

FT-5200 FT-6200

DUAL-BAND MOBILE
PAGING TRANSCEIVERS



The FT-5200 (for the 2-m & 70-cm bands) and FT-6200 (for the 70-cm & 23-cm bands) are the latest innovations from the originators of mobile cross-band full duplex and detachable front panel design in amateur transceivers. New miniaturization technology allows improvements such as a built-in antenna duplexer, dual full-frequency liquid crystal display (with signal strength/power output bargraphs for each band), 8-level automatic display/button lighting dimmer, and dual external speaker jacks (one for each band). An efficient thermally-switched cooling fan allows up to 50 watts on the 2-meter band (FT-5200), 35 watts on the 70-cm band, and 10-watts on the 23-cm band (FT-6200). Thirty-two freely tunable memories (sixteen per band) offer complete programmability and scanning features, such as independent transmit and receive frequencies, programmable repeater offsets and scan limits, selectable scan resume modes and memory skip, priority monitoring and 1-touch instant-recall CALL channels for each band. Channel steps are user-selectable, and Automatic Repeater Shift can be activated to automatically set standard repeater shifts when tuning to repeater subbands. Versions are available with microphone button control of a 1750-Hz burst generator (with the MH-26_{DS} or MH-26_{ES} Speaker/Mic), vfo/memory or band selection.

When the front panel is connected through an optional cable the transceiver can be installed separately from the panel. Alternatively, the MW-1 Wireless Microphone/Controller option duplicates the controls (including volume and squelch), adding a DTMF (Dual-Tone, Multi-Frequency) keypad and microphone. With the FRC-4 Paging/Selcall option you can select a 3-digit ID code and your receiver stays quiet until your code is received (from any DTMF-equipped transceiver). You can have a code open the squelch or a ring like a telephone. PAGE mode displays the caller's code so you know who is calling. Seven 3-digit code memories on each band store your ID plus that of the calling station and those of five other stations or groups for calling/monitoring (autopatching requires the MH-26_{FS} DTMF keypad microphone or the MH-15_{DS} with its own auto-dial DTMF memories). The DVS-3 Digital Voice/DTMF Pager option includes all of the paging/selcall features of the FRC-4, and also records both received signals and messages for transmission. A built-in 38-tone programmable CTCSS (Continuous Tone-Coded Squelch System) encoder is supplied as standard in both models, and CTCSS tone squelch operation on both bands is available with the FTS-22 Dual Band CTCSS Decoder option, which also provides a telephone-type CTCSS Bell alerting function.

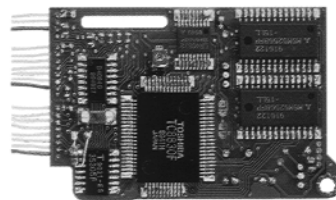


FT-5200/-6200

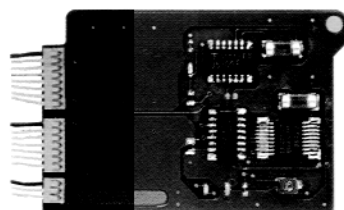
DUAL-BAND MOBILE PAGING TRANSCEIVERS



AD-3



DVS-3



FRC-4



FTS-22



MW-1



SP-7



YSK-1/1L



MH-26 D8

OPTIONS

- AD-3 VHF/UHF Duplexer for two-antennas operation w/FT-5200
- DVS-3 Voice Memory Unit
- FRC-4 Pager Unit
- FTS-22 CTCSS Unit
- MH-26_{D8} ... Hand Microphone with Burst Button
- MH-26_{ES} Hand Speaker/Microphone with Burst Button
- MH-26_{F8} Hand Microphone with DTMF Key pad
- MW-1 Remote Control Microphone
- SP-7 External Speaker
- YSK-1 Remote Mounting Kit w/Bracket, 3m Cable, Speaker Cable
- YSK-1L Remote Mounting Kit w/Bracket, 6m Cable, Speaker Cable



MH-26 ES



MH-26 F8

● Some accessories may be supplied as standard per local regulations or operating requirements.

SPECIFICATIONS

FT-5200

FT-6200

GENERAL		FT-5200	FT-6200
Frequency Range:		See Model Chart	See Model Chart
Standard Repeater Shift:		See Model Chart	See Model Chart
Channel Steps:		5, 10, 12.5, 15, 20 & 25 kHz	(5), 10, 12.5, (15), 20 & 25 kHz (): except 23 cm band
Frequency Stability (0 to +50°C):		better than ±5 ppm	better than ±1.5 ppm
Mode of Emission:		F3	F3
Antenna Impedance:		50 ohms, unbalanced	50 ohms, unbalanced
Supply Voltage:		13.8 V DC ±15%, negative ground	13.8 V DC ±15%, negative ground
Current Consumption Receive:		600 mA	600 mA
Current Consumption Transmit:		2 m, 11.5/ 4.0 A (high/low) 70 cm, 9.0/ 3.5 A (high/low)	70 cm, 9.0/ 3.5 A (high/low) 23 cm, 4.2/ 2.0 A (high/low)
Operating Temperature Range:		-20 to +60 °C	70 cm, -20 to +60 °C 23 cm, -10 to +60 °C
Case Size (WHD):		140 x 40 x 155 mm (w/o knobs)	140 x 40 x 155 mm (w/o knobs)
Weight (approx.):		1.0 kg	1.0 kg
RECEIVER			
Circuit Type:		Double conversion superheterodyne	Double conversion superheterodyne
Intermediate Frequencies:		2 m, 17.7 MHz & 455 kHz 70 cm, 22.5 MHz & 455 kHz	70 cm, 22.5 MHz & 455 kHz 23 cm, 58.3 MHz & 455 kHz
Sensitivity (12 dB SINAD):		better than 0.158 µV	70 cm, better than 0.158 µV 23 cm, better than 0.2 µV
Selectivity (-6/-60 dB)		12 / 24 kHz	12 / 24 kHz
Image Rejection:		better than 65 dB	better than 60 dB
Squelch Sensitivity:		at least 0.1 µV	at least 0.1 µV
Maximum AF Output:		3.0 W into 4 ohms @ 5% THD	3.0 W into 4 ohms @ 5% THD
AF Output Impedance:		4 to 16 ohms	4 to 16 ohms
TRANSMITTER			
RF Output Power:		2 m, 50 / 5 W (high/low) 70 cm, 35 / 5 W (high/low)	70 cm, 35 / 5 W (high/low) 23 cm, 10 / 1 W (high/low)
Modulation Type:		Variable Reactance	Variable Reactance
Maximum Deviation:		±5 kHz	±5 kHz
Spurious Radiation:		less than -60 dB	less than -60 dB
Microphone Impedance:		2 kilohms	2 kilohms

Specifications subject to change without notice.

FT-5200 MODEL CHART

Version	A1	B1	C1	D
Frequency Range (MHz)	144-148 430-450	144-146 430-440	144-146 430-440	144-146 432-438
Std. Rptr Shift	±600 kHz ±5 MHz	±600 kHz ±7.6 MHz	±600 kHz ±1.6 MHz	±600 kHz ±1.6 MHz

FT-6200 MODEL CHART

Version	A1	B1	C1	D1
Frequency Range (MHz)	430-450 1240-1300	430-440 1240-1300	430-440 1240-1300	432-438 1240-1300
Std. Rptr Shift	±5 MHz Programmable	±7.6 MHz Programmable	±1.6 MHz Programmable	±1.6 MHz Programmable



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FT-5200

Technical Supplement



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Contents

1. General

About This Manual	1-1
Case Disassembly & PCB Access	1-2
Chip Component Information	1-3
Block Diagram	1-7

2. Servicing

Alignment	2-1
Pilot Lamp Replacement	2-6
Installation of Options	2-7

3. Board Units (Parts, Layouts & Schematics)

144-MHz Power Amplifier (PA) Unit	3-1
APC Unit	3-5
Mixer Unit	3-8
IF Unit	3-11
AF Unit	3-14
430-MHz VCO Unit	3-15
430-MHz PLL Unit	3-16
144-MHz VCO Unit	3-17
144-MHz PLL Unit	3-20
Main Unit	3-21
Control Unit	3-32
Interface Unit	3-39
FTS-22 Tone Squelch Option	3-46
FRC-4 Pager Option	3-47
DVS-3 Digital Voice Option	3-48

4. Mechanical

Exploded View	4-1
Packaging	4-2

About This Manual



The information in this manual is intended to supplement the *FT-5200 Operating Manual*, for servicing the transceiver. Specifications and details of operation and options are provided in the operating manual, and are not reprinted herein. Therefore, this manual is not intended to serve as an independent reference, but to be used in conjunction with the information provided in the operating manual. The FT-5200 is intended to be serviced only by qualified technicians.

Two pcb layout diagrams are provided for each double-sided circuit board in the 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 technical information in this manual is correct, Yaesu cannot assume any 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.

The technical information in this manual supercedes all previously published information on this product. Where information is duplicated in this manual and the operating manual, this manual should generally be considered more current.

Yaesu Musen reserves the right to make changes in the circuitry of this transceiver, in the interest of technological improvement, without obligation to owners.

Case Disassembly & PCB Access

- ❑ Turn off the transceiver, and disconnect all cables.

Main Unit Solder Side Access

- ❑ Referring to Figure 1, remove the six screws from the top cover to expose the solder side of the Main Unit.

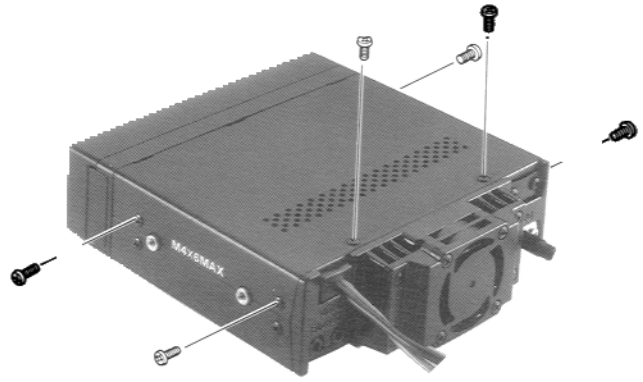


Figure 1.

Other Units

- ❑ Referring to Figure 2, remove the six screws in the bottom cover. *When removing the bottom cover, use care not to strain the wires to the loudspeaker.*

PCB Locations are indicated in Figure 3.

- ❑ To access the Interface Unit, remove the three screws in the subpanel indicated in Figure 4.

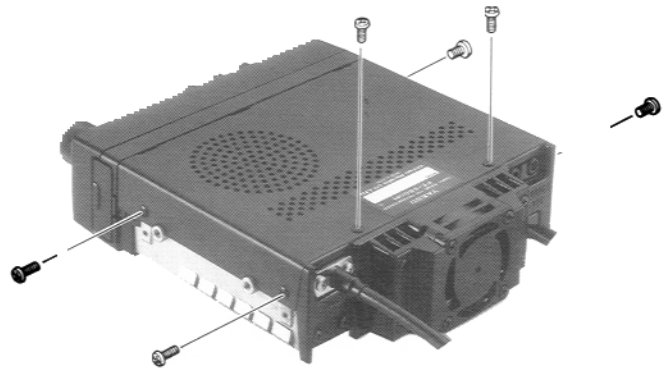


Figure 2.

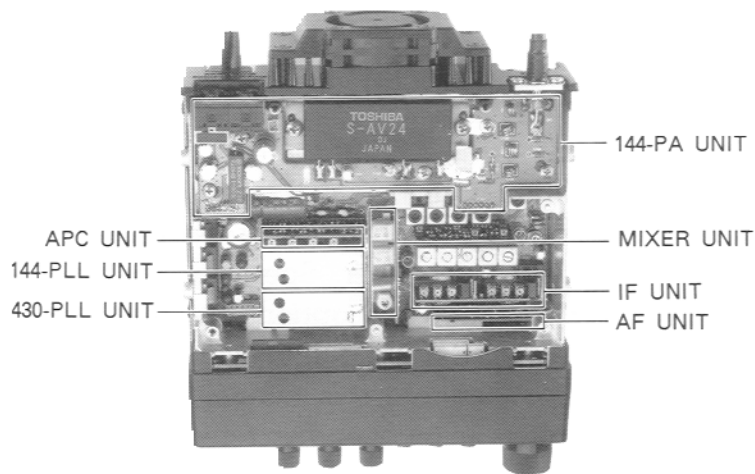


Figure 3.

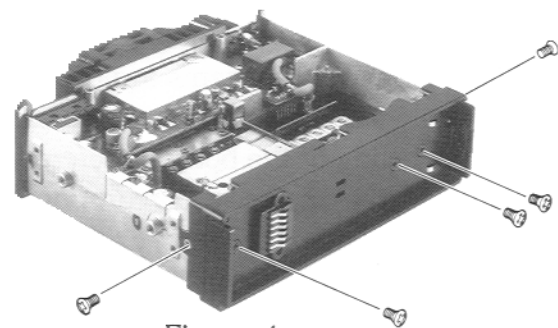
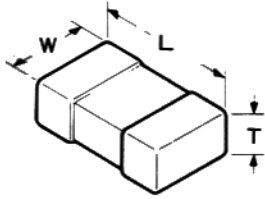


Figure 4.

Chip Component Information

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

Ceramic Capacitors

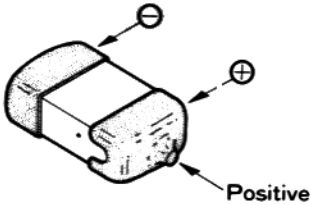


(Unit : mm)

Type	L	W	T
3216	3.2	1.6	0.45~0.60
2125	2.0	1.25	
1608	1.6	0.8	

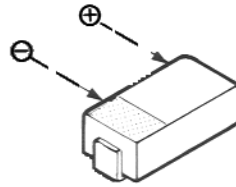
Tantalum Capacitors

Negative



Positive

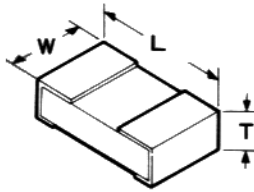
Polarized, Unmarked
(determine value from layout
and Parts List)



Examples :
J475 = 6.3V 4.7 μ F

G	4.0V	D	20V
J	6.3V	E	25V
A	10V	V	35V
C	16V		

Resistors



(Unit : mm)

Type	L	W	T
1/10	2.0	1.25	0.45
1/16	1.6	0.8	0.45

INDICATED LETTERS

2 3 4
6 7 :
0 .

Type RMC 1/10W, 1/16W
Marking* 100, 222, 473.....

473		
10 ¹ unit	1 ¹ unit	Multiplier code
0	0	10 ⁰
	1	10 ¹
2	2	10 ²
	3	10 ³
4	4	
	5	
	6	
7	7	
8	8	
9	9	10 ⁹

Examples :

100 = 10 Ω
222 = 2.2k Ω
473 = 47k Ω

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 and 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 ultra-violet) 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 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.

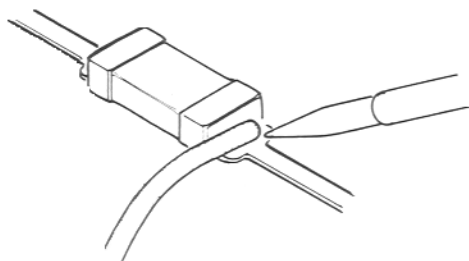
The special vacuum soldering/desoldering equipment is recommended if you expect to do a lot of chip replacements. Otherwise, it is usually possible to remove and replace chip components with only a tapered, temperature-controlled soldering iron, a set of tweezers and braided copper solder wick. Soldering iron temperature should be below 280 °C (536 °F).

Precautions for Chip Replacement

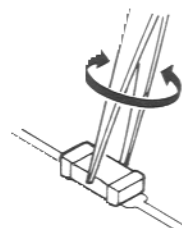
- ✗ Do not disconnect a chip forcefully, or the foil pattern may peel off the board.
- ✗ Never re-use a chip component. Dispose of all removed chip components immediately to avoid mixing with new parts.
- ✗ Limit soldering time to 3 seconds or less to avoid damaging the component and board.

Removing Chip Components

- Remove the solder at each joint, one joint at a time, using solder wick whetted 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.

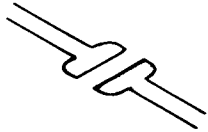


- After removing the chip, use the copper braid and soldering iron to which away any excess solder and smooth the land for installation of the replacement part.

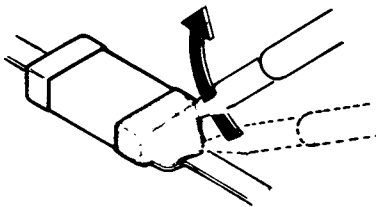
Installing a Replacement Chip

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 too much solder, which may cause bridging (shorting to other parts).



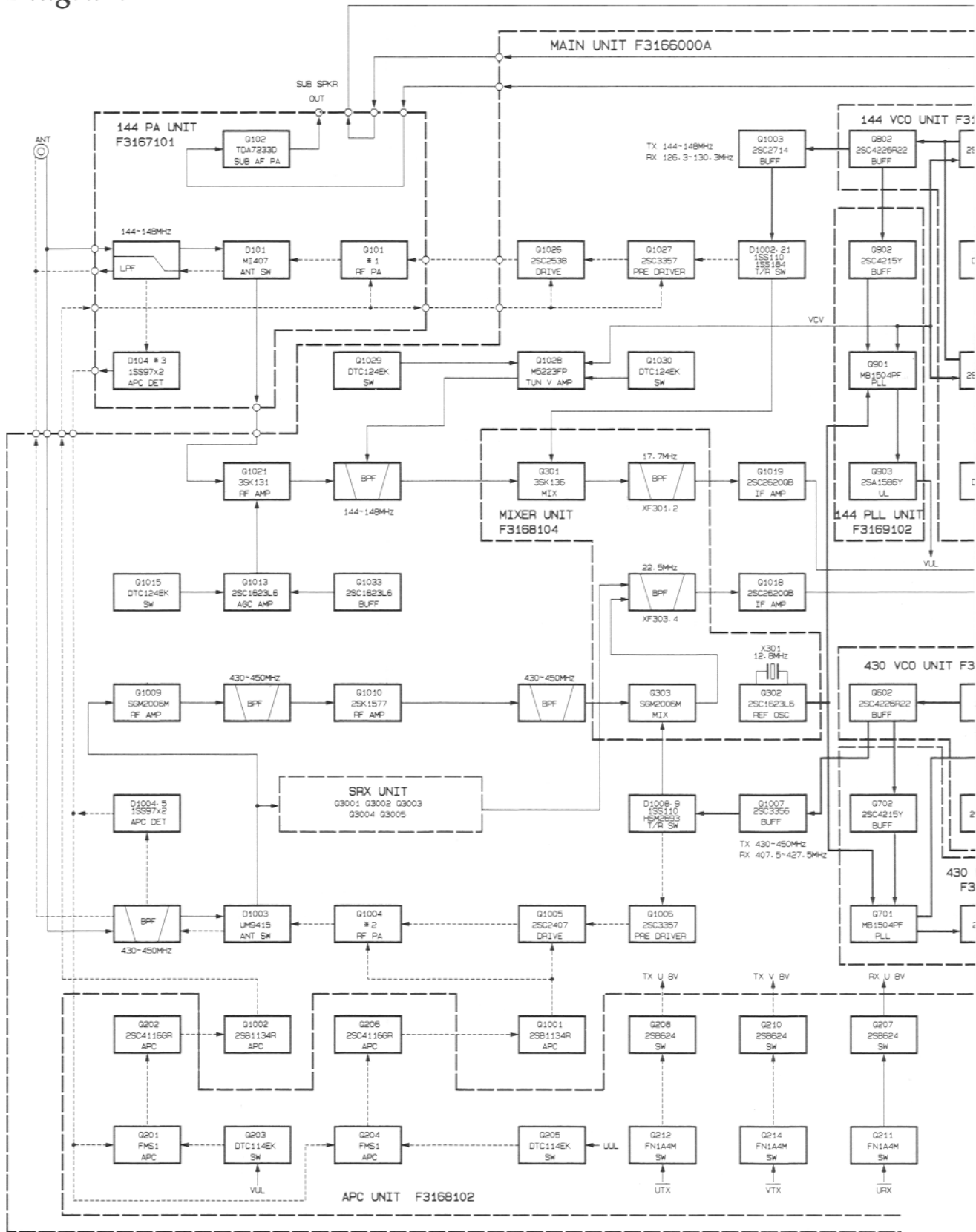
- Hold the chip with tweezers in the desired position, and apply the soldering iron with a motion line that indicated by the arrow in the diagram below. Do not apply heat for more than 3 seconds.



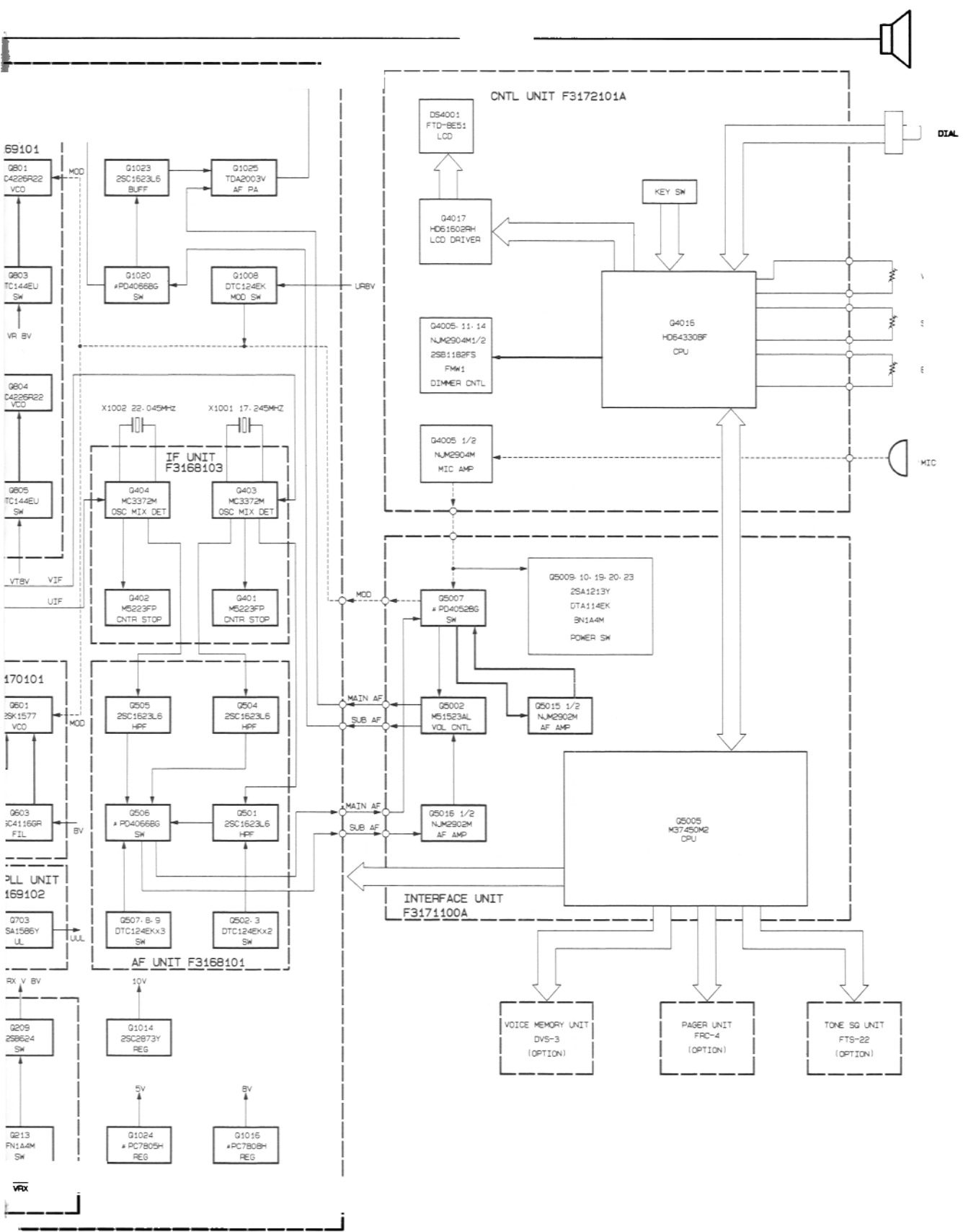
- Remove the tweezers and solder the electrode on the other side in the manner just described.

Notes

Block Diagram



	#1	#2	#3
L	Q101 M57715	Q1004 M57704MR	Q103 —
M	M57737	M57788MR	1SS97
H	S-4V24	M57788MR	1SS97



———→ RX
 - - - - -→ TX
 ———|→ COMMON

Servicing

Alignment

The FT-5200 is carefully aligned at the factory for the specified performance across the amateur bands. 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 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 neces-

sary 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. Rather, 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 450 MHz
- Deviation Meter (linear detector)
- Oscilloscope
- AF Millivoltmeter
- SINAD Meter
- Inline Wattmeter with 5% accuracy at 450 MHz
- Regulated DC Power Supply adjustable from 10 to 17 V, 15 A
- 50- Ω Dummy Load: 100 W at 450 MHz
- Frequency Counter: 100-Hz resolution and ± 0.2 -ppm accuracy at 450 MHz
- AF Signal Generator
- DC Voltmeter: high impedance
- Spectrum Analyzer
- UHF Sampling Coupler

Alignment Preparation & Precautions

A 50- Ω dummy load and inline wattmeter must be connected to the 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 power supply, 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 equalization with the environment before alignment.

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

Most alignment procedures call for tuning the transceiver to the high or low band edge, or to band center. The actual frequency differs between different versions, so the technician should make sure of the band limits of each set to be aligned before beginning.

Note: Signal levels in dB referred to in the alignment procedure are based on $0 \text{ dB}\mu = 0.5 \text{ dB}\mu\text{V}$.

PLL VCV

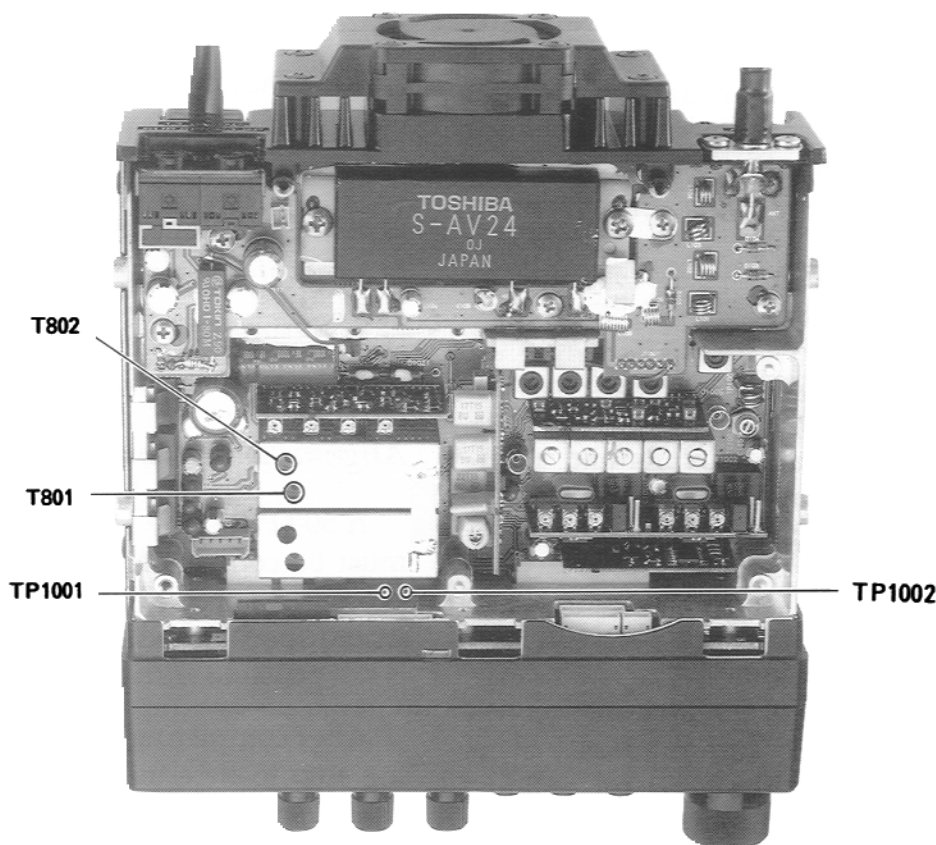
Set up the test equipment as shown here for transmitter alignment. Maintain the supply voltage at 13.6 V for all steps.

VHF PLL VCV (*Varactor Control Voltage*)

- Connect the positive lead of the DC voltmeter to test point TP1001 on the Main Unit, as indicated below, and the negative lead to chassis ground.
- Set the transceiver to 144.000 MHz, and adjust T801 on the 144-MHz VCO Unit for 1.5 V on the voltmeter while receiving.
- Key the transmitter while adjusting T802 on the 144-MHz VCO Unit for 1.5V on the voltmeter.

UHF PLL VCV Check

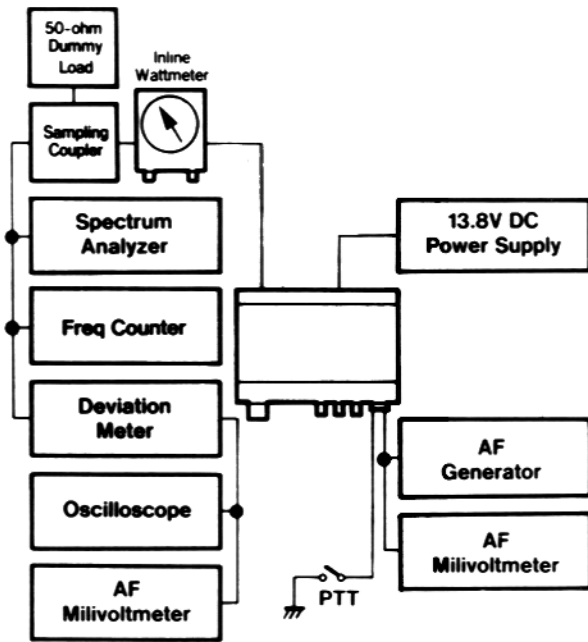
- Connect the DC voltmeter to TP1002 on the Main Unit.
- Tune to 430.000 MHz (432.000 MHz in version D) and confirm the VCV is between 1.5 and 4.5 V while receiving, and between 2.5 and 5.5 V while transmitting.



PLL Unit Alignment Points

2-Meter Transmitter & Ref. Oscillator

For all of these procedures, connect the test equipment as shown in the diagram below.



2-m Transmitter Alignment Setup

2-Meter Power Output

- Tune to the center of the band (for the version being aligned), and press the **LOW** button, if necessary, to select high power output.
- Key the transmitter and adjust VR202 on the APC Unit for 50 watts on the wattmeter (use care not to exceed 60 watts during the alignment).

- Press the **LOW** button to select low power, key the transmitter, and adjust VR201 for 5 watts on the wattmeter.

Reference Oscillator

- While tuned to the center of the band, key the transmitter (without modulation), and adjust TC301 on the Mixer Unit to precisely match the frequency on the counter.

2-Meter Transmitter Deviation

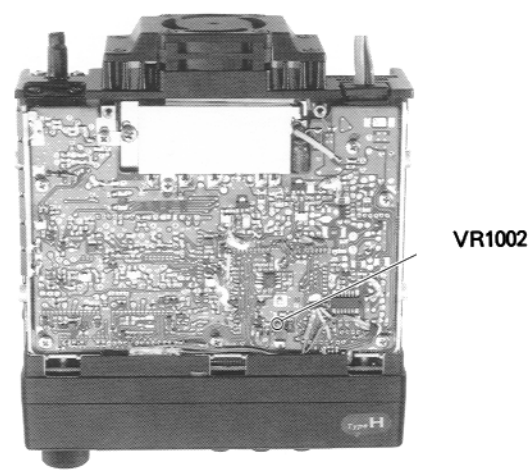
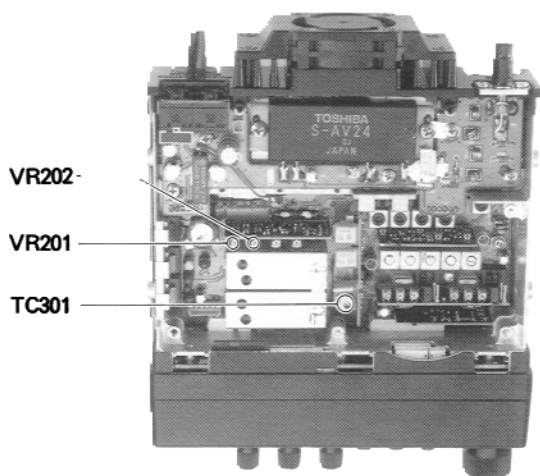
- While tuned to 146.000 MHz, adjust the AF generator attenuator for 50-mV output at 1 kHz to the **MIC** jack.
- Key the transmitter and adjust VR1002 on the Main Unit for ± 4.5 kHz deviation on the deviation meter (within 100 Hz).
- Reduce the AF injection until the deviation meter shows ± 3.5 kHz deviation, and confirm that the injection level is 4 to 6 mV.

70-Centimeter Transmitter

For all of these procedures, connect the test equipment per the top of the next page.

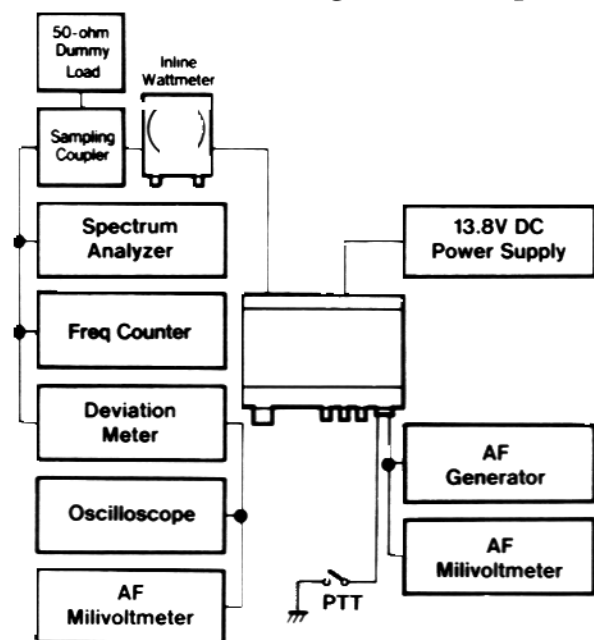
70-Centimeter Power Output

- Tune to band center (for the version being aligned), and press the **LOW** button, if necessary, to select high power output.
- Key the transmitter and adjust VR204 on the APC Unit for 35 watts on the wattmeter (use care not to exceed 42 watts during the alignment).



2-Meter Transmitter & Ref. Osc. Alignment Points

70-cm Transmitter Alignment Setup



- Press the **LOW** button to select low power, key the transmitter, and adjust VR203 for 5 watts on the wattmeter.

70-Centimeter Transmitter Deviation

- While tuned to the center of the band, adjust the AF generator attenuator for 50-mV output at 1 kHz to the **MIC** jack.
- Key the transmitter and adjust VR1001 on the Main Unit for ± 4.5 kHz deviation on the deviation meter (within 100 Hz).
- Reduce the AF injection until the deviation meter shows ± 3.5 kHz deviation, and confirm that the injection level is 4 to 6 mV.

Receiver

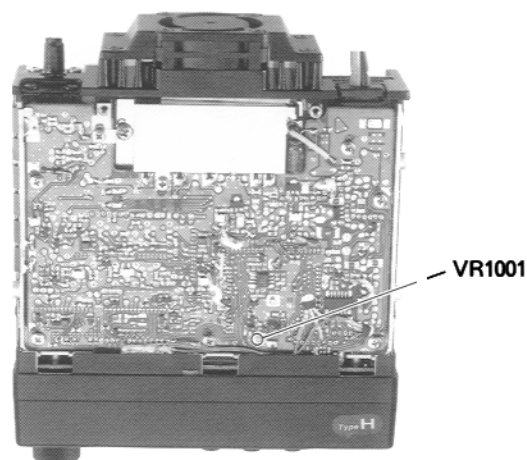
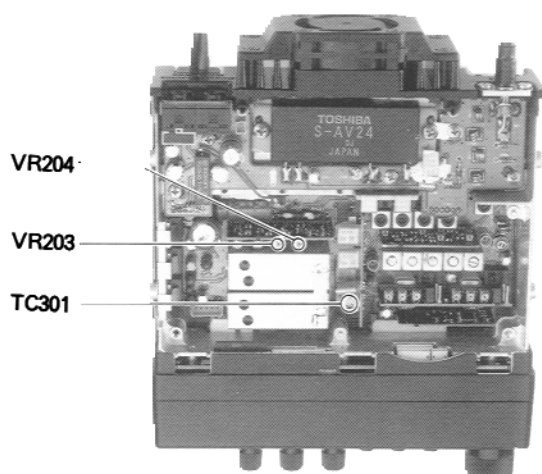
Set up the test equipment as shown below for receiver alignment.

Interstage Transformers

- Tune the transceiver and RF signal generator to the high 2-m band edge. Modulate the RF signal generator with ± 3.5 kHz deviation of a 1-kHz tone.
- Adjust T1002 through T1006 on the Main Unit for optimum 12-dB SINAD (less than -10 dB μ).
- Confirm -8 dB μ or better 12-dB SINAD at the center and bottom edge of the 2-m band.
- Tune the transceiver and RF signal generator to the *center* of the 70-cm band and repeat the same procedure, adjusting TC1001 through TC1006, and confirming -8 dB μ or better SINAD at the band edges.

S-Meter Calibration

- Tune to the top edge of the 2-m band and, inject 25-dB μ RF modulated with ± 3.5 kHz deviation of a 1-kHz tone. Adjust VR405 on the IF Unit so that all S-meter segments are just on.
- Tune the transceiver and RF signal generator to the *center* of the 70-cm band and with the same injection level and modulation, adjust VR406 so that all S-meter segments are just on.



70-cm Transmitter Alignment Points

Scanner Center-Stop

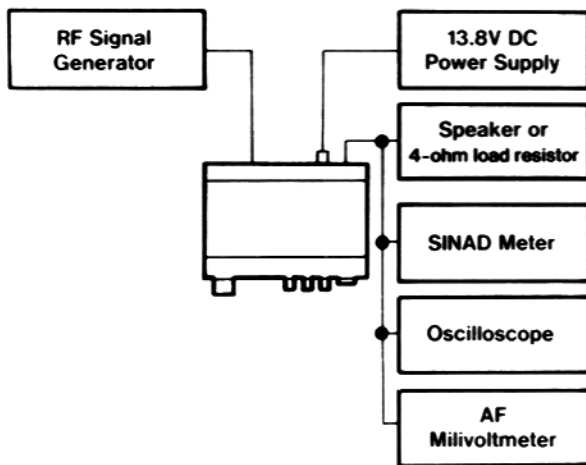
- ❑ With both the transceiver and signal generator tuned to the top edge of the 2-m band, set the signal generator for nil injection, then set the SQL control so that the squelch is just closed.
- ❑ Connect the DC voltmeter (3-V range) between TP1 (+) and TP2 (-) on the IF Unit, and with no signal at the antenna jack, adjust VR403 for zero volts on the meter.
- ❑ Inject 10 dB μ RF modulated with \pm 3.5 kHz deviation of a 1-kHz tone, then press the UP button on the microphone for more than $\frac{1}{2}$

second to start scanning. Confirm that scanning stops at the injection frequency.

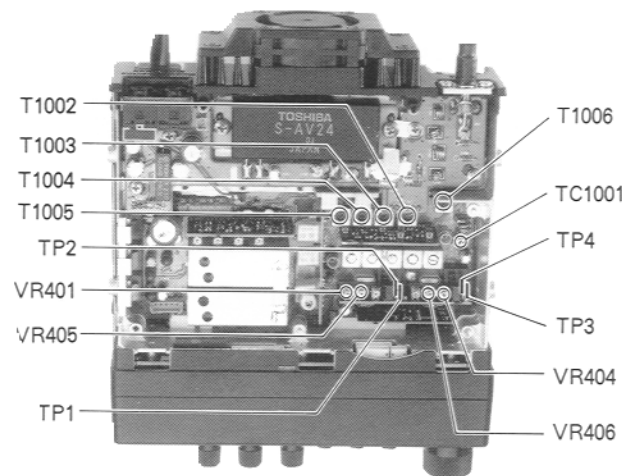
- ❑ Move the DC voltmeter to TP3 (+) and TP4 (-), tune the transceiver and signal generator tuned to the *center* of the 70-cm band and repeat the above steps, adjusting VR404 for zero volts with no signal, and injecting 30 dB μ RF when testing scan stop.

Squelch Preset

- ❑ Set the SQL control to the 9 o'clock position.
- ❑ With no signal at the antenna jack, set VR401 on the IF Unit so that the squelch is just closed.



Receiver Alignment Setup



Receiver Test Points

Pilot Lamp Replacement

- ❑ Remove the control head from the chassis, if connected, by lifting the catch on the left side of the head and unhooking the right side.
- ❑ Pull the knobs off the panel, and unscrew the ring nuts affixing the mic jack and the tuning shaft (you may be able to do this with long-nose pliers, or have your dealer do it with a special wrench).
- ❑ Remove the front panel cover (it clips at the top and bottom edges) and two white plastic shields, and with a jeweler's screwdriver, remove the tiny screw on the circuit board just left of the mic jack.
- ❑ Remove the two screws from the back side of the control head, and carefully separate the back cover from the circuit board, noting the positions of the brackets on either side as you do so.
- ❑ Referring to Figures 1 and 2, unsolder the old bulbs and install the replacements.

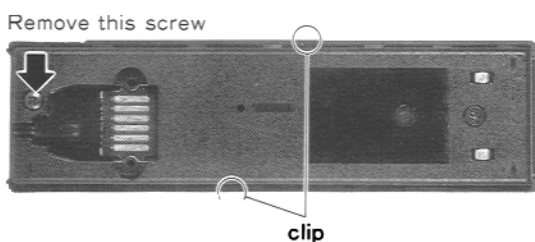


Figure 1.

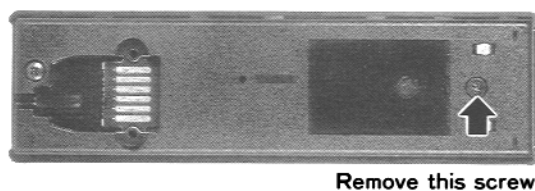


Figure 2.

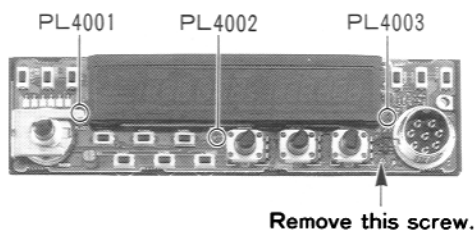


Figure 3.

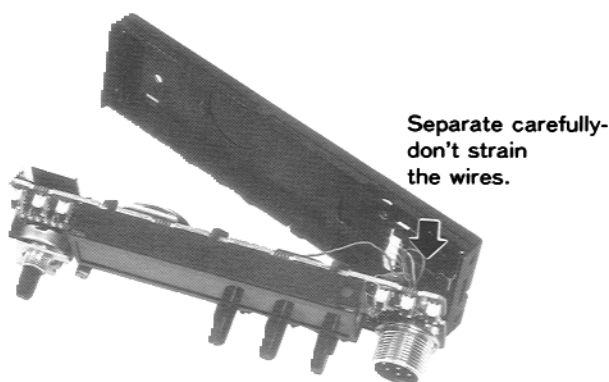


Figure 4.

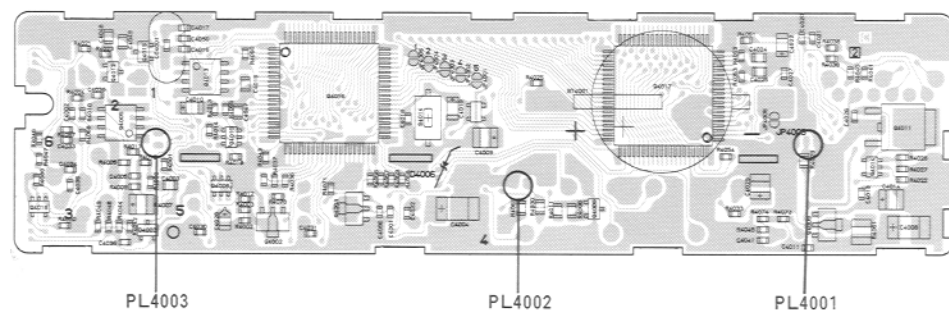
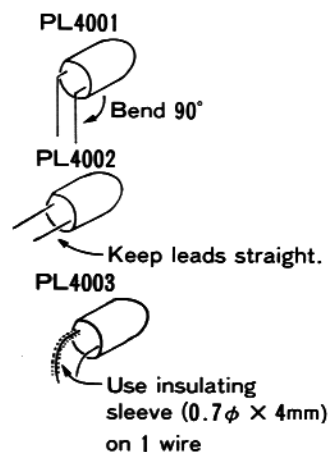


Figure 5.



Installation of Options

This chapter describes the installation procedures for the DVS-3 Digital Voice Recorder/DTMF Pager, FRC-4 DTMF Pager, FTS-22 Tone Squelch Unit and the YSK-1/1L Trunk Mounting Kits. These options are available from your Yaesu dealer. If installing both the FTS-22 and either the FRC-4 or DVS-3, install the FTS-22 last.

Note! The FRC-4 and DVS-3 cannot be installed together. The DVS-3 includes all functions of the FRC-4.

FRC-4 DTMF Pager or DVS-3 Digital Voice Recorder/DTMF Pager Installation

The FRC-4 provides DTMF paging/selcall features using 3-digit DTMF station ID codes. Six code memories store your ID code plus those of five frequently-called stations. Control is provided through the front panel of the transceiver. The DVS-3 includes all features of the FRC-4, plus recording and playback of received signals and messages for transmission. See the *FT-5200 Operating Manual* for operational details.

The FRC-4 and DVS-3 install in the same location, and cannot both be installed together. If also installing the FTS-22 Tone Squelch Unit, save it until after the FRC-4 or DVS-3 is installed.

- ❑ Disconnect the DC power cable, and set the transceiver upside-down. Referring to Figure 1 on the next page, remove the six screws affixing the bottom cover, and remove the cover.
- ❑ Lift the speaker out of its bracket, and set the bracket and speaker aside for now. Referring to Figure 2, note the accessory mounting location. If the FTS-22 is already installed, you will need to remove it temporarily: just lift the FTS-22 board gently, allowing the double-sided tape underneath to come unstuck. Keep the tape with the FTS-22 board, and fold it aside for the moment (you need not disconnect it).
- ❑ If the FRC-4 is installed and you are installing a DVS-3 (or vice-versa), remove the screw holding the installed board, and unplug its three cables.

- ❑ Refer to Figure 3 for the location of the three connectors used by the FRC-4 and DVS-3 (just in front of the loudspeaker's position). Connect the cables from the FRC-4 or DVS-3 to these connectors carefully, so as not to install the plugs upside down.
- ❑ Position the FRC-4 or DVS-3 as shown in Figure 4, and use the supplied screw to fix it in place.
- ❑ If the FTS-22 was already installed, reuse the double-sided tape to stick it on top of the newly installed board, in the same way it was before (that is, with the cable running over the top of the FTS-22).
- ❑ If installing an FTS-22 in this transceiver for the first time, proceed to the FTS-22 procedure below. Otherwise, replace the loudspeaker and its bracket, the top cover, and its six screws.

FTS-22 Tone Squelch Unit Installation

The FTS-22 includes an encoder and decoder for 38 EIA standard subaudible CTCSS tones, programmable from the front panel of the FT-6200. It provides silent monitoring of busy channels when activated by the EN-Code/DECode Tone Squelch function. Tone squelch operation on both bands requires only one FTS-22, and it may be installed after installing either the DVS-3 or FRC-4. See the *FT-5200 Operating Manual* for operational details.

- ❑ Disconnect the power cable, and turn the set upside-down. Referring to Figure 1 on the next page, remove the six screws affixing the bottom cover, and remove the cover.
- ❑ Referring to Figure 5, locate unused 12-pin connector J5005 inside the front panel.
- ❑ Peel the covering from one side of the double-sided tape provided with the FTS-22. If the FRC-4 or DVS-3 is installed in front of J5005, stick the tape on top of that board. Otherwise, stick it on the top of the VCO housing just behind J5005.
- ❑ Note in Figure 6 how the FTS-22 cable routes over the top of the board. Plug the FTS-22 cable into J5005. Then peel the covering from the exposed side of the tape, and press the FTS-22 onto it.

- The factory adjusts the output tone level (VR1 on the FTS-22) for the proper deviation. This should require no further adjustment.
- Replace the bottom cover after the removed cover is the first step.

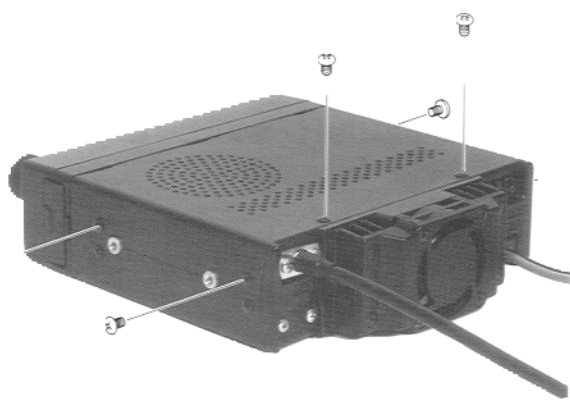


Figure 2.

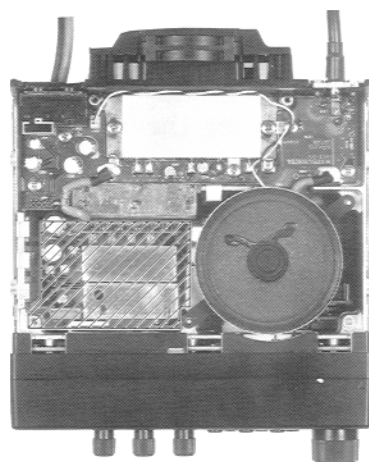


Figure 3.

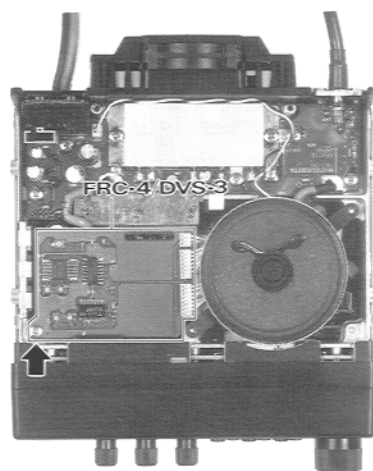


Figure 4.

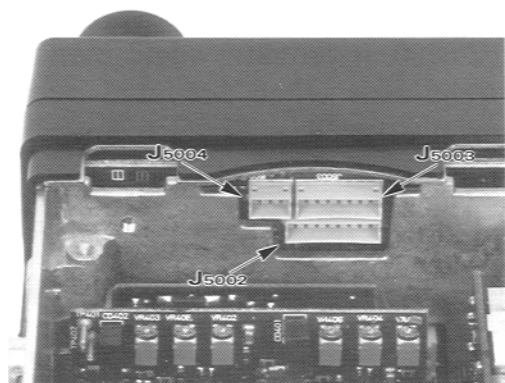


Figure 5.

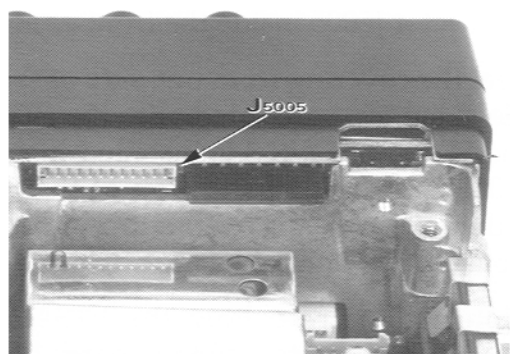


Figure 6.

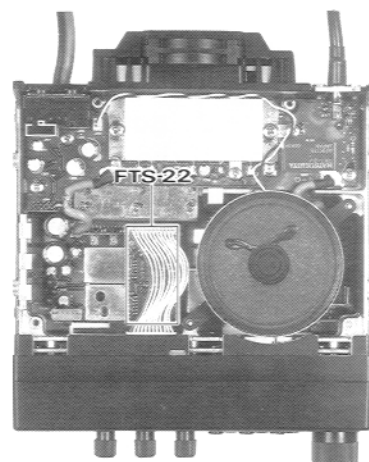


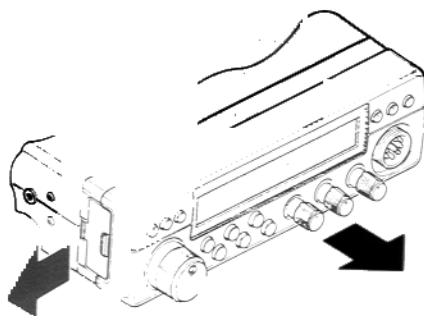
Figure 7.

YSK-1/1L Trunk Mounting Kit Installation

The YSK-1/1L kits consist of a 3-m (YSK-1) or 6-m (YSK-1L) interconnecting cable for the Controller, and Controller mounting hardware. This allows the main body of the transceiver to be installed under a seat, in the trunk, or anywhere else out of the way, while the Controller is mounted on the dashboard. A choice of Controller mounting methods allows it to be easily removed and taken with you when leaving the vehicle.

To install the YSK-1/1L:

- Disconnect the DC power cable, and carefully lift the latch on the left side of the Front Panel/Controller while pulling the panel forward.



Caution!

Do not install the main body of the transceiver near a heating vent, nor in a tightly closed compartment – the heatsink need ventilation!

- Use two of the supplied 12-mm ($\frac{1}{2}$ -inch) machine screws to connect the mating end of the extension cable (the end with flat contacts) over the contacts on the front of the transceiver body, so that the cable exits the connector toward the center of the transceiver body.
- Mount the main body of the transceiver in the trunk or other out-of-the-way location using the MMB-37 Mounting Bracket supplied with the transceiver, as described on pages 7 and 8. Remember: DC power must be supplied to the main body, and at least one external speaker (page 9) should be connected.
- Route the external speaker cable and Controller interconnecting cable to the desired locations.
- Referring to the diagram on the next page, decide where to install the Front Panel/Controller, and which parts of the Controller mounting hardware you will need. The Controller Nest may be screwed directly to a flat surface, or installed with the hinged angle bracket. If you will not

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need the hinged bracket, remove the two short machine screws affixing it to the Nest.

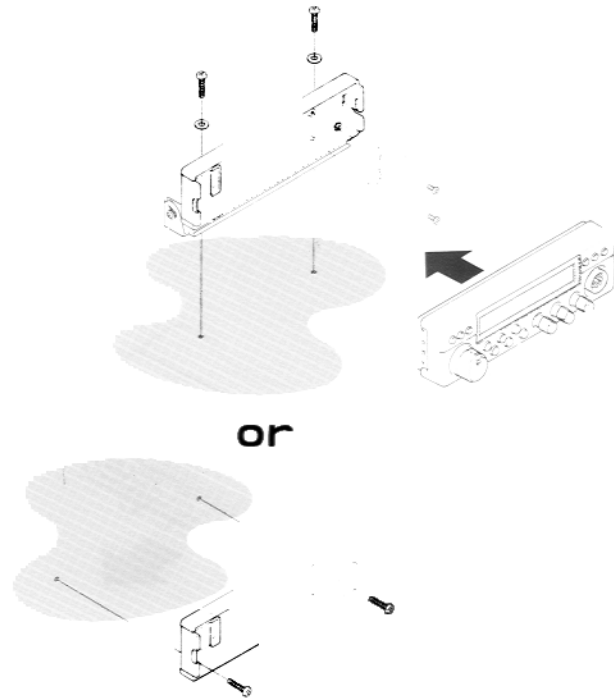
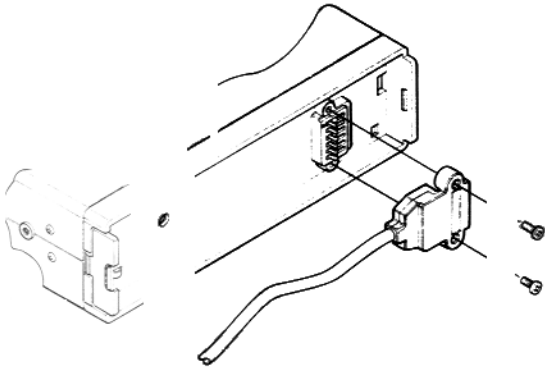
✘ *Do not mount the Controller Unit where it will be exposed to direct sunlight for long periods, nor where temperatures might exceed 60 °C (140 °F).*

□ Use the two supplied self-tapping screws and flat washers to mount the Nest (with or without the metal bracket) to the car.

□ Using the two supplied 7-mm ($\frac{1}{4}$ -inch) machine screws, mount the free end of the cable inside the Controller Nest so that the contacts face outward.

□ Clip the Front Panel/Controller into the Nest, right side first.

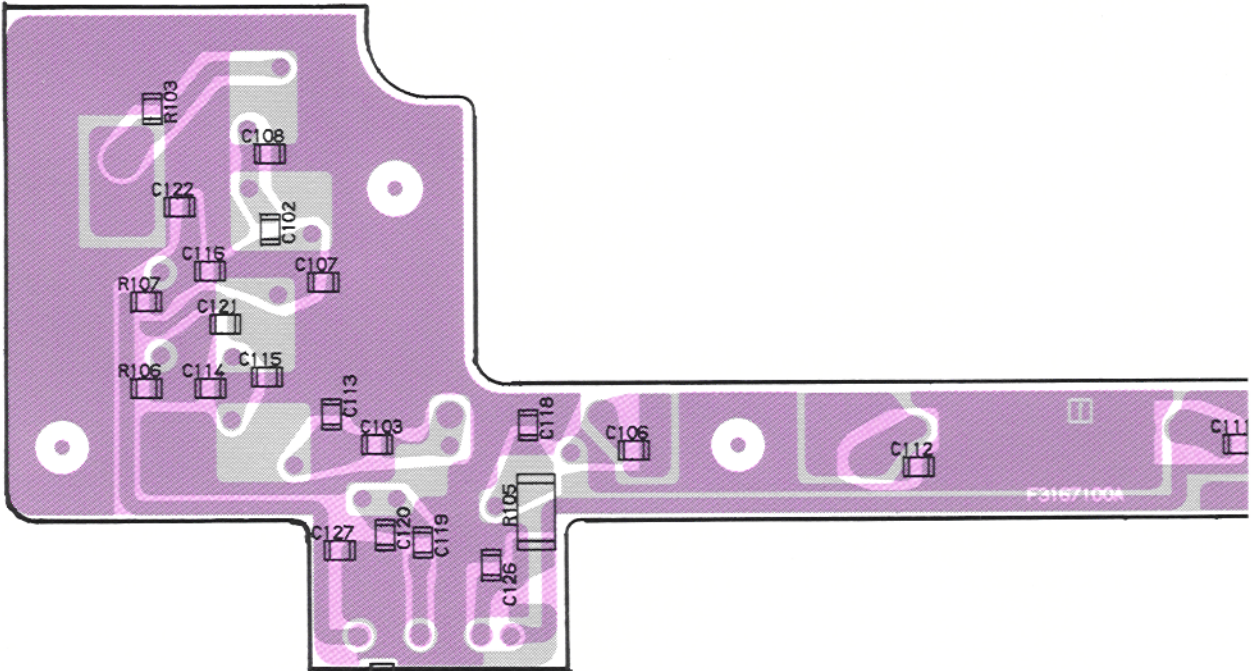
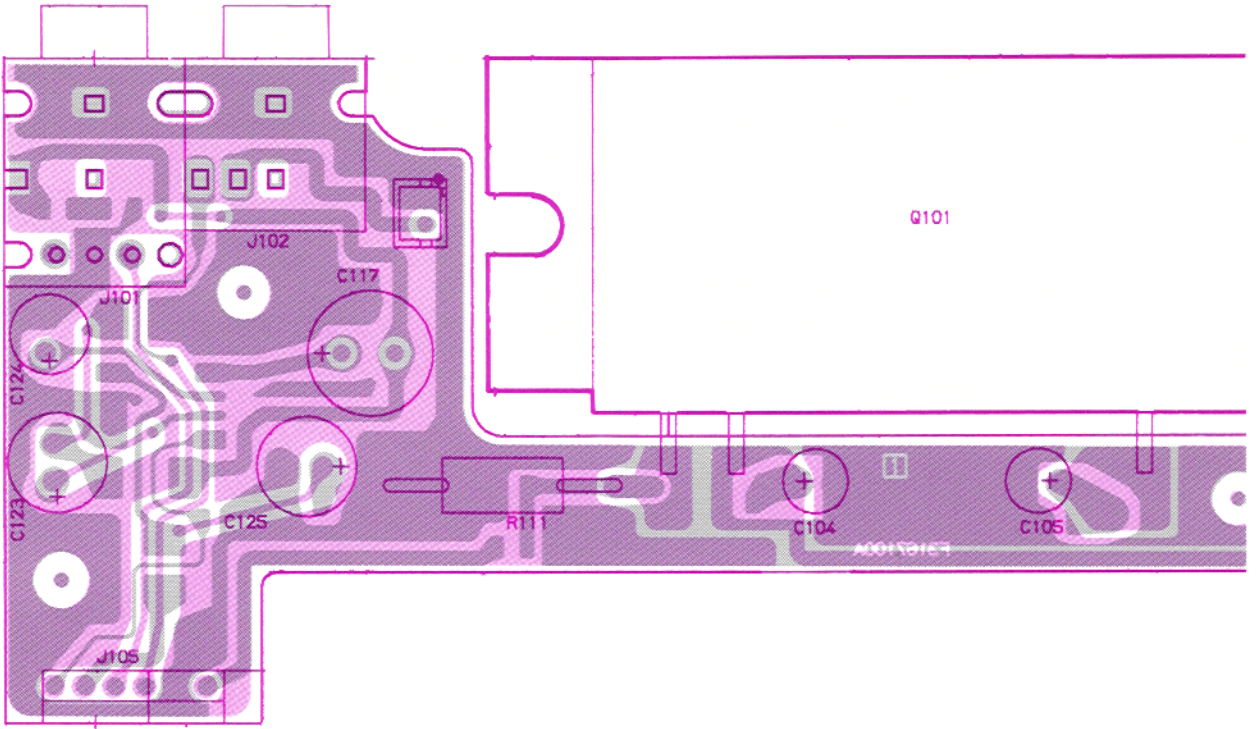
Note: In cold climates the display on the Controller Unit may fail to operate in temperatures below -20 °C (-4 °F).

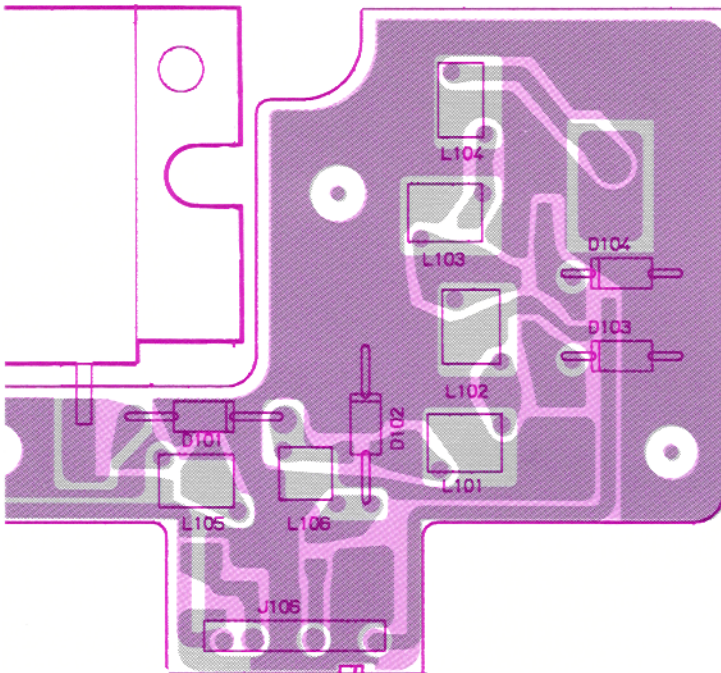


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C 0101	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0102	K22170213	CHIP CAP.	GRM40CH120J50PT	12pF	50V	CH	
C 0103	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 0104	K46120004	AL. ELECTRO. CAP.	16V100M4X7TR2	10uF	16V		
C 0105	K46120004	AL. ELECTRO. CAP.	16V100M4X7TR2	10uF	16V		
C 0106	K22170211	CHIP CAP.	GRM40CH100D50PT	10pF	50V	CH	
C 0107	K22170225	CHIP CAP.	GRM40CH390J50PT	39pF	50V	CH	
C 0108	K22170217	CHIP CAP.	GRM40CH180J50PT	18pF	50V	CH	
C 0110	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 0111	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 0112	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 0113	K22170225	CHIP CAP.	GRM40CH390J50PT	39pF	50V	CH	
C 0114	K22170202	CHIP CAP.	GRM40CK010C50PT	1pF	50V	CK	
C 0115	K22170223	CHIP CAP.	GRM40CH330J50PT	33pF	50V	CH	
C 0116	K22170202	CHIP CAP.	GRM40CK010C50PT	1pF	50V	CK	
C 0117	K40129066	AL. ELECTRO. CAP.	RE3-16V471M	470uF	16V		
C 0118	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 0119	K22170219	CHIP CAP.	GRM40CH220J50PT	22pF	50V	CH	
C 0120	K22170213	CHIP CAP.	GRM40CH120J50PT	12pF	50V	CH	
C 0121	K22170213	CHIP CAP.	GRM40CH120J50PT	12pF	50V	CH	
C 0122	K22170217	CHIP CAP.	GRM40CH180J50PT	18pF	50V	CH	
C 0123	K46120006	AL. ELECTRO. CAP.	16V470M6X7TR2	47uF	16V		
C 0124	K46120005	AL. ELECTRO. CAP.	16V220M5X7TR2	22uF	16V		
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C 0128	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 0129	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
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C 0131	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
D 0101	G2090425	DIODE	UM9415				
D 0102	G2090337	DIODE	M1308				
D 0103	G2090118	DIODE	1SS97				
D 0104	G2090118	DIODE	1SS97				
D 0105	G2090337	DIODE	M1308				
J 0101	P1090667	CONNECTOR	HSJC 13-01-160				
J 0102	P1090668	CONNECTOR	HSJC 12-01-050				
J 0103	P0090647	CONNECTOR	B2B- 7R				
J 0105	P0090789	CONNECTOR	9210 3-1-06Z170-T				
J 0106	P0090789	CONNECTOR	9210 3-1-06Z170-T				
L 0101	L002 811A	COIL	2.5T3. ODO. 6UEW R				
L 0102	L002 812A	COIL	3.5T3. ODO. 6UEW R				
L 0103	L002 811A	COIL	2.5T3. ODO. 6UEW R				
L 0104	L002 811A	COIL	2.5T3. ODO. 6UEW R				
L 0105	L002 724	COIL	8.5T3. ODO. 5UEW R				
L 0106	L002 428	COIL	4.5T3. ODO. 5UEW R				

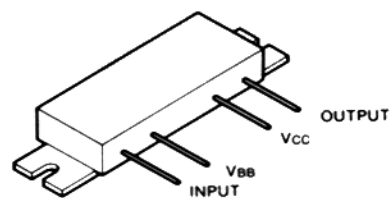
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R 0101	J24205479	CHIP RES.	RMC1/10T 4R7J	4.7		1/10W	
R 0103	J24205223	CHIP RES.	RMC1/10T 223J	22K		1/10W	
R 0104	J24275221	CHIP RES.	RMC1/2 221JCTP	220		1/2W	
R 0105	J24275151	CHIP RES.	RMC1/2 151JCTP	150		1/2W	
R 0106	J24205103	CHIP RES.	RMC1/10T 103J	10K		1/10W	
R 0107	J24205103	CHIP RES.	RMC1/10T 103J	10K		1/10W	
R 0108							
R 0109	J24205103	CHIP RES.	RMC1/10T 103J	10K		1/10W	
R 0110	J24245229	CHIP RES.	RMC1/4 2R2JATP	2.2		1/4W	

144-PA UNIT (No.01XX)

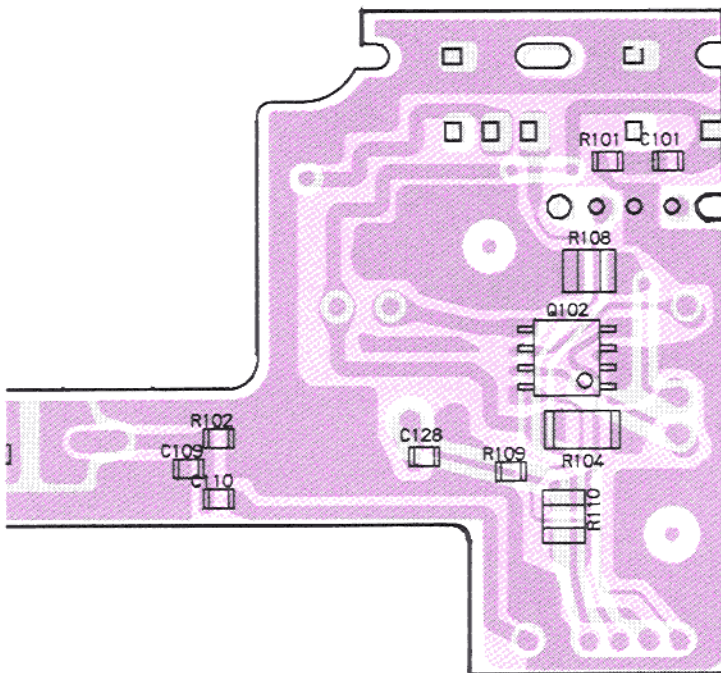




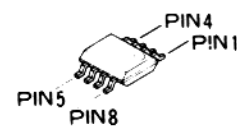
(obverse view of "component" side)



50W Type : S-AV24
(Q0101)

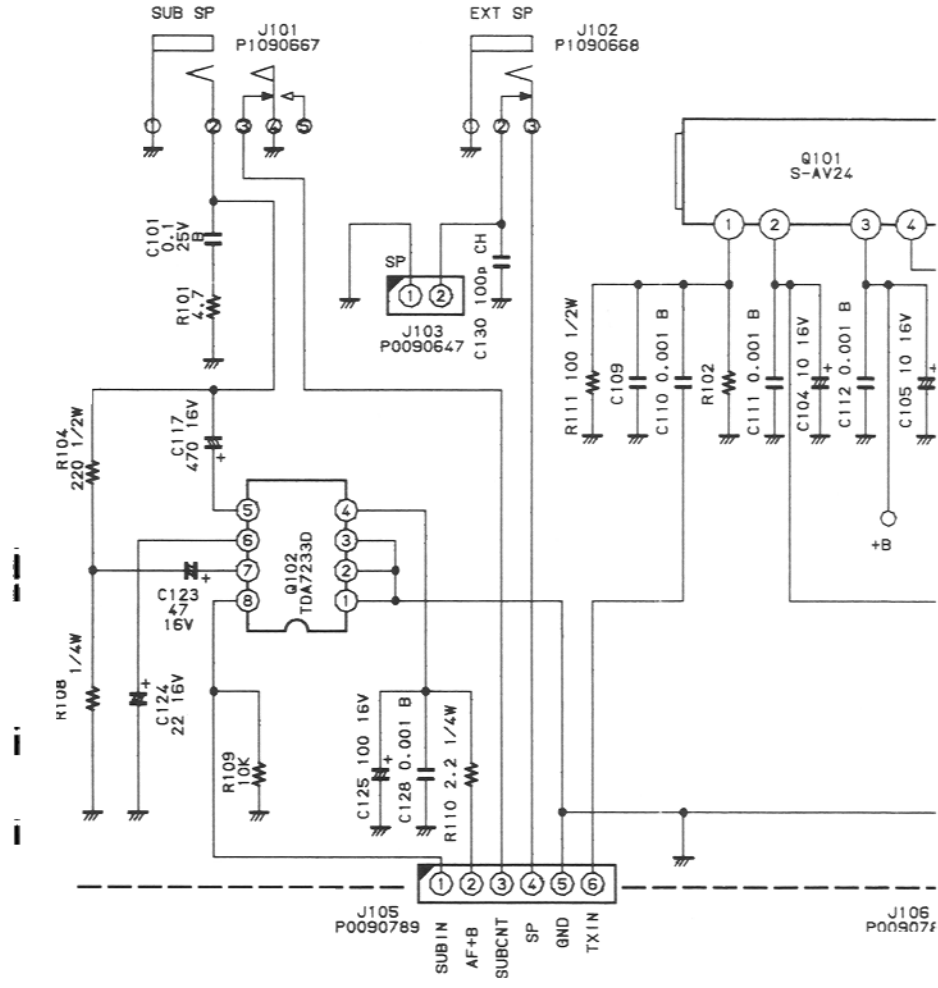


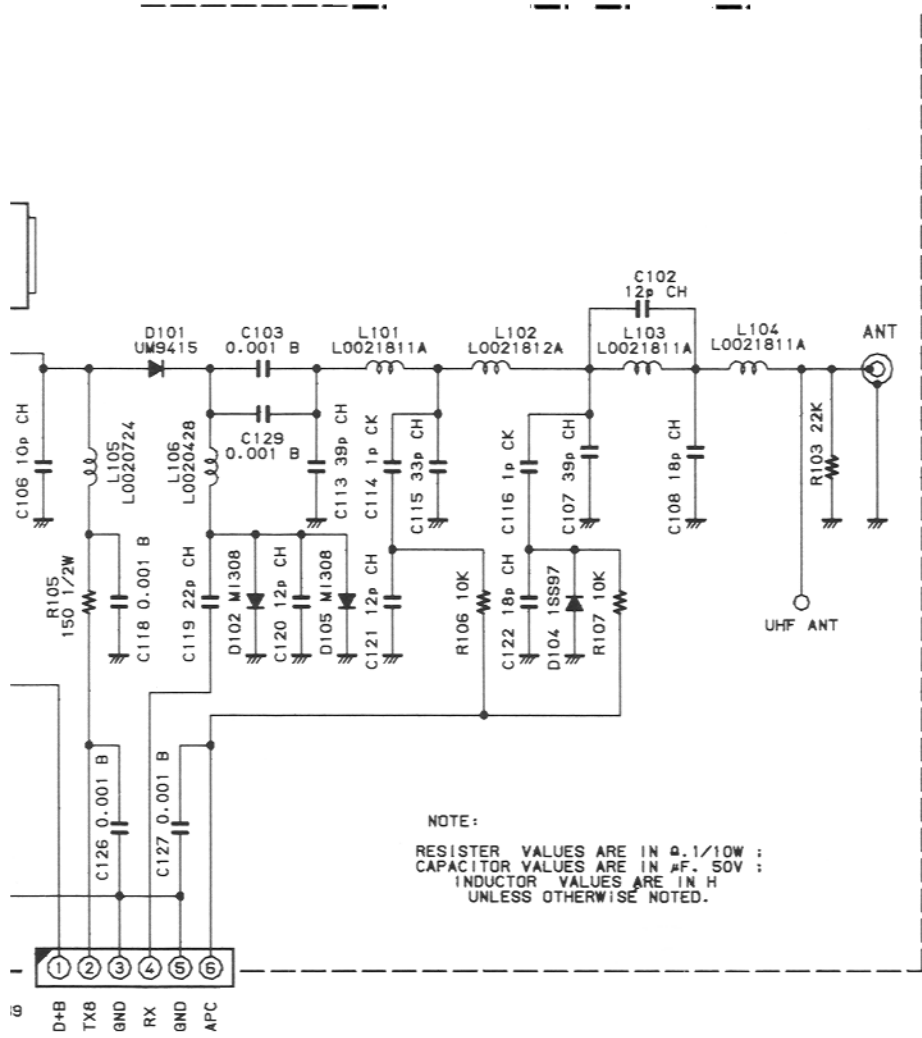
(obverse view of "chip-only" side)



TDA7233D
(Q0102)

144 PA UNIT F3167101A



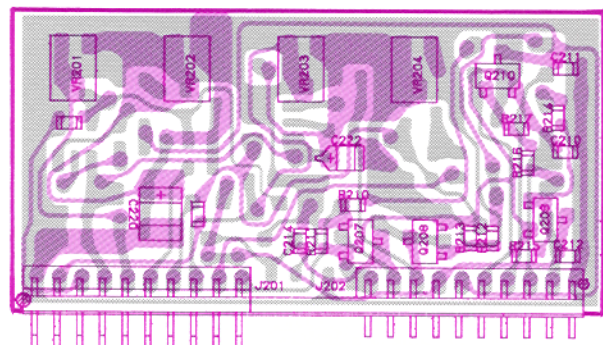


(144-PA UNIT Schematic Diagram)

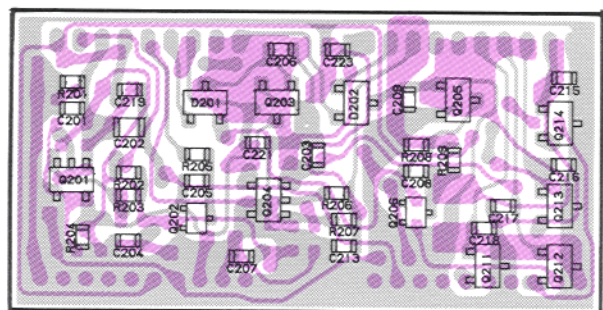
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C 0202	K22120805	CHIP CAP.	GRM40R683M16PT	0.068uF	16V	R	
C 0203	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0204	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0205	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0206	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0207	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0208	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0209	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0210	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0211	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0212	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0213	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0214	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
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C 0217	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0218	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0219	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0220	K78120010	TANTALUM CHIP CAP.	TESVB21C335M8R	3.3uF	16V		
C 0221	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0222	K78120010	TANTALUM CHIP CAP.	TESVB21C335M8R	3.3uF	16V		
C 0223	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
D 0201	G2070009	DIODE	1SS184 TE85R				
D 0202	G2070009	DIODE	1SS184 TE85R				
J 0201	P0090770	CONNECTOR	9230B-1-10Z005-T				
J 0202	P0090770	CONNECTOR	9230B-1-10Z005-T				
Q 0201	G3070008	TRANSISTOR	FMS1 T98				
Q 0202	G3341167G	TRANSISTOR	2SC4116GR TE85R				
Q 0203	G3070033	TRANSISTOR	DTC144EK T97				
Q 0204	G3070008	TRANSISTOR	FMS1 T98				
Q 0205	G3070033	TRANSISTOR	DTC144EK T97				
Q 0206	G3341167G	TRANSISTOR	2SC4116GR TE85R				
Q 0207	G3206247D	TRANSISTOR	2SB624-T2B BV4				
Q 0208	G3206247D	TRANSISTOR	2SB624-T2B BV4				
Q 0209	G3206247D	TRANSISTOR	2SB624-T2B BV4				
Q 0210	G3206247D	TRANSISTOR	2SB624-T2B BV4				
Q 0211	G3070005	TRANSISTOR	FN1A4M-T2B				
Q 0212	G3070005	TRANSISTOR	FN1A4M-T2B				
Q 0213	G3070005	TRANSISTOR	FN1A4M-T2B				
Q 0214	G3070005	TRANSISTOR	FN1A4M-T2B				
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R 0202	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 0203	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 0204	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 0205	J24185471	CHIP RES.	RMC1/16 471JATP	470		1/16W	

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
R 0206	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 0207	J24185153	CHIP RES.	RMC1/16 153JATP	15K	1/16W		
R 0208	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 0209	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0210	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 0211	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0212	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 0213	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0214	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 0215	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0216	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 0217	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0218	J24185101	CHIP RES.	RMC1/16 101JATP	100	1/16W		
R 0219	J24185101	CHIP RES.	RMC1/16 101JATP	100	1/16W		
VR0201	J50785222	POT.	RH03AVAJ3X01A	2.2K			
VR0202	J51778223	POT.	RH03AYAJ4X	22K			
VR0203	J50785222	POT.	RH03AVAJ3X01A	2.2K			
VR0204	J51778223	POT.	RH03AYAJ4X	22K			

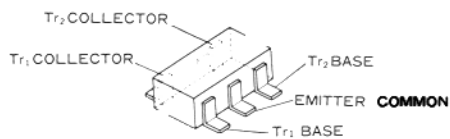
APC UNIT (No.02XX)



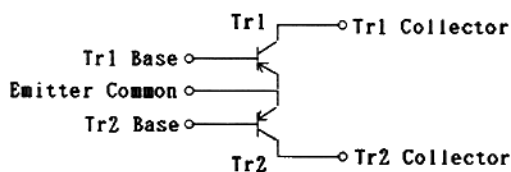
(obverse view of "component" side)



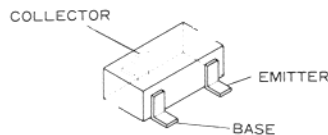
(obverse view of "chip-only" side)



FMS1 (S1) (Q0201, Q0204)

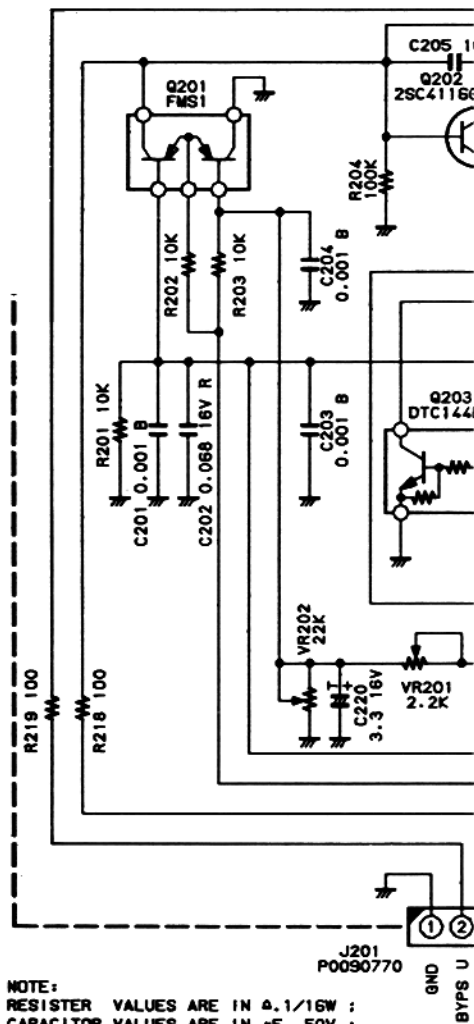


FMS1 CIRCUIT DIAGRAM



- 2SB624(BV4)
(Q0207, Q0208, Q0209, Q0210)
- 2SC4116GR(LG)
(Q0202, Q0206)
- DTC144EK(26)
(Q0203, Q0205)
- FN1A4M(M33)
(Q0211, Q0212, Q0213, Q0214)

APC UNIT F31

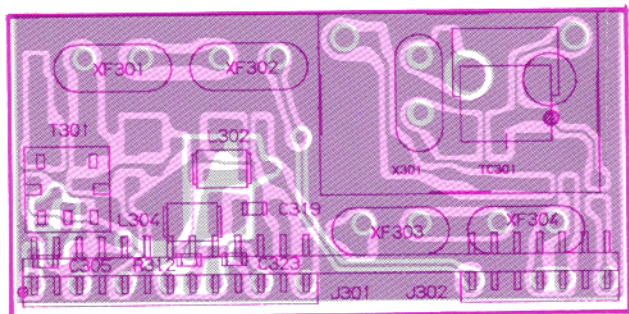


NOTE:
RESISTOR VALUES ARE IN Ω, 1/16W ;
CAPACITOR VALUES ARE IN μF, 50V ;
(T) CAPACITOR VALUES ARE TANTALUM ;
UNLESS OTHERWISE NOTED.

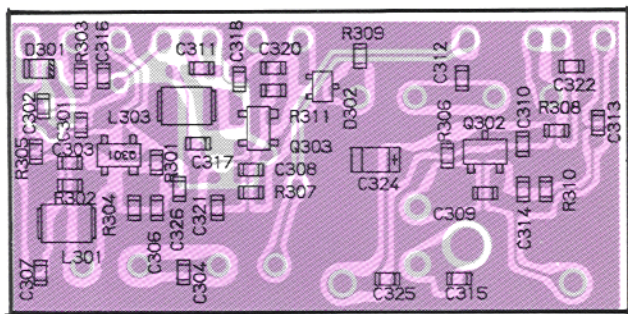
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	CA0247001	P. C. B. W COMP.					
	F3168104	P. C. B.					
C 0301	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0302	K22174219	CHIP CAP.	GRM39CH220J50PT	22pF	50V	CH	
C 0303	K22174223	CHIP CAP.	GRM39CH330J50PT	33pF	50V	CH	
C 0304	K22174208	CHIP CAP.	GRM39CH070D50PT	7pF	50V	CH	
C 0305	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0306	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0307	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0308	K22174229	CHIP CAP.	GRM39CH560J50PT	56pF	50V	CH	
C 0309	K22174239	CHIP CAP.	GRM39CH151J50PT	150pF	50V	CH	
C 0310	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0311	K22174205	CHIP CAP.	GRM39CH040C50PT	4pF	50V	CH	
C 0312	K22174207	CHIP CAP.	GRM39CH060D50PT	6pF	50V	CH	
C 0313	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0314	K22174239	CHIP CAP.	GRM39CH151J50PT	150pF	50V	CH	
C 0315	K22174221	CHIP CAP.	GRM39CH270J50PT	27pF	50V	CH	
C 0316	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0318	K22174204	CHIP CAP.	GRM39CJ030C50PT	3pF	50V	CJ	
C 0320	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0321	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0322	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0323	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0324	K78080017	TANTALUM CHIP CAP.	TEMSVA0J475M-8R	4.7uF	6.3V		
C 0325	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
D 0301	G2070114	DIODE	1T363-01-T08A				
D 0302	G2070086	DIODE	1SS301 TE85R				
J 0301	P0090709	CONNECTOR	9230B-1-13Z005-T				
J 0302	P0090740	CONNECTOR	9230B-1-07Z005-T				
L 0301	L1690017	COIL	32CS 380LB-2R2M=P	2.2uH			
L 0302	L1690074	CHIP COIL	LQH3NR82M92M00-	0.82uH			
L 0303	L1690005	CHIP COIL	LQN2A33NM	0.033uH			
L 0304	L1690005	CHIP COIL	LQN2A33NM	0.033uH			
Q 0301	G4801367	FET	3SK136 IV TR				
Q 0302	G3316237F	TRANSISTOR	2SC1623-T2BL6				
Q 0303	G4070001	FET	SGM2006M-T8				
R 0301	J24185472	CHIP RES.	RMC1/1 472JATP	4.7K	1/16W		
R 0302	J24185332	CHIP RES.	RMC1/1 332JATP	3.3K	1/16W		
R 0303	J24185104	CHIP RES.	RMC1/1 104JATP	100K	1/16W		
R 0304	J24185181	CHIP RES.	RMC1/1 181JATP	180	1/16W		
R 0305	J24185101	CHIP RES.	RMC1/1 101JATP	100	1/16W		
R 0306	J24185224	CHIP RES.	RMC1/1 224JATP	220K	1/16W		
R 0307	J24185222	CHIP RES.	RMC1/1 222JATP	2.2K	1/16W		
R 0308	J24185101	CHIP RES.	RMC1/1 101JATP	100	1/16W		
R 0309	J24185103	CHIP RES.	RMC1/1 103JATP	10K	1/16W		
R 0310	J24185221	CHIP RES.	RMC1/1 221JATP	220	1/16W		
R 0311	J24185331	CHIP RES.	RMC1/1 331JATP	330	1/16W		
R 0312	J24185101	CHIP RES.	RMC1/1 101JATP	100	1/16W		
T 0301	L0021913	CHIP TRANS	CS-5 2276-201				

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
TC0301	K91000184	TRIMMER CAP.	TZ03T200YR	20pF			
X 0301	H0102912	XTAL		12.800MHZ			
XF0301	H1102186	XTAL	17T15BU				
XF0303	H1102187	XTAL	22T15BU				
	R3129530	XTAL (5pcs)					

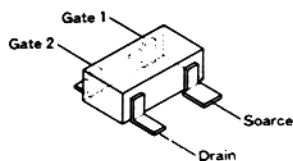
MIXER UNIT (No.03XX)



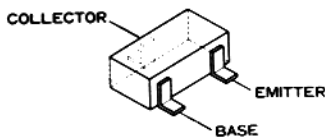
(obverse view of "component" side)



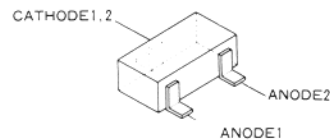
(obverse view of "chip-only" side)



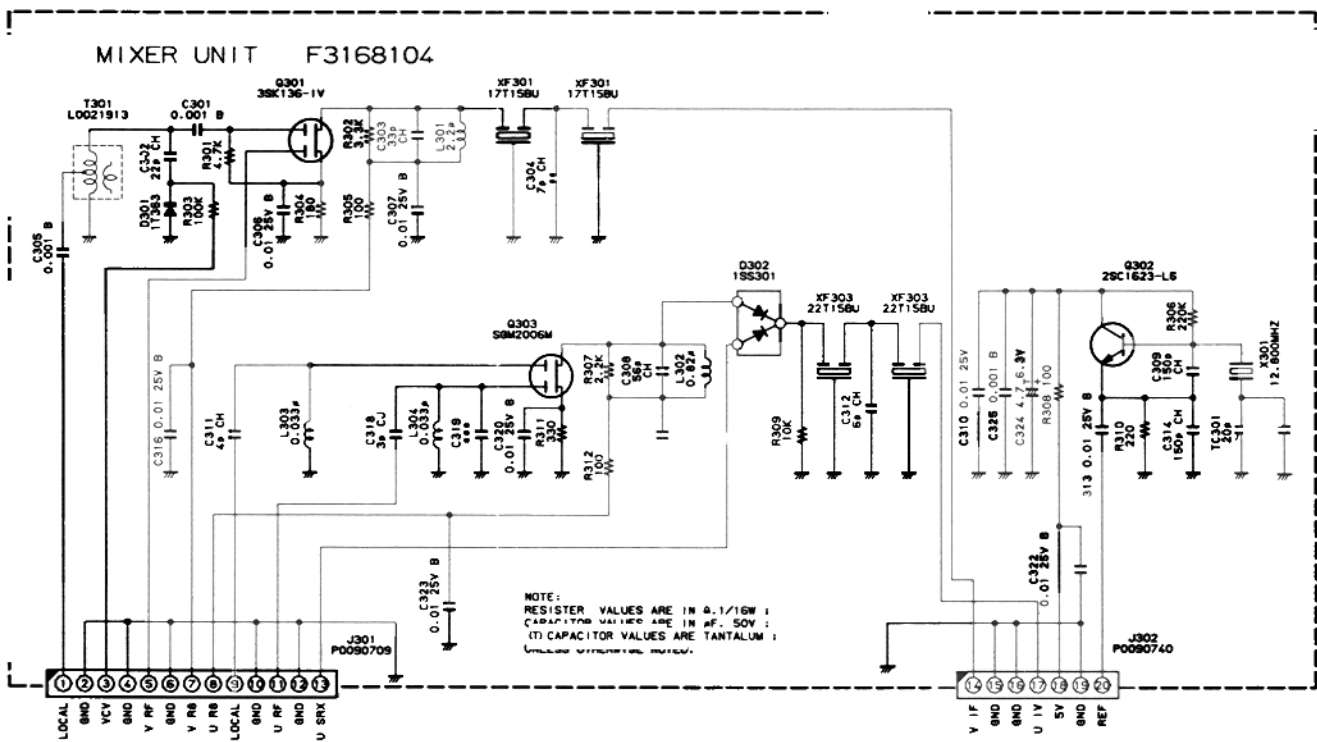
SGM2006M(M-254)
(Q0303)
3SK136(IV-)
(Q0301)



2SC1623(L6)
(Q0302)



1SS301(B3)
(D0302)

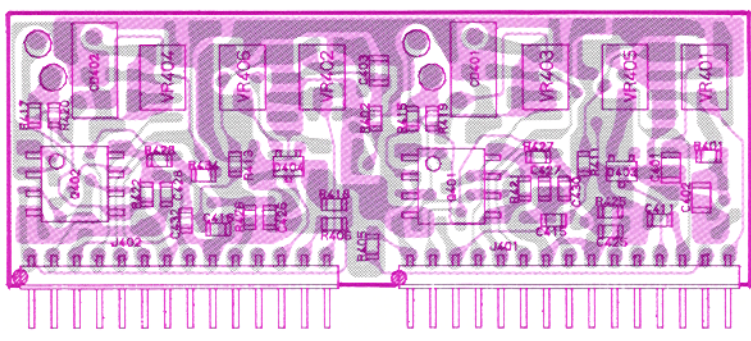


(MIXER UNIT Schematic Diagram)

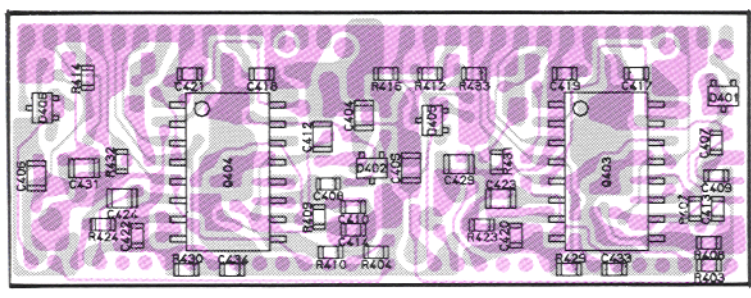
REF.	YAESU P/N	DESCRIPTION	MFR'S DESIG	VALUE	WV	TOL.	VERS.
	CA0410001	P. C. B. W COMP.					
	F3168103	P. C. B.					
C 0401	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0402	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0403	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0404	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0405	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0406	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0407	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0408	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0409	K22174805	CHIP CAP.	GRM39B471M50PT	470pF	50V	B	
C 0410	K22174805	CHIP CAP.	GRM39B471M50PT	470pF	50V	B	
C 0411	K22170821	CHIP CAP.	GRM40B223M50PT	0.022uF	50V	B	
C 0412	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0413	K22174805	CHIP CAP.	GRM39B471M50PT	470pF	50V	B	
C 0414	K22174805	CHIP CAP.	GRM39B471M50PT	470pF	50V	B	
C 0415	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0416	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0417	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0418	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0419	K22174231	CHIP CAP.	GRM39CH680J50PT	68pF	50V	CH	
C 0420	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0421	K22174229	CHIP CAP.	GRM39CH560J50PT	56pF	50V	CH	
C 0422	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0423	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0424	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0425	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0426	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0427	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0428	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0429	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0430	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0431	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0432	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0433	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0434	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
CD0401	H7900480	CERAMIC DISC	CDBM455C7				
CD0402	H7900480	CERAMIC DISC	CDBM455C7				
D 0401	G2070088	DIODE	1SS302 TE85R				
D 0402	G2070088	DIODE	1SS302 TE85R				
D 0405	G2070084	DIODE	1SS300 TE85R				
D 0406	G2070084	DIODE	1SS300 TE85R				
J 0401	P0090711	CONNECTOR	9230B-1-15Z005-T				
J 0402	P0090710	CONNECTOR	9230B-1-14Z005-T				
Q 0401	G1090990	IC	M5223FP-72A				
Q 0402	G1090990	IC	M5223FP-72A				
Q 0403	G1091108	IC	MC3372ML				
Q 0404	G1091108	IC	MC3372ML				
R 0401	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 0402	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
R 0403	J24185122	CHIP RES.	RMC1/16 122JATP	1.2K	1/16W		
R 0404	J24185122	CHIP RES.	RMC1/16 122JATP	1.2K	1/16W		
R 0407	J24185474	CHIP RES.	RMC1/16 474JATP	470K	1/16W		
R 0408	J24185123	CHIP RES.	RMC1/16 123JATP	12K	1/16W		
R 0409	J24185474	CHIP RES.	RMC1/16 474JATP	470K	1/16W		
R 0410	J24185123	CHIP RES.	RMC1/16 123JATP	12K	1/16W		
R 0411	J24185332	CHIP RES.	RMC1/16 332JATP	3.3K	1/16W		
R 0412	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W		
R 0413	J24185332	CHIP RES.	RMC1/16 332JATP	3.3K	1/16W		
R 0414	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W		
R 0415	J24185122	CHIP RES.	RMC1/16 122JATP	1.2K	1/16W		
R 0417	J24185122	CHIP RES.	RMC1/16 122JATP	1.2K	1/16W		
R 0419	J24185122	CHIP RES.	RMC1/16 122JATP	1.2K	1/16W		
R 0420	J24185122	CHIP RES.	RMC1/16 122JATP	1.2K	1/16W		
R 0421	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 0422	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 0423	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W		
R 0424	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W		
R 0425	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W		
R 0426	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W		
R 0427	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0428	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0429	J24185182	CHIP RES.	RMC1/16 182JATP	1.8K	1/16W		
R 0430	J24185182	CHIP RES.	RMC1/16 182JATP	1.8K	1/16W		
R 0431	J24185182	CHIP RES.	RMC1/16 182JATP	1.8K	1/16W		
R 0432	J24185182	CHIP RES.	RMC1/16 182JATP	1.8K	1/16W		
R 0433	J24185101	CHIP RES.	RMC1/16 101JATP	100	1/16W		
R 0434	J24185101	CHIP RES.	RMC1/16 101JATP	100	1/16W		
R 0435	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 0436	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
TP0401	Q5000016	TP-E	TP-E/MS-60124				
TP0402	Q5000016	TP-E	TP-E/MS-60124				
TP0403	Q5000016	TP-E	TP-E/MS-60124				
TP0404	Q5000016	TP-E	TP-E/MS-60124				
VR0401	J50785473	POT.	RH03AVAS4X01A	47K			
VR0402	J50785473	POT.	RH03AVAS4X01A	47K			
VR0403	J50785103	POT.	RH03AVA14X01A	10K			
VR0404	J50785103	POT.	RH03AVA14X01A	10K			
VR0405	J50785104	POT.	RH03AVA15X01A	100K			
VR0406	J50785104	POT.	RH03AVA15X01A	100K			

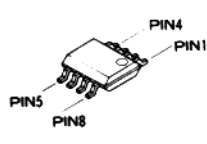
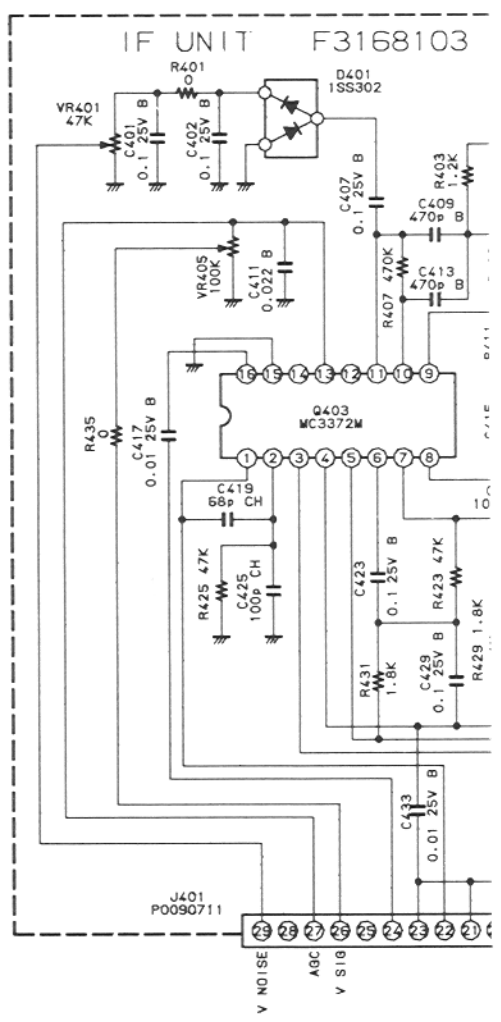
IF UNIT (No.04XX)



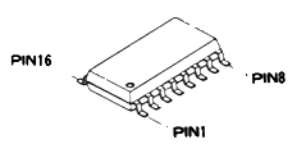
(obverse view of "component" side)



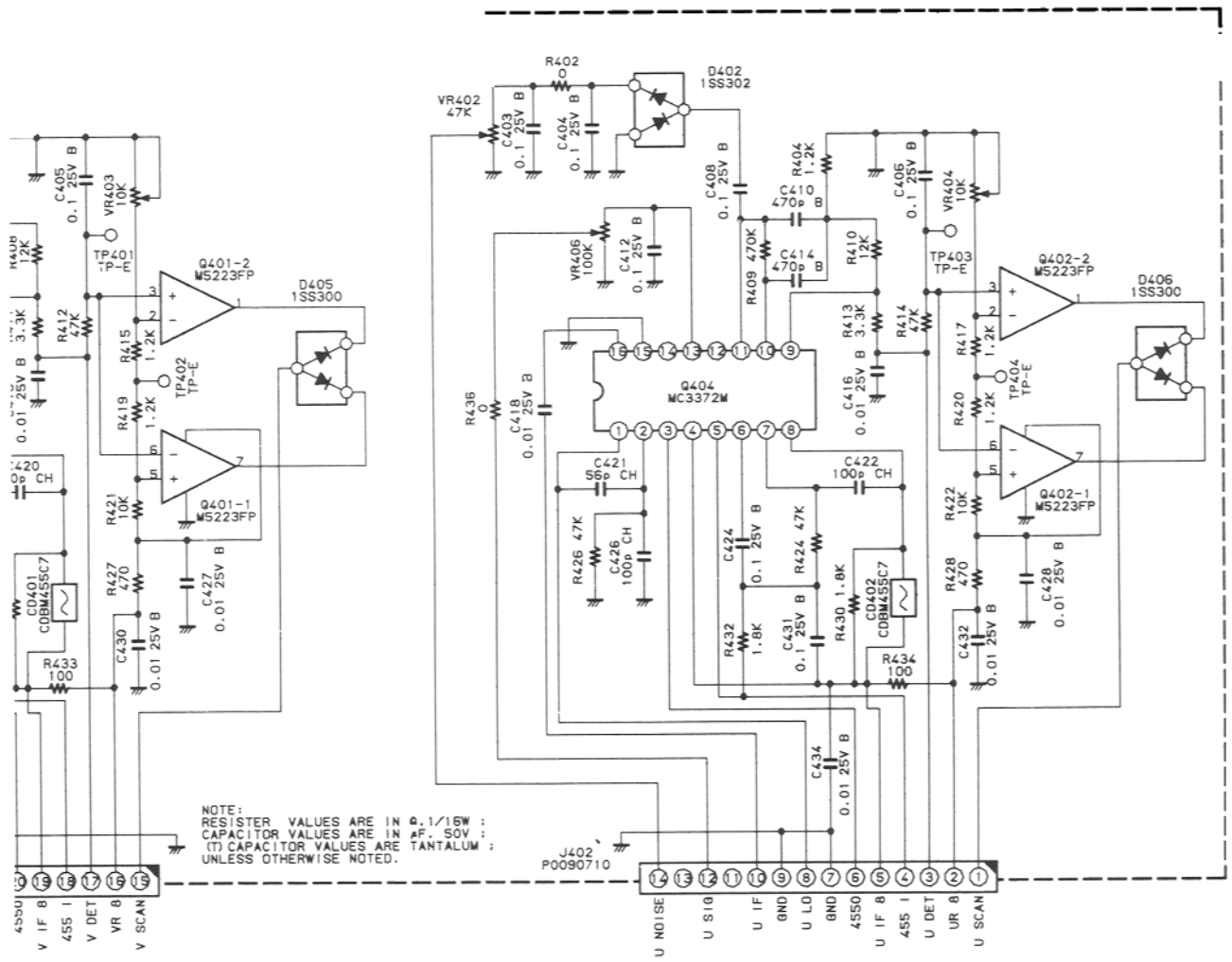
(obverse view of "chip-only" side)



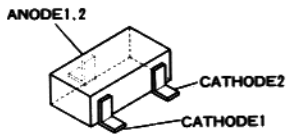
M5223FP
(Q0401, Q0402)



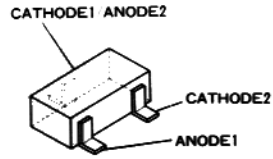
MC3372ML
(Q0403, Q0404)



(IF UNIT Schematic Diagram)



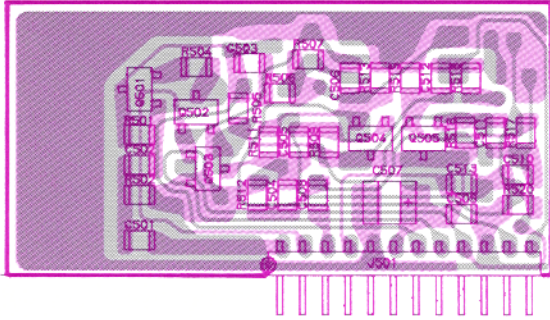
ISS300(A3)
(D0405, D0406)



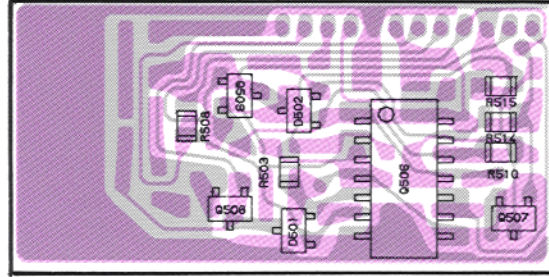
ISS302(C3)
(D0401, D0402)

REF.	YAESU P/N	DESCRIPTION	MFRG'S DESIG	VALUE	WV	TOL.	VERS.
	CA0424001	P. C. B. W COMP.					
	F3168101	P. C. B.					
C 0501	K22170813	CHIP CAP.	GRM40B472M50PT	0.0047uF	50V	B	
C 0502	K22170813	CHIP CAP.	GRM40B472M50PT	0.0047uF	50V	B	
C 0503	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0504	K22170821	CHIP CAP.	GRM40B223M50PT	0.022uF	50V	B	
C 0505	K22170821	CHIP CAP.	GRM40B223M50PT	0.022uF	50V	B	
C 0506	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0507	K78080019	TANTALUM CHIP CAP.	TEMSVB20J106M-8R	10uF	6.3V		
C 0508	K22170821	CHIP CAP.	GRM40B223M50PT	0.022uF	50V	B	
C 0509	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 0510	K22170821	CHIP CAP.	GRM40B223M50PT	0.022uF	50V	B	
C 0511	K22170821	CHIP CAP.	GRM40B223M50PT	0.022uF	50V	B	
C 0512	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0513	K22170821	CHIP CAP.	GRM40B223M50PT	0.022uF	50V	B	
D 0501	G2070009	DIODE	1SS184 TE85R				
D 0502	G2070009	DIODE	1SS184 TE85R				
J 0501	P0090733	CONNECTOR	9230B-1-12Z005-T				
Q 0501	G3316237F	TRANSISTOR	2SC1 23-T2BL6				
Q 0502	G3070034	TRANSISTOR	DTC1 4EK T97				
Q 0503	G3070034	TRANSISTOR	DTC1 4EK T97				
Q 0504	G3316237F	TRANSISTOR	2SC1 23-T2BL6				
Q 0505	G3316237F	TRANSISTOR	2SC1 23-T2BL6				
Q 0506	G1091035	IC	UPD4 66BG-T2				
Q 0507	G3070034	TRANSISTOR	DTC1 4EK T97				
Q 0508	G3070034	TRANSISTOR	DTC1 4EK T97				
Q 0509	G3070034	TRANSISTOR	DTC1 4EK T97				
R 0501	J24205564	CHIP RES.	RMC1/10T 564J	560K	1/10W		
R 0502	J24205393	CHIP RES.	RMC1/10T 393J	39K	1/10W		
R 0503	J24205104	CHIP RES.	RMC1/10T 104J	100K	1/10W		
R 0504	J24205221	CHIP RES.	RMC1/10T 221J	220	1/10W		
R 0505	J24205223	CHIP RES.	RMC1/10T 223J	22K	1/10W		
R 0506	J24205472	CHIP RES.	RMC1/10T 472J	4.7K	1/10W		
R 0507	J24205472	CHIP RES.	RMC1/10T 472J	4.7K	1/10W		
R 0508	J24205104	CHIP RES.	RMC1/10T 104J	100K	1/10W		
R 0509	J24205564	CHIP RES.	RMC1/10T 564J	560K	1/10W		
R 0510	J24205104	CHIP RES.	RMC1/10T 104J	100K	1/10W		
R 0511	J24205222	CHIP RES.	RMC1/10T 222J	2.2K	1/10W		
R 0512	J24205153	CHIP RES.	RMC1/10T 153J	15K	1/10W		
R 0513	J24205222	CHIP RES.	RMC1/10T 222J	2.2K	1/10W		
R 0514	J24205104	CHIP RES.	RMC1/10T 104J	100K	1/10W		
R 0515	J24205472	CHIP RES.	RMC1/10T 472J	4.7K	1/10W		
R 0516	J24205564	CHIP RES.	RMC1/10T 564J	560K	1/10W		
R 0517	J24205222	CHIP RES.	RMC1/10T 222J	2.2K	1/10W		
R 0518	J24205472	CHIP RES.	RMC1/10T 472J	4.7K	1/10W		
R 0519	J24205222	CHIP RES.	RMC1/10T 222J	2.2K	1/10W		
R 0520	J24205153	CHIP RES.	RMC1/10T 153J	15K	1/10W		

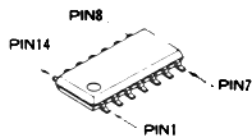
AF UNIT (No.05XX)



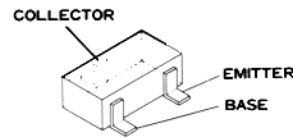
(obverse view of "component" side)



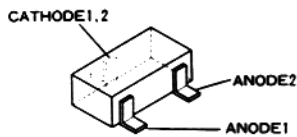
(obverse view of "chip-only" side)



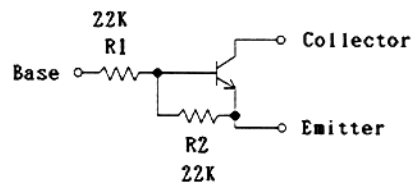
μ PD4066BG
(Q0506)



2SC1623(L6)
(Q0501, Q0504, Q0505)
DTC124EK(25)
(Q0502, Q0503, Q0507, Q0508, Q0509)

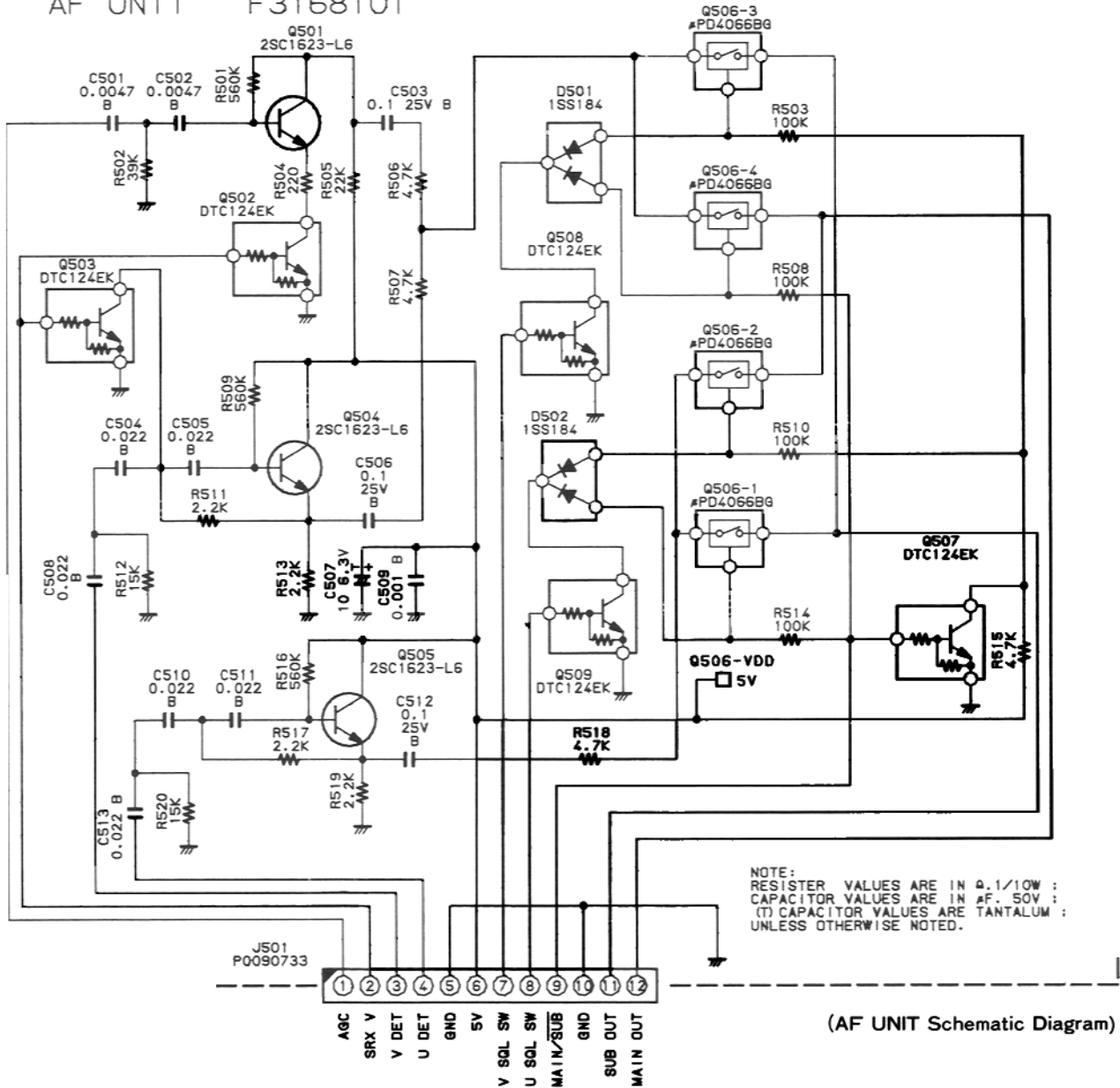


1SS184(B3)
(D0501, D0502)



DTC124EK CIRCUIT DIAGRAM

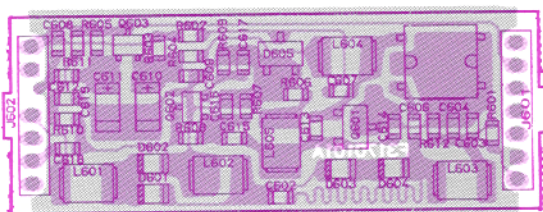
AF UNIT F3168101



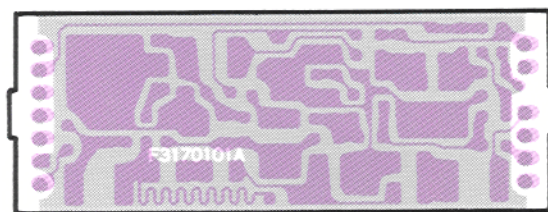
(AF UNIT Schematic Diagram)

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
	CA0242001	P. C. B. W COMP.					
	F3170101A	P. C. B.					
C 0602	K22174820	CHIP CAP.	GRM39B331K50PT	330pF	50V	B	
C 0603	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0604	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0606	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0607	K22174202	CHIP CAP.	GRM39CK010C50PT	1pF	50V	CK	
C 0608	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0609	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0610	K78100015	TANTALUM CHIP CAP.	TEMSVA1A335M-8R	3.3uF	10V		
C 0611	K78100015	TANTALUM CHIP CAP.	TEMSVA1A335M-8R	3.3uF	10V		
C 0612	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0613	K22174207	CHIP CAP.	GRM39CH060D50PT	6pF	50V	CH	
C 0614	K22174202	CHIP CAP.	GRM39CK010C50PT	1pF	50V	CK	
C 0615	K22174202	CHIP CAP.	GRM39CK010C50PT	1pF	50V	CK	
C 0616	K22174204	CHIP CAP.	GRM39CJ030C50PT	3pF	50V	CJ	
C 0617	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0618	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0619	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
D 0601	G2070114	DIODE	1T363-01-T08A				
D 0602	G2070114	DIODE	1T363-01-T08A				
D 0603	G2070118	DIODE	HSU277 (7-7')				
D 0604	G2070118	DIODE	HSU277 (7-7')				
D 0605	G2070032	DIODE	1SS153-T2B				
J 0601	P0090788	CONNECTOR	9230B-1-07Z021-T				
J 0602	P0090807	CONNECTOR	9230B-1-06Z023-T				
L 0601	L1690016	COIL	32CS 380LB-1ROM=P	1uH			
L 0602	L1690016	COIL	32CS 380LB-1ROM=P	1uH			
L 0603	L1690016	COIL	32CS 380LB-1ROM=P	1uH			
L 0604	L1690016	COIL	32CS 380LB-1ROM=P	1uH			
L 0605	L1690016	COIL	32CS 380LB-1ROM=P	1uH			
Q 0601	G3815777	FET	2SK157				
Q 0602	G3342267B	TRANSISTOR	2SC422 12B R22				
Q 0603	G3341167G	TRANSISTOR	2SC411 1 TE85R				
R 0601	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0602	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 0603	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 0604	J24185100	CHIP RES.	RMC1/16 100JATP	10	1/16W		
R 0605	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 0606	J24185560	CHIP RES.	RMC1/16 560JATP	56	1/16W		
R 0607	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 0608	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 0609	J24185470	CHIP RES.	RMC1/16 470JATP	47	1/16W		
R 0610	J24185101	CHIP RES.	RMC1/16 101JATP	100	1/16W		
R 0611	J24185150	CHIP RES.	RMC1/16 150JATP	15	1/16W		
R 0612	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
T 0601	L0022098	COIL	EIV-4EN009EN				

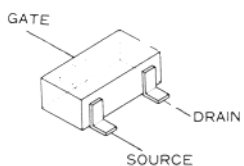
430-VCO UNIT (No.06XX)



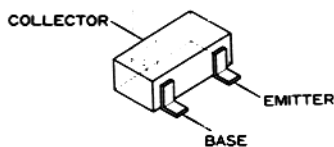
(obverse view of "component" side)



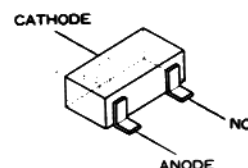
(obverse view of "solder" side)



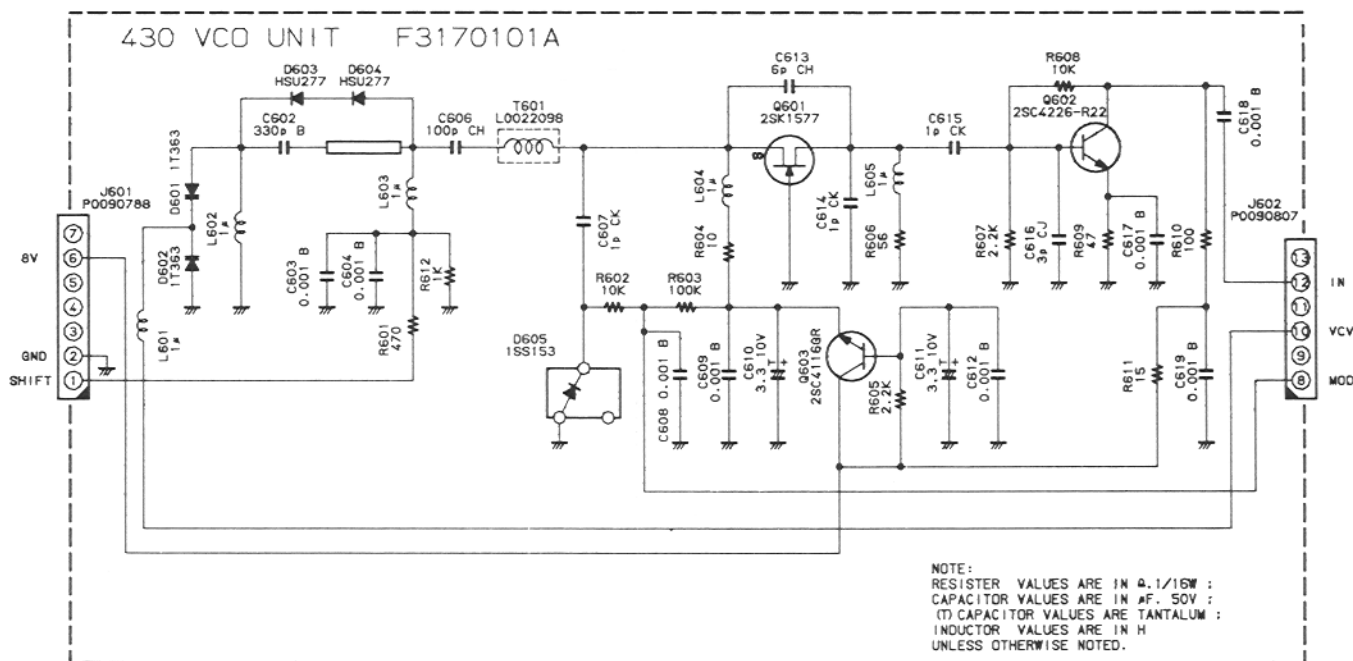
2SK1577(P1)
(Q0601)



2SC4116GR(LG)
(Q0603)
2SC4226(R22)
(Q0602)



ISS153(A9)
(D0605)

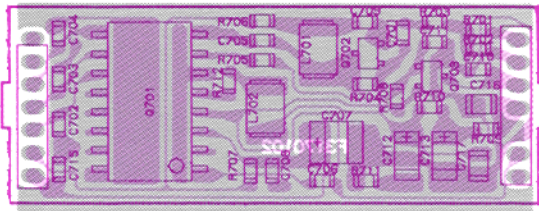


NOTE:
RESISTOR VALUES ARE IN Ω , 1/16W ;
CAPACITOR VALUES ARE IN μ F, 50V ;
(T) CAPACITOR VALUES ARE TANTALUM ;
INDUCTOR VALUES ARE IN H
UNLESS OTHERWISE NOTED.

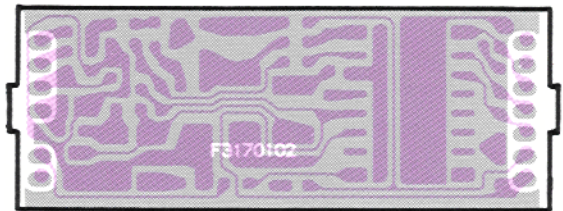
(430-VCO UNIT Schematic Diagram)

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
	CA0243001	P. C. B. W. COMP.					
	F3170102	P. C. B.					
C 0701	K22174206	CHIP CAP.	GRM39CH050C50PT	5pF	50V	CH	
C 0702	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0703	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0704	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0705	K22174204	CHIP CAP.	GRM39CJ030C50PT	3pF	50V	CJ	
C 0706	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0707	K78100010	TANTALUM CHIP CAP.	TESVB21A475M8R	4.7uF	10V		
C 0708	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0709	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0710	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0711	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0712	K70107475	TANTALUM CAP.	DN1A4R7M1S	4.7uF	10V		
C 0715	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0716	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0717	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
L 0701	L1690029	COIL	32CS 380NB-33NM=P	0.033uH			
L 0702	L1690055	COIL	32CS 380HB-221K=P	220uH			
Q 0701	G1091123	IC	MB1504PF-G-BND-TF				
Q 0702	G3342157Y	TRANSISTOR	2SC4215Y TE85R				
Q 0703	G3115867Y	TRANSISTOR	2SA1586Y TE85R				
R 0701	J24185150	CHIP RES.	RMC1/16 150JATP	15	1/16W		
R 0702	J24185150	CHIP RES.	RMC1/16 150JATP	15	1/16W		
R 0703	J24185150	CHIP RES.	RMC1/16 150JATP	15	1/16W		
R 0704	J24185683	CHIP RES.	RMC1/16 683JATP	68K	1/16W		
R 0705	J24185333	CHIP RES.	RMC1/16 333JATP	33K	1/16W		
R 0706	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0707	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0708	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 0709	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 0710	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 0711	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 0712	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		

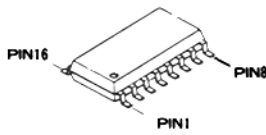
430-PLL UNIT (No.07XX)



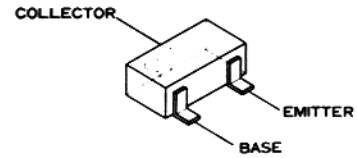
(obverse view of "component" side)



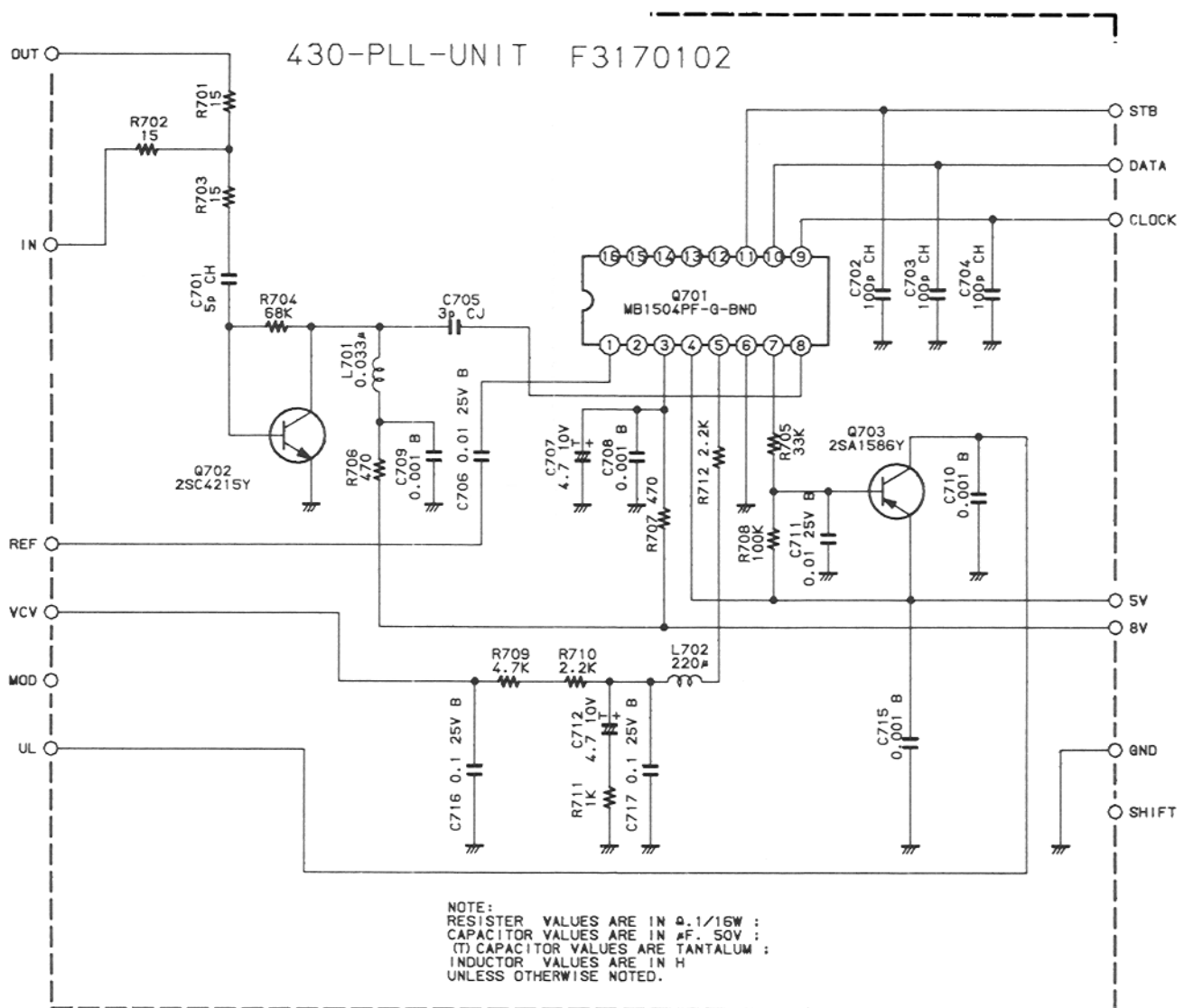
(obverse view of "solder" side)



MB1504PF
(Q0701)



2SA1586Y (SO)
(Q0703)
2SC4215Y (QY)
(Q0702)

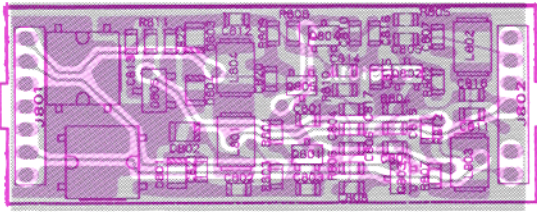


(430-PLL UNIT Schematic Diagram)

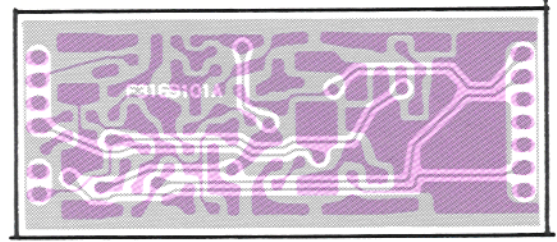
REF.	YAESU P/N	DESCRIPTION	MFR'S DESIG	VALUE	WV	TOL.	VERS.
	CA0239001	P. C. B. W COMP.					
	F3169101A	P. C. B.					
C 0801	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0802	K22174215	CHIP CAP.	GRM39CH150J50PT	15pF	50V	CH	
C 0803	K22174215	CHIP CAP.	GRM39CH150J50PT	15pF	50V	CH	
C 0804	K22174203	CHIP CAP.	GRM39CK020C50PT	2pF	50V	CK	
C 0805	K22174211	CHIP CAP.	GRM39CH100D50PT	10pF	50V	CH	
C 0806	K22174217	CHIP CAP.	GRM39CH180J50PT	18pF	50V	CH	
C 0807	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0808	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0809	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0810	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0811	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0812	K22174213	CHIP CAP.	GRM39CH120J50PT	12pF	50V	CH	
C 0813	K22174203	CHIP CAP.	GRM39CK020C50PT	2pF	50V	CK	
C 0814	K22174211	CHIP CAP.	GRM39CH100D50PT	10pF	50V	CH	
C 0815	K22174203	CHIP CAP.	GRM39CK020C50PT	2pF	50V	CK	
C 0816	K22174215	CHIP CAP.	GRM39CH150J50PT	15pF	50V	CH	
C 0817	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0818	K22144803	CHIP CAP.	GRM39B103K25PT	0.01uF	25V	B	
C 0819	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0820	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0821	K22174204	CHIP CAP.	GRM39CJ030C50PT	3pF	50V	CJ	
C 0822	K22174205	CHIP CAP.	GRM39CH040C50PT	4pF	50V	CH	
D 0801	G2070114	DIODE	1T363-01-T08A				
D 0802	G2070114	DIODE	1T363-01-T08A				
D 0803	G2070114	DIODE	1T363-01-T08A				
D 0804	G2070114	DIODE	1T363-01-T08A				
D 0805	G2070032	DIODE	1SS153-T2B				
J 0801	P0090788	CONNECTOR	9230B-1-07Z021-T				
J 0802	P0090807	CONNECTOR	9230B-1-06Z023-T				
L 0801	L1690039	COIL	32CS 380KB-100K=P	10uH			
L 0802	L1690017	COIL	32CS 380LB-2R2M=P	2.2uH			
L 0803	L1690035	COIL	32CS 380LB-4R7M=P	4.7uH			
L 0804	L1690039	COIL	32CS 380KB-100K=P	10uH			
Q 0801	G3342267B	TRANSISTOR	2SC4226-T2B R22				
Q 0802	G3342267B	TRANSISTOR	2SC4226-T2B R22				
Q 0803	G3070041	TRANSISTOR	DTC144EU T107				
Q 0804	G3342267B	TRANSISTOR	2SC4226-T2B R22				
Q 0805	G3070041	TRANSISTOR	DTC144EU T107				
R 0801	J24185273	CHIP RES.	RMC1/16 273JATP	27K	1/16W		
R 0802	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 0803	J24185273	CHIP RES.	RMC1/16 273JATP	27K	1/16W		
R 0804	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 0805	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0806	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 0807	J24185470	CHIP RES.	RMC1/16 470JATP	47	1/16W		
R 0808	J24185273	CHIP RES.	RMC1/16 273JATP	27K	1/16W		
R 0809	J24185273	CHIP RES.	RMC1/16 273JATP	27K	1/16W		
R 0810	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
R 0811	J24185152	CHIP RES.	RMC1/16 152JATP	1.5K		1/16W	
R 0812	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
T 0801	L0022072	COIL	EIV-4EN007EN				
T 0802	L0022073	COIL	EIV-4EN008EN				

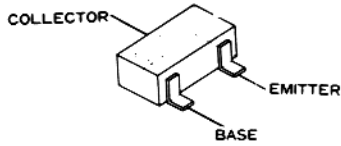
144-VCO UNIT (No.08XX)



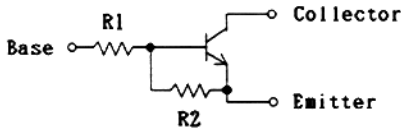
(obverse view of "component" side)



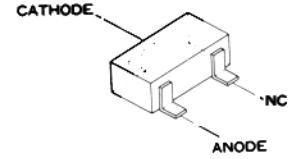
(obverse view of "solder" side)



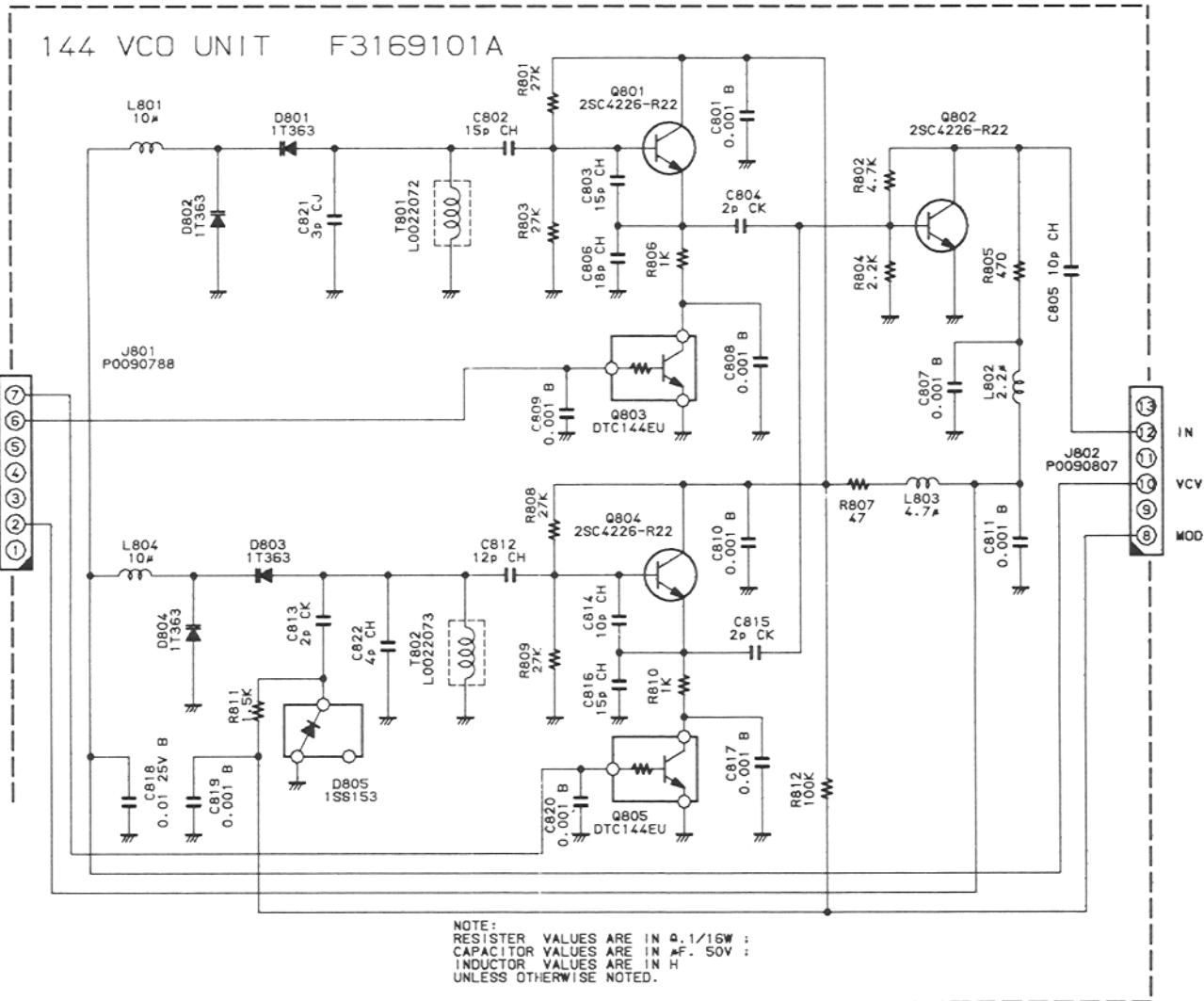
2SC4226(R22)
(Q0801, Q0802, Q0804)
DTC144EU(26)
(Q0803, Q0805)



DTC144EU CIRCUIT DIAGRAM



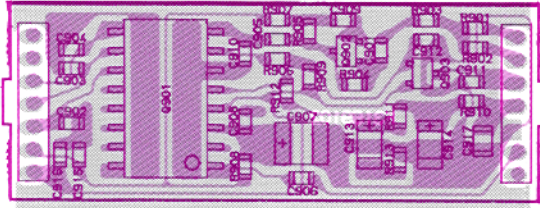
1SS153(A9)
(D0805)



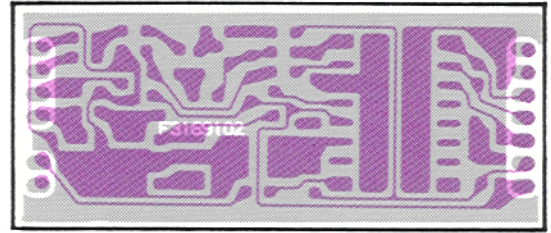
(144-VCO UNIT Schematic Diagram)

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
	CA0241001	P. C. B. W COMP.					
	F3169102	P. C. B.					
C 0901	K22174206	CHIP CAP.	GRM39CH050C50PT	5pF	50V	CH	
C 0902	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0903	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0904	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0905	K22174206	CHIP CAP.	GRM39CH050C50PT	5pF	50V	CH	
C 0906	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0907	K78100010	TANTALUM CHIP CAP.	TESVB21A475M8R	4.7uF	10V		
C 0908	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0909	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0910	K22174203	CHIP CAP.	GRM39CK020C50PT	2pF	50V	CK	
C 0911	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0912	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 0913	K70107475	TANTALUM CAP.	DN1A4R7M1S	4.7uF	10V		
C 0914	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 0915	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0916	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0917	K22120805	CHIP CAP.	GRM40R683M16PT	0.068uF	16V	R	
Q 0901	G1091123	IC	MB1504PF-G-BND-TF				
Q 0902	G3342157Y	TRANSISTOR	2SC4215Y TE85R				
Q 0903	G3115867Y	TRANSISTOR	2SA1586Y TE85R				
R 0901	J24185150	CHIP RES.	RMC1/16 150JATP	15	1/16W		
R 0902	J24185150	CHIP RES.	RMC1/16 150JATP	15	1/16W		
R 0903	J24185150	CHIP RES.	RMC1/16 150JATP	15	1/16W		
R 0904	J24185683	CHIP RES.	RMC1/16 683JATP	68K	1/16W		
R 0905	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0906	J24185333	CHIP RES.	RMC1/16 333JATP	33K	1/16W		
R 0907	J24185101	CHIP RES.	RMC1/16 101JATP	100	1/16W		
R 0908	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 0909	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 0910	J24185332	CHIP RES.	RMC1/16 332JATP	3.3K	1/16W		
R 0911	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 0912	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 0913	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		

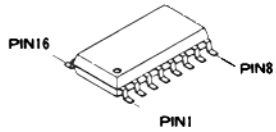
144-PLL UNIT (No.09XX)



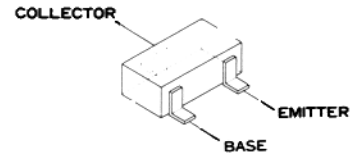
(obverse view of "component" side)



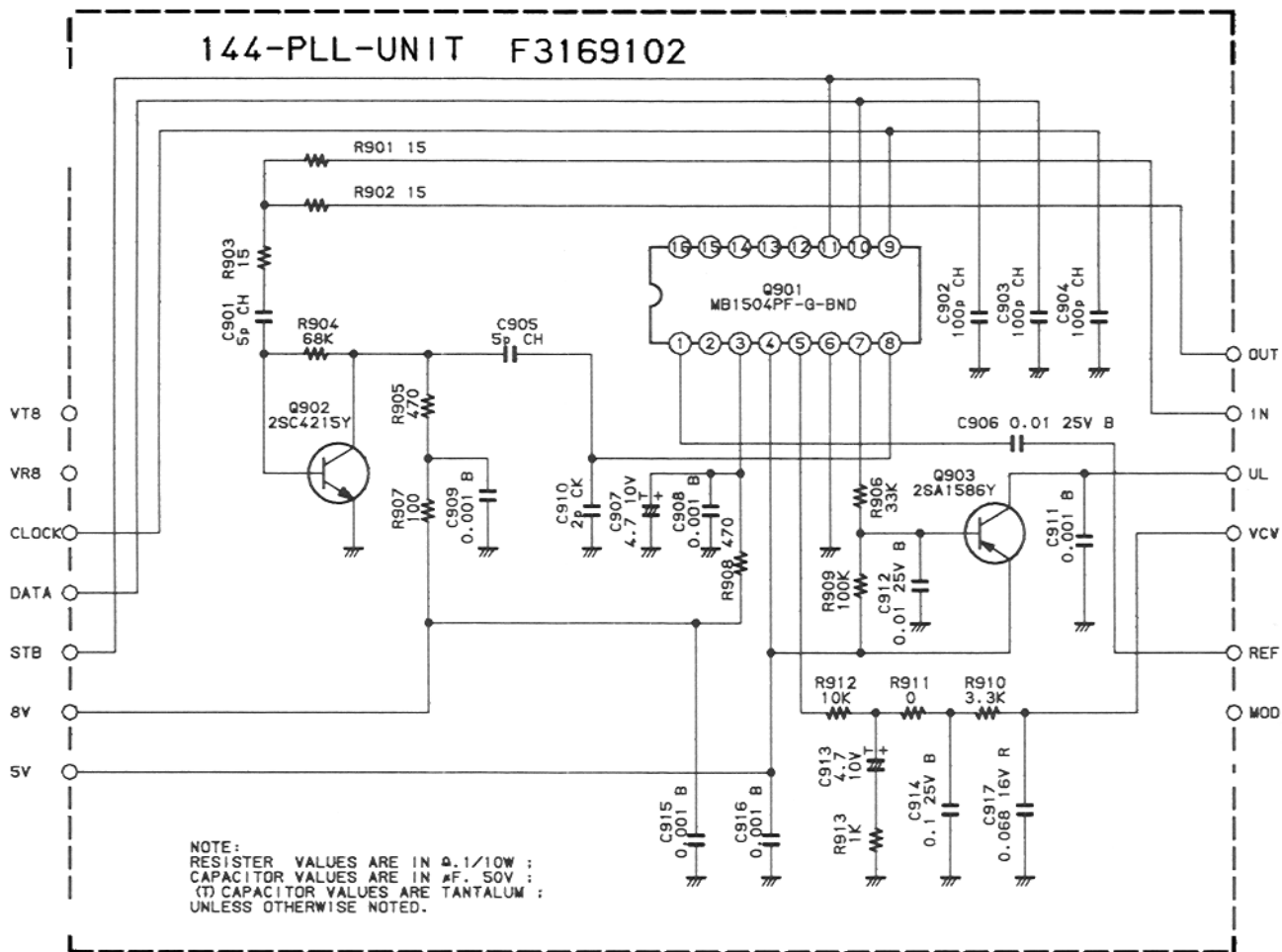
(obverse view of "solder" side)



MB1504PF
(Q901)



2SA1586Y(SO)
(Q903)
2SC4215Y(QY)
(Q902)



(144-PLL UNIT Schematic Diagram)

REF.	YAESU P/N	DESCRIPTION	MFR'S DESIG	VALUE	NV	TOL.	VERS.
	CS0975002	P. C. B. W COMP.					
	F3166000C	P. C. B.					
C 1001	K40129066	AL. ELECTRO. CAP.	RE3-16V471M	470uF	16V		
C 1002	K28179001	CERAMIC CAP.	UP050B102K-A	0.001uF	50V	B	
C 1003	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1004	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1005	K22275221	CHIP CAP.	GRM42-2CH220J500PT	22pF	500V	CH	
C 1006	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1007	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1008	K22170204	CHIP CAP.	GRM40CJ030C50PT	3pF	50V	CJ	
C 1009	K22170206	CHIP CAP.	GRM40CH050C50PT	5pF	50V	CH	
C 1010	K22170211	CHIP CAP.	GRM40CH100D50PT	10pF	50V	CH	
C 1011	K22170202	CHIP CAP.	GRM40CK010C50PT	1pF	50V	CK	
C 1013	K22170202	CHIP CAP.	GRM40CK010C50PT	1pF	50V	CK	
C 1014	K22170213	CHIP CAP.	GRM40CH120J50PT	12pF	50V	CH	
C 1015	K22174211	CHIP CAP.	GRM39CH100D50PT	10pF	50V	CH	
C 1016	K46120004	AL. ELECTRO. CAP.	16V100M4X7TR2	10uF	16V		
C 1017	K46120004	AL. ELECTRO. CAP.	16V100M4X7TR2	10uF	16V		
C 1018	K40129059	AL. ELECTRO. CAP.	RC3-16V4R7MS(3X5)	4.7uF	16V		
C 1019	K40129059	AL. ELECTRO. CAP.	RC3-16V4R7MS(3X5)	4.7uF	16V		
C 1020	K22170208	CHIP CAP.	GRM40CH070D50PT	7pF	50V	CH	
C 1021	K46120004	AL. ELECTRO. CAP.	16V100M4X7TR2	10uF	16V		
C 1022	K22170209	CHIP CAP.	GRM40CH080D50PT	8pF	50V	CH	
C 1023	K22170204	CHIP CAP.	GRM40CJ030C50PT	3pF	50V	CJ	
C 1024	K22170205	CHIP CAP.	GRM40CH040C50PT	4pF	50V	CH	
C 1025	K22170251	CHIP CAP.	GRM40CH471J50PT	470pF	50V	CH	
C 1026	K22170251	CHIP CAP.	GRM40CH471J50PT	470pF	50V	CH	
C 1027	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1028	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1029	K22170221	CHIP CAP.	GRM40CH270J50PT	27pF	50V	CH	
C 1030	K22170251	CHIP CAP.	GRM40CH471J50PT	470pF	50V	CH	
C 1031	K22170211	CHIP CAP.	GRM40CH100D50PT	10pF	50V	CH	
C 1032	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1033	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1034	K22170251	CHIP CAP.	GRM40CH471J50PT	470pF	50V	CH	
C 1035	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1036	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1037	K22170251	CHIP CAP.	GRM40CH471J50PT	470pF	50V	CH	
C 1038	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1039	K22174207	CHIP CAP.	GRM39CH060D50PT	6pF	50V	CH	
C 1040	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1041	K78120009	TANTALUM CHIP CAP.	TESVA1C105M1-8R	1uF	16V		
C 1042	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1043	K78120009	TANTALUM CHIP CAP.	TESVA1C105M1-8R	1uF	16V		
C 1044	K22170209	CHIP CAP.	GRM40CH080D50PT	8pF	50V	CH	
C 1045	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1046	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1047	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1048	K22170209	CHIP CAP.	GRM40CH080D50PT	8pF	50V	CH	
C 1049	K22170205	CHIP CAP.	GRM40CH040C50PT	4pF	50V	CH	
C 1050	K46120004	AL. ELECTRO. CAP.	16V100M4X7TR2	10uF	16V		
C 1051	K46120004	AL. ELECTRO. CAP.	16V100M4X7TR2	10uF	16V		

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
C 1052	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1054	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1055	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1056	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1057	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1058	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1059	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1060	K40129012	AL. ELECTRO. CAP.	RC2-16V100M(4X7)	10uF	16V		
C 1061	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 1062	K70107106	TANTALUM CAP.	DN1A100M1S	10uF	10V		
C 1065	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 1066	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 1067	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1068	K70127475	TANTALUM CAP.	DN1C4R7M1S	4.7uF	16V		
C 1069	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1070	K70127475	TANTALUM CAP.	DN1C4R7M1S	4.7uF	16V		
C 1071	K22170227	CHIP CAP.	GRM40CH470J50PT	47pF	50V	CH	
C 1072	K22170231	CHIP CAP.	GRM40CH680J50PT	68pF	50V	CH	
C 1073	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1074	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1075	K70167105	TANTALUM CAP.	DN1V010M1S	1uF	35V		
C 1076	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1077	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1078	K40129046	AL. ELECTRO. CAP.	RE2-16V102M	1000uF	16V		
C 1079	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1080	K46120004	AL. ELECTRO. CAP.	16V100M4X7TR2	10uF	16V		
C 1081	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1082	K22170211	CHIP CAP.	GRM40CH100D50PT	10pF	50V	CH	
C 1083	K22170202	CHIP CAP.	GRM40CK010C50PT	1pF	50V	CK	
C 1085	K40129046	AL. ELECTRO. CAP.	RE2-16V102M	1000uF	16V		
C 1086	K22170201	CHIP CAP.	GRM40CK0R5C50PT	0.5pF	50V	CK	
C 1087	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1089	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1091	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1092	K70127106	TANTALUM CAP.	DN1C100M1S	10uF	16V		
C 1093	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1096	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1097	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1098	K46120010	AL. ELECTRO. CAP.	RC2-16V470M-T34	47uF	16V		
C 1099	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1100	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 1101	K46170030	AL. ELECTRO. CAP.	50V010M4X7TR2	1uF	50V		
C 1102	K46170030	AL. ELECTRO. CAP.	50V010M4X7TR2	1uF	50V		
C 1103	K22170209	CHIP CAP.	GRM40CH080D50PT	8pF	50V	CH	
C 1104	K22170219	CHIP CAP.	GRM40CH220J50PT	22pF	50V	CH	
C 1105	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1106	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1107	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 1108	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1109	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1110	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 1111	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 1112	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1113	K22170204	CHIP CAP.	GRM40CJ030C50PT	3pF	50V	CJ	

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
C 1114	K40129020	AL. ELECTRO. CAP.	RC-16V101M(8X9)	100uF	16V		
C 1115	K40129066	AL. ELECTRO. CAP.	RE3-16V471M	470uF	16V		
C 1116	K40129066	AL. ELECTRO. CAP.	RE3-16V471M	470uF	16V		
C 1117	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1119	K22170215	CHIP CAP.	GRM40CH150J50PT	15pF	50V	CH	
C 1122	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 1123	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1124	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1125	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1127	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1128	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 1129	K22170206	CHIP CAP.	GRM40CH050C50PT	5pF	50V	CH	
C 1130	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1131	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1132	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1133	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 1135	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 1136	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1137	K22170201	CHIP CAP.	GRM40CK0R5C50PT	0.5pF	50V	CK	
C 1140	K78160027	TANTALUM CHIP CAP.	TESVA1V224M1-8R	0.22uF	35V		
C 1141	K78160027	TANTALUM CHIP CAP.	TESVA1V224M1-8R	0.22uF	35V		
C 1142	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1143	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1144	K40109024	AL. ELECTRO. CAP.	RE2-10V101M	100uF	10V		
C 1145	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1146	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 1147	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 1148	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1149	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 1150	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1151	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 1152	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 1153	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 1154	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1155	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1156	K40129042	AL. ELECTRO. CAP.	RE2-16V101M	100uF	16V		
C 1157	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 1158	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 1159	K22170211	CHIP CAP.	GRM40CH100D50PT	10pF	50V	CH	
C 1160	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 1161	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 1162	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 1163	K22170211	CHIP CAP.	GRM40CH100D50PT	10pF	50V	CH	
C 1165	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1166	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1167	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1168	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1169	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1170	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1172	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 1173	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 1174	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1175	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 1176	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	

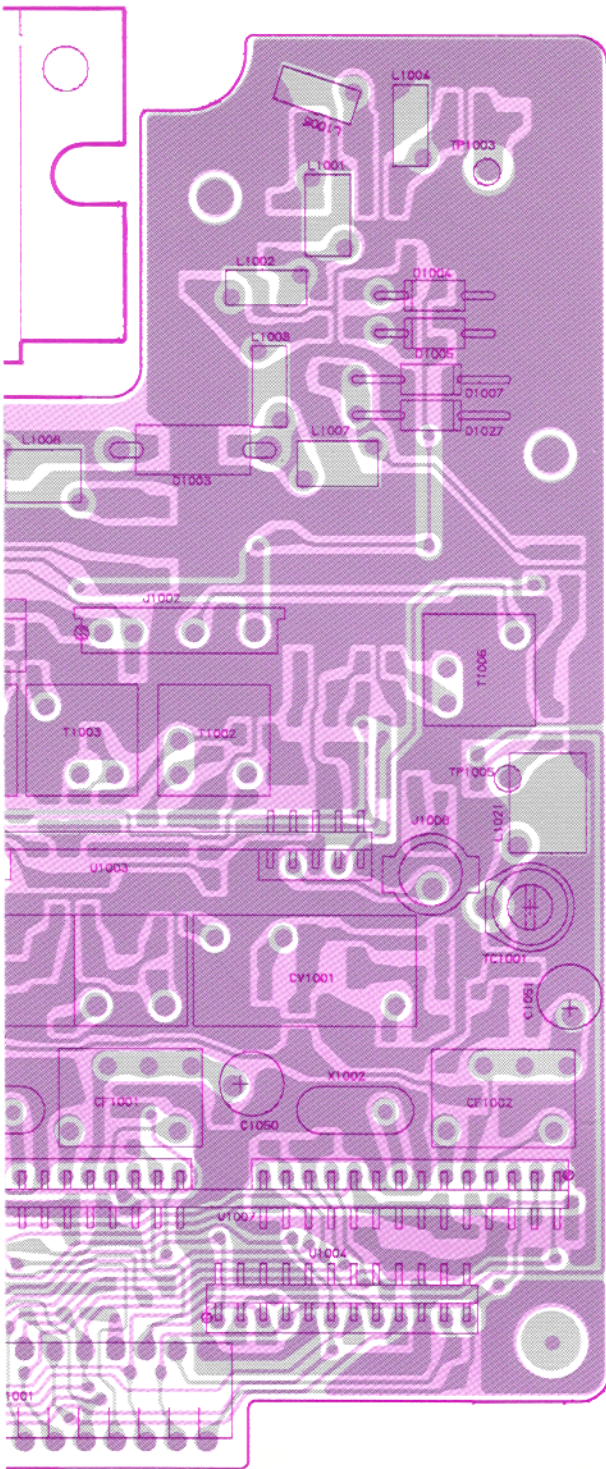
REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
C 1179	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 1181	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1182	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 1183	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1185	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 1186	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 1187	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1188	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1189	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B	
C 1191	K22170813	CHIP CAP.	GRM40B472M50PT	0.0047uF	50V	B	
C 1192	K78140009	TANTALUM CHIP CAP.	TESVA1E474M1-8R	0.47uF	25V		
C 1193	K78140009	TANTALUM CHIP CAP.	TESVA1E474M1-8R	0.47uF	25V		
C 1199	K22174219	CHIP CAP.	GRM39CH220J50PT	22pF	50V	CH	
C 1200	K22174206	CHIP CAP.	GRM39CH050C50PT	5pF	50V	CH	
C 1201	K22170206	CHIP CAP.	GRM40CH050C50PT	5pF	50V	CH	
C 1202	K22174209	CHIP CAP.	GRM39CH080D50PT	8pF	50V	CH	
C 1203	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
C 1204	K22170211	CHIP CAP.	GRM40CH100D50PT	10pF	50V	CH	
C 1205	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF	50V	CK	
CF1001	H3900400	CERAMIC FILTER	CFWM455E				
CF1002	H3900400	CERAMIC FILTER	CFWM455E				
CV1001	L4020082	HELICAL RESONATOR	HF-62H14 440M R-F534				
CV1002	L4020081	HELICAL RESONATOR	HF-63H21 440M R-F535				
D 1001	Q9000534	SURGE ABSORBER	P6KE18				
D 1002	G2070009	DIODE	1SS184 TE85R				
D 1003	G2090425	DIODE	UM9415				
D 1004	G2090118	DIODE	1SS97				
D 1005	G2090118	DIODE	1SS97				
D 1006	G2015550	DIODE	1S1555				
D 1007	G2090337	DIODE	MI308				
D 1008	G2090297	DIODE	1SS110				
D 1009	G2070118	DIODE	HSU277				
D 1010	G2070112	DIODE	HZM11B-TR				
D 1011	G2070118	DIODE	HSU277				
D 1012	G2070118	DIODE	HSU277				
D 1013	G2070102	DIODE	1T362-T8				
D 1014	G2070102	DIODE	1T362-T8				
D 1016	G2070102	DIODE	1T362-T8				
D 1017	G2070102	DIODE	1T362-T8				
D 1019	G2070003	DIODE	1SS226 TE85R				
D 1020	G2070003	DIODE	1SS226 TE85R				
D 1021	G2090297	DIODE	1SS110				
D 1022	G2015550	DIODE	1S1555				
D 1025	G2070009	DIODE	1SS184 TE85R				
D 1026	G2070009	DIODE	1SS184 TE85R				
D 1027	G2090337	DIODE	MI308				
D 1028	G2070118	DIODE	HSU277				
J 1001	P1090671	CONNECTOR	5533-26APB				
J 1002	P1090672	CONNECTOR	9110S-06				
J 1003	P1090560	CONNECTOR	5533-14APB				

REF.	YAESU P/N	DESCRIPTION	MFR'S DESIG	VALUE	WV	TOL.	VERS.
J 1004	P0090612	CONNECTOR	SB20-05WS				
J 1005	P1090672	CONNECTOR	9110S-06				
J 1006	P1090210	CONNECTOR	TMP-J01X-V6				
J 1007	P1090210	CONNECTOR	TMP-J01X-V6				
L 1001	L0021817	COIL	2.5T3.5D0.6UEW R				
L 1002	L0021359	COIL	1.5T3.5D0.6UEW R				
L 1003	L0021359	COIL	1.5T3.5D0.6UEW R				
L 1004	L0021359	COIL	1.5T3.5D0.6UEW R				
L 1005	L0021359	COIL	1.5T3.5D0.6UEW R				
L 1006	L0020917	COIL	1.0T3.0D0.5UEW R				
L 1007	L0021817	COIL	2.5T3.5D0.6UEW R				
L 1008	L0020724	COIL	8.5T3.0D0.5UEW R				
L 1009	L1690003	CHIP COIL	LQN2AR22K	0.22uH			
L 1010	L1690079	CHIP COIL	LQH3N2R2M02M00-	2.2uH			
L 1011	L1690007	CHIP COIL	LQN2A47NM	0.047uH			
L 1012	L0021811A	COIL	2.5T3.0D0.6UEW R				
L 1013	L1690004	CHIP COIL	LQN2A18NM	0.018u			
L 1014	L1690004	CHIP COIL	LQN2A18NM	0.018u			
L 1016	L1690004	CHIP COIL	LQN2A18NM	0.018u			
L 1017	L1690002	CHIP COIL	LQN2A22NM	0.022uH			
L 1018	L1690073	CHIP COIL	LQH3NR68M92M00-	0.68uH			
L 1019	L1690073	CHIP COIL	LQH3NR68M92M00-	0.68uH			
L 1020	L1690079	CHIP COIL	LQH3N2R2M02M00-	2.2uH			
L 1021	L0020900	COIL	2.5T3.5D0.8ACW R				
L 1022	L1690004	CHIP COIL	LQN2A18NM	0.018u			
L 1023	L1690007	CHIP COIL	LQN2A47NM	0.047uH			
L 1024	L0020340	COIL	5.5T3.0D0.5UEW R				
L 1025	L1690135	M. RFC	LER015TR10M	0.1			
P 1001	T9206007A	WIRE-ASSY					
P 1002	T9206005	WIRE-ASSY					DST EXP
P 1002	T9206005	WIRE-ASSY					DST USA
P 1003	T9205639A	WIRE-ASSY					
Q 1001	G3211340R	TRANSISTOR	2SB1134R				
Q 1002	G3211340R	TRANSISTOR	2SB1134R				
Q 1003	G3327147Y	TRANSISTOR	2SC2714YTE85R				
Q 1004	G1091122	IC	M57788MR				
Q 1005	G3090050	TRANSISTOR	2SC2407(1)				
Q 1006	G3333577	TRANSISTOR	2SC3357-T2				
Q 1007	G3342267B	TRANSISTOR	2SC4226-T2B R22				
Q 1008	G3070034	TRANSISTOR	DTC124EK T97				
Q 1009	G4070001	FET	SGM2006M-T8				
Q 1010	G3815777	FET	2SK1577				
Q 1011	G3070025	TRANSISTOR	1MZ1 T108				
Q 1012	G3070034	TRANSISTOR	DTC124EK T97				
Q 1013	G3316237F	TRANSISTOR	2SC1623-T2BL6				
Q 1014	G3328737Y	TRANSISTOR	2SC2873-Y TE12R				
Q 1015	G3070034	TRANSISTOR	DTC124EK T97				
Q 1016	G1090294	IC	UPC7808H				
Q 1018	G3326207B	TRANSISTOR	2SC2620QBTR				
Q 1019	G3326207B	TRANSISTOR	2SC2620QBTR				
Q 1020	G1091035	IC	UPD4066BG-T2				

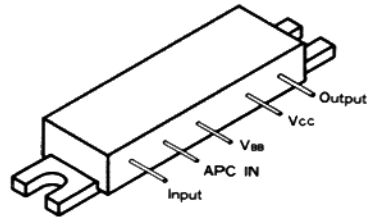
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Q 1021	G4801317A	FET	3SK131-T2B V11				
Q 1023	G3316237F	TRANSISTOR	2SC1623-T2BL6				
Q 1024	G1090299	IC	UPC7805H				
Q 1025	G1090769	IC	TDA2003				
Q 1026	G3325380	TRANSISTOR	2SC2538				
Q 1027	G3333577	TRANSISTOR	2SC3357-T2				
Q 1028	G1090990	IC	M5223FP-72A				
Q 1029	G3070034	TRANSISTOR	DTC124EK T97				
Q 1030	G3070034	TRANSISTOR	DTC124EK T97				
Q 1033	G3316237F	TRANSISTOR	2SC1623-T2BL6				
Q 1034	G3070037	TRANSISTOR	RN1303 TE85R				
Q 1035	G3070037	TRANSISTOR	RN1303 TE85R				
R 1001	J24205683	CHIP RES.	RMC1/10T 683J	68K		1/10W	
R 1002	J24205470	CHIP RES.	RMC1/10T 470J	47		1/10W	
R 1003	J24245100	CHIP RES.	RMC1/4 100JATP	10		1/4W	
R 1004	J24205103	CHIP RES.	RMC1/10T 103J	10K		1/10W	
R 1005	J24205103	CHIP RES.	RMC1/10T 103J	10K		1/10W	
R 1006	J24205222	CHIP RES.	RMC1/10T 222J	2.2K		1/10W	
R 1007	J24205150	CHIP RES.	RMC1/10T 150J	15		1/10W	
R 1008	J24205102	CHIP RES.	RMC1/10T 102J	1K		1/10W	
R 1009	J24205472	CHIP RES.	RMC1/10T 472J	4.7K		1/10W	
R 1010	J24205221	CHIP RES.	RMC1/10T 221J	220		1/10W	
R 1011	J24205471	CHIP RES.	RMC1/10T 471J	470		1/10W	
R 1012	J24275151	CHIP RES.	RMC1/2 151JCTP	150		1/2W	
R 1013	J24205100	CHIP RES.	RMC1/10T 100J	10		1/10W	
R 1014	J24185683	CHIP RES.	RMC1/16 683JATP	68K		1/16W	
R 1015	J24205221	CHIP RES.	RMC1/10T 221J	220		1/10W	
R 1016	J24205104	CHIP RES.	RMC1/10T 104J	100K		1/10W	
R 1017	J24205471	CHIP RES.	RMC1/10T 471J	470		1/10W	
R 1018	J24205223	CHIP RES.	RMC1/10T 223J	22K		1/10W	
R 1019	J24205102	CHIP RES.	RMC1/10T 102J	1K		1/10W	
R 1020	J24205470	CHIP RES.	RMC1/10T 470J	47		1/10W	
R 1021	J24205104	CHIP RES.	RMC1/10T 104J	100K		1/10W	
R 1022	J24205223	CHIP RES.	RMC1/10T 223J	22K		1/10W	
R 1023	J24205682	CHIP RES.	RMC1/10T 682J	6.8K		1/10W	
R 1024	J24205680	CHIP RES.	RMC1/10T 680J	68		1/10W	
R 1025	J24205100	CHIP RES.	RMC1/10T 100J	10		1/10W	
R 1026	J24205100	CHIP RES.	RMC1/10T 100J	10		1/10W	
R 1027	J24205472	CHIP RES.	RMC1/10T 472J	4.7K		1/10W	
R 1028	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 1029	J24205103	CHIP RES.	RMC1/10T 103J	10K		1/10W	
R 1030	J24205103	CHIP RES.	RMC1/10T 103J	10K		1/10W	
R 1031	J24205102	CHIP RES.	RMC1/10T 102J	1K		1/10W	
R 1032	J24205103	CHIP RES.	RMC1/10T 103J	10K		1/10W	
R 1035	J24205101	CHIP RES.	RMC1/10T 101J	100		1/10W	
R 1036	J24205101	CHIP RES.	RMC1/10T 101J	100		1/10W	
R 1037	J24205331	CHIP RES.	RMC1/10T 331J	330		1/10W	
R 1038	J24205331	CHIP RES.	RMC1/10T 331J	330		1/10W	
R 1039	J24205124	CHIP RES.	RMC1/10T 124J	120K		1/10W	
R 1041	J24305010	CHIP RES.	RMC1 1R0JCTP	1		1W	
R 1042	J24205471	CHIP RES.	RMC1/10T 471J	470		1/10W	
R 1043	J24205824	CHIP RES.	RMC1/10T 824J	820K		1/10W	
R 1044	J24205103	CHIP RES.	RMC1/10T 103J	10K		1/10W	

REF.	YAESU P/N	DESCRIPTION	MFR'S DESIG	VALUE	WV	TOL.	VERS.
R 1045	J24205102	CHIP RES.	RMC1/10T 102J	1K	1/10W		
R 1046	J24205122	CHIP RES.	RMC1/10T 122J	1. 2K	1/10W		
R 1048	J24205103	CHIP RES.	RMC1/10T 103J	10K	1/10W		
R 1049	J24245010	CHIP RES.	RMC1/4 1R0JATP	1	1/4W		
R 1050	J24245221	CHIP RES.	RMC1/4 221JATP	220	1/4W		
R 1051	J24205104	CHIP RES.	RMC1/10T 104J	100K	1/10W		
R 1052	J24205103	CHIP RES.	RMC1/10T 103J	10K	1/10W		
R 1053	J24205223	CHIP RES.	RMC1/10T 223J	22K	1/10W		
R 1054	J24205120	CHIP RES.	RMC1/10T 120J	12	1/10W		
R 1056	J24205223	CHIP RES.	RMC1/10T 223J	22K	1/10W		
R 1058	J24205103	CHIP RES.	RMC1/10T 103J	10K	1/10W		
R 1059	J24205103	CHIP RES.	RMC1/10T 103J	10K	1/10W		
R 1060	J24205103	CHIP RES.	RMC1/10T 103J	10K	1/10W		
R 1061	J24205103	CHIP RES.	RMC1/10T 103J	10K	1/10W		
R 1062	J24205103	CHIP RES.	RMC1/10T 103J	10K	1/10W		
R 1063	J24245229	CHIP RES.	RMC1/4 2R2JATP	2. 2	1/4W		
R 1064	J24205100	CHIP RES.	RMC1/10T 100J	10	1/10W		
R 1065	J24205103	CHIP RES.	RMC1/10T 103J	10K	1/10W		
R 1066	J24205472	CHIP RES.	RMC1/10T 472J	4. 7K	1/10W		
R 1068	J24205103	CHIP RES.	RMC1/10T 103J	10K	1/10W		
R 1070	J24205680	CHIP RES.	RMC1/10T 680J	68	1/10W		
R 1071	J24205222	CHIP RES.	RMC1/10T 222J	2. 2K	1/10W		
R 1072	J24205220	CHIP RES.	RMC1/10T 220J	22	1/10W		
R 1073	J24205150	CHIP RES.	RMC1/10T 150J	15	1/10W		
R 1074	J24205102	CHIP RES.	RMC1/10T 102J	1K	1/10W		
R 1075	J24205472	CHIP RES.	RMC1/10T 472J	4. 7K	1/10W		
R 1076	J24205224	CHIP RES.	RMC1/10T 224J	220K	1/10W		
R 1078	J24205184	CHIP RES.	RMC1/10T 184J	180K	1/10W		
R 1079	J24205183	CHIP RES.	RMC1/10T 183J	18K	1/10W		
R 1080	J24205222	CHIP RES.	RMC1/10T 222J	2. 2K	1/10W		
R 1081	J24205224	CHIP RES.	RMC1/10T 224J	220K	1/10W		
R 1082	J24205102	CHIP RES.	RMC1/10T 102J	1K	1/10W		
R 1083	J24205224	CHIP RES.	RMC1/10T 224J	220K	1/10W		
R 1084	J24205223	CHIP RES.	RMC1/10T 223J	22K	1/10W		
R 1085	J24205122	CHIP RES.	RMC1/10T 122J	1. 2K	1/10W		
R 1086	J24205822	CHIP RES.	RMC1/10T 822J	8. 2K	1/10W		
R 1087	J24205152	CHIP RES.	RMC1/10T 152J	1. 5K	1/10W		
R 1088	J24245150	CHIP RES.	RMC1/4 150JATP	15	1/4W		
R 1090	J24205122	CHIP RES.	RMC1/10T 122J	1. 2K	1/10W		
R 1091	J24245569	CHIP RES.	RMC1/4 5R6JATP	5. 6	1/4W		
R 1092	J24205122	CHIP RES.	RMC1/10T 122J	1. 2K	1/10W		
R 1093	J24205122	CHIP RES.	RMC1/10T 122J	1. 2K	1/10W		
R 1094	J24245569	CHIP RES.	RMC1/4 5R6JATP	5. 6	1/4W		
R 1095	J24205122	CHIP RES.	RMC1/10T 122J	1. 2K	1/10W		
R 1096	J24205101	CHIP RES.	RMC1/10T 101J	100	1/10W		
R 1097	J24205680	CHIP RES.	RMC1/10T 680J	68	1/10W		
R 1098	J24205101	CHIP RES.	RMC1/10T 101J	100	1/10W		
R 1099	J24185560	CHIP RES.	RMC1/16 560JATP	56	1/16W		
R 1100	J24275470	CHIP RES.	RMC1/2 470JCTP	47	1/2W		
R 1101	J24205000	CHIP RES.	RMC1/10T 000J	0	1/10W		
R 1102	J24185105	CHIP RES.	RMC1/16 105JATP	1M	1/16W		
R 1103	J24185105	CHIP RES.	RMC1/16 105JATP	1M	1/16W		
R 1104	J24185472	CHIP RES.	RMC1/16 472JATP	4. 7K	1/16W		
R 1105	J24185472	CHIP RES.	RMC1/16 472JATP	4. 7K	1/16W		

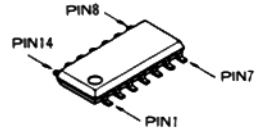
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R 1106	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 1107	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 1108	J24185683	CHIP RES.	RMC1/16 683JATP	68K	1/16W		
R 1109	J24185682	CHIP RES.	RMC1/16 682JATP	6.8K	1/16W		
R 1110	J24205683	CHIP RES.	RMC1/10T 683J	68K	1/10W		
R 1111	J24205183	CHIP RES.	RMC1/10T 183J	18K	1/10W		
R 1112	J24205822	CHIP RES.	RMC1/10T 822J	8.2K	1/10W		
R 1113	J24185393	CHIP RES.	RMC1/16 393JATP	39K	1/16W		
R 1114	J24185823	CHIP RES.	RMC1/16 823JATP	82K	1/16W		
R 1115	J24185152	CHIP RES.	RMC1/16 152JATP	1.5K	1/16W		
R 1116	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 1124	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 1125	J24185224	CHIP RES.	RMC1/16 224JATP	220K	1/16W		
R 1126	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 1127	J24185224	CHIP RES.	RMC1/16 224JATP	220K	1/16W		
R 1128	J01225104	CARBON FILM RES.	RD16PJ104	100K	1/6W		
SP1001	M4090067	SPEAKER	TL-57A	8ohm	1.5W		
T 1002	L0022067	COIL	145M R12-L044X				
T 1003	L0022067	COIL	145M R12-L044X				
T 1004	L0022067	COIL	145M R12-L044X				
T 1005	L0022067	COIL	145M R12-L044X				
T 1006	L0022067	COIL	145M R12-L044X				
TC1001	K91000059	TRIMMER CAP.	ECV1ZW04X53T				
TP1001	Q5000016	TP-E	TP-E/MS-60124				
TP1002	Q5000016	TP-E	TP-E/MS-60124				
TP1003	Q5000101	TP-R	TP-R IPS-1110				
TP1004	Q5000101	TP-R	TP-R IPS-1110				
TP1005	Q5000016	TP-E	TP-E/MS-60124				
VR1001	J51778473	POT.	RH03AYAS4X	47K			
VR1002	J51778473	POT.	RH03AYAS4X	47K			
X 1001	H0102986	XTAL		17.245MHZ			
X 1002	H0102983	XTAL		22.045MHZ			
	L9190001	FERRITE BEADS	4A2 RI3X3-1				
	R3129530	XTAL HOLDER					
	R0139830	LEAF SPRING					
	S6000238	LED SPACER	LH-5-5				



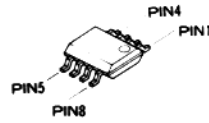
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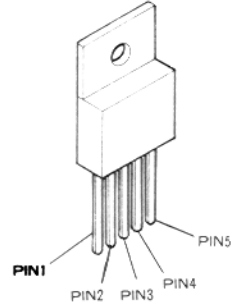
10W Type : M57704MR
Hi Pow. Type : M57788MR
(Q1004)



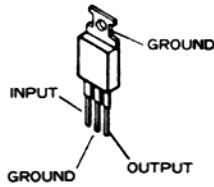
μPD4066BG
(Q1020)



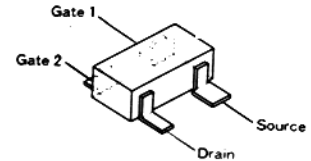
M5223FP
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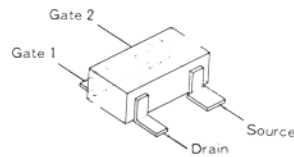
TDA2003
(Q1025)



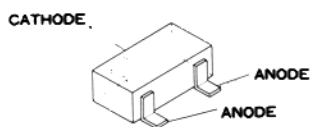
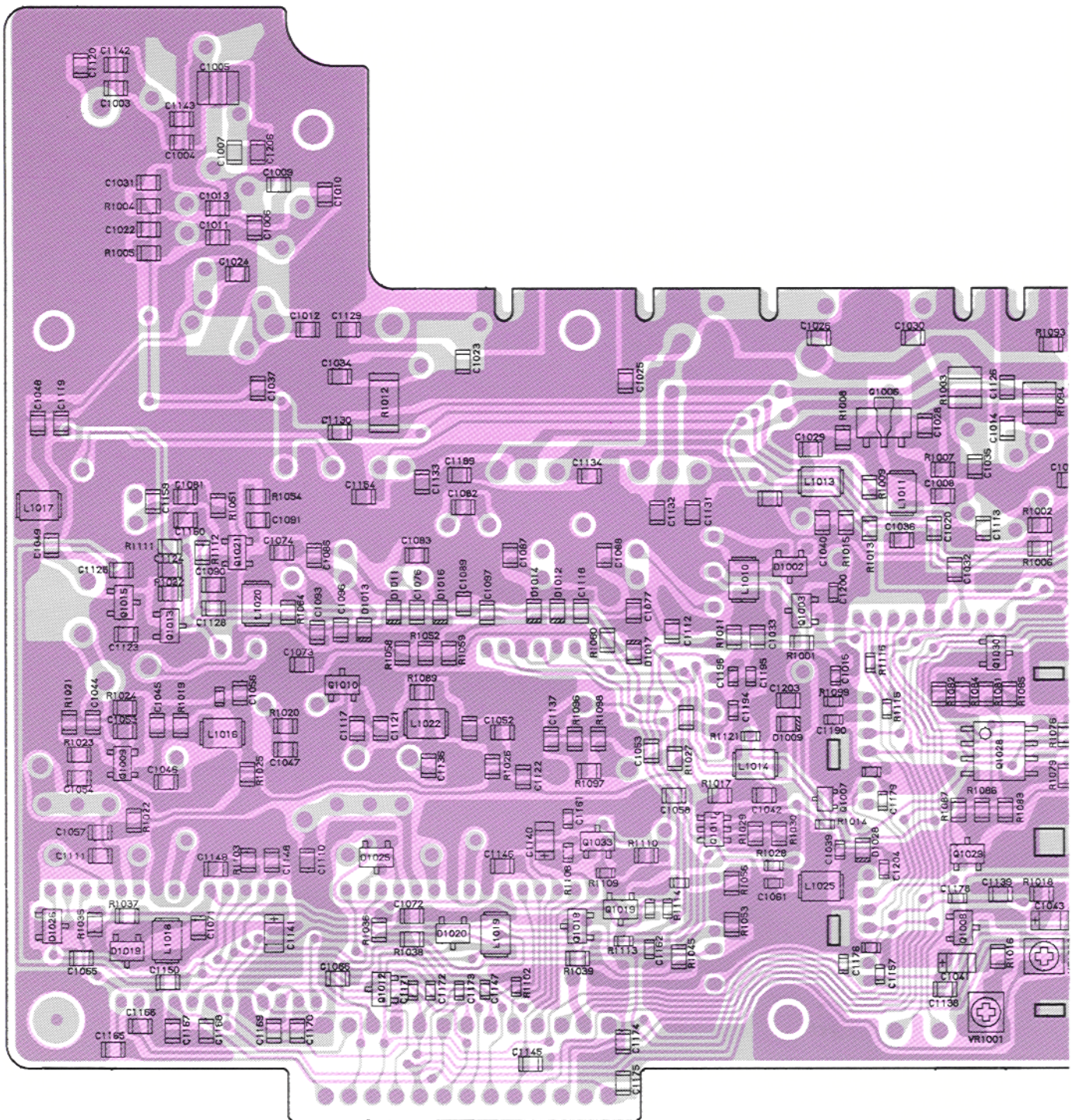
μPC7805H
(Q1024)
μPC7808H
(Q1016)



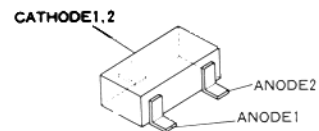
SGM2006M(M-254)
(Q1009)



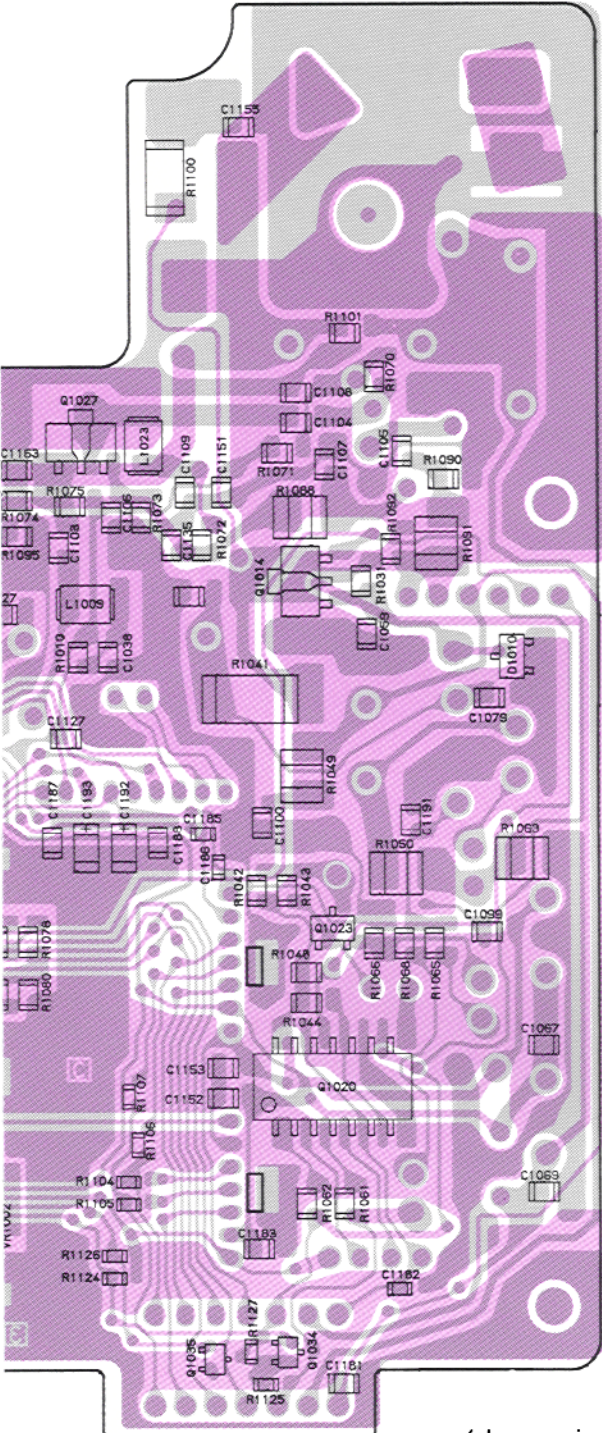
3SK131(V11)
(Q1011)



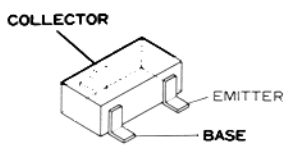
HZM11B(25)
(D1010)



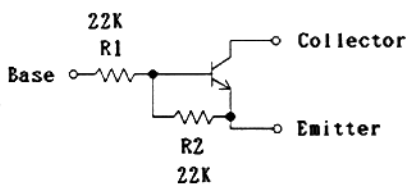
ISS184(B3)
(D1002, D1025, D1026)



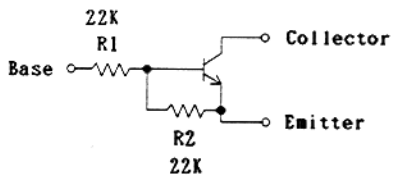
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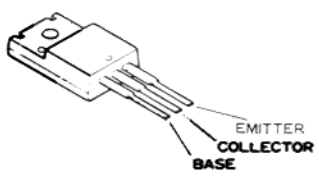
- 2SC1623(L6)
(Q1013, Q1023, Q1033)
- 2SC2620(QB)
(Q1018, Q1019)
- 2SC2714Y(QY)
(Q1003)
- 2SC4226(R22)
(Q1007)
- DTC124EK(25)
(Q1008, Q1012, Q1015,
Q1029, Q1030)
- RN1303(XC)
(Q1034, Q1035)



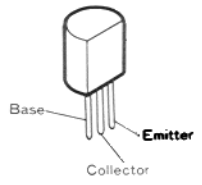
DTC124EK CIRCUIT DIAGRAM



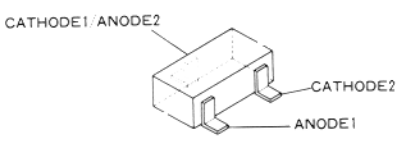
RN1303 CIRCUIT DIAGRAM



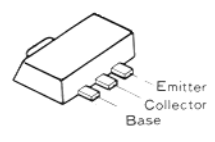
- 2SB1134R
(Q1001, Q1002)



- 2SC2407
(Q1005)
- 2SC2538
(Q1026)

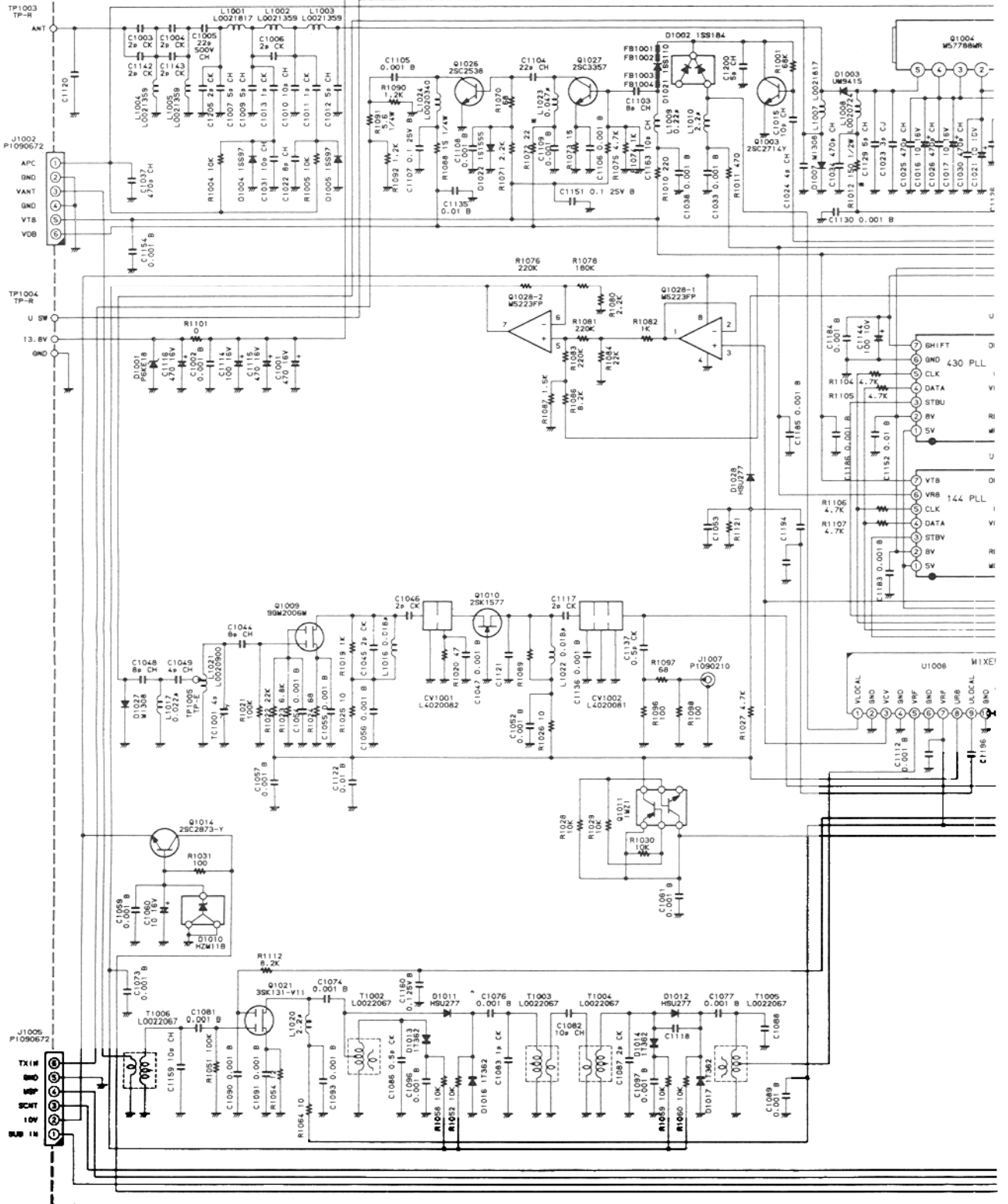


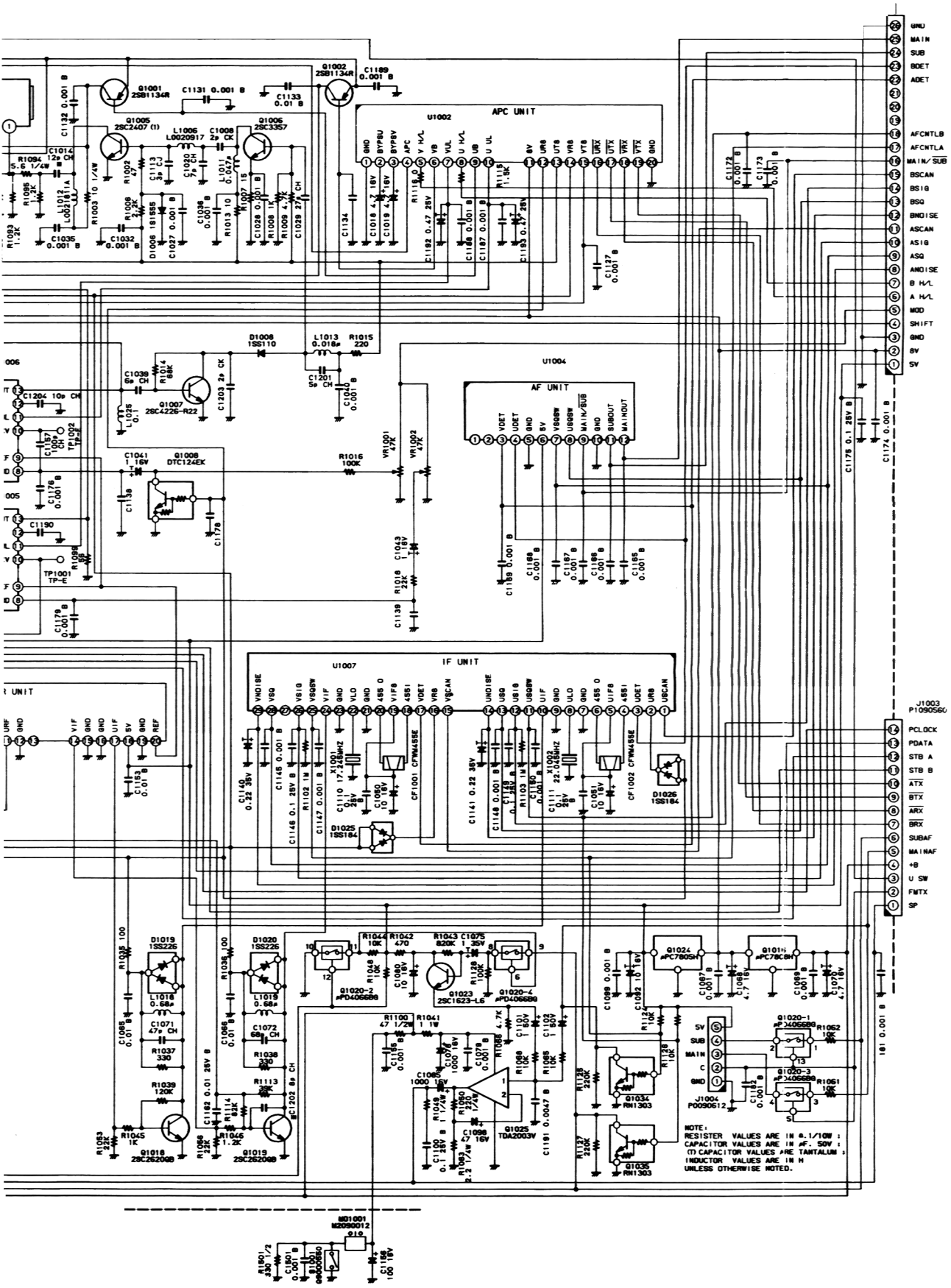
- 1SS226(C3)
(D1019, D1020)



- 2SC2873(MO)
(Q1014)
- 2SC3357(RK)
(Q1006, Q1027)

MAIN UNIT F316600C





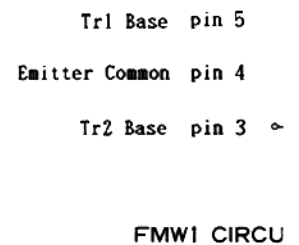
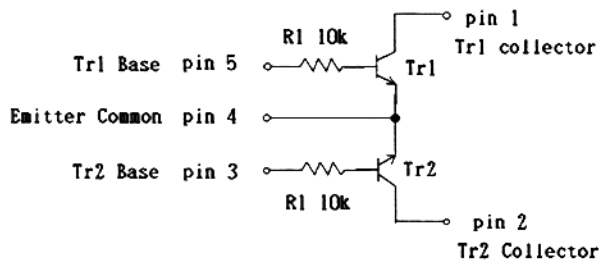
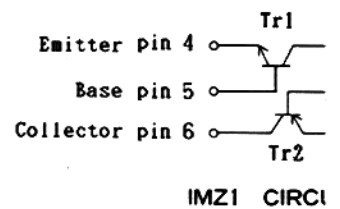
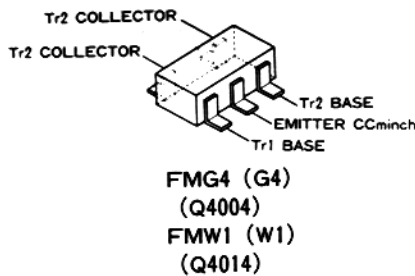
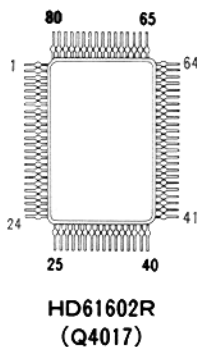
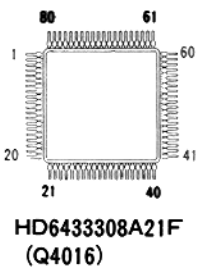
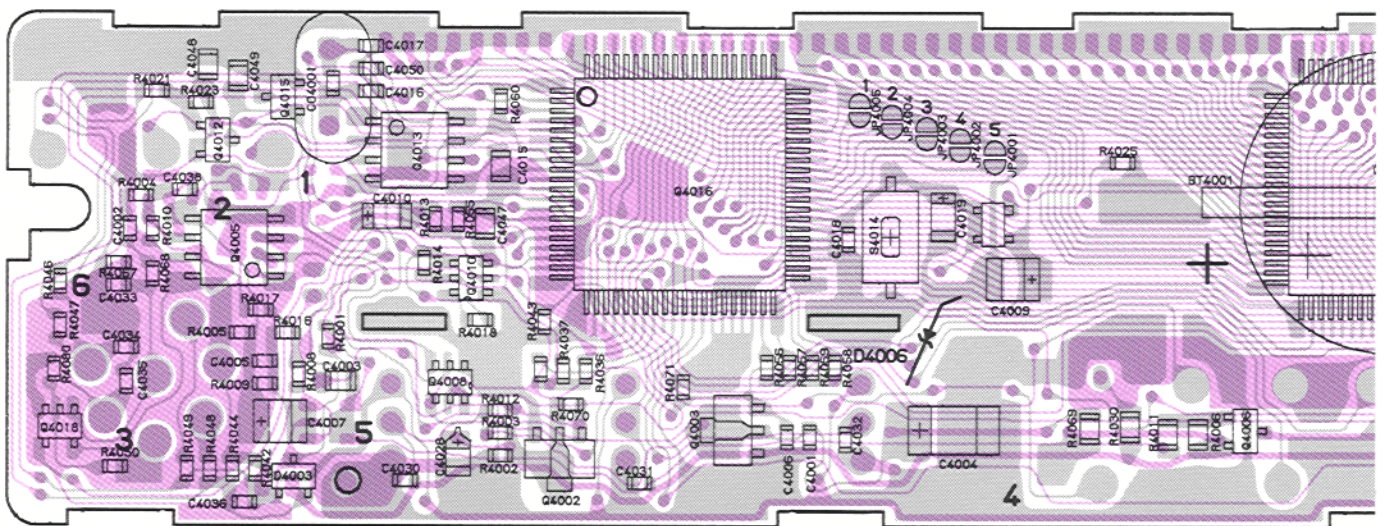
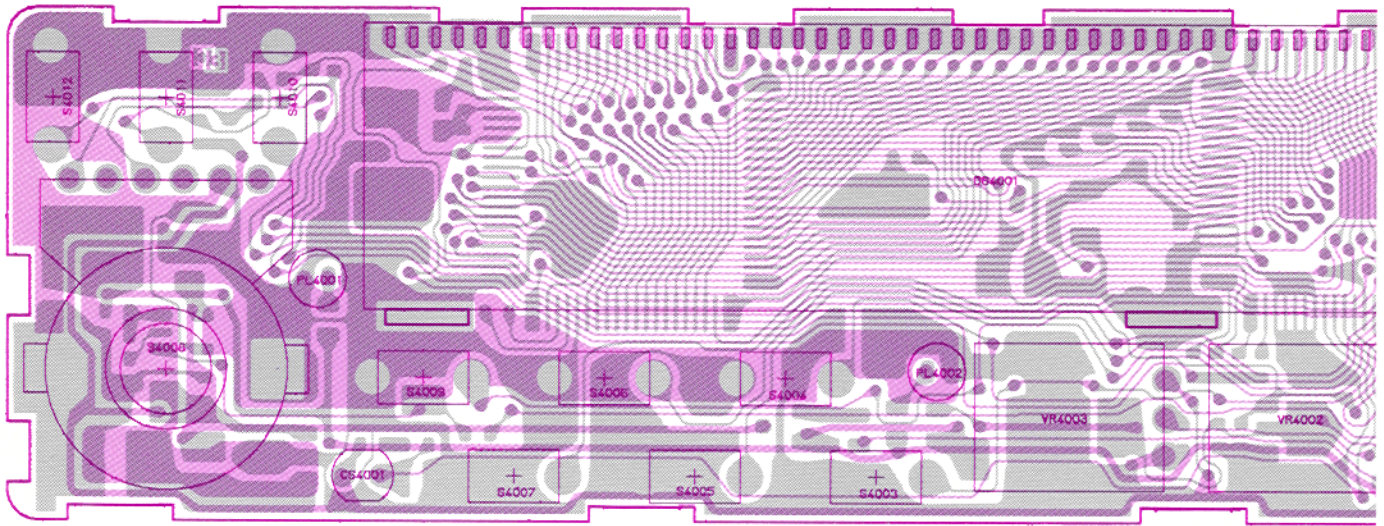
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	CS0972003	P.C.B. W COMP.					DST USA
	F3172101C						
BT4001	Q9000552	LITHIUM BATTERY	CR2016-TS1				
C 4001	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4002	K22144803	CHIP CAP.	GRM39B103K25PT	0.01uF	25V	B	
C 4003	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 4004	K78120011	TANTALUM CHIP CAP.	TESVC1C106M12R	10uF	16V		
C 4005	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4006	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4007	K78080019	TANTALUM CHIP CAP.	TEMSVB20J106M-8R	10uF	6.3V		
C 4008	K78120011	TANTALUM CHIP CAP.	TESVC1C106M12R	10uF	16V		
C 4009	K78080019	TANTALUM CHIP CAP.	TEMSVB20J106M-8R	10uF	6.3V		
C 4010	K78120009	TANTALUM CHIP CAP.	TESVA1C105M1-8R	1uF	16V		
C 4011	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4013	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4014	K78080019	TANTALUM CHIP CAP.	TEMSVB20J106M-8R	10uF	6.3V		
C 4015	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 4016	K22174223	CHIP CAP.	GRM39CH330J50PT	33pF	50V	CH	
C 4017	K22174223	CHIP CAP.	GRM39CH330J50PT	33pF	50V	CH	
C 4018	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4019	K78120009	TANTALUM CHIP CAP.	TESVA1C105M1-8R	1uF	16V		
C 4020	K22144803	CHIP CAP.	GRM39B103K25PT	0.01uF	25V	B	
C 4021	K22144803	CHIP CAP.	GRM39B103K25PT	0.01uF	25V	B	
C 4022	K78120015	TANTALUM CHIP CAP.	TEMSVA1C225M-8R	2.2uF	16V		
C 4024	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 4025	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 4027	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4028	K78120002	TANTALUM CHIP CAP.	F951C225MSAAF1Q2	2.2uF	16V		
C 4029	K78080019	TANTALUM CHIP CAP.	TEMSVB20J106M-8R	10uF	6.3V		
C 4030	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4031	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4032	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4033	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4034	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4035	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4037	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4038	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 4039	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 4040	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 4041	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 4047	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 4048	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 4049	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 4050	K22144803	CHIP CAP.	GRM39B103K25PT	0.01uF	25V	B	
C04001	H7900620	CERAMIC OSC	CSA9.83MT				
CS4001	G9090056	CDS	P2137-01				
D 4001	G2070009	DIODE	1SS184 TE85R				

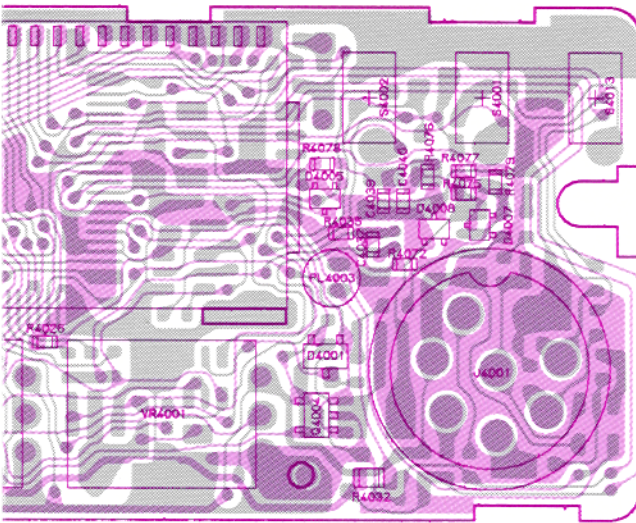
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D 4002	G2070080	DIODE	1SS319 TE85R				
D 4003	G2070009	DIODE	1SS184 TE85R				
D 4005	G2070086	DIODE	1SS301 TE85R				
D 4007	G2070088	DIODE	1SS302 TE85R				
D 4008	G2070088	DIODE	1SS302 TE85R				
DS4001	G6090088	LCD	FTD-8E51AB				DST EXP
DS4001	G6090088	LCD	FTD-8E51AB				DST USA
J 4001	P0090742	CONNECTOR	FM214-8SMPT-1				
JP4006	JP3						
PL4001	Q1000065	LAMP	9V		9V		
PL4002	Q1000065	LAMP	9V		9V		
PL4003	Q1000065	LAMP	9V		9V		
Q 4002	G1090922	IC	RH5VA45AA-T2				
Q 4003	G1091144	IC	NJU7201U50 TE2				
Q 4004	G3070061	TRANSISTOR	FMG4 T148				
Q 4005	G1090589	IC	NJM2904M				
Q 4006	G3206247D	TRANSISTOR	2SB624-T2B BV4				
Q 4008	G3070026	TRANSISTOR	IMD2 T108				
Q 4009	G1090887	IC	NJM78L05UA				
Q 4010	G3070025	TRANSISTOR	IMZ1 T108				
Q 4011	G3070063	TRANSISTOR	2SB1182-TLQ				
Q 4012	G3111627G	TRANSISTOR	2SA1162GR TE85R				
Q 4013	G1091145	IC	M51953AFP-32A				
Q 4014	G3070009	TRANSISTOR	FMW1 T98				
Q 4015	G3070034	TRANSISTOR	DTC124EK T97				
Q 4016	G1091134	IC	HD6433308A21F				
Q 4017	G1091135	IC	HD61602RH				
R 4001	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 4002	J24185183	CHIP RES.	RMC1/16 183JATP	18K		1/16W	
R 4003	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 4004	J24185122	CHIP RES.	RMC1/16 122JATP	1.2K		1/16W	
R 4005	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 4006	J24205332	CHIP RES.	RMC1/10T 332J	3.3K		1/10W	
R 4008	J24185000	CHIP RES.	RMC1/16 000JATP	0		1/16W	
R 4009	J24185822	CHIP RES.	RMC1/16 822JATP	8.2K		1/16W	
R 4010	J24185394	CHIP RES.	RMC1/16 394JATP	390K		1/16W	
R 4011	J24205332	CHIP RES.	RMC1/10T 332J	3.3K		1/10W	
R 4012	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 4013	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 4014	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 4016	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 4017	J24185000	CHIP RES.	RMC1/16 000JATP	0		1/16W	
R 4018	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 4021	J24185473	CHIP RES.	RMC1/16 473JATP	47K		1/16W	
R 4022	J24185102	CHIP RES.	RMC1/16 102JATP	1K		1/16W	
R 4023	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 4025	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 4026	J24185224	CHIP RES.	RMC1/16 224JATP	220K		1/16W	

REF.	YAESU P/N	DESCRIPTION	MFR'S DESIG	VALUE	WV	TOL.	VERS.
R 4027	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16W		
R 4028	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 4029	J24205220	CHIP RES.	RMC1/10T 220J	22	1/10W		
R 4030	J24205220	CHIP RES.	RMC1/10T 220J	22	1/10W		
R 4031	J24185105	CHIP RES.	RMC1/16 105JATP	1M	1/16W		
R 4032	J24205220	CHIP RES.	RMC1/10T 220J	22	1/10W		
R 4033	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 4034	J24185223	CHIP RES.	RMC1/16 223JATP	22K	1/16W		
R 4035	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 4036	J24185393	CHIP RES.	RMC1/16 393JATP	39K	1/16W		
R 4037	J24185823	CHIP RES.	RMC1/16 823JATP	82K	1/16W		
R 4038	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 4039	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 4040	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 4041	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 4042	J24185223	CHIP RES.	RMC1/16 223JATP	22K	1/16W		
R 4043	J24185224	CHIP RES.	RMC1/16 224JATP	220K	1/16W		
R 4044	J24185223	CHIP RES.	RMC1/16 223JATP	22K	1/16W		
R 4045	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M	1/16W		
R 4046	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 4047	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 4048	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 4049	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 4050	J24185105	CHIP RES.	RMC1/16 105JATP	1M	1/16W		
R 4051	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 4052	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 4053	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 4054	J24185334	CHIP RES.	RMC1/16 334JATP	330K	1/16W		
R 4055	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 4056	J24185822	CHIP RES.	RMC1/16 822JATP	8.2K	1/16W		
R 4057	J24185392	CHIP RES.	RMC1/16 392JATP	3.9K	1/16W		
R 4058	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 4059	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 4060	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 4061	J24245101	CHIP RES.	RMC1/4 101JATP	100	1/4W		
R 4062	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 4063	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 4064	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 4065	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 4066	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 4067	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 4068	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 4069	J24205101	CHIP RES.	RMC1/10T 101J	100	1/10W		
R 4070	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W		
R 4071	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W		
R 4072	J24185183	CHIP RES.	RMC1/16 183JATP	18K	1/16W		
R 4073	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M	1/16W		
R 4074	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M	1/16W		
R 4075	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 4076	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W		
R 4077	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 4078	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W		
R 4079	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 4080	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		

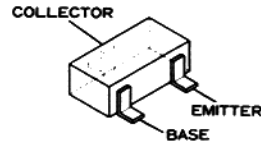
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S 4002	N5090027	TACT SWITCH	SKHLAB				
S 4003	N5090027	TACT SWITCH	SKHLAB				
S 4004	N5090027	TACT SWITCH	SKHLAB				
S 4005	N5090027	TACT SWITCH	SKHLAB				
S 4006	N5090027	TACT SWITCH	SKHLAB				
S 4007	N5090027	TACT SWITCH	SKHLAB				
S 4008	Q9000395	ROTARY ENCODER	EVQ-WWNF1524B				
S 4009	N5090027	TACT SWITCH	SKHLAB				
S 4010	N5090027	TACT SWITCH	SKHLAB				
S 4011	N5090027	TACT SWITCH	SKHLAB				
S 4012	N5090027	TACT SWITCH	SKHLAB				
S 4013	N5090027	TACT SWITCH	SKHLAB				
S 4014	N5090051	TACT SWITCH	SKQDAA				
VR4001	J60800171	POT.	K091COG05	20K			B
VR4002	J60800143	POT.	RK09K1130	20K			B
VR4003	J60800143	POT.	RK09K1130	20K			B
	S2000032	RUBBER CONDUCTOR	85.5X10.9X1.5				
	S6000242	LED SPACER	LH-5-9				
	R0138710	METAL HOLDER					
	R3136520	LAMP GUIDE					
	R7118750	SPONGE RUBBER					
	R7138420	SHEET					
	R7138430	FIBER					

CNTL UNIT (No.40XX)

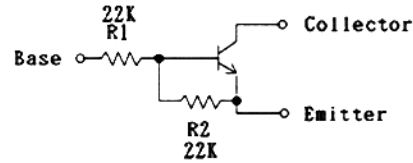




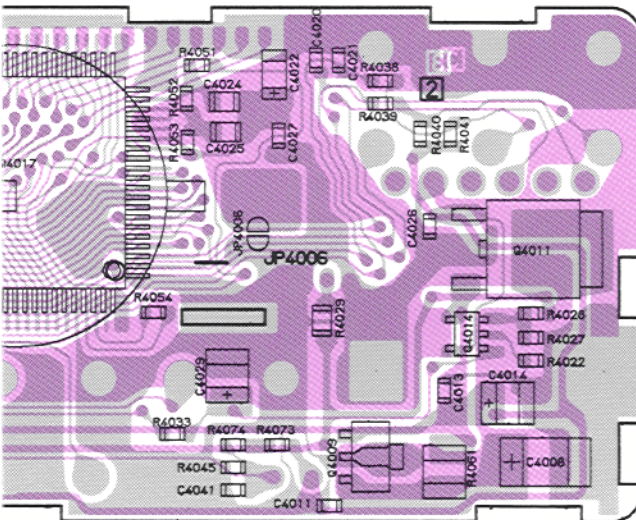
(obverse view of "component" side)



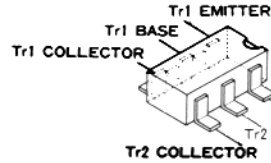
- 2SA1162GR (SG) (Q4012)
- 2SB624 (BV4) (Q4006)
- DTC124EK (25) (Q4015)



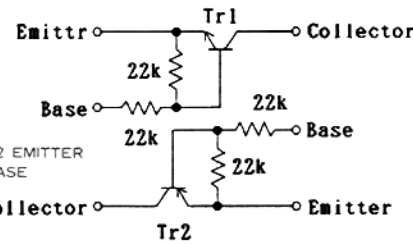
DTC124EK CIRCUIT DIAGRAM



(obverse view of "chip-only" side)



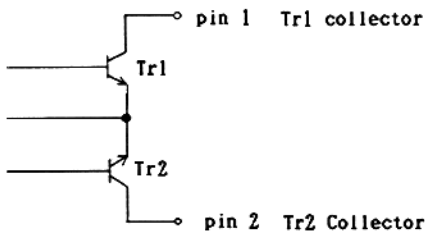
- IMD2 (D2) (Q4008)
- IMZ1 (Z1) (Q4010)



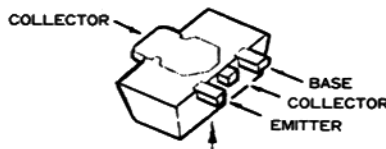
IMD2 CIRCUIT DIAGRAM

- pin 1 Collector
- pin 2 Base
- pin 3 Emitter

JIT DIAGRAM

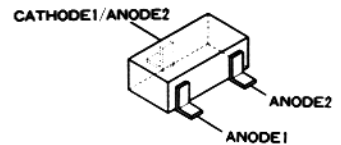


IT DIAGRAM

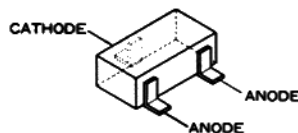


Marked Surt

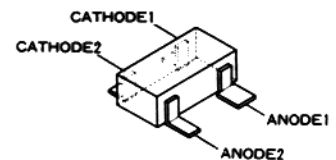
- 2SB1182 (Q4011)



- 1SS302 (C3) (D4007, D4008)

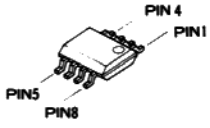


- 1SS184 (B3) (D4001, D4003)
- 1SS301 (B3) (D4005)

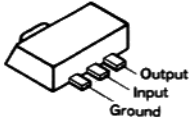


- 1SS319 (A4) (D4002)

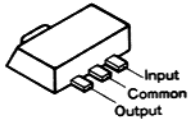
CNTL UNIT F3172101C



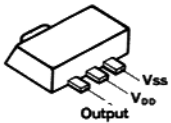
M51953AFP (Q4013)
NJM2904M (Q4005)



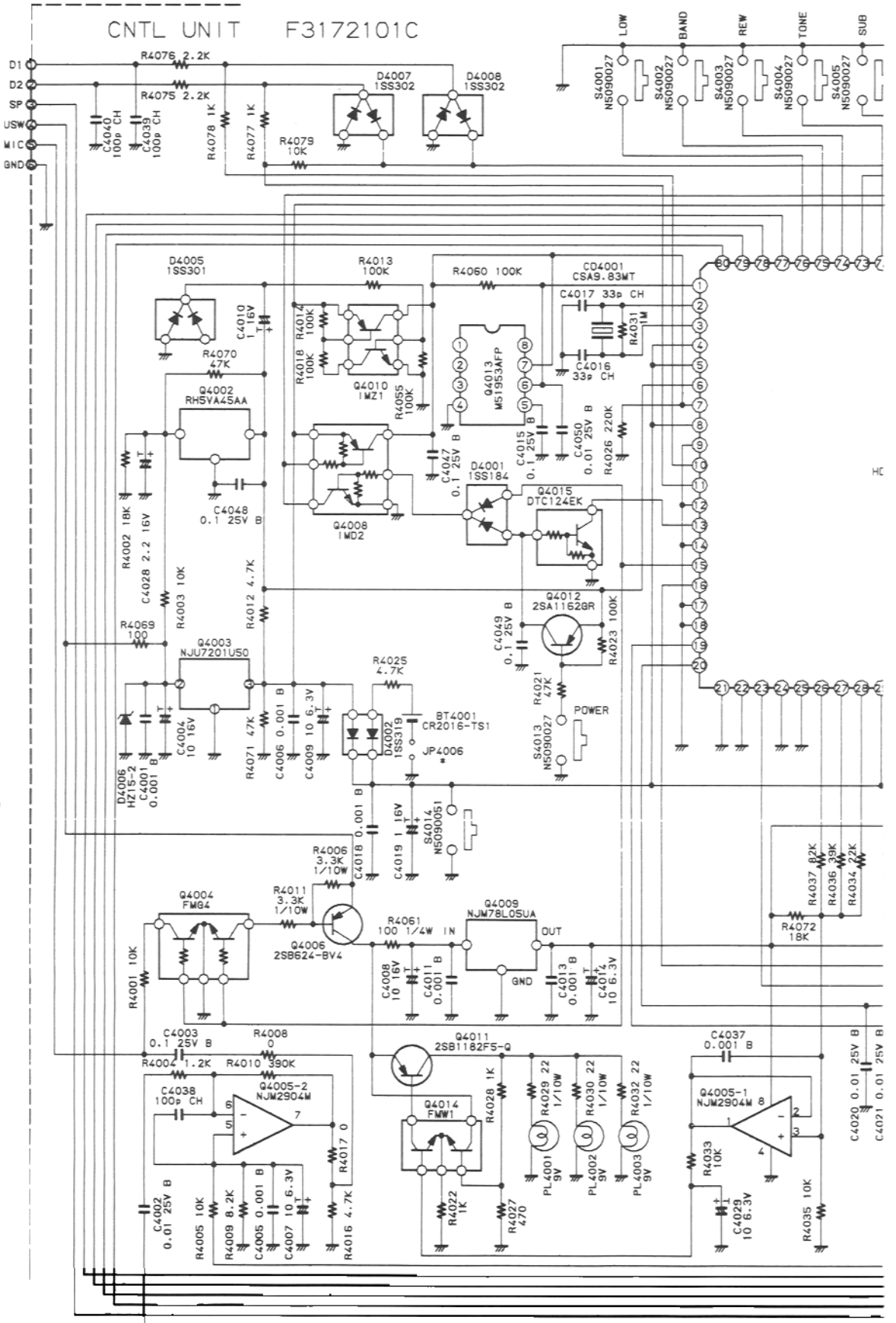
NJU7201U50 (J1) (Q4003)

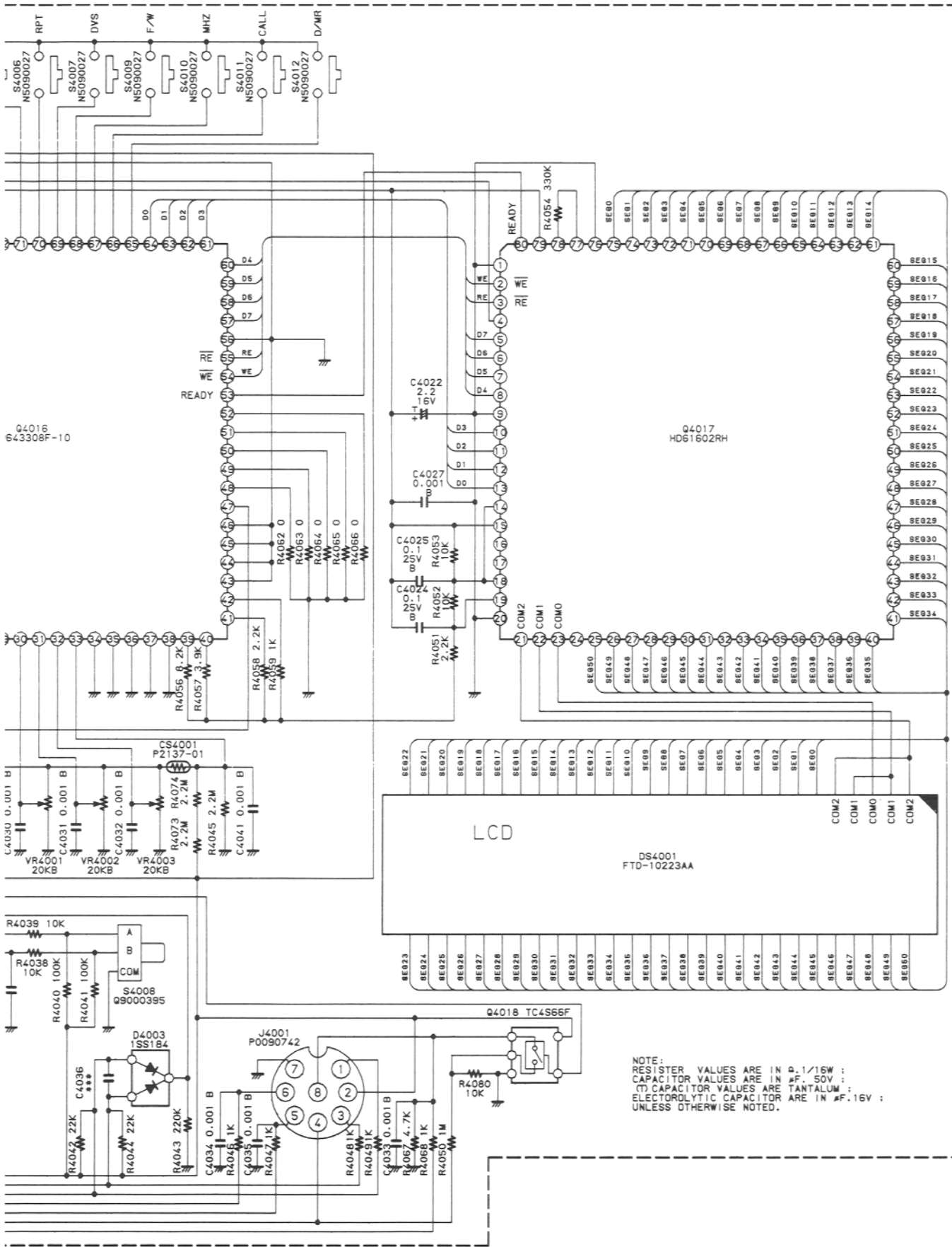


NJU78L05UA (8C) (Q4009)



RH5VA45AA (D5) (Q4002)





NOTE:
 RESISTOR VALUES ARE IN Ω, 1/16W ;
 CAPACITOR VALUES ARE IN μF, 50V ;
 TO CAPACITOR VALUES ARE TANTALUM ;
 ELECTROLYTIC CAPACITOR ARE IN μF, 16V ;
 UNLESS OTHERWISE NOTED.

REF.	YAESU P/N	DESCRIPTION	MFR'S DESIG	VALUE	WV	TOL.	VERS.
	CA0274005	P. C. B. W COMP.					TYP A1
	CA0274006	P. C. B. W COMP.					TYP A2
	CA0274007	P. C. B. W COMP.					TYP A3
	CA0274008	P. C. B. W COMP.					TYP B1
	CA0274009	P. C. B. W COMP.					TYP B2
	CA0274010	P. C. B. W COMP.					TYP B3
	CA0274011	P. C. B. W COMP.					TYP B4
	CA0274012	P. C. B. W COMP.					TYP B5
	CA0274013	P. C. B. W COMP.					TYP C1
	CA0274014	P. C. B. W COMP.					TYP C2
	CA0274015	P. C. B. W COMP.					TYP C3
	CA0274016	P. C. B. W COMP.					TYP C4
	CA0274017	P. C. B. W COMP.					TYP C5
	CA0274018	P. C. B. W COMP.					TYP D
	CA0274019	P. C. B. W COMP.					TYP H1
	CA0274020	P. C. B. W COMP.					TYP H2
	CA0274021	P. C. B. W COMP.					TYP H3
	CA0274022	P. C. B. W COMP.					TYP H4
	CA0274023	P. C. B. W COMP.					TYP H5
	F3171101C	P. C. B.					
C 5001	K22140807	CHIP CAP.	GRM40B223M25PT	0.022uF	25V	B	
C 5003	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5004	K78120009	TANTALUM CHIP CAP.	TESVA1C105M1-8R	1uF	16V		
C 5005	K78120009	TANTALUM CHIP CAP.	TESVA1C105M1-8R	1uF	16V		
C 5006	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5007	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5008	K78120009	TANTALUM CHIP CAP.	TESVA1C105M1-8R	1uF	16V		
C 5009	K78120009	TANTALUM CHIP CAP.	TESVA1C105M1-8R	1uF	16V		
C 5010	K22140807	CHIP CAP.	GRM40B223M25PT	0.022uF	25V	B	
C 5011	K22144803	CHIP CAP.	GRM39B103K25PT	0.01uF	25V	B	
C 5012	K78080019	TANTALUM CHIP CAP.	TEMSVB20J106M-8R	10uF	6.3V		
C 5013	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5014	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5015	K78120011	TANTALUM CHIP CAP.	TESVC1C106M12R	10uF	16V		
C 5016	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5017	K78120016	TANTALUM CHIP CAP.	TEMSVB21C475M-8R	4.7uF	16V		
C 5018	K78120016	TANTALUM CHIP CAP.	TEMSVB21C475M-8R	4.7uF	16V		
C 5019	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5020	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5021	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 5022	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 5023	K22140807	CHIP CAP.	GRM40B223M25PT	0.022uF	25V	B	
C 5024	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 5025	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 5026	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5027	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 5028	K78080011	TANTALUM CHIP CAP.	TESVCOJ226M12R	22uF	6.3V		
C 5029	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5030	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 5031	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5032	K78140013	TANTALUM CHIP CAP.	TEMSVA1E105M-8R	1uF	25V		
C 5033	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
C 5034	K22174243	CHIP CAP.	GRM39CH221J50PT	220pF	50V	CH	
C 5035	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5036	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5037	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5038	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 5039	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5040	K78140013	TANTALUM CHIP CAP.	TEMSVA1E105M-8R	1uF	25V		
C 5041	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5042	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B	
C 5043	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5044	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5045	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5046	K78120011	TANTALUM CHIP CAP.	TESVC1C106M12R	10uF	16V		
C 5047	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5048	K22174223	CHIP CAP.	GRM39CH330J50PT	33pF	50V	CH	
C 5049	K22174223	CHIP CAP.	GRM39CH330J50PT	33pF	50V	CH	
C 5050	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5051	K22141809	CHIP CAP.	GRM42-6B104M25PT	0.1uF	25V	B	
C 5052	K70167105	TANTALUM CAP.	DN1V010M1S	1uF	35V		
C 5060	K78120011	TANTALUM CHIP CAP.	TESVC1C106M12R	10uF	16V		
C 5061	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5062	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5064	K78140013	TANTALUM CHIP CAP.	TEMSVA1E105M-8R	1uF	25V		
C 5066	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5092	K78080017	TANTALUM CHIP CAP.	TEMSVA0J475M-8R	4.7uF	6.3V		
C 5093	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5094	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5095	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5096	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5097	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5098	K78120010	TANTALUM CHIP CAP.	TESVB21C335M8R	3.3uF	16V		
C 5099	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 5101	K78140009	TANTALUM CHIP CAP.	TESVA1E474M1-8R	0.47uF	25V		
C 5102	K78080019	TANTALUM CHIP CAP.	TEMSVB20J106M-8R	10uF	6.3V		
C 5103	K78080019	TANTALUM CHIP CAP.	TEMSVB20J106M-8R	10uF	6.3V		
C05001	H7900620	CERAMIC OSC	CSA9.83MT				
D 5001	G2070120	DIODE	IMP11 T110				
D 5002	G2070120	DIODE	IMP11 T110				
D 5003	G2070120	DIODE	IMP11 T110				
D 5004	G2070120	DIODE	IMP11 T110				
D 5005	G2070120	DIODE	IMP11 T110				
D 5006	G2070003	DIODE	1SS226 TE85R				
D 5007	G2070003	DIODE	1SS226 TE85R				
D 5008	G2060004	DIODE	1SS270TJ				
D 5009	G2060004	DIODE	1SS270TJ				
J 5002	P0090650	CONNECTOR	B8B-ZR				
J 5003	P0090649	CONNECTOR	B7B-ZR				
J 5004	P0090648	CONNECTOR	B3B-ZR				
J 5005	P0090782	CONNECTOR	B12B-ZR				
J 5006	P0090772	CONNECTOR	5532-26A				
J 5007	P0090604	CONNECTOR	5532-14A				

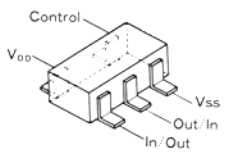
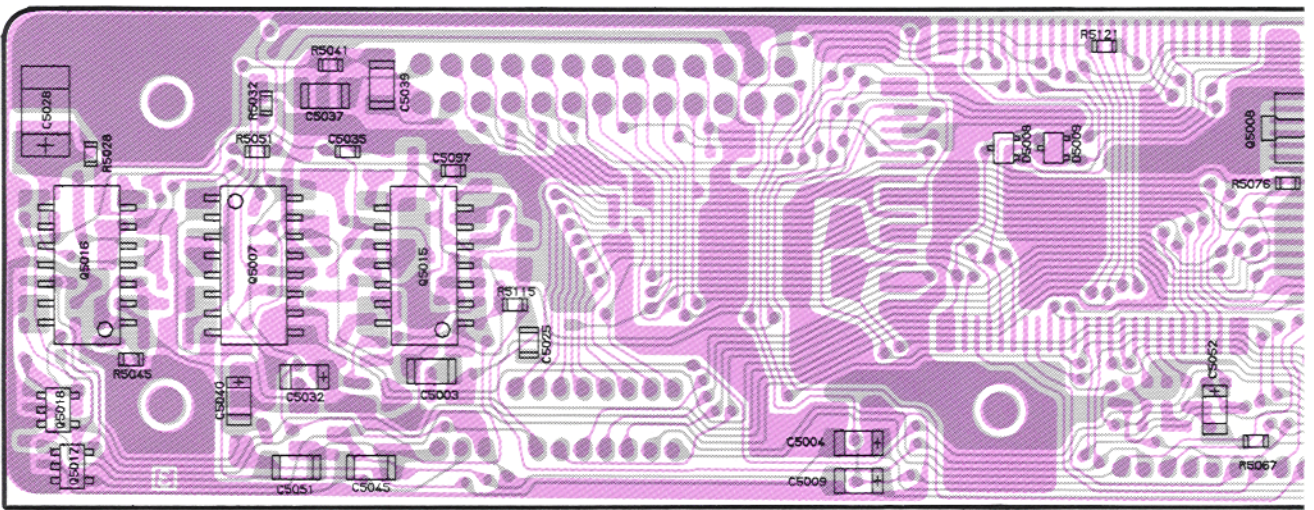
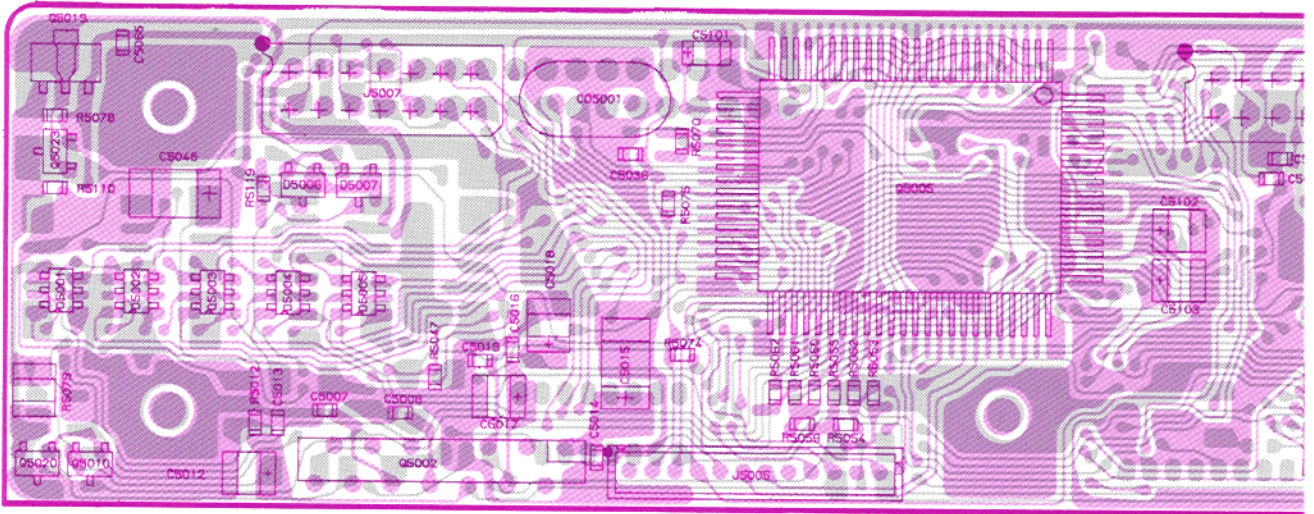
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Q 5002	G1090854	IC	M51523AL				
Q 5005	G1091136	IC	M37450M2-***FP				
Q 5006	G1091137	IC	UPD4028BG-T2				
Q 5007	G1091033	IC	UPD4052BG-T2				
Q 5008	G1091131	IC	M51951AML-301				
Q 5009	G3112137Y	TRANSISTOR	2SA1213Y TE12R				
Q 5010	G3070047	TRANSISTOR	DTA114EK T97				
Q 5015	G1090908	IC	NJM2902M				
Q 5016	G1090908	IC	NJM2902M				
Q 5017	G1090893	IC	TC4S66F TE85R				
Q 5018	G1090893	IC	TC4S66F TE85R				
Q 5019	G3112137Y	TRANSISTOR	2SA1213Y TE12R				
Q 5020	G3070047	TRANSISTOR	DTA114EK T97				
Q 5023	G3113437	TRANSISTOR	2SA1343-TA				
R 5001	J24185331	CHIP RES.	RMC1/16 331JATP	330		1/16W	
R 5002	J24185101	CHIP RES.	RMC1/16 101JATP	100		1/16W	
R 5003	J24185393	CHIP RES.	RMC1/16 393JATP	39K		1/16W	
R 5004	J24185393	CHIP RES.	RMC1/16 393JATP	39K		1/16W	
R 5005	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 5006	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 5008	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 5010	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 5011	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M		1/16W	
R 5012	J24185561	CHIP RES.	RMC1/16 561JATP	560		1/16W	
R 5014	J24185684	CHIP RES.	RMC1/16 684JATP	680K		1/16W	
R 5017	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 5018	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 5019	J24185333	CHIP RES.	RMC1/16 333JATP	33K		1/16W	
R 5020	J24185562	CHIP RES.	RMC1/16 562JATP	5.6K		1/16W	
R 5021	J24185154	CHIP RES.	RMC1/16 154JATP	150K		1/16W	
R 5022	J24185824	CHIP RES.	RMC1/16 824JATP	820K		1/16W	
R 5023	J24185823	CHIP RES.	RMC1/16 823JATP	82K		1/16W	
R 5024	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M		1/16W	
R 5025	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 5026	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 5027	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 5028	J24185822	CHIP RES.	RMC1/16 822JATP	8.2K		1/16W	
R 5029	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 5030	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 5031	J24185102	CHIP RES.	RMC1/16 102JATP	1K		1/16W	
R 5032	J24185823	CHIP RES.	RMC1/16 823JATP	82K		1/16W	
R 5033	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 5034	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 5035	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 5036	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 5037	J24185102	CHIP RES.	RMC1/16 102JATP	1K		1/16W	
R 5038	J24185394	CHIP RES.	RMC1/16 394JATP	390K		1/16W	
R 5039	J24185684	CHIP RES.	RMC1/16 684JATP	680K		1/16W	
R 5040	J24185274	CHIP RES.	RMC1/16 274JATP	270K		1/16W	
R 5041	J24185823	CHIP RES.	RMC1/16 823JATP	82K		1/16W	
R 5042	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 5043	J24185333	CHIP RES.	RMC1/16 333JATP	33K		1/16W	

REF.	YAESU P/N	DESCRIPTION	MFRGR'S DESIG	VALUE	WV	TOL.	VERS.
R 5044	J24185562	CHIP RES.	RMC1/16 562JATP	5.6K	1/16W		
R 5045	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 5046	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 5047	J24185223	CHIP RES.	RMC1/16 223JATP	22K	1/16W		
R 5048	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M	1/16W		
R 5049	J24185223	CHIP RES.	RMC1/16 223JATP	22K	1/16W		
R 5050	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 5051	J24185333	CHIP RES.	RMC1/16 333JATP	33K	1/16W		
R 5052	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M	1/16W		
R 5053	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W		
R 5054	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5055	J24185105	CHIP RES.	RMC1/16 105JATP	1M	1/16W		
R 5056	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 5057	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M	1/16W		
R 5058	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 5059	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5060	J24185474	CHIP RES.	RMC1/16 474JATP	470K	1/16W		
R 5061	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5062	J24185224	CHIP RES.	RMC1/16 224JATP	220K	1/16W		
R 5063	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 5064	J24245471	CHIP RES.	RMC1/4 471JATP	470	1/4W		
R 5065	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 5066	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M	1/16W		
R 5067	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 5068	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 5070	J24185105	CHIP RES.	RMC1/16 105JATP	1M	1/16W		
R 5071	J24185331	CHIP RES.	RMC1/16 331JATP	330	1/16W		
R 5074	J24185223	CHIP RES.	RMC1/16 223JATP	22K	1/16W		
R 5075	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 5076	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 5078	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W		
R 5079	J24245471	CHIP RES.	RMC1/4 471JATP	470	1/4W		
R 5080	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 5081	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W		
R 5086	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5087	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5088	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5089	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5090	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5091	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5092	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5093	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5094	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5095	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5096	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5097	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5098	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5099	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5100	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5102	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5103	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5104	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5105	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W		
R 5107	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		

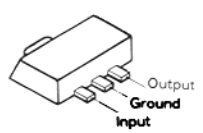
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R 5108	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 5109	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 5110	J24185682	CHIP RES.	RMC1/16 682JATP	6.8K		1/16W	
R 5111	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K		1/16W	
R 5115	J24185333	CHIP RES.	RMC1/16 333JATP	33K		1/16W	
R 5116	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K		1/16W	
R 5117	J24185102	CHIP RES.	RMC1/16 102JATP	1K		1/16W	
R 5118	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 5119	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K		1/16W	
R 5120	J24185102	CHIP RES.	RMC1/16 102JATP	1K		1/16W	
R 5121	J24185471	CHIP RES.	RMC1/16 471JATP	470		1/16W	

Notes

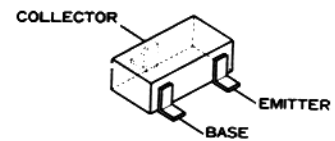
INTERFACE UNIT (No.50XX)



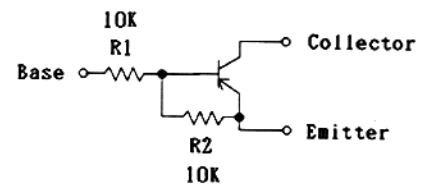
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(Q5017, Q5018)



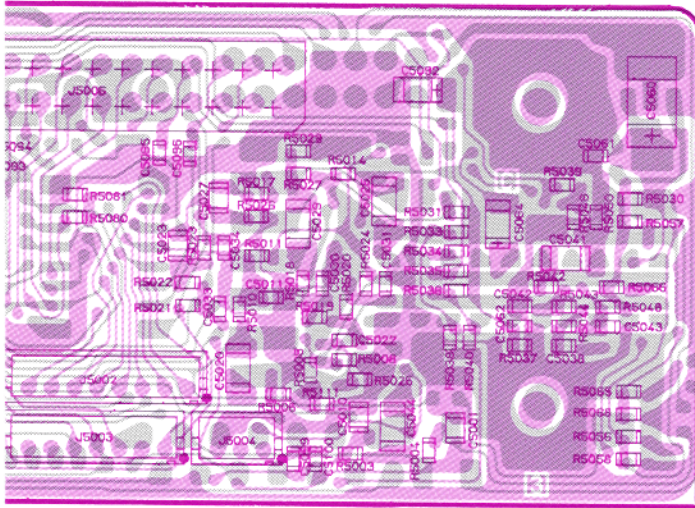
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(Q5008)



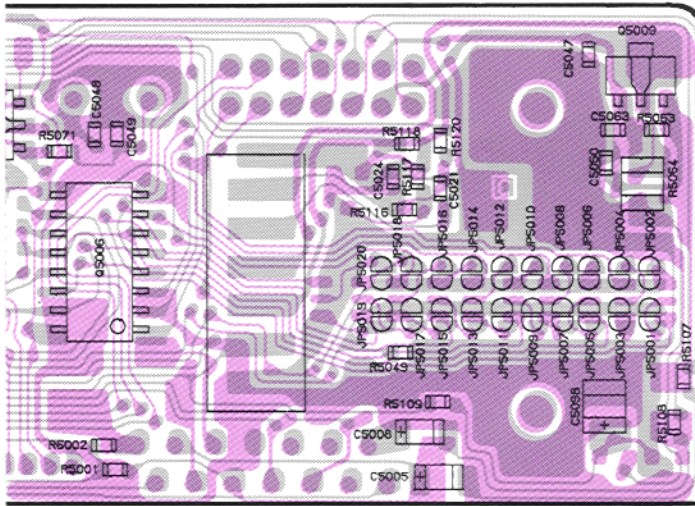
2SA1343(DL)
(Q5023)
DTA114EK (14)
(Q5010, Q5020)



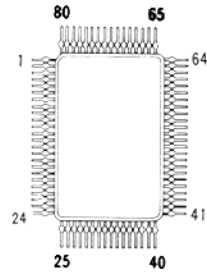
DTA114EK CIRCUIT DIAGRAM



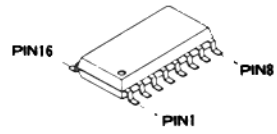
(obverse view of "component" side)



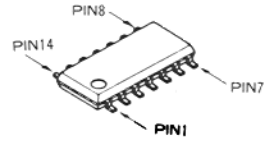
(obverse view of "chip-only" side)



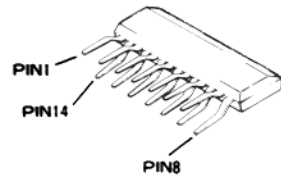
M37450M2
(Q5005)



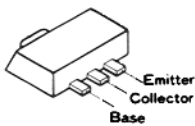
μPD4028BG
(Q5006)



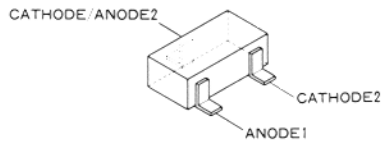
NJM2902M
(Q5015, Q5016)
μPD4052BG
(Q5007)



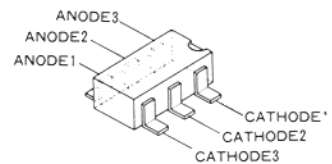
M51523AL
(Q5002)



2SA1213Y(NO)
(Q5009, Q5019)

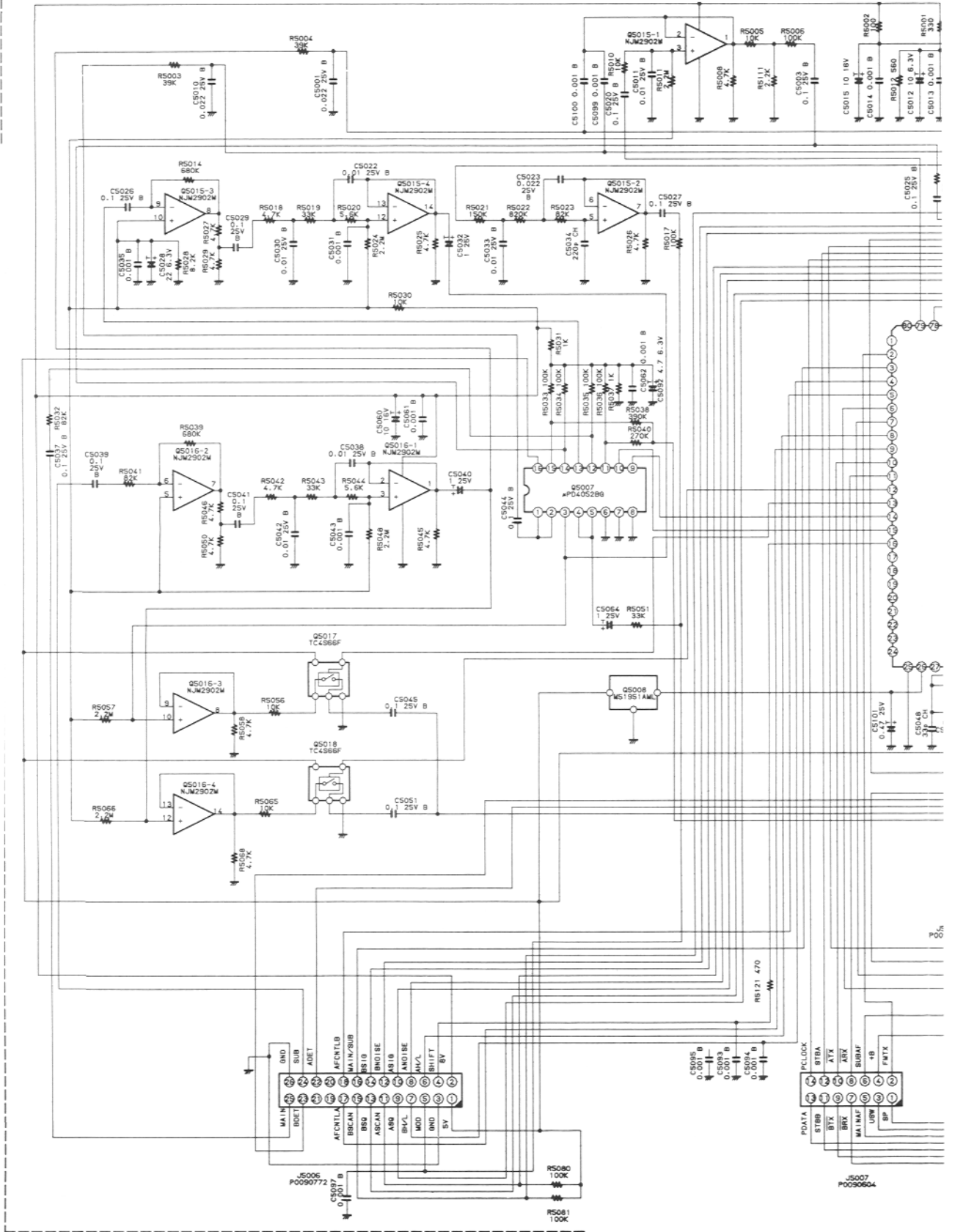


1SS226 (C3)
(Q5006, Q5007)

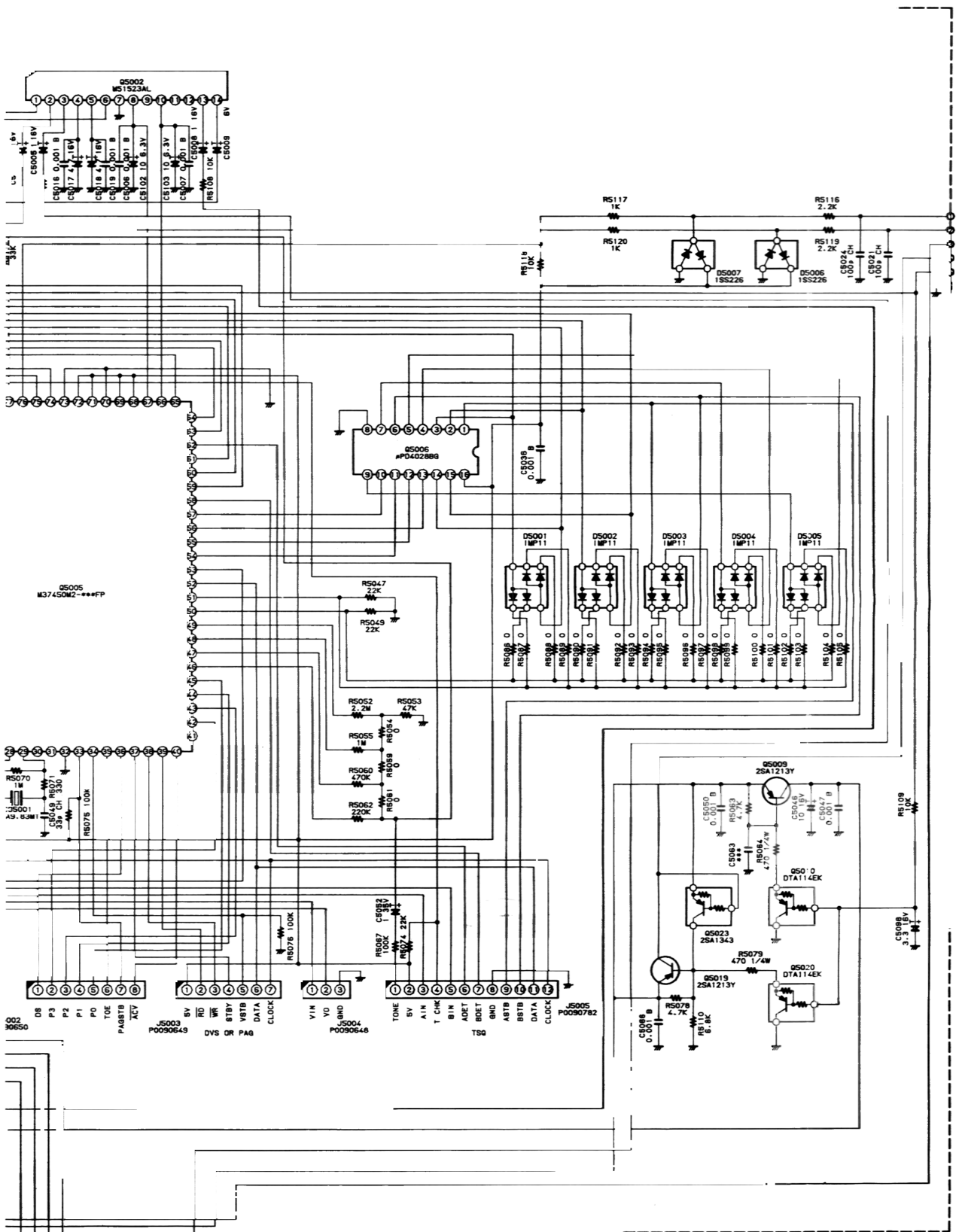


IMP11(P11)
(D5001, D5002, D5003,
D5004, D5005)

INTERFACE UNIT F3171101C

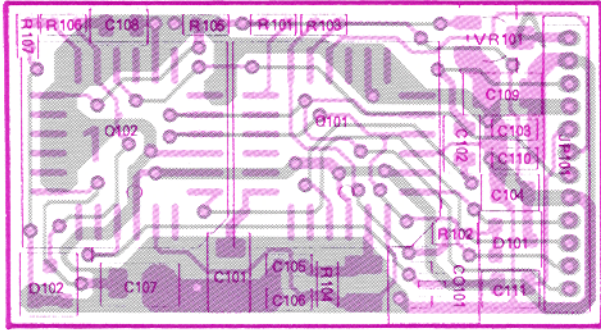


POS

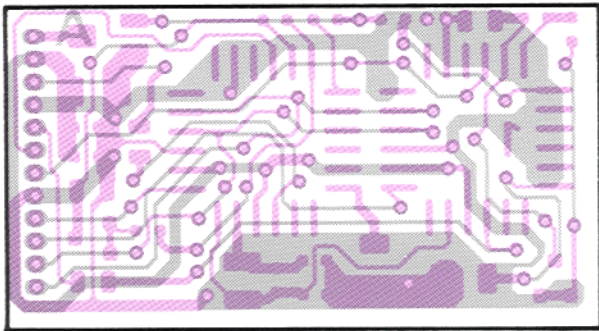


NOTE:
 REGISTER VALUES ARE IN Ω , 1/10W ;
 CAPACITOR VALUES ARE IN μ F, 50V ;
 (T) CAPACITOR VALUES ARE TANTALUM ;
 UNLESS OTHERWISE NOTED.

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
	F3214101	P.C.B.					
C 0101	K78140012	TANTALUM CHIP CAP.	F951E474MRAAF1Q2	0.47uF	25V		
C 0102	K22120805	CHIP CAP.	GRM40R683M16PT	0.068uF	16V	R	
C 0103	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0104	K22141005	CHIP CAP.	GRM40F104Z25PT	0.1uF	25V	F	
C 0105	K22174243	CHIP CAP.	GRM39CH221J50PT	220pF	50V	CH	
C 0106	K22174243	CHIP CAP.	GRM39CH221J50PT	220pF	50V	CH	
C 0107	K78140012	TANTALUM CHIP CAP.	F951E474MRAAF1Q2	0.47uF	25V		
C 0108	K22141005	CHIP CAP.	GRM40F104Z25PT	0.1uF	25V	F	
C 0109	K78080002	TANTALUM CHIP CAP.	F950J475MSAAF1Q2	4.7uF	6.3V		
C 0110	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B	
C 0111	K22120805	CHIP CAP.	GRM40R683M16PT	0.068uF	16V	R	
C00101	H7900550	CERAMIC OSC	CSB1000J221T	1MHZ			
D 0101	G2070009	DIODE	1SS184 TE85R				
D 0102	G2070009	DIODE	1SS184 TE85R				
JP0101	T9206058	WIRE-ASSY					
Q 0101	G1090897	IC	MX365LH				
Q 0102	G1090897	IC	MX365LH				
R 0101	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 0102	J24185334	CHIP RES.	RMC1/16 334JATP	330K	1/16W		
R 0103	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M	1/16W		
R 0104	J24185105	CHIP RES.	RMC1/16 105JATP	1M	1/16W		
R 0105	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W		
R 0106	J24185334	CHIP RES.	RMC1/16 334JATP	330K	1/16W		
R 0107	J24185225	CHIP RES.	RMC1/16 225JATP	2.2M	1/16W		
VR0101	J51778473	POT.	RH03AYAS4X 47K	47K			

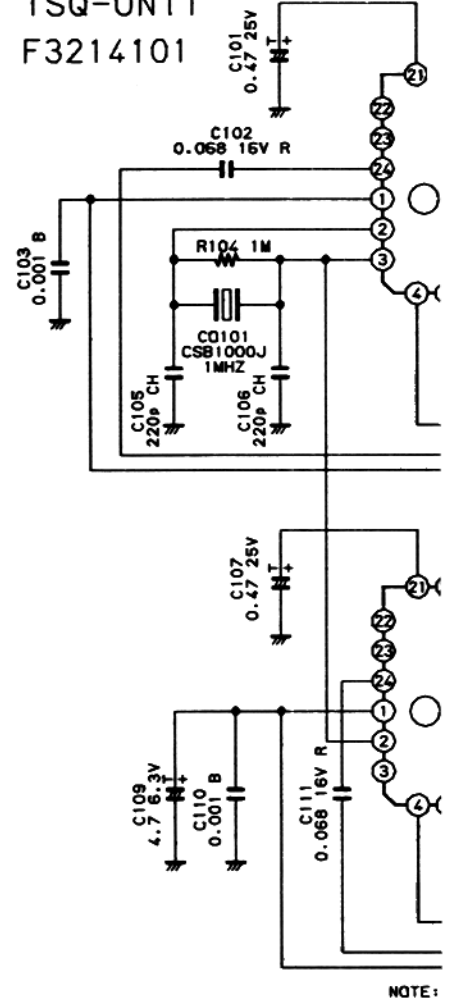


(obverse view of "component" side)

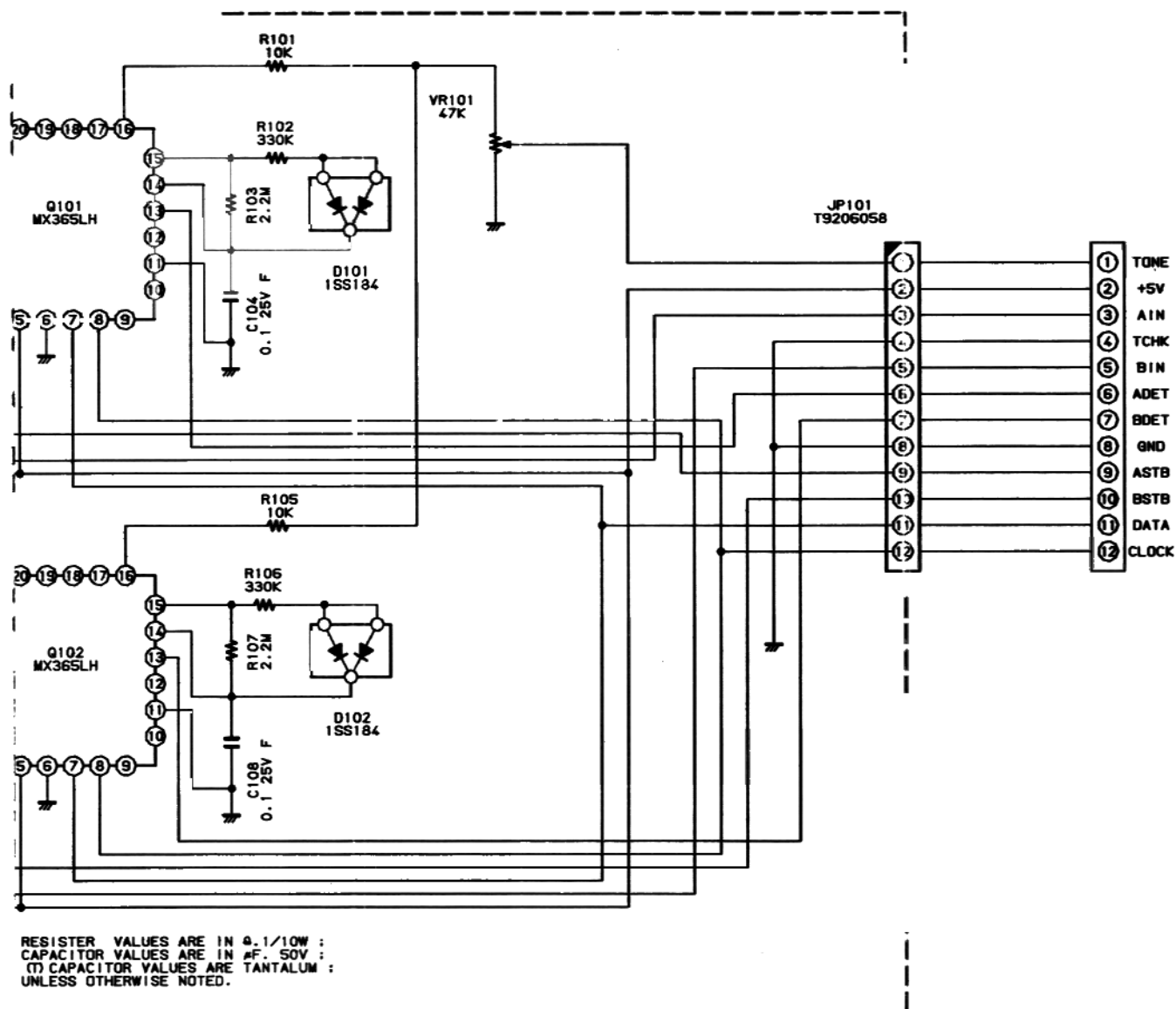


(obverse view of "solder" side)

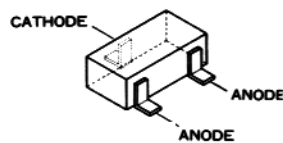
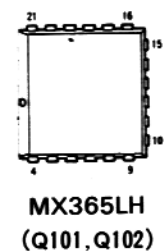
TSQ-UNIT
F3214101



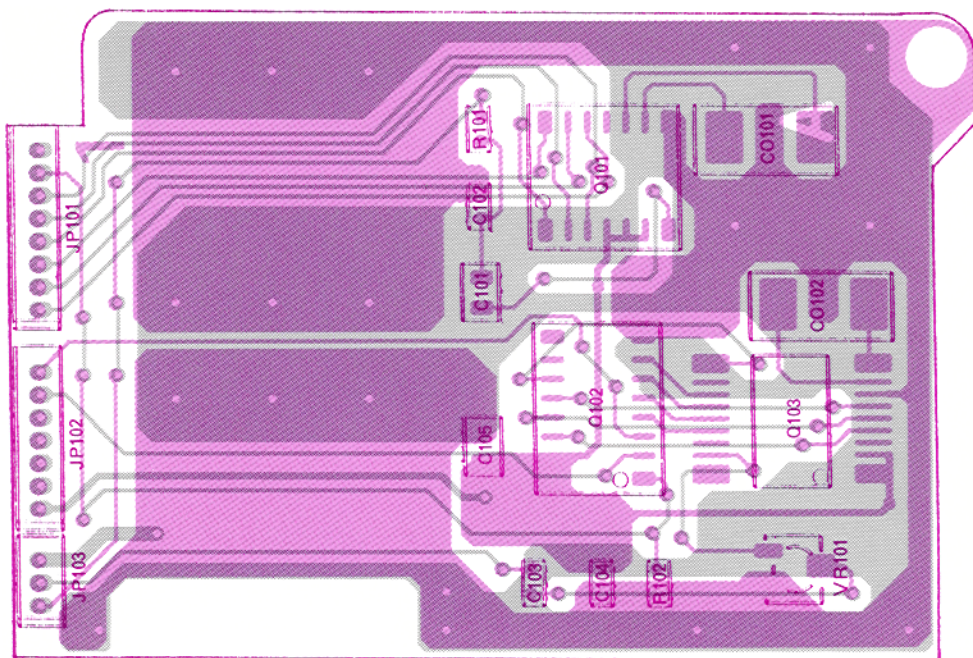
NOTE:



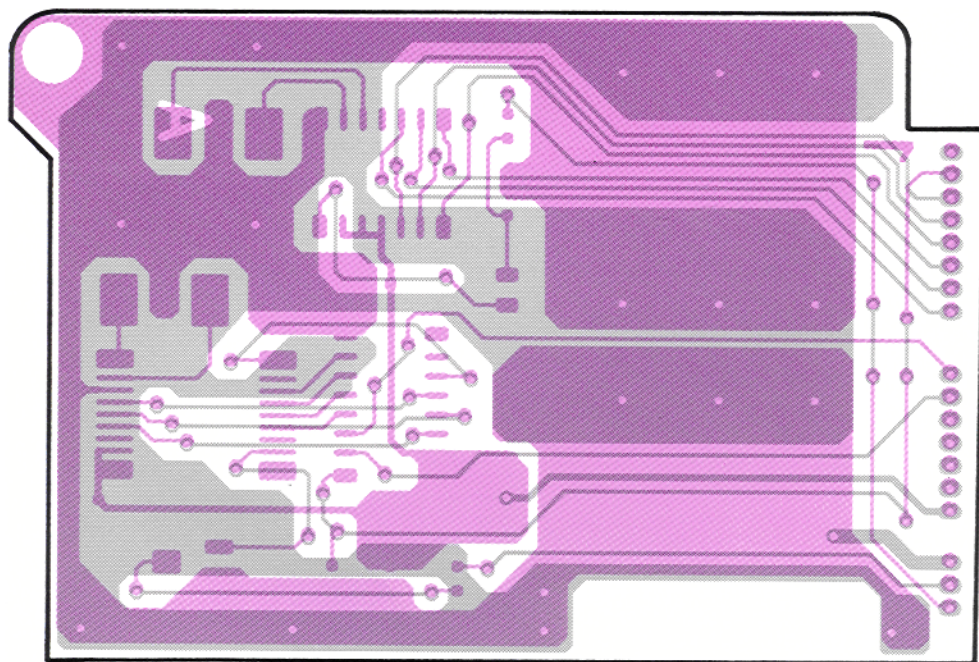
(FTS-22 Schematic Diagram)



REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
	F3216101	P.C.B.					
C 0101	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0102	K22144803	CHIP CAP.	GRM39B103K25PT	0.01uF	25V	B	
C 0103	K22144803	CHIP CAP.	GRM39B103K25PT	0.01uF	25V	B	
C 0104	K22174821	CHIP CAP.	GRM39B102K50PT	0.001uF	50V	B	
C 0105	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
CO0101	H7900510	CERAMIC OSC	CSA3.58MG				
CO0102	H7900510	CERAMIC OSC	CSA3.58MG				
JP0101	T9206059	WIRE-ASSY					
JP0102	T9206060	WIRE-ASSY					
JP0103	T9206061	WIRE-ASSY					
Q 0101	G1091177	IC	TC35305F-11 TP2				
Q 0102	G1090696	IC	UPD4094BG				
Q 0103	G1090731	IC	LR40872				
R 0101	J24185123	CHIP RES.	RMC1/16 123JATP	12K		1/16W	
R 0102	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
VR0101	J51778473	POT	RH03AYAS4X	47K			

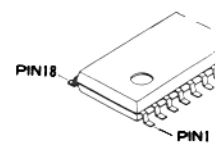


(obverse view of "component" side)

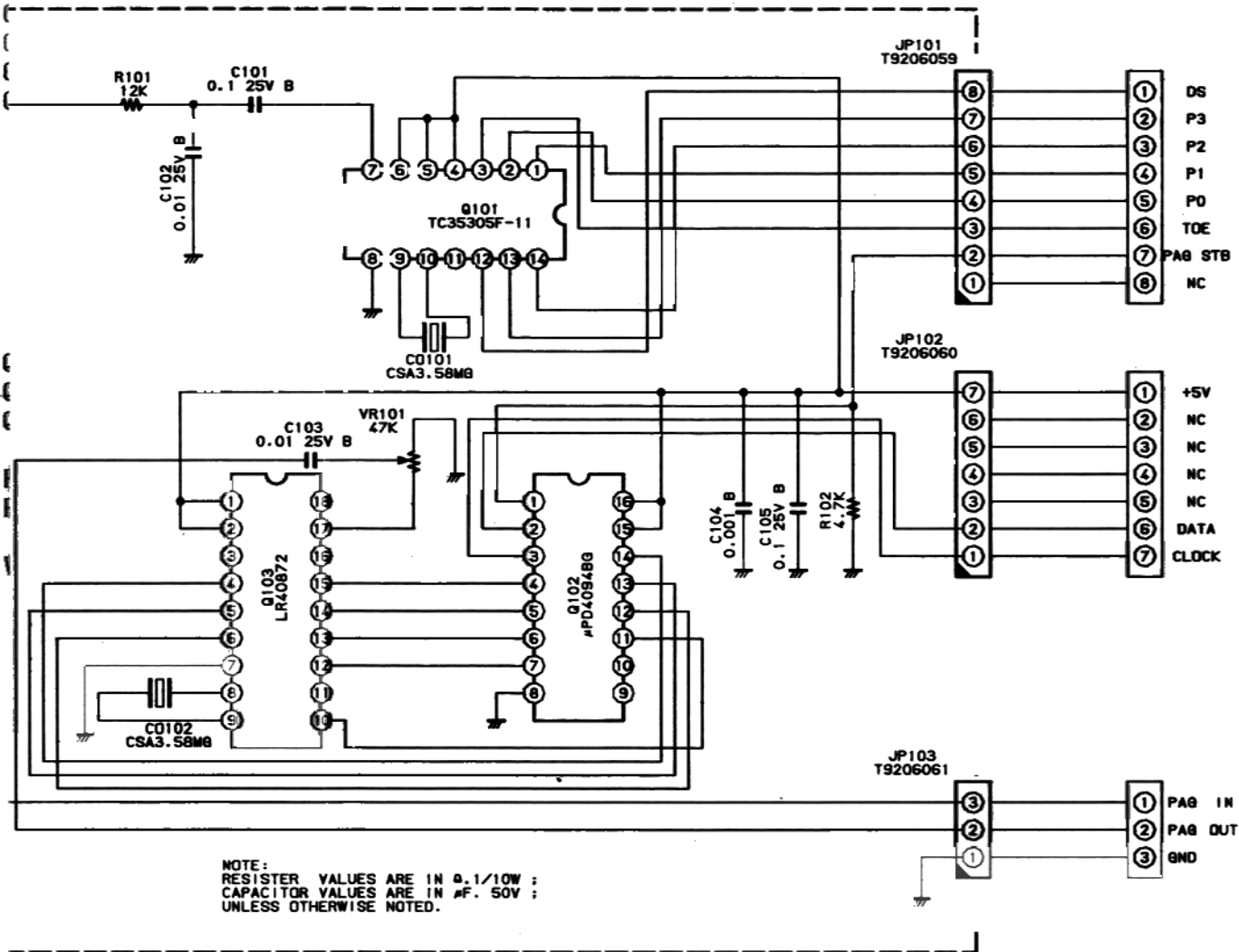


(obverse view of "solder" side)

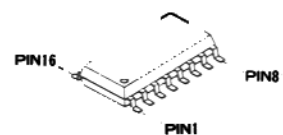
PAGER-UNIT
F3216101



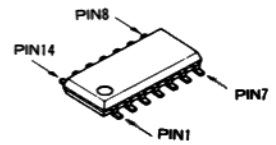
LR40872
(Q103)



(FRC-4 Schematic Diagram)



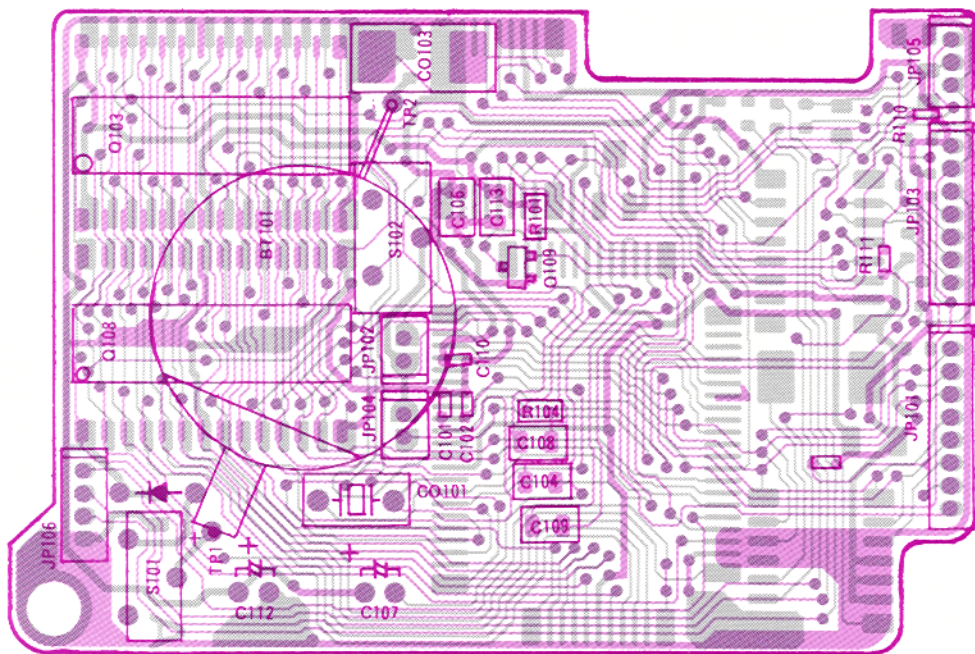
μPD4094BG
(Q102)



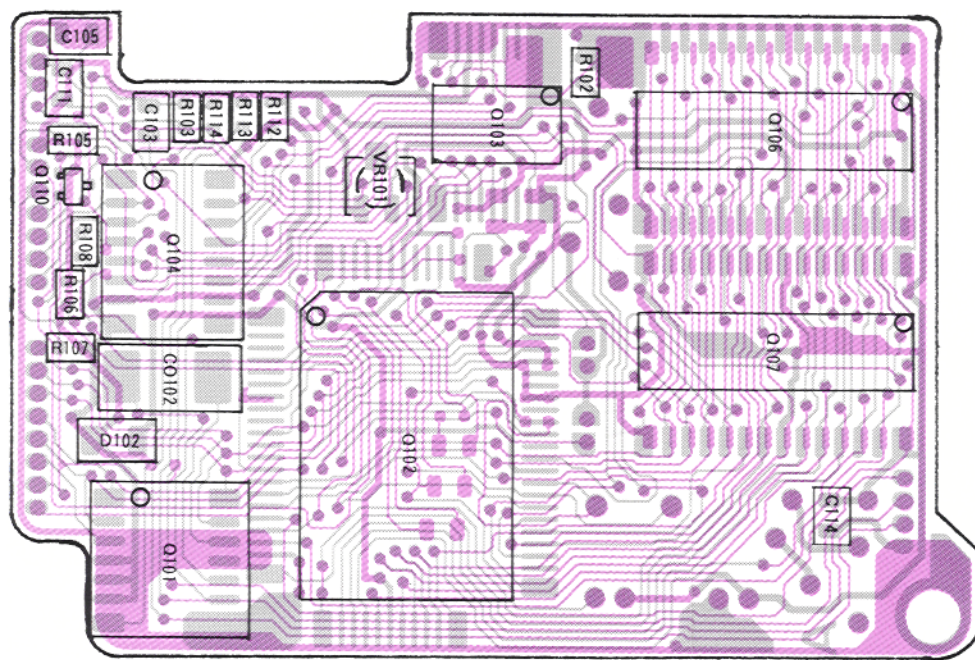
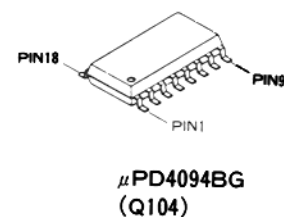
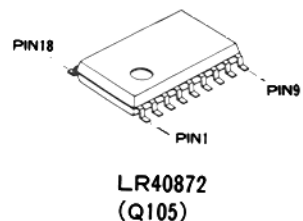
TC35305F-11
(Q101)

REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
	F3215101	P. C. B.					
BT0101	Q9000268	LITHIUM BATTERY	CR2032-HM4				
C 0101	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0102	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	CH	
C 0103	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0104	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0105	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 0106	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0107	K40089023	AL. ELECTRO. CAP.	RC2-6V470MS (4X7)	47uF	6.3V		
C 0108	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0109	K22140812	CHIP CAP.	GRM40B223K25PT	0.022uF	25V	B	
C 0110	K22174821	CHIP CAP.	GRM39B102K50PT	0.001uF	50V	B	
C 0111	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	B	
C 0112	K40089023	AL. ELECTRO. CAP.	RC2-6V470MS (4X7)	47uF	6.3V		
C 0113	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
C 0114	K22140811	CHIP CAP.	GRM40B104M25PT	0.1uF	25V	B	
CO0101	H7900660	CERAMIC OSC	CSB512J				
CO0102	H7900510	CERAMIC OSC	CSA3.58MG				
CO0103	H7900510	CERAMIC OSC	CSA3.58MG				
D 0101	G2090118	DIODE	1SS 7				
D 0102	G2090118	DIODE	1SS97				
JP0101	T9206059	WIRE-ASSY					
JP0103	T9206060	WIRE-ASSY					
JP0105	T9206061	WIRE-ASSY					
Q 0101	G1091177	IC	TC35305F-11 TP2				
Q 0102	G1090841	IC	TC8830F-BS				
Q 0103	G1090863	IC	UPD43256AGU-12LL				
Q 0104	G1090696	IC	UPD4094BG				
Q 0105	G1090731	IC	LR40872				
Q 0106	G1090863	IC	UPD43256AGU-12LL				
Q 0107	G1090863	IC	UPD43256AGU-12LL				
Q 0108	G1090863	IC	UPD43256AGU-12LL				
Q 0109	G3070037	TRANSISTOR	RN1303				
Q 0110	G3070037	TRANSISTOR	RN1303				
R 0101	J24185224	CHIP RES.	RMC1/16 224JATP	220K		1/16W	
R 0102	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 0103	J24185123	CHIP RES.	RMC1/16 123JATP	12K		1/16W	
R 0104	J24185473	CHIP RES.	RMC1/16 473JATP	47K		1/16W	
R 0105	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 0106	J24185103	CHIP RES.	RMC1/16 103JATP	10K		1/16W	
R 0107	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 0108	J24185104	CHIP RES.	RMC1/16 104JATP	100K		1/16W	
R 0109	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 0110	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K		1/16W	
R 0111	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K		1/16W	
R 0112	J24185223	CHIP RES.	RMC1/16 223JATP	22K		1/16W	
R 0113	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K		1/16W	
R 0114	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K		1/16W	
R 0115	J01225333	CARBON FILM RES.	RD16PJ333 33K	33K		1/6W	

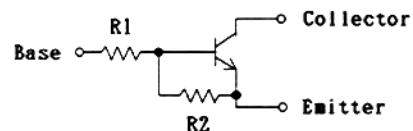
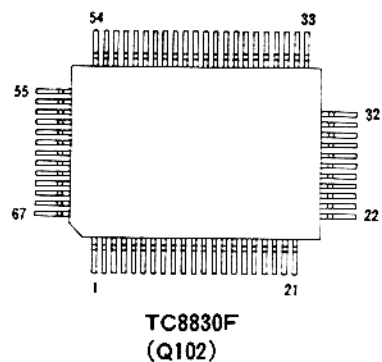
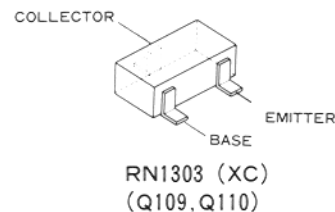
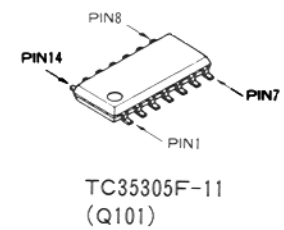
REF.	YAESU P/N	DESCRIPTION	MFGR'S DESIG	VALUE	WV	TOL.	VERS.
S 0101	N6090069	SLIDE SWITCH	SSSS21				
S 0102	N6090069	SLIDE SWITCH	SSSS21				
VR0101	J51778473	POT.	RH03AYAS4X 47K	47K			



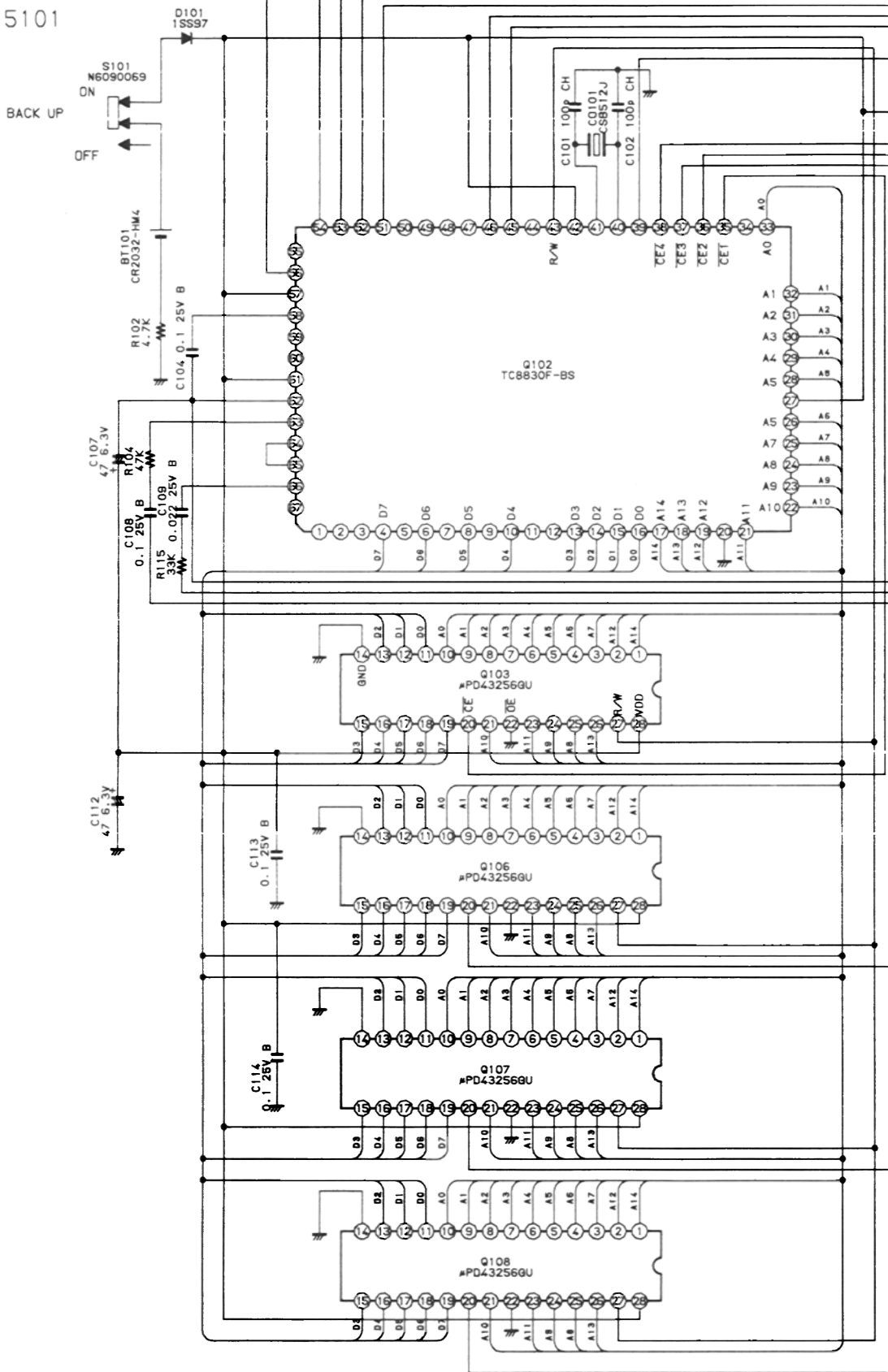
(obverse view of "component" side)

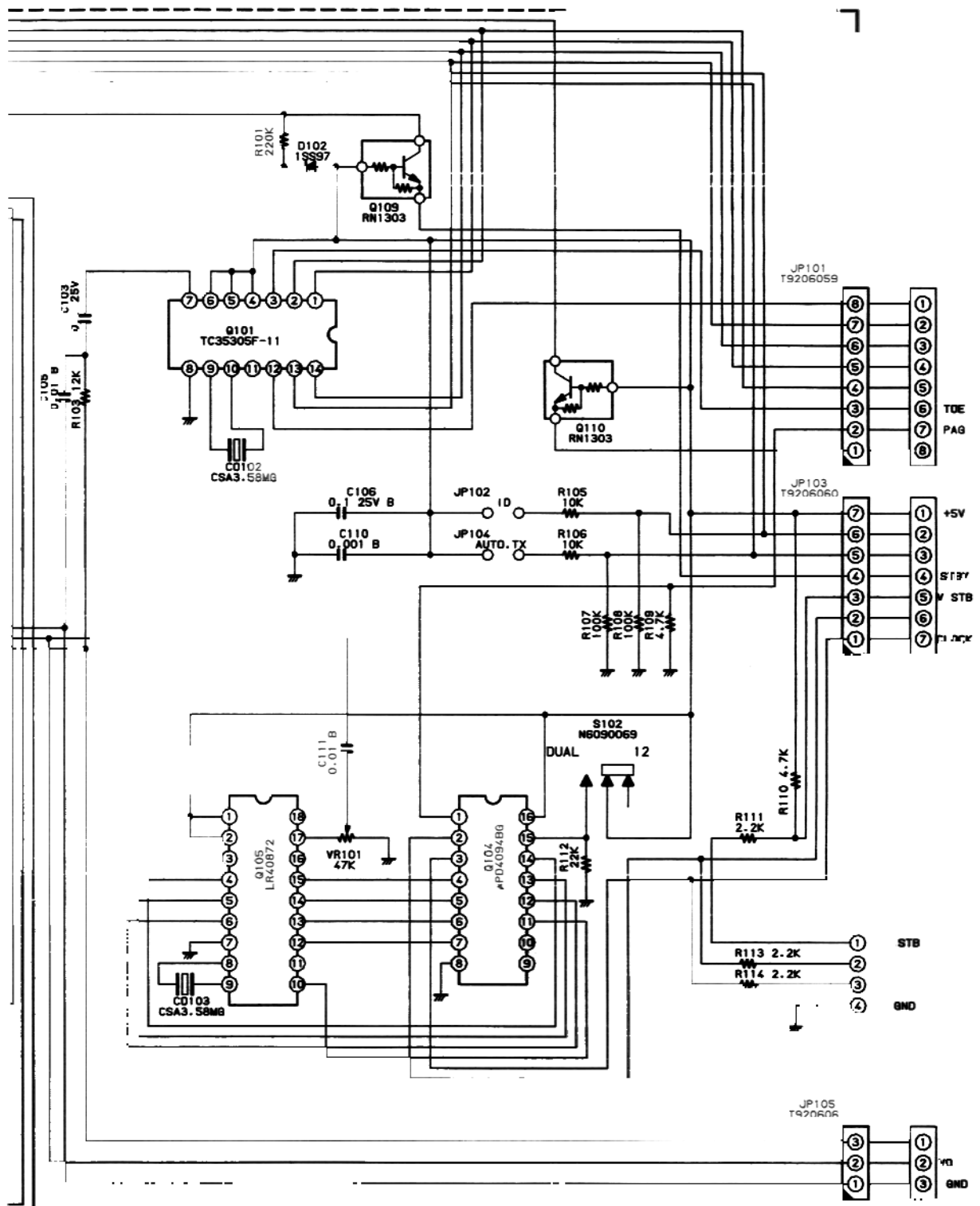


(obverse view of "chip-only" side)



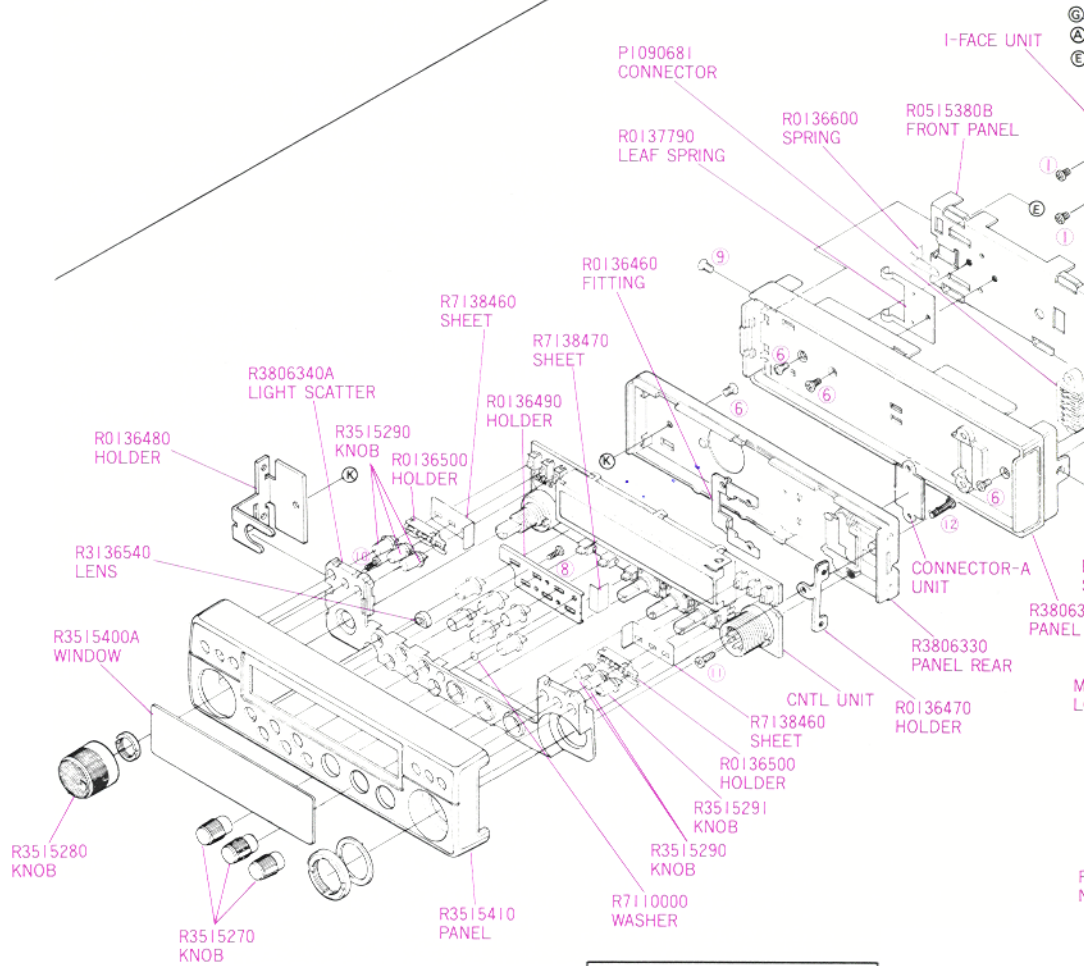
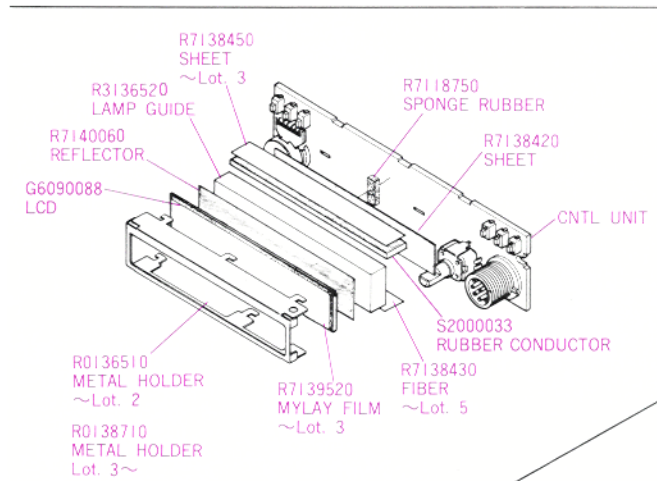
VOICE-MEMORY-UNIT
F3215101





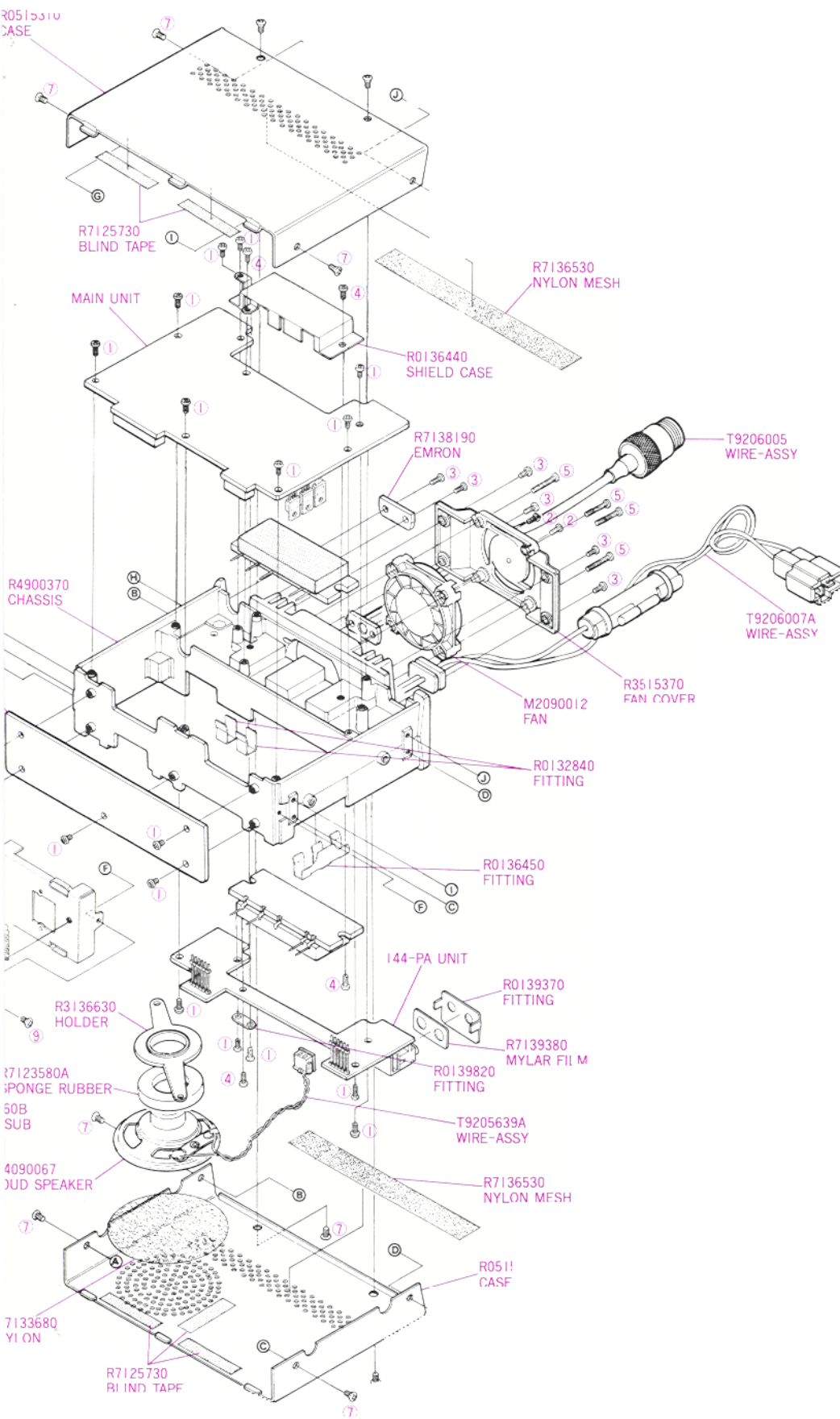
NOTE:
 RESISTOR VALUES ARE IN Ω ,
 CAPACITOR VALUES ARE IN μ F.
 UNLESS OTHERWISE NOTED.

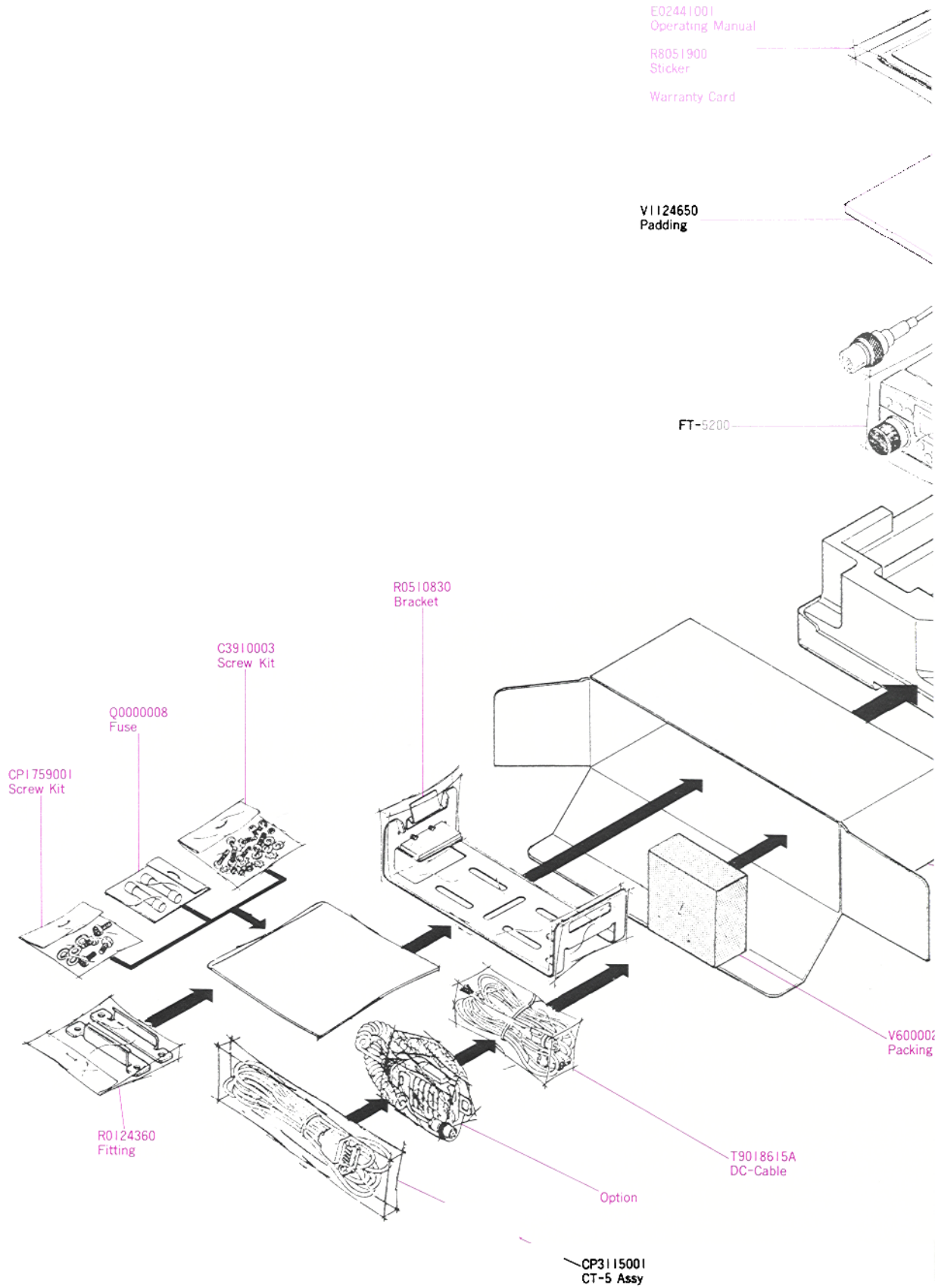
SCREW LIST			
Ret No.	YAESU P/N	Description	Qty
①	U20205001	BINDING HEAD SCREW M2.6X5	18
②	U20205002	BINDING HEAD SCREW M2.6X5N1	2
③	U20205007	BINDING HEAD SCREW M2.6X5B	6
④	U20306001	BINDING HEAD SCREW M3X6	4
⑤	U20215007	BINDING HEAD SCREW M2.6X15B	4
⑥	U30204007	FLAT HEAD SCREW M2.6X4B	4
⑦	U31204007	OVAL HEAD SCREW M2.6X4B	12
⑧	U43106001	TAPTITE SCREW M2X6	1
⑨	U30104001	FLAT HEAD SCREW M2X4	2
⑩	U9900024	TAPTITE SCREW M1.4X1.5B	1
⑪	U9900004	TAPTITE SCREW M1.4X5	1
⑫	U24214007	TAPTITE SCREW M2.6X14B	1



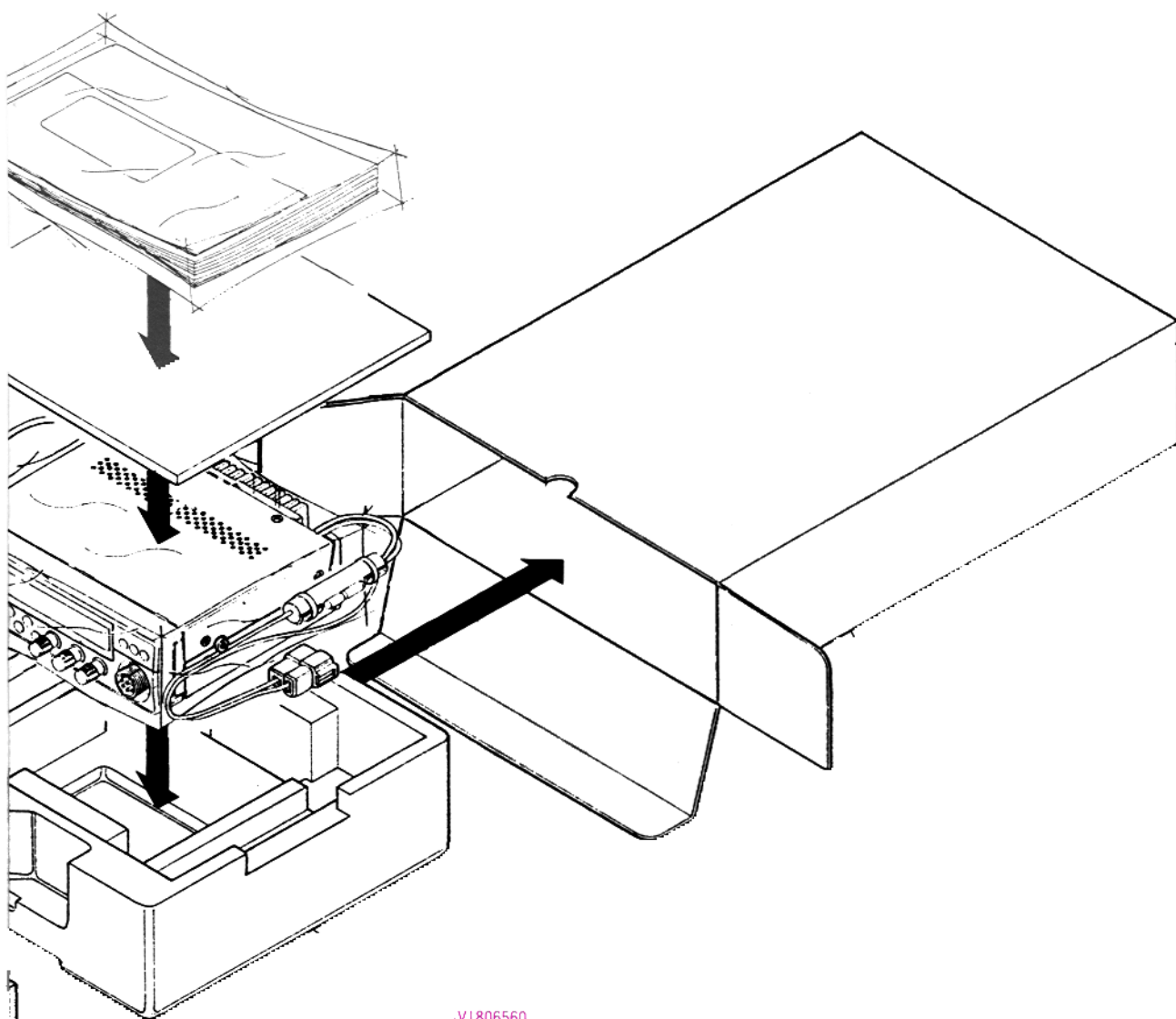
KNÖB		
F/W	RPT	TONE
R3515301	R3515302	R3515306
DVS	SUB	REV
R3515303	R3515304	R3515305

Exploded View





Packaging



V1806560
Padding

V0108500
Carton
















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FT-5200 Operator's Quick Reference Charts

Key & Button Function Table

Key/ Button	Normal Function	Alternate Function (after ) "FUNC" displayed for 5 seconds	DTMF Code Setting Function* (while 4-digit Code Memory displayed)	DVS Function** (with 4/5-digit Voice System Display)
	Toggle Dial/Memory Modes	Toggle Scan Skip (Memory Mode only)	Toggle Dial/Memory Modes, and show 100's-of-MHz digit temporarily (press twice).	Toggle Dial/Memory Modes, and show operating freq temporarily (2 seconds).
	Jump to CALL Channel	Toggle SelCall/Sq1 Modes: Paging → Code Squelch → CTCSS Bell → off	Jump to CALL Channel	Jump to CALL Channel
	Activate 1-MHz Tuning Steps	Dial: toggle 1-MHz steps Mem: enable Mem Tuning ("MT" displayed)	Select next digit to right	Toggles Record Locking ("L" displayed when locked)
	Momentary: enables alternate funcs of other keys. Hold 1/2-sec. to store display into memory.	Cancel alternate functions of other keys (also automatic after 5 seconds).	On Code Memories 2 - 6, toggles DTMF decoder (1st digit underlined if on).	Enables alternate functions of other keys.
	Toggles Repeater Shift di- rection: -/+/off (simplex)	Toggle Display of Repeater Offset and ARS state ("A" = enabled)	Quit Code Setting, return to operating (code/frequency) display	same as Normal Function
	Toggles CTCSS Mode: ENC/(ENC/DEC=)/off	Toggle Display of CTCSS tone freq. and "b" if key/button beeper enabled	none	Toggle Speaker/Microphone ("S"/"M") recording source.
	Toggle Digital Voice on/off***	Toggle Selective Band Receiver Muting: primary/secondary/off	none	Toggle Digital Voice on primary/secondary band/off
	Toggle Secondary Band on/off	Make following key/button functions act on Secondary Band. ("ALT" blinks on display)	same as Normal Function	same as Normal Function
	In split operation only: Toggle Reversed Tx/Rx Frequencies. Direction sign blinks while reversed.	Dial: Toggle Display of Tuning Steps & Scan Resume Mode ("5" or "P" in Memory Box) Memory: Hide Memory	none	Activates/Deactivates Bit Rate selection by selector knob (5-sec. time out)
	Swap Primary & Secondary Bands	Toggle Alternating Band Memory Selection	none	same as Normal Function
	Toggle High/Low Transmit Power	Enable/Disable Key/Button Lock	same as Normal Function	same as Normal Function
	Switch transceiver on/off (hold 1/2-sec. to switch off)	same as Normal Function	same as Normal Function	same as Normal Function

* only if FRC-4 or DVS-3 option is installed.

** only if DVS-3 option is installed.

□ only if FTS-22 option is installed.



YAESU MUSEN CO.,LTD.
C.P.O.BOX 1500, TOKYO, JAPAN

Functional Reference

As shown below, each function affects the Primary Band only. However, all functions can also be performed on the Secondary Band by preceding the indicated keystrokes with $\text{☉} \rightarrow \text{☉} (\text{ALT})$, except repeater shift setting. Beeper on/off, key lock and high/low power selection affect both bands together.

Symbols:

"/" = OR

"[]" = hold at least 1/2-second

"()" = intermediate display

"⋯" = blinking display

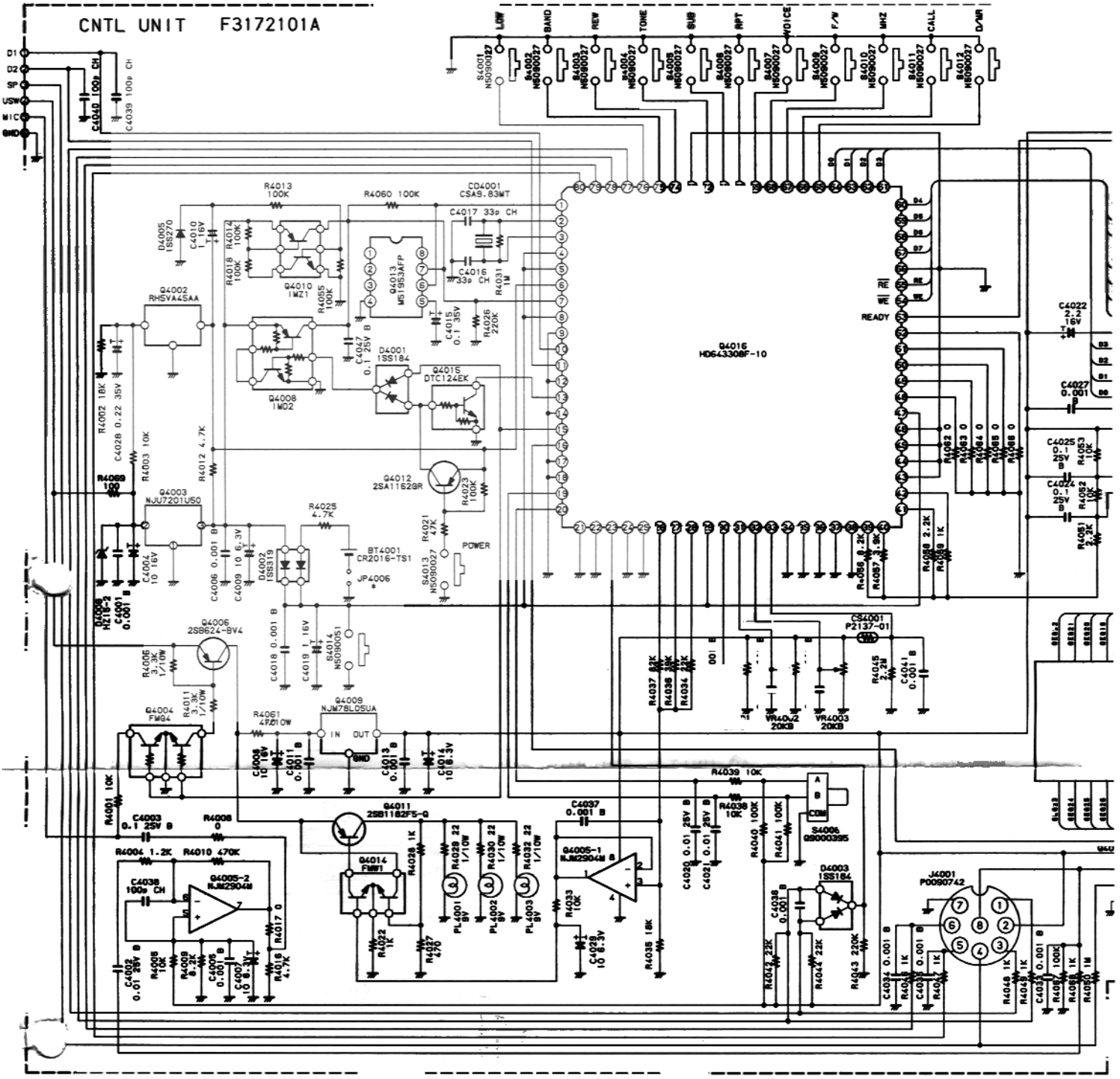
"+" = together (do simultaneously)

Desired Function	Display Mode	Procedure
Beeper on/off	Dial/Mem	$\text{☉} \rightarrow \text{☉}^{\text{SET}} \rightarrow \text{☉} \rightarrow \text{☉}^{\text{SET}}$
CALL Memory Recall	Dial/Mem	$\text{☉}^{\text{CALL}} / \text{☉}^{\text{PAGE}}$
Channel Step Select	Dial	$\text{☉} \rightarrow \text{☉}^{\text{STEP}} \rightarrow \text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉}^{\text{STEP}}$
CTCSS Tone Freq. Set	Dial/Mem	$\text{☉} \rightarrow \text{☉}^{\text{SET}} \rightarrow \text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉}^{\text{SET}}$
CTCSS Encode/Decode/Off	Dial/Mem	$\text{☉}^{\text{SET}} / \rightarrow \text{☉}^{\text{SET}}$
Hide Current Memory	Memory	$\text{☉} / \text{☉}^{\text{MEM}} \rightarrow \text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉}^{\text{MEM}}$
Unhide Memory	Memory	$\text{☉} / \text{☉}^{\text{MEM}} \rightarrow \text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉}^{\text{MEM}}$
Lock/Unlock Keys	Dial/Mem	$\text{☉} \rightarrow \text{☉}^{\text{LOCK}}$
Memory Recall	Dial	$\text{☉}^{\text{DIAL}} \rightarrow \text{☉} / \text{DWN} \text{ UP}$
Memory Tune	Memory	$\text{☉}^{\text{MEM}} \rightarrow \text{☉} / \text{DWN} \text{ UP}$
Memory Storage	Dial/M Tune	$\text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉} / \text{☉}^{\text{MEM}} \rightarrow \text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉}^{\text{MEM}}$
Memorize Separate Tx Freq.	Dial/M Tune	$\text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉} / \text{☉}^{\text{MEM}} \rightarrow \text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉}^{\text{PTT}} + \text{☉}^{\text{MEM}}$
MHz Range Select	Dial/M Tune	$\text{☉}^{\text{MEM}} \rightarrow \text{☉} / \text{DWN} \text{ UP}$
Mute Rx Audio	Dial/Mem	$\text{☉} \rightarrow \text{☉}^{\text{MUTE}} / \rightarrow \text{☉}^{\text{MUTE}}$
Priority Monitor	Dial/Mem	$\text{☉} \rightarrow \text{☉}^{\text{PRM}}$
Repeater: Standard Split	Dial/Mem	$\text{☉}^{\text{SET}} / \rightarrow \text{☉}^{\text{SET}}$
Repeater: Disp/Set Split Offset	Dial/Mem	$\text{☉} \rightarrow \text{☉}^{\text{SET}} \rightarrow \text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉}^{\text{SET}}$
Reverse Tx/Rx Frequencies	Dial/Mem	$\text{☉}^{\text{STEP}} / \text{☉}^{\text{STEP}}$
Scanning	Dial/Mem	$\text{DWN} \text{ UP}$
Scan/Tune Alternate Bands	Dial/Mem	$\text{☉} \rightarrow \text{☉}^{\text{BAND}} (\text{ALT}) \rightarrow \text{DWN} \text{ UP}$
Scan Limited Subband	Dial	$\text{☉}^{\text{DIAL}} \rightarrow \text{☉} / \text{DWN} \text{ UP} (\text{L} / \text{H}) \rightarrow \text{☉}^{\text{DIAL}} \rightarrow \text{DWN} \text{ UP}$
Scan Resume Mode Set	Dial/Mem	$\text{☉} \rightarrow \text{☉}^{\text{STEP}} \rightarrow \text{☉} \rightarrow \text{☉}^{\text{STEP}}$
Scan Skip Memory (Set)	Memory	$\text{☉} / \text{DWN} \text{ UP} \rightarrow \text{☉} \rightarrow \text{☉}^{\text{DIAL}} / \text{☉}^{\text{MEM}}$

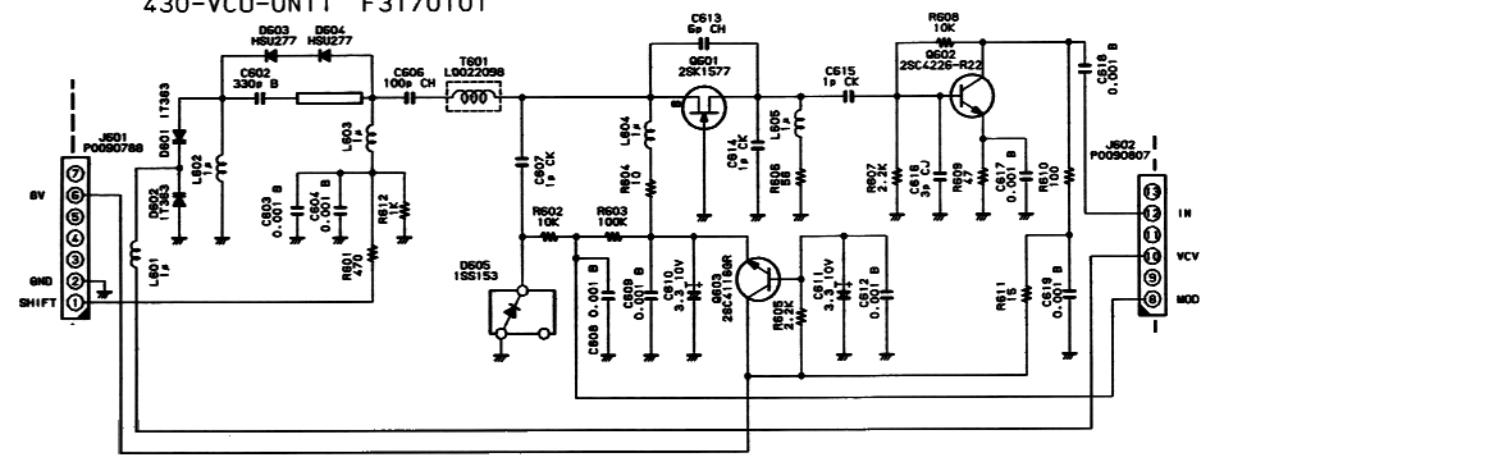
Optional DTMF Paging/Selcall & Digital Voice Functions

Paging/Code Squelch/CTCSS Bell/Off Toggle	Dial/Memory	$\text{☉} \rightarrow \text{☉}^{\text{CALL}} / \rightarrow \text{☉}^{\text{CALL}} / \rightarrow \text{☉}^{\text{PAGE}} / \rightarrow \text{☉}^{\text{PAGE}}$
Paging/Code Squelch Code Setting	Dial/Mem with Pag/Code	$\text{☉} \rightarrow \text{☉}^{\text{SET}} \rightarrow \text{☉} \rightarrow \text{UP} / \text{☉}^{\text{MEM}} \rightarrow \text{☉} \rightarrow \text{UP} / \text{☉}^{\text{MEM}} \rightarrow \text{☉} \rightarrow \text{UP} \rightarrow \text{☉}^{\text{MEM}}$
Toggle Code Memory Decoder (Rx)	DTMF Code	$\text{DWN} \text{ UP} \rightarrow \text{☉} \rightarrow \text{☉}^{\text{SET}} \rightarrow \text{☉}$
Quit Code Setting Display	DTMF Code	☉^{SET}
Digital Voice on/off toggle	Dial/M/DVS	$\text{☉}^{\text{DIAL}} / \text{☉}^{\text{DVS}}$
Speaker/Mic Recording toggle	DVS Display	☉^{SET}
Bit Rate Selection	DVS Display	$\text{☉}^{\text{STEP}} \rightarrow \text{☉} \rightarrow \text{☉}^{\text{STEP}}$
Record Locking toggle	DVS Display	$\text{☉} \rightarrow \text{☉}^{\text{LOCK}}$

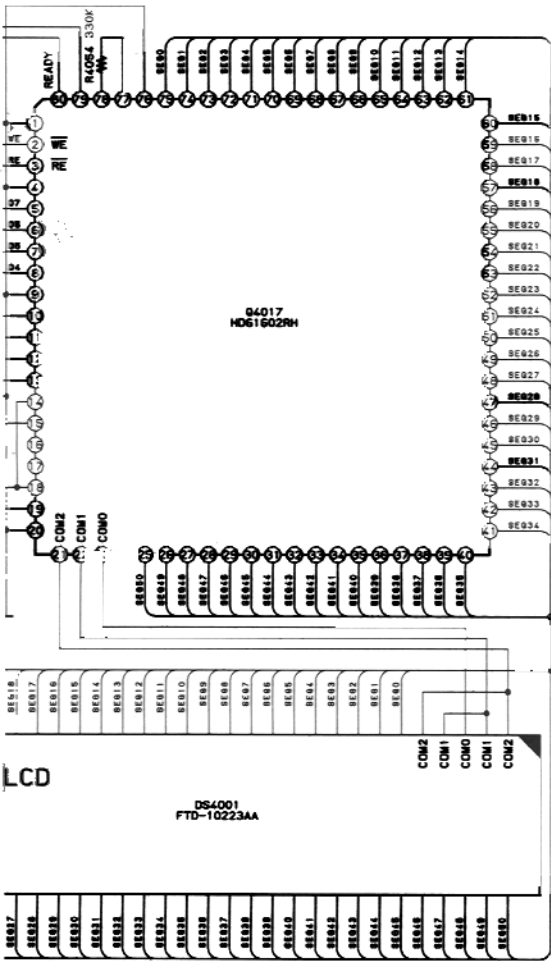
CNTL UNIT F3172101A



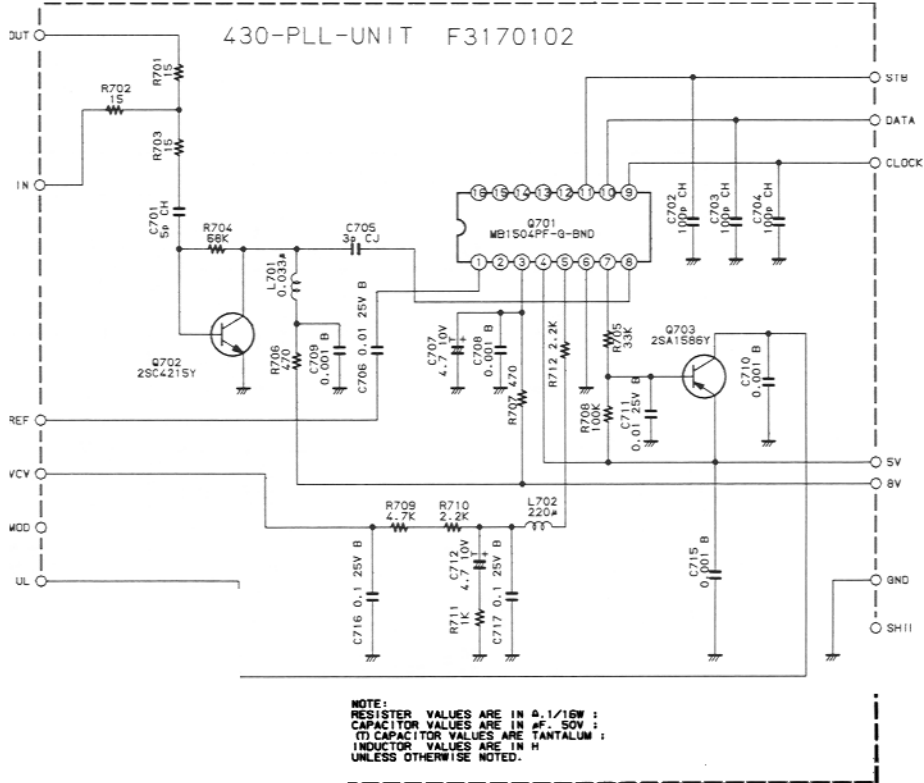
430-VCO-UNIT F3170101



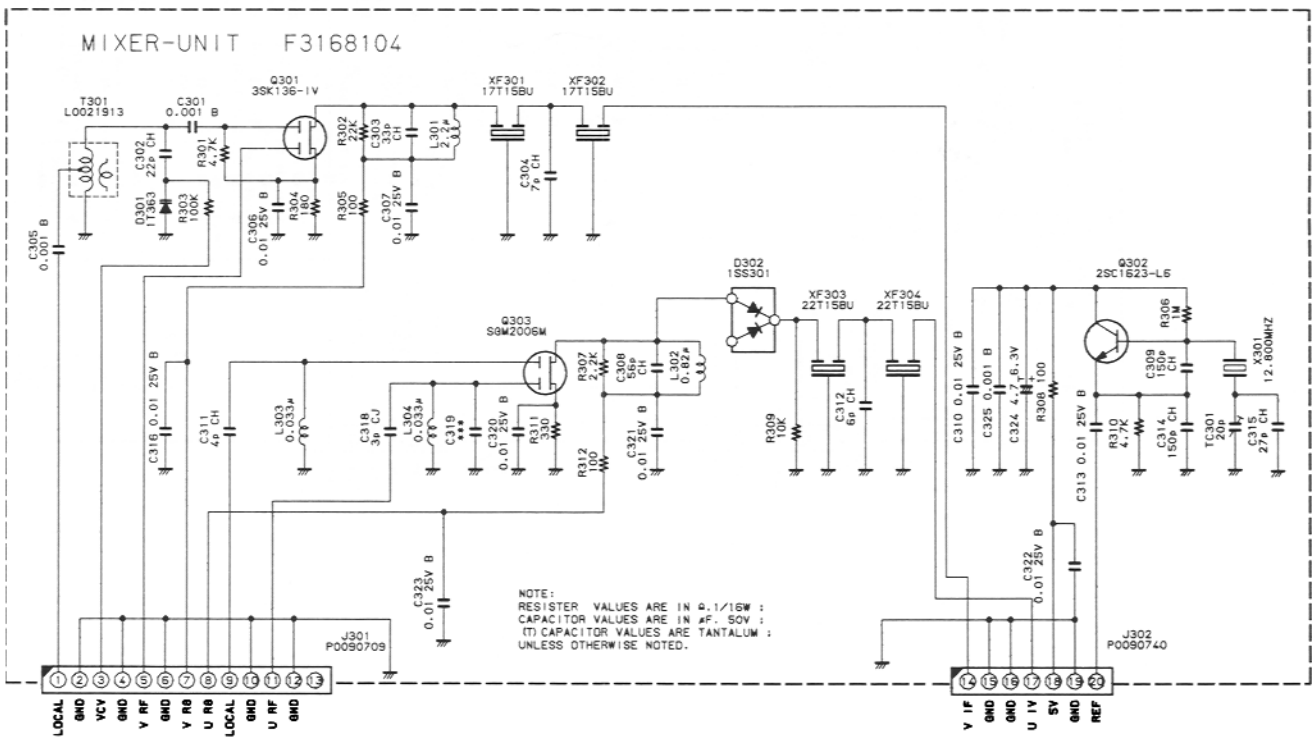
NOTE:
 RESISTOR VALUES ARE IN Ω , 1/16W ;
 CAPACITOR VALUES ARE IN μ F, 50V ;
 (T) CAPACITOR VALUES ARE TANTALUM ;
 INDUCTOR VALUES ARE IN H
 UNLESS OTHERWISE NOTED.



NOTE:
RESISTOR VALUES ARE IN Ω , 1/16W ;
CAPACITOR VALUES ARE IN μ F, 50V ;
(T) CAPACITOR VALUES ARE TANTALUM ;
ELECTROLYTIC CAPACITOR ARE IN μ F, 16V ;
UNLESS OTHERWISE NOTED.

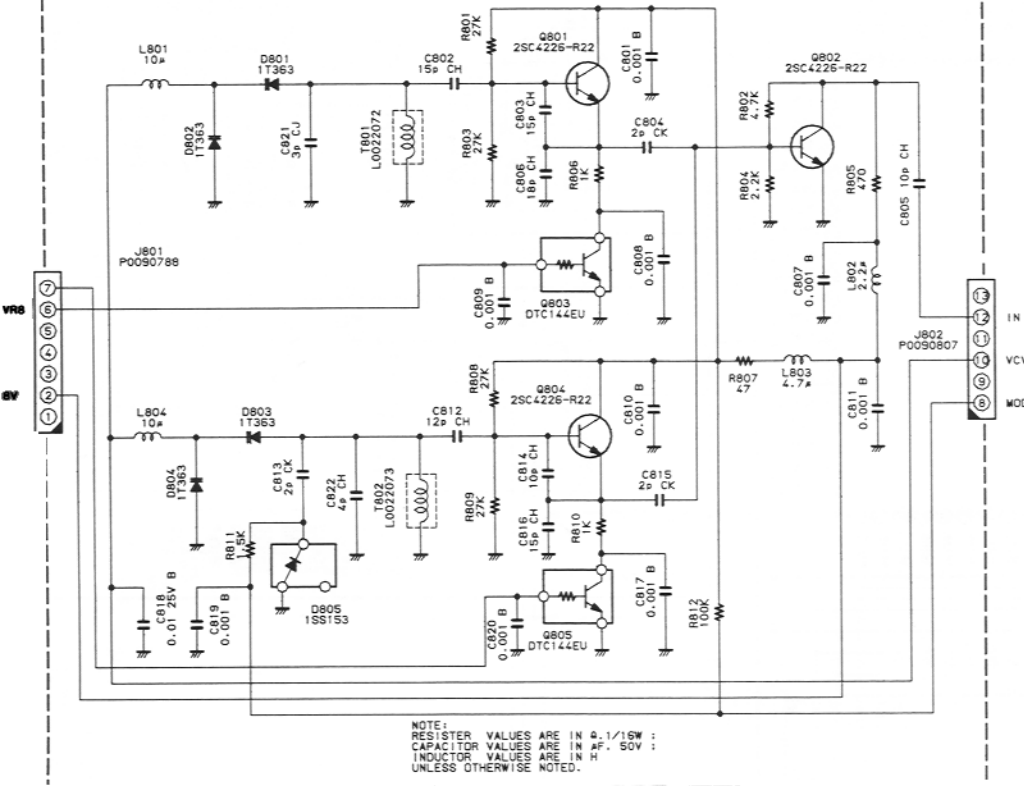


NOTE:
RESISTOR VALUES ARE IN Ω , 1/16W ;
CAPACITOR VALUES ARE IN μ F, 50V ;
(T) CAPACITOR VALUES ARE TANTALUM ;
INDUCTOR VALUES ARE IN H
UNLESS OTHERWISE NOTED.



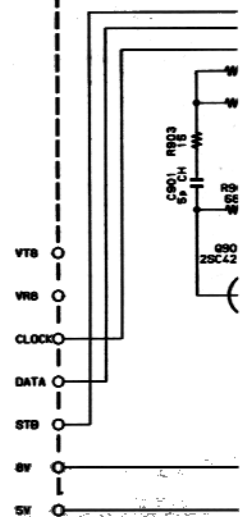
NOTE:
RESISTOR VALUES ARE IN Ω , 1/16W ;
CAPACITOR VALUES ARE IN μ F, 50V ;
(T) CAPACITOR VALUES ARE TANTALUM ;
UNLESS OTHERWISE NOTED.

144-VCO-UNIT F3169101



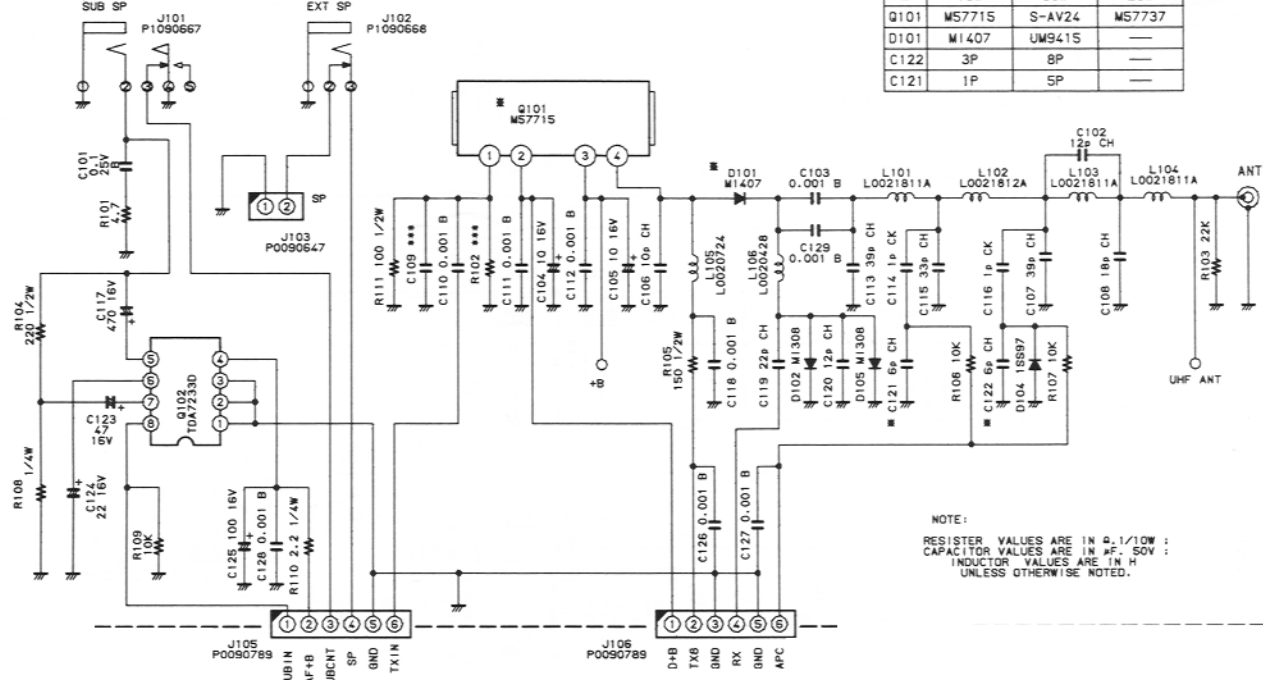
NOTE:
RESISTOR VALUES ARE IN Ω, 1/10W ;
CAPACITOR VALUES ARE IN P.F., 50V ;
INDUCTOR VALUES ARE IN H. ;
UNLESS OTHERWISE NOTED.

144-PL



NOTE:
RESISTOR VAL
CAPACITOR VAL
(T) CAPACITOR
UNLESS OTHER

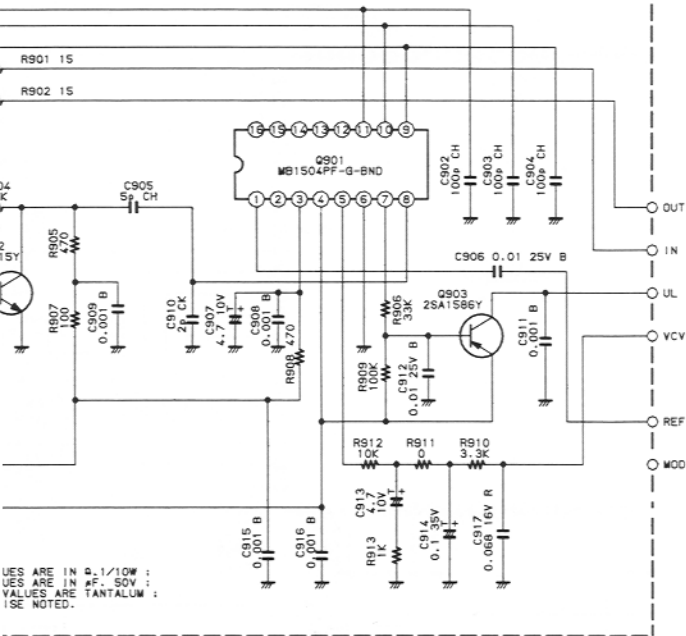
144 PA UNIT F3167101



	10W	50W	25W
Q101	M57715	S-AV24	M57737
D101	M1407	UM9415	—
C122	3P	8P	—
C121	1P	5P	—

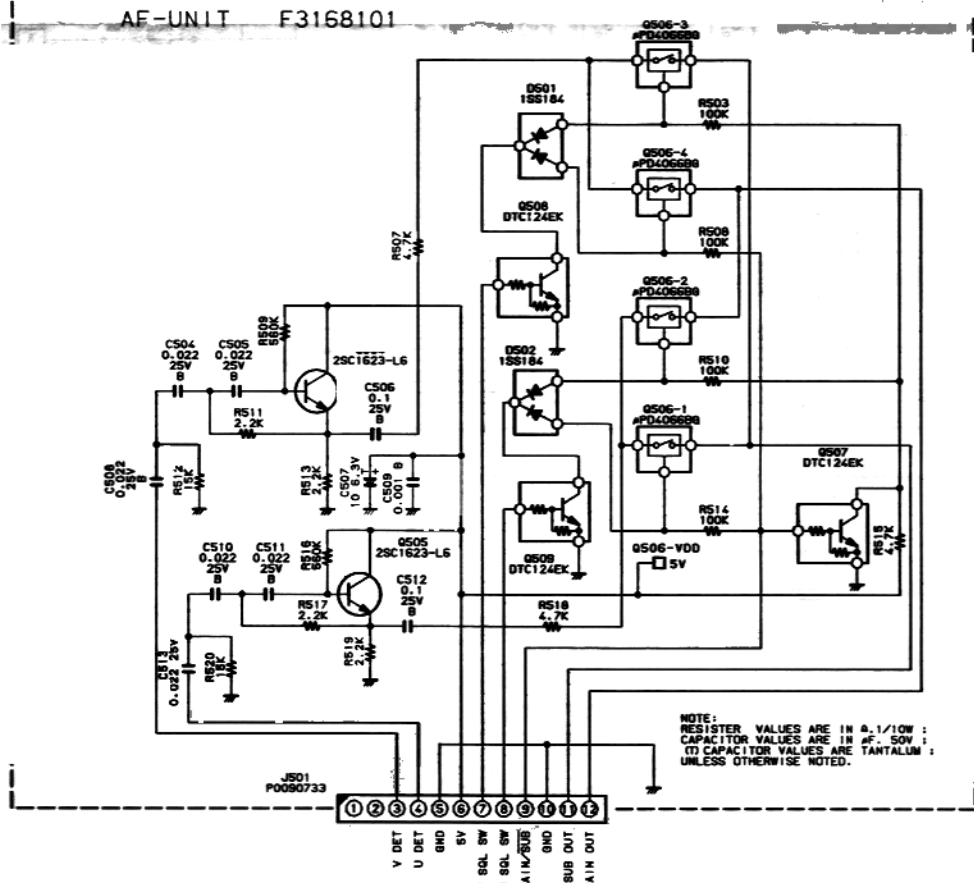
NOTE:
RESISTOR VALUES ARE IN Ω, 1/10W ;
CAPACITOR VALUES ARE IN P.F., 50V ;
INDUCTOR VALUES ARE IN H. ;
UNLESS OTHERWISE NOTED.

L-UNIT F3169102

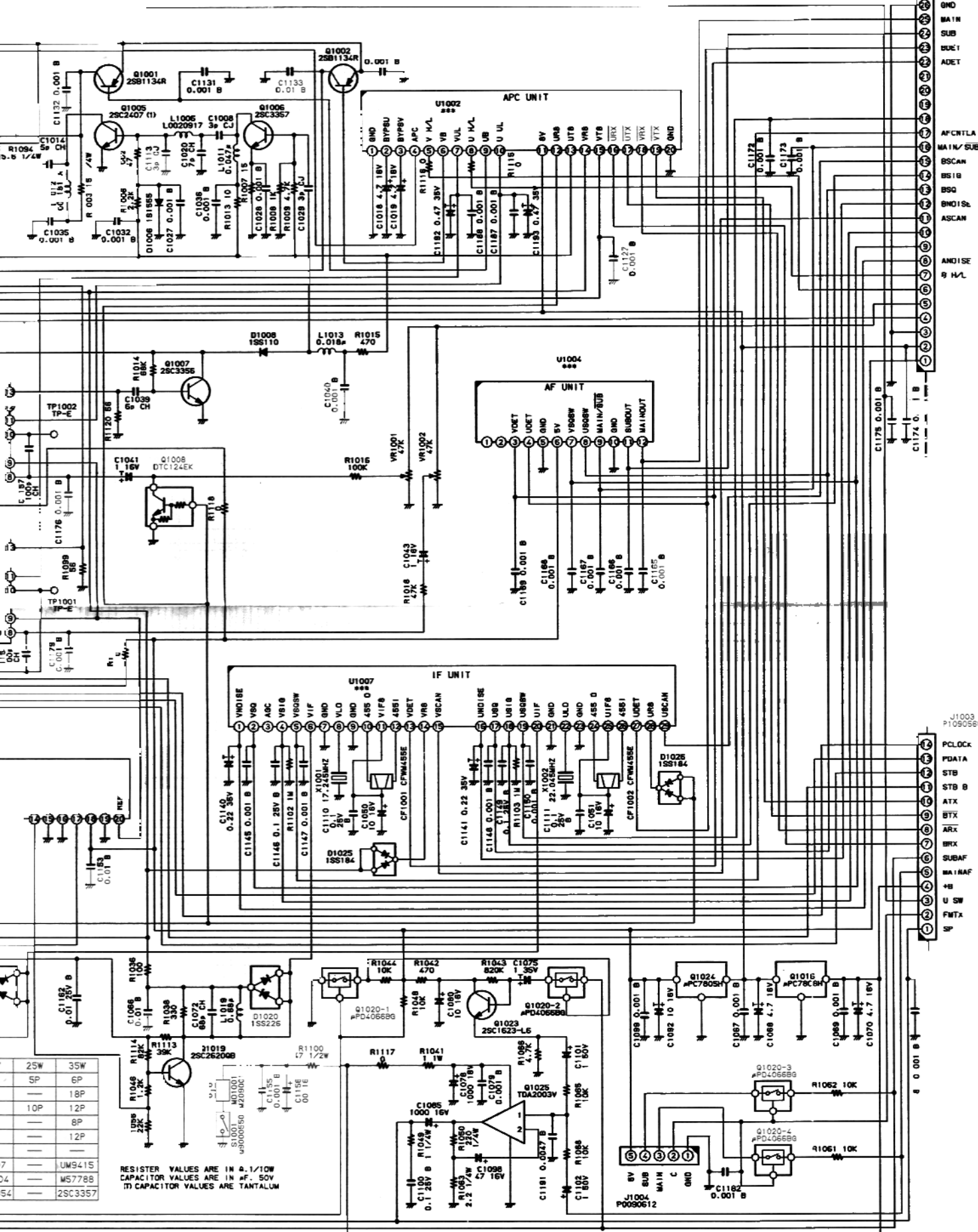


RESISTOR VALUES ARE IN Ω, 1/10W ;
 CAPACITOR VALUES ARE IN μF, 50V ;
 VALUES ARE TANTALUM ;
 UNLESS OTHERWISE NOTED.

AF-UNIT F3168101



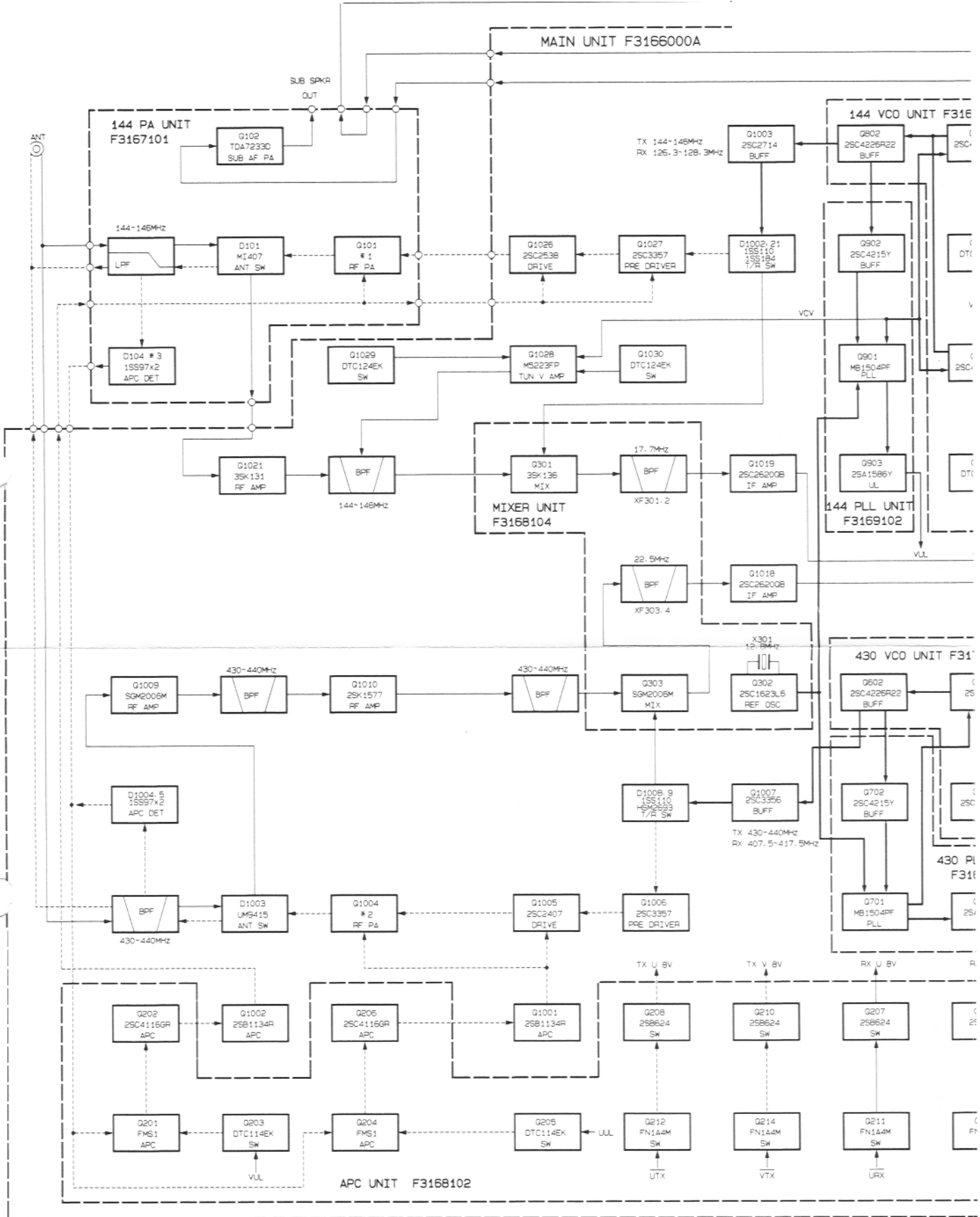
NOTE:
 RESISTOR VALUES ARE IN Ω, 1/10W ;
 CAPACITOR VALUES ARE IN μF, 50V ;
 VALUES ARE TANTALUM ;
 UNLESS OTHERWISE NOTED.



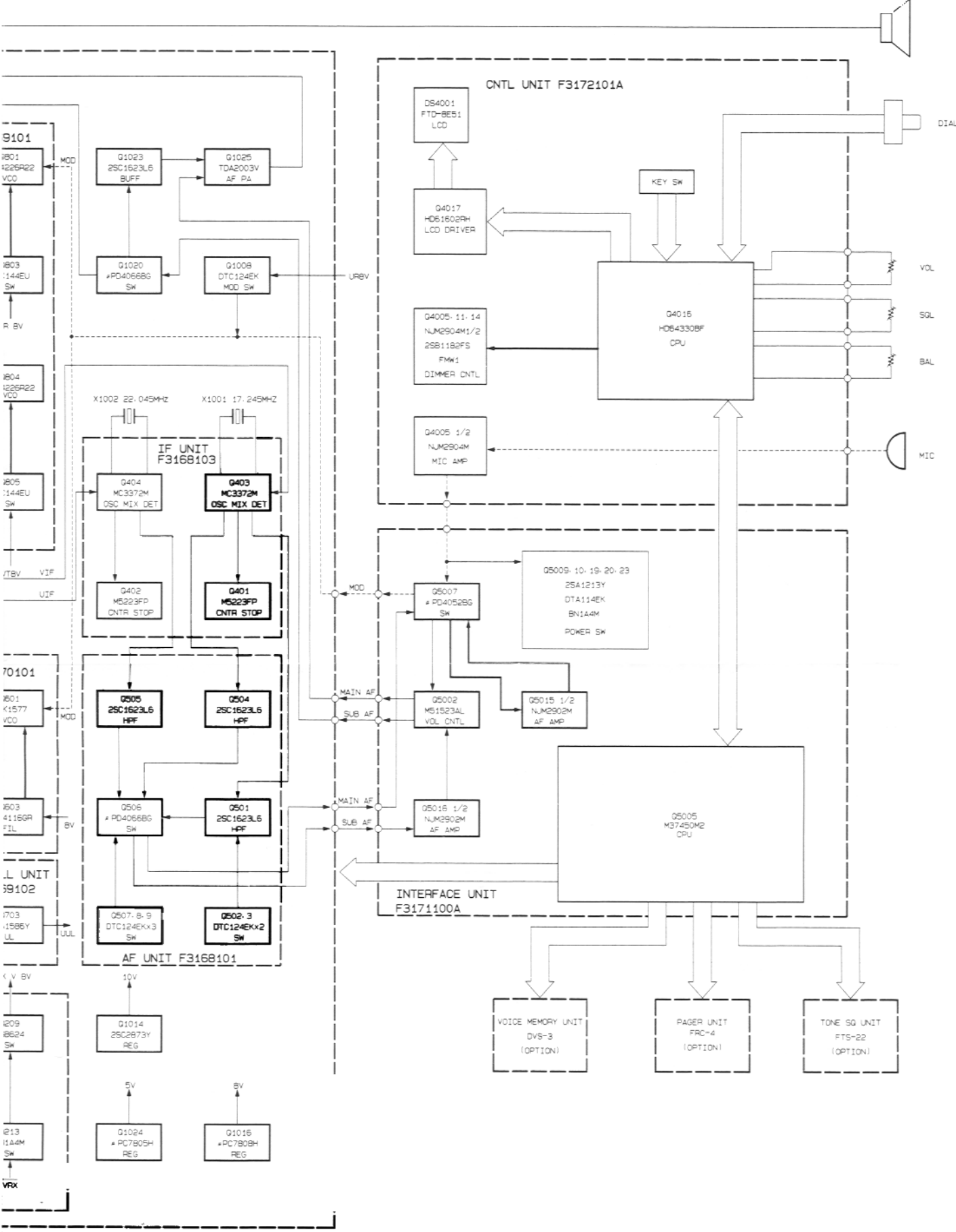
RESISTOR VALUES ARE IN Ω , 1/10W
 CAPACITOR VALUES ARE IN pF, 50V
 TD CAPACITOR VALUES ARE TANTALUM

25W	35W
6P	6P
18P	18P
12P	12P
8P	8P
12P	12P
UM5415	
MS7788	
25C3357	

MAIN UNIT F3166000A



	#1	#2	#3
L	G101 M57715	G1004 M57704MR	D103 ---
M	M57737	M57788MR	1SS97
H	S-4V24	M57788MR	1SS97



→ RX
 - - - TX
 → COMMON