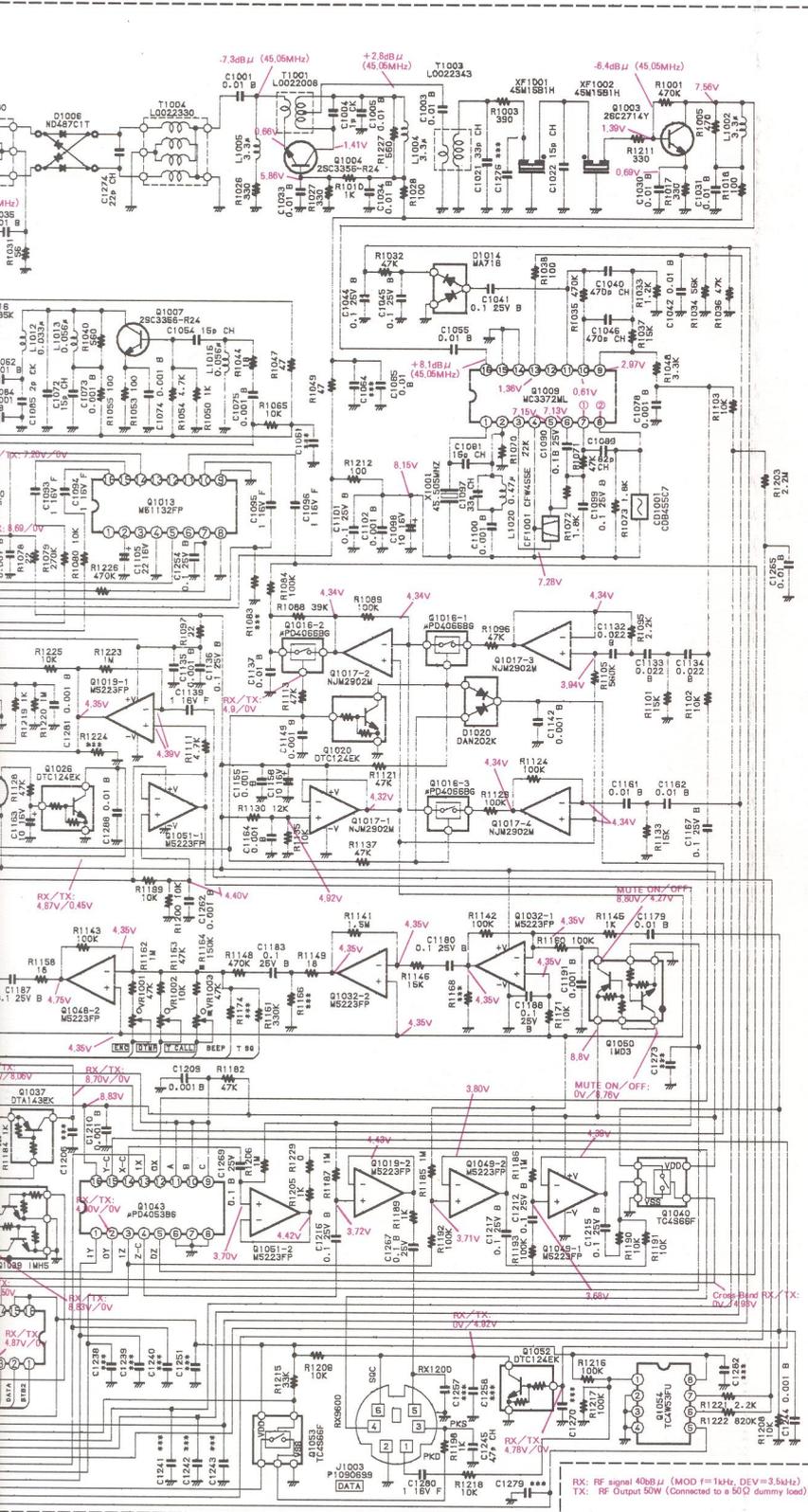
430M-VCO Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
L 0407	CHIP COIL	0.0147uH			LQN1A15NJ04	L1690251				
Q 0401	TRANSISTOR				2SC3356-T2B R24	G3333567D				
Q 0402	TRANSISTOR				DTC124EK T97	G3070034				
Q 0403	TRANSISTOR				2SC3356-T2B R24	G3333567D				
Q 0404	TRANSISTOR				2SC3356-T2B R24	G3333567D				
Q 0405	TRANSISTOR				DTC124EK T97	G3070034				
R 0401	CHIP RES.	27K	1/16W	5%	RMC1/16 273JATP	J24185273				
R 0402	CHIP RES.	27K	1/16W	5%	RMC1/16 273JATP	J24185273				
R 0403	CHIP RES.	390	1/16W	5%	RMC1/16 391JATP	J24185391				
R 0404	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 0405	CHIP RES.	27K	1/16W	5%	RMC1/16 273JATP	J24185273				
R 0406	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 0407	CHIP RES.	27K	1/16W	5%	RMC1/16 273JATP	J24185273				
R 0408	CHIP RES.	1.5K	1/16W	5%	RMC1/16 152JATP	J24185152				
R 0409	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221				
R 0410	CHIP RES.	1.5K	1/16W	5%	RMC1/16 152JATP	J24185152				
R 0411	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 0412	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221				
R 0413	CHIP RES.	220K	1/16W	5%	RMC1/16 224JATP	J24185224				
R 0414	CHIP RES.	220K	1/16W	5%	RMC1/16 224JATP	J24185224				
R 0415	CHIP RES.	680K	1/16W	5%	RMC1/16 684JATP	J24185684				
R 0418	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
TC0401	TRIMMER CAP.	6pF			TZBX4Z060BA110T00	K91000189				
TC0402	TRIMMER CAP.	6pF			TZBX4Z060BA110T00	K91000189				
	SHIELD CASE					R0149190A				

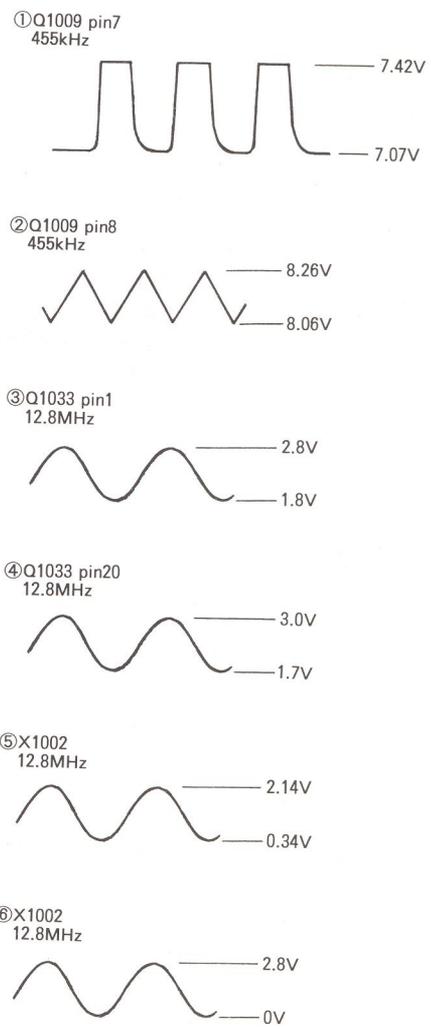
Circuit Diagram



144M-Main Unit

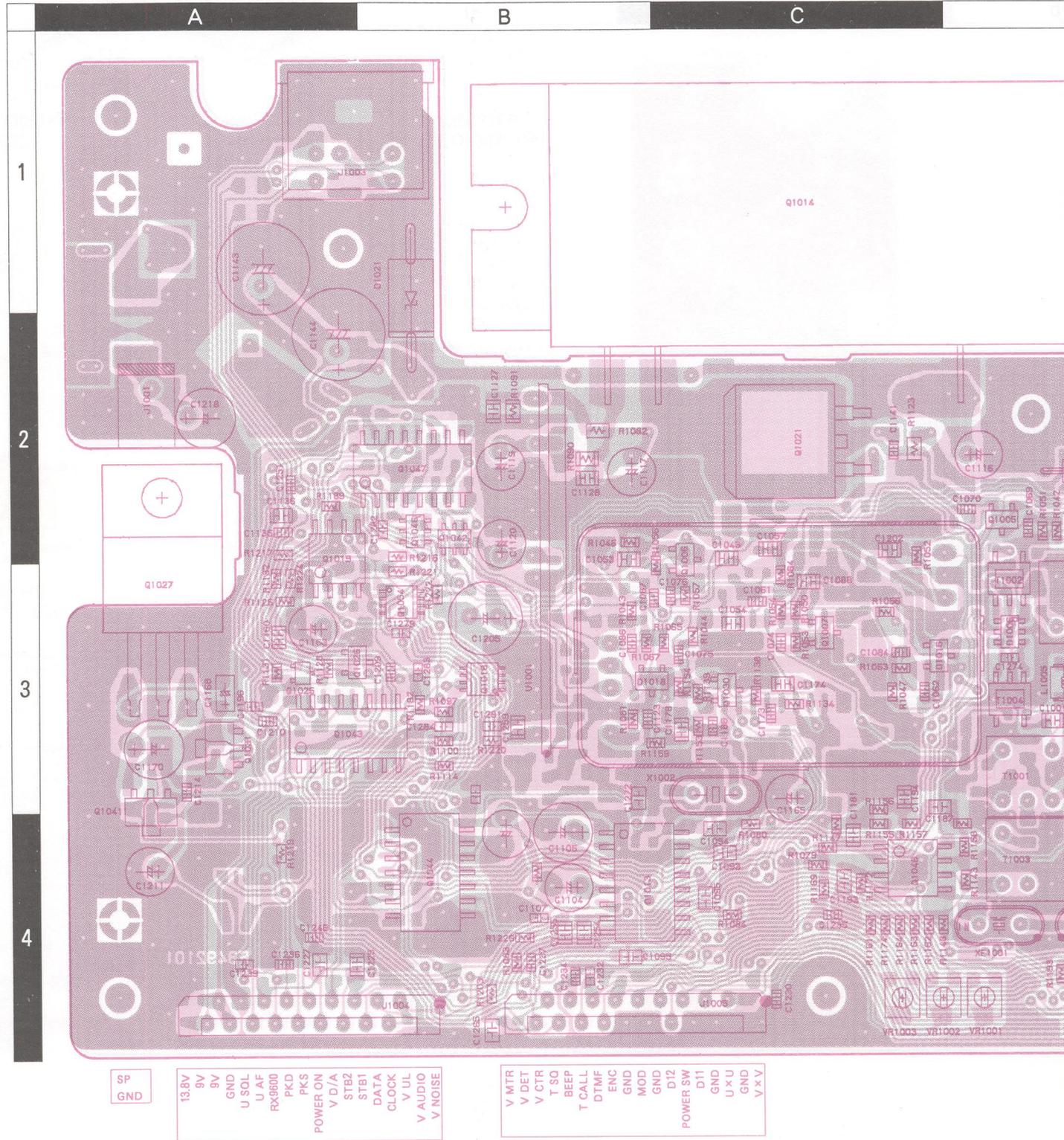


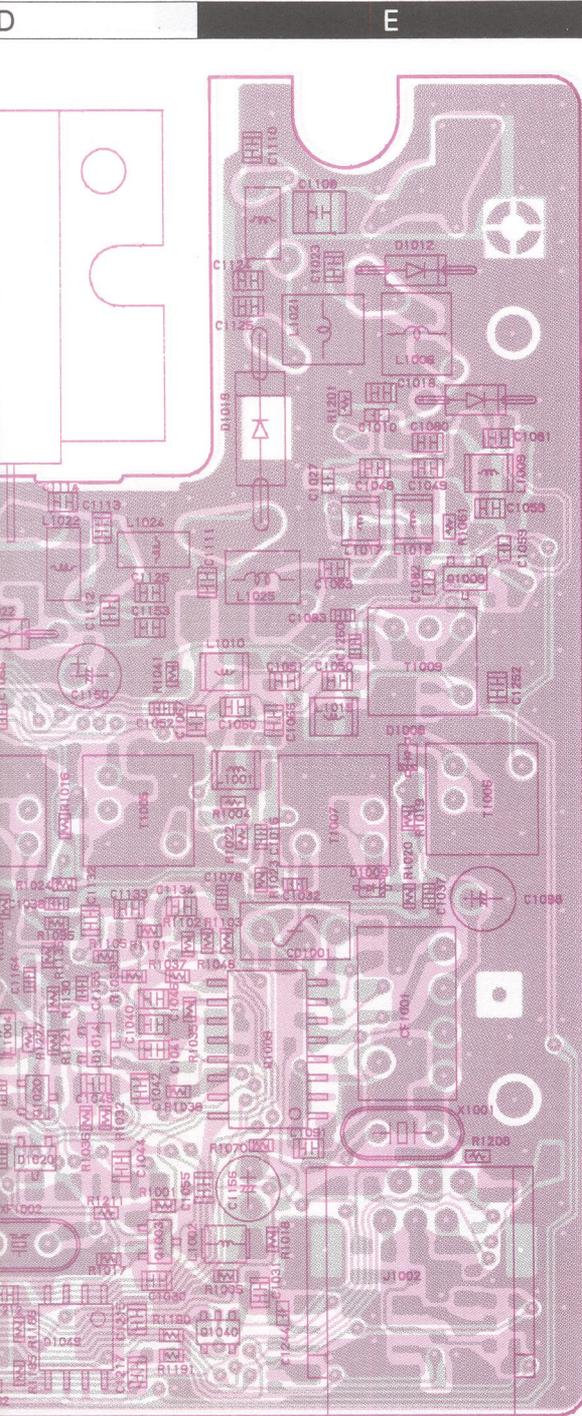
TYP	Q1001	A1-3
R1164	100K	H1-3
R1003	47K	



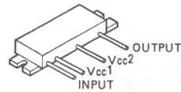
RX: RF signal 40dB μ (MOD F=1kHz, DEV=3.5kHz)
TX: RF Output 50W (Connected to a 50 Ω dummy load)

Parts Layout

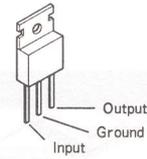




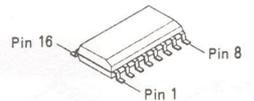
view of component side



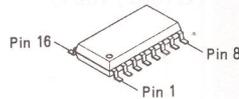
M67781L (Q1014)



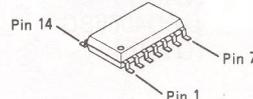
AN7709 (Q1027)



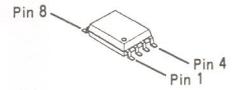
MC3372ML (Q1009)



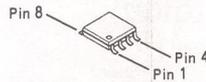
M51132FP (Q1013)
μPD4053BG (Q1043)
μPD4094BG (Q1047)



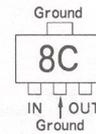
M62354FP (Q1044)



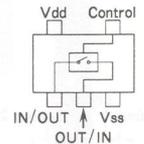
M5223FP (Q1019, 1048, 1049)



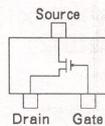
TC4W53FU (Q1018, 1054)



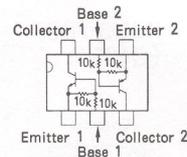
NJM78L05UA (8C) (Q1041)



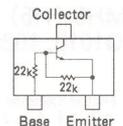
TC4S66F (C9) (Q1040)



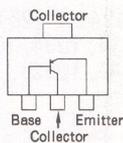
2SK302GR (TG) (Q1005)



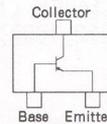
IMD3 (D3) (Q1042, 1046)



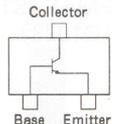
DTC124EK (25) (Q1020, 1026)



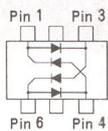
2SA1213Y (NY) (Q1031)
2SA1870 (Q1021)



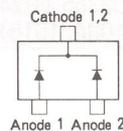
2SA1586Y (SY) (Q1025)



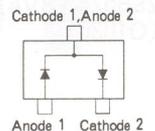
2SC2714Y (QY) (Q1003)
2SC3356 (R24) (Q1006, 1007, 1008, 1030)



ND487C1T (T1A) (D1006)

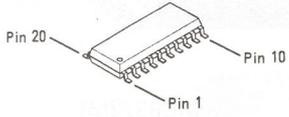


DAN202K (N) (D1020)
DAN235K (M) (D1016, 1018)

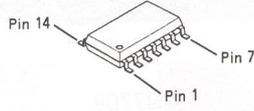


MA716 (M1U) (D1014)

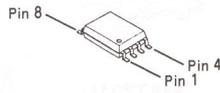
144M-Main Unit



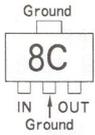
SC370651FR
(Q1033)



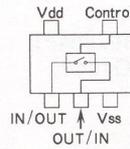
NJM2902M
(Q1017)
μPD4066BG
(Q1016)



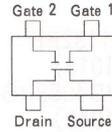
M5223FP
(Q1032, 1051)



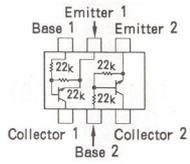
NJM78L05UA (8C)
(Q1028)



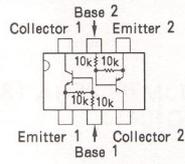
TC4S66F (C9)
(Q1053)



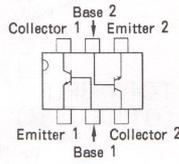
3SK131 (V12)
(Q1001)
SGM2016M (M-)
(Q1002)



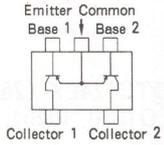
IMH5 (H5)
(Q1010, 1039)



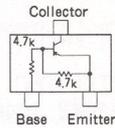
IMD3 (D3)
(Q1050)



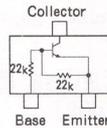
IMX1 (X1)
(Q1022)



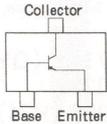
FMS1 (S1)
(Q1023)



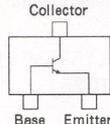
DTA143EK (13)
(Q1012, 1037)



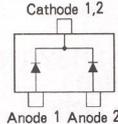
DTC124EK (25)
(Q1011, 1034, 1038,
1045, 1052)



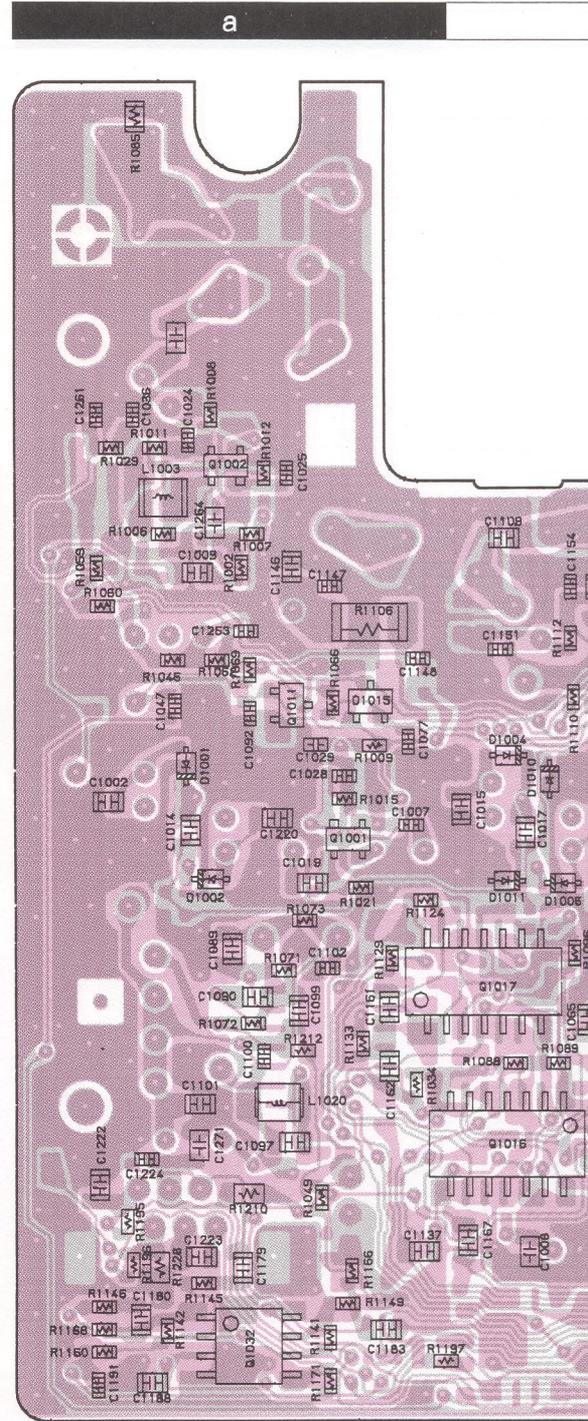
2SA1586Y (SY)
(Q1035)
2SB624 (BV4)
(Q1036)

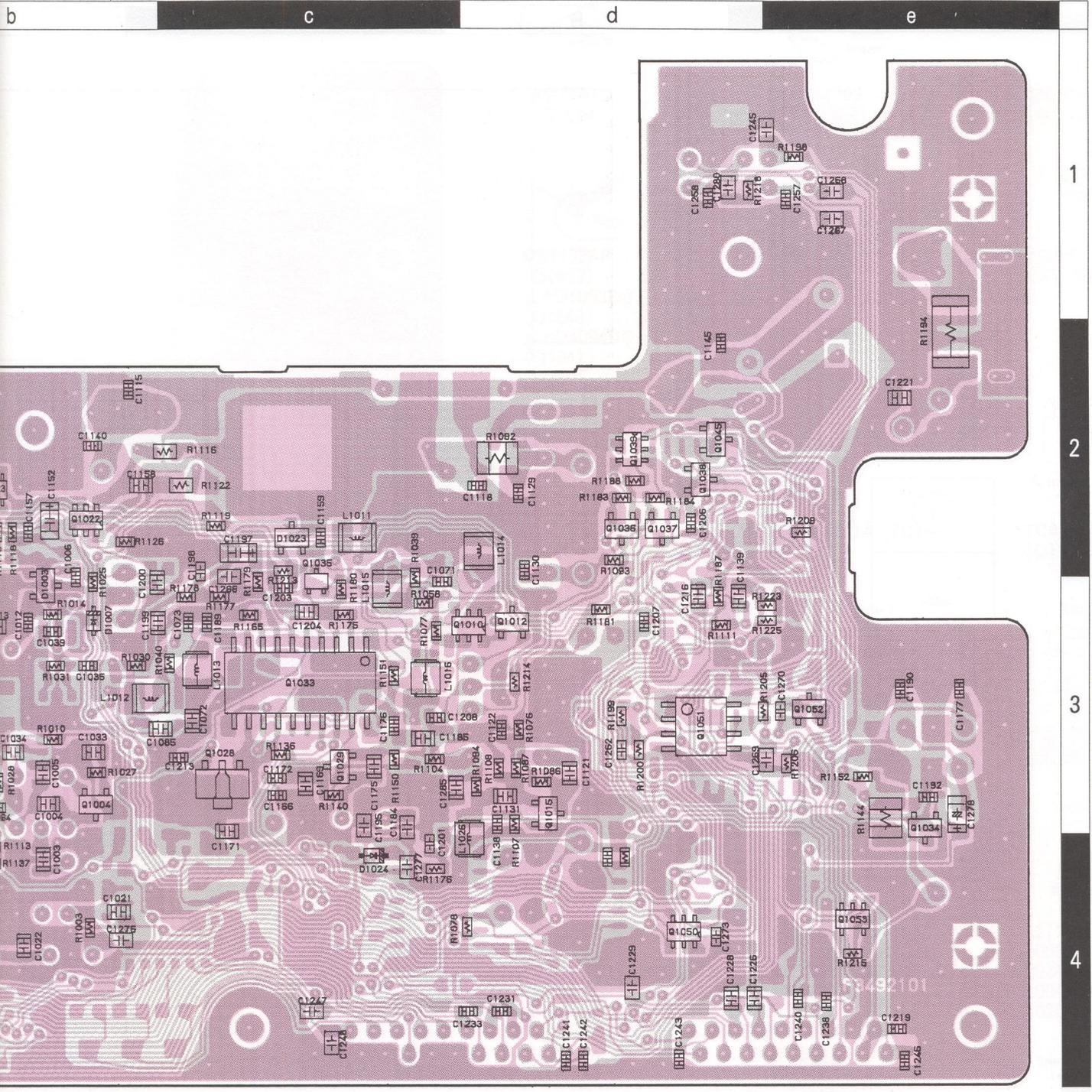


2SC2812 (L6)
(Q1029)
2SC3356 (R24)
(Q1004, 1015)



DAN202K (N)
(D1015, 1023)
DAN235K (M)
(D1003)





obverse view of chip-only side

Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
*** 144-MAIN UNIT ***										
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977004	TYP A1			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977005	TYP A2			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977006	TYP A3			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977007	TYP B1			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977008	TYP B2			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977009	TYP B3			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977010	TYP C1			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977011	TYP C2			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977012	TYP C3			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977013	TYP D1			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977014	TYP D2			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977015	TYP H1			
	PCB with Components	(W/O Q1014 M67781L,	W/	144-VCO UNIT)		CP4977016	TYP H2			
	Printed Circuit Board					F3492101				
C 1001	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1002	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204				
C 1003	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1004	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202				
C 1005	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1006	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1007	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1009	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 1010	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215				
C 1012	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1013	CHIP CAP.	4pF	50V	CH	GRM40CH040C50PT	K22170205				
C 1014	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203				
C 1015	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203				
C 1016	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1017	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203				
C 1018	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203				
C 1019	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219				
C 1021	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223				
C 1022	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 1023	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 1024	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1025	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1027	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1028	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1029	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1030	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1031	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1032	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1033	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1034	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1035	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				

144M-Main Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
C 1036	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1037	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1038	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1039	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1040	CHIP CAP.	470pF	50V	CH	GRM40CH471J50PT	K22170251				
C 1041	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1042	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1043	CHIP CAP.	4pF	50V	CH	GRM40CH040C50PT	K22170205				
C 1044	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1045	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1046	CHIP CAP.	470pF	50V	CH	GRM40CH471J50PT	K22170251				
C 1047	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1048	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213				
C 1049	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219				
C 1050	CHIP CAP.	47pF	50V	CH	GRM40CH470J50PT	K22170227				
C 1051	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219				
C 1052	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1053	CHIP CAP.	47pF	50V	CH	GRM40CH470J50PT	K22170227				
C 1054	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 1055	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1056	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1057	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 1059	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1060	CHIP CAP.	18pF	50V	CH	GRM40CH180J50PT	K22170217				
C 1062	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1063	CHIP CAP.	47pF	50V	CH	GRM40CH470J50PT	K22170227				
C 1065	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1068	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1069	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1070	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1071	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1072	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 1073	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 1074	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1075	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1076	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1077	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1078	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1080	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 1081	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223				
C 1082	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1083	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1084	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1085	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203				
C 1086	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1087	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1088	CHIP CAP.	470pF	50V	CH	GRM40CH471J50PT	K22170251				
C 1089	CHIP CAP.	82pF	50V	CH	GRM40CH820J50PT	K22170233				
C 1090	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
C 1091	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 1092	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1093	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 1094	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 1095	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 1096	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 1097	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223				
C 1098	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 1099	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1100	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1101	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1102	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1104	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 1105	AL. ELECTRO. CAP.	22uF	16V		16V220M5X7TR2	K46120005				
C 1107	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1108	CHIP CAP.	0.001uF	500V	W5R	GRM42-2W5R102K500PTK	22275809				
C 1109	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 1110	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203				
C 1111	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 1112	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202				
C 1113	CHIP CAP.	18pF	50V	CH	GRM40CH180J50PT	K22170217				
C 1114	CHIP CAP.	10pF	50V	CH	GRM40CH100J50PT	K22170211				
C 1115	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1116	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 1117	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 1118	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1119	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 1120	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 1121	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 1122	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1123	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1124	CHIP CAP.	18pF	50V	CH	GRM40CH180J50PT	K22170217				
C 1125	CHIP CAP.	18pF	50V	CH	GRM40CH180J50PT	K22170217				
C 1126	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213				
C 1127	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213				
C 1129	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1130	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1131	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 1132	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821				
C 1133	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821				
C 1134	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821				
C 1135	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1136	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1137	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1138	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1139	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 1140	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1141	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1142	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				

144M-Main Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
C 1143	AL. ELECTRO. CAP.	2200uF	16V		RE2-16V222M	K40129050				
C 1145	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1146	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1147	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1148	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1149	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1150	AL. ELECTRO. CAP.	2.2uF	50V		50V2R2M4X7TR2	K46170031				
C 1151	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1152	TANTALUM CHIP CAP.	1uF	16V		TESVA1C105M1-8R	K78120009				
C 1153	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 1154	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1155	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1156	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 1157	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1158	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235				
C 1159	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1160	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1161	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1162	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1163	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 1164	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1165	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 1166	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1167	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1168	TANTALUM CHIP CAP.	1uF	16V		TESVA1C105M1-8R	K78120009				
C 1169	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1170	AL. ELECTRO. CAP.	47uF	16V		RC2-16V470M-T34	K46120010				
C 1171	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1173	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1174	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 1175	CHIP CAP.	150pF	50V	CH	GRM40CH151J50PT	K22170239				
C 1176	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1177	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1178	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219				
C 1179	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1180	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1181	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1183	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1184	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1185	CHIP CAP.	120pF	50V	CH	GRM40CH121J50PT	K22170237				
C 1186	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1187	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1188	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 1189	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1190	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1191	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1192	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1193	CHIP CAP.	470pF	50V	CH	GRM40CH471J50PT	K22170251				
C 1194	CHIP CAP.	0.0022uF	50V	B	GRM40B222M50PT	K22170809				

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
C 1195	CHIP CAP.	27pF	50V	CH	GRM40CH270J50PT	K22170221			
C 1196	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1197	TANTALUM CHIP CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015			
C 1198	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1199	CHIP CAP.	0.0022uF	50V	B	GRM40B222M50PT	K22170809			
C 1201	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1203	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1204	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1205	AL. ELECTRO. CAP.	100uF	16V		16V101M6X7TR2	K46120007			
C 1207	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1208	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1209	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1210	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1211	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004			
C 1212	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1213	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1214	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1215	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1216	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1217	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1218	AL. ELECTRO. CAP.	47uF	25V		25V470M5X11TR5	K46140004			
C 1219	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1220	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202			
C 1221	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 1222	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235			
C 1223	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235			
C 1224	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1244	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1245	CHIP CAP.	47pF	50V	CH	GRM40CH470J50PT	K22170227			
C 1247	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206			
C 1248	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207			
C 1253	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1254	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1255	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 1259	CHIP CAP.	56pF	50V	CH	GRM40CH560J50PT	K22170229			
C 1260	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1261	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1262	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 1264	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223			
C 1265	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 1266	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1267	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1269	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1271	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001			
C 1272	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 1274	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219			
C 1277	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204			
C 1278	TANTALUM CHIP CAP.	4.7uF	6.3V		TEMSVA0J475M-8R	K78080017			
C 1280	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001			

144M-Main Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
C 1281	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 1285	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 1286	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208				
C 1287	CHIP CAP.	4pF	50V	CH	GRM39CH040C50PT	K22174205				
C 1288	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 1289	CERAMIC CAP.	0.001uF	50V	B	UP050B102K-A-B	K28179001				
C 1290	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
CD1001	CERAMIC DISC				CDB455C7	H7900180				
CF1001	CERAMIC FILTER				CFW455E	H3900200				
D 1001	DIODE				1SV229 TPH3	G2070256				
D 1002	DIODE				1SV229 TPH3	G2070256				
D 1003	DIODE				DAN235K T97	G2070082				
D 1004	DIODE				1SV229 TPH3	G2070256				
D 1005	DIODE				1SV229 TPH3	G2070256				
D 1006	DIODE				ND487C1T-E3	G2070358				
D 1007	DIODE				HSU277	G2070118				
D 1008	DIODE				1SV229 TPH3	G2070256				
D 1009	DIODE				1SV229 TPH3	G2070256				
D 1010	DIODE				1SV229 TPH3	G2070256				
D 1011	DIODE				1SV229 TPH3	G2070256				
D 1012	DIODE				MI308	G2090337				
D 1013	DIODE				MI308	G2090337				
D 1014	DIODE				MA716-(TX)	G2070342				
D 1015	DIODE				DAN202K T146	G2070182				
D 1016	DIODE				DAN235K T97	G2070082				
D 1018	DIODE				DAN235K T97	G2070082				
D 1019	DIODE				UM9415	G2090425				
D 1020	DIODE				DAN202K T146	G2070182				
D 1021	SURGE ABSORBER				PGKE18	Q9000534				
D 1022	DIODE				1SS97	G2090118				
D 1023	DIODE				DAN202K T146	G2070182				
D 1024	DIODE				1T367-01-T8A	G2070296				
F 1001	FUSE				15A	Q0000008				
J 1001	CONNECTOR				SC25-02WS	P0090621				
J 1002	CONNECTOR				R41-4863J	P1090894				
J 1003	CONNECTOR				TCS7930-16-401	P1090699				
J 1004	CONNECTOR				52030-1810	P1090658				
J 1005	CONNECTOR				52030-1810	P1090658				
L 1001	CHIP COIL	0.22uH			LQN2AR22K	L1690003				
L 1002	M. RFC	3.3uH			ELJ-FA3R3MF	L1690400				
L 1003	CHIP COIL	0.22uH			LQN2AR22K	L1690003				
L 1004	M. RFC	3.3uH			ELJ-FA3R3MF	L1690400				
L 1005	M. RFC	3.3uH			ELJ-FA3R3MF	L1690400				

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REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
L 1006	COIL				4. 5T3. 5D0. 6UEW R	L0020679A				
L 1009	CHIP COIL	0.047uH			LQN2A47NM	L1690007				
L 1010	CHIP COIL	0.033uH			LQN2A33NM	L1690005				
L 1011	CHIP COIL	0.01uH			LQN2A10NM	L1690001				
L 1012	CHIP COIL	0.033uH			LQN2A33NM	L1690005				
L 1013	CHIP COIL	0.056uH			LQN2A56NM	L1690008				
L 1014	CHIP COIL	0.047uH			LQN2A47NM	L1690007				
L 1015	CHIP COIL	0.018uH			LQN2A18NM	L1690004				
L 1016	CHIP COIL	0.056uH			LQN2A56NM	L1690008				
L 1017	CHIP COIL	0.1uH			LQN2AR10K	L1690011				
L 1018	CHIP COIL	0.1uH			LQN2AR10K	L1690011				
L 1019	CHIP COIL	0.068uH			LQN2A68NM	L1690009				
L 1020	M. RFC	0.47uH			ELJ-FAR47MF	L1690397				
L 1021	COIL				4. 5T3. 5D0. 6UEW R	L0020679A				
L 1022	COIL				2. 5T4. 0D0. 8UEW R	L0022340				
L 1023	COIL				2. 5T4. 0D0. 8UEW R	L0022340				
L 1024	COIL				2. 5T4. 0D0. 8UEW R	L0022340				
L 1025	COIL				8. 5T3. 0D0. 5UEW R	L0020724A				
L 1026	M. RFC	0.68uH			ELJ-FAR68MF	L1690398				
P 1001	WIRE ASSY					T9206082				
P 1002	WIRE ASSY					T9206228				
P 1003	WIRE ASSY					T9206225	DST EXP			
P 1003	WIRE ASSY					T9206225	DST AUS			
P 1003	WIRE ASSY					T9206224	DST TPE			
P 1003	WIRE ASSY					T9206224	DST USA			
Q 1001	FET				3SK131-T2B V12	G4801317B				a-3
Q 1002	FET				SGM2016M-T8	G4070005				a-2
Q 1003	TRANSISTOR				2SC2714YTE85R	G3327147Y				D-4
Q 1004	TRANSISTOR				2SC3356-T2B R24	G3333567D				b-3
Q 1005	FET				2SK302GR TE85R	G3803027G				D-2
Q 1006	TRANSISTOR				2SC3356-T2B R24	G3333567D				C-3
Q 1007	TRANSISTOR				2SC3356-T2B R24	G3333567D				C-3
Q 1008	TRANSISTOR				2SC3356-T2B R24	G3333567D				E-2
Q 1009	IC				MC3372ML	G1091108				E-3
Q 1010	TRANSISTOR				IMH5 T108	G3070027				d-3
Q 1011	TRANSISTOR				DTC124EK T97	G3070034				a-2
Q 1012	TRANSISTOR				DTA143EK T146	G3070010				d-3
Q 1013	IC				M51132FP 600C	G1091930				B-4
Q 1014	IC				M67781L	G1091642				C-1
Q 1015	TRANSISTOR				2SC3356-T2B R24	G3333567D				d-3
Q 1016	IC				UPD4066BG-T2	G1091035				b-4
Q 1017	IC				NJM2902M-T2	G1090908				b-3
Q 1018	IC				TC4W53FU TE12L	G1091675				B-3
Q 1019	IC				M5223FP-600C	G1090990				A-2
Q 1020	TRANSISTOR				DTC124EK T97	G3070034				D-4
Q 1021	TRANSISTOR				2SA1870 TL E	G3118708E				C-2
Q 1022	TRANSISTOR				IMX1 T110	G3070024				b-2

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REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
Q 1023	TRANSISTOR				FMS1 T148	G3070008				b-2
Q 1025	TRANSISTOR				2SA1586Y TE85R	G3115867Y				A-3
Q 1026	TRANSISTOR				DTC124EK T97	G3070034				A-3
Q 1027	IC				AN7709	G1091753				A-3
Q 1028	IC				NJM78L05UA TE2	G1091325				c-3
Q 1029	TRANSISTOR				2SC2812L6-TA	G3328127F				c-3
Q 1030	TRANSISTOR				2SC3356-T2B R24	G3333567D				C-3
Q 1031	TRANSISTOR				2SA1213Y TE12R	G3112137Y				A-3
Q 1032	IC				M5223FP-600C	G1090990				a-4
Q 1033	IC				SC370651FR2	G1091937				c-3
Q 1034	TRANSISTOR				DTC124EK T97	G3070034				e-3
Q 1035	TRANSISTOR				2SA1586Y TE85R	G3115867Y				c-3
Q 1036	TRANSISTOR				2SB624-T2B BV4	G3206247D				d-2
Q 1037	TRANSISTOR				DTA143EK T146	G3070010				d-2
Q 1038	TRANSISTOR				DTC124EK T97	G3070034				d-2
Q 1039	TRANSISTOR				IMH5 T108	G3070027				d-2
Q 1040	IC				TC4S66F TE85R	G1090893				E-4
Q 1041	IC				NJM78L05UA TE2	G1091325				A-4
Q 1042	TRANSISTOR				IMD3 T108	G3070053				B-2
Q 1043	IC				UPD4053BG-T2	G1091034				A-3
Q 1044	IC				M62354FP-75NC	G1091842				B-4
Q 1045	TRANSISTOR				DTC124EK T97	G3070034				d-2
Q 1046	TRANSISTOR				IMD3 T108	G3070053				B-2
Q 1047	IC				UPD4094BG-T2	G1091043				B-2
Q 1048	IC				M5223FP-600C	G1090990				C-4
Q 1049	IC				M5223FP-600C	G1090990				D-4
Q 1050	TRANSISTOR				IMD3 T108	G3070053				d-4
Q 1051	IC				M5223FP-600C	G1090990				d-3
Q 1052	TRANSISTOR				DTC124EK T97	G3070034				e-3
Q 1053	IC				TC4S66F TE85R	G1090893				e-4
Q 1054	IC				TC4W53FU TE12L	G1091675				B-3
R 1001	CHIP RES.	470K	1/16W	5%	RMC1/16 474JATP	J24185474				
R 1002	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 1003	CHIP RES.	390	1/16W	5%	RMC1/16 391JATP	J24185391				
R 1004	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 1005	CHIP RES.	470	1/16W	5%	RMC1/16 471JATP	J24185471				
R 1006	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 1007	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1008	CHIP RES.	33K	1/16W	5%	RMC1/16 333JATP	J24185333				
R 1009	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1010	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1011	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1012	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1014	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 1015	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1016	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1017	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 1018	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 1019	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1020	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1021	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1022	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1023	CHIP RES.	33K	1/16W	5%	RMC1/16 333JATP	J24185333				
R 1024	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1025	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 1026	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 1027	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 1028	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1029	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220				
R 1030	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 1031	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560				
R 1032	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1033	CHIP RES.	1.2K	1/16W	5%	RMC1/16 122JATP	J24185122				
R 1034	CHIP RES.	56K	1/16W	5%	RMC1/16 563JATP	J24185563				
R 1035	CHIP RES.	470K	1/16W	5%	RMC1/16 474JATP	J24185474				
R 1036	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1037	CHIP RES.	15K	1/16W	5%	RMC1/16 153JATP	J24185153				
R 1038	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1039	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1040	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 1041	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1042	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1043	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 1044	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 1045	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 1046	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1047	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 1048	CHIP RES.	3.3K	1/16W	5%	RMC1/16 332JATP	J24185332				
R 1049	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 1050	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1051	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1052	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1053	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1054	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 1055	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1056	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 1057	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560				
R 1058	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1059	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 1060	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 1061	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1062	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1063	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1064	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1065	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1066	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220				
R 1067	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				

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REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 1069	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1070	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 1071	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1072	CHIP RES.	1.8K	1/16W	5%	RMC1/16 182JATP	J24185182				
R 1073	CHIP RES.	1.8K	1/16W	5%	RMC1/16 182JATP	J24185182				
R 1076	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1077	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 1078	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220				
R 1079	CHIP RES.	270K	1/16W	5%	RMC1/16 274JATP	J24185274				
R 1080	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1081	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 1082	CHIP RES.	18	1/10W	5%	RMC1/10T 180J	J24205180				
R 1084	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1085	CHIP RES.	22K	1/10W	5%	RMC1/10T 223J	J24205223				
R 1086	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 1087	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 1088	CHIP RES.	39K	1/16W	5%	RMC1/16 393JATP	J24185393				
R 1089	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1090	CHIP RES.	330	1/10W	5%	RMC1/10T 331J	J24205331				
R 1091	CHIP RES.	330	1/10W	5%	RMC1/10T 331J	J24205331				
R 1092	CHIP RES.	22	1/10W	5%	RMC1/10T 220J	J24205220				
R 1093	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220				
R 1094	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 1095	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 1096	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1097	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220				
R 1100	CHIP RES.	68K	1/16W	5%	RMC1/16 683JATP	J24185683				
R 1101	CHIP RES.	15K	1/16W	5%	RMC1/16 153JATP	J24185153				
R 1102	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1103	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1104	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 1105	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564				
R 1106	CHIP RES.	120	1/10W	5%	RMC1/10T 121J	J24205121				
R 1107	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1108	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1109	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1110	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1111	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 1112	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1113	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1114	CHIP RES.	56K	1/16W	5%	RMC1/16 563JATP	J24185563				
R 1115	CHIP RES.	1.5K	1/10W	5%	RMC1/10T 152J	J24205152				
R 1116	CHIP RES.	2.2K	1/10W	5%	RMC1/10T 222J	J24205222				
R 1118	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1119	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 1120	CHIP RES.	5.6K	1/16W	5%	RMC1/16 562JATP	J24185562				
R 1121	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1122	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000				
R 1123	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101				

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 1124	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1125	CHIP RES.	33K	1/16W	5%	RMC1/16 333JATP	J24185333				
R 1126	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1128	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1129	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1130	CHIP RES.	12K	1/16W	5%	RMC1/16 123JATP	J24185123				
R 1131	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1132	CHIP RES.	15K	1/16W	5%	RMC1/16 153JATP	J24185153				
R 1133	CHIP RES.	15K	1/16W	5%	RMC1/16 153JATP	J24185153				
R 1134	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1135	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1136	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1137	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1138	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 1139	CHIP RES.	4. 7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 1140	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1141	CHIP RES.	1. 5M	1/16W	5%	RMC1/16 155JATP	J24185155				
R 1142	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1143	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1144	CHIP RES.	1K	1/4W	5%	RMC1/4 102JATP	J24245102				
R 1145	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1146	CHIP RES.	15K	1/16W	5%	RMC1/16 153JATP	J24185153				
R 1147	CHIP RES.	4. 7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 1148	CHIP RES.	470K	1/16W	5%	RMC1/16 474JATP	J24185474				
R 1149	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 1150	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1151	CHIP RES.	56K	1/16W	5%	RMC1/16 563JATP	J24185563				
R 1152	CHIP RES.	4. 7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 1153	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1154	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1155	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 1156	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 1157	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 1158	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 1159	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 1160	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1161	CHIP RES.	330K	1/16W	5%	RMC1/16 334JATP	J24185334				
R 1161	CHIP RES.	680K	1/16W	5%	RMC1/16 684JATP	J24185684				2-
R 1162	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564				
R 1162	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				2-
R 1163	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1164	CHIP RES.	100K	1/10W	5%	RMC1/10T 104J	J24205104	TYP B1			
R 1164	CHIP RES.	100K	1/10W	5%	RMC1/10T 104J	J24205104	TYP B2			
R 1164	CHIP RES.	100K	1/10W	5%	RMC1/10T 104J	J24205104	TYP B3			
R 1164	CHIP RES.	100K	1/10W	5%	RMC1/10T 104J	J24205104	TYP C1			
R 1164	CHIP RES.	100K	1/10W	5%	RMC1/10T 104J	J24205104	TYP C2			
R 1164	CHIP RES.	100K	1/10W	5%	RMC1/10T 104J	J24205104	TYP C3			
R 1164	CHIP RES.	100K	1/10W	5%	RMC1/10T 104J	J24205104	TYP D1			
R 1164	CHIP RES.	100K	1/10W	5%	RMC1/10T 104J	J24205104	TYP D2			

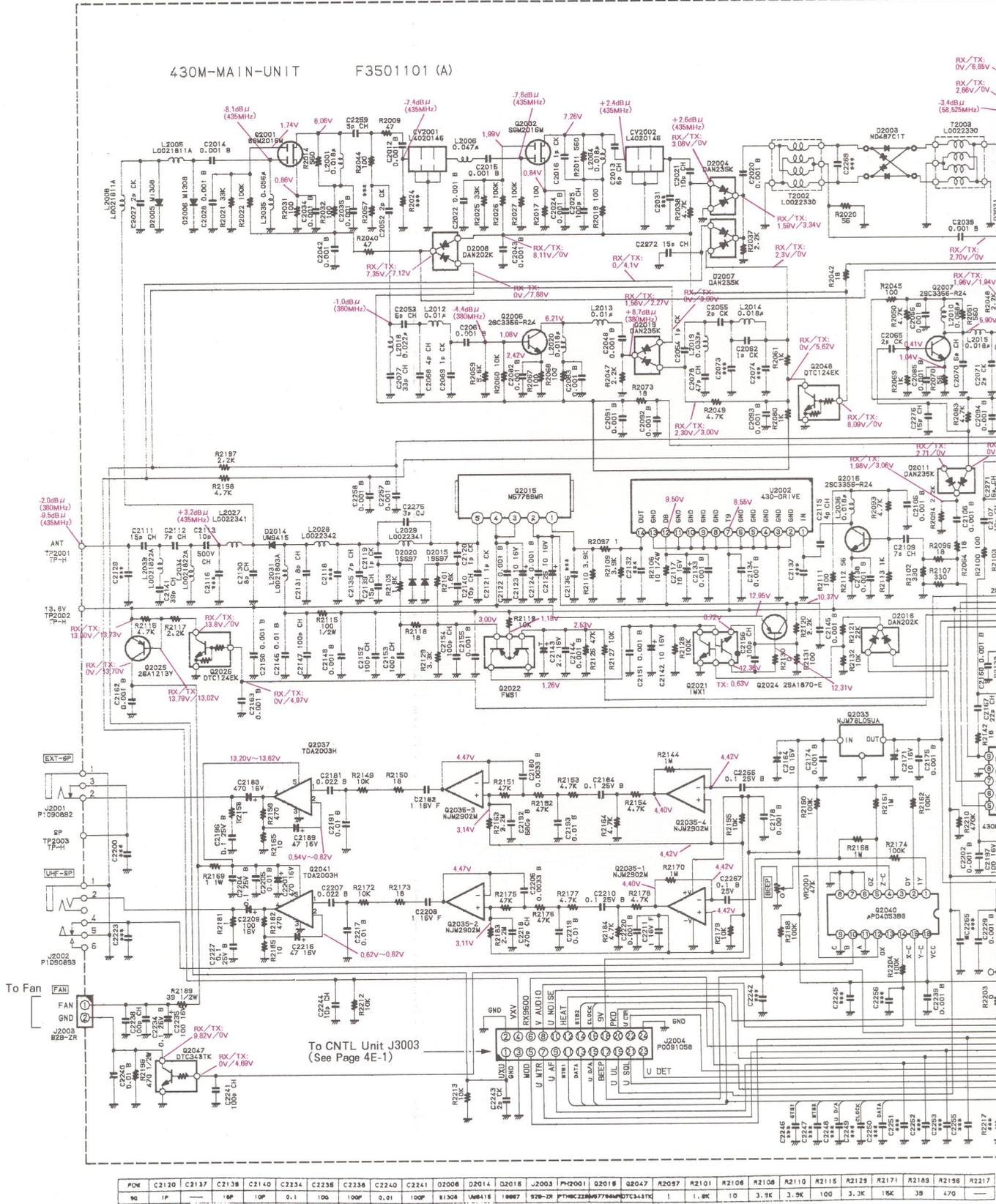
144M-Main Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 1165	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1169	CHIP RES.	390K	1/16W	5%	RMC1/16 394JATP	J24185394				
R 1171	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1172	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1175	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 1176	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1177	CHIP RES.	33K	1/16W	5%	RMC1/16 333JATP	J24185333				
R 1178	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1179	CHIP RES.	3. 3K	1/16W	5%	RMC1/16 332JATP	J24185332				
R 1180	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1181	CHIP RES.	22	1/16W	5%	RMC1/16 220JATP	J24185220				
R 1182	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 1183	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1184	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1185	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1186	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1187	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1188	CHIP RES.	2. 2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 1189	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1190	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1191	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1192	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1193	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1194	CHIP RES.	2. 2	1W	5%	RMC1 2R2JTE	J24305229				
R 1195	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1197	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1198	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1199	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1200	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1201	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1203	CHIP RES.	2. 2M	1/16W	5%	RMC1/16 225JATP	J24185225				
R 1205	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1206	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1208	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1209	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1210	CHIP RES.	4. 7	1/10W	5%	RMC1/10T 4R7J	J24205479				
R 1211	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 1212	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 1213	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564				
R 1214	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1215	CHIP RES.	33K	1/16W	5%	RMC1/16 333JATP	J24185333				
R 1216	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1217	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 1218	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1219	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 1220	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 1221	CHIP RES.	2. 2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 1222	CHIP RES.	820K	1/16W	5%	RMC1/16 824JATP	J24185824				
R 1223	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				

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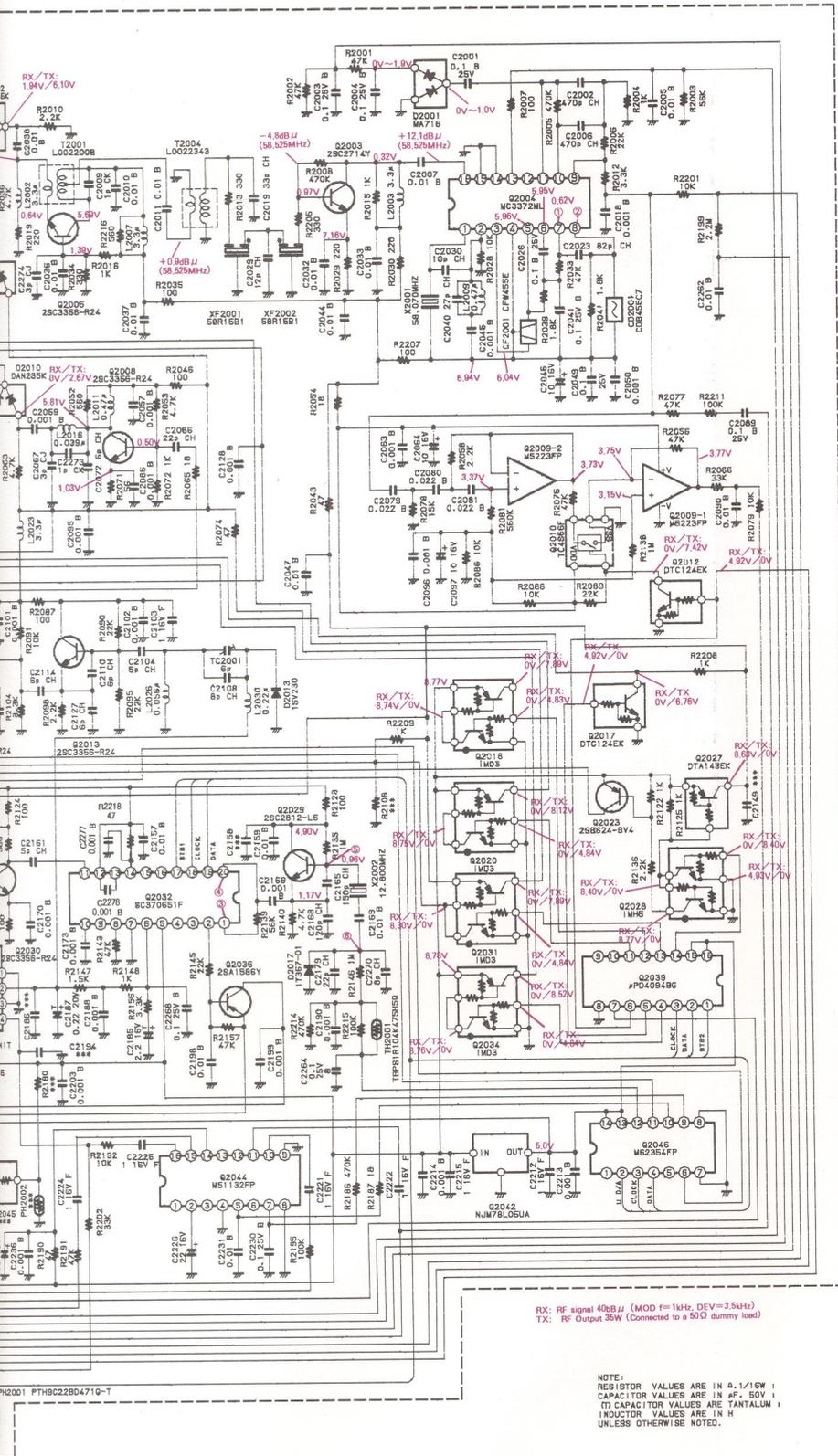
REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 1225	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 1226	CHIP RES.	470K	1/16W	5%	RMC1/16 474JATP	J24185474				
R 1227	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 1228	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000				
R 1229	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000				
R 1230	CARBON FILM RES.	10K	1/6W	5%	RD16PJ103	J01225103				
R 1231	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
T 1001	COIL				- CP22	L0022008				
T 1002	COIL				CBM33 5249-016	L0022330				
T 1003	COIL				KE-07570	L0022343				
T 1004	COIL				CBM33 5249-016	L0022330				
T 1005	COIL	160MHZ			160M R12-K908X	L0022054				
T 1006	COIL	160MHZ			160M R12-K905X	L0022053				
T 1007	COIL	160MHZ			160M R12-K907X	L0022055				
T 1008	COIL	160MHZ			160M R12-K906X	L0022056				
T 1009	COIL				- CP22	L0022008				
U 1001	IC				144-DRIVE-UNIT	G1091968				
VR1001	POT.	47K			EVM-7JS-X30-BQ4	J51788473				
VR1002	POT.	10K			EVM-7JS-X30-B14	J51788103				
VR1003	POT.	47K			EVM-7JS-X30-BQ4	J51788473	TYP B1			
VR1003	POT.	47K			EVM-7JS-X30-BQ4	J51788473	TYP B2			
VR1003	POT.	47K			EVM-7JS-X30-BQ4	J51788473	TYP B3			
VR1003	POT.	47K			EVM-7JS-X30-BQ4	J51788473	TYP C1			
VR1003	POT.	47K			EVM-7JS-X30-BQ4	J51788473	TYP C2			
VR1003	POT.	47K			EVM-7JS-X30-BQ4	J51788473	TYP C3			
VR1003	POT.	47K			EVM-7JS-X30-BQ4	J51788473	TYP D1			
VR1003	POT.	47K			EVM-7JS-X30-BQ4	J51788473	TYP D2			
X 1001	XTAL	45.505MHZ				H0103095				
X 1002	XTAL	12.800MHZ				H0102911				
XF1001	XTAL				45M15B1H	H1102253				
	XTAL HOLDER (4pcs)					R3129530				
	RUBBER					R7151830				

Circuit Diagram

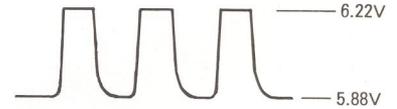


POW	C2120	C2137	C2138	C2140	C2234	C2236	C2236	C2240	C2241	D2008	D2014	D2016	J2003	P2001	Q2016	Q2047	Q2097	R2101	R2108	R2108	R2110	R2115	R2129	R2171	R2183	R2196	R2217
90	1P	—	1P	10P	0.1	100	100P	0.01	100P	1/8W	1/8W	1/8W	728-2R	74VHC2238	74VHC2238	74VHC2238	1	1.8K	10	3.3K	3.9K	100	3.3K	15K	39	470	

430M-Main Unit



① Q2004 pin7
455kHz



② Q2004 pin8
455kHz



③ Q2032 pin1
12.8MHz



④ Q2032 pin20
12.8MHz



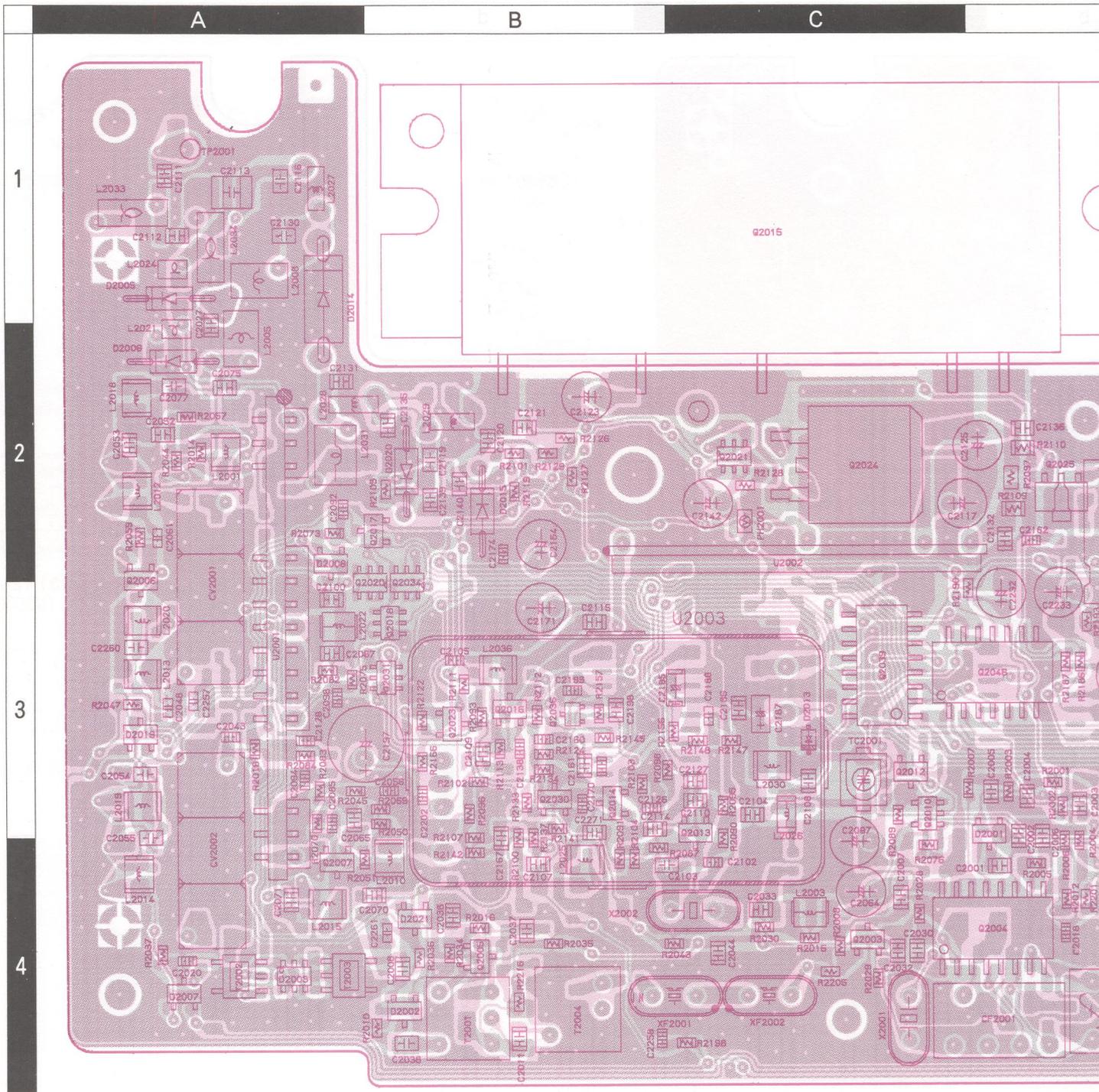
⑤ X2002
12.8MHz



⑥ X2002
12.8MHz

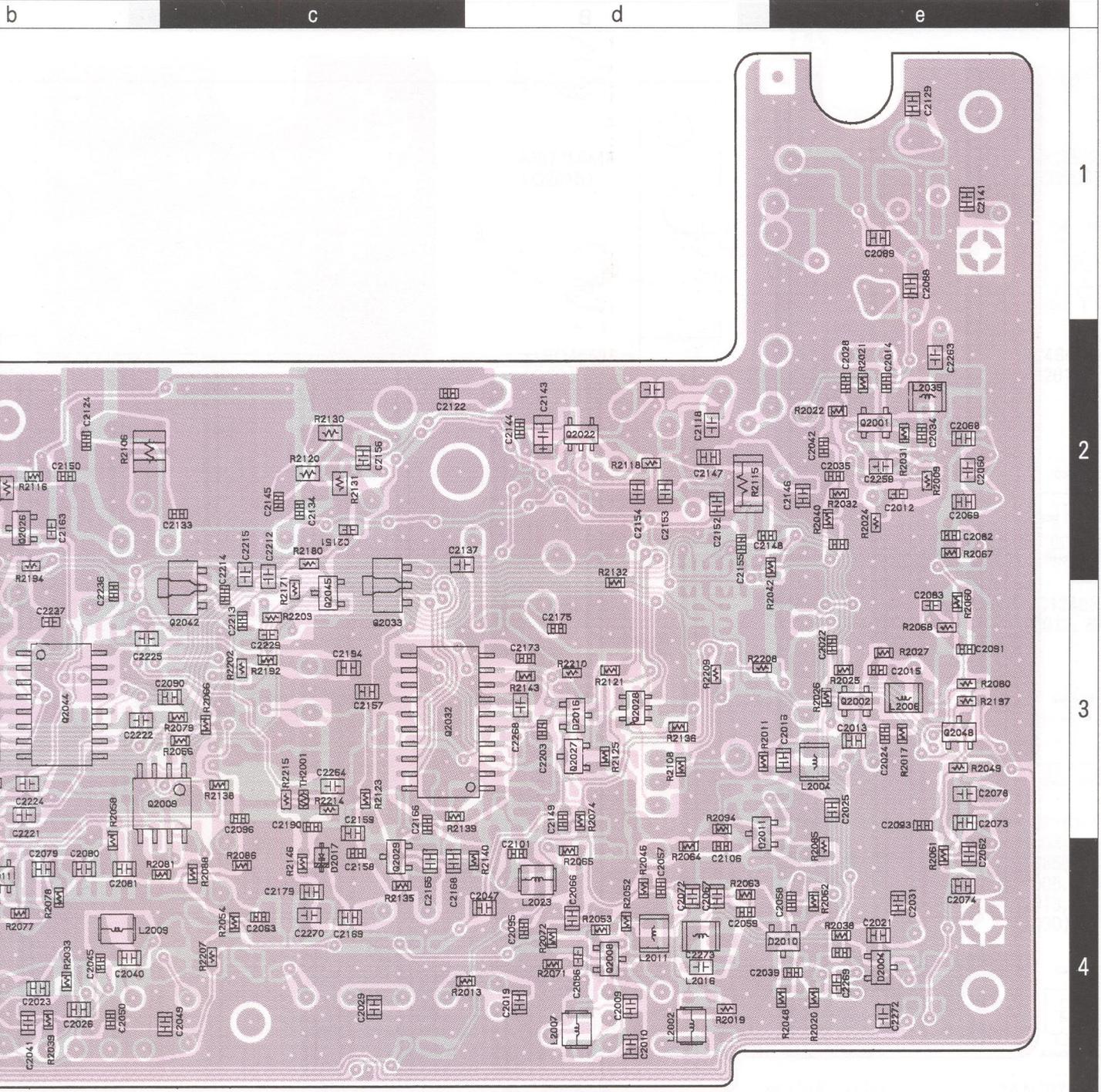


Parts Layout



obverse view of component side

obverse view of component side



obverse view of chip-only side

Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
*** 430-MAIN UNIT ***									
	PCB with Components (W/O Q2015 M57788MR, W/ 430-VCO UNIT)					CP4981003	DST	USA	
	PCB with Components (W/O Q2015 M57788MR, W/ 430-VCO UNIT)					CP4981004	DST	EXP	
	PCB with Components (W/O Q2015 M57788MR, W/ 430-VCO UNIT)					CP4981005	DST	AUS	
	Printed Circuit Board					F3501101			
C 2001	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 2002	CHIP CAP.	470pF	50V	CH	GRM40CH471J50PT	K22170251			
C 2003	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 2004	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 2005	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2006	CHIP CAP.	470pF	50V	CH	GRM40CH471J50PT	K22170251			
C 2007	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2008	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2009	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202			
C 2010	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2011	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2012	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2013	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207			
C 2014	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2015	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2016	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202			
C 2018	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2019	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223			
C 2020	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2021	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211			
C 2022	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2023	CHIP CAP.	82pF	50V	CH	GRM40CH820J50PT	K22170233			
C 2024	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2025	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235			
C 2026	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 2027	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203			
C 2028	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2029	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213			
C 2030	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211			
C 2032	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2033	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2034	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2035	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2036	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2037	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2038	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2039	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2040	CHIP CAP.	27pF	50V	CH	GRM40CH270J50PT	K22170221			
C 2041	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 2042	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2043	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			

430M-Main Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
C 2044	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2045	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2046	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004			
C 2047	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2048	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2049	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 2050	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2052	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203			
C 2053	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206			
C 2054	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202			
C 2055	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203			
C 2056	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2057	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2058	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2059	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2061	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2062	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202			
C 2063	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2064	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004			
C 2065	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203			
C 2066	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219			
C 2067	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204			
C 2068	CHIP CAP.	4pF	50V	CH	GRM40CH040C50PT	K22170205			
C 2069	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202			
C 2070	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207			
C 2071	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203			
C 2072	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207			
C 2075	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211			
C 2077	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223			
C 2078	CHIP CAP.	47pF	50V	CH	GRM40CH470J50PT	K22170227			
C 2079	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821			
C 2080	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821			
C 2081	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821			
C 2082	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2083	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2085	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2086	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2087	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204			
C 2088	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203			
C 2089	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 2090	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817			
C 2091	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2092	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2093	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2094	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2095	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2096	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 2097	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004			
C 2098	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
C 2099	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203				
C 2100	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235				
C 2101	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2102	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2103	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2104	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 2105	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2106	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2107	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 2108	CHIP CAP.	8pF	50V	CH	GRM40CH080D50PT	K22170209				
C 2109	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208				
C 2110	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207				
C 2111	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 2112	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208				
C 2113	CHIP CAP.	10pF	500V	CH	GRM42-2CH100D500PT	K22275213				
C 2114	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207				
C 2115	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204				
C 2115	CHIP CAP.	4pF	50V	CH	GRM40CJ040C50PT	K22170205				
C 2117	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004			2-	
C 2119	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202				
C 2120	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202				
C 2121	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202				
C 2122	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2123	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 2124	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2125	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 2126	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2127	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207				
C 2128	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2130	CHIP CAP.	8pF	50V	CH	GRM40CH080D50PT	K22170209				
C 2131	CHIP CAP.	8pF	50V	CH	GRM40CH080D50PT	K22170209				
C 2133	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2134	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2135	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208				
C 2138	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2139	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 2140	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 2141	CHIP CAP.	39pF	50V	CH	GRM40CH390J50PT	K22170225				
C 2142	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 2143	TANTALUM CHIP CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015				
C 2144	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2145	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2146	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2147	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235				
C 2148	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2150	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2151	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2152	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235				
C 2153	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235				

430M-Main Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
C 2154	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235				
C 2155	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2156	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235				
C 2157	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2159	CHIP CAP.	0.01uF	50V	Y	EPO50Y103N-A	K28129001				
C 2160	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2161	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 2162	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2163	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2164	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 2165	CHIP CAP.	150pF	50V	CH	GRM40CH151J50PT	K22170239				
C 2166	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2167	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219				
C 2168	CHIP CAP.	120pF	50V	CH	GRM40CH121J50PT	K22170237				
C 2169	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2170	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2171	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 2173	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2174	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2175	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2178	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2179	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219				
C 2180	CHIP CAP.	0.0033uF	50V	B	GRM40B332M50PT	K22170811				
C 2181	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821				
C 2182	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2183	AL. ELECTRO. CAP.	470uF	16V		RE3-16V471M	K40129066				
C 2184	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2185	TANTALUM CHIP CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015				
C 2187	TANTALUM CHIP CAP.	0.22uF	20V		TEMSVA21D224M-8R	K78130022				
C 2188	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2189	AL. ELECTRO. CAP.	47uF	16V		RC2-16V470M-T34	K46120010				
C 2190	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2191	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2192	CHIP CAP.	680pF	50V	B	GRM40B681M50PT	K22170803				
C 2193	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2196	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2197	AL. ELECTRO. CAP.	100uF	16V		16V101M6X7TR2	K46120007				
C 2198	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2199	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2201	AL. ELECTRO. CAP.	470uF	16V		RE3-16V471M	K40129066				
C 2202	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2203	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2204	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2205	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2206	CHIP CAP.	0.0033uF	50V	B	GRM40B332M50PT	K22170811				
C 2207	CHIP CAP.	0.022uF	50V	B	GRM40B223M50PT	K22170821				
C 2208	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2209	AL. ELECTRO. CAP.	100uF	16V		16V101M6X7TR2	K46120007				
C 2210	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
C 2211	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2212	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2213	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2214	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2215	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2216	AL. ELECTRO. CAP.	47uF	16V		RC2-16V470M-T34	K46120010				
C 2217	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2218	CHIP CAP.	470pF	50V	CH	GRM40CH471J50PT	K22170251				
C 2219	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2220	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2221	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2222	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2224	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2225	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 2226	AL. ELECTRO. CAP.	22uF	16V		16V220M5X7TR2	K46120005				
C 2227	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2229	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2230	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2231	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2232	AL. ELECTRO. CAP.	10uF	16V		16V100M4X7TR2	K46120004				
C 2234	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2235	AL. ELECTRO. CAP.	100uF	16V		16V101M6X7TR2	K46120007				
C 2236	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2238	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235				
C 2239	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2240	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2241	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235				
C 2243	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203				
C 2244	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 2257	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2258	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 2259	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206				
C 2262	CHIP CAP.	0.01uF	50V	B	GRM40B103M50PT	K22170817				
C 2263	CHIP CAP.	39pF	50V	CH	GRM40CH390J50PT	K22170225				
C 2264	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2266	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2267	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2268	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 2270	CHIP CAP.	8pF	50V	CH	GRM40CH080D50PT	K22170209				
C 2271	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207				
C 2272	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 2273	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202				
C 2274	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204				
C 2275	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204				
C 2276	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215				
C 2277	CERAMIC CAP.	0.001uF	50V	B	UP050B102K-A-B	K28179001				
C 2278	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
CD2001	CERAMIC DISC				CDB455C7	H7900180				

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REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
CF2001	CERAMIC FILTER				CFW455E	H3900200			
CV2001	HELICAL RESONATOR	440MHz			H5T KE-07259 440M	L4020146			
CV2002	HELICAL RESONATOR	440MHz			H5T KE-07259 440M	L4020146			
D 2001	DIODE				MA716-(TX)	G2070342			
D 2002	DIODE				DAN235K T97	G2070082			
D 2003	DIODE				ND487C1T-E3	G2070358			
D 2004	DIODE				DAN235K T97	G2070082			
D 2005	DIODE				MI308	G2090337			
D 2006	DIODE				MI308	G2090337			
D 2007	DIODE				DAN235K T97	G2070082			
D 2008	DIODE				DAN202K T146	G2070182			
D 2010	DIODE				DAN235K T97	G2070082			
D 2011	DIODE				DAN235K T97	G2070082			
D 2013	DIODE				1SV230 TPH3	G2070126			
D 2014	DIODE				UM9415	G2090425			
D 2015	DIODE				1SS97	G2090118			
D 2016	DIODE				DAN202K T146	G2070182			
D 2017	DIODE				1T367-01-T8A	G2070296			
D 2019	DIODE				DAN235K T97	G2070082			
D 2020	DIODE				1SS97	G2090118			
D 2021	DIODE				DAN202K T146	G2070182			
J 2001	CONNECTOR				HSJ1456-01-210	P1090892			
J 2002	CONNECTOR				HSJ6063-01-440	P1090893			
J 2003	CONNECTOR				B2B-ZR	P0090647			
J 2004	CONNECTOR				9220B-24Z34-GF	P0091058			
L 2001	CHIP COIL	0.018uH			LQN2A18NM	L1690004			
L 2002	M. RFC	3.3uH			ELJ-FA3R3MF	L1690400			
L 2003	M. RFC	3.3uH			ELJ-FA3R3MF	L1690400			
L 2004	CHIP COIL	0.018uH			LQN2A18NM	L1690004			
L 2005	COIL				2.5T3. ODO. 6UEW R	L0021811A			
L 2006	CHIP COIL	0.047uH			LQN2A47NM	L1690007			
L 2007	M. RFC	3.3uH			ELJ-FA3R3MF	L1690400			
L 2008	COIL				2.5T3. ODO. 6UEW R	L0021811A			
L 2009	M. RFC	0.47uH			ELJ-FAR47MF	L1690397			
L 2010	CHIP COIL	0.068uH			LQN2A68NM	L1690009			
L 2011	M. RFC	0.47uH			ELJ-FAR47MF	L1690397			
L 2012	CHIP COIL	0.01uH			LQN2A10NM	L1690001			
L 2013	CHIP COIL	0.01uH			LQN2A10NM	L1690001			
L 2014	CHIP COIL	0.018uH			LQN2A18NM	L1690004			
L 2015	CHIP COIL	0.018uH			LQN2A18NM	L1690004			
L 2016	CHIP COIL	0.039uH			LQN2A39NM	L1690006			
L 2018	CHIP COIL	0.022uH			LQN2A22NM	L1690002			
L 2019	CHIP COIL	0.033uH			LQN2A33NM	L1690005			
L 2020	CHIP COIL	0.018uH			LQN2A18NM	L1690004			

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REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
L 2021	COIL				1.5T1.5D0.4UEW R	L0021792A				
L 2022	M. RFC	3.3uH			ELJ-FA3R3MF	L1690400				
L 2023	M. RFC	3.3uH			ELJ-FA3R3MF	L1690400				
L 2024	COIL				1.5T1.5D0.4UEW R	L0021792A				
L 2025	CHIP COIL	0.22uH			LQN2AR22K	L1690003				
L 2026	CHIP COIL	0.056uH			LQN1A56NJ04	L1690257				
L 2027	COIL				1.5T3.0D0.8UEW R	L0022341				
L 2028	COIL				1.5T3.5D0.8UEW R	L0022342				
L 2029	COIL				1.5T3.0D0.8UEW R	L0022341				
L 2030	CHIP COIL	0.22uH			LQN2AR22K	L1690003				
L 2031	COIL				6.5T2.0D0.5UEW R	L0021803A				
L 2033	COIL				1.5T4.0D0.6UEW R	L0021822A				
L 2034	COIL				1.5T4.0D0.6UEW R	L0021822A				
L 2035	CHIP COIL	0.056uH			LQN2A56NM	L1690008				
L 2036	CHIP COIL	0.018uH			LQN2A18NM	L1690004				
PH2001	POSISTOR				PTH9C22BD471Q-T	G9090078				
Q 2001	FET				SGM2016M-T8	G4070005				e-2
Q 2002	FET				SGM2016M-T8	G4070005				e-3
Q 2003	TRANSISTOR				2SC2714YTE85R	G3327147Y				C-4
Q 2004	IC				MC3372ML	G1091108				D-4
Q 2005	TRANSISTOR				2SC3356-T2B R24	G3333567D				B-4
Q 2006	TRANSISTOR				2SC3356-T2B R24	G3333567D				A-3
Q 2007	TRANSISTOR				2SC3356-T2B R24	G3333567D				A-4
Q 2008	TRANSISTOR				2SC3356-T2B R24	G3333567D				d-4
Q 2009	IC				M5223FP-600C	G1090990				c-3
Q 2010	IC				TC4S66F TE85R	G1090893				C-3
Q 2012	TRANSISTOR				DTC124EK T97	G3070034				C-3
Q 2013	TRANSISTOR				2SC3356-T2B R24	G3333567D				C-4
Q 2014	TRANSISTOR				2SC3356-T2B R24	G3333567D				B-3
Q 2015	IC				M57788MR	G1091122				C-1
Q 2016	TRANSISTOR				2SC3356-T2B R24	G3333567D				B-3
Q 2017	TRANSISTOR				DTC124EK T97	G3070034				B-2
Q 2018	TRANSISTOR				IMD3 T108	G3070053				B-3
Q 2020	TRANSISTOR				IMD3 T108	G3070053				B-3
Q 2021	TRANSISTOR				IMX1 T110	G3070024				C-2
Q 2022	TRANSISTOR				FMS1 T148	G3070008				d-2
Q 2023	TRANSISTOR				2SB624-T2B BV4	G3206247D				B-3
Q 2024	TRANSISTOR				2SA1870 TL E	G3118708E				C-2
Q 2025	TRANSISTOR				2SA1213Y TE12R	G3112137Y				D-2
Q 2026	TRANSISTOR				DTC124EK T97	G3070034				b-2
Q 2027	TRANSISTOR				DTA143EK T146	G3070010				d-3
Q 2028	TRANSISTOR				IMH5 T108	G3070027				d-3
Q 2029	TRANSISTOR				2SC2812L6-TA	G3328127F				c-4
Q 2030	TRANSISTOR				2SC3356-T2B R24	G3333567D				B-3
Q 2031	TRANSISTOR				IMD3 T108	G3070053				B-3
Q 2032	IC				SC370651FR2	G1091937				c-3
Q 2033	IC				NJM78L05UA TE2	G1091325				c-3

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REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
Q 2034	TRANSISTOR				IMD3 T108	G3070053				B-3
Q 2035	IC				NJM2902M-T2	G1090908				E-4
Q 2036	TRANSISTOR				2SA1586Y TE85R	G3115867Y				B-3
Q 2037	IC				TDA2003H	G1090815				E-2
Q 2039	IC				UPD4094BG-T2	G1091043				C-3
Q 2040	IC				UPD4053BG-T2	G1091034				D-3
Q 2041	IC				TDA2003H	G1090815				E-3
Q 2042	IC				NJM78L05UA TE2	G1091325				c-3
Q 2044	IC				M51132FP 600C	G1091930				b-3
Q 2046	IC				M62354FP-75NC	G1091842				D-3
Q 2047	TRANSISTOR				DTC343TK T146	G3070081				a-2
Q 2048	TRANSISTOR				DTC124EK T97	G3070034				e-3
R 1008	CHIP RES.	470K	1/16W	5%	RMC1/16 474JATP	J24185474				
R 2001	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2002	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2003	CHIP RES.	56K	1/16W	5%	RMC1/16 563JATP	J24185563				
R 2004	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2005	CHIP RES.	470K	1/16W	5%	RMC1/16 474JATP	J24185474				
R 2006	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 2007	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2009	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 2010	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 2011	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 2012	CHIP RES.	3.3K	1/16W	5%	RMC1/16 332JATP	J24185332				
R 2013	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 2014	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 2015	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2016	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2017	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2018	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2019	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221				
R 2020	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560				
R 2021	CHIP RES.	33K	1/16W	5%	RMC1/16 333JATP	J24185333				
R 2022	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2025	CHIP RES.	33K	1/16W	5%	RMC1/16 333JATP	J24185333				
R 2026	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2027	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2028	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2029	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221				
R 2030	CHIP RES.	220	1/16W	5%	RMC1/16 221JATP	J24185221				
R 2031	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2032	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2033	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2034	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 2035	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2036	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2037	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 2038	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 2039	CHIP RES.	1.8K	1/16W	5%	RMC1/16 182JATP	J24185182				
R 2040	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 2041	CHIP RES.	1.8K	1/16W	5%	RMC1/16 182JATP	J24185182				
R 2042	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2043	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 2044	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2045	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2046	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2047	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 2048	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 2049	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2050	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2051	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 2052	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 2053	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2054	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2056	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2058	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 2059	CHIP RES.	5.6K	1/16W	5%	RMC1/16 562JATP	J24185562				
R 2060	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2061	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2062	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2063	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2064	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2065	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2066	CHIP RES.	33K	1/16W	5%	RMC1/16 333JATP	J24185333				
R 2067	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2068	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2069	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2070	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560				
R 2071	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560				
R 2072	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2073	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2074	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 2075	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2076	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2077	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2078	CHIP RES.	15K	1/16W	5%	RMC1/16 153JATP	J24185153				
R 2079	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2080	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2081	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564				
R 2082	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2083	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2084	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 2086	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2087	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2088	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2089	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 2090	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				

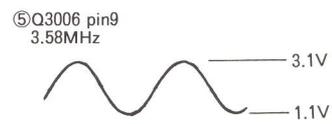
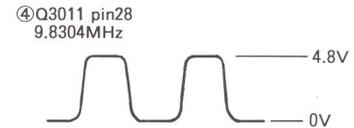
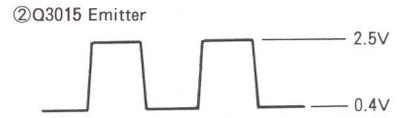
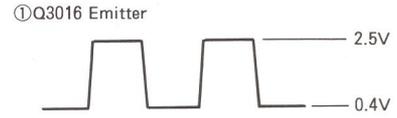
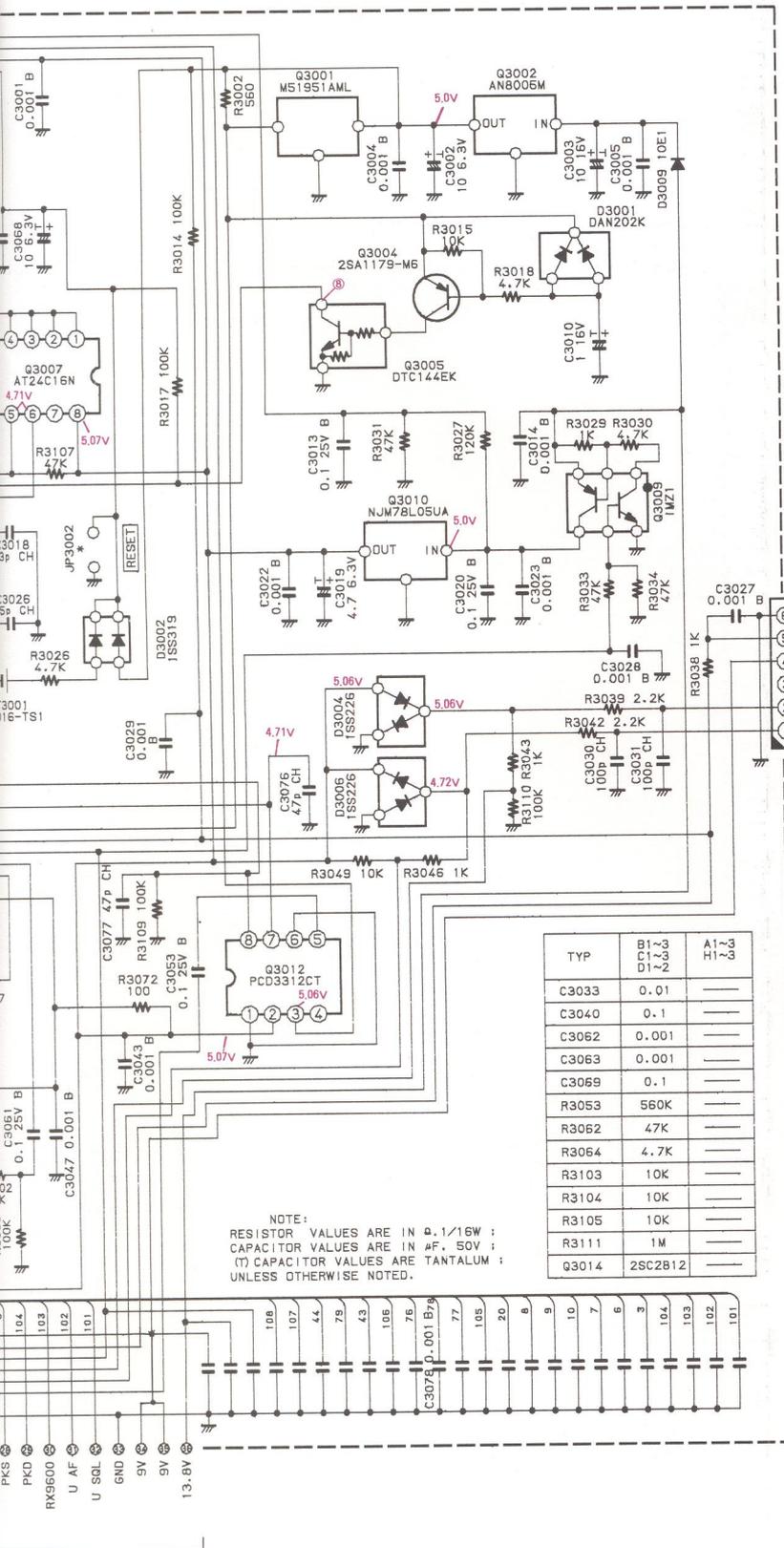
430M-Main Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 2091	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2093	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2094	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 2095	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 2096	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2097	CHIP RES.	1	1/10W	5%	RMC1/10T 1R0J	J24205010				
R 2098	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 2100	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2101	CHIP RES.	1.8K	1/16W	5%	RMC1/16 182JATP	J24185182				
R 2102	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 2103	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2104	CHIP RES.	3.3K	1/16W	5%	RMC1/16 332JATP	J24185332				
R 2105	CHIP RES.	1.8K	1/16W	5%	RMC1/16 182JATP	J24185182				
R 2106	CHIP RES.	10	1/4W	5%	RMC1/4 100JATP	J24245100				
R 2107	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 2109	CHIP RES.	3.9K	1/10W	5%	RMC1/10T 392J	J24205392				
R 2110	CHIP RES.	3.9K	1/16W	5%	RMC1/16 392JATP	J24185392				
R 2111	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2112	CHIP RES.	56	1/16W	5%	RMC1/16 560JATP	J24185560				
R 2113	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2115	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2116	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2117	CHIP RES.	2.2K	1/10W	5%	RMC1/10T 222J	J24205222				
R 2118	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2119	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2120	CHIP RES.	2.2K	1/10W	5%	RMC1/10T 222J	J24205222				
R 2121	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 2122	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2123	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2124	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2125	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2126	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2127	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2128	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2129	CHIP RES.	3.3K	1/16W	5%	RMC1/16 332JATP	J24185332				
R 2130	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000				
R 2131	CHIP RES.	100	1/10W	5%	RMC1/10T 101J	J24205101				
R 2132	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2133	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2134	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 2135	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 2136	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 2137	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2138	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 2139	CHIP RES.	56K	1/16W	5%	RMC1/16 563JATP	J24185563				
R 2140	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2141	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2142	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2143	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				

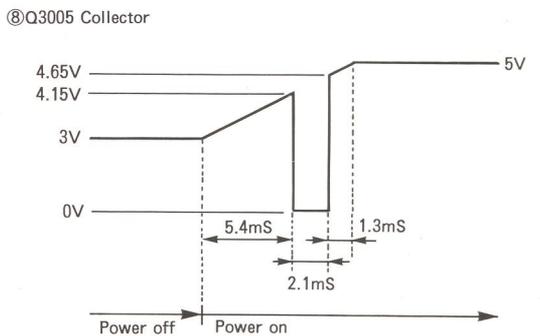
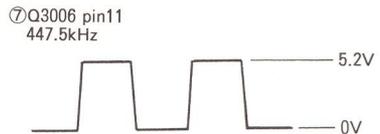
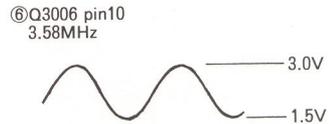
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R 2144	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 2145	CHIP RES.	22K	1/16W	5%	RMC1/16 223JATP	J24185223				
R 2146	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 2147	CHIP RES.	1.5K	1/16W	5%	RMC1/16 152JATP	J24185152				
R 2148	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2149	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2150	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2151	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2152	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2153	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2154	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2155	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2156	CHIP RES.	3.3K	1/16W	5%	RMC1/16 332JATP	J24185332				
R 2157	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2158	CHIP RES.	1	1/10W	5%	RMC1/10T 1R0J	J24205010				
R 2159	CHIP RES.	470	1/10W	5%	RMC1/10T 471J	J24205471				
R 2160	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2161	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 2162	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2163	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225				
R 2164	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2165	CHIP RES.	10	1/10W	5%	RMC1/10T 100J	J24205100				
R 2166	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 2168	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 2169	CHIP RES.	1	1W	5%	RMC1 1R0JTE	J24305010				
R 2170	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 2171	CHIP RES.	1.5K	1/16W	5%	RMC1/16 152JATP	J24185152				
R 2172	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2173	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2174	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2175	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2176	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2177	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2178	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2179	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2181	CHIP RES.	1	1/10W	5%	RMC1/10T 1R0J	J24205010				
R 2182	CHIP RES.	470	1/10W	5%	RMC1/10T 471J	J24205471				
R 2183	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225				
R 2184	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2185	CHIP RES.	10	1/10W	5%	RMC1/10T 100J	J24205100				
R 2186	CHIP RES.	470K	1/16W	5%	RMC1/16 474JATP	J24185474				
R 2187	CHIP RES.	18	1/16W	5%	RMC1/16 180JATP	J24185180				
R 2188	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2189	CHIP RES.	39	1/2W	5%	RMC1/2 390JTE	J24275390				
R 2190	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
R 2191	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 2192	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2195	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2196	CHIP RES.	470	1/2W	5%	RMC1/2 471JCTP	J24275471				

430M-Main Unit

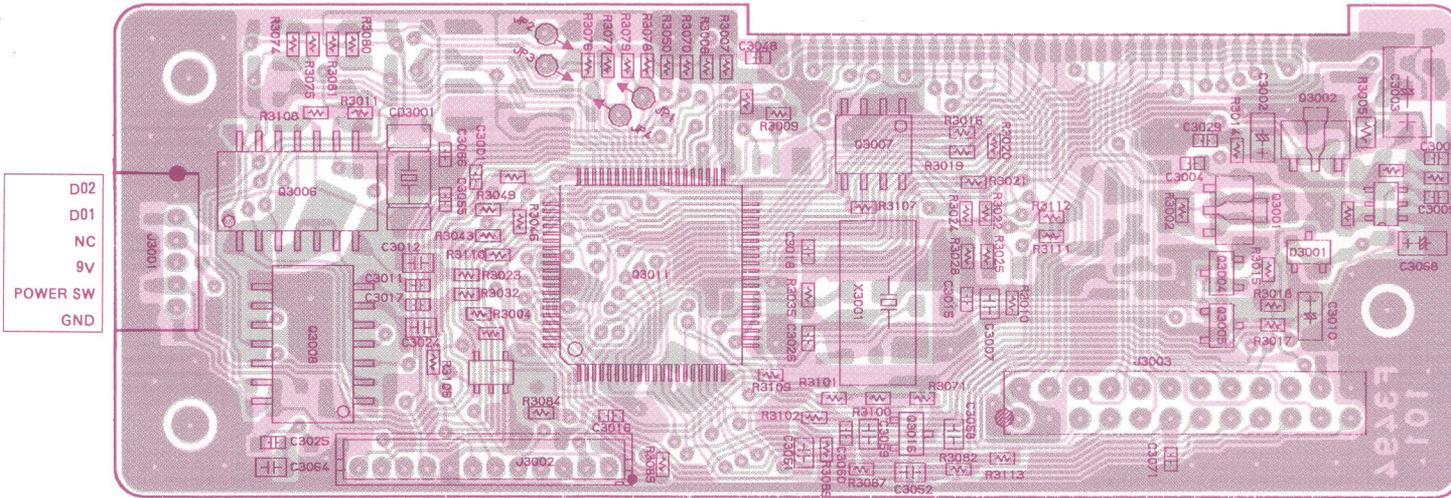
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R 2197	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 2198	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 2199	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225				
R 2201	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2202	CARBON FILM RES.	33K	1/6W	5%	RD16PJ333	J01225333				
R 2203	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000				
R 2204	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2205	CHIP RES.	330	1/16W	5%	RMC1/16 331JATP	J24185331				
R 2207	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 2208	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2209	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 2210	CHIP RES.	470K	1/16W	5%	RMC1/16 474JATP	J24185474				
R 2211	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2212	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2213	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 2214	CHIP RES.	470K	1/16W	5%	RMC1/16 474JATP	J24185474				
R 2215	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 2216	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 2218	CHIP RES.	47	1/16W	5%	RMC1/16 470JATP	J24185470				
T 2001	COIL				- CP22	L0022008				
T 2002	COIL				CBM33 5249-016	L0022330				
T 2003	COIL				CBM33 5249-016	L0022330				
T 2004	COIL				KE-07570	L0022343				
TC2001	TRIMMER CAP.	6pF			TZBX4Z060AA110T00	K91000207				
TH2001	THERMISTER				TBPS1R104K475H5Q	G9090069				
TP2001	TP-H				MK-10160	Q5000037				
TP2002	TP-H				MK-10160	Q5000037				
TP2003	TP-H				MK-10160	Q5000037				
U 2002	IC				430-DRIVE-UNIT	G1091969				
VR2001	POT.	47K			EVM-7JS-X30-BQ4	J51788473				
X 2001	XTAL	58.070MHz				H0103096				
X 2002	XTAL	12.800MHz				H0102912				
XF2001	XTAL				58R15B1	H1102254				
	XTAL HOLDER (4pcs)					R3129530				
	RUBBER (3pcs)					R7151830				
	RUBBER (2pcs)					R7151870				



To CONNECT-1 Unit J3501
(See Page 4G)



Parts Layout



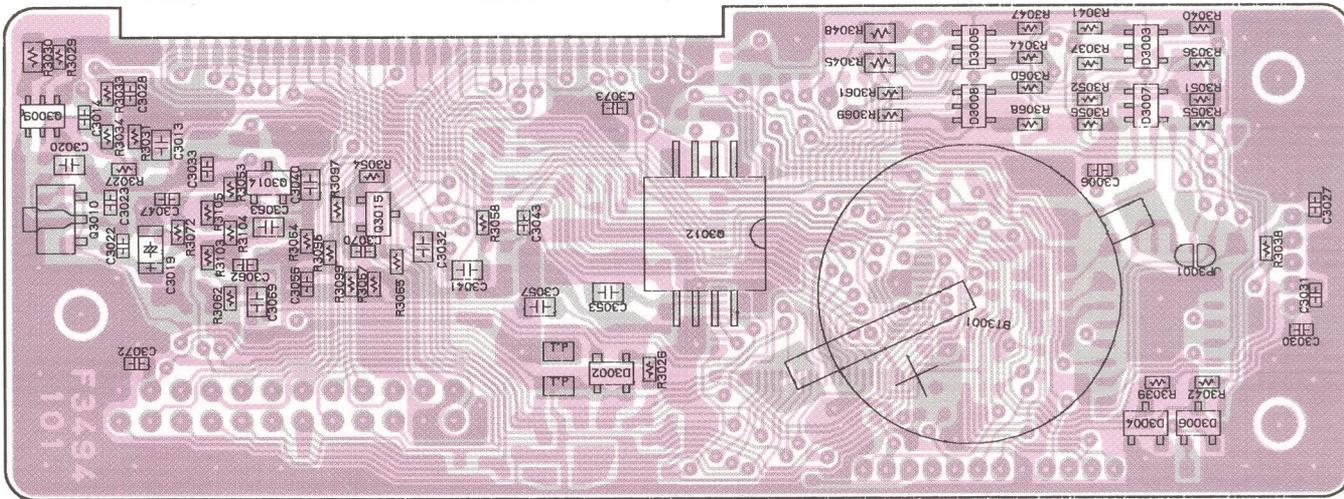
- D02
- D01
- NC
- 9V
- POWER SW
- GND

- CLOCK
- DATA
- U STB
- V STB
- GND
- U DET
- V DET
- U IN
- NC
- V IN
- 5V
- TONE

- GND
- V x V
- RX9600
- V AUDIO
- U NOISE
- U AF
- STB1
- HEAT
- STB2
- CLOCK
- 9V
- BEEP
- U D/A
- U UL
- U SOL
- U PKD
- U CTR
- U DET
- GND

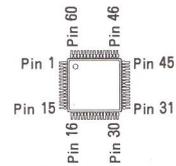
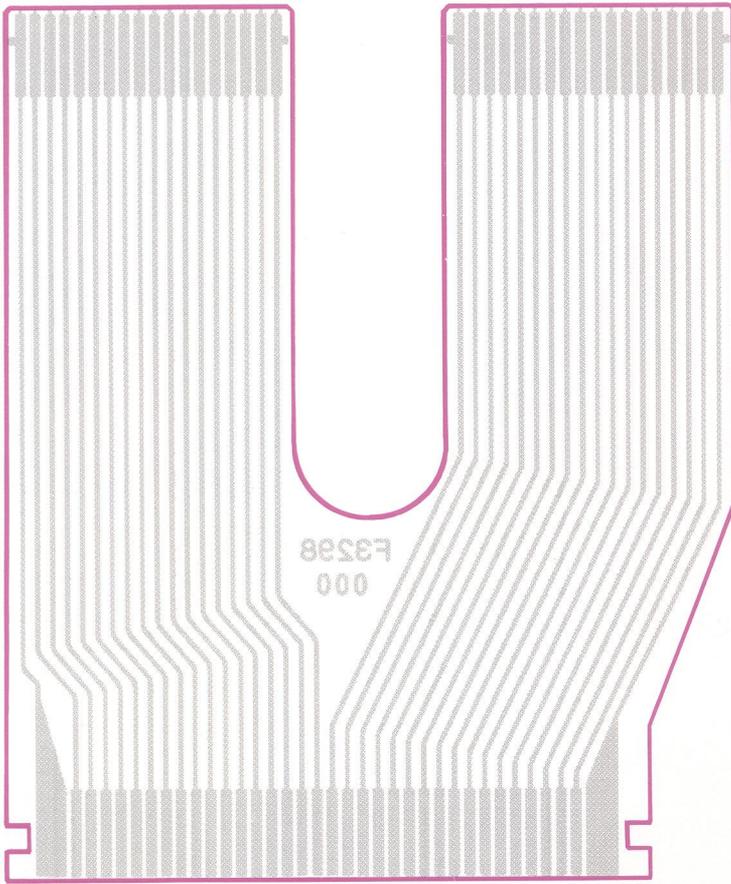
obverse view of component side

- 13.8V
- 9V
- GND
- U SOL
- U AF
- RX9600
- PKD
- POWER ON
- V D/A
- STB2
- STB1
- DATA
- CLOCK
- V UL
- V AUDIO
- V NOISE
- V MTR
- V DET
- V CTR
- T SO
- BEEP
- T CALL
- DTMF
- ENC
- GND
- MOD
- GND
- D12
- POWER SW
- D11
- GND
- U X U
- GND
- V x V

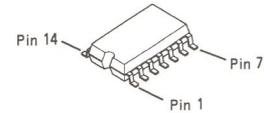


obverse view of chip-only side

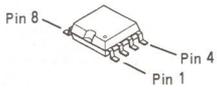
Flat Ribbon Cable (P/N F3298000)



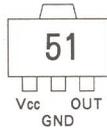
M37702E8LHP
(Q3011)



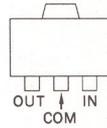
TC35305F
(Q3006, 3008)



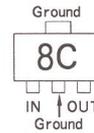
AT24C16N
(Q3007)
PCD3312CT
(Q3012)



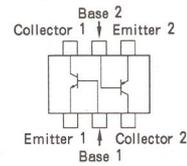
M51951AML (51)
(Q3001)



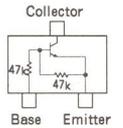
AN8005M
(Q3002)



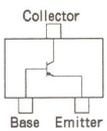
NJM78L05UA (8C)
(Q3010)



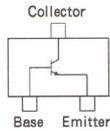
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(Q3009)



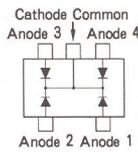
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(Q3005)



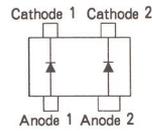
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(Q3004)



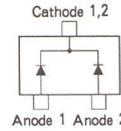
2SC2812 (L6) (TYP A, H)
(Q3015, 3016)
2SC2812 (L6) (TYP B, C, D)
(Q3014, 3015, 3016)



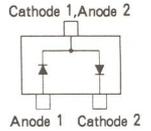
FMN1 (N1)
(D3003, 3005, 3007,
3008)



1SS319 (A4)
(D3002)



DAN202K (N)
(D3001)



1SS226 (C3)
(D3004, 3006)

Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
*** CNTL UNIT ***									
	PCB with Components					CA1245003	TYP A1		
	PCB with Components					CA1245004	TYP A2		
	PCB with Components					CA1245005	TYP A3		
	PCB with Components					CA1245006	TYP B1		
	PCB with Components					CA1245007	TYP B2		
	PCB with Components					CA1245008	TYP B3		
	PCB with Components					CA1245009	TYP C1		
	PCB with Components					CA1245010	TYP C2		
	PCB with Components					CA1245011	TYP C3		
	PCB with Components					CA1245012	TYP D1		
	PCB with Components					CA1245013	TYP D2		
	PCB with Components					CA1245014	TYP H1		
	PCB with Components					CA1245015	TYP H2		
	Printed Circuit Board					F3494101			
BT3001	LITHIUM BATTERY		3V		CR2016-TS1	Q9000552			
C 3001	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3002	TANTALUM CHIP CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027			
C 3003	TANTALUM CHIP CAP.	10uF	16V		TESVC1C106M12R	K78120011			
C 3004	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3005	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3006	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235			
C 3007	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 3009	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3010	TANTALUM CHIP CAP.	1uF	16V		TESVA1C105M1-8R	K78120009			
C 3011	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803			
C 3013	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 3014	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3015	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803			
C 3016	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3017	CHIP CAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803			
C 3018	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223			
C 3019	TANTALUM CHIP CAP.	4.7uF	6.3V		TEMSVA0J475M-8R	K78080017			
C 3020	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 3022	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3023	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3025	CHIP CAP.	0.01uF	25V	B	GRM39B103J25PT	K22144809			
C 3026	CHIP CAP.	15pF	50V	CH	GRM39CH150J50PT	K22174215			
C 3027	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3028	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3029	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 3030	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235			
C 3031	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235			
C 3032	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001			
C 3033	CHIP CAP.	0.01uF	25V	B	GRM39B103J25PT	K22144809	TYP B1		

CNTL Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
C 3033	CHIP CAP.	0.01uF	25V	B	GRM39B103J25PT	K22144809	TYP B2			
C 3033	CHIP CAP.	0.01uF	25V	B	GRM39B103J25PT	K22144809	TYP B3			
C 3033	CHIP CAP.	0.01uF	25V	B	GRM39B103J25PT	K22144809	TYP C1			
C 3033	CHIP CAP.	0.01uF	25V	B	GRM39B103J25PT	K22144809	TYP C2			
C 3033	CHIP CAP.	0.01uF	25V	B	GRM39B103J25PT	K22144809	TYP C3			
C 3033	CHIP CAP.	0.01uF	25V	B	GRM39B103J25PT	K22144809	TYP D1			
C 3033	CHIP CAP.	0.01uF	25V	B	GRM39B103J25PT	K22144809	TYP D2			
C 3040	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP B1			
C 3040	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP B2			
C 3040	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP B3			
C 3040	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP C1			
C 3040	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP C2			
C 3040	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP C3			
C 3040	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP D1			
C 3040	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP D2			
C 3041	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 3043	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 3047	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 3048	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 3052	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 3053	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 3056	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 3057	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 3058	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 3059	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 3060	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 3061	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811				
C 3062	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP B1			
C 3062	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP B2			
C 3062	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP B3			
C 3062	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP C1			
C 3062	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP C2			
C 3062	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP C3			
C 3062	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP D1			
C 3062	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP D2			
C 3063	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP B1			
C 3063	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP B2			
C 3063	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP B3			
C 3063	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP C1			
C 3063	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP C2			
C 3063	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP C3			
C 3063	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP D1			
C 3063	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809	TYP D2			
C 3064	CHIP CAP.	1uF	16V	F	EMK212F105Z00T	K22121001				
C 3065	CHIP CAP.	33pF	50V	CH	GRM39CH330J50PT	K22174223				
C 3066	CHIP CAP.	27pF	50V	CH	GRM39CH270J50PT	K22174221				
C 3068	TANTALUM CHIP CAP.	10uF	6.3V		TEMSVAOJ106M-8R	K78080027				
C 3069	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP B1			
C 3069	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP B2			

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
C 3069	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP B3			
C 3069	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP C1			
C 3069	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP C2			
C 3069	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP C3			
C 3069	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP D1			
C 3069	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811	TYP D2			
C 3070	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 3071	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 3072	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 3073	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C 3074	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235				
C 3075	CHIP CAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235				
C 3076	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227				
C 3077	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227				
C 3078	CERAMIC CAP.	0.001uF	50V	B	UP050B102K-A-B	K28179001				
C 3079	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809				
C03001 CERAMIC OSC					CSAC3.58MGC300A-TC	H7900790				
D 3001	DIODE				DAN202K T146	G2070182				
D 3002	DIODE				1SS319 TE85R	G2070080				
D 3003	DIODE				FMN1 T99	G2070068				
D 3004	DIODE				1SS226 TE85R	G2070003				
D 3005	DIODE				FMN1 T99	G2070068				
D 3006	DIODE				1SS226 TE85R	G2070003				
D 3007	DIODE				FMN1 T99	G2070068				
D 3008	DIODE				FMN1 T99	G2070068				
D 3009	DIODE				10E1	G2090306				
J 3001	CONNECTOR				S6B-ZR	P0090926				
J 3002	CONNECTOR				B12B-ZR	P0090782				
J 3003	CONNECTOR				9221S-24A-GF	P1090864				
Q 3001	IC				M51951AML-600C	G1091131				
Q 3002	IC				AN8005M-(E1)	G1091454				
Q 3004	TRANSISTOR				2SA1179M6-TA	G3111797F				
Q 3005	TRANSISTOR				DTC144EK T147	G3070033				
Q 3006	IC				TC35305F-11 TP2	G1091177				
Q 3007	IC				AT24C16N-10SI-2.7	G1091743				
Q 3008	IC				TC35305F-11 TP2	G1091177				
Q 3009	TRANSISTOR				IMZ1 T108	G3070025				
Q 3010	IC				NJM78L05UA TE2	G1091325				
Q 3011	IC				M37702E8LHP R0036	G1092013				
Q 3011	IC				M37702E8LHP R0053	G1092050				2-
Q 3011	IC				M37702E8L-107HP	G1092054				3-
Q 3012	IC				PCD3312CT	G1091931				
Q 3014	TRANSISTOR				2SC2812L6-TA	G3328127F	TYP B1			
Q 3014	TRANSISTOR				2SC2812L6-TA	G3328127F	TYP B2			
Q 3014	TRANSISTOR				2SC2812L6-TA	G3328127F	TYP B3			

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REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
Q 3014	TRANSISTOR				2SC2812L6-TA	G3328127F	TYP C1			
Q 3014	TRANSISTOR				2SC2812L6-TA	G3328127F	TYP C2			
Q 3014	TRANSISTOR				2SC2812L6-TA	G3328127F	TYP C3			
Q 3014	TRANSISTOR				2SC2812L6-TA	G3328127F	TYP D1			
Q 3014	TRANSISTOR				2SC2812L6-TA	G3328127F	TYP D2			
Q 3015	TRANSISTOR				2SC2812L6-TA	G3328127F				
Q 3016	TRANSISTOR				2SC2812L6-TA	G3328127F				
R 3002	CHIP RES.	560	1/16W	5%	RMC1/16 561JATP	J24185561				
R 3004	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3006	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3007	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3009	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3010	CHIP RES.	330K	1/16W	5%	RMC1/16 334JATP	J24185334				
R 3011	CHIP RES.	1.8K	1/16W	5%	RMC1/16 182JATP	J24185182				
R 3014	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3015	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3016	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3017	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3018	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 3019	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3020	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3021	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3022	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3023	CHIP RES.	5.6K	1/16W	5%	RMC1/16 562JATP	J24185562				
R 3024	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3025	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3026	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 3027	CHIP RES.	120K	1/16W	5%	RMC1/16 124JATP	J24185124				
R 3028	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3029	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 3030	CHIP RES.	4.7K	1/10W	5%	RMC1/10T 472J	J24205472				
R 3031	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3032	CHIP RES.	5.6K	1/16W	5%	RMC1/16 562JATP	J24185562				
R 3033	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3034	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3035	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A1			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A2			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A3			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B1			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B2			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B3			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C1			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C2			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C3			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D1			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D2			
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP H1			

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 3036	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP H2			
R 3037	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP H1			
R 3037	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP H2			
R 3038	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 3039	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B1			
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B2			
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B3			
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C1			
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C2			
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C3			
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D1			
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D2			
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP H1			
R 3040	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP H2			
R 3042	CHIP RES.	2.2K	1/16W	5%	RMC1/16 222JATP	J24185222				
R 3043	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A1			
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A2			
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B1			
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B2			
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C1			
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C2			
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D1			
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D2			
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP H1			
R 3045	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP H2			
R 3046	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
R 3048	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A1			
R 3048	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B1			
R 3048	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C1			
R 3048	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D1			
R 3048	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP H1			
R 3049	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3050	CHIP RES.	220K	1/16W	5%	RMC1/16 224JATP	J24185224				
R 3051	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A1			
R 3051	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A2			
R 3051	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A3			
R 3051	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B1			
R 3051	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B2			
R 3051	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B3			
R 3051	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D1			
R 3051	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D2			
R 3052	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A1			
R 3052	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A2			
R 3052	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A3			
R 3052	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D1			
R 3052	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP D2			
R 3052	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP H1			

CNTL Unit

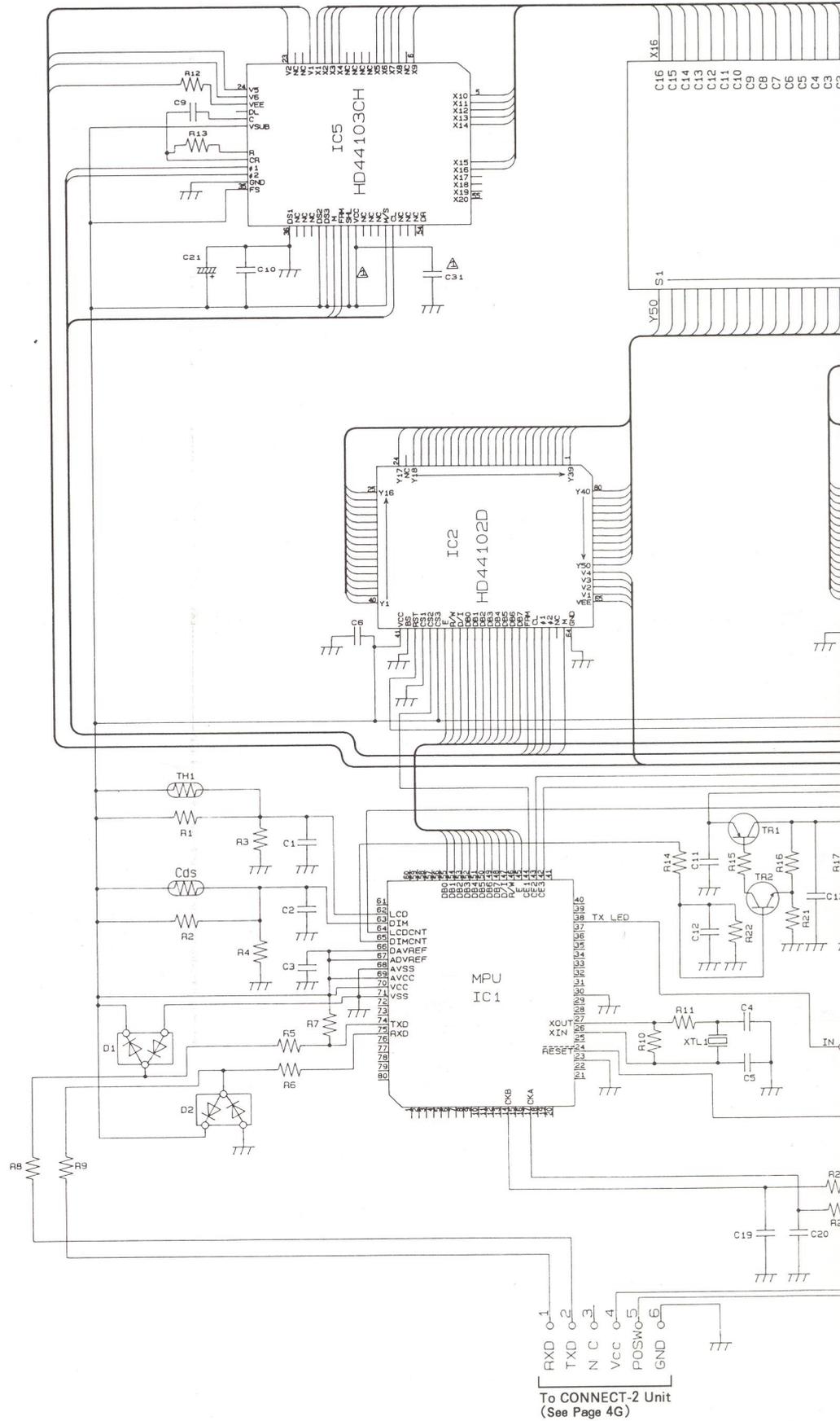
REF.	DESCRIPTION	VALUE	WV	TOL.	MFRG'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 3052	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP H2			
R 3053	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564	TYP B1			
R 3053	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564	TYP B2			
R 3053	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564	TYP B3			
R 3053	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564	TYP C1			
R 3053	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564	TYP C2			
R 3053	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564	TYP C3			
R 3053	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564	TYP D1			
R 3053	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564	TYP D2			
R 3054	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564				
R 3055	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A1			
R 3055	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A2			
R 3055	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP A3			
R 3055	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B1			
R 3055	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B2			
R 3055	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP B3			
R 3055	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C1			
R 3055	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C2			
R 3055	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	TYP C3			
R 3058	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3061	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP B1			
R 3061	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP B2			
R 3061	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP B3			
R 3061	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP C1			
R 3061	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP C2			
R 3061	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP C3			
R 3061	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP D1			
R 3061	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP D2			
R 3062	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473	TYP B1			
R 3062	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473	TYP B2			
R 3062	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473	TYP B3			
R 3062	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473	TYP C1			
R 3062	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473	TYP C2			
R 3062	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473	TYP C3			
R 3062	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473	TYP D1			
R 3062	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473	TYP D2			
R 3064	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472	TYP B1			
R 3064	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472	TYP B2			
R 3064	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472	TYP B3			
R 3064	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472	TYP C1			
R 3064	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472	TYP C2			
R 3064	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472	TYP C3			
R 3064	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472	TYP D1			
R 3064	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472	TYP D2			
R 3065	CHIP RES.	4.7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 3067	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP A1			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP A2			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP A3			

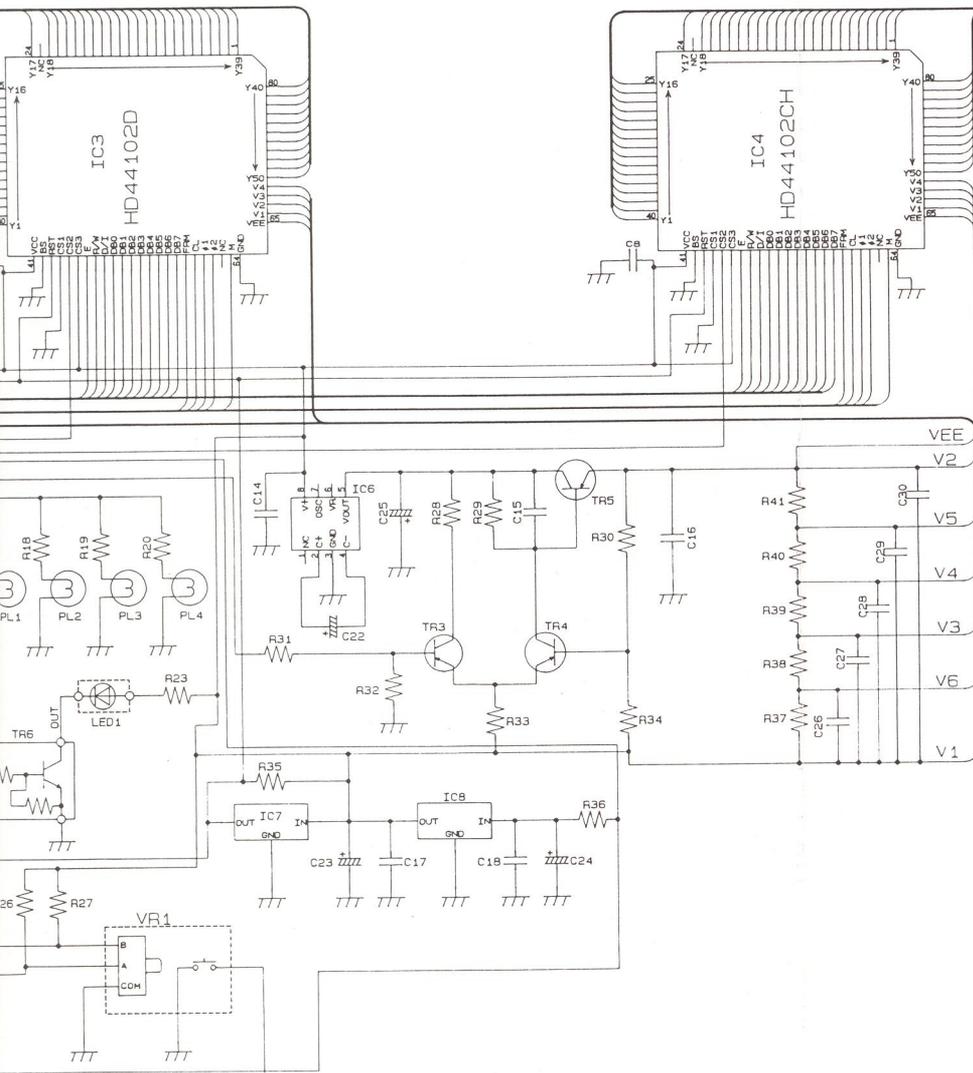
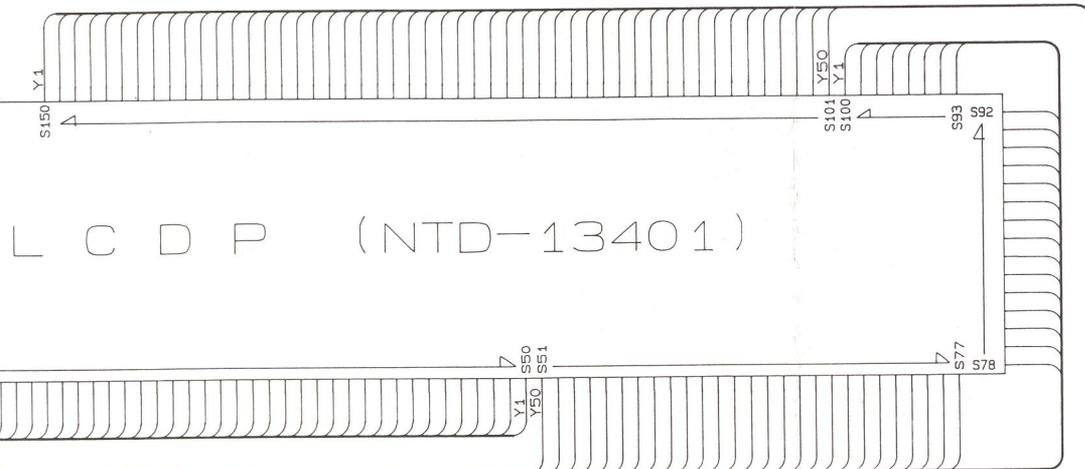
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R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP B1			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP B2			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP B3			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP C1			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP C2			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP C3			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP D1			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP D2			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP H1			
R 3068	CHIP RES.	0	1/10W	5%	RMC1/10T 000J	J24205000	TYP H2			
R 3070	CHIP RES.	220K	1/16W	5%	RMC1/16 224JATP	J24185224				
R 3071	CHIP RES.	560K	1/16W	5%	RMC1/16 564JATP	J24185564				
R 3072	CHIP RES.	100	1/16W	5%	RMC1/16 101JATP	J24185101				
R 3074	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3075	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3076	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3077	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3078	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3079	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3080	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3081	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3082	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3084	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3085	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3087	CHIP RES.	4. 7K	1/16W	5%	RMC1/16 472JATP	J24185472				
R 3089	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3097	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3098	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3099	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3100	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3101	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3102	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103				
R 3103	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP B1			
R 3103	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP B2			
R 3103	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP B3			
R 3103	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP C1			
R 3103	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP C2			
R 3103	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP C3			
R 3103	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP D1			
R 3103	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP D2			
R 3104	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP B1			
R 3104	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP B2			
R 3104	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP B3			
R 3104	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP C1			
R 3104	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP C2			
R 3104	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP C3			
R 3104	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP D1			
R 3104	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP D2			
R 3105	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP B1			

CNTL Unit

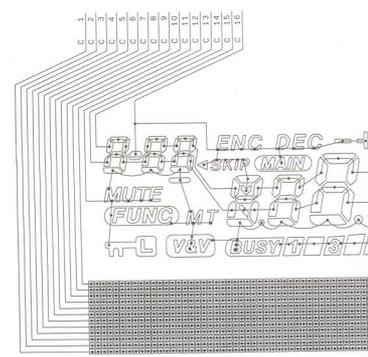
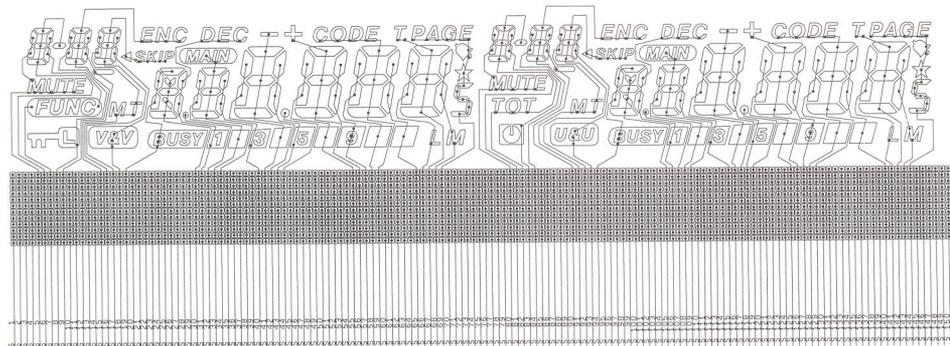
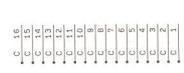
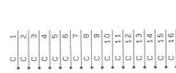
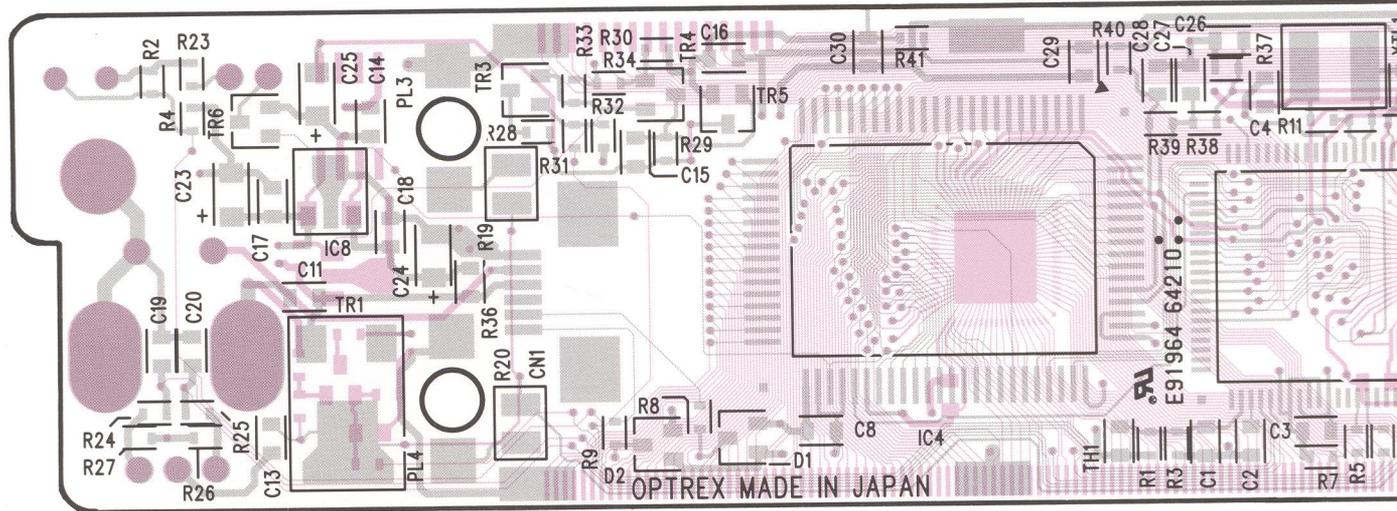
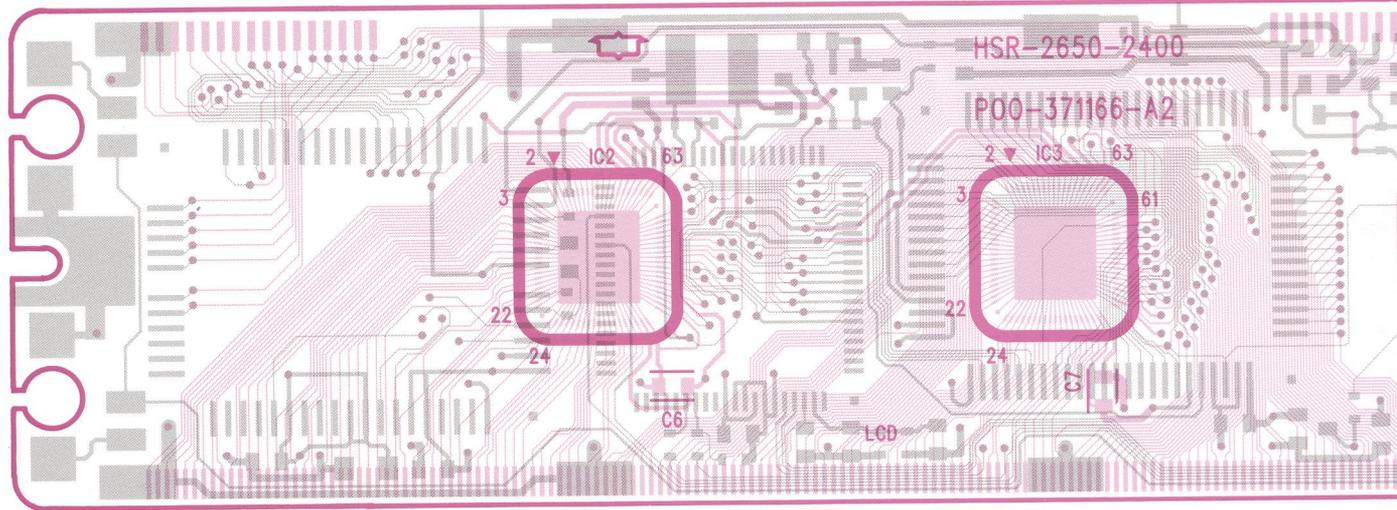
REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
R 3105	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP B2			
R 3105	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP B3			
R 3105	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP C1			
R 3105	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP C2			
R 3105	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP C3			
R 3105	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP D1			
R 3105	CHIP RES.	10K	1/16W	5%	RMC1/16 103JATP	J24185103	TYP D2			
R 3106	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3107	CHIP RES.	47K	1/16W	5%	RMC1/16 473JATP	J24185473				
R 3109	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3110	CHIP RES.	100K	1/16W	5%	RMC1/16 104JATP	J24185104				
R 3111	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105	TYP B1			
R 3111	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105	TYP B2			
R 3111	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105	TYP B3			
R 3111	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105	TYP C1			
R 3111	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105	TYP C2			
R 3111	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105	TYP C3			
R 3111	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105	TYP D1			
R 3111	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105	TYP D2			
R 3112	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 3113	CHIP RES.	1M	1/16W	5%	RMC1/16 105JATP	J24185105				
R 3114	CHIP RES.	1K	1/16W	5%	RMC1/16 102JATP	J24185102				
X 3001	XTAL	9.8304MHz				H0103093				
	SEAL					R8118690				

Circuit Diagram

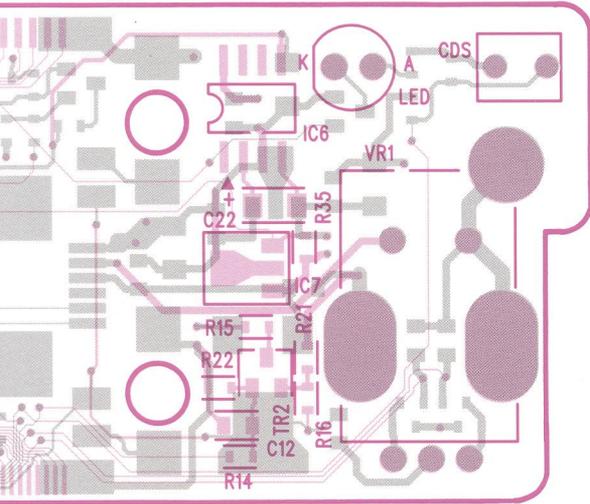




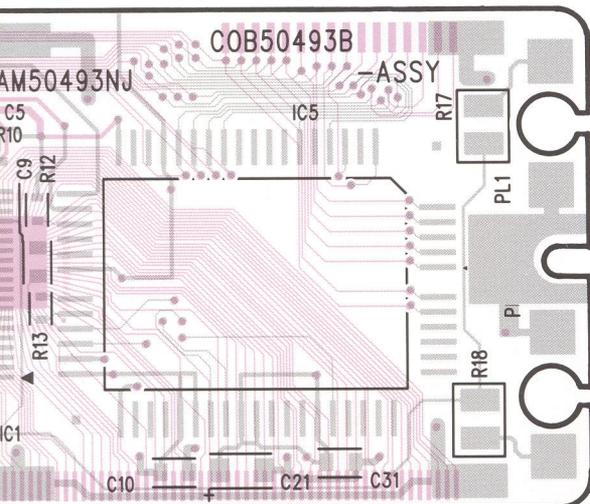
Parts Layout



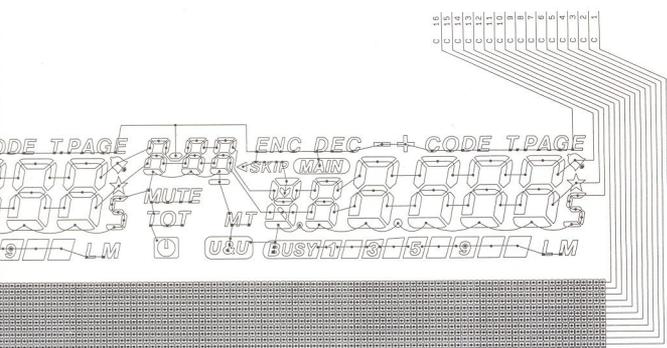
LCD Segmentation Circuit Diagram



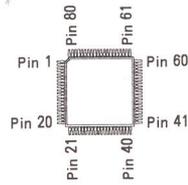
obverse view of LCD side



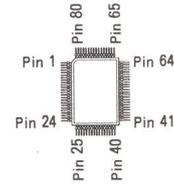
obverse view of chip-only side



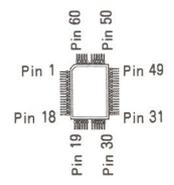
Backplane Circuit Diagram



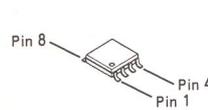
M37451E8 (IC0001)



HD44102CH (IC0004)



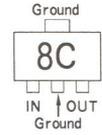
HD44103CH (IC0005)



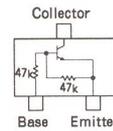
NJU7660M (IC0006)



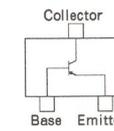
M51951AML (51) (IC0007)



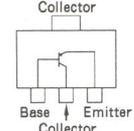
NJM78L05UA (8C) (IC0008)



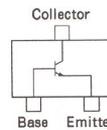
DTC144EK (26) (TR0006)



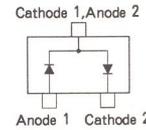
2SA1179 (M7) (TR0003, 0004, 0005)



2SA1182 (TR0001)



2SC2812 (L6) (TR0002)



1SS226 (C3) (D0001, 0002)

Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
*** DISP UNIT ***										
PCB with Components (W/O IC0001 M37451)						Q7000206				
C 0003	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0004	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223				
C 0005	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223				
C 0006	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005				
C 0007	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005				
C 0008	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005				
C 0009	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211				
C 0010	CHIP CAP.	0.01uF	50V	B	GRM40B103K50PT	K22170826				
C 0011	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0012	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0013	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0014	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0015	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0016	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0017	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0018	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0019	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0020	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805				
C 0021	TANTALUM CHIP CAP.	4.7uF	10V		TEMSVA1A475M-8R	K78100022				
C 0022	TANTALUM CHIP CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028				
C 0023	TANTALUM CHIP CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028				
C 0024	TANTALUM CHIP CAP.	1uF	25V		TEMSVA1E105M-8R	K78140013				
C 0025	TANTALUM CHIP CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028				
C 0026	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005				
C 0027	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005				
C 0028	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005				
C 0029	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005				
C 0030	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005				
C 0031	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005				
CDS	CDS	P1201-04			P1201-04	G9090081				
CN0001	CONNECTOR				00 6200 067 032	800S8100454				
D 0001	DIODE				1SS226 TE85R	G2070003				
D 0002	DIODE				1SS226 TE85R	G2070003				
IC0001	IC				M37451E8GP R0037	G1092014			1-	
IC0001	IC				M37451E8GP R0042	G1092033			2-	
IC0001	IC				M37451E8GP R0053	G1092052			3-	
IC0001	IC				M37451M8-454GP	G1092056			4-	
IC0002										
IC0003										
IC0004	IC				HD44102CH	G1092068				
IC0005	IC				HD44103CH	G1092069				

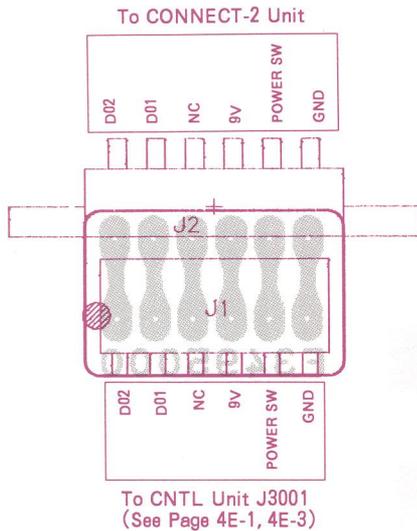
DISP Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
IC0006	IC				NJU7660M	G1092070				
IC0007	IC				M51951AML-600C	G1091131				
IC0008	IC				NJM78L05UA	G1090887				
PL0001	LAMP	8V	60MA			Q1000084				
PL0002	LAMP	8V	60MA			Q1000084				
PL0003	LAMP	8V	60MA			Q1000084				
PL0004	LAMP	8V	60MA			Q1000084				
R 0001	CHIP RES.	22K	1/16W	1%	RMC1/16 223FTP	J24183223				
R 0003	CHIP RES.	3.3K	1/16W	1%	RMC1/16 332FTP	J24183332				
R 0004	CHIP RES.	2.2M	1/16W	5%	RMC1/16 225JATP	J24185225				
R 0005	CHIP RES.	1K	1/16W	1%	RMC1/16 102FTP	J24183102				
R 0006	CHIP RES.	1K	1/16W	1%	RMC1/16 102FTP	J24183102				
R 0007	CHIP RES.	10K	1/16W	1%	RMC1/16 103FTP	J24183103				
R 0008	CHIP RES.	2.2K	1/16W	1%	RMC1/16 222FTP	J24183222				
R 0009	CHIP RES.	2.2K	1/16W	1%	RMC1/16 222FTP	J24183222				
R 0010	CHIP RES.	1M	1/16W	1%	RMC1/16 105FTP	J24183105				
R 0011	CHIP RES.	470	1/16W	1%	RMC1/16 471FTP	J24183471				
R 0012	CHIP RES.	220	1/16W	1%	RMC1/16 221FTP	J24183221				
R 0013	CHIP RES.	68K	1/16W	1%	RMC1/16 683FTP	J24183683				
R 0014	CHIP RES.	2.2K	1/16W	1%	RMC1/16 222FTP	J24183222				
R 0015	CHIP RES.	1.8K	1/16W	1%	RMC1/16 182FTP	J24183182				
R 0016	CHIP RES.	680	1/16W	1%	RMC1/16 681FTP	J24183681				
R 0017	CHIP RES.	33	1/4W	5%	RMC1/4 330JATP	J24245330				
R 0018	CHIP RES.	33	1/4W	5%	RMC1/4 330JATP	J24245330				
R 0019	CHIP RES.	33	1/4W	5%	RMC1/4 330JATP	J24245330				
R 0020	CHIP RES.	33	1/4W	5%	RMC1/4 330JATP	J24245330				
R 0021	CHIP RES.	560	1/16W	1%	RMC1/16 561FTP	J24183561				
R 0023	CHIP RES.	470	1/16W	1%	RMC1/16 471FTP	J24183471				
R 0024	CHIP RES.	10K	1/16W	1%	RMC1/16 103FTP	J24183103				
R 0025	CHIP RES.	10K	1/16W	1%	RMC1/16 103FTP	J24183103				
R 0026	CHIP RES.	100K	1/16W	1%	RMC1/16 104FTP	J24183104				
R 0027	CHIP RES.	100K	1/16W	1%	RMC1/16 104FTP	J24183104				
R 0028	CHIP RES.	2.2K	1/16W	1%	RMC1/16 222FTP	J24183222				
R 0029	CHIP RES.	4.7K	1/16W	1%	RMC1/16 472FTP	J24183472				
R 0030	CHIP RES.	10K	1/16W	1%	RMC1/16 103FTP	J24183103				
R 0031	CHIP RES.	33K	1/16W	1%	RMC1/16 333FTP	J24183333				
R 0032	CHIP RES.	22K	1/16W	1%	RMC1/16 223FTP	J24183223				
R 0033	CHIP RES.	3.9K	1/16W	1%	RMC1/16 392FTP	J24183392				
R 0034	CHIP RES.	10K	1/16W	1%	RMC1/16 103FTP	J24183103				
R 0035	CHIP RES.	560	1/16W	1%	RMC1/16 561FTP	J24183561				
R 0036	CHIP RES.	10	1/16W	1%	RMC1/16 100FTP	J24183100				
R 0037	CHIP RES.	2K	1/16W	1%	RMC1/16 202FTP	J24183202				
R 0038	CHIP RES.	2K	1/16W	1%	RMC1/16 202FTP	J24183202				
R 0039	CHIP RES.	2K	1/16W	1%	RMC1/16 202FTP	J24183202				
R 0040	CHIP RES.	2K	1/16W	1%	RMC1/16 202FTP	J24183202				
R 0041	CHIP RES.	2K	1/16W	1%	RMC1/16 202FTP	J24183202				

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
TH0001	THERMISTOR	4.7K (25° C)			NTH5G35A472J01TE	S8100455				
TRO001	TRANSISTOR				2SB1182F5 TL Q	G3070063				
TRO002	TRANSISTOR				2SC2812L6-TA	G3328127F				
TRO003	TRANSISTOR				2SA1179M7	G3111797G				
TRO004	TRANSISTOR				2SA1179M7	G3111797G				
TRO005	TRANSISTOR				2SA1179M7	G3111797G				
TRO006	TRANSISTOR				DTC144EK T147	G3070033				
VR0001	ROTARY CODE SWITCH				EC11B15244	S8100456				
XTL001	CERAMIC OSC	9.83MHz			CSACS9.83MT	H7901080				
	LCD	NTD-13401				G6090114				
	INTER CONNECTOR				FCW50493	S8100453				
	LED SPACER				LH-5-3	S6000236				
	LED	GL3PR8			GL3PR8	G2090433				

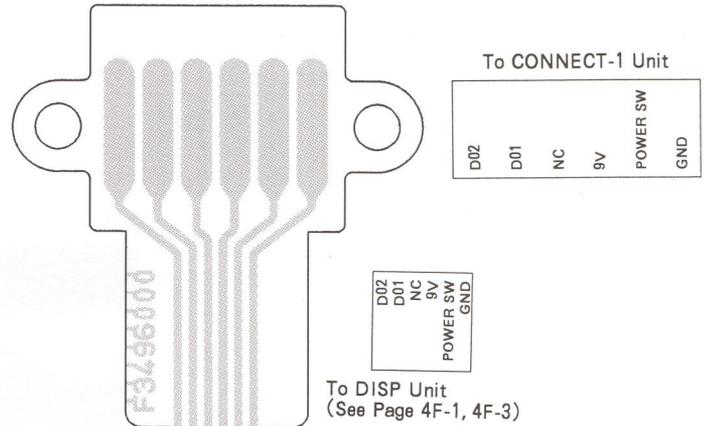
CONNECT-1, -2 Unit

CONNECT-1 Unit Parts Layout



obverse view of component side

CONNECT-2 Unit Parts Layout



obverse view of chip-only side

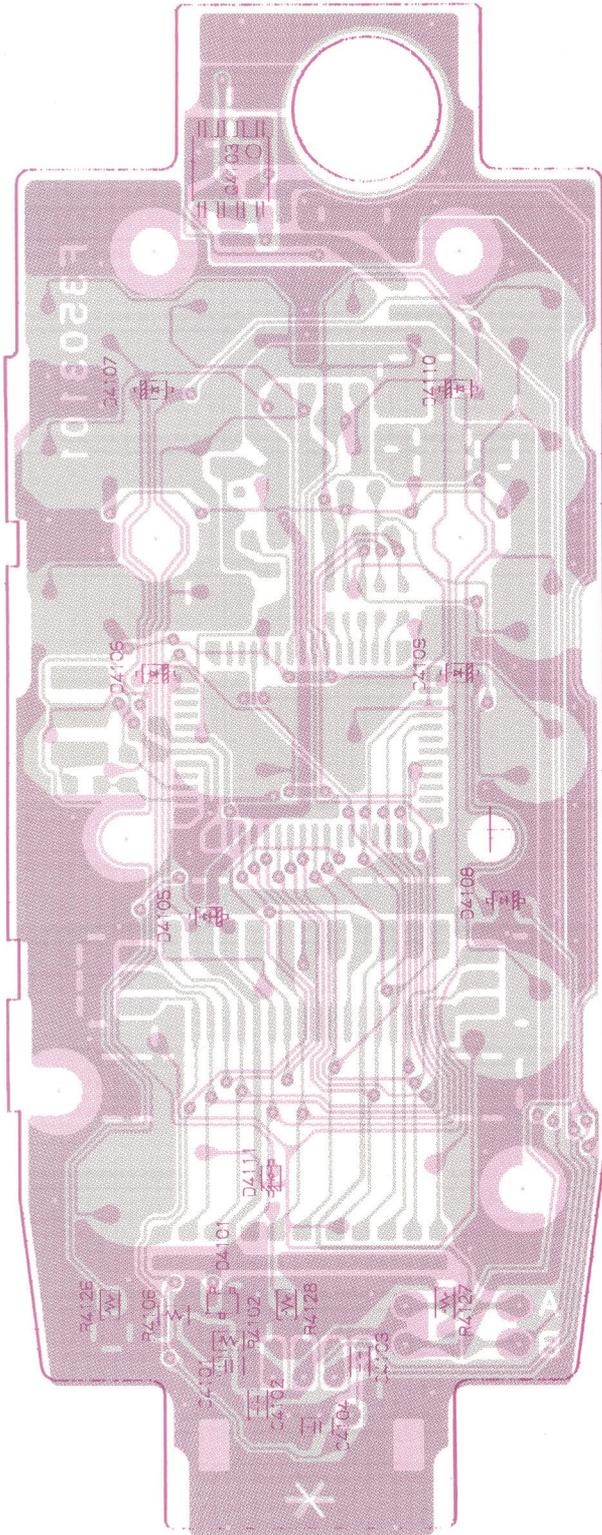
CONNECT-1 Unit Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
*** CONNECT-1 UNIT ***										
	PCB with Components					CP4991001				
	Printed Circuit Board					F3495000				
J	3501 CONNECTOR				CLE9006-0101R	P1090681				
P	1005 WIRE ASSY					T9206437				
	SPACER					R7151880				

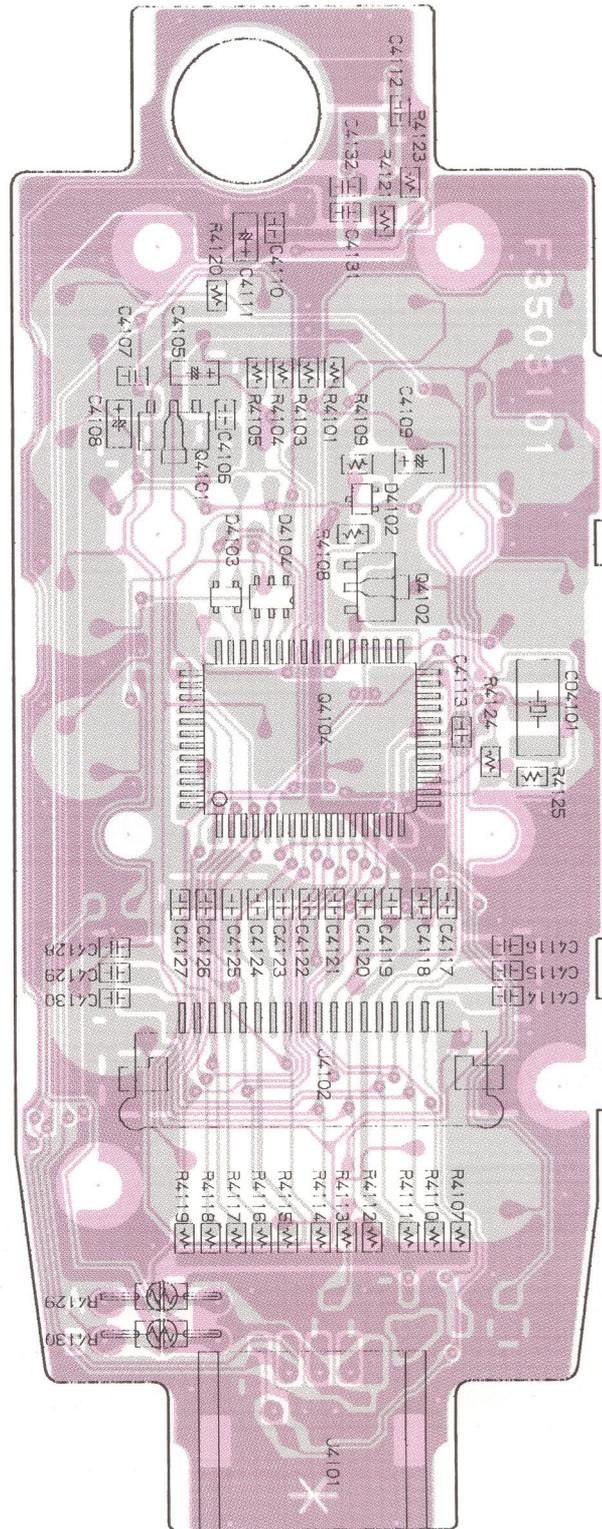
CONNECT-2 Unit Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
*** CONNECT-2 UNIT ***										
	PCB with Components					CP4989001				
	Printed Circuit Board					F3496000				
P	1006 WIRE ASSY					T9206436				

Parts Layout

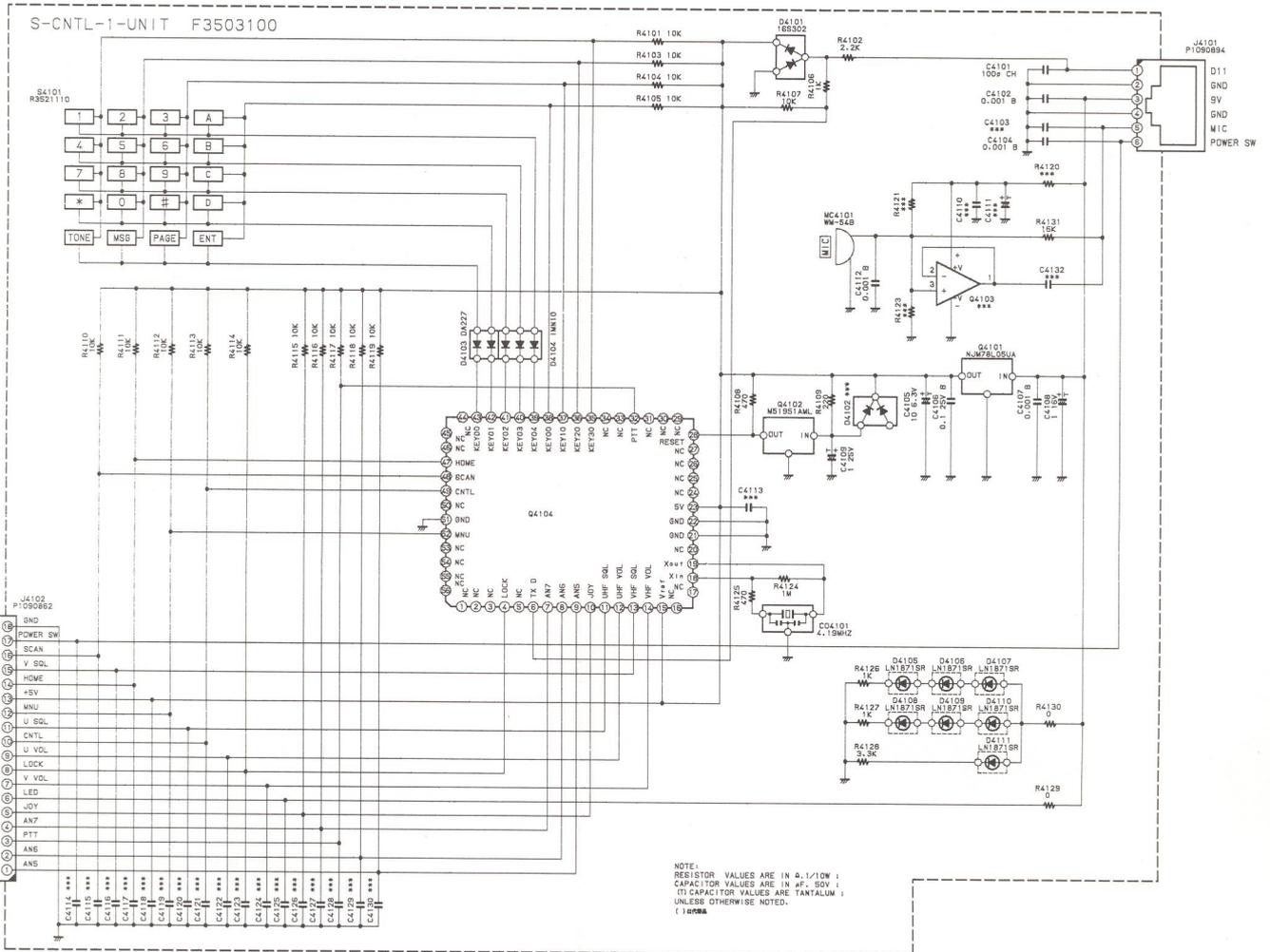


obverse view of component side



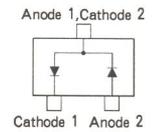
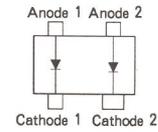
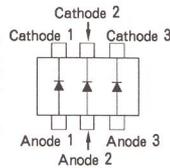
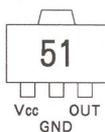
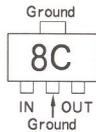
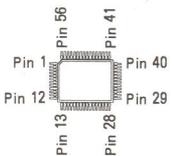
obverse view of connector side

Circuit Diagram



To S-CNTL-2 Unit J4202
 (See Page 41-1)

JOY
 LED
 V VOL
 LOCK
 U VOL
 CNTL
 U SOL
 MNU
 +5V
 HOME
 V SOL
 SCAN
 POWER SW
 GND



M3747E4FP
 (Q4104)

NJM78L05UA (8C)
 M51951AML (51)
 (Q4102)

IMN10 (N10)
 (D4104)

DA227 (N20)
 (D4103)

1SS302 (C3)
 (D4101)

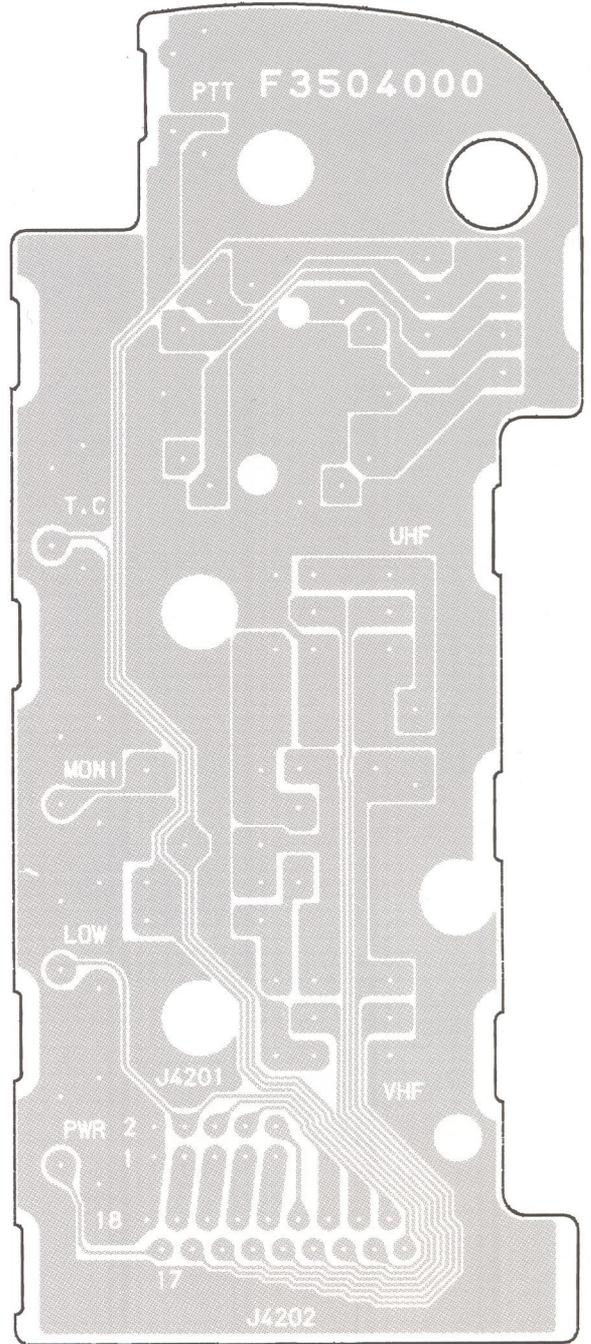
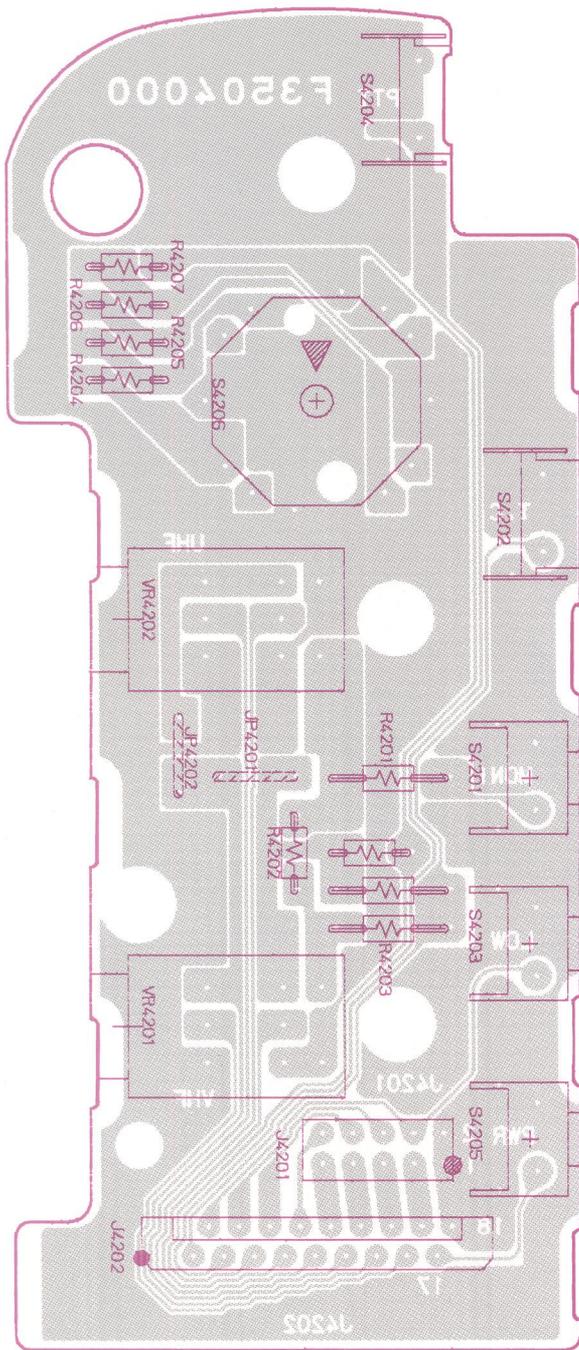
Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
*** S-CNTL-1 UNIT ***									
	PCB with Components					CA1361001			
	Printed Circuit Board					F3503101			
C 4101	CHIP CAP.	100pF	50V	CH	GRM40CH101J50PT	K22170235			
C 4102	CHIP CAP.	100pF	50V	CH	GRM40B102M50PT	K22170805			
C 4104	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805			
C 4105	TANTALUM CHIP CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027			
C 4106	CHIP CAP.	0.1uF	25V	B	GRM40B104M25PT	K22140811			
C 4107	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805			
C 4108	TANTALUM CHIP CAP.	1uF	16V		TESVA1C105M1-8R	K78120009			
C 4109	TANTALUM CHIP CAP.	1uF	25V		TESVA1E105M-8R	K78140013			
C 4112	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805			
CO4101	CERAMIC OSC				CSTCS4.19MG-TC	H7901010			
D 4101	DIODE				1SS302 TE85R	G2070088			
D 4103	DIODE				DA227-TR	G2070292			
D 4104	DIODE				IMN10 T108	G2070078			
D 4105	LED				LN1871SR(TRP)	G2070398			
D 4106	LED				LN1871SR(TRP)	G2070398			
D 4107	LED				LN1871SR(TRP)	G2070398			
D 4108	LED				LN1871SR(TRP)	G2070398			
D 4109	LED				LN1871SR(TRP)	G2070398			
D 4110	LED				LN1871SR(TRP)	G2070398			
D 4111	LED				LN1871SR(TRP)	G2070398			
J 4101	CONNECTOR				R41-4863J	P1090894			
J 4102	CONNECTOR				00 6200 518 330	P1090862			
MC4101	MIC ELEMENT				WM-54BM	M3290026			
Q 4101	IC				NJM78L05UA TE2	G1091325			
Q 4102	IC				M51951AML-600C	G1091131			
Q 4104	IC				M37471E4FP R0038	G1092015		1	
Q 4104	IC				M37471E4FP R0052	G1092053		2	
Q 4104	IC				M37471M2-401FP	G1092057		3-	
R 4101	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4102	CHIP RES.	2.2K	1/10W	5%	RMC1/10T 222J	J24205222			
R 4103	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4104	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4105	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4106	CHIP RES.	1K	1/10W	5%	RMC1/10T 102J	J24205102			
R 4107	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4108	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4109	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221			

S-CNTL-1 Unit

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
R 4110	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4111	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4112	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4113	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4114	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4115	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4116	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4117	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4118	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4119	CHIP RES.	10K	1/10W	5%	RMC1/10T 103J	J24205103			
R 4120	CHIP RES.	2.2K	1/10W	5%	RMC1/10T 222J	J24205222			
R 4124	CHIP RES.	1M	1/10W	5%	RMC1/10T 105J	J24205105			
R 4125	CHIP RES.	470	1/10W	5%	RMC1/10T 471J	J24205471			
R 4126	CHIP RES.	1K	1/10W	5%	RMC1/10T 102J	J24205102			
R 4127	CHIP RES.	1K	1/10W	5%	RMC1/10T 102J	J24205102			
R 4128	CHIP RES.	3.3K	1/10W	5%	RMC1/10T 332J	J24205332			
R 4129	CARBON FILM RES.	0	1/6W	5%	RD16PJ000	J01225000			
R 4130	CARBON FILM RES.	0	1/6W	5%	RD16PJ000	J01225000			
R 4131	CHIP RES.	15K	1/10W	5%	RMC1/10T 153J	J24205153			

Parts Layout



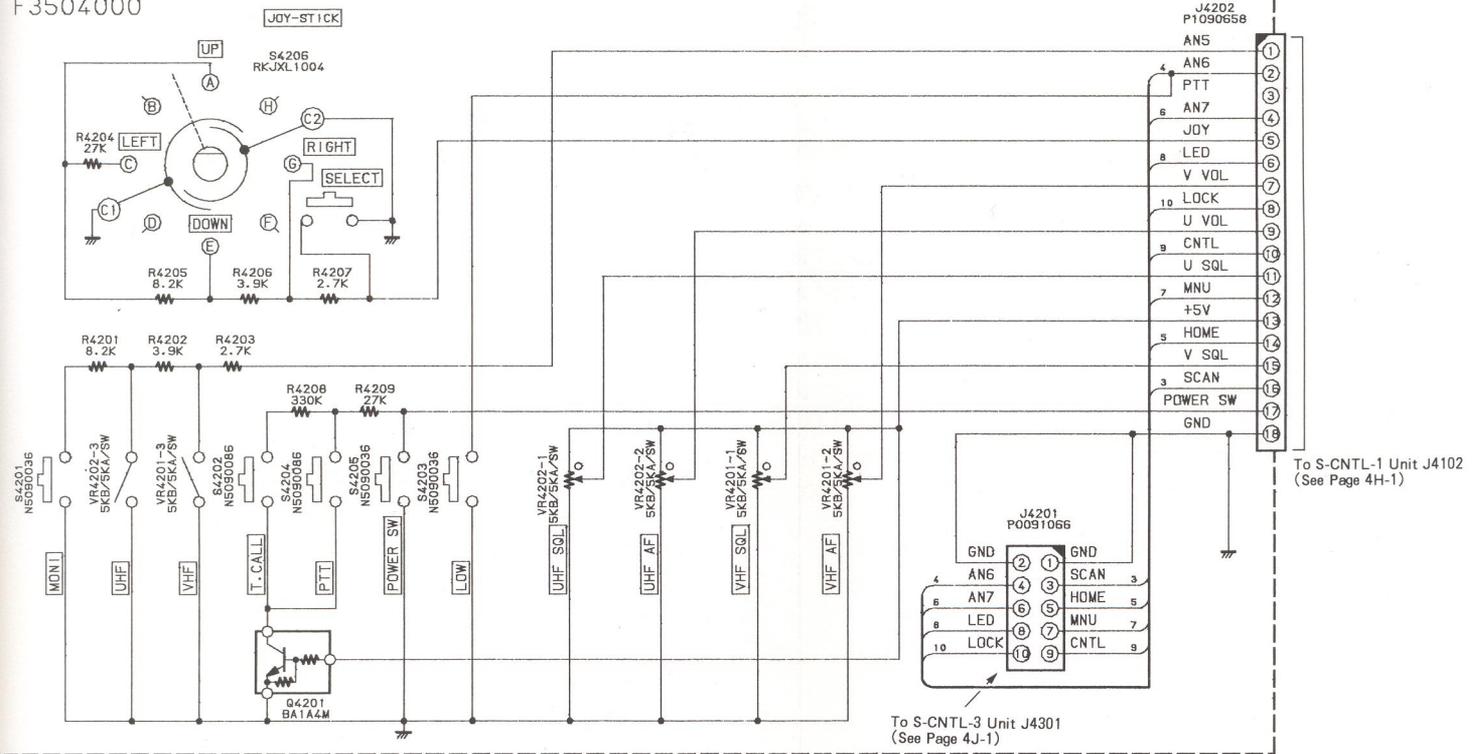
obverse view of solder side

AN5	AN6	AN7	PTT	LED	JOY	V VOL	LOCK	U VOL	CNTL	U SOL	MNU	5V+	HOME	V SOL	SCAN	POWER SW	GND
LOCK	LED	AN7	AN6	GND	GND	CNTL	U SOL	MNU	HOME	5V+	HOME	V SOL	SCAN	POWER SW	GND		

obverse view of component side

Unit Diagram

S-CNTL-2-UNIT
F3504000



NOTE:
RESISTOR VALUES ARE IN Ω , 1/10W ;
UNLESS OTHERWISE NOTED.

Parts List

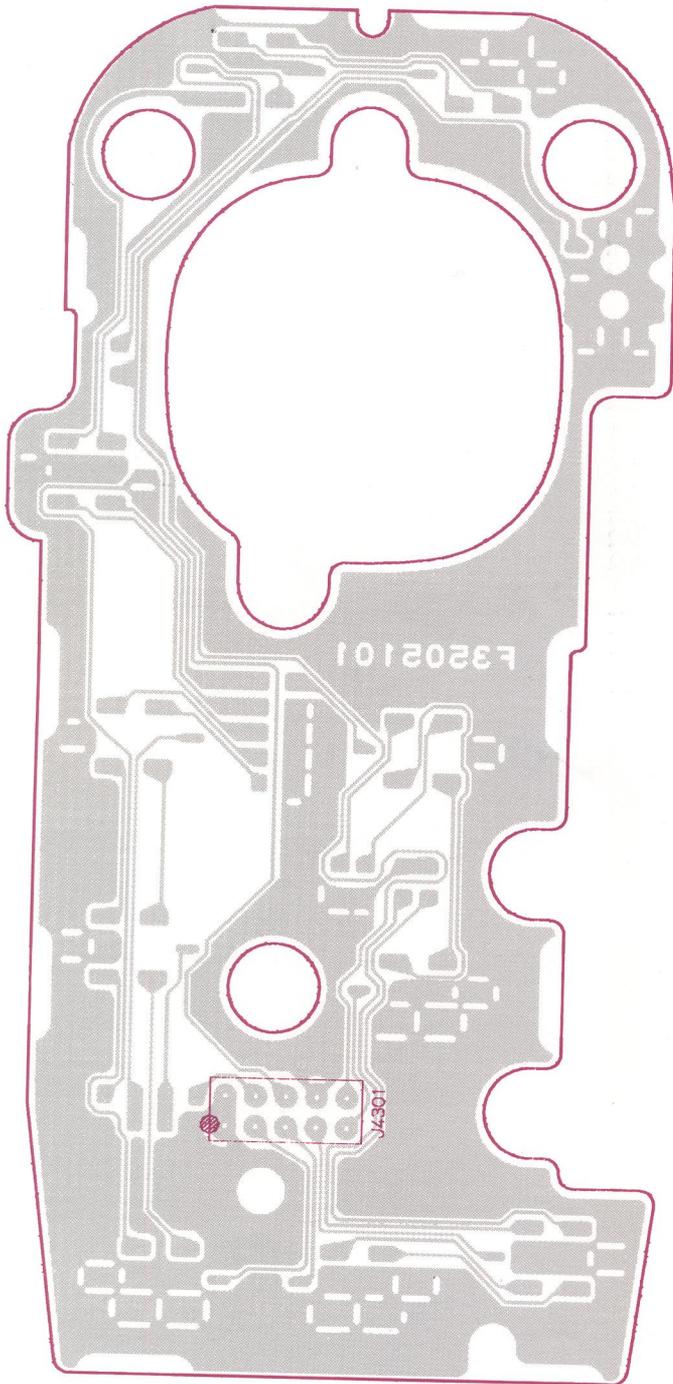
REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY	ADR
*** S-CNTL-2 UNIT ***										
	PCB with Components					CA1362001				
	Printed Circuit Board					F3504000				
J 4201	CONNECTOR				9220B-10Z35-GF	P0091066				
J 4202	CONNECTOR				52030-1810	P1090658				
JP4201	JUMPER WIRE C				0.6-5.0	Q6100015				
JP4202	JUMPER WIRE C				0.6-5.0	Q6100015				
R 4201	CARBON FILM RES.	8.2K	1/6W	5%	RD16PJ822	J01225822				
R 4202	CARBON FILM RES.	3.9K	1/6W	5%	RD16PJ392	J01225392				
R 4203	CARBON FILM RES.	2.7K	1/6W	5%	RD16PJ272	J01225272				
R 4204	CARBON FILM RES.	27K	1/6W	5%	RD16PJ273	J01225273				
R 4205	CARBON FILM RES.	8.2K	1/6W	5%	RD16PJ822	J01225822				
R 4206	CARBON FILM RES.	3.9K	1/6W	5%	RD16PJ392	J01225392				
R 4207	CARBON FILM RES.	2.7K	1/6W	5%	RD16PJ272	J01225272				
S 4201	TACT SWITCH				SKHHLN	N5090036				
S 4202	TACT SWITCH				SKQPLA	N5090086				
S 4203	TACT SWITCH				SKHHLN	N5090036				
S 4204	TACT SWITCH				SKQPLA	N5090086				
S 4205	TACT SWITCH				SKHHLN	N5090036				
S 4206	LEVER SWITCH				RKJXL1004	N3090025				
VR4201	POT.	5KB/5KB/S			TP97D00A17.5FB5KX2	J62800129				
VR4202	POT.	5KB/5KB/S			TP97D00A17.5FB5KX2	J62800129				
	SHEET					R7152190				

S-CNTL-2 Unit

Notes:

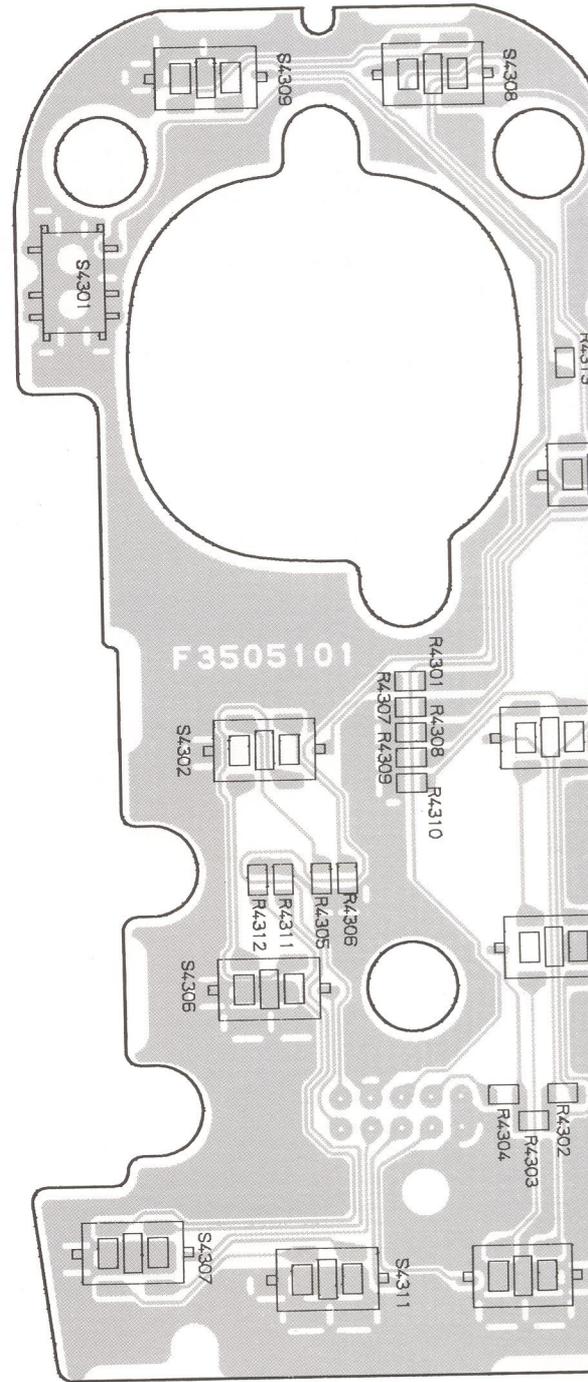
REF	DESCRIPTION	VALUE	UNIT	QTY	PRICE	TOTAL	DATE	BY
*** S-CNTL-2 UNIT ***								
	Printed Circuit Board							
	With Components							
1-4201	CONNECTOR			1				
1-4202	CONNECTOR			1				
1-4203	WIRE C			1				
1-4204	WIRE C			1				
1-4205	WIRE C			1				
1-4206	WIRE C			1				
1-4207	WIRE C			1				
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1-4267	WIRE C			1				
1-4268	WIRE C			1				
1-4269	WIRE C			1				
1-4270	WIRE C			1				
1-4271	WIRE C			1				
1-4272	WIRE C			1				
1-4273	WIRE C			1				
1-4274	WIRE C			1				
1-4275	WIRE C			1				
1-4276	WIRE C			1				
1-4277	WIRE C			1				
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1-4279	WIRE C			1				
1-4280	WIRE C			1				
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1-4302	WIRE C			1				
1-4303	WIRE C			1				
1-4304	WIRE C			1				
1-4305	WIRE C			1				
1-4306	WIRE C			1				
1-4307	WIRE C			1				
1-4308	WIRE C			1				
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1-4312	WIRE C			1				
1-4313	WIRE C			1				
1-4314	WIRE C			1				
1-4315	WIRE C			1				
1-4316	WIRE C			1				
1-4317	WIRE C			1				
1-4318	WIRE C			1				
1-4319	WIRE C			1				
1-4320	WIRE C			1				
1-4321	WIRE C			1				
1-4322	WIRE C			1				
1-4323	WIRE C			1				
1-4324	WIRE C			1				
1-4325	WIRE C			1				
1-4326	WIRE C			1				
1-4327	WIRE C			1				
1-4328	WIRE C			1				
1-4329	WIRE C			1				
1-4330	WIRE C			1				
1-4331	WIRE C			1				
1-4332	WIRE C			1				
1-4333	WIRE C			1				
1-4334	WIRE C			1				
1-4335	WIRE C			1				
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1-4349	WIRE C			1				
1-4350	WIRE C			1				
1-4351	WIRE C			1				
1-4352	WIRE C			1				
1-4353	WIRE C			1				
1-4354	WIRE C			1				
1-4355	WIRE C			1				
1-4356	WIRE C			1				
1-4357	WIRE C			1				
1-4358	WIRE C			1				
1-4359	WIRE C			1				
1-4360	WIRE C			1				
1-4361	WIRE C			1				
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1-4366	WIRE C			1				
1-4367	WIRE C			1				
1-4368	WIRE C			1				
1-4369	WIRE C			1				
1-4370	WIRE C			1				
1-4371	WIRE C			1				
1-4372	WIRE C			1				
1-4373	WIRE C			1				
1-4374	WIRE C			1				
1-4375	WIRE C			1				
1-4376	WIRE C			1				
1-4377	WIRE C			1				
1-4378	WIRE C			1				
1-4379	WIRE C			1				
1-4380	WIRE C			1				
1-4381	WIRE C			1				
1-4382	WIRE C			1				
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1-4386								

Parts Layout



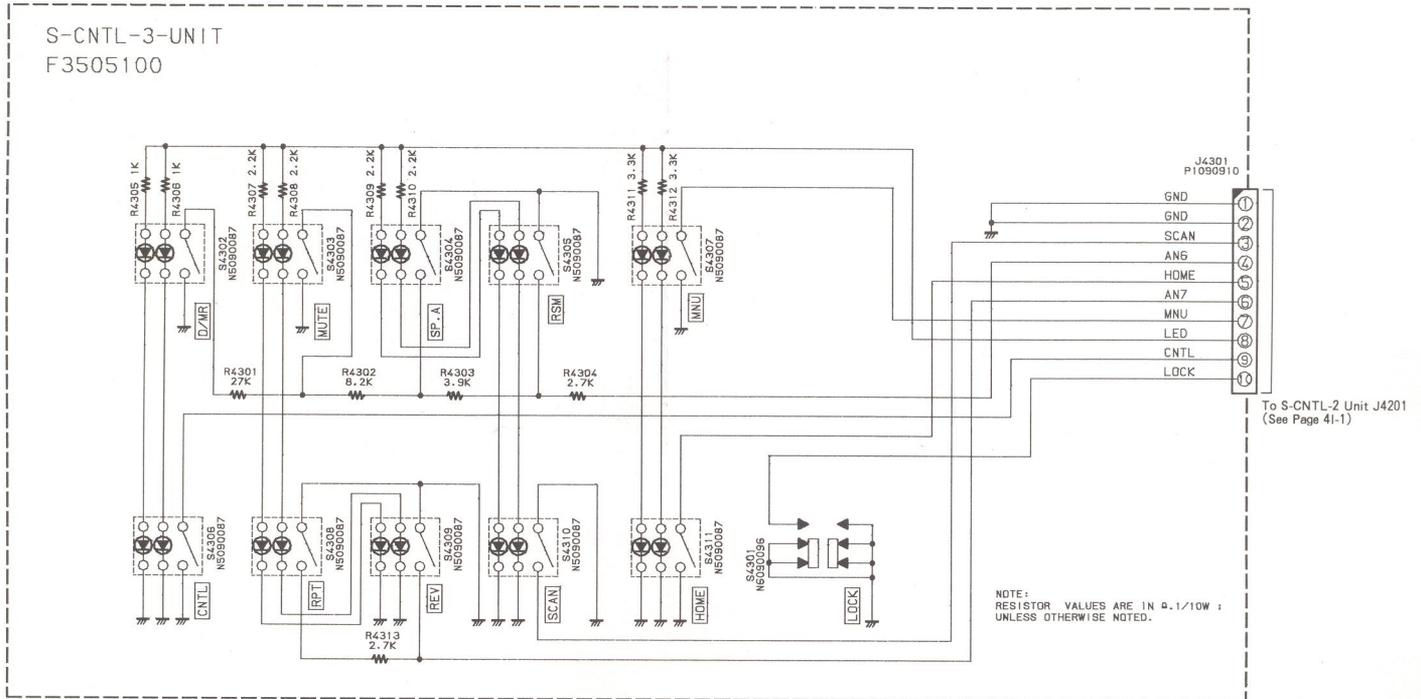
obverse view of connector side

GND	GND
AN6	SCAN
HOME	AN7
MNU	LED
LOCK	CNTL



obverse view of other side

Circuit Diagram



Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
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*** S-CNTL-3 UNIT ***

PCB with Components

CA1363001

Printed Circuit Board

F3505101

R 4301	CHIP RES.	27K	1/10W	5%	RMC1/10T 273J	J24205273			
R 4302	CHIP RES.	8.2K	1/10W	5%	RMC1/10T 822J	J24205822			
R 4303	CHIP RES.	3.9K	1/10W	5%	RMC1/10T 392J	J24205392			
R 4304	CHIP RES.	2.7K	1/10W	5%	RMC1/10T 272J	J24205272			
R 4305	CHIP RES.	1K	1/10W	5%	RMC1/10T 102J	J24205102			
R 4306	CHIP RES.	1K	1/10W	5%	RMC1/10T 102J	J24205102			
R 4307	CHIP RES.	2.2K	1/10W	5%	RMC1/10T 222J	J24205222			
R 4308	CHIP RES.	2.2K	1/10W	5%	RMC1/10T 222J	J24205222			
R 4309	CHIP RES.	2.2K	1/10W	5%	RMC1/10T 222J	J24205222			
R 4310	CHIP RES.	2.2K	1/10W	5%	RMC1/10T 222J	J24205222			
R 4311	CHIP RES.	3.3K	1/10W	5%	RMC1/10T 332J	J24205332			
R 4312	CHIP RES.	3.3K	1/10W	5%	RMC1/10T 332J	J24205332			
R 4313	CHIP RES.	2.7K	1/10W	5%	RMC1/10T 272J	J24205272			

S 4301 SLIDE SWITCH

SSSS822-B-0

N6090096

S 4302 TACT SWITCH

SKQHFJ

N5090087

S 4303 TACT SWITCH

SKQHFJ

N5090087

S 4304 TACT SWITCH

SKQHFJ

N5090087

S 4305 TACT SWITCH

SKQHFJ

N5090087

S 4306 TACT SWITCH

SKQHFJ

N5090087

S 4307 TACT SWITCH

SKQHFJ

N5090087

S 4308 TACT SWITCH

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S 4309 TACT SWITCH

SKQHFJ

N5090087

S 4310 TACT SWITCH

SKQHFJ

N5090087

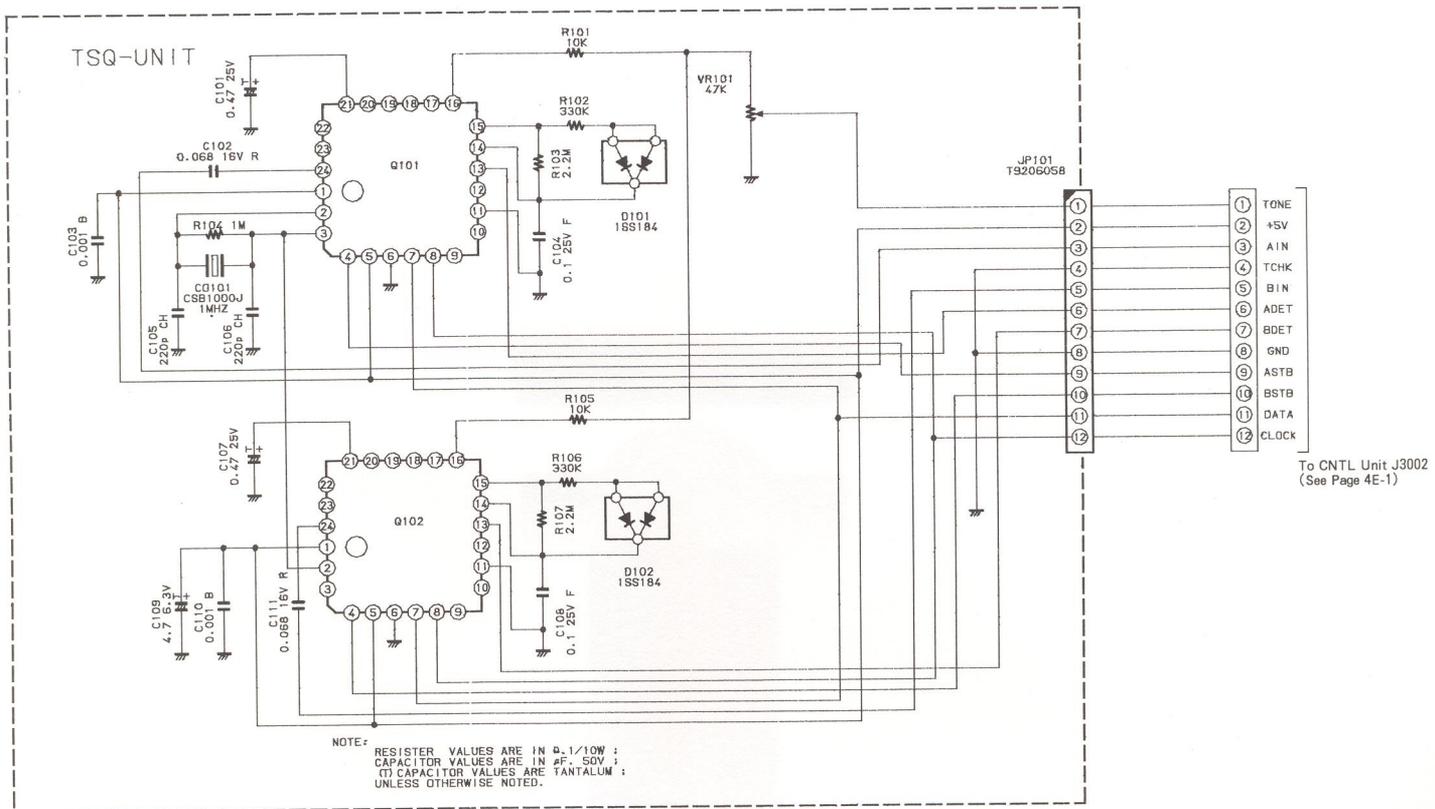
S 4311 TACT SWITCH

SKQHFJ

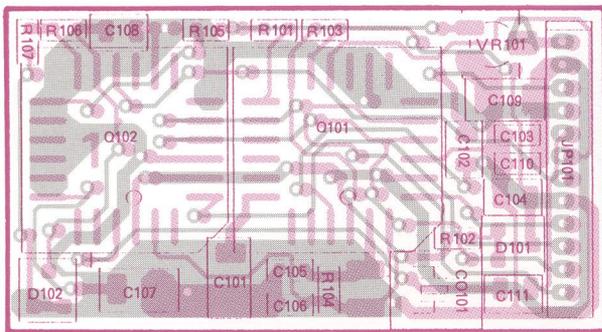
N5090087

FTS-22 CTCSS Tone Squelch Unit (option)

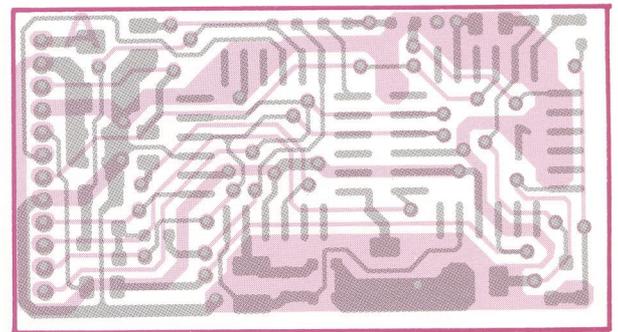
Circuit Diagram



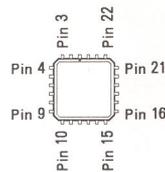
Parts Layout



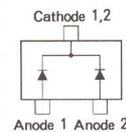
obverse view of component side



obverse view of solder side



MX265LH
(Q101, 102)



1SS184 (B3)
(D101, 102)

FTS-22 CTCSS Tone Squelch Unit (option)

Parts List

REF.	DESCRIPTION	VALUE	WV	TOL.	MFGR'S DESIG	YAESU P/N	VERS.	LOT.	LAY ADR
*** FTS-22 ***									
Printed Circuit Board						F3214101A			
C 0101	TANTALUM CHIP CAP.	0.47uF	25V		F951E474MRAAF1Q2	K78140012			
C 0102	CHIP CAP.	0.068uF	16V	R	GRM40R683M16PT	K22120805			
C 0103	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0104	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005			
C 0105	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243			
C 0106	CHIP CAP.	220pF	50V	CH	GRM39CH221J50PT	K22174243			
C 0107	TANTALUM CHIP CAP.	0.47uF	25V		F951E474MRAAF1Q2	K78140012			
C 0108	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005			
C 0109	TANTALUM CHIP CAP.	4.7uF	6.3V		F950J475MSAAF1Q2	K78080002			
C 0110	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809			
C 0111	CHIP CAP.	0.068uF	16V	R	GRM40R683M16PT	K22120805			
CO0101	CERAMIC OSC	1MHz			CSB1000J221T	H7900550			
D 0101	DIODE				1SS184 TE85R	G2070009			
D 0102	DIODE				1SS184 TE85R	G2070009			
JP0101	WIRE-ASSY					T9206058			
Q 0101	IC				MX265LH-TR	G1091588			
Q 0102	IC				MX265LH-TR	G1091588			
R 0101	CHIP RES.	10K	1/16W		RMC1/16 103JATP	J24185103			
R 0102	CHIP RES.	330K	1/16W		RMC1/16 334JATP	J24185334			
R 0103	CHIP RES.	2.2M	1/16W		RMC1/16 225JATP	J24185225			
R 0104	CHIP RES.	1M	1/16W		RMC1/16 105JATP	J24185105			
R 0105	CHIP RES.	10K	1/16W		RMC1/16 103JATP	J24185103			
R 0106	CHIP RES.	330K	1/16W		RMC1/16 334JATP	J24185334			
R 0107	CHIP RES.	2.2M	1/16W		RMC1/16 225JATP	J24185225			
VR0101	POT.	47K			RH03AYAS4X	J51778473			
DOUBLE FACE ADHESIVE						R7134820			

FTS-22 CTCSS Tone Squelch Unit (option)

Notes:

*** FTS-22 ***

Printed Circuit Board

REF	DESCRIPTION	VALUE	QTY	UNIT	MPN	DESIGN	REV	DATE	BY
0101	TANTALUM CHIP CAP.	0.47uF	250	PC	GRN40883N1EPT	K2315000	1		
0102	CHIP CAP.	0.001uF	100	F	GRN40883N1EPT	K2315000	1		
0103	CHIP CAP.	0.001uF	100	F	GRN40883N1EPT	K2315000	1		
0104	CHIP CAP.	0.001uF	100	F	GRN40883N1EPT	K2315000	1		
0105	CHIP CAP.	0.001uF	100	F	GRN40883N1EPT	K2315000	1		
0106	CHIP CAP.	0.001uF	100	F	GRN40883N1EPT	K2315000	1		
0107	TANTALUM CHIP CAP.	0.47uF	250	PC	GRN40883N1EPT	K2315000	1		
0108	CHIP CAP.	0.001uF	100	F	GRN40883N1EPT	K2315000	1		
0109	TANTALUM CHIP CAP.	0.47uF	250	PC	GRN40883N1EPT	K2315000	1		
0110	CHIP CAP.	0.001uF	100	F	GRN40883N1EPT	K2315000	1		
0111	CHIP CAP.	0.001uF	100	F	GRN40883N1EPT	K2315000	1		
0001	GERMANIC DIODE								
0101	DIODE								
0102	DIODE								
1001	WIRE-ASSY								
0101	IC								
0102	IC								
0101	CHIP RES.	10K							
0102	CHIP RES.	200K							
0103	CHIP RES.	2.2K							
0104	CHIP RES.	1M							
0105	CHIP RES.	10K							
0106	CHIP RES.	200K							
0107	CHIP RES.	2.2K							
0101	WTR								
	MARKER PASTE ADHESIVE								

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