



SERVICE MANUAL

VHF PRIVATE MOBILE RADIO

IC-F1010

VHF LAND MOBILE RADIO

IC-F1020

INTRODUCTION

This service manual describes the latest service information for the **IC-F1010** VHF PRIVATE MOBILE RADIO and **IC-F1020** VHF LAND MOBILE RADIO at the time of publication.

To upgrade quality, any electrical or mechanical parts and internal circuits are subject to change without notice or obligation.

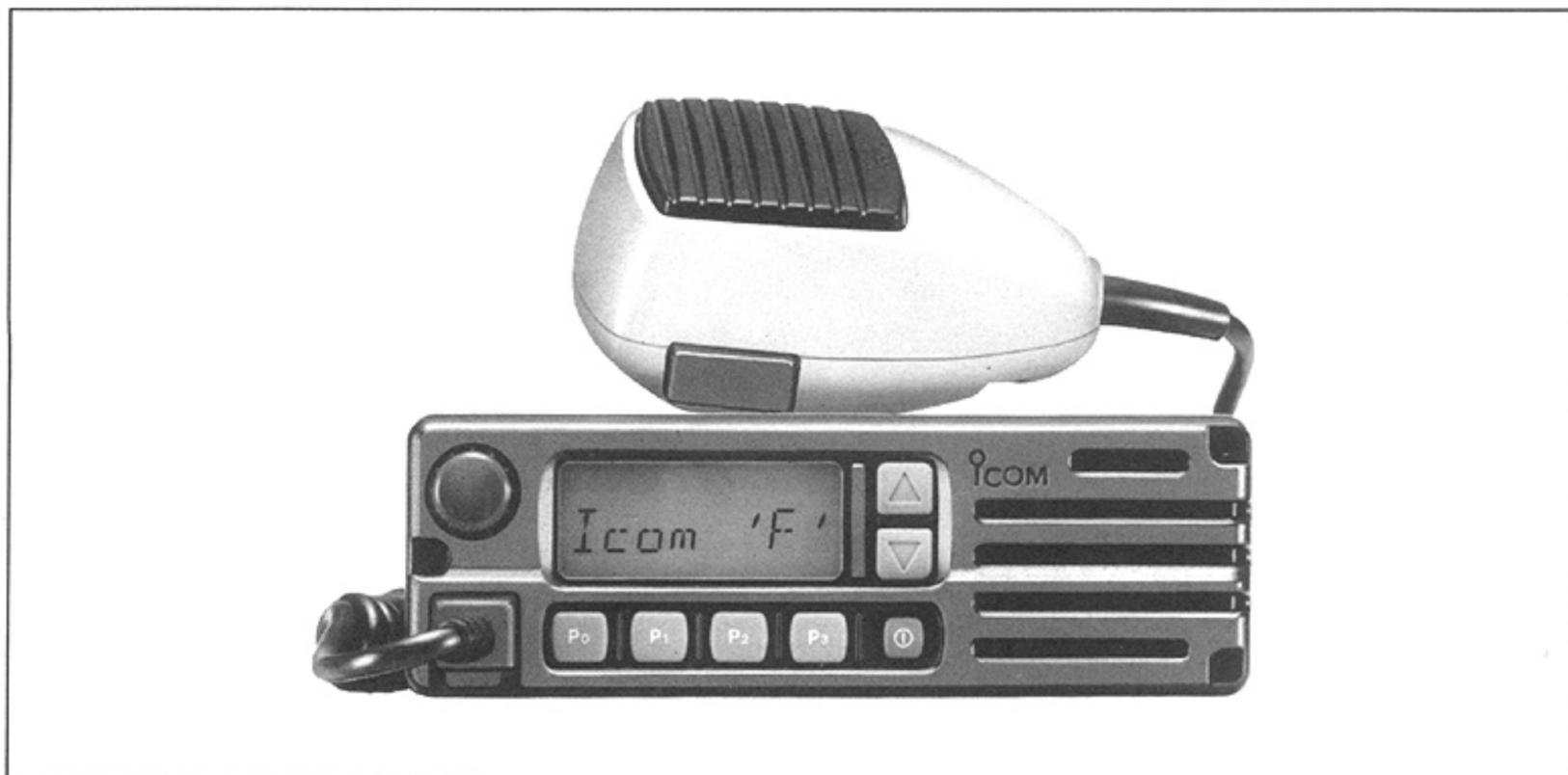
DANGER

NEVER connect the transceiver to an AC outlet or to a DC power supply that uses more than 16 V. This will ruin the transceiver.

DO NOT expose the transceiver to rain, snow or any liquids.

DO NOT reverse the polarities of the power supply when connecting the transceiver.

DO NOT apply an RF signal of more than 20 dBm (100 mW) to the antenna connector. This could damage the transceiver's front end.



ORDERING PARTS

Be sure to include the following four points when ordering replacement parts:

1. 10-digit order numbers
2. Component part number and name
3. Equipment model name and unit name
4. Quantity required

<SAMPLE ORDER>

1110003570 S.IC MC3372 IC-F1010 MAIN UNIT 5 pieces
8810008660 Screw BT M3 x 8 NI-ZU IC-F1010 Bottom cover 10 pieces

Addresses are provided on the inside back cover for your convenience.

REPAIR NOTES

1. Make sure a problem is internal before disassembling the transceiver.
2. **DO NOT** open the transceiver until the transceiver is disconnected from its power source.
3. **DO NOT** force any of the variable components. Turn them slowly and smoothly.
4. **DO NOT** short any circuits or electronic parts. An insulated tuning tool **MUST** be used for all adjustments.
5. **DO NOT** keep power ON for a long time when the transceiver is defective.
6. **DO NOT** transmit power into a signal generator or a sweep generator.
7. **ALWAYS** connect a 40 dB to 50 dB attenuator between the transceiver and a deviation meter or spectrum analyzer when using such test equipment.
8. **READ** the instructions of test equipment thoroughly before connecting equipment to the transceiver.

SECTION 1 SPECIFICATIONS

		IC-F1010	IC-F1020
GENERAL	Frequency coverage	136–155 MHz (L-band) 146–174 MHz (H-band)	136–155 MHz (L-band) 146–174 MHz (H-band)
	Mode	16K0F3E (Wide-type) 8K50F3E (Narrow-type)	16K0F3E
	Number of channels	32 (standard), 160 (with optional EX-1761)	32 (standard), 160 (with optional EX-1761)
	Channel spacing	25 kHz (Wide-type), 12.5 kHz (Narrow-type) (PLL step: 5 kHz and 6.25 kHz)	30 kHz, 25 kHz (PLL step: 5 kHz and 6.25 kHz)
	Antenna impedance	50 Ω (nominal)	50 Ω (nominal)
	Usable temperature range	-25 °C to +55 °C	-30 °C to +60 °C (-22 °F to +140 °F)
	Power supply requirement	13.2 V DC (negative ground)	13.6 V DC (negative ground)
	Current drain	Receive standby: 700 mA max. audio: 1.2 A Transmit high 7.0 A	Receive standby: 700 mA max. audio: 1.2 A Transmit high 15.0 A
	Dimensions	150(W) × 50(H) × 180(D) mm; 5 ²⁹ / ₃₂ (W) × 1 ³¹ / ₃₂ (H) × 7 ³ / ₃₂ (D) in	
	Weight	1.5 kg	1.5 kg; (3 lb 5 oz)
RECEIVER	Measurement method	ETS 300 086 or CEPT T/R24	EIA/TIA-204D
	Sensitivity	-2 dB μ (emf) for 20 dB SINAD	0.20 μV (pd) typ. for 12 dB SINAD
	Receive system	Double conversion superheterodyne	Double conversion superheterodyne
	Intermediate frequencies	1st: 21.8 MHz 2nd: 455 kHz	1st: 21.8 MHz 2nd: 455 kHz
	Adjacent channel selectivity	70 dB (Wide-type) 60 dB (Narrow-type)	75 dB
	Spurious response rejection	70 dB	80 dB
	Intermodulation rejection	65 dB	70 dB
	Audio frequency response	-3 dB to +1 dB in a 6 dB/octave range with 300 Hz to 3000 Hz modulation (wide) 300 Hz to 2550 Hz modulation (narrow)	-3 dB to +1 dB in a 6 dB/octave range with 300 Hz to 3000 Hz modulation
	Ham and noise	40 dB	45 dB
	Modulation acceptance	---	±7 kHz
	Audio output power	4 W typ. at 5 % distortion with a 4 Ω load.	4 W typ. at 5 % distortion with a 4 Ω load.
	Squelch threshold sensitivity	-6 dB μ (emf)	0.21 μV (pd)
TRANSMITTER	Measurement method	ETS 300 086 or CEPT T/R24	EIA/TIA-152C
	RF output power	25 W (#01–#04), 10 W (#05, #06) and 2 programmable low power levels	45 W and 2 programmable low power levels
	Modulation system	Variable reactance frequency modulation	Variable reactance frequency modulation
	Max. frequency deviation	±5 kHz (Wide-type), ±2.5 kHz (Narrow-type)	±5 kHz
	Spurious emissions	0.25 μW	-80 dB
	Frequency tolerance	±1.5 kHz	±0.0005%
	Adjacent channel power	-70 dB (Wide-type), -60 dB (Narrow-type)	---
	Audio frequency response	-3 dB to +1 dB in a 6 dB/octave range with 300 Hz to 3000 Hz input (wide) 300 Hz to 2550 Hz input (narrow)	-3 dB to +1 dB in a 6 dB/octave range with 300 Hz to 3000 Hz input
	Ham and noise	40 dB	45 dB
	Audio harmonic distortion	5%	5%
Limiting of modulator	70 % to 100 % deviaton	70 % to 100 % deviaton	

All stated specifications are subject to change without notice or obligation.

EXPLICIT DEFINITIONS

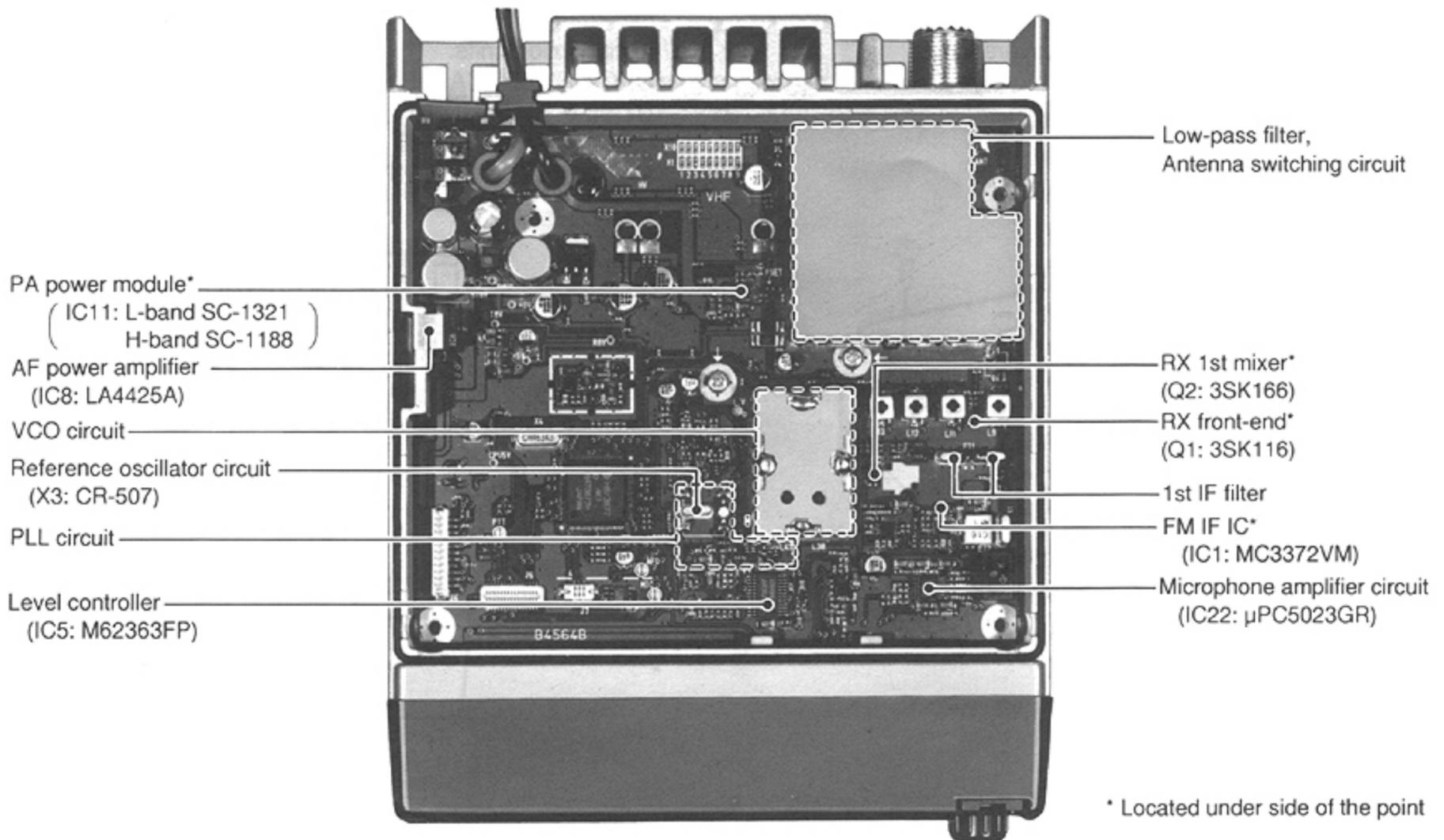
Model	Version number	Frequency coverage	Channel spacing	Power
IC-F1010 [PMR]	#01	L-band, 136 –155 MHz	12.5 kHz	25 W
	#02	L-band, 136 –155 MHz	25 kHz	25 W
	#03	H-band, 146 –174 MHz	12.5 kHz	25 W
	#04	H-band, 146 –174 MHz	25 kHz	25 W
	#05	H-band, 146 –174 MHz	12.5 kHz	10 W
	#06	H-band, 146 –174 MHz	25 kHz	10 W
IC-F1020 [LMR]	#01	L-band, 136 –155 MHz	30 kHz	45 W
	#02	H-band, 146 –174 MHz	30 kHz	45 W

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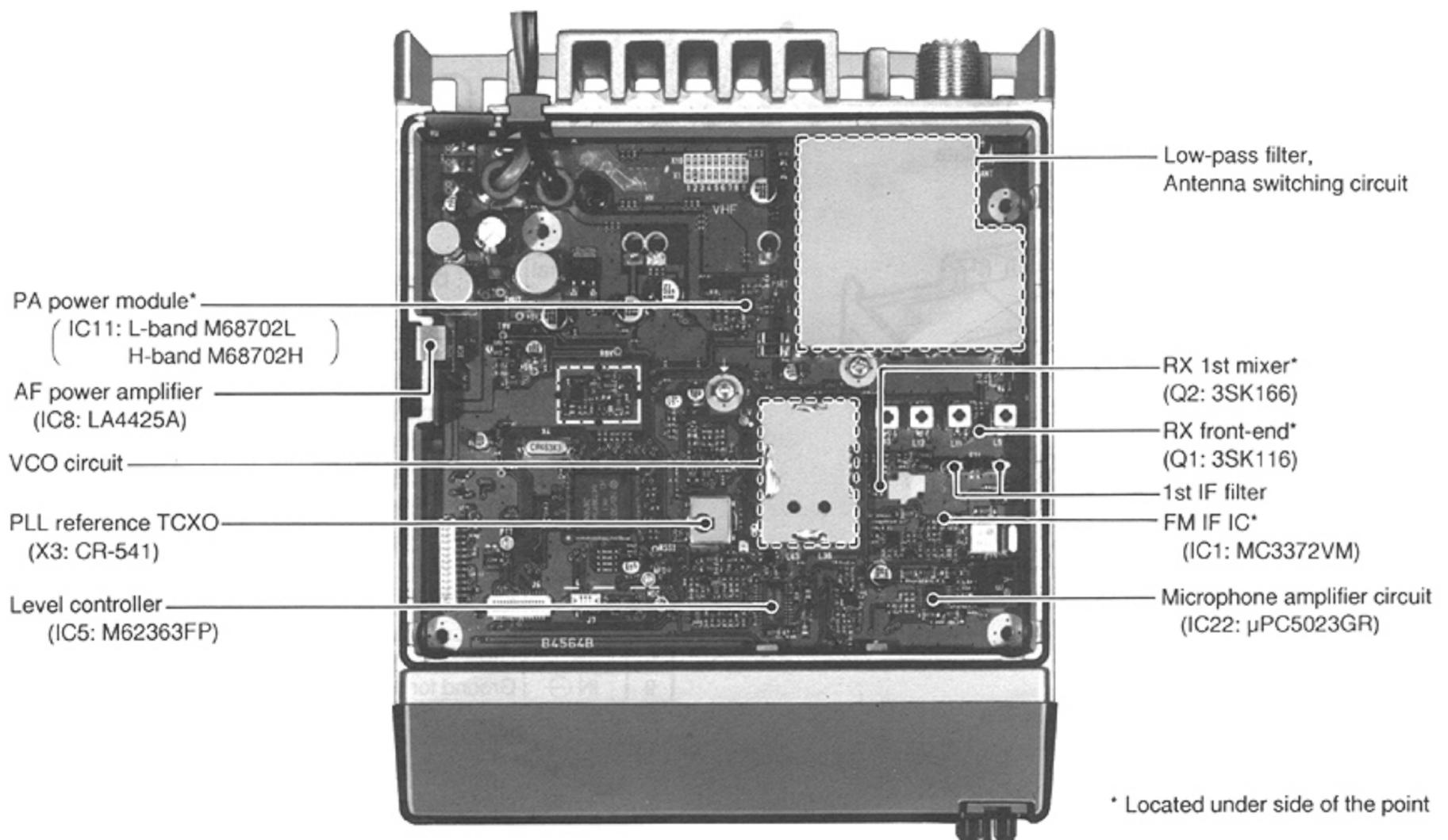
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SECTION 2 INSIDE VIEWS

● IC-F1010



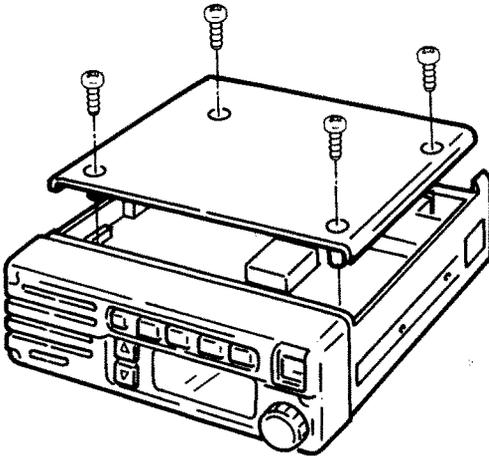
● IC-F1020



SECTION 3 OPTION INSTALLATIONS

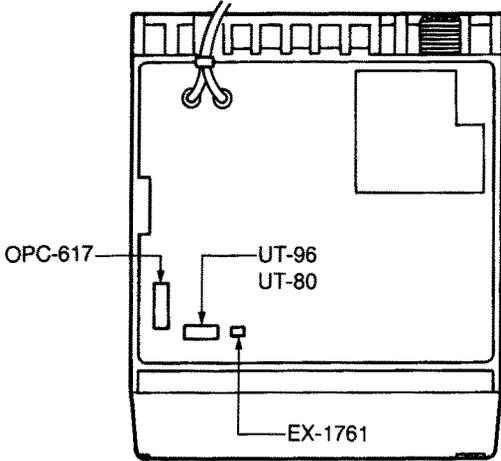
● **Opening covers**

Remove 4 screws from bottom covers.

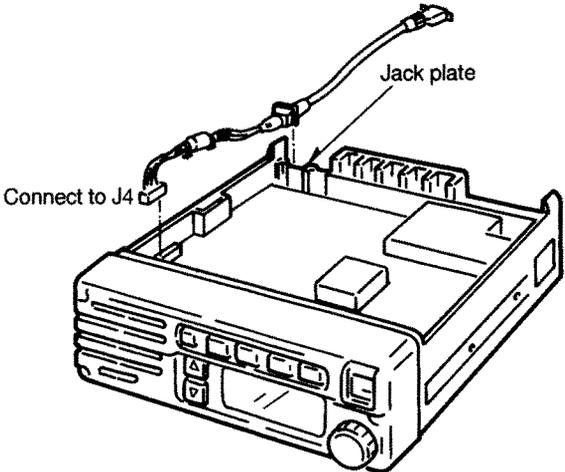


● **Installation location**

Install option units.
 OPC-617 ACC CABLE: J4
 UT-96 5-TONE UNIT
 or UT-80 2-TONE UNIT } J6
 EX-1761 MEMORY EXPANSION UNIT: J7

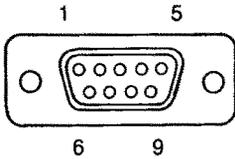


● **OPC-617 connection**



Break the jack plate using cutting pliers to connect the OPC-617.

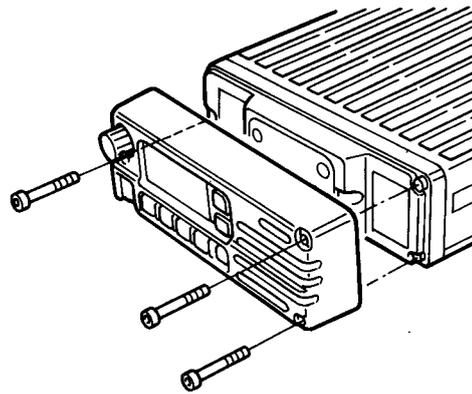
PIN ASSIGNMENT



Pin No.	Terminal name	Description	Specification
1	DIM	Backlight control input	+5 to +30 V for dark
2	PAAF	AF output for public address and Ext SP functions	0 to 330 mV rms/47 kΩ
3	DISC	AF output for a terminal unit	330 mV rms/100 kΩ
4	IN	AF input for a terminal unit	330 mV rms/1200 bps
5	PTT	PTT control input	0 V for transmit
6	HORN	Grounded when receiving the specified call	Less than 50 mA when grounded
7	PAAF ⊖	Ground for PAAF	—
8	DISC ⊖	Ground for terminal output	—
9	IN ⊖	Ground for terminal input	—

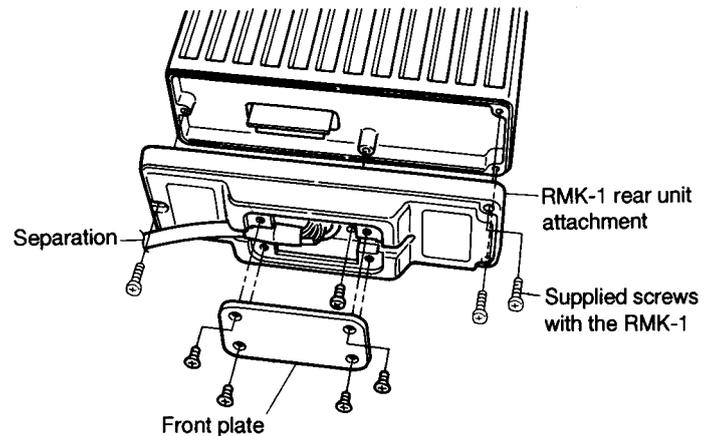
● **RMK-1 connection**

- ① Remove 3 allen-socket bolts from the front plate using an allen-wrench (1/32 in).
- ② Separate the front unit from the transceiver main unit.



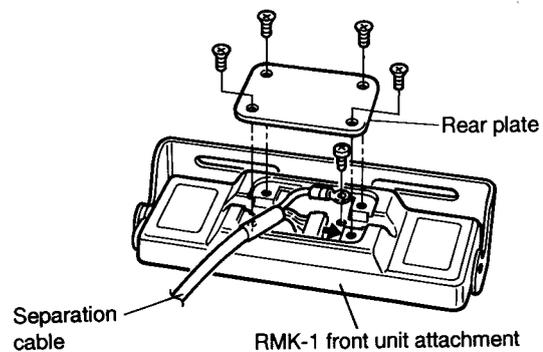
- ③ Attach the 'RMK-1 rear unit attachment' to the transceiver main unit using the supplied screws.
- ④ Remove 4 screws from the attachment to open the rear plate.
- ⑤ Connect one of three following optional separation cables to the inside of the rear plate and tighten the cable lug using the screw.

OPC-607 (3 m)	} Not permitted for European countries
OPC-608 (8 m)	
OPC-609 (1.9 m)	

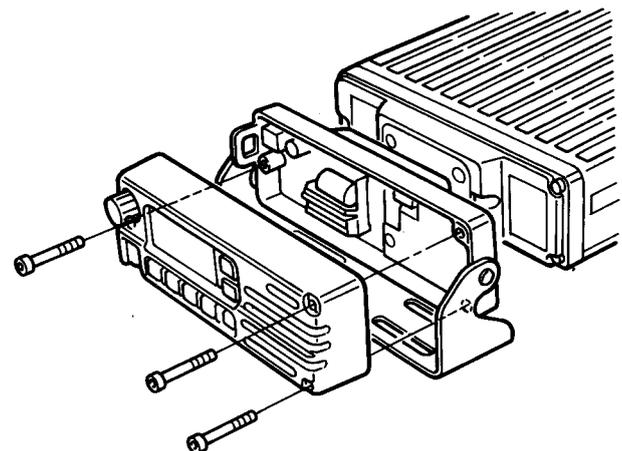


- ⑥ Re-attach the rear plate.

- ⑦ Remove 4 screws from the 'RMK-1 front unit attachment' to open the rear plate.
- ⑧ Connect the other end of the optional separation cable to the attachment and tighten the cable lug using the screw.
- ⑨ Re-attach the rear plate.



- ⑩ Attach the front unit and attachment with the 3 removed allen-socket bolts.



SECTION 4 CIRCUIT DESCRIPTION

4-1 RECEIVER CIRCUITS

4-1-1 ANTENNA SWITCHING CIRCUIT

The antenna switching circuit functions as a low-pass filter while receiving and a resonator circuit while transmitting. The circuit does not allow transmit signals to enter receiver circuits.

Received signals enter the antenna connector (J1) and pass through the low-pass filter. The filtered signals are passed through the $\lambda/4$ type antenna switching circuit (D4–D6) and apply the RF circuit.

4-1-2 RF AND 1ST MIXER CIRCUITS

The 1st mixer circuit converts the received signal to fixed frequency of the 1st IF signal with the PLL output frequency. By changing the PLL frequency, only the desired frequency will be passed through a pair of crystal filters at the next stage of the 1st mixer.

The signals from the antenna switching circuit are passed through the tunable bandpass filter (D8, L9) and amplified at the RF amplifier (Q1). The amplified signals are again passed through the tunable bandpass filter (D9, D11, L11, L13) and applied to the 1st mixer.

The filtered signals are mixed at the 1st mixer (Q2) with the 1st LO signal coming from the Rx VCO circuit to produce 1st IF signal. The 1st IF signal is passed through the matching circuit (L15, L52) and the pair of crystal filters (F11). The filtered signal is amplified at the 1st IF amplifier (Q4) and applied to the 2nd IF circuit.

4-1-3 2ND IF AND DEMODULATOR CIRCUITS

The 2nd mixer circuit converts the 1st IF signal to a 2nd IF signal. A double-conversion superheterodyne system improves the image rejection ratio and obtains stable receiver gain.

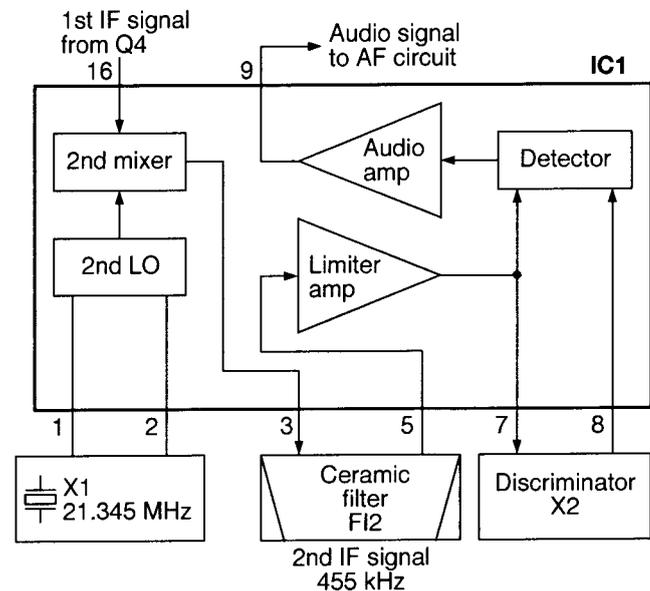
The 1st IF signal from Q4 is applied to the 2nd mixer section of IC1 (pin 16) and is then mixed with the 2nd LO signal for conversion to 455 kHz 2nd IF signal.

IC1 contains the 2nd mixer, 2nd local oscillator, limiter amplifier, quadrature detector and audio amplifier. The local oscillator section generates 21.345 MHz using X1.

The 2nd IF signal from the 2nd mixer (IC1 pin 3) passes through the ceramic filter (F12) to suppress unwanted heterodyned frequency signals. It is then amplified at the limiter amplifier section (IC1 pin 5) and applied to the quadrature detector section (IC1 pins 7, 8 and X2) to demodulate the 2nd IF signal into AF signals.

The AF signals are output from IC1 (pin 9) and are then applied to the AF circuit.

• 2ND IF AND DEMODULATOR CIRCUITS



4-1-4 AF CIRCUIT

AF signals from IC1 (pin 9) are amplified at the AF amplifier (IC2) and are then applied to IC3. IC3a/b are high-pass filters whose characteristics are controlled by the "HFSW" line. When "HFSW" is "High," the cut off frequency is shifted higher to remove CTCSS or DTCS signals.

The filtered signals from IC3 (pin 1) are passed through the de-emphasis circuit (R68, C74) with frequency characteristics of -6 dB/octave, and are then applied to the electronic volume controller (IC7) via the AF mute switch (Q6).

Output signals from IC7 (pin 9) are applied to the AF power amplifier (IC8) to drive the speaker.

4-1-5 RECEIVE MUTE CIRCUITS

• NOISE SQUELCH

A squelch circuit cuts out AF signals when no RF signal is received. By detecting noise components in the AF signals, the squelch circuit switches the AF mute switch.

A portion of the AF signals from IC1 (pin 9) are applied to the active filter in IC1 (pin 10). Noise components about 10 kHz are amplified and output from pin 11.

The noise signals from IC1 (pin 11) are passed through a level controller (IC5 pins 21, 22), and are then converted to the pulse signal (NOIS) at Q9 and Q10.

The "NOIS" signal from Q10 is applied to the CPU (IC20 pin 19). Then the CPU analyzes the noise condition and controls the "AMUT" and "SP" ports to cut off the AF signal using AF switches (Q6, Q7).

• **CTCSS AND DTCS**

A portion of the AF signals from the AF amplifier (IC2) pass through the low-pass filters (IC4a/b) and are then amplified at the tone amplifier (IC28a). The signals are applied to the CTCSS decoder inside the CPU (IC20 pin 98) to control the "AMUT" and "SP" ports.

When the DTCS system is in use, the amplified signals are converted into digital signals at IC28b, then applied to the DTCS decoder inside the CPU (IC20 pin 23).

The "LFSW" port (IC20 pin 62) controls the LPF (IC4a) characteristics to shift the cut-off frequency for CTCSS and DTCS separately.

4-2 TRANSMITTER CIRCUITS

4-2-1 MICROPHONE AMPLIFIER CIRCUIT

The microphone amplifier circuit amplifies the audio signals with +6 dB/octave pre-emphasis characteristics from the microphone to a level needed for the modulation circuit.

AF signals (MIC) from the FRONT unit via J5 (pin 10) are applied to the audio switch (IC25). While transmitting, the MCON signal from the CPU is "High" and the AF signals pass to the microphone amplifier circuit.

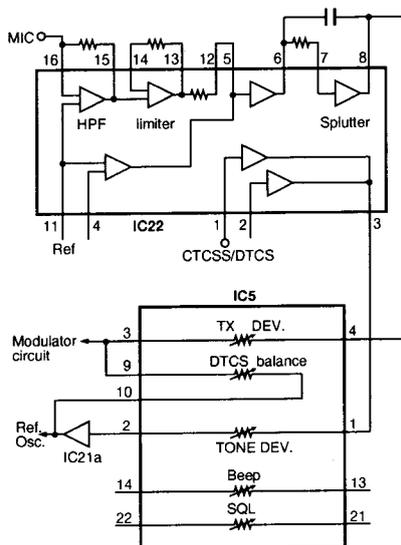
The AF signals from IC25 are applied to the microphone amplifier IC (IC22) via the preamplifier (IC21b). The amplified signals are applied to the limiter amplifier in IC22.

The entered signals (IC22 pin 16) are pre-emphasized with +6 dB/octave at a limiter amplifier, then passed through a splutter filter. The output signals from pin 8 pass through the level controller (IC5 pins 4, 3) and are then applied to the modulation circuit (D23, D46) via Q52.

4-2-2 MODULATION CIRCUIT

The modulation circuit modulates the VCO oscillating signal (RF signal) using the microphone AF signals.

• **MICROPHONE AMPLIFIER CIRCUIT**



The AF signals from Q52 change the reactance of D23 and D46 to modulate the oscillated signal at the Tx VCO circuit (Q23). The modulated signal is amplified at the buffer amplifiers (Q19, Q20) and is then applied to the drive amplifier circuit.

The CTCSS/DTCS signals from IC5 (pin 2) are amplified at IC21a, and are applied to the reference oscillator circuit (Q34, X3, D14 for IC-F1010 or X3; IC29 for IC-F1020) to modulate the oscillated signal.

4-2-3 DRIVE/POWER AMPLIFIER CIRCUITS

The signal from the buffer amplifier (Q20) is passed through the Tx/Rx switching circuit (D17), and amplified by the driver (Q15-Q17) and the power module (IC11) to obtain 25 W (IC-F1010) or 45 W (IC-F1020) of RF power.

The amplified signal is passed through the antenna switching circuit (D4), low-pass filter and APC detector, and is then applied to the antenna connector.

The collector voltages for drivers (Q15, Q16 for IC-F1010; Q16 only for IC-F1020) come from the MT8V regulator (Q38). The transmit mute switch (Q39) controls the regulator when transmit mute is necessary.

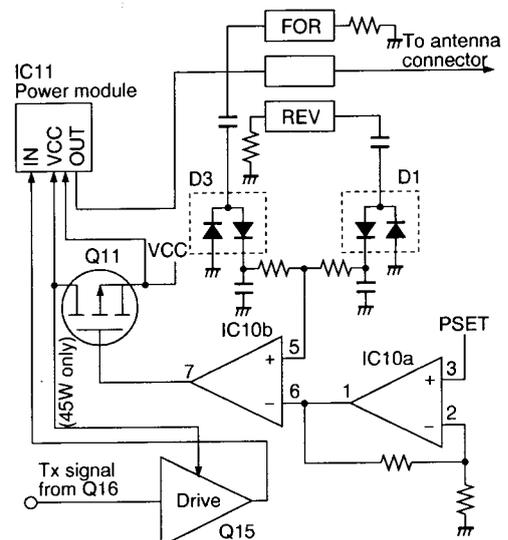
4-2-4 APC CIRCUIT

The APC circuit protects the power module (IC11) from a mismatched output load and stabilizes the output power.

The APC detector circuit detects forward signals and reflection signals at D3 and D1 respectively. The combined voltage is at a minimum level when the antenna impedance is matched at 50 Ω and is increased when it is mismatched.

The detected voltage is applied to the inverse amplifier (IC10b pin 5), and the power setting voltage (PSET) is applied to the other input (IC10b pin 6) via the amplifier (IC10a). When antenna impedance is mismatched, the detected voltage exceeds the power setting voltage. Then the output voltage of the inverse amplifier (IC10b pin 7) controls the input current of the power module (IC11) (and Q15 for IC-F1020) to decrease the output power.

• **APC CIRCUIT**



4-3 PLL CIRCUITS

4-3-1 PLL CIRCUIT

A PLL circuit provides stable oscillation of the transmit frequency and the receive 1st LO frequency. The PLL circuit consists of the PLL IC (IC12), charge pump and loop filter and employs a pulse swallow counter.

Signals from the VCO through buffer amplifiers (Q19, Q18) are prescaled in the PLL IC (IC12) based on the divided ratio (N-data). The PLL IC detects the out-of-step phase using the reference frequency and outputs it from pin 6. The output signal is passed through the charge pump (Q30–Q33) and loop filters (R154/C181, R153/C179), and is then applied to the VCO circuit as the lock voltage.

The accelerator switch (IC13a/b) selects the effective loop filter to accelerate the lock up speed.

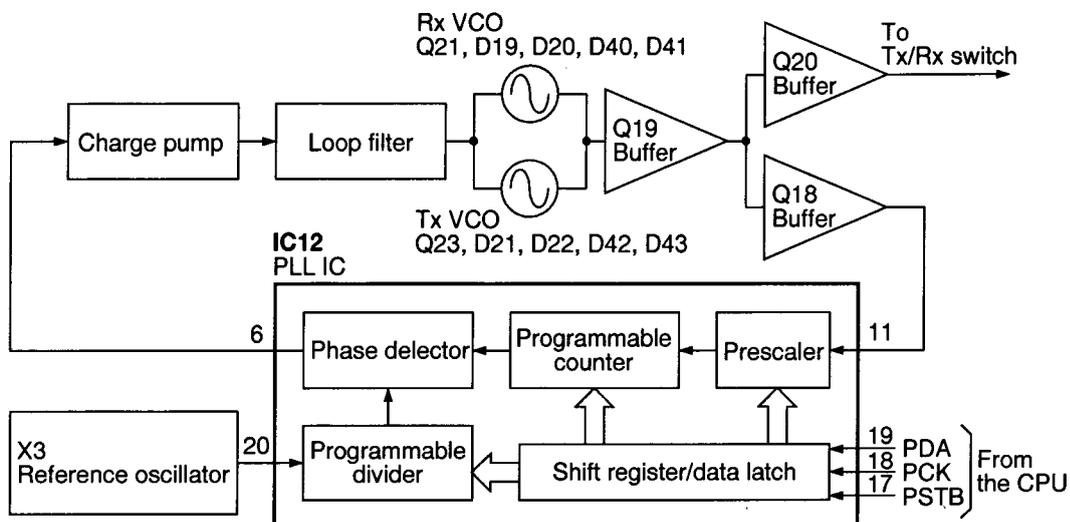
The lock voltage is also used for the receiver tunable bandpass filters to match the filter's center frequency to the desired receive frequency. The lock voltage is amplified at the buffer amplifier (Q29) and is then applied to the bandpass filters (D8–D11).

4-3-2 VCO CIRCUIT

The VCO circuit contains a separate Rx VCO (Q21, D19, D20, D40, D41) and Tx VCO (Q23, D21, D22, D42, D43). The oscillated signal is amplified at the buffer amplifiers (Q19, Q20) and is then applied to the Tx/Rx switching circuit (D17, D18). Then the Rx signal is applied to the 1st mixer (Q2) via the amplifier (Q3) and the Tx signal to the driver (Q17).

A portion of the signal from Q19 is amplified at the buffer amplifier (Q18) and is then fed back to the PLL IC (IC12 pin 11) as the comparison signal.

• PLL CIRCUIT BLOCK DIAGRAM



4-4 POWER SUPPLY CIRCUITS

4-4-1 VOLTAGE LINES

LINE	DESCRIPTION
HV	The voltage from the external power connector.
VCC	The same voltage as the HV line which is controlled by "PWON" signal from the CPU (IC20 pin 67) using a switching FET (Q12).
CPU5V	Common 5 V converted from the HV line at the 5 V regulator IC (IC17). This voltage is supplied to the CPU regardless of the power switch.
+5V	Common 5 V converted from the VCC line at Q42, Q43 and D30 using the CPU5V line as the reference voltage.
+8V	Common 8 V converted from the VCC line at IC16.
R8V	Receive 8 V controlled by "VRX" signal from the CPU (IC20 pin 66). This voltage is converted from the VCC line at Q36 and D27 using the +8V line as the reference voltage.
T8V	Transmit 8 V controlled by "VTX" signal from the CPU (IC20 pin 65). This voltage is converted from the VCC line at Q40 and D29 using the +8V line as the reference voltage.
MT8V	Transmit 8 V controlled by "TMUT" signal from the CPU (IC20 pin 60). This voltage is converted from the VCC line at Q38 and D28 using the +8V line as the reference voltage.

4-5 PORT ALLOCATIONS

4-5-1 CPU (IC20)

PIN No.	PORT NAME	DESCRIPTION
1	AFV	Input port for the volume control.
11	SHIFT	Output port for the CPU clock shift signal.
12	SCK	Used for C-bus line to an optional unit (J6).
13	SI	
14	SO	
16, 18	CLI	Input ports for the cloning data.
17	CLO	Output port for the cloning data.
19	NOIS	Noise pulse input port for the squelch control.
20	CIRQ	Used for C-bus line to an optional unit (J6).
21	POSW	Input port for the power switch. LOW: Power switch is pressed.
22	CCS	Used for C-bus line to an optional unit (J6).
23	DDEC	Input port for DTCS decoding.
32-35	CTN3-0	Output ports for CTCSS/DTCS encoder signals.
36	PTTO	Output port for the PTT control signal. LOW: Tx
38	DECO	Output port for CTCSS/DTCS tone matched signal.
39	PTTI	Input port for the PTT control signal from PTTO port.
40, 41	VER1, VER2	Reserved for initial settings.
42	ECK	Outputs clock signals to EEPROMs.
43	ESI	Serial data input port for EEPROMs.
44	ESO	Outputs serial data to EEPROMs.
45, 46	ECS1, ECS2	Output ports for chip select signals. ESC1: EEPROM (IC27), ESC2: Optional EEPROM (J7)
47	PDA	Outputs serial data to the PLL IC (IC12).
48	PCK	Outputs clock signals to the PLL IC (IC12).
49	UNLK	Input port for the PLL unlock signal. HIGH: PLL unlock
50	PSTB	Outputs a strobe signal to the PLL IC (IC12).
51	PLLT	Output port for a PLL acceleration signal.
53	DDA	Outputs serial data to the level controller (IC5).
54	DCK	Outputs clock signals to the level controller (IC5).
55	DSTB	Outputs a strobe signal to the level controller (IC5).
56	PASP	Output port for a "public-address" mute. HIGH: PA and Ext SP functions are not used.
57	SP	Output port for the audio mute signal (incl. beep). HIGH: Mute
58	HFSW	Outputs a selecting signal of RX HPF characteristics. HIGH: Filters out CTCSS freq.

PIN No.	PORT NAME	DESCRIPTION
59	PA	Outputs a mic audio selector signal. HIGH: "Public-address" function is ON.
60	TMUT	Outputs Tx mute signal. HIGH: Tx mute
61	HORN	Outputs an external device control signal. "HIGH" for the period of the EXO timer when receiving a matched 2- or 5-Tone code.
64	DIM	Input port for an external dimmer control signal. LOW: LCD backlight is dimmed.
65	VTX	Outputs Tx switching signal. During Tx: LOW
66	VRX	Outputs Rx switching signal. During Rx: LOW
67	PWON	Output port for the power control. HIGH to turn ON the power
79	MCON	Output port for MIC mute control. LOW: MIC mute
80	AMUT	Output port for Rx AF mute control. HIGH: Rx AF mute
81	MMUT	Input port for MIC mute signal from an optional unit (J6). LOW: MIC mute
82	RMUT	Input port for AF mute signal from the optional unit. LOW: AF mute
83	AUX	Reserved for input from an optional unit (J6).
84	BUSY	Output port for BUSY signal to an optional unit (J6).
85	AFON	Input port for the AF amplifier ON signal from an optional unit (J6).
86-88	OPT1-3	I/O port for an option unit (J6).
90	BEEP	Output port for the beep signal (sine wave).
91	DTMF	Output port for the DTMF signal (dual tone).
94-96	OPV3-1	Input ports for the option connector state (J6).
97	THRM	Input port for the transceiver's internal temperature.
99	RSSI	Input port for Rx signal strength level.

SECTION 5 ADJUSTMENT PROCEDURES

5-1 INITIAL SET MODE

The following items can be adjusted via *Initial Set Mode* without opening the transceiver's case.

■ ENTERING INITIAL SET MODE

① Turn the transceiver power OFF.

② While pushing \triangle and ∇ , turn power ON

- Bank number appears regardless of the channel separation type, 'bank' or 'free.'



③ Push P_0 to cycle through the initial set mode items.

NOTE: Initial Set Mode access can be inhibited through PC programming. In such cases, P_0 cannot be used and only 'DISPLAY' setting can be done. Ask your Dealer or Icom Service Center for PC programming.

■ SELECTABLE ITEMS

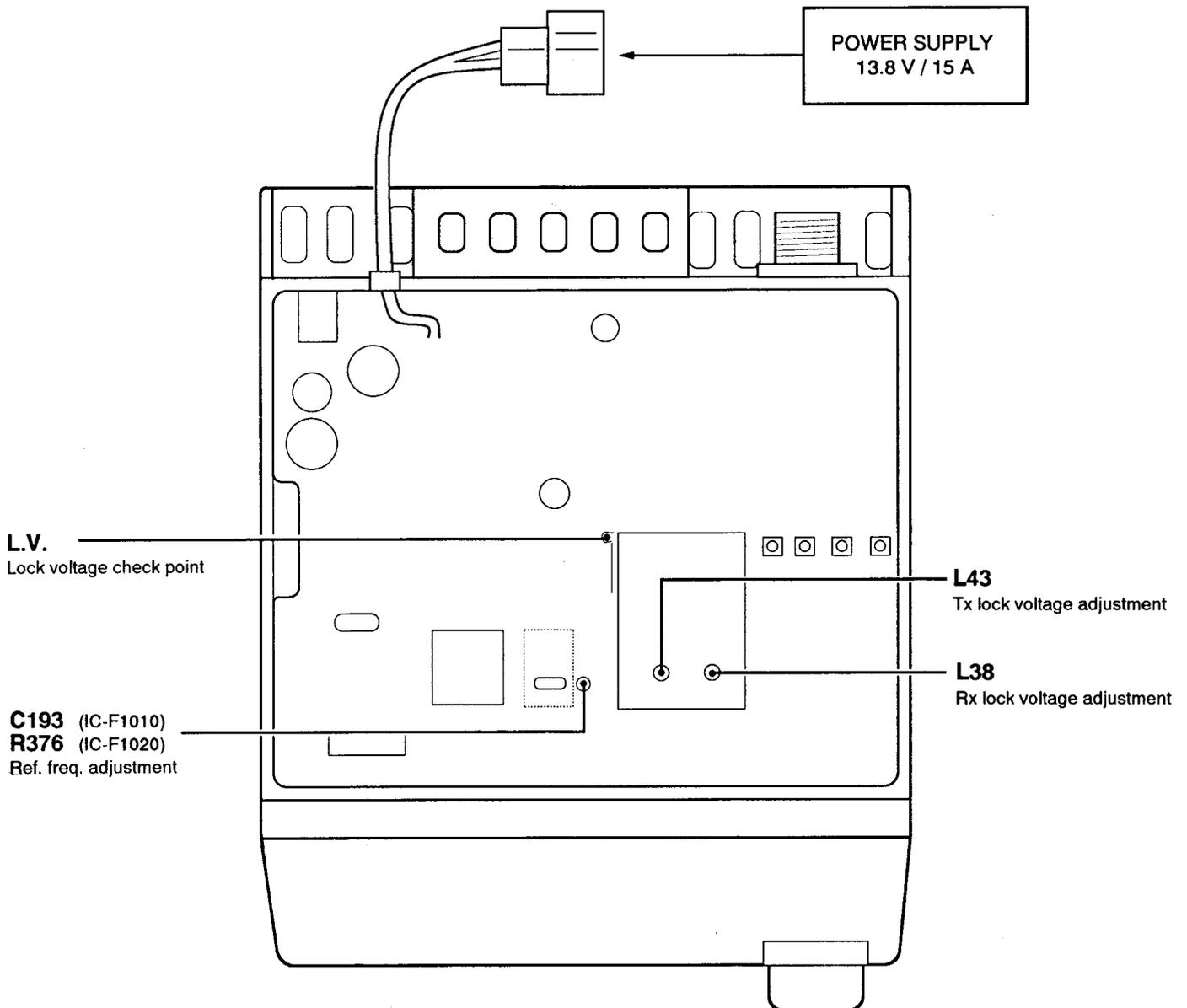
No.	ITEM	SELECTABLE CONDITIONS		
		P_1	P_2	P_3
1	DISPLAY	Backlight	—	Contrast
2	AF/SQUELCH	—	Squelch level	Minimum AF level
3	BEEP TONES	Link ON/OFF	Beep tones ON/OFF	Beep level
4	DEVIATION	DTCS balance	Tone deviation	Max. voice deviation
5	S-METER	Indicate the received signal level regardless of [P1] to [P3] keys		
6	TX POWER	Low 1	Low 2	High

■ SELECTION METHOD

MODE No.	ITEM	METHOD	NOTE
1	Display backlight	Push P_1 to select 'dark' or 'bright.'	
	Display Contrast	Rotate the volume control while pushing P_3 .	
2	Squelch level	Rotate the volume control while pushing P_2 .	
	Minimum AF level	Rotate the volume control while pushing P_3 .	
3	Link/unlink beep tones with the volume control	Push P_1 to select 'link' or 'unlink.'	2 beeps: link; 1 beep: unlink
	Beep ON/OFF	Push P_2 to turn beep ON and OFF.	2 beeps: ON 1 beep: OFF Effective after exiting Initial Set Mode
	Maximum beep level	Rotate the volume control while pushing P_3 .	
4	DTCS balance	Rotate the volume control while pushing P_1 .	Automatic transmission while pushing the key.
	CTCSS/DTCS Tone deviation	Rotate the volume control while pushing P_2 .	Automatic transmission while pushing the key. Separate setting for CTCSS and DTCS depending on the programmed tone system.
	Maximum voice deviation	Rotate the volume control while pushing P_3 .	Automatic transmission while pushing the key.
5	S-meter level	—	Received signal level is shown in the display.
6	Transmit low power (L1)	Rotate the volume control while pushing P_1 .	Automatic transmission while pushing the key.
	Transmit low power (L2)	Rotate the volume control while pushing P_2 .	Same as above.
	Transmit high power (H)	Rotate the volume control while pushing P_3 .	Same as above.

5-2 PLL ADJUSTMENT

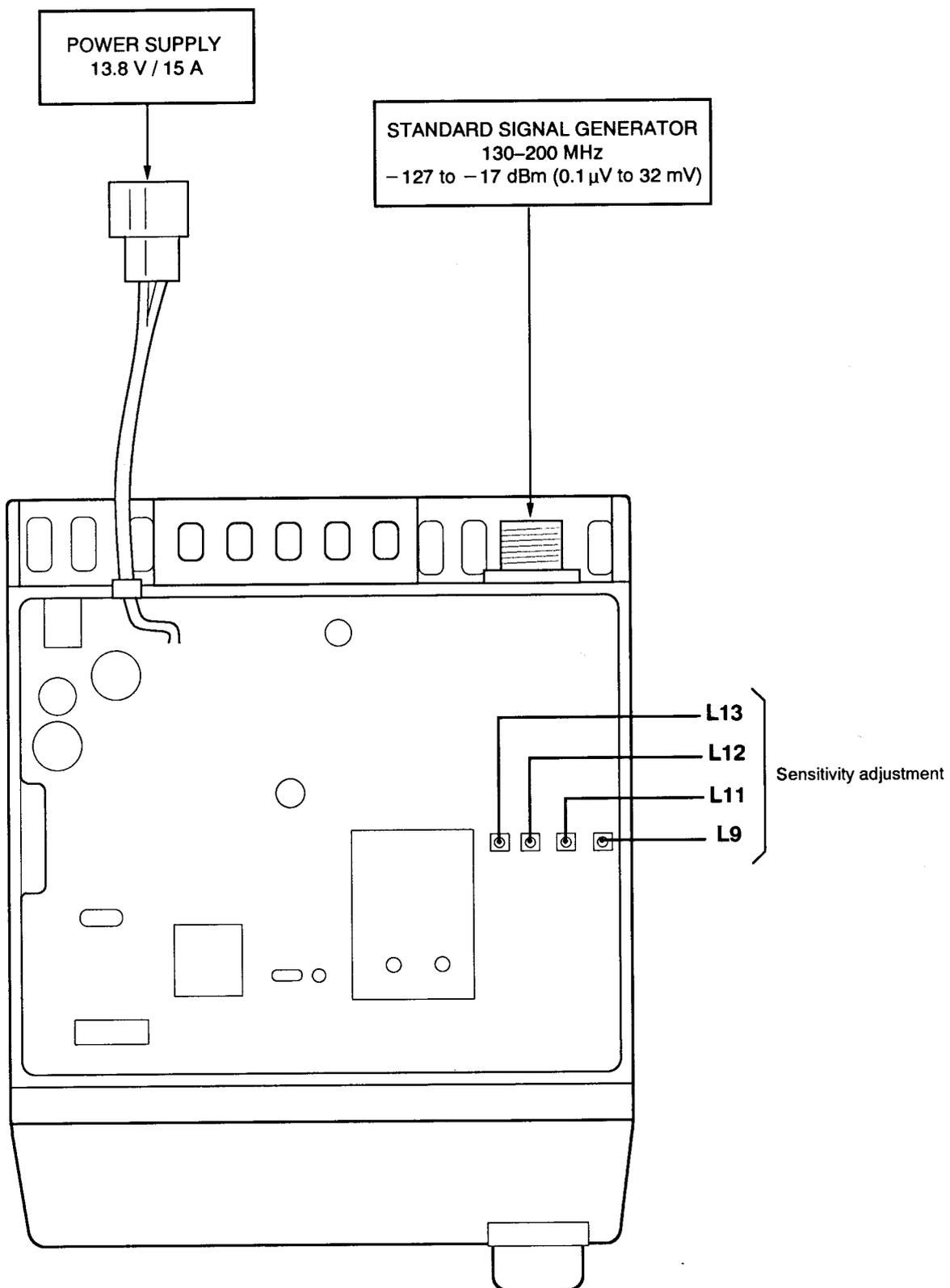
ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
PLL LOCK VOLTAGE	1 • Operating frequency : 136.000 MHz • Receiving	MAIN	Connect the digital multi-meter or oscilloscope to the check point "L.V."	3.0 V	MAIN	L38
	2 • Operating frequency : 174.000 MHz • Receiving			10-14 V		Verify
	3 • Operating frequency : 136.000 MHz • Transmitting			3.0 V		L43
	4 • Operating frequency : 174.000 MHz • Transmitting			10-14 V		Verify
PLL REFERENCE FREQUENCY	1 • Operating frequency : Any • Transmitting	MAIN	Loosely couple the frequency counter to the antenna connector.	The same frequency as programmed.	MAIN	C193 (IC-F1010) R376 (IC-F1020)



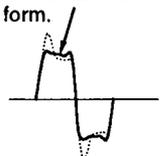
5-3 RECEIVER ADJUSTMENT

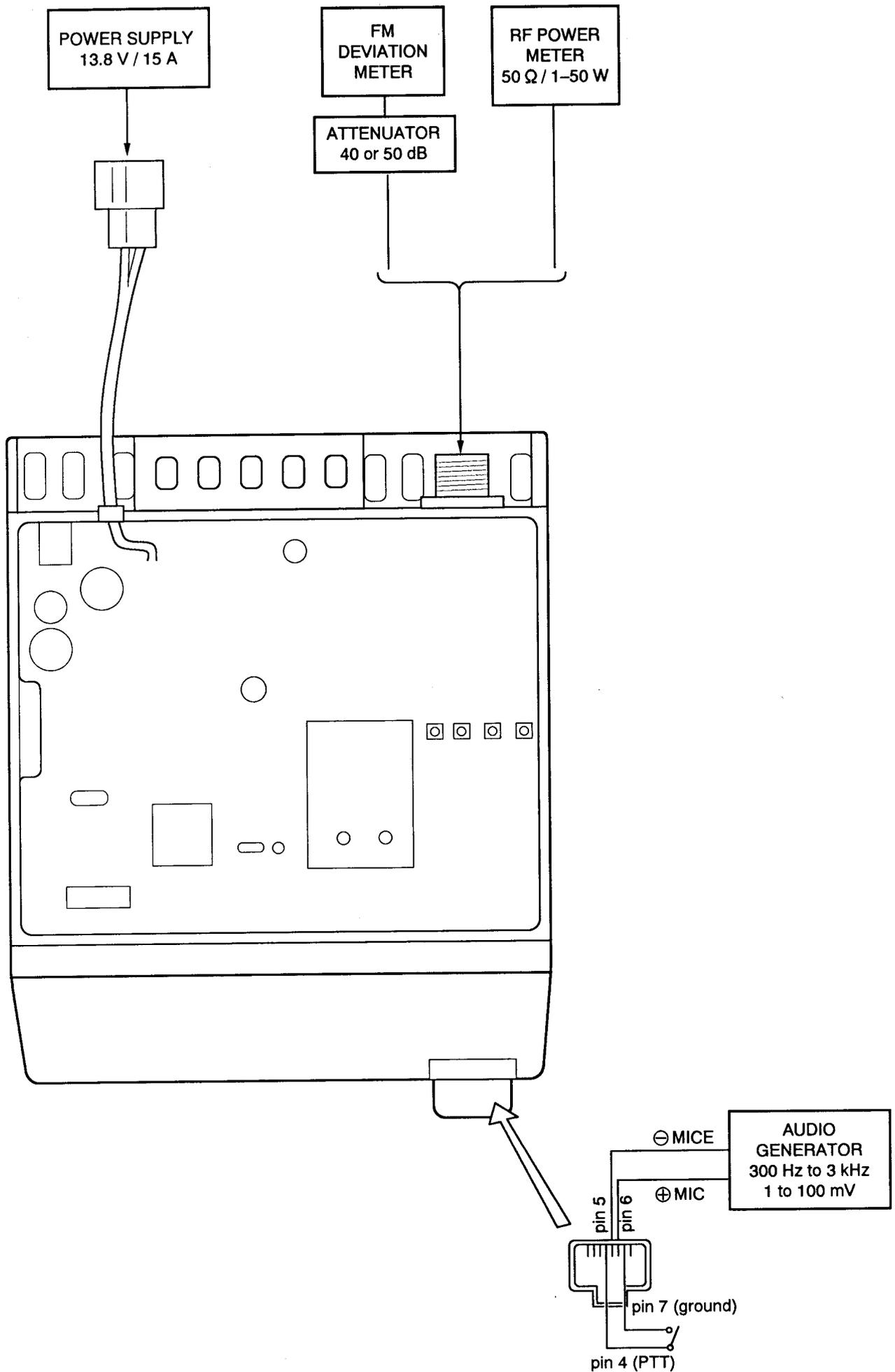
ADJUSTMENT		ADJUSTMENT CONDITIONS	MEASUREMENT METHOD	ADJUSTMENT	
				VALUE	METHOD
RECEIVER SENSITIVITY	1	<ul style="list-style-type: none"> Operating frequency : 136.000 MHz Connect the SSG to the antenna connector and set as: Level : 5.6 μV* (- 92 dBm) Modulation : OFF Connect a 4 Ω load to the external speaker jack. Enter <i>Initial Set Mode No. 5</i> Refer to p. 5-1 for details. Receiving 	Number digits in the LCD 	Maximum indication	In sequence adjust L9, L11, L12, L13 on the MAIN unit
NOISE SQUELCH THRESHOLD POINT	1	<ul style="list-style-type: none"> Make sure no signal is being applied to the antenna connector. Enter <i>Initial set mode No. 2</i> Refer to p. 5-1 for details. Operating frequency : Any Receiving 	Speaker output	Audio noise just disappears.	Rotate volume control while pushing [P2].
	2	<ul style="list-style-type: none"> Connect the SSG to the antenna connector and set as: Level : 0.25 μV* (- 119 dBm) Deviation : \pm 3.5 kHz (wide-type) \pm 1.75 kHz (narrow-type) Modulation: 1 kHz 		Squelch opens	Verify
BEEP LEVEL	1	<ul style="list-style-type: none"> Enter <i>Initial set mode No. 3</i> Refer to p. 5-1 for details. Operating frequency : Any Receiving 	Speaker output	Desired level.	Rotate volume control while pushing [P3].

* This output level of the standard signal generator (SSG) is indicated as SSG's open circuit.



5-4 TRANSMITTER ADJUSTMENT

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT METHOD	ADJUSTMENT	
			VALUE	METHOD
OUTPUT POWER	<ul style="list-style-type: none"> Operating frequency : 155.000 MHz (low-band type) 174.000 MHz (high-band type) Enter <i>Initial Set Mode</i> No. 6 Refer to p. 5-1 for details. 	Connect the RF power meter to the antenna connector.	23 W (IC-F1010) 45 W (IC-F1020)	Rotate volume control while pushing [P3].
			10 W (IC-F1010) 25 W (IC-F1020)	Rotate volume control while pushing [P2].
			2.5 W (IC-F1010) 4.5 W (IC-F1020)	Rotate volume control while pushing [P1].
NOTE: When the RF output power cannot be set with this procedure, cloning may be necessary to cancel the output power setting.				
FM DEVIATION	<ul style="list-style-type: none"> Operating frequency : 136.000 MHz (low-band type) 146.000 MHz (high-band type) Enter <i>Initial Set Mode</i> No. 4 Refer to p. 5-1 for details. Apply an AF signal to the [MIC] jack: 1 kHz / 35 mV (IC-F1010) 1 kHz / 50 mV (IC-F1020) Connect the FM deviation meter to the antenna connector and set as: HPF : OFF LPF : 20 kHz De-emphasis: OFF Detector : (P - P)/2 	Connect the FM deviation meter to the antenna connector through the attenuator.	<ul style="list-style-type: none"> ± 4.2 kHz (IC-F1010 wide-type) ± 2.1 kHz (IC-F1010 narrow-type) ± 4.1 kHz (IC-F1020 wide-type) 	Rotate volume control while pushing [P3].
DTCS TONE WAVE FORM AND DEVIATION	<ul style="list-style-type: none"> Operating frequency : 136.000 MHz (low-band type) 146.000 MHz (high-band type) Enter <i>Initial Set Mode</i> No. 4 Refer to p. 5-1 for details. No signal applied to the [MIC] jack. DTCS code : 007 	Connect the oscilloscope to the FM deviation meter.	Maximum wave form	Rotate volume control while pushing [P2].
			Set to flat wave form. 	Rotate volume control while pushing [P1].
			<ul style="list-style-type: none"> ± 0.5 kHz (wide-type) ± 0.3 kHz (narrow-type) 	Rotate volume control while pushing [P2].
CTCSS TONE DEVIATION	<ul style="list-style-type: none"> Operating frequency : 136.000 MHz (low-band type) 146.000 MHz (high-band type) Enter <i>Initial Set Mode</i> No. 4 Refer to p. 5-1 for details. No signal applied to the [MIC] jack. CTCSS tone frequency: 88.5 Hz 	Connect the FM deviation meter to the antenna connector through the attenuator.	<ul style="list-style-type: none"> ± 0.5 kHz (wide-type) ± 0.3 kHz (narrow-type) 	Rotate volume control while pushing [P2].



SECTION 6 PARTS LIST

[FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
IC1	1140005590	S.IC	HD404812D89H
IC3	1110001550	S.IC	S-8054ALB-LM-T1
IC4	1110003390	S.IC	AN8005M-(E1)
Q1	1590001330	S.TRANSISTOR DTA114EU T107	
Q2	1590000680	S.TRANSISTOR DTC114EU T107	
Q3	1590000680	S.TRANSISTOR DTC114EU T107	
Q4	1590000680	S.TRANSISTOR DTC114EU T107	
Q5	1530002060	S.TRANSISTOR 2SC4081 T107 R	
Q6	1590001330	S.TRANSISTOR DTA114EU T107	
D1	1750000390	S.DIODE	1SS353 TE-17
D2	1750000390	S.DIODE	1SS353 TE-17
D3	1750000130	S.DIODE	DA204U T107
D4	1750000130	S.DIODE	DA204U T107
D5	1750000390	S.DIODE	1SS353 TE-17
X1	6060000600	S.CERAMIC	PBRC 3.68 AR
L1	6200003960	S.COIL	MLF1608A 1R0K-T
L3	6200003540	S.COIL	MLF1608D R22K-T
R1	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 k Ω)
R3	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 k Ω)
R4	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 k Ω)
R5	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 k Ω)
R6	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 k Ω)
R7	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 k Ω)
R10	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R11	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R13	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 M Ω)
R14	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 k Ω)
R15	7030003630	S.RESISTOR	ERJ3GEYJ 393 V (39 k Ω)
R16	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 k Ω)
R17	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 k Ω)
R18	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
R20	7210002830	VARIABLE	EVU-F2JFK4 B14
R21	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k Ω)
R22	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k Ω)
R26	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 k Ω)
R27	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k Ω)
R28	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k Ω)
R29	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k Ω)
R30	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k Ω)
R31	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k Ω)
R32	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k Ω)
R40	7030000310	S.RESISTOR	MCR10EZHJ 270 Ω (271)
R41	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 k Ω)
R42	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 k Ω)
R43	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 k Ω)
R44	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R45	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 k Ω)
R46	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 k Ω)
R47	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 k Ω)
R48	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 k Ω)
R49	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 k Ω)
R50	7510000200	S.THERMISTOR	TN20-3U473LT
R51	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 k Ω)
R52	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 k Ω)
R53	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 k Ω)
C3	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C4	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C5	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A

[FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
C6	4030008560	S.CERAMIC	C1608 CH 1H 300J-T-A
C7	4030008560	S.CERAMIC	C1608 CH 1H 300J-T-A
C8	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C9	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C10	4510004440	S.Electrolitic	ECEV1HA010SR
C11	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C12	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C13	4550008250	S.TANTALUM	TEMSVA 1A 106M-8L
C15	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C16	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C18	4030010740	S.CERAMIC	C1608 JB 1A 104K-T-A
C19	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C20	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C21	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C22	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C23	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C24	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C25	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C26	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C27	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C28	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C30	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C31	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C32	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C33	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C34	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C35	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
DS1	5030001300	LCD	LD-BU4404E
DS2	5040002030	S.LED	CL-170Y-CD-T
DS3	5040002030	S.LED	CL-170Y-CD-T
DS4	5040002030	S.LED	CL-170Y-CD-T
DS5	5040002030	S.LED	CL-170Y-CD-T
DS6	5040002030	S.LED	CL-170Y-CD-T
DS7	5040002030	S.LED	CL-170Y-CD-T
J1	6510018030	S.CONNECTOR	53248-1217
J2	6450001470	CONNECTOR	95003-2881
W1	7120000380	JUMPER	JPW 01 R-01
W2	7120000380	JUMPER	JPW 01 R-01
W3	7030003860	S.JUMPER	ERJ3GE JPW V
SP1	2510000880	SPEAKER	SME-45W
EP1	0910045653	PCB	B 4565C
EP2	8930037960	LCD CONTACT	SRCN-1705 ZSS

Ⓟ: PMR only; Ⓛ: LMR only S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
IC1	1110003570	S.IC MC3372VMEL
IC2	1130007370	S.IC TA75S558F(TE85L)
IC3	1130007090	S.IC TA75W558FU(TE12L)
IC4	1130007090	S.IC TA75W558FU(TE12L)
IC5	1190000350	S.IC M62363FP-650C
IC7	1110003300	S.IC M5282FP 70CD
IC8	1110003090	IC LA4425A
IC9	1130007090	S.IC TA75W558FU(TE12L)
IC10	1110003800	S.IC NJM2904V-TE1
IC11	1150001720	IC SC-1321 [PMR L-band]
	1150001040	IC SC-1188 [PMR H-band]
	1150001760	IC M68702L [LMR L-band]
	1150001750	IC M68702H [LMR H-band]
IC12	1130007970	S.IC MC145190FR2
IC13	1130007300	S.IC TC4W66FU(TE12L)
IC16	1180001250	S.IC TA7808F(TE16L)
IC17	1180000970	S.IC AN78L05M-(E1)
IC18	1130007110	S.IC TC7W04FU(TE12L)
IC19	1110001550	S.IC S-8054ALB-LM-T1
IC20	1140005580	S.IC HD6433875NA04H
IC21	1130006920	S.IC TA75W01FU (TE12L)
IC22	1110003410	S.IC μ PC5023GR-043-GJG-T2
IC25	1130007300	S.IC TC4W66FU(TE12L)
IC26	1130007110	S.IC TC7W04FU(TE12L)
IC27	1190000340	S.IC X25180SI
IC28	1110004050	S.IC NJM3404AV-TE1
IC29	1110002750	S.IC TA75S01F (TE85R)
Q1	1580000590	S.FET 3SK166-0-T7
Q2	1580000590	S.FET 3SK166-0-T7
Q3	1530003420	S.TRANSISTOR 2SC5110-O (TE85R)
Q4	1530002600	S.TRANSISTOR 2SC4215-O (TE85R)
Q5	1530002080	S.TRANSISTOR 2SC4081 T107 R
Q6	1590000680	S.TRANSISTOR DTC114EU T107
Q7	1590000990	S.TRANSISTOR DTC363EK T147
Q8	1590000680	S.TRANSISTOR DTC114EU T107
Q9	1530002080	S.TRANSISTOR 2SC4081 T107 R
Q10	1530002080	S.TRANSISTOR 2SC4081 T107 R
Q11	1550000020	S.FET 2SJ377 (TE16R)
Q12	1550000020	S.FET 2SJ377 (TE16R)
Q14	1590000680	S.TRANSISTOR DTC114EU T107
Q15	1530003290	S.TRANSISTOR 2SC4703-T2 SE
Q16	1530003420	S.TRANSISTOR 2SC5110-O (TE85R)
Q17	1530003420	S.TRANSISTOR 2SC5110-O (TE85R)
Q18	1530003420	S.TRANSISTOR 2SC5110-O (TE85R)
Q19	1530003420	S.TRANSISTOR 2SC5110-O (TE85R)
Q20	1530003420	S.TRANSISTOR 2SC5110-O (TE85R)
Q21	1530002920	S.TRANSISTOR 2SC4226-T2 R25
Q22	1590000680	S.TRANSISTOR DTC114EU T107
Q23	1530003420	S.TRANSISTOR 2SC5110-O (TE85R)
Q24	1590000680	S.TRANSISTOR DTC114EU T107
Q25	1580000680	S.TRANSISTOR DTC114EU T107
Q26	1590001330	S.TRANSISTOR DTA114EU T107
Q27	1590001330	S.TRANSISTOR DTA114EU T107
Q28	1590001330	S.TRANSISTOR DTA114EU T107
Q29	1580000810	S.FET 2SK1069-4-TR
Q30	1590002290	S.TRANSISTOR FMS2A T148
Q31	1590002300	S.TRANSISTOR FMW2 T148
Q32	1530002080	S.TRANSISTOR 2SC4081 T107 R
Q33	1510000510	S.TRANSISTOR 2SA1576 T107 R
Q34	1530002080	S.TRANSISTOR 2SC4081 T107 R
Q35	1530002080	S.TRANSISTOR 2SC4081 T107 R
Q36	1540000550	S.TRANSISTOR 2SD1664 T100Q
Q37	1590000680	S.TRANSISTOR DTC114EU T107
Q38	1540000550	S.TRANSISTOR 2SD1664 T100Q
Q39	1590000680	S.TRANSISTOR DTC114EU T107
Q40	1540000550	S.TRANSISTOR 2SD1664 T100Q
Q41	1590000680	S.TRANSISTOR DTC114EU T107
Q42	1520000560	S.TRANSISTOR 2SB1123T-TD
Q43	1530002080	S.TRANSISTOR 2SC4081 T107 R
Q44	1560000810	S.FET 2SK1069-4-TR

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
Q45	1590000680	S.TRANSISTOR DTC114EU T107
Q47	1590000680	S.TRANSISTOR DTC114EU T107
Q48	1530002080	S.TRANSISTOR 2SC4081 T107 R
Q49	1590000680	S.TRANSISTOR DTC114EU T107
Q50	1590001330	S.TRANSISTOR DTA114EU T107
Q51	1590000680	S.TRANSISTOR DTC114EU T107
Q52	1580000810	S.FET 2SK1069-4-TR
Q54	1590000680	S.TRANSISTOR DTC114EU T107
Q55	1530002080	S.TRANSISTOR 2SC4081 T107 R
Q56	1590001330	S.TRANSISTOR DTA114EU T107
Q57	1590001330	S.TRANSISTOR DTA114EU T107
Q58	1590000680	S.TRANSISTOR DTC114EU T107
Q60	1590001390	S.FET 2SJ144-Y (TE85R)
D1	1790001210	S.DIODE 1SS375-TR
D3	1790001210	S.DIODE 1SS375-TR
D4	1750000510	S.DIODE UM9401F [PMR]
	1710000310	DIODE MI407 [LMR]
D5	1710000730	S.DIODE MI809-T11
D6	1710000730	S.DIODE MI809-T11
D8	1720000270	S.VARICAP 1SV217 (TPH2)
D9	1720000270	S.VARICAP 1SV217 (TPH2)
D10	1720000270	S.VARICAP 1SV217 (TPH2)
D11	1720000270	S.VARICAP 1SV217 (TPH2)
D14	1720000180	S.VARICAP 1SV164-T2B
D15	1790000700	DIODE DSA3A1
D16	1750000370	S.DIODE DA221 TL
D17	1790000620	S.DIODE MA77(TW)
D18	1790000620	S.DIODE MA77(TW)
D19	1720000270	S.VARICAP 1SV217 (TPH2)
D20	1720000270	S.VARICAP 1SV217 (TPH2)
D21	1720000270	S.VARICAP 1SV217 (TPH2)
D22	1720000270	S.VARICAP 1SV217 (TPH2)
D23	1720000260	S.VARICAP 1SV214 (TPH2)
D27	1750000130	S.DIODE DA204U T107
D28	1750000220	S.DIODE DA113W T107 [PMR]
	1750000130	S.DIODE DA204U T107 [LMR]
D29	1750000130	S.DIODE DA204U T107
D30	1750000390	S.DIODE 1SS353 TE-17
D31	1750000390	S.DIODE 1SS353 TE-17
D32	1750000130	S.DIODE DA204U T107
D33	1730002420	S.ZENER MA8160(TX)
D35	1750000390	S.DIODE 1SS353 TE-17
D36	1750000390	S.DIODE 1SS353 TE-17
D37	1750000390	S.DIODE 1SS353 TE-17
D38	1750000390	S.DIODE 1SS353 TE-17
D40	1720000270	S.VARICAP 1SV217 (TPH2)
D41	1720000270	S.VARICAP 1SV217 (TPH2)
D42	1720000270	S.VARICAP 1SV217 (TPH2)
D43	1720000270	S.VARICAP 1SV217 (TPH2)
D44	1720000360	S.DIODE HSU88TRF
D45	1750000390	S.DIODE 1SS353 TE-17
D46	1720000260	S.VARICAP 1SV214 (TPH2)
D49	1160000060	S.DIODE DAN202U T107
D50	1750000390	S.DIODE 1SS353 TE-17
D51	1750000390	S.DIODE 1SS353 TE-17
FI1	2010001710	XTAL FL-210 (21.80MHz) [Wide]
	2010001790	XTAL FL-224 (21.80MHz) [Nar]
FI2	2020001040	CERAMIC CFWS455E [Wide]
	2020001030	CERAMIC CFWS455G [Nar]
X1	6050009060	XTAL CR-488 (21.345MHz)
X2	6070000170	S.Discriminator CDBC455CX16-TC
X3	6050009310	XTAL CR-507 (12.7982MHz) [PMR]
	6050009630	S.XTAL CR-541 (12.8MHz) [LMR]
X4	6050008840	S.XTAL CR-463 (6.8MHz)
L1	6110003130	COIL LA-504
L2	6110003130	COIL LA-504
L3	6110003120	COIL LA-503

Ⓢ: PMR only; Ⓛ: LMR only S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
L4	6200003850	S.COIL 36CS-856LZ-09K-P3
L5	6200003850	S.COIL 36CS-856LZ-09K-P3
L6	6170000230	COIL LW-25
L7	6110003130	COIL LA-504
L9	6200004880	S.COIL MC152-E558CNA-100036
L10	6200004230	S.COIL ELJNC R58K-F
L11	6200004880	S.COIL MC152-E558CNA-100036
L12	6200004880	S.COIL MC152-E558CNA-100036
L13	6200004880	S.COIL MC152-E558CNA-100036
L15	6200002790	S.COIL ELJFC R82M-F
L16	6200001920	S.COIL ELJNC R15K-F
L17	6200003870	S.COIL ELJNC 88NK-F
L18	6200004880	S.COIL ELJFC 3R3K-F
L19	6200002940	S.COIL ELJFC 1R2K-F
L23	6200001770	S.COIL ELJNC 47NK-F
L24	6200001770	S.COIL ELJNC 47NK-F
L25	6200003870	S.COIL ELJNC 88NK-F
L26	6200004230	S.COIL ELJNC R58K-F
L27	6200002160	S.COIL ELJNC 82NK-F
L29	6200004880	S.COIL ELJFC 3R3K-F
L30	6200004230	S.COIL ELJNC R58K-F
L31	6200001770	S.COIL ELJNC 47NK-F
L32	6200002160	S.COIL ELJNC 82NK-F
L33	6200002160	S.COIL ELJNC 82NK-F
L35	6200004880	S.COIL ELJFC 3R3K-F
L37	6200004880	S.COIL ELJFC 3R3K-F
L38	6200004850	S.COIL MC152-E558CN-100024
L39	6200004880	S.COIL ELJFC 3R3K-F
L40	6200004990	S.COIL LQH 1N R88M
L41	6200002940	S.COIL ELJFC 1R2K-F
L42	6200004880	S.COIL ELJFC 3R3K-F
L43	6200004980	S.COIL MC152-E558CN-100023
L44	6200004230	S.COIL ELJNC R58K-F
L45	6200004440	S.COIL ELJFC 4R7M-F
L46	6200004230	S.COIL ELJNC R58K-F
L47	6200004230	S.COIL ELJNC R58K-F
L48	6200004230	S.COIL ELJNC R58K-F
L50	6200004230	S.COIL ELJNC R58K-F
L51	6200001770	S.COIL ELJNC 47NK-F
L52	6200003300	S.COIL ELJNC R22K-F
L53	6200005130	S.COIL NLC453232T-101K
L54	6200004230	S.COIL ELJNC R58K-F
L55	6200003960	S.COIL MLF1608A 1R0K-T
L56	6200003960	S.COIL MLF1608A 1R0K-T
L57	6200003960	S.COIL MLF1608A 1R0K-T
L58	6200003960	S.COIL MLF1608A 1R0K-T
L59	6200003960	S.COIL MLF1608A 1R0K-T
L60	6200003960	S.COIL MLF1608A 1R0K-T
L62	6200003960	S.COIL MLF1608A 1R0K-T
L63	6200003960	S.COIL MLF1608A 1R0K-T
L64	6200004470	S.COIL MLF1608D R12K-T
R1	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R2	7030004050	S.RESISTOR ERJ3GEYJ 1R0 V (1 Ω)
R4	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R5	7030004050	S.RESISTOR ERJ3GEYJ 1R0 V (1 Ω)
R7	7030001170	S.RESISTOR MCR50JZHJ 220 Ω (221)
R8	7030001170	S.RESISTOR MCR50JZHJ 220 Ω (221)
R11	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R12	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R13	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R14	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R15	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
		[Wide]
	7030003350	S.RESISTOR ERJ3GEYJ 181 V (180 Ω)
		[Nar]
R16	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R17	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R18	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R19	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R20	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R21	7030003300	S.RESISTOR ERJ3GEYJ 680 V (68 Ω)
R22	7030003230	S.RESISTOR ERJ3GEYJ 180 V (18 Ω)
R23	7030003370	S.RESISTOR ERJ3GEYJ 271 V (270 Ω)
R24	7030003370	S.RESISTOR ERJ3GEYJ 271 V (270 Ω)

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R25	7030003370	S.RESISTOR ERJ3GEYJ 271 V (270 Ω)
R26	7030003360	S.RESISTOR ERJ3GEYJ 221 V (220 Ω)
R27	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ)
R28	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R29	7030003480	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
		[Wide]
	7030003430	S.RESISTOR ERJ3GEYJ 821 V (820 Ω)
		[Nar]
R30	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R31	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R32	7030003870	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R33	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R34	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R35	7030003870	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R36	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R37	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R38	7030003470	S.RESISTOR ERJ3GEYJ 182 V (1.8 kΩ)
R39	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R40	7030003420	S.RESISTOR ERJ3GEYJ 681 V (680 Ω)
		[Wide]
	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
		[Nar]
R41	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R42	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R44	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R45	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
		[Wide]
	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
		[Nar]
R46	7510000430	S.THERMISTOR TN20-3K202LT
R47	7030003480	S.RESISTOR ERJ3GEYJ 272 V (2.7 kΩ)
		[Wide]
	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
		[Nar]
R48	7030003430	S.RESISTOR ERJ3GEYJ 821 V (820 Ω)
R49	7030004050	S.RESISTOR ERJ3GEYJ 1R0 V (1 Ω)
R51	7030004270	S.RESISTOR ERJ3EKF 4121 V (4.12 kΩ)
R52	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R53	7030005490	S.RESISTOR RR0818R-363-D (36 kΩ)
R56	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R57	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R58	7030003870	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R59	7030003870	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R60	7030003870	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R61	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R62	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R63	7030004850	S.RESISTOR ERJ3GEYF 913 V (91 kΩ)
R65	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R67	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R68	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R69	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R70	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R71	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R73	7030003670	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R74	7030003870	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R77	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R80	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R81	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R85	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R86	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R87	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R88	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R89	7030003800	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R90	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R92	7030003870	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R93	7030003480	S.RESISTOR ERJ3GEYJ 272 V (2.7 kΩ)
R94	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R95	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R96	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R97	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R98	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R99	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
		[PMR]
	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
		[LMR]
R100	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)

Ⓢ: PMR only; Ⓛ: LMR only S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R101	7030003810	S.RESISTOR ERJ3GEYJ 125 V (1.2 M Ω) [PMR]
	7030003790	S.RESISTOR ERJ3GEYJ 824 V (820 k Ω) [LMR]
R102	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 k Ω)
R103	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 k Ω)
R107	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R108 \oplus	7030000100	S.RESISTOR MCR10EZHZ 4.7 Ω (4R7)
R109	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 k Ω)
R110	7030003410	S.RESISTOR ERJ3GEYJ 581 V (580 Ω)
R111	7030000180	S.RESISTOR MCR10EZHZ 22 Ω (220) [PMR]
	7030000220	S.RESISTOR MCR10EZHZ 47 Ω (470) [LMR]
R113	7030003240	S.RESISTOR ERJ3GEYJ 220 V (22 Ω)
R114	7030003240	S.RESISTOR ERJ3GEYJ 220 V (22 Ω)
R115	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 k Ω)
R116	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R117	7030003470	S.RESISTOR ERJ3GEYJ 182 V (1.8 k Ω)
R118	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R119	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 k Ω)
R120	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 k Ω)
R121	7030003530	S.RESISTOR ERJ3GEYJ 582 V (5.8 k Ω)
R122	7030003230	S.RESISTOR ERJ3GEYJ 180 V (18 Ω)
R123	7030003370	S.RESISTOR ERJ3GEYJ 271 V (270 Ω)
R124	7030003370	S.RESISTOR ERJ3GEYJ 271 V (270 Ω)
R125	7030003420	S.RESISTOR ERJ3GEYJ 681 V (680 Ω)
R126	7030003680	S.RESISTOR ERJ3GEYJ 683 V (68 k Ω)
R127	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R128	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R129	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 k Ω)
R130	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R131	7030003360	S.RESISTOR ERJ3GEYJ 221 V (220 Ω)
R132	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 k Ω)
R133	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R134	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R135	7030003530	S.RESISTOR ERJ3GEYJ 582 V (5.8 k Ω)
R136	7030004040	S.RESISTOR ERJ3GEYJ 4R7 V (4.7 Ω)
R137	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 k Ω)
R138	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R139	7030003530	S.RESISTOR ERJ3GEYJ 582 V (5.8 k Ω)
R140	7030004040	S.RESISTOR ERJ3GEYJ 4R7 V (4.7 Ω)
R141	7030003430	S.RESISTOR ERJ3GEYJ 821 V (820 Ω)
R142	7510000780	S.THERMISTOR NTCCF2012 35H 333KC-T
R143	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R145	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R146	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R147	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R148	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R150	7030003740	S.RESISTOR ERJ3GEYJ 334 V (330 k Ω)
R151	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R152	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 k Ω)
R153	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 k Ω)
R154	7030003420	S.RESISTOR ERJ3GEYJ 681 V (680 Ω)
R155	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 k Ω)
R156	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 M Ω)
R157	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 M Ω)
R158	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 k Ω)
R159	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 k Ω)
R160	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 k Ω)
R162	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R163	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R167 \oplus	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 k Ω)
R168 \oplus	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 k Ω)
R169	7030003370	S.RESISTOR ERJ3GEYJ 271 V (270 Ω) [PMR]
	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 k Ω) [LMR]
R170 \ominus	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 k Ω)
R171	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 k Ω)
R172	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R173	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R174 \oplus	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 k Ω)
R175 \oplus	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R176 \oplus	7030003530	S.RESISTOR ERJ3GEYJ 582 V (5.8 k Ω)

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R177 \oplus	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 k Ω)
R178 \oplus	7510000430	S.Thermistor TN20-3K202LT
R179 \oplus	7510000430	S.Thermistor TN20-3K202LT
R180 \oplus	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R181 \oplus	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 k Ω)
R182 \oplus	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 k Ω)
R183 \oplus	7030003700	S.RESISTOR ERJ3GEYJ 154 V (150 k Ω)
R184	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R185	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 k Ω)
R186	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 k Ω)
R187	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 k Ω)
R188	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 k Ω) [Wide]
	7030003570	S.RESISTOR ERJ3GEYJ 123 V (12 k Ω) [Nar]
R189	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 k Ω)
R190	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 k Ω)
R191	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R192	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 k Ω)
R193	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R194	7030003450	S.RESISTOR ERJ3GEYJ 122 V (1.2 k Ω)
R195	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 k Ω)
R196	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 k Ω)
R197	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 k Ω)
R199	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 k Ω)
R200	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R201	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 k Ω)
R202	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R203	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R204	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 k Ω)
R205	7030003540	S.RESISTOR ERJ3GEYJ 682 V (6.8 k Ω)
R206	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 k Ω)
R208	7030000460	S.RESISTOR MCR10EZHZ 4.7 k Ω (472)
R209	7030000460	S.RESISTOR MCR10EZHZ 4.7 k Ω (472)
R210	7030000460	S.RESISTOR MCR10EZHZ 4.7 k Ω (472)
R211	7030000480	S.RESISTOR MCR10EZHZ 4.7 k Ω (472)
R212	7030000460	S.RESISTOR MCR10EZHZ 4.7 k Ω (472)
R213	7030000480	S.RESISTOR MCR10EZHZ 4.7 k Ω (472)
R215	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 k Ω)
R216	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 k Ω)
R217	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 k Ω)
R218	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 k Ω)
R219	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R220	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 k Ω)
R221	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 M Ω)
R222	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 k Ω)
R224	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R228	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R230	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 k Ω)
R231	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 k Ω)
R232	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 k Ω)
R238	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R239	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R240	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 k Ω)
R242	7030003470	S.RESISTOR ERJ3GEYJ 182 V (1.8 k Ω)
R243	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 k Ω)
R244	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 k Ω)
R245	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 k Ω)
R246	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 k Ω) [Wide]
	7030003650	S.RESISTOR ERJ3GEYJ 583 V (58 k Ω) [Nar]
R247	7030003700	S.RESISTOR ERJ3GEYJ 154 V (150 k Ω)
R248	7030003700	S.RESISTOR ERJ3GEYJ 154 V (150 k Ω)
R249	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 k Ω)
R250	7030003670	S.RESISTOR ERJ3GEYJ 823 V (82 k Ω)
R251	7030003410	S.RESISTOR ERJ3GEYJ 581 V (580 Ω)
R255	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 k Ω)
R256	7030003750	S.RESISTOR ERJ3GEYJ 394 V (390 k Ω) [PMR]
	7030003730	S.RESISTOR ERJ3GEYJ 274 V (270 k Ω) [LMR]
R257	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 k Ω)
R258	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 k Ω)
R259	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 k Ω)
R260	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)

\oplus : PMR only; \ominus : LMR only S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R261	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R262	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R263	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R267	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R268	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R269	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R270	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R271	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R272	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R273	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R274	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R275	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R276	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R277	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R278	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R280	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R281	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R282	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R283	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R284	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R285	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R286	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R291	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R292	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R293	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R294	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R295	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R296	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R297	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R298	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R299	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R300	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R301	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R302	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R303	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R304	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R305	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R306	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R307	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R308	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R309	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R310	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R312	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R313	7030003730	S.RESISTOR ERJ3GEYJ 274 V (270 kΩ)
R314	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R315	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ) [LMR]
R316	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R317	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R319	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R320	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R321	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R322	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R323	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R324	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R325	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R326	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R327	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R328	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R329	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R330	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R331	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R333	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R335	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R336	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R337	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R33	7030003650	S.RESISTOR ERJ3GEYJ 563 V (56 kΩ)
R339	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 kΩ)
R340	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R341	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R342	7030003650	S.RESISTOR ERJ3GEYJ 563 V (56 kΩ)
R344	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R345	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R348	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 kΩ)

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R349	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R350	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R351	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R352	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R353	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R354	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R355	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R356	7030003810	S.RESISTOR ERJ3GEYJ 125 V (1.2 MΩ)
R357	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R359	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R360	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R361	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ) [PMR]
	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ) [LMR]
R362	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R363	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R364	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R365	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R366	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R368	7520000140	S.POSISTOR PT72 2B 70C TE
R369	7510000620	S.THERMISTOR TN20-4C104LT
R370	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 kΩ)
R371	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R372	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R373	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R374	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R375	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R376	7310003590	S.TRIMMER EVM-1XSX50 B24 (203)
R377	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 kΩ)
R378	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R379	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R380	7030003670	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R381	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R382	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R385	7030003430	S.RESISTOR ERJ3GEYJ 821 V (820 Ω) [Wide]
	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω) [Nar]
R386	7030000180	S.RESISTOR MCR10EZHZ 22 Ω (220) [PMR]
	7030000220	S.RESISTOR MCR10EZHZ 47 Ω (470) [LMR]
R387	7030003450	S.RESISTOR ERJ3GEYJ 122 V (1.2 kΩ)
R388	7510000860	S.THERMISTOR NTCCF2012 3FH 222KC-T
R389	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R390	7030005350	S.RESISTOR RR0816P-182-D (1.8 kΩ)
R392	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R396	7030000200	S.RESISTOR MCR10EZHZ 33 Ω (330)
R397	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R398	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R399	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R400	7030003450	S.RESISTOR ERJ3GEYJ 122 V (1.2 kΩ)
R401	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R402	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)

Ⓢ: PMR only; Ⓛ: LMR only S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C2	4030011160	S.CERAMIC GRM42-6 CH 150J 500PT [PMR], [LMR H-band]
	4030011170	S.CERAMIC GRM42-6 CH 180J 500PT [LMR L-band]
C3	4030011210	S.CERAMIC GRM42-6 CH 330J 500PT [PMR]
	4030011190	S.CERAMIC GRM42-6 CH 270J 500PT [LMR]
C4	4030006850	S.CERAMIC C1808 JB 1H 471K-T-A
C5	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C6	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C7	4030006850	S.CERAMIC C1808 JB 1H 471K-T-A
C8	4030011210	S.CERAMIC GRM42-6 CH 330J 500PT [PMR]
	4030011160	S.CERAMIC GRM42-6 CH 150J 500PT [LMR H-band]
	4030011170	S.CERAMIC GRM42-6 CH 180J 500PT [LMR L-band]
C9	4030011100	S.CERAMIC GRM42-6 CH 080D 500PT [PMR L-band], [LMR]
	4030011080	S.CERAMIC GRM42-6 CH 060D 500PT [PMR H-band]
C10	4030011170	S.CERAMIC GRM42-6 CH 180J 500PT [PMR], [LMR L-band]
	4030011160	S.CERAMIC GRM42-6 CH 150J 500PT [LMR H-band]
C11	4030011240	S.CERAMIC GRM42-6 CH 470J 500PT [PMR]
	4030011210	S.CERAMIC GRM42-6 CH 330J 500PT [LMR]
C13	4030006850	S.CERAMIC C1808 JB 1H 471K-T-A
C14	4510004850	S.Electrolitic ECEV1EA4R7SR
C15	4030011160	S.CERAMIC GRM42-6 CH 150J 500PT [PMR]
	4030011170	S.CERAMIC GRM42-6 CH 180J 500PT [LMR H-band]
	4030011180	S.CERAMIC GRM42-6 CH 220J 500PT [LMR L-band]
C16	4030011170	S.CERAMIC GRM42-6 CH 180J 500PT [PMR], [LMR L-band]
	4030011160	S.CERAMIC GRM42-6 CH 150J 500PT [LMR H-band]
C17	4030011180	S.CERAMIC GRM42-6 CH 220J 500PT
C18	4030007030	S.CERAMIC C1808 CH 1H 150J-T-A
C19	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C20	4030006940	S.CERAMIC C1808 CH 1H 030C-T-A[PMR]
	4030009530	S.CERAMIC C1808 CH 1H 030B-T-A[LMR]
C23	4030009530	S.CERAMIC C1808 CH 1H 030B-T-A [Wide]
	4030006930	S.CERAMIC C1808 CH 1H 020C-T-A [Nar]
C24	4030006930	S.CERAMIC C1808 CH 1H 020C-T-A
C25	4030008560	S.CERAMIC C1808 CH 1H 300J-T-A
C26	4030006850	S.CERAMIC C1808 JB 1H 471K-T-A
C27	4030006970	S.CERAMIC C1808 CH 1H 080D-T-A
C28	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C29	4030006850	S.CERAMIC C1808 JB 1H 471K-T-A
C30	4030007060	S.CERAMIC C1808 CH 1H 270J-T-A
C31	4030006930	S.CERAMIC C1808 CH 1H 020C-T-A
C32	4030007070	S.CERAMIC C1808 CH 1H 330J-T-A
C33	4030006970	S.CERAMIC C1808 CH 1H 080D-T-A
C34	4030009510	S.CERAMIC C1808 CH 1H 010B-T-A
C35	4030009530	S.CERAMIC C1808 CH 1H 030B-T-A [Wide]
	4030006930	S.CERAMIC C1808 CH 1H 020C-T-A [Nar]
C36	4030006980	S.CERAMIC C1808 CH 1H 070D-T-A
C37	4030007070	S.CERAMIC C1808 CH 1H 330J-T-A
C39	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C40	4030006990	S.CERAMIC C1808 CH 1H 080D-T-A
C41	4030006980	S.CERAMIC C1808 CH 1H 070D-T-A[Wide]
	4030007020	S.CERAMIC C1808 CH 1H 120J-T-A [Nar]
C42	4030007060	S.CERAMIC C1808 CH 1H 270J-T-A
C43	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C44	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C45	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C46	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C47	4030007000	S.CERAMIC C1808 CH 1H 090D-T-A
C48	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C49	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C50	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C51	4030007110	S.CERAMIC C1808 CH 1H 680J-T-A
C52	4030007140	S.CERAMIC C1808 CH 1H 121J-T-A
C53	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C54	4030007090	S.CERAMIC C1808 CH 1H 470J-T-A
C55	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C56	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C57	4030010740	S.CERAMIC C1808 JB 1A 104K-T-A
C58	4030010740	S.CERAMIC C1808 JB 1A 104K-T-A
C59	4030007140	S.CERAMIC C1808 CH 1H 121J-T-A
C60	4030011310	S.CERAMIC C2012 JB 1A 564K-T-A
C61	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C62	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A [Wide]
	4030007160	S.CERAMIC C1808 CH 1H 181J-T-A [Nar]
C63	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A [Wide]
	4030007160	S.CERAMIC C1808 CH 1H 181J-T-A [Nar]
C64	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A [PMR]
	4030007160	S.CERAMIC C1808 CH 1H 181J-T-A [LMR]
C65	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C66	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C67	4030008920	S.CERAMIC C1808 JB 1C 473K-T-A
C68	4030008920	S.CERAMIC C1808 JB 1C 473K-T-A
C69	4030008920	S.CERAMIC C1808 JB 1C 473K-T-A
C70	4030008920	S.CERAMIC C1808 JB 1C 473K-T-A
C71	4030008920	S.CERAMIC C1808 JB 1C 473K-T-A
C72	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C73	4030010740	S.CERAMIC C1808 JB 1A 104K-T-A
C74	4030010740	S.CERAMIC C1808 JB 1A 104K-T-A
C75	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C76	4030008970	S.CERAMIC C2012 JB 1C 124K-T-A
C77	4030010040	S.CERAMIC C1808 JB 1H 561K-T-A
C78	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C79	4030010740	S.CERAMIC C1808 JB 1A 104K-T-A
C80	4030008910	S.CERAMIC C1808 JB 1C 393K-T-A
C81	4030009980	S.CERAMIC C1808 JB 1H 152K-T-A
C83	4030010740	S.CERAMIC C1808 JB 1A 104K-T-A
C84	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C85	4030008630	S.CERAMIC C1808 JF 1C 104Z-T-A
C86	4030010740	S.CERAMIC C1808 JB 1A 104K-T-A
C87	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C90	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C91	4030006860	S.CERAMIC C1808 JB 1H 472K-T-A
C92	4030010740	S.CERAMIC C1808 JB 1A 104K-T-A
C93	4510005290	S.Electrolitic ECEV1EA221P
C94	4510006260	S.Electrolitic ECEV1AA471UP
C95	4030010740	S.CERAMIC C1808 JB 1A 104K-T-A
C97	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C98	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C100	4030006840	S.CERAMIC C1808 SL 1H 391J-T-A
C101	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C102	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C103	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C104	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C105	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C106	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C107	4550003170	S.TANTALUM TEMSVA 1D 155M-8L
C108	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C112	4550003220	S.TANTALUM TEMSVA 1E 105M-8L
C115	4510004510	ELECTROLITIC 25 MV 470 HC
C116	4030006850	S.CERAMIC C1808 JB 1H 471K-T-A
C117	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C118	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C119	4510005750	S.Electrolitic ECEV1EA220SP
C121	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C122	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C123	4030007090	S.CERAMIC C1808 CH 1H 470J-T-A
C124	4510005750	S.Electrolitic ECEV1EA220SP
C125	4030007090	S.CERAMIC C1808 CH 1H 470J-T-A
C126	4030007020	S.CERAMIC C1808 CH 1H 120J-T-A
C127	4030007060	S.CERAMIC C1808 CH 1H 270J-T-A
C128	4030007020	S.CERAMIC C1808 CH 1H 120J-T-A
C129	4030007070	S.CERAMIC C1808 CH 1H 330J-T-A

Ⓢ: PMR only; Ⓛ: LMR only S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C130	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C131	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C132	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C133	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C134	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C135	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C136	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C137	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C138	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A
C139	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C140	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C141	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C142	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C143	4030007060	S.CERAMIC C1608 CH 1H 270J-T-A
C144	4030007060	S.CERAMIC C1608 CH 1H 270J-T-A
C145	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C146	4030007060	S.CERAMIC C1608 CH 1H 270J-T-A
C147	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C148	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C149	4030007040	S.CERAMIC C1608 CH 1H 180J-T-A
C150	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C151	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C152	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C153	4030006860	S.CERAMIC C1608 CH 1H 102K-T-A
C154	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C155	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C156	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C157	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C158	4030009500	S.CERAMIC C1608 CH 1H 0R5B-T-A
C159	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C160	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C161	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C162	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C163	4030009500	S.CERAMIC C1608 CH 1H 0R5B-T-A
C164	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C165	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C166	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C167	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C168	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A
C169	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C170	4030009850	S.CERAMIC C1608 CH 1H 240J-T-A
C171	4030007000	S.CERAMIC C1608 CH 1H 090D-T-A
C172	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C173	4030007110	S.CERAMIC C1608 CH 1H 680J-T-A
C174	4030009550	S.CERAMIC C1608 CH 1H 2R5B-T-A
C176	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A
C177	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C178	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C179	4550000550	S.TANTALUM TESVA 1V 224M1-8L
C181	4550003220	S.TANTALUM TEMSVA 1E 105M-8L
C182	4510004650	S.Electrolitic ECEV1EA4R7SR
C183	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C184	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C185	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C186	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C187	4510004630	S.Electrolitic ECEV1CA100SR
C189	4030007170	S.CERAMIC C1608 CH 1H 221J-T-A
C190	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C191	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C192	4030009540	S.CERAMIC C1608 CH 1H 1R5B-T-A
C193	4610001890	S.TRIMMER CTZ3E-20C-W1
C194	4030008560	S.CERAMIC C1608 CH 1H 300J-T-A
C195	4030008190	S.CERAMIC C1608 UJ 1H 040C-T-A
C196	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C197	4550002890	S.TANTALUM TEMSVA 1A 225M1-8L [PMR]
	4550006250	S.TANTALUM TEMSVA 1A 106M-8L [LMR]
C198	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C199	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C200	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C201	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C202	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C203	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C204	4550003220	S.TANTALUM TEMSVA 1E 105M-8L
C205	4030004760	S.CERAMIC C2012 JF 1E 104Z-T-A
C206	4510005290	S.Electrolitic ECEV1EA221P
C207	4510004630	S.Electrolitic ECEV1CA100SR

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C208	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C209	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C210	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C211	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C212	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C214	4510004420	S.Electrolitic ECEV0JV330SR
C215	4030007110	S.CERAMIC C1608 CH 1H 680J-T-A
C216	4030006860	S.CERAMIC C1608 CH 1H 050C-T-A
C217	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C218	4030011310	S.CERAMIC C2012 JB 1A 564K-T-A
C224	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C225	4030010240	S.CERAMIC C1608 JB 1C 473K-T-A
C226	4550003220	S.TANTALUM TEMSVA 1E 105M-8L
C228	4030009880	S.CERAMIC C1608 JB 1H 682K-T-A
C229	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C230	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C231	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C233	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C234	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C235	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C237	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C238	4030007150	S.CERAMIC C1608 CH 1H 151J-T-A [Nar]
	4030007140	S.CERAMIC C1608 CH 1H 121J-T-A [Wide]
C239	4030006900	S.CERAMIC C1608 JB 1H 103K-T-A
C240	4030006870	S.CERAMIC C1608 JB 1H 222K-T-A
C242	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C243	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C244	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C245	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C246	4030008870	S.CERAMIC C1608 JB 1C 183K-T-A
C247	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C250	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C251	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C252	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C253	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C254	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C255	4550003220	S.TANTALUM TEMSVA 1E 105M-8L
C256	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C257	4030008680	S.CERAMIC C2012 JF 1C 105Z-T-A
C258	4030008680	S.CERAMIC C2012 JF 1C 105Z-T-A
C259	4550003260	S.TANTALUM TEMSVA 1V 684M-8L
C260	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C261	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C262	4550003220	S.TANTALUM TEMSVA 1E 105M-8L
C263	4550003220	S.TANTALUM TEMSVA 1E 105M-8L
C264	4030004760	S.CERAMIC C2012 JF 1E 104Z-T-A
C266	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C267	4510004630	S.Electrolitic ECEV1CA100SR
C268	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C269	4550000270	S.TANTALUM TESVA 1E 474M1-8L
C272	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C288	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C289	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C290	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C291	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C292	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C293	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C294	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C295	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C296	4030007100	S.CERAMIC C1608 CH 1H 560J-T-A
C297	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C299	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C300	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C301	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C302	4030004760	S.CERAMIC C2012 JF 1E 104Z-T-A
C303	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C305	4030009510	S.CERAMIC C1608 CH 1H 010B-T-A
C306	4030009510	S.CERAMIC C1608 CH 1H 010B-T-A
C307	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C308	4030009000	S.CERAMIC C2012 JB 1C 224K-T-A
C310	4030007040	S.CERAMIC C1608 CH 1H 180J-T-A
C311	4030006980	S.CERAMIC C1608 CH 1H 070D-T-A
C312	4030007040	S.CERAMIC C1608 CH 1H 180J-T-A
C314	4510005900	S.Electrolitic ECEV0GA101SR
C315	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A [Wide]
	4030009580	S.CERAMIC C1608 JB 1H 681K-T-A [Nar]

Ⓢ: PMR only; Ⓛ: LMR only S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C316	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C318	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C319	4030006880	S.CERAMIC C1608 JB 1H 102K-T-A
C320	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C321	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C322	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C323	4030006880	S.CERAMIC C1608 JB 1H 102K-T-A
C324	4030007060	S.CERAMIC C1608 CH 1H 270J-T-A [PMR]
	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A [LMR]
C326	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C327	4030006880	S.CERAMIC C1608 JB 1H 102K-T-A
C328	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C329	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C330	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C331	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C332	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C333	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C334	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C335	4030006870	S.CERAMIC C1608 JB 1H 222K-T-A
C336	4550002890	S.CERAMIC TESVA 1A 225M1-8L
C337	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C338	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A
C339	4550003220	S.TANTALUM TEMSVA 1E 105M-8L
C340	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C341	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C343	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C344	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C348	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C349	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C350	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C351	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C352	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C353	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C354	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C355	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C356	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C357	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C358	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C359	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C360	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C361	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C362	4030010740	S.CERAMIC C1608 JB 1A 104K-T-A
C363	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C364	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C365	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C366	4550002890	S.TANTALUM TESVA 1A 225M1-8L
C368	4510006090	S.Electrolitic ECEVOGA470SR
C369	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C370	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C371	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C376	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C377	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C378	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C379	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C380	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C381	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C382	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C383	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C384	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C385	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C386	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C387	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C388	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C389	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C390	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C391	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C392	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C393	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C394	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C395	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C396	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C397	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C398	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C399	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C400	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C401	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C402	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C403	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C404	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C405	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C406	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C407	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C408	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C409	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C410	4510005750	S.Electrolitic ECEV1EA220SP
C411	4510005750	S.Electrolitic ECEV1EA220SP
C412	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C413	4030006860	S.CERAMIC C1608 JB 1H 471K-T-A
C414	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C415	4030011160	S.CERAMIC GRM42-6 CH 150J 500PT [H-band]
	4030011170	S.CERAMIC GRM42-6 CH 180J 500PT [L-band]
C416	4030000810	S.CERAMIC GRM40 CK 0R5C 50PT
C417	4030011170	S.CERAMIC GRM42-6 CH 180J 500PT
C418	4030011220	S.CERAMIC GRM42-6 CH 380J 500PT
C419	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C420	4030009000	S.CERAMIC C2012 JB 1C 224K-T-A
C421	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
J2	6450000140	CONNECTOR HSJ0807-01-010
J4	6510019250	S.CONNECTOR B11B-ZR-SM3-TF
J5	6510018040	CONNECTOR 52330-1217
J6	6510018430	S.CONNECTOR AXN330C038P
J7	6510019270	S.CONNECTOR 52365-0691
W1	7030003860	S.JUMPER ERJ3GE JPW V
W3	7030003860	S.JUMPER ERJ3GE JPW V
W4	8900004540	CABLE OPC-453
W6	7120000380	JUMPER JPW 01 R-01
W7	7030003860	S.JUMPER ERJ3GE JPW V
W8	7030003860	S.JUMPER ERJ3GE JPW V
W9	7030003860	S.JUMPER ERJ3GE JPW V
W10	7030003860	S.JUMPER ERJ3GE JPW V
W11	7030003860	S.JUMPER ERJ3GE JPW V [#01]
W12	7030003860	S.JUMPER ERJ3GE JPW V [#02]
W13	7030003860	S.JUMPER ERJ3GE JPW V [#03]
W14	7030003860	S.JUMPER ERJ3GE JPW V [#04]
W15	7030003860	S.JUMPER ERJ3GE JPW V [#05]
W16	7030003860	S.JUMPER ERJ3GE JPW V [#06]
EP1	0910045643	PCB B 4564C
EP2	6910010220	BEAD HF70BB3.5X5X1.3
EP3	6910010280	BEAD HF70BB9.5X10.4X4.9

Ⓟ: PMR only; Ⓛ: LMR only S.=Surface mount

SECTION 7 MECHANICAL PARTS AND DISASSEMBLY

[CHASSIS PARTS]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510004880	Connector MR-DS-E 01	1
MP1	8010016320	1705 chassis	1
MP2	8810008660	Screw PH BT M3 x 8 NI-ZU	4
MP3	8810008660	Screw PH BT M3 x 8 NI-ZU	2
MP4	8810008660	Screw PH BT M3 x 8 NI-ZU	2
MP5	8810008660	Screw PH BT M3 x 8 NI-ZU	4
MP6	8930027480	1126 TR-A clip	1
MP7	8820000870	1705 cap screw	3
MP8	8110005570	1705 cover	1
MP11	8930032000	Thermal sheet (A)	1
MP12	8930036800	1705 M-holder	1
MP14	8310036980	Serial No. label (BE)	1
MP15	8930037651	1705 jack sheet -1	1
MP16	8930036770	1705 main seal	1

[UNPACKING]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
F1	5210000080	Fuse FGB 20A	2
W1	8900003760	DC power cable OPC-346	1
W2	8900000730	Microphone (HANG) cable OPC-049	1
MC1	7700001990	Microphone EM-99	1
MP1	8010008710	150 mounting bracket	1
MP2	8930008050	Felt (A)	2
MP3	8820000530	Flange bolt M4 x 8 NI	4
MP4	8810000470	Screw PH M5 x 12 (+/-)	4
MP5	8810005840	Screw PH A M5 x 20	4
MP6	8850000150	Flat washer M5 NI BS	4
MP7	8850000390	Spring washer M5	4
MP8	8830000120	Nut M5	4
MP9	6910004210	731 microphone hanger set	1
MP10	8310037280	1705 LCD seal	1

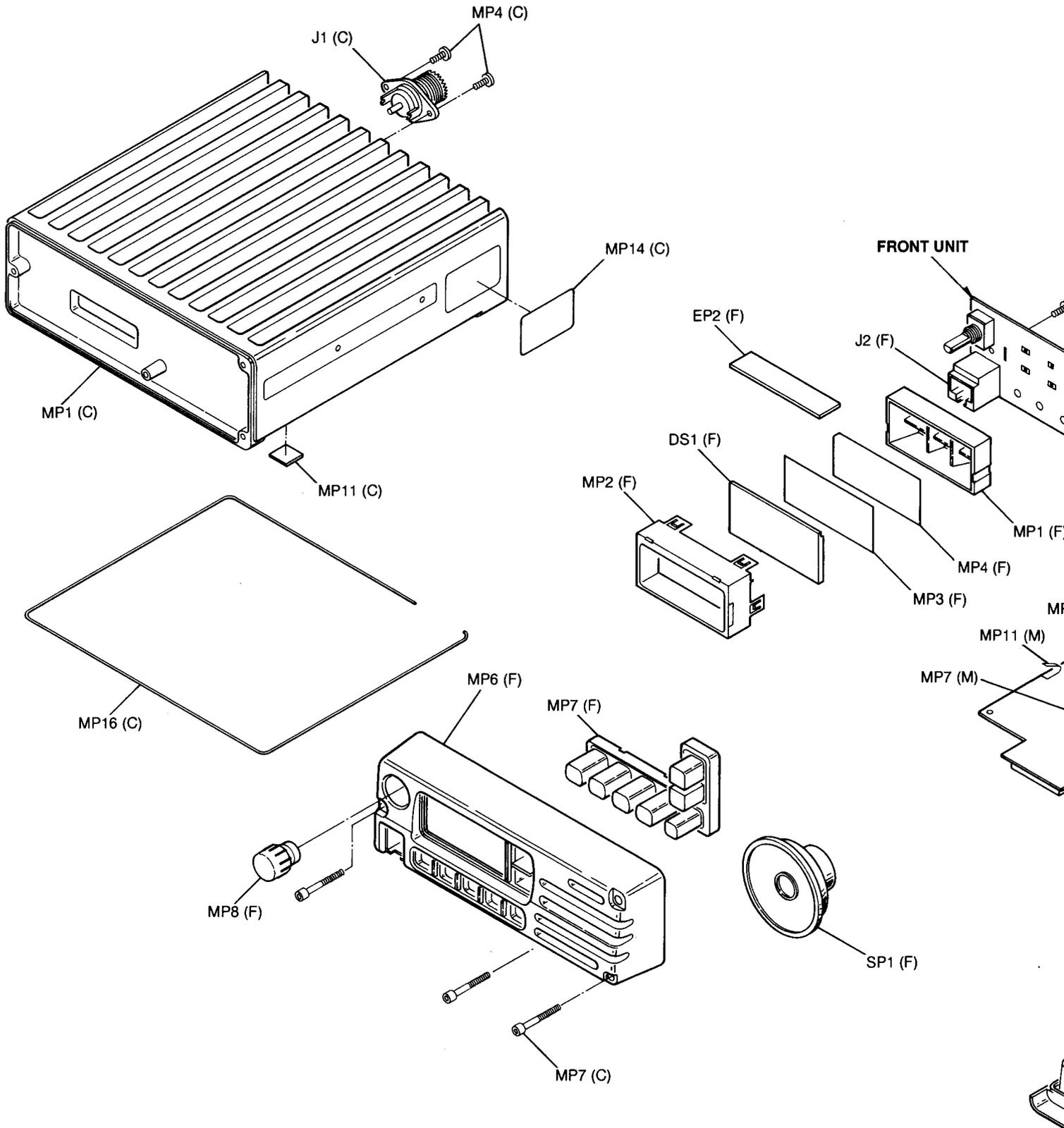
[FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J2	6450001470	Connector 95003-2881	1
DS1	5030001300	LCD LD-BU4404E	1
EP2	8930037960	LCD contact SRCN-1705 ZSS	1
MP1	8210012610	1705 reflector	1
MP2	8930036830	1705 LCD holder	1
MP3	8930036820	1705 LCD filter	1
MP4	8930037660	1705 LCD sheet	1
MP6	8210013310	1705 front panel (complete)	1
MP7	8930036810	1705 front key	1
MP8	8610009840	Knob N234	1
MP10	8810009130	Screw PH BT M3 x 12 NI-ZU	3
SP1	2510000880	Speaker SME-45W	1

Screw abbreviations BT: Self-tapping PH: Pan head
 NI: Nickel NI-ZU: Nickel-Zinc
 BS: Brass

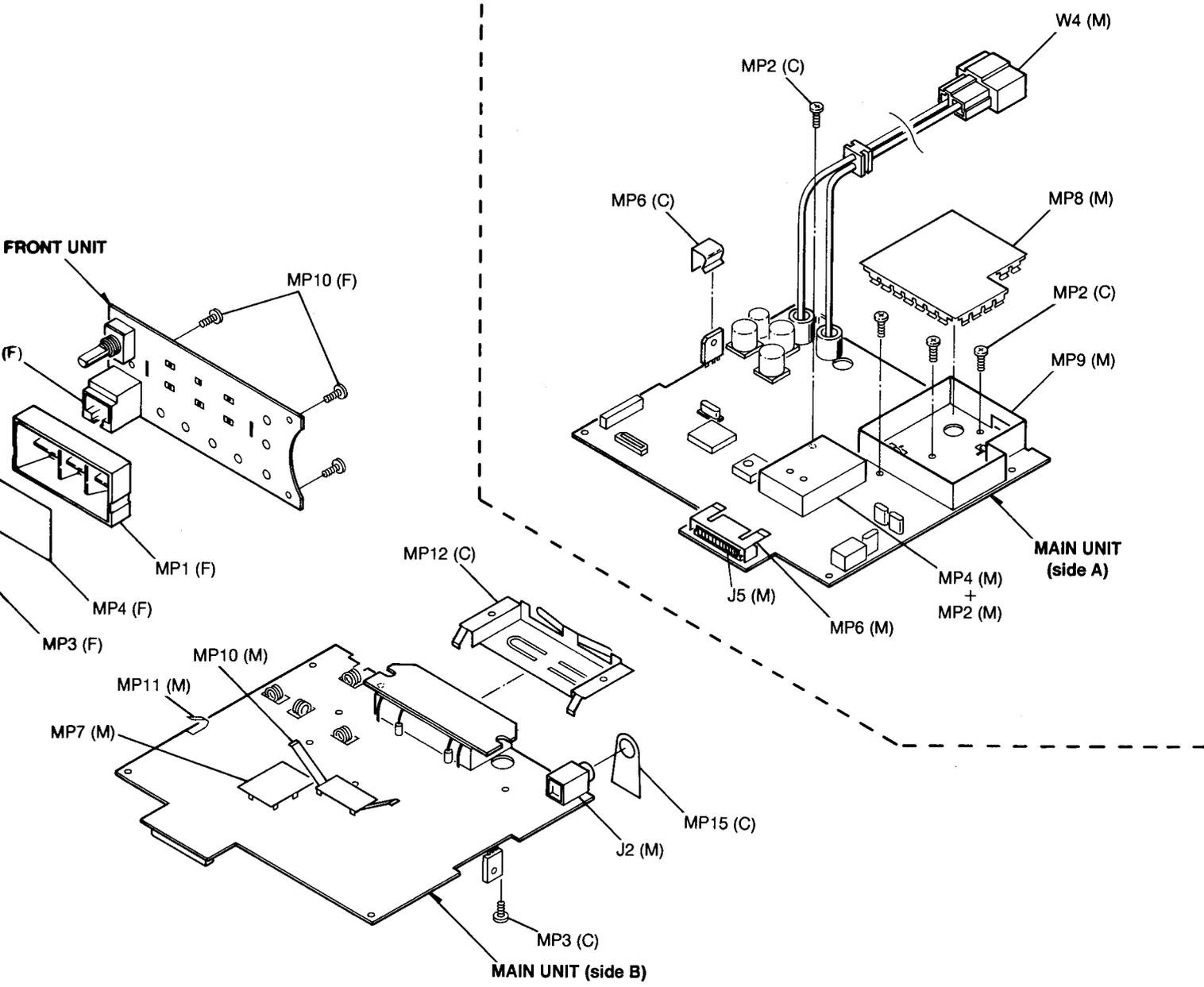
[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J2	6450000140	Connector HSJ0807-01-010	1
W4	8900004540	Cable OPC-453	1
MP2	8510009980	1705 VCO case	1
MP4	8510010080	1705 VCO cover	1
MP6	8930037840	1705 connector spring	1
MP7	8510005070	599 shield plate	1
MP8	8510010240	1705 LPF cover	1
MP9	8510010230	1705 LPF case	1
MP10	8510010250	1705 shield plate	1
MP11	8930029511	1327 ANT plate -1	1

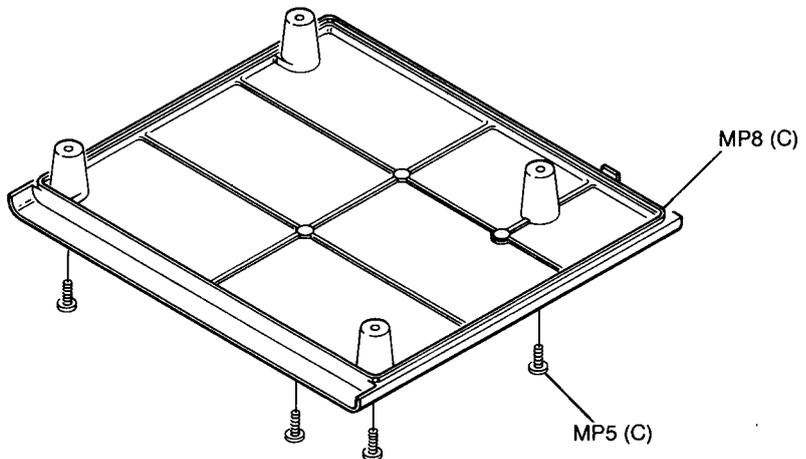


Unit abbreviations (F): FRONT UNIT (M): MAIN UNIT (C): CHASSIS PARTS

OPPOSITE DIRECTION TO THE MAIN UNIT

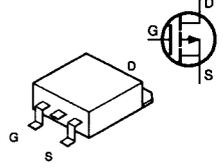
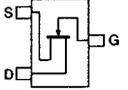
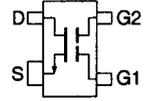


P1 (F)



SECTION 8 SEMI-CONDUCTOR INFORMATION

• TRANSISTORS AND FET'S

<p>2SA1576 R (Symbol: FR)</p> 	<p>2SB1123T (Symbol: BF)</p> 	<p>2SC4081 R (Symbol: BR)</p> 	<p>2SC4215 O (Symbol: QO)</p> 	<p>2SC4226 R25 (Symbol: R25)</p> 
<p>2SC4703 SE (Symbol: SE)</p> 	<p>2SC5110 O (Symbol: MGO)</p> 	<p>2SD1664 (Symbol: DA)</p> 	<p>2SJ144 Y (Symbol: VY)</p> 	<p>2SJ377 (Symbol: 4L)</p> 
<p>2SK1069 (Symbol: FJ)</p> 	<p>3SK166 (Symbol: K)</p> 	<p>DTA114EU (Symbol: 14)</p> 	<p>DTC114EU (Symbol: 24)</p> 	<p>DTC363EK (Symbol: H27)</p> 
<p>FMS2A (Symbol: S2)</p> 	<p>FMW2 (Symbol: W2)</p> 			

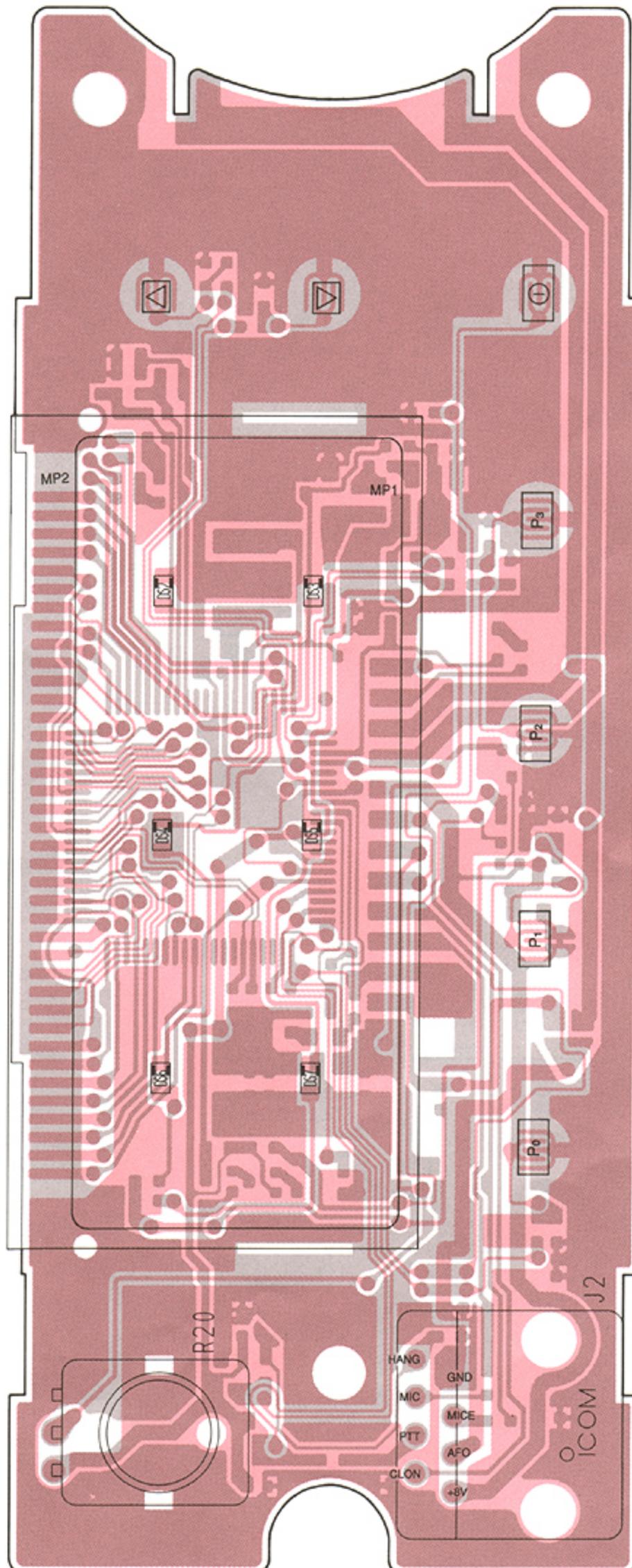
• DIODES

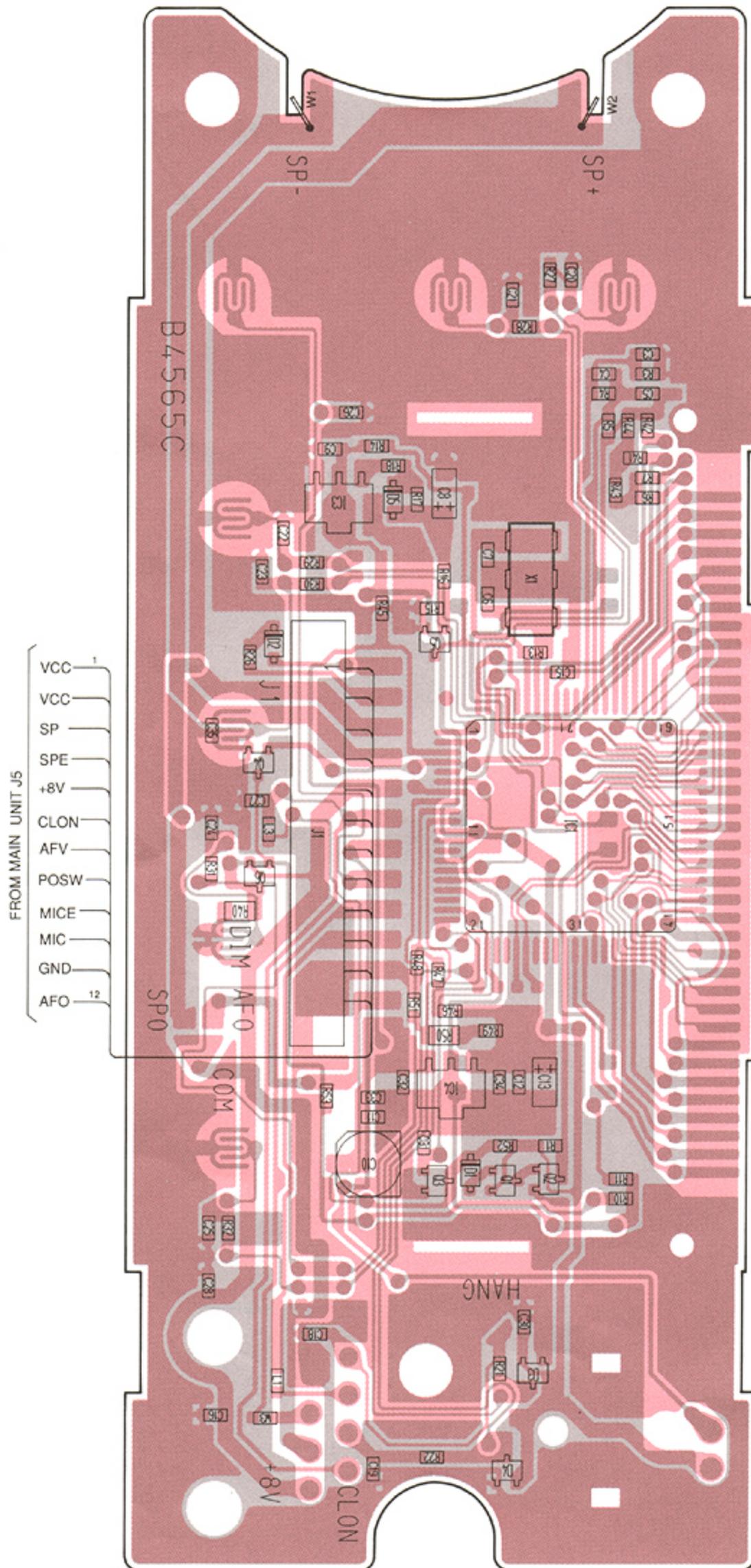
<p>1SS375 (Symbol: FH)</p> 	<p>1SV164 (No symbol, orange line)</p> 	<p>DA113W (Symbol: AY)</p> 	<p>DA204U (Symbol: K)</p> 	<p>DA221 (Symbol: K)</p> 
<p>DAN202U (Symbol: N)</p> 	<p>HSU88TRF (Symbol: 9)</p> 			

SECTION 9 BOARD LAYOUTS

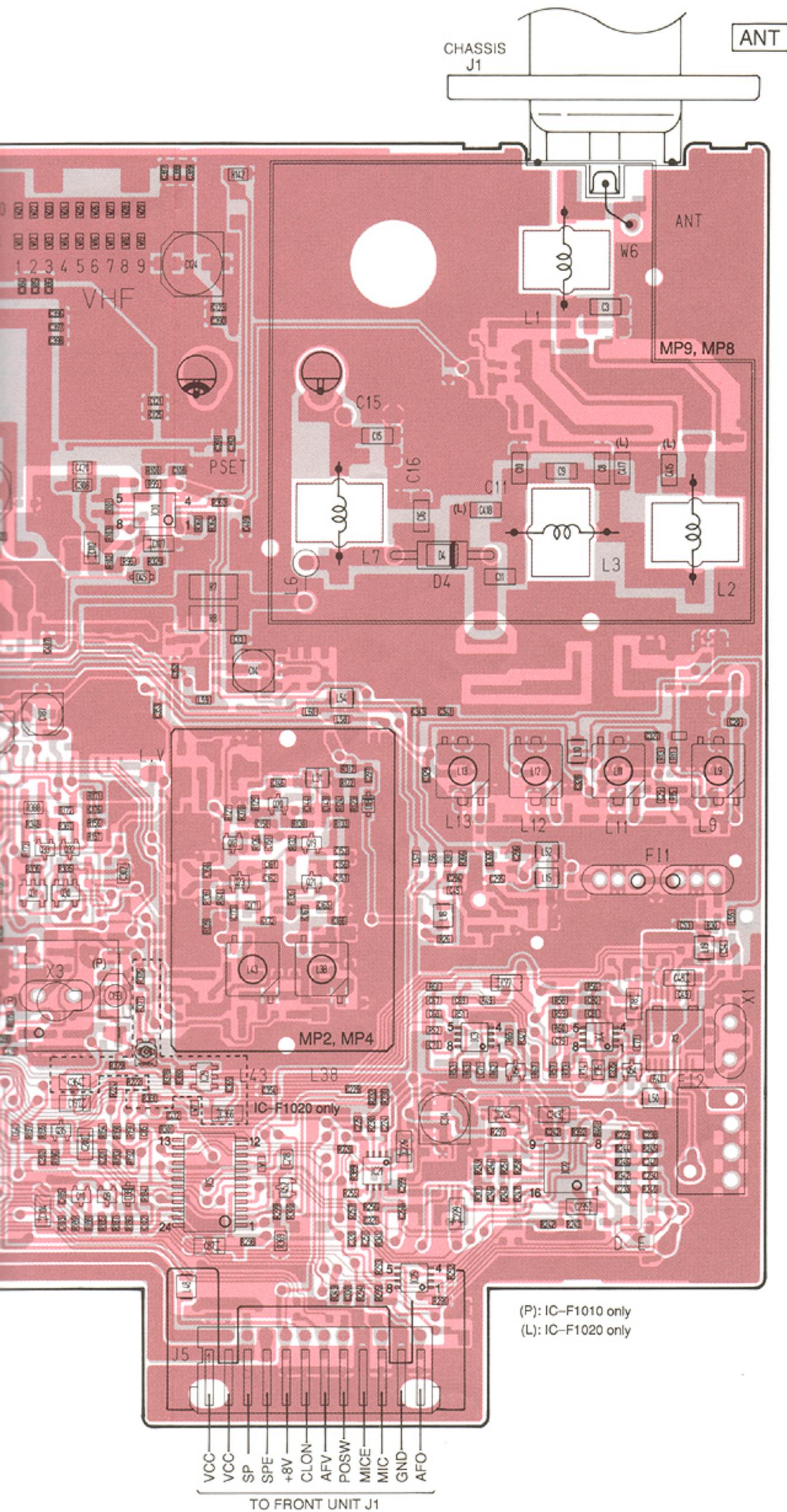
9-1 FRONT UNIT

The combination of this page and the next page show the unit layout in the same configuration as the actual P. C. Board.



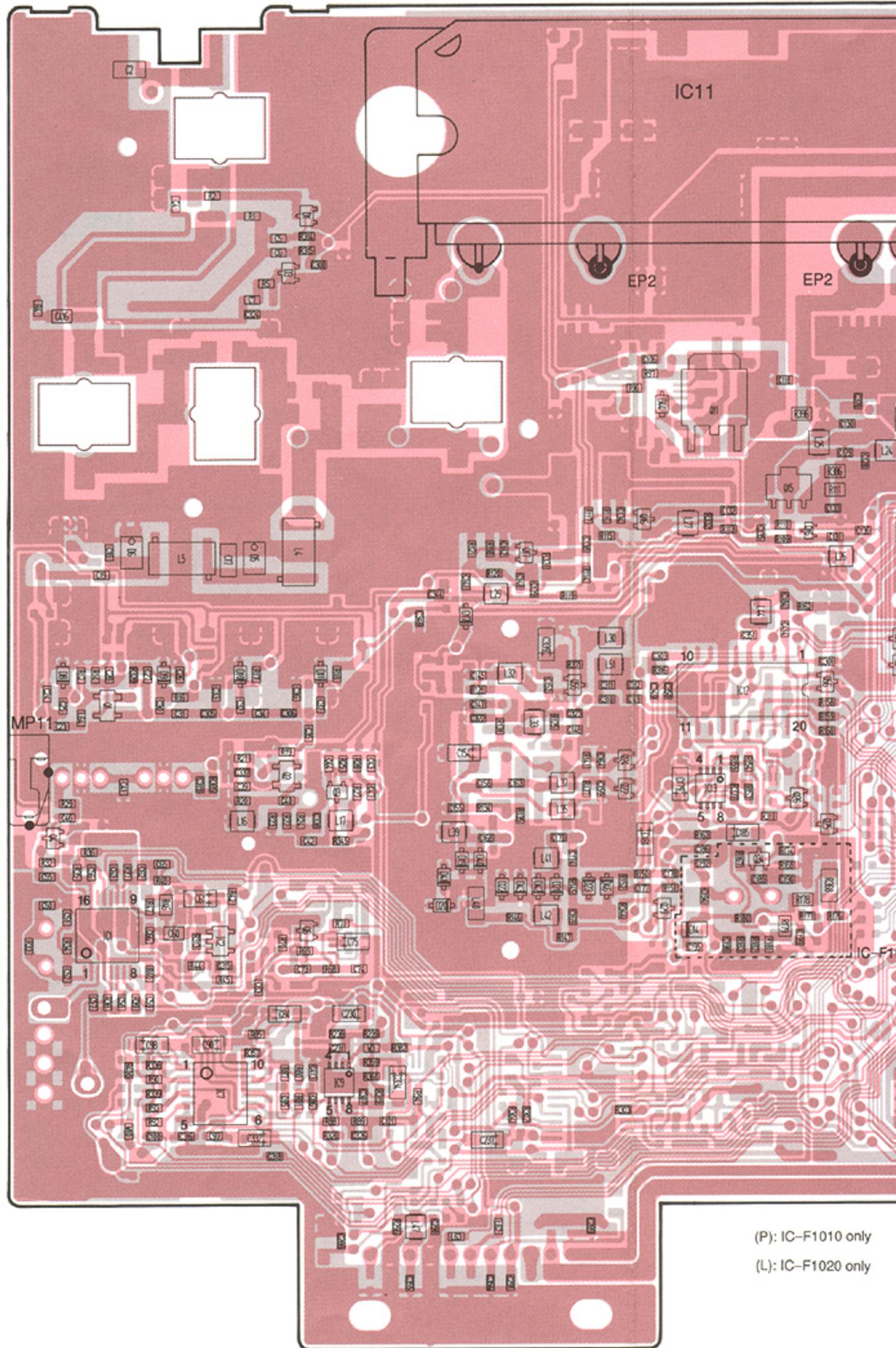


The combination of this page and the next page show the unit layout in the same configuration as the actual P. C. Board.

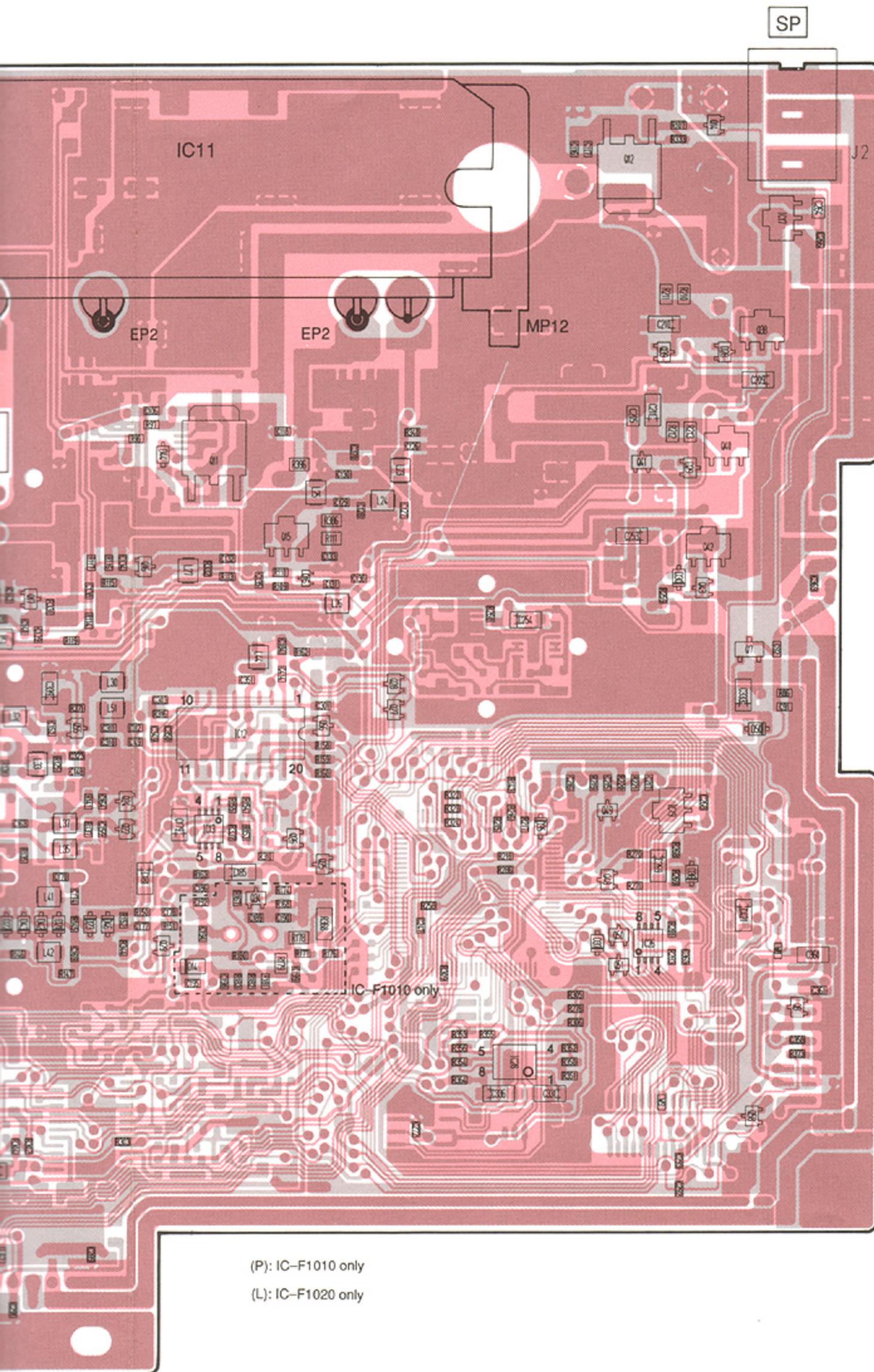


(P): IC-F1010 only
 (L): IC-F1020 only

VCC
 VCC
 SP
 SPE
 +8V
 CLON
 AFV
 POSW
 MICE
 MIC
 GND
 AFO
 TO FRONT UNIT J1



(P): IC-F1010 only
(L): IC-F1020 only

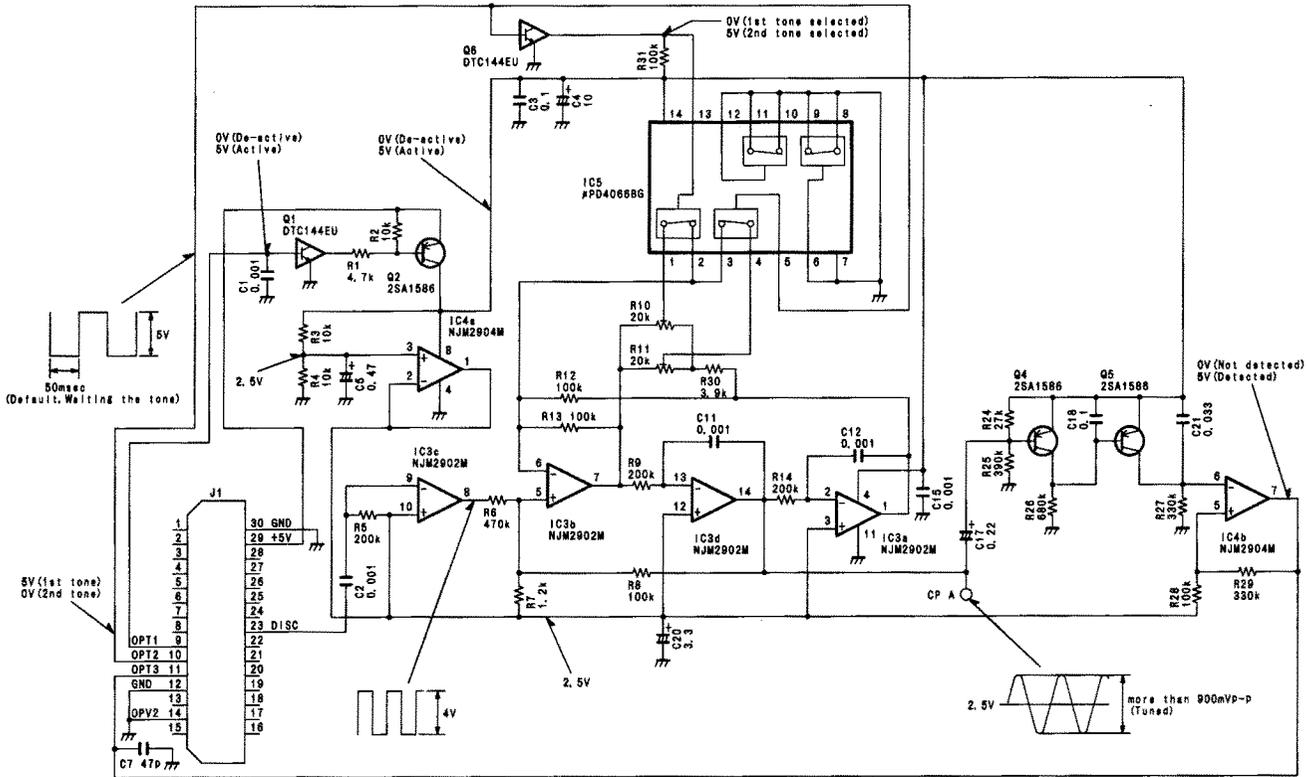


(P): IC-F1010 only

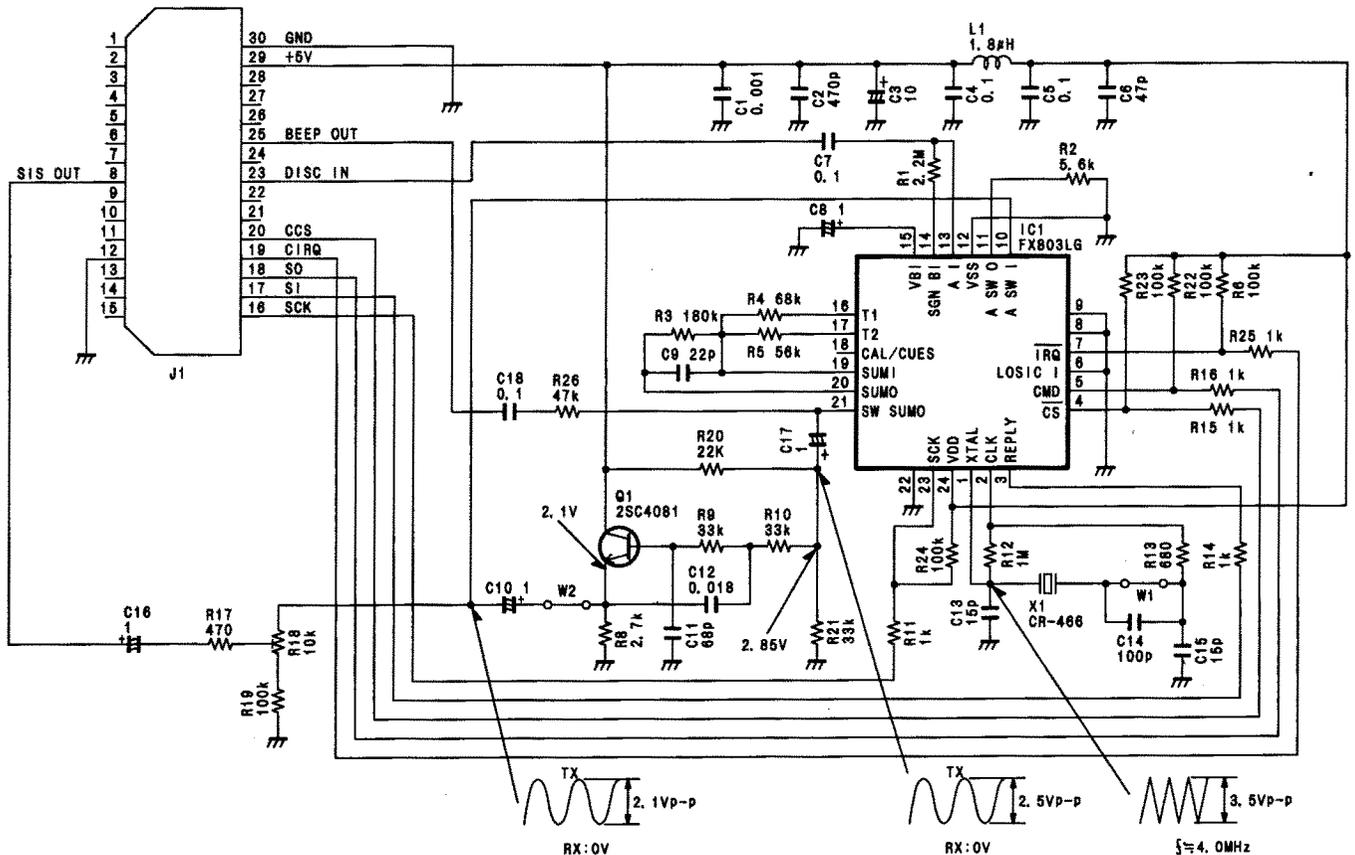
(L): IC-F1020 only

SECTION 10 OPTIONAL UNITS

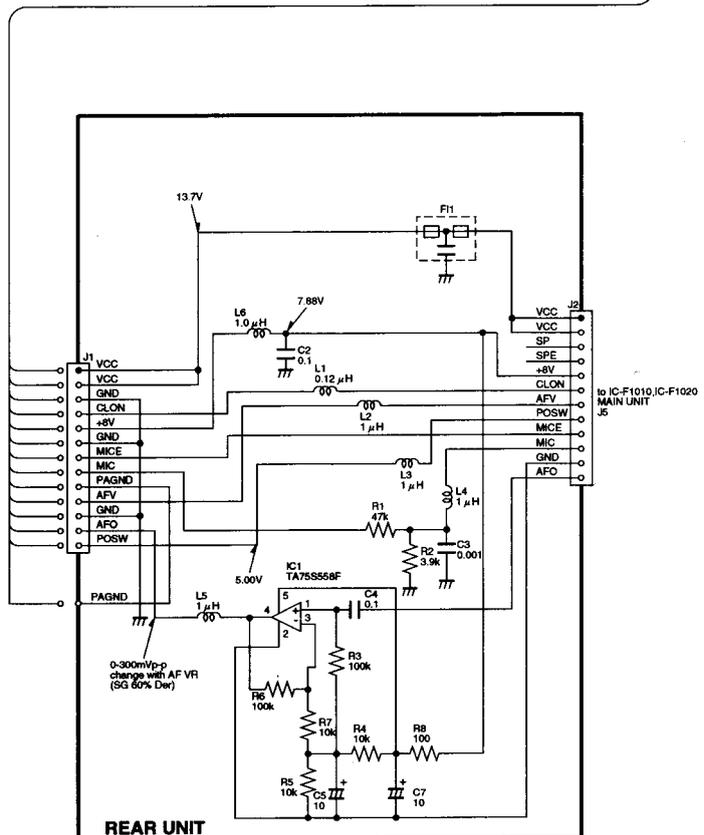
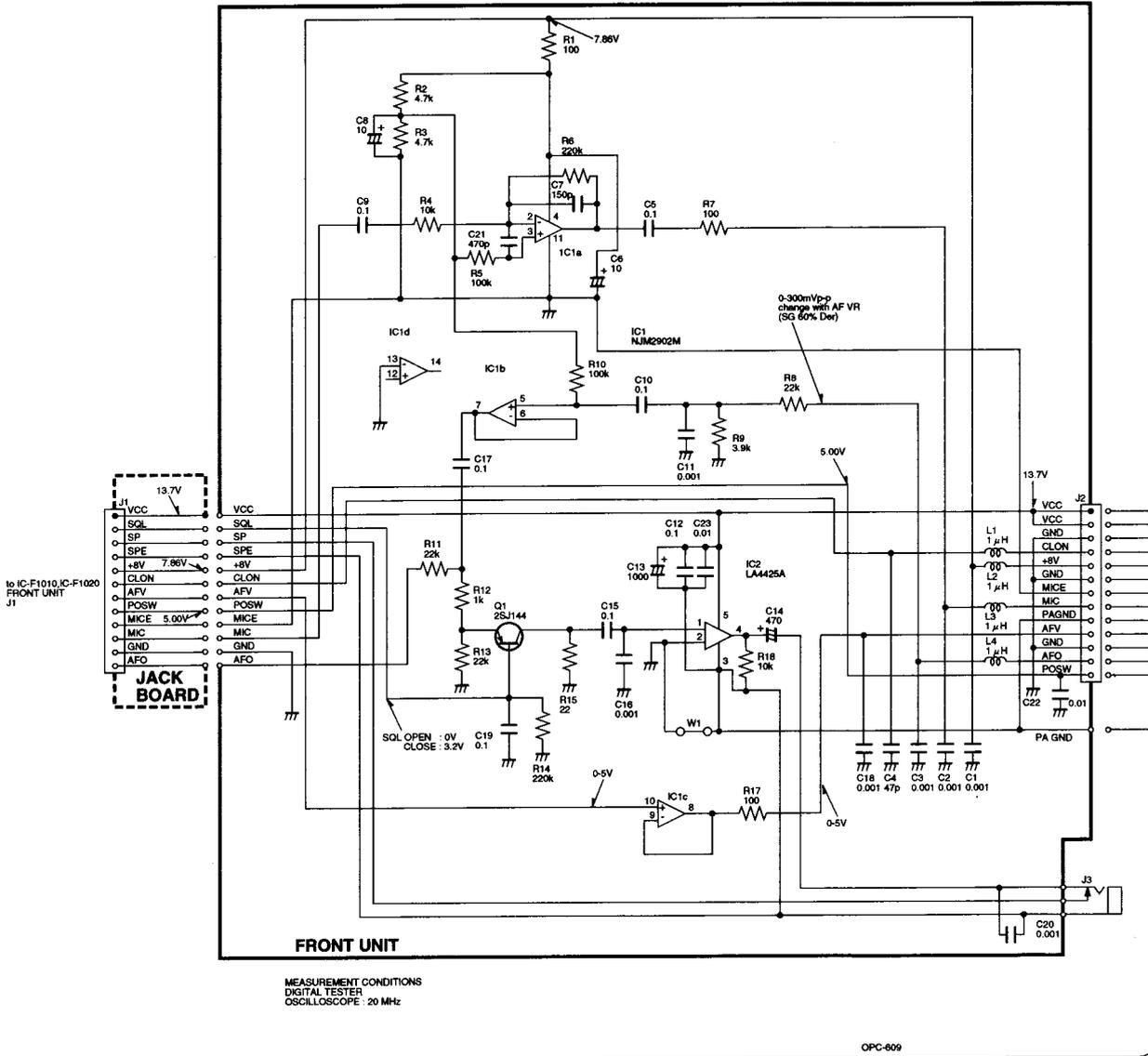
10-1 UT-80 2-TONE UNIT



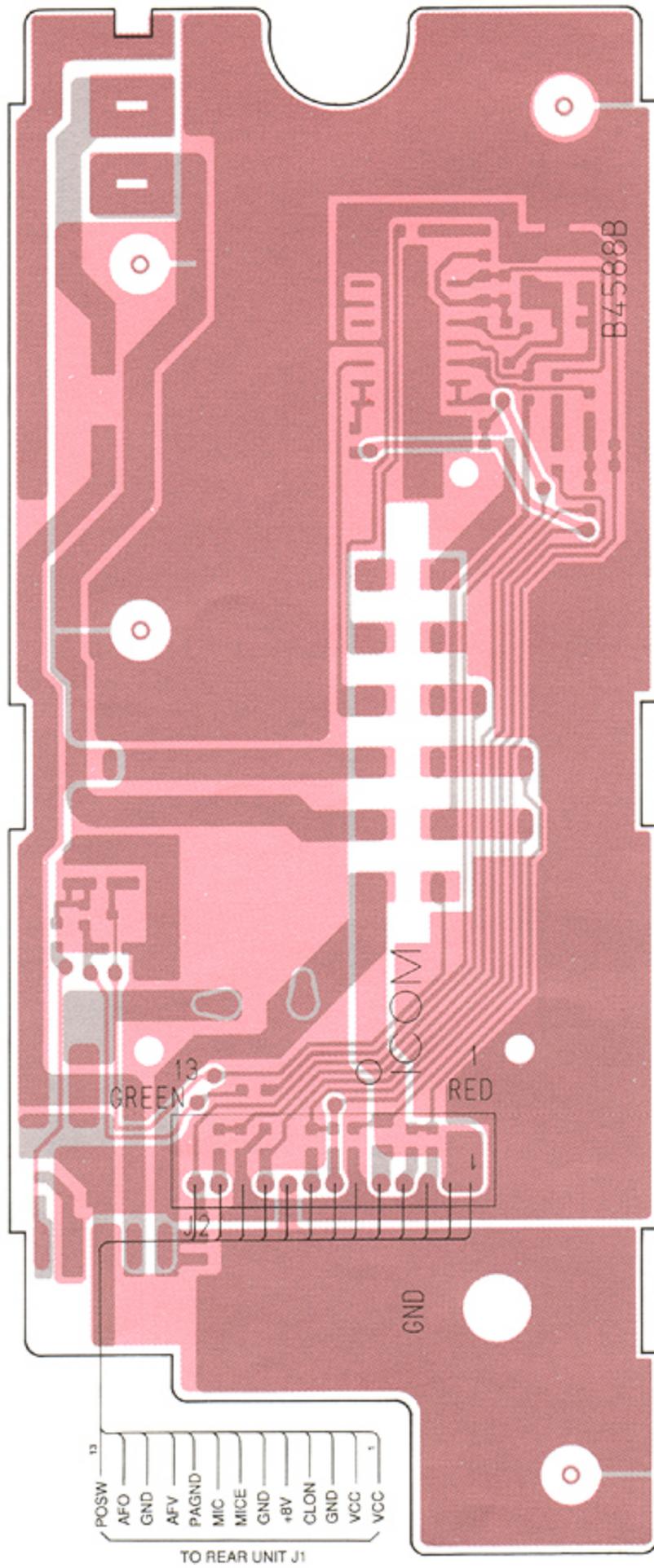
10-2 UT-96 5-TONE UNIT



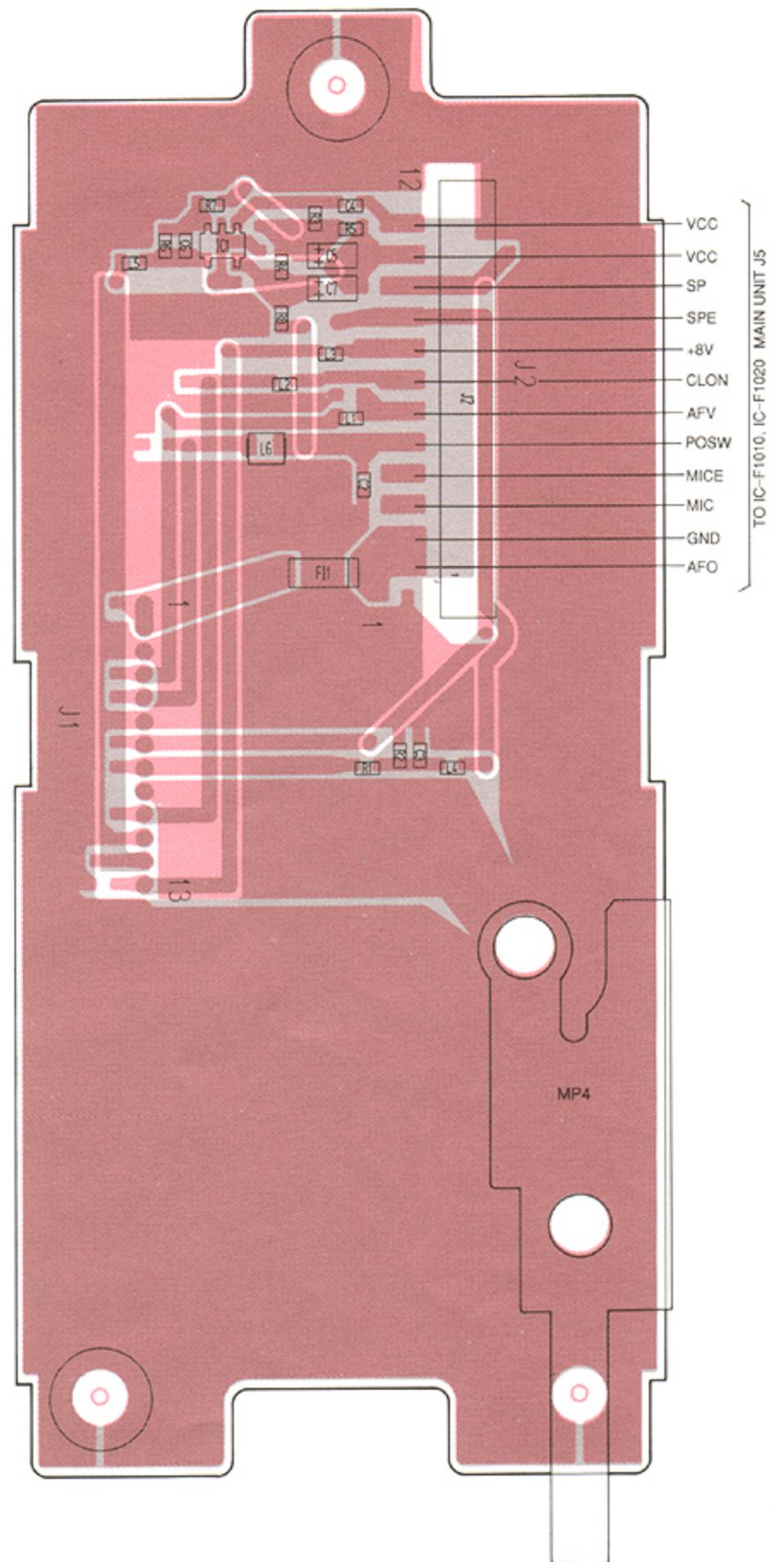
10-3 RMK-1 SEPARATION KIT



● FRONT UNIT

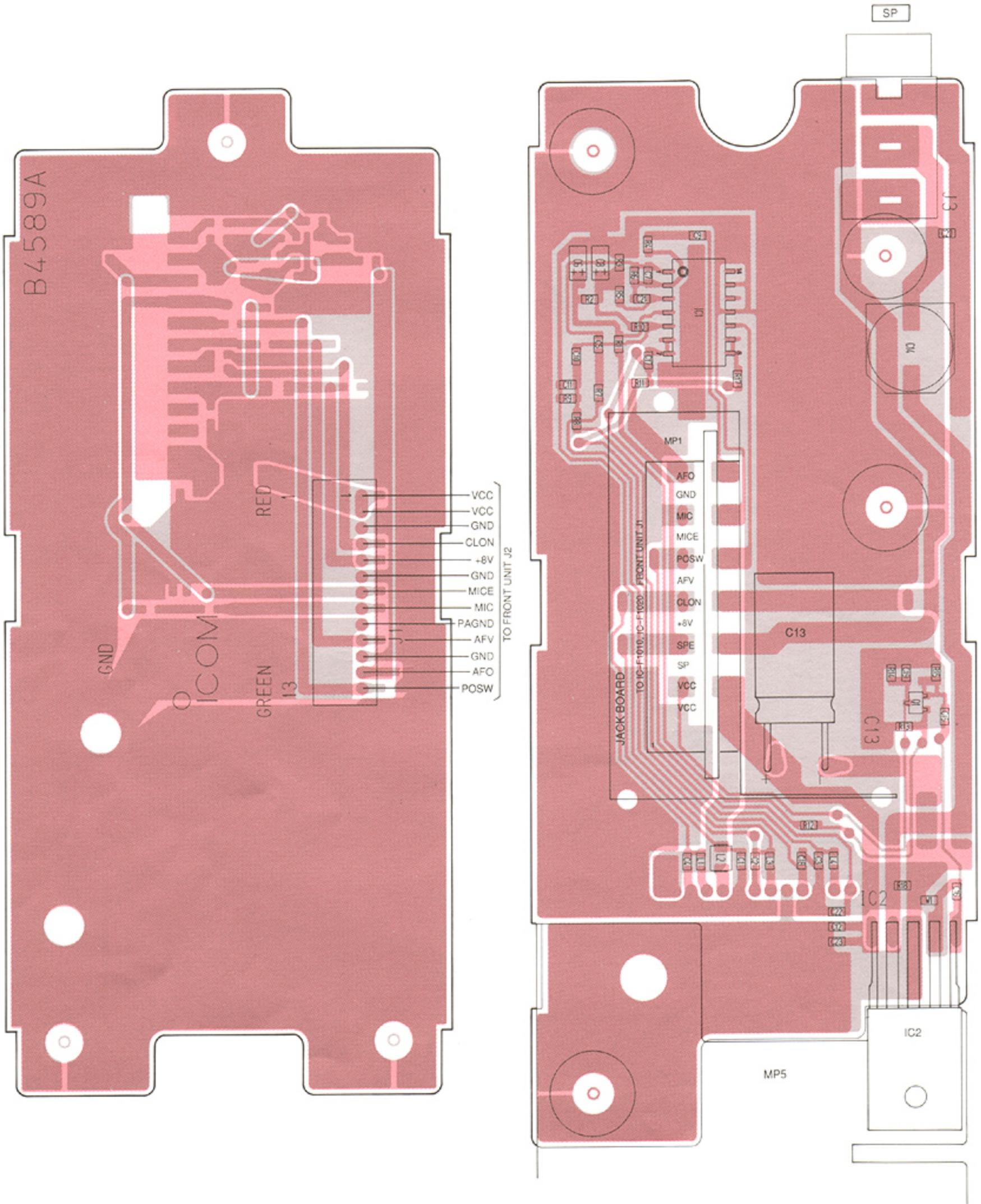


● REAR UNIT



● REAR UNIT

● FRONT UNIT



[FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION		QTY.
IC1	1110002680	S.IC	NJM2902M-T1	1
IC2	1110003090	IC	LA4425A	1
Q1	1590001450	S.FET	2SJ144-GR (TE85R)	1
L1	6200003960	S.COIL	MLF1608A 1R0K-T	1
L2	6200001980	S.COIL	NL 252018T-1R0J	1
L3	6200003960	S.COIL	MLF1608A 1R0K-T	1
L4	6200003960	S.COIL	MLF1608A 1R0K-T	1
R1	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)	1
R2	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)	1
R3	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)	1
R4	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)	1
R5	7030003680	S.RESISTOR (#01)	ERJ3GEYJ 104 V (100 kΩ)	1
	7030003320	S.RESISTOR (#02)	ERJ3GEYJ 101 V (100 Ω)	1
R6	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)	1
R7	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)	1
R8	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)	1
R9	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)	1
R10	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)	1
R11	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)	1
R12	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)	1
R13	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)	1
R14	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)	1
R15	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)	1
R17	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)	1
R18	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)	1
C1	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	1
C2	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	1
C3	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	1
C4	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A	1
C5	4030010740	S.CERAMIC	C1608 JB 1A 104K-T-A	1
C6	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L	1
C7	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A	1
C8	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L	1
C9	4030010740	S.CERAMIC	C1608 JB 1A 104K-T-A	1
C10	4030010740	S.CERAMIC	C1608 JB 1A 104K-T-A	1
C11	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	1
C12	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A	1
C13	4510005040	ELECTROLYTIC	25 MV 1000 HC	1
C14	4510006260	S.ELECTROL	ECEV1AA471UP	1
C15	4030010740	S.CERAMIC	C1608 JB 1A 104K-T-A	1
C16	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	1
C17	4030010740	S.CERAMIC	C1608 JB 1A 104K-T-A	1
C18	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	1
C19	4030010740	S.CERAMIC	C1608 JB 1A 104K-T-A	1
C20	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	1
C21	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A	1
C22	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	1
C23	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A	1
J2	6510019090	CONNECTOR	S13B-ZR	1
J3	6450000140	CONNECTOR	HSJ0807-01-010	1
W1	7030003860	S.JUMPER	ERJ3GE JPW V	1
EP1	0910045692	PCB	B 4588B (FRONT)	1

[FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION		QTY.
MP1	8930038200	1765 jack plate		1
MP2	8210013160	1765 front panel		1
MP3	8930038230	1765 rear seal		1
MP5	8930038180	1765 IC plate		1
MP6	8930038210	1765 jack seal		1
MP7	8930038190	1765 jack bush		1
MP8	8810009130	Screw PH BT M3 x 12 NI-ZU		2
MP9	8810009060	Screw FH M3 x 6 ZK		4
MP10	8810009130	Screw PH BT M3 x 12 NI-ZU		1
MP11	8310037230	Serial No. label (BE) RMK-1		1

[JACK BOARD]

REF. NO.	ORDER NO.	DESCRIPTION		QTY.
J1	6510018040	CONNECTOR	52330-1217	1
EP1	0910045711	PCB	B 4590A (JACK)	1

[REAR UNIT]

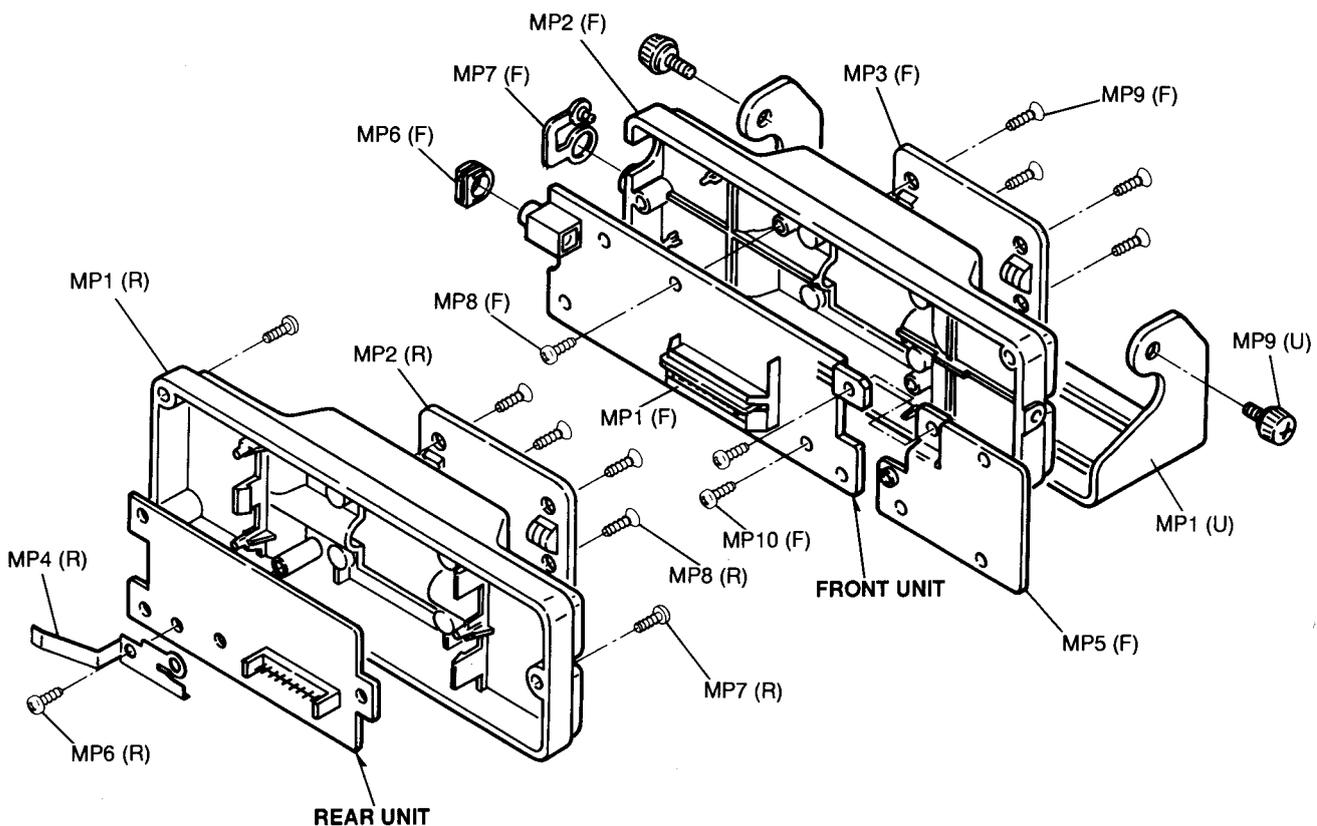
REF. NO.	ORDER NO.	DESCRIPTION		QTY.
IC1	1130007370	S.IC	TA75S558F (TE85L)	1
FI1	2040000790	S.LC	EXCCET103U	1
L1	6200004470	S.COIL	MLF1608D R12K-T	1
L2	6200003960	S.COIL	MLF1608A 1R0K-T	1
L3	6200003960	S.COIL	MLF1608A 1R0K-T	1
L4	6200003960	S.COIL	MLF1608A 1R0K-T	1
L5	6200003960	S.COIL	MLF1608A 1R0K-T	1
L6	6200001980	S.COIL	NL 252018T-1R0J	1
R1	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)	1
R2	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)	1
R3	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)	1
R4	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)	1
R5	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)	1
R6	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)	1
R7	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)	1
R8	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)	1
C2	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A	1
C3	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	1
C4	4030010740	S.CERAMIC	C1608 JB 1A 104K-T-A	1
C5	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L	1
C7	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L	1
J1	6510019090	CONNECTOR	S13B-ZR	1
J2	6510018030	S.CONNECTOR	53248-1217	1
EP1	0910045701	PCB	B 4589A (REAR)	1
MP1	8210013150	1765 rear panel		1
MP2	8930038230	1765 rear seal		1
MP4	8930038240	1765 spring		1
MP6	8810009130	Screw PH BT M3 x 12 NI-ZU		1
MP7	8810004300	Screw PH M3 x 10 ZK		3
MP8	8810009060	Screw FH M3 x 6 ZK		4

S.=Surface mount

[UNPACKING]

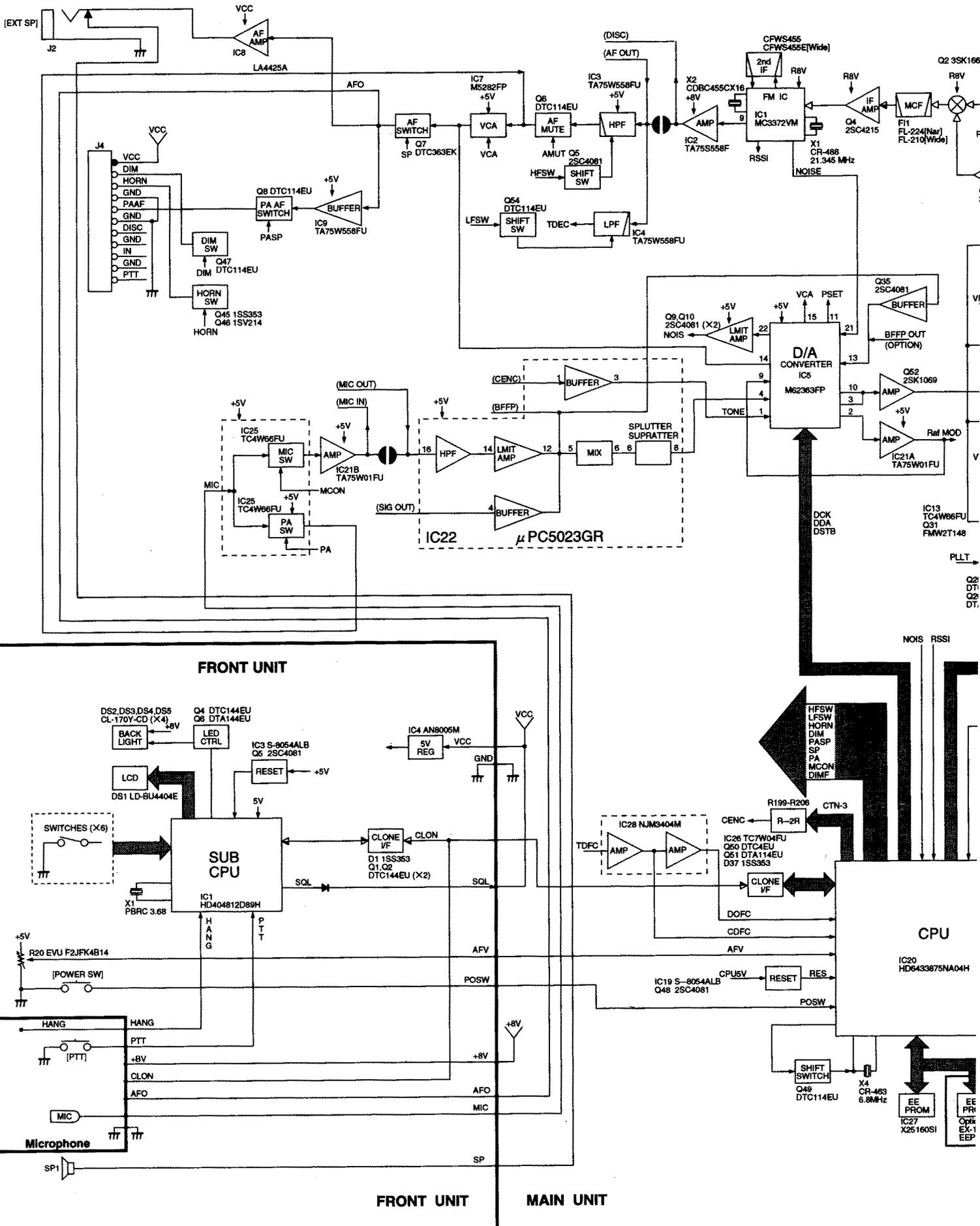
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8010016470	1765 mounting bracket	1
MP3	8810000470	Screw PH M5 x 12 (+/-)	4
MP4	8810000950	Screw PH A M5 x 16	4
MP5	8850000150	Flat washer M5 NI BS	4
MP6	8850000390	Spring washer M5	4
MP7	8830000120	Nut M5	4
MP8	8810004430	Screw PH M3 x 6 ZK	2
MP9	8820000910	1765 screw	2

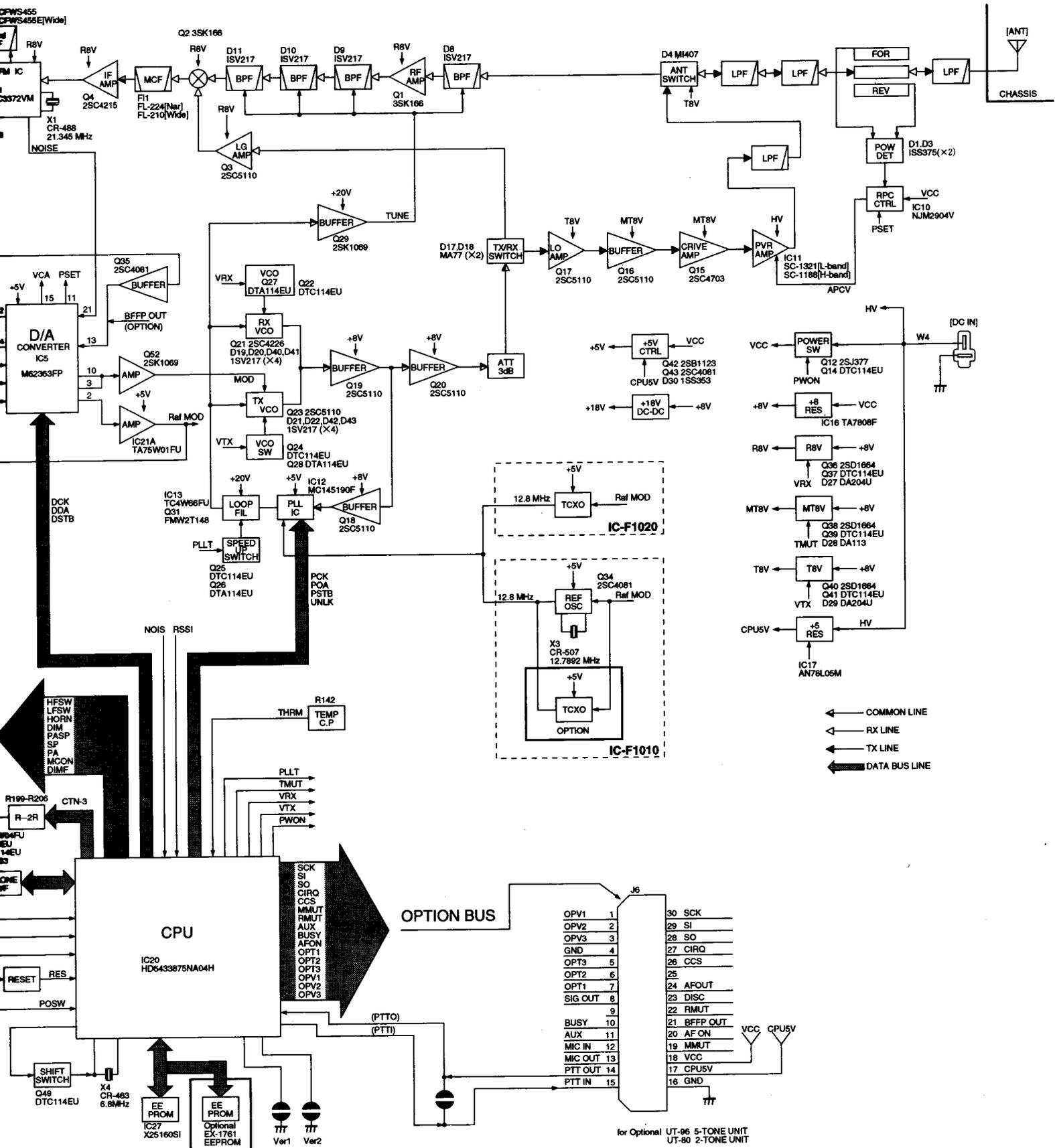
Screw abbreviations BT: Self-tapping PH: Pan head
 FH: Flat head NI-ZU: Nickel-zinc
 NI: Nickel BS: Brass ZK: Black



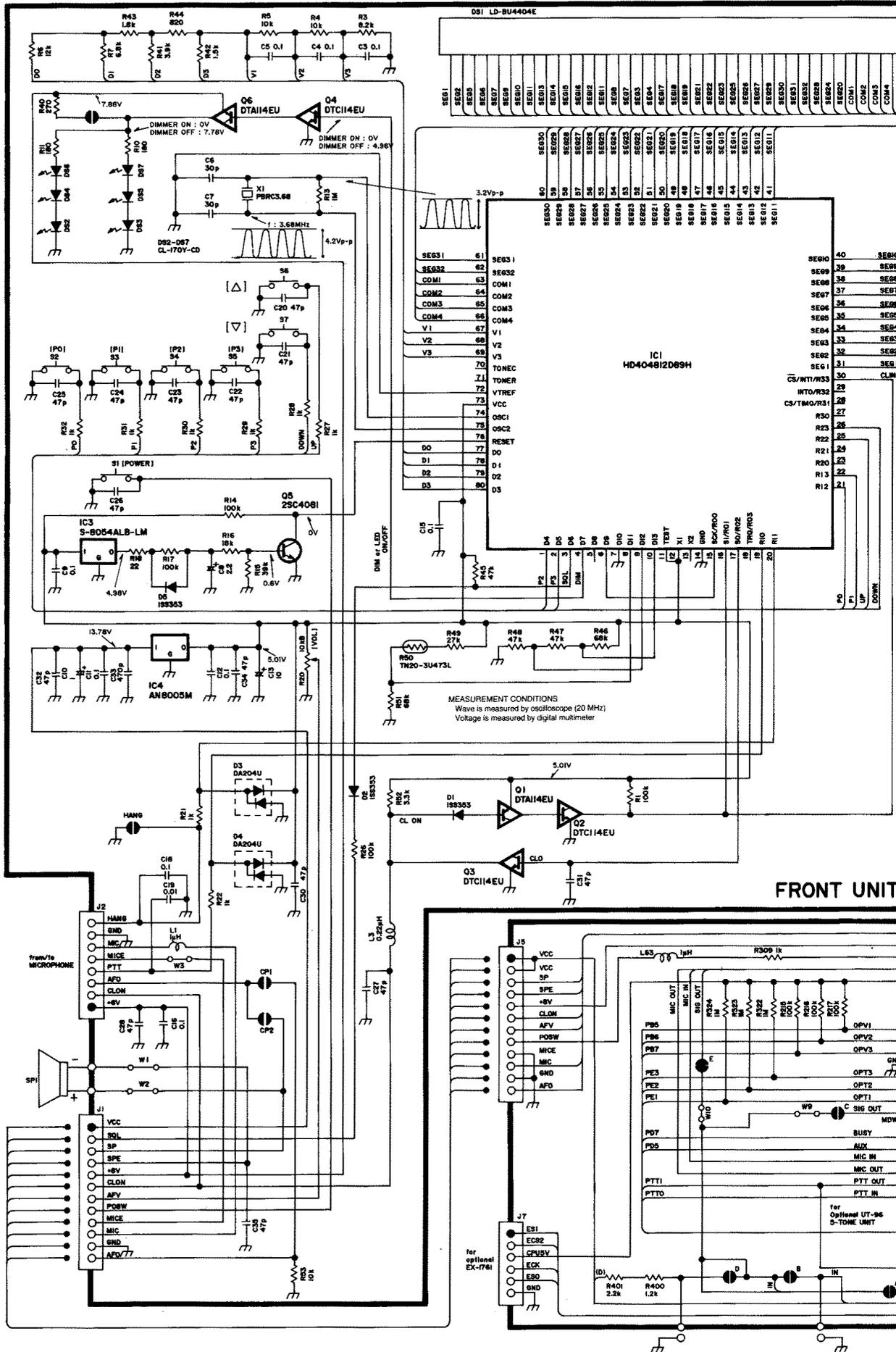
Unit abbreviations (F): FRONT UNIT (R): REAR UNIT (U): UNPACKING

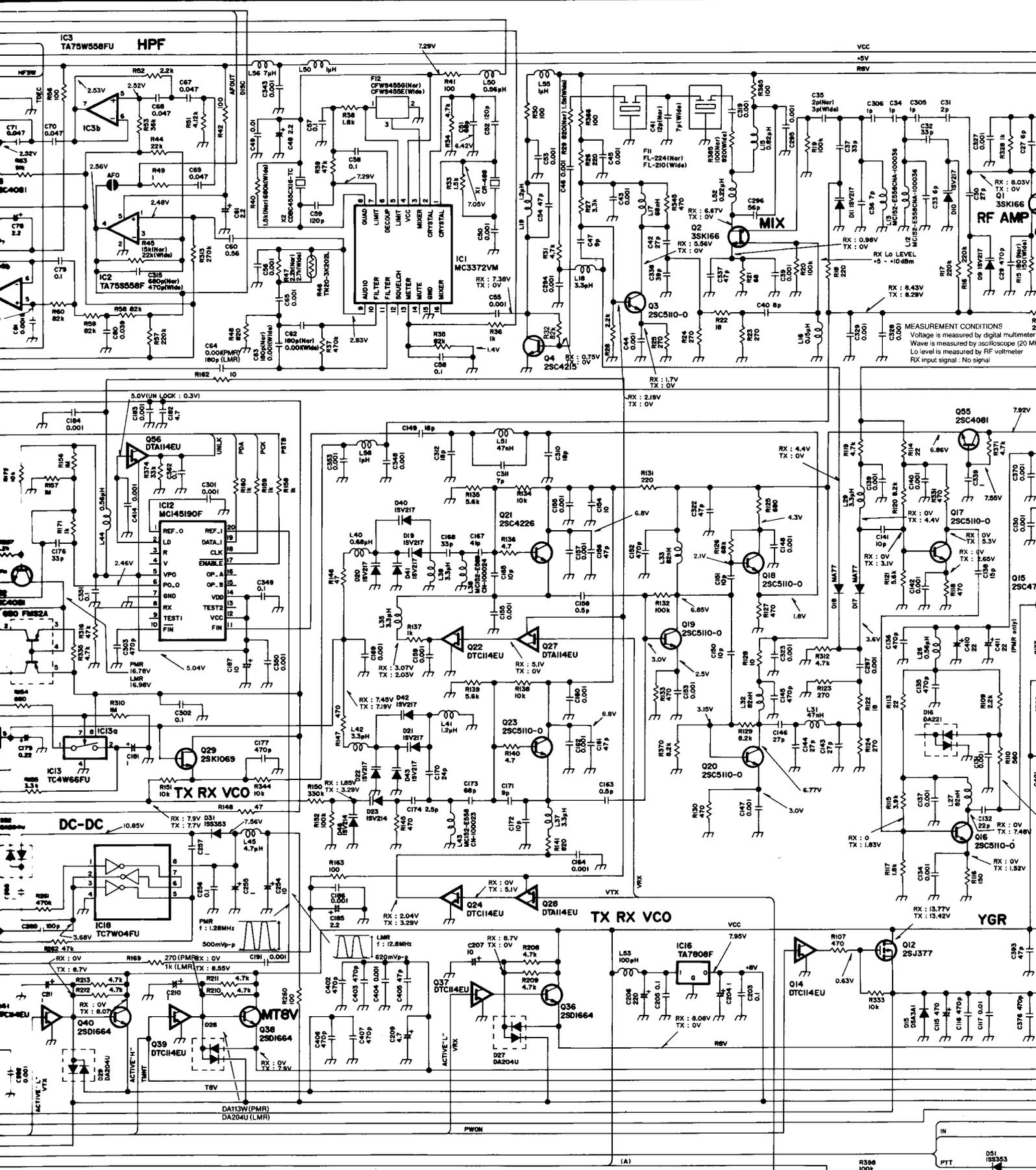
SECTION 11 BLOCK DIAGRAM





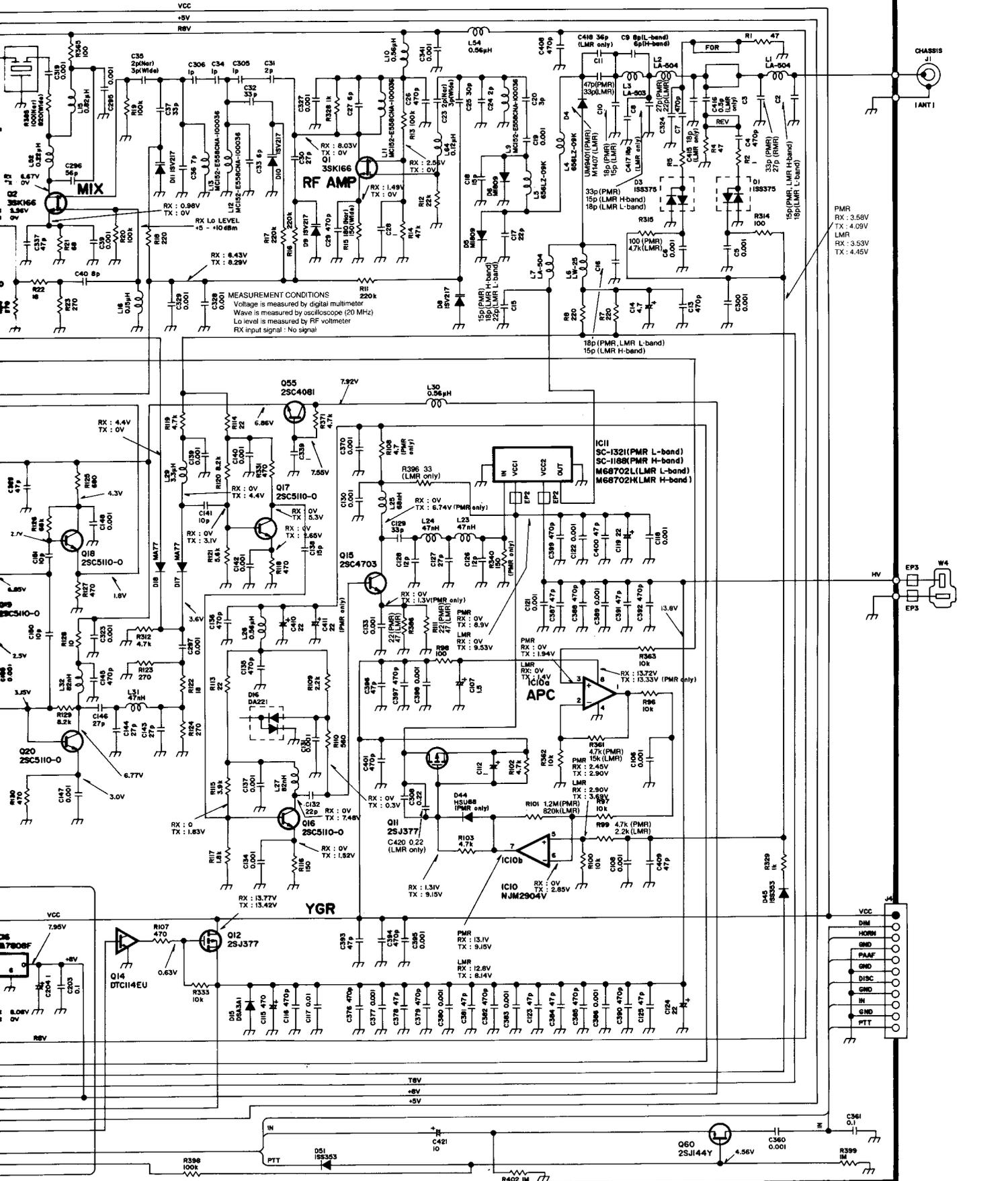
SECTION 12 VOLTAGE DIAGRAM





MEASUREMENT CONDITIONS
Voltage is measured by digital multimeter
Wave is measured by oscilloscope (20 M Ω)
Lo level is measured by RF voltmeter
RX input signal: No signal

MAIN UNIT



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Fax : 06 793 0013
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Phone : (206) 454-7619

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