ICOM

SERVICE MANUAL

UHF TRANCEIVER

IC-F40GT
IC-F40GS
IC-F41GT
IC-F41GS

Icom Inc.

INTRODUCTION

This service manual describes the latest service information for the IC-F40GT/GS and IC-F41GT/GS UHF TRANSCEIVERS at the time of publication.

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

IC-F40GS
IC-F41GS

IC-F40GT
IC-F41GT

DANGER

NEVER connect the transceiver to an AC outlet or to a DC power supply that uses more than 10 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 tranceiver.

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>

1110001810	S.IC TA7368F	IC-F40GT	MAIN UNIT	1 piece
8930053170	2337 Key board	IC-F41GS	CHASSIS	5 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 or 50 dB attenuator between the transceiver and a deviation meter or spectrum analyser when using such test equipment.
8. **READ** the instructions of test equipment thoroughly before connecting equipment to the transceiver.

EXPLICIT DEFINITIONS

FREQUENCY COVERAGE

L-band	400–430 MHz
ML-band	440–480 MHZ
MH-band	450–490 MHz
H-band	480–512 MHz
	480–520 MHz

CHANNEL SPACING

Wide/Narrow-type	25 kHz/12.5 kHz

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SECTION 1 SPECIFICATIONS

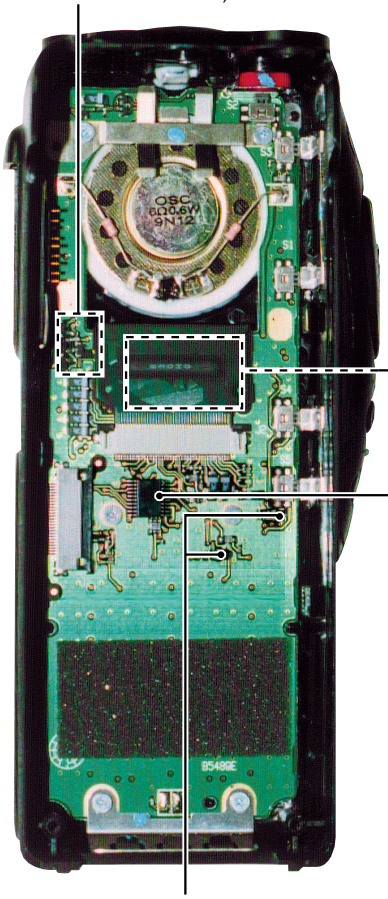
		USA	GEN/EUR
GENERAL	Measurement method	EIA-152-C/204D	TIA-603 or ETS 300 0863
	Frequency coverage	400.000–430.000 MHz [L-band] 440.000–480.000 MHz [ML-band] 450.000–490.000 MHz [MH-band] 480.000–512.000 MHz [H-band]	400.000–430.000 MHz [L-band] 440.000–480.000 MHz [ML-band] 450.000–490.000 MHz [MH-band] 480.000–520.000 MHz [H-band]
	Type of emission	16K0F3E [25 kHz; Wide], 8K50F3E [12.5 kHz; Narrow]	
	Number of conventional channels	Max. 256 ch (16 channels × 16 banks)	
	Power supply requirement	7.2 V DC (negative ground; supplied battery pack)	
	Current drain (approx.)	TX at High 2.0 A Rx rated audio 300 mA stand-by 95 mA (typical)	
	Frequency error	2.5 ppm	±1.5 kHz
	Usable temperature range	–30˚C to +60˚C (–22˚F to +140˚F)	–25˚C to +55˚C (–13˚F to +131˚F)
	Dimensions (proj. not included)	54(W) × 139(H) × 38(D) mm; 2⅛(W) × 5$^{15}/_{32}$(H) × 1½(D) inch	
	Weight (with BP-210)	420 g; 14.8 oz	
TRANSMITTER	RF output power	4 W / 2 W / 1 W (High/Low2/Low1)	
	Modulation system	Variable reactance frequency modulation	
	Maximum permissible deviation	±5.0 kHz [Wide], ±2.5 kHz [Narrow]	
	Spurious emissions	73 dBc typical	0.25 µW
	Adjacent channel power	70 dB [Wide], 60 dB [Narrow]	
	Audio frequency response	+2 dB to –8 dB of 6 dB/octarve range from 300 Hz to 3000 Hz [Wide]/2550 Hz [Narrow]	
	Audio hormonic distortion	3% typical at 1 kHz, 40% deviation	
	FM hum and noise (typical)	46 dB [Wide], 40 dB [Narrow]	——
	Residual modulation	——	45 dB [Wide], 43 dB [Narrow]
	Limitting charact of modulator	60–100% of max. deviation	
	Ext. microphone connector	9-pin multi connector/2.2 kΩ	
RECEIVER	Receive system	Double-conversion superheterodyne system	
	Intermediate frequencies	1st: 47.25 MHz, 2nd: 450 kHz	
	Sensitivity (typical)	0.25 µV at 12 dB SINAD	–4 dBµV (emf) at 20 dB SINAD
	Squelch sencitivity (at threshold) (typical)	0.25 µV	–4 dBµV (emf)
	Adjcent channel selectivity (typical)	73 dB [Wide], 63 dB [Narrow]	
	Spurious response	70 dB	
	Intermoduration (typical)	74 dB	70 dB
	FM hum and noise (typical)	46 dB [Wide], 40 dB [Narrow]	——
	Hum and noise (with CCITT filter) (typical)	——	45 dB [Wide], 43 dB [Narrow]
	Audio output power (at 7.2 V DC)	500 mW typical at 5% distortion with a 8 Ω load 600 mW typical at 5% distortion with a 6 Ω load	
	External SP connector	9-pin multi connector/8 Ω	

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

SECTION 2 INSIDE VIEWS

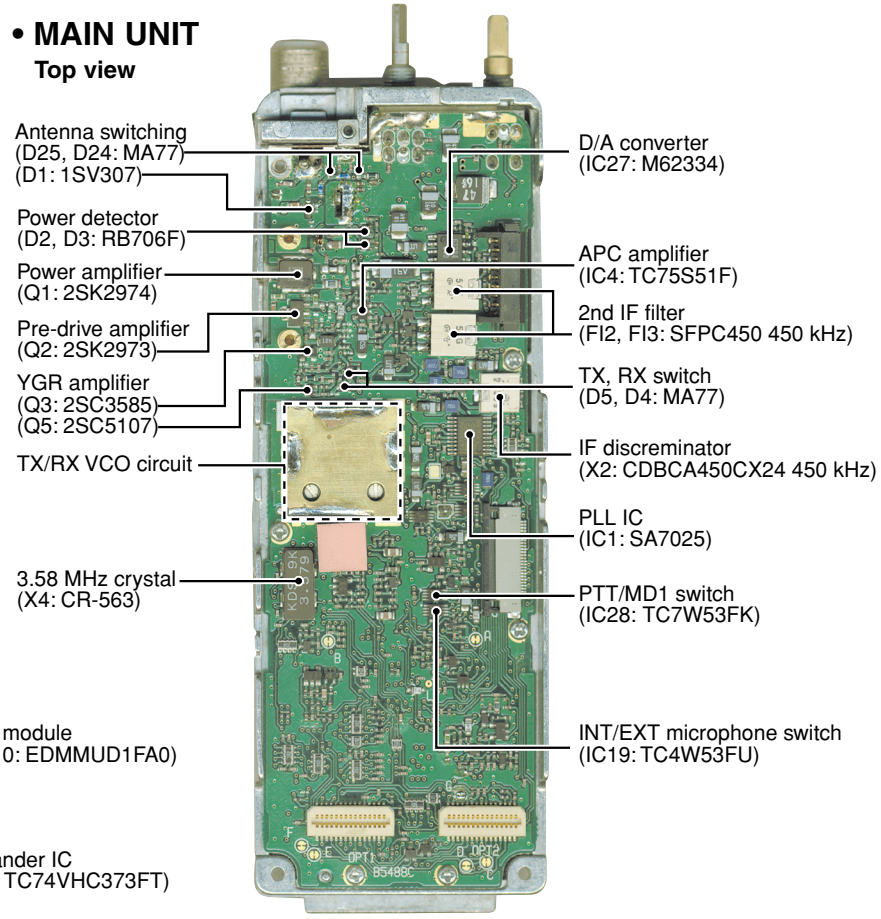
• FRONT UNIT

Bottom view



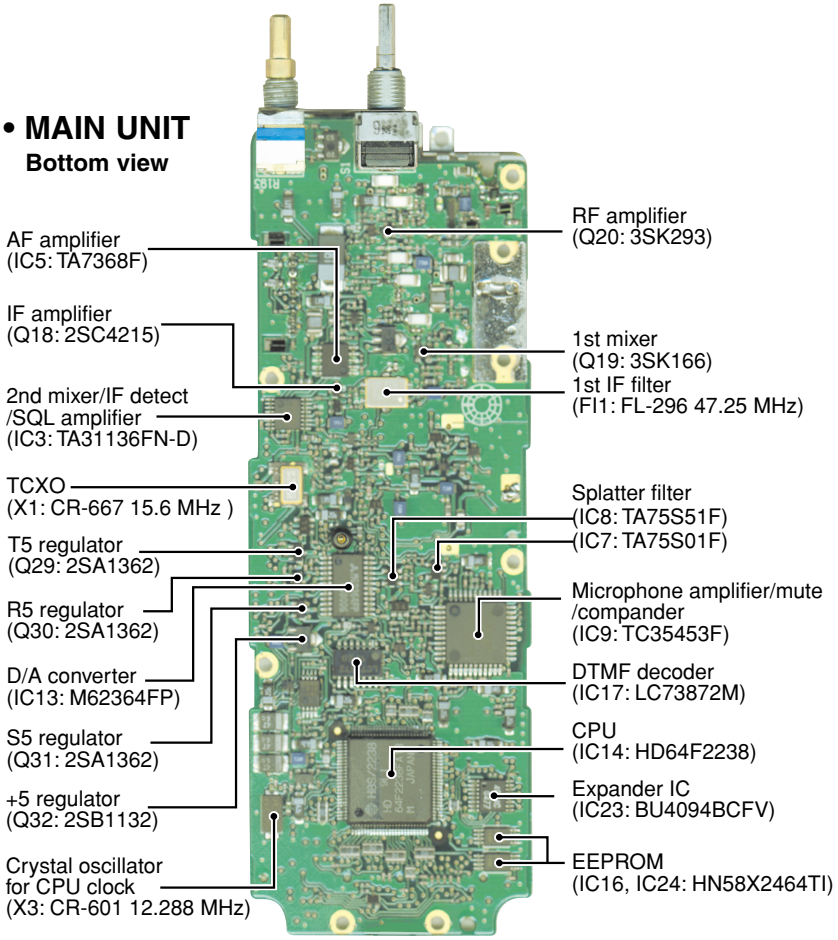
• MAIN UNIT

Top view



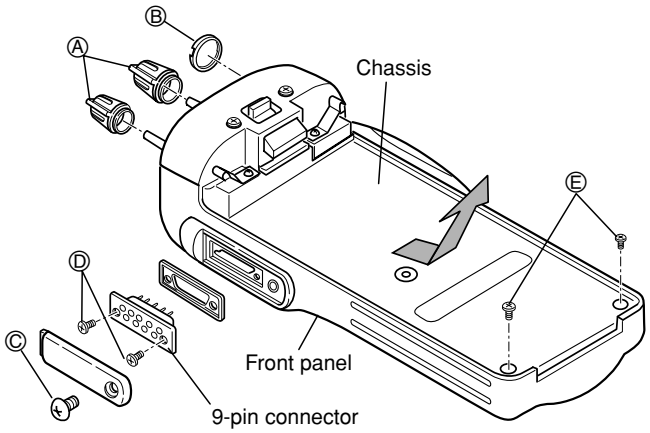
• MAIN UNIT

Bottom view



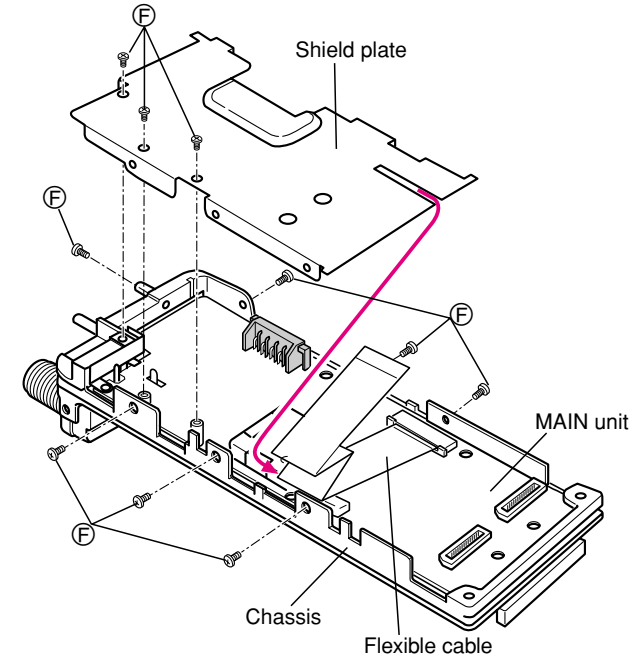
SECTION 3 DISASSEMBLY INSTRUCTIONS

1 Removing the chassis panel



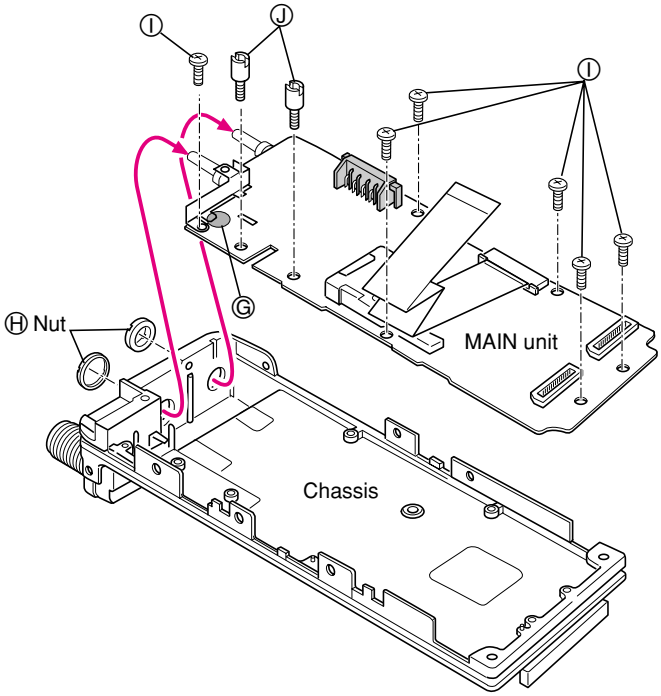
① Remove 2 knobs Ⓐ, and unscrew 1 nut Ⓑ.
② Unscrew 1 screw Ⓒ (ICOM screw), and 2 screws Ⓓ (2 × 4 mm, black) from the 9-pin connector.
③ Unscrew 2 screws Ⓔ (2 × 8 mm, silver) from the chassis.
④ Take off the chassis in the direction of the arrow.

2 Removing the shield plate



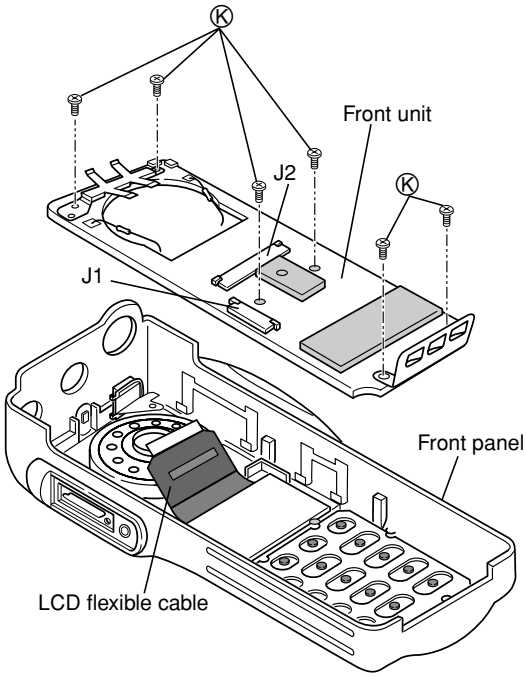
① Unplug the flexible cable from J1 on the FRONT unit to separate the chassis.
② Take off the flexible cable in the direction of the arrow.
③ Unscrew 10 screws Ⓕ (2 × 3 mm, black) to separate the shield plate.

3 Removing the MAIN unit



① Unsolder 1 point Ⓖ at the antenna lead.
② Unscrew 2 nuts Ⓗ.
③ Unscrew 6 screws Ⓘ (2 × 4 mm, silver), and 2 screws Ⓙ from the MAIN unit.
④ Take off the MAIN unit in the direction of the arrow.

4 Removing the FRONT unit



① Unplug the LCD flexible cable from J2 on the FRONT unit to separate the front panel.
② Unscrew 6 screws Ⓚ (2 × 3.5 mm, silver) from the FRONT unit.
③ Unsolder the leads of speaker.

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 (CHASSIS; J1) and pass through the low-pass filter (L1, L2, C1, C2, C420). The filtered signals are passed through the λ/4 type antenna switching circuit (D25, D24, L39) and then applied to the RF circuit.

4-1-2 RF CIRCUIT

The RF circuit amplifies signals within the range of frequency coverage and filters out-of-band signals.

The signals from the antenna switching circuit pass through the tunable bandpass filter (D21, L38). The filtered signals are amplified at the RF amplifier (Q20) and then passed through the another three-stage bandpass filters (D20–D18, L36, L34, L33) to suppress unwanted signals. The filtered signals are applied to the 1st mixer circuit.

D18–D21 employ varactor diodes, that are controlled by the CPU via the D/A converter (IC27), to track the bandpass filter. These varactor diodes tune the center frequency of an RF pass band for wide bandwidth receiving and good image response rejection.

4-1-3 1ST MIXER AND IST IF CIRCUITS

The 1st mixer circuit converts the received signal into fixed frequency of the 1st IF signal with the PLL output frequency. By changing the PLL frequency, only the desired frequency passes through a monolithic filter at the next stage of the 1st mixer.

The RF signals from the bandpass filter are mixed with the 1st LO signals, where come from the RX VCO circuit via the attenuator (R108–R106), at the 1st mixer circuit (Q19) to produce a 47.25 MHz 1st IF signal. The 1st IF signal is passed through a monolithic filter (FI1) in order to obtain selection capability and to pass only the desired signals. The filtered signal is applied to the 2nd IF circuit after being amplified at the 1st IF amplifier (Q18).

4-1-4 2ND IF AND DEMODULATOR CIRCUITS

The 2nd mixer circuit converts the 1st IF signal into a 2nd IF signal. The double-conversion superheterodyne system (which convert receive signals twice) improves the image rejection ratio and obtains stable receiver gain.

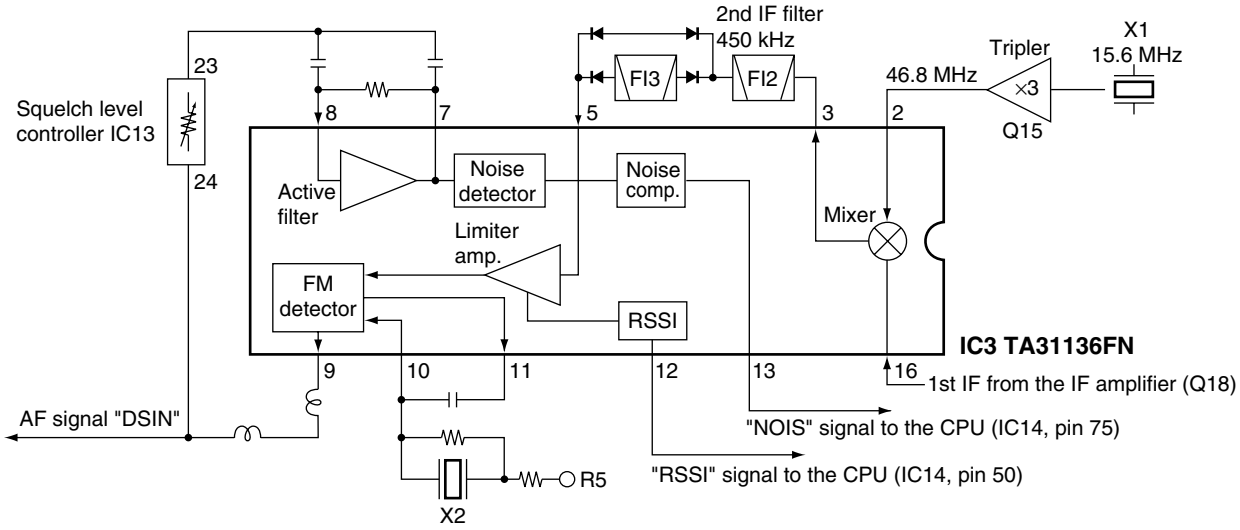
The 1st IF signal from the IF amplifier (Q18) is applied to the 2nd mixer section of the FM IF IC (IC3, pin 16), and is mixed with the 2nd LO signal to be converted into a 450 kHz 2nd IF signal.

The FM IF IC (IC3) contains the 2nd mixer, 2nd local oscillator, limiter amplifier, quadrature detector, active filter and noise amplifier circuits. A 2nd LO signal (46.8 MHz) is produced at the PLL circuit by tripling it's reference frequency (15.6 MHz).

The 2nd IF signal from the 2nd mixer (IC3, pin 3) passes through the ceramic filters (FI2, FI3) during narrow channel spacing selection or FI2 only (bypassing FI3) during wide channel spacing selection to remove unwanted heterodyned frequencies. It is then amplified at the limiter amplifier section (IC3, pin 5) and applied to the quadrature detector section (IC3, pins 10, 11) to demodulate the 2nd IF signal into AF signals.

The demodulated AF signals are output from pin 9 (IC3) and applied to the AF circuit via the receiver mute circuit.

• 2nd IF and demodulator circuits



4-1-5 AF AMPLIFIER CIRCUIT

The AF amplifier circuit amplifies the demodulated AF signals to drive a speaker.

The AF signals from the FM IF IC (IC3, pin 9) are amplified at the AF amplifier section of the compander IC (IC9, pins 5, 4) and are then applied to the high-pass filter circuit (IC10).

The high-pass filter characteristics are controlled by the FSW signal from the I/O expander IC (IC23, pin 14). When FSW signal is high, the cut-off frequency is shifted higher to remove CTCSS or DTCS signals.

The filtered AF signals from the high-pass filter (IC10, pin 4) are applied to the de-emphasis section of compander IC (IC9, pin 3) with frequency characteristics of –6 dB/octave, and are then passed through the low-pass filter, high-pass filter, expander sections of compander IC (IC9). The output signal from IC9 (pin 38) is applied to the electronic volume controller (IC13, pin 1).

The output AF signals from the electronic volume controller (IC13, pin 2) are applied to the AF power amplifier (IC5) to drive the speaker.

4-1-6 RECEIVE MUTE CIRCUITS

• NOISE SQUELCH

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

Some noise components in the AF signals from the FM IF IC (IC3, pin 9) are passed through the level controller (IC13, pins 24, 23). The level controlled signals are applied to the active filter section in the FM IF IC (IC3, pin 8). Noise components about 10 kHz are amplified and output from pin 7.

The filtered signals are converted into the pulse-type signals at the noise detector section and output from pin 12 (NOIS).

The NOIS signal from the FM IF IC is applied to the CPU (IC14, pin 75). The CPU then analyzes the noise condition and controls the AF mute signal via “AFMT” line (IC23, pin 13) to the AF regulator (Q23, Q24).

• CTCSS AND DTCS

The tone squelch circuit detects AF signals and opens the squelch only when receiving a signal containing a matching subaudible tone (CTCSS or DTCS). When tone squelch is in use, and a signal with a mismatched or no subaudible tone is received, the tone squelch circuit mutes the AF signals even when noise squelch is open.

A portion of the AF signals from the FM IF IC (IC3, pin 9) passes through the low-pass filter (IC20b/a) to remove AF (voice) signals and is applied to the CTCSS or DTCS decoder inside the CPU (IC14, pin 46) via the “RXDT” line to control the AF mute switch via the I/O expander IC (IC23).

4-2 TRANSMITTER CIRCUITS

4-2-1 MICROPHONE AMPLIFIER CIRCUIT

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

The AF signals (MIC+) from the FRONT unit via J3 (pin 22) are passed through the internal/extenal microphone switch (IC19, pins 7, 1) and level controller (IC13, pins 9, 10) to the microphone amplifier circuit.

The AF signals from the level controller (IC13) are applied to the microphone amplifier section of compander IC (IC9, pin 12). The amplified signals are passed through the compressor, low-pass filter and high-pass filter sections of IC9.

The filtered AF signals are amplified at the buffer amplifier (Q47) and pre-emphasized with +6dB/octave at the pre-emphasis circuit (R166, C203), and are then applied to the IDC amplifier section of IC9 (pin 8).

The amplified AF signals are passed through the limitter amplifier and low-pass filter sections of IC9 after being passed through the AF mute switch inside of IC9.

The output signals from pin 6 are passed through the splatter filter (IC8) and level controller (IC13, pins 21, 22), and are then applied to the modulation circuit (D7).

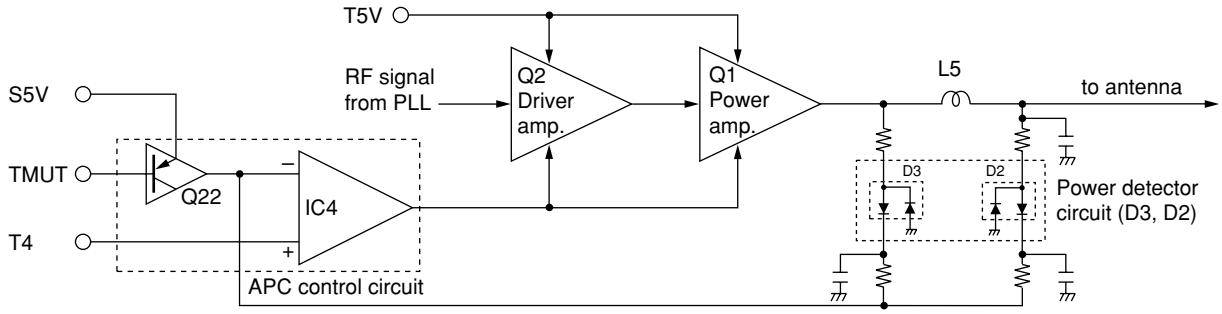
4-2-2 MODULATION CIRCUIT

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

The AF signals from the level controller (IC13) change the reactance of varactor diode (D7) to modulate the oscillated signal at the TX VCO circuit (Q12, D8). The modulated VCO signal is amplified at the buffer amplifiers (Q8, Q6) and is then applied to the drive amplifier circuit via the T/R switch (D4).

The CTCSS/DTCS signals from the CPU (IC14, pin 44) are passed through the low-pass filter (IC21), level controller (IC13, pins 12, 11) and mixer (IC7), and are then applied to the VCO circuit via the splatter filter (IC8).

• APC circuit



4-2-3 DRIVE/POWER AMPLIFIER CIRCUITS

The drive/power amplifier circuits amplify the VCO oscillating signal to an output power level.

The signal from the VCO circuit passes through the T/R switch (D4), and is amplified at the YGR (Q5, Q3), drive (Q2), power (Q1) amplifiers to obtain 4 W of RF power (at 7.2 V DC).

The amplified signal is passed through the APC detector, antenna switching circuit (D1) and low-pass filter, and is then applied to the antenna connector.

The bias current of the drive (Q2) and power (Q1) amplifiers is controlled by the APC circuit.

4-2-4 APC CIRCUIT

The APC circuit (IC4, Q22) protects the drive and power amplifiers from excessive current drive, and selects output power of HIGH, LOW2 or LOW1.

The APC detector circuit detects forward signals and reflection signals at D3 and D2 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 differential amplifier (IC4, pin 3), and the "T4" signal from the D/A converter (IC27, pin 4), controlled by the CPU (IC14), is applied to the other input for reference. When antenna impedance is mismatched, the detected voltage exceeds the power setting voltage. Then the output voltage of the differential amplifier (IC4, pin 4) controls the input current of the drive amplifier (Q2) and power amplifier (Q1) to reduce the output power.

4-3 PLL CIRCUITS

4-3-1 PLL CIRCUIT

A PLL circuit provides stable oscillation of the transmit frequency and receive 1st LO frequency. The PLL output compares the phase of the divided VCO frequency to the reference frequency. The PLL output frequency is controlled by the divided ratio (N-data) of a programmable divider.

The PLL circuit contains the TX/RXVCO circuit (Q12, Q11). The oscillated signal is amplified at the buffer amplifiers (Q8, Q7) and then applied to the PLL IC (IC1, pin 5).

The PLL IC contains a prescaler, programmable counter, programmable divider and phase detector, etc. The entered signal is divided at the prescaler and programmable counter section by the N-data ratio from the CPU. The divided signal is detected on phase at the phase detector using the reference frequency.

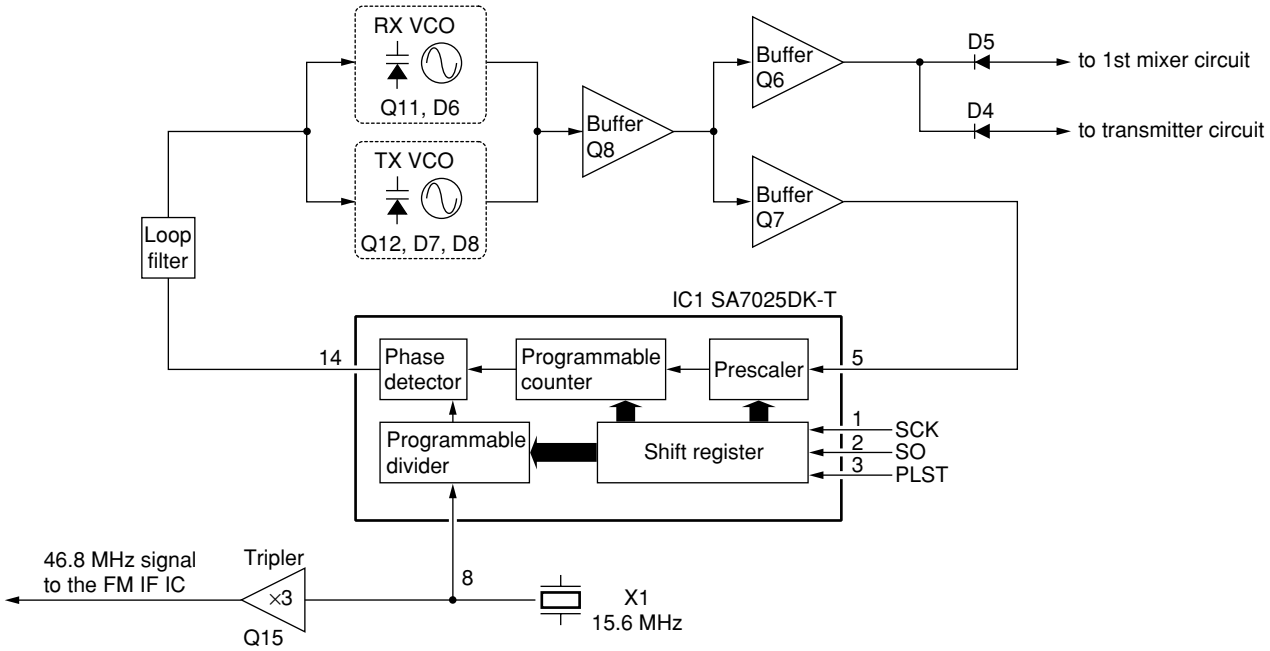
If the oscillated signal drifts, its phase changes from that of the reference frequency, causing a lock voltage change to compensate for the drift in the oscillated frequency.

4-3-2 VCO CIRCUIT

The VCO circuit contains a separate RX VCO (Q11, D6) and TX VCO (Q12, D7, D8). The oscillated signal is amplified at the buffer amplifiers (Q8, Q6) and is then applied to the T/R switch (D5, D4). Then the receive 1st LO (Rx) signal is applied to the 1st mixer (Q19) and the transmit (Tx) signal to the YGR amplifier circuit (Q5).

A portion of the signal from the buffer amplifier (Q8) is fed back to the PLL IC (IC1, pin 5) via the buffer amplifier (Q7) as the comparison signal.

• PLL circuit



4-4 POWER SUPPLY CIRCUIT

VOLTAGE LINE

LINE	DESCRIPTION
HV	The voltage from the attached battery pack.
VCC	The same voltage as the HV line (battery voltage) which is controlled by the power swtich ([VOL] control).
CPU5V	Common 5 V converted from the VCC line by the reference regulator circuit (IC12). The output voltage is applied to the CPU (IC14), 5 V regulator circuit (Q32, Q33) and reset circuit (IC15).
+5V	Common 5 V converted from the VCC line by the +5V regulator circuit (Q32, Q33).
S5V	Common 5 V converted from the +5V line by the S5V regulator circuit (Q31).
T5V	5 V for transmitter circuits regulated by the T5V regulator circuit (Q29).
R5	5 V for receiver circuits regulated by the R5 regulator circuit (Q30).

4-5 PORT ALLOCATIONS

4-5-1 CPU (IC14)

Pin number	Port name	Description
4	RESB	Outputs reset signal for the expader IC (IC23).
5	RMUT	Input port for AF mute signal from the optional units via J1 or J2.
6	MMUT	Input port for MIC mute signal from the optional units via J1 or J2.
7	PTOT	Input port for the [PTT] switch Low : While [PTT] switch is pushed.
13	EXST	Outputs strobe signals to the expander IC (IC23).
15	APST	Outputs strobe signals to the compander IC (IC9).
16	DIN	Outputs serial data signals to the compander IC (IC9).
17, 18, 19	RGS1, RGS2, MSKE	Output control signal for the compander IC (IC9).
21	FCLR	Outputs reset signal for the compander IC (IC9).
22–25	CB10–CB13	Input ports for rotary selector [SEL].
26	VCOS	Outputs TX VCO/RX VCO switching signal for the VCO switch (Q9, Q10). High : While transmitting
28	PLST	Outputs strobe signals to the PLL IC (IC1).
29	ULCK	Input port for the PLL unlock signal. Low : PLL is unlocked.
34	SCK	Outputs clock signal for the PLL IC (IC1), compamder IC (IC9), expander IC (IC23), D/A converter (IC13), etc.
35	SO	Outputs data signals for the PLL IC (IC1), compamder IC (IC9), expander IC (IC23), D/A converter (IC13), etc.
36	DAST	Outputs strobe signals to the D/A converter (IC13).
39	DTAC	Output clock signal to the DTMF decoder (IC17).
43	SENC	Outputs single tone signal.
44	CTDA	Outputs CTCSS/DTCS tone signal.
45	SDEC	Single tone signal input port for decoding.
46	RXDT	CTCSS/DTCS signals input port for decoding.
47	AFVI	Input port for the volume control [VOL]. High : [VOL] is maximum clockwise.
49	LVIN	Input port for the PLL lock voltage.
50	RSSI	Input port for the RSSI detection.
59	RES	Input port for the reset signal.
68	DTSD	Outputs serial data signals to the DTMF decoder IC (IC17).
70	TMUT	Outputs transmit mute signal. Low : During unlock or while muted
71	R5C	Outputs R5 regulator control signal. Low: While receiving
73	T5C	Outputs T5 regulator control signal. Low: While transmitting
75	NOIS	Input port for noise signals (pulse-type) for noise squelch operation.
81	SDA	I/O port for data signals from/to the D/A converter (IC27).
82	MSO	I/O port for data signals from/to EEPROMs (IC16, IC24).
87	BEEP	Outputs beep audio signals.
94	MSCK	Outputs clock signal to EEPROMs (IC16, IC24).
95	SCL	Outputs clock signal to the D/A converter (IC27).

4-5-2 I/O EXPANDER (IC23)

Pin number	Port name	Description
4	BUSY	Outputs BUSY detection. Low : The channel is busy.
6	DUSE	Outputs low-pass filter cut-off frequency control signal when DTCS is activated.
7	W/N	Outputs IF bandwidth control signal. High : While IF bandwidth is narrow.
11	S5C	Outputs S5 regulator control signal.
12	SPCN	Outputs internal speaker select signal.
13	AFMT	Outputs control signal for the AF amplifier regulator circuit. High: While AF amp. is activated.
14	FSW	Outputs high-pass filter's characteristics select signal.

SECTION 5 ADJUSTMENT PROCEDURES

5-1 PREPARATION

When you adjust the contents on pages 5-5 to 5-7, SOFTWARE ADJUSTMENT, the optional CS-F30G ADJ ADJUSTMENT SOFTWARE (Rev. 1.0 or later), *OPC-966 JIG CABLE (modified OPC-966 CLONING CABLE) are required.

■ REQUIRED TEST EQUIPMENT

EQUIPMENT	GRADE AND RANGE	EQUIPMENT	GRADE AND RANGE
DC power supply	Output voltage : 7.5 V DC Current capacity : 5 A or more	Audio generator	Frequency range : 300–3000 Hz Output level : 1–500 mV
FM deviation meter	Frequency range : DC–600 MHz Measuring range : 0 to ±10 kHz	Attenuator	Power attenuation : 40 or 50 dB Capacity : 10 W or more
Frequency counter	Frequency range : 0.1–600 MHz Frequency accuracy : ±1 ppm or better Sensitivity : 100 mV or better	Standard signal generator (SSG)	Frequency range : 300–600 MHz Output level : 0.1 µV–32 mV (–127 to –17 dBm)
Digital multimeter	Input impedance : 10 MΩ/V DC or better	DC voltmeter	Input impedance : 50 kΩ/V DC or better
RF power meter (terminated type)	Measuring range : 1–10 W Frequency range : 300–600 MHz Impedance : 50 Ω SWR : Less than 1.2 : 1	Oscilloscope	Frequency range : DC–20 MHz Measuring range : 0.01–20 V
		AC millivoltmeter	Measuring range : 10 mV–10 V

■ SYSTEM REQUIREMENTS

- IBM PC compatible computer with an RS -232C serial port (38400 bps or faster).
- Microsoft Windows 95 or Windows 98
- Intel i486DX processor or faster (Pentium 100 MHz or faster recommended)
- At least 16 MB RAM and 10 MB of hard disk space
- 640×480 pixel display (800×600 pixel display recommended)

■ ADJUSTMENT SOFTWARE INSTALLATION

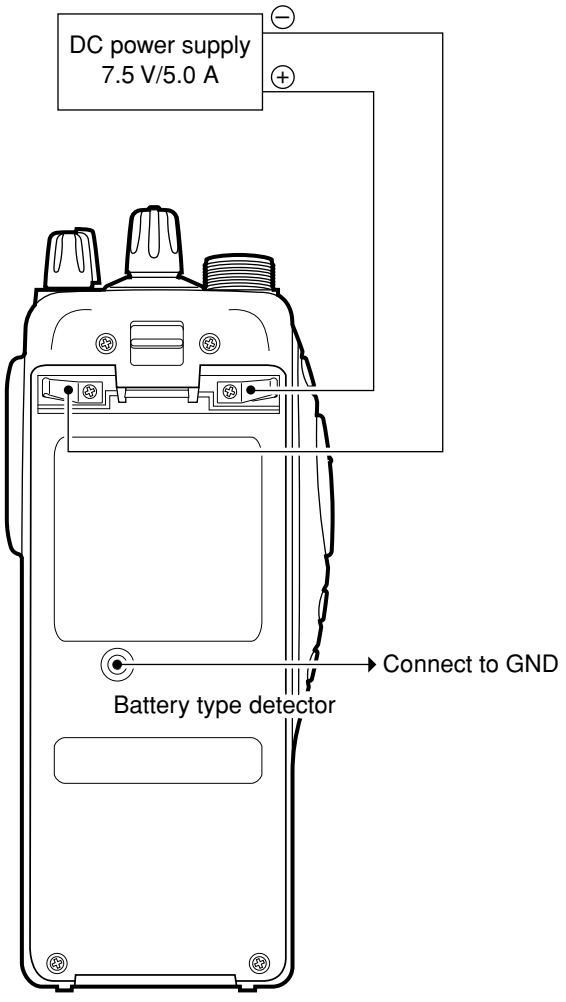
① Boot up Windows.
 - Quit all applications when Windows is running.
② Insert the 'CS-F30G' into the appropriate drive.
③ Select 'Run' from the [Start] menu.
④ Type the setup program name using the full path name, then push [Enter] key.
 (ex. D:\CSF30GADJ\disk1\Setup.exe)
⑤ Follow the prompts.
⑥ Program group 'CS-F30G ADJ' appears in the 'Programs' folder of the [Start] menu.

■ STARTING SOFTWARE ADJUSTMENT

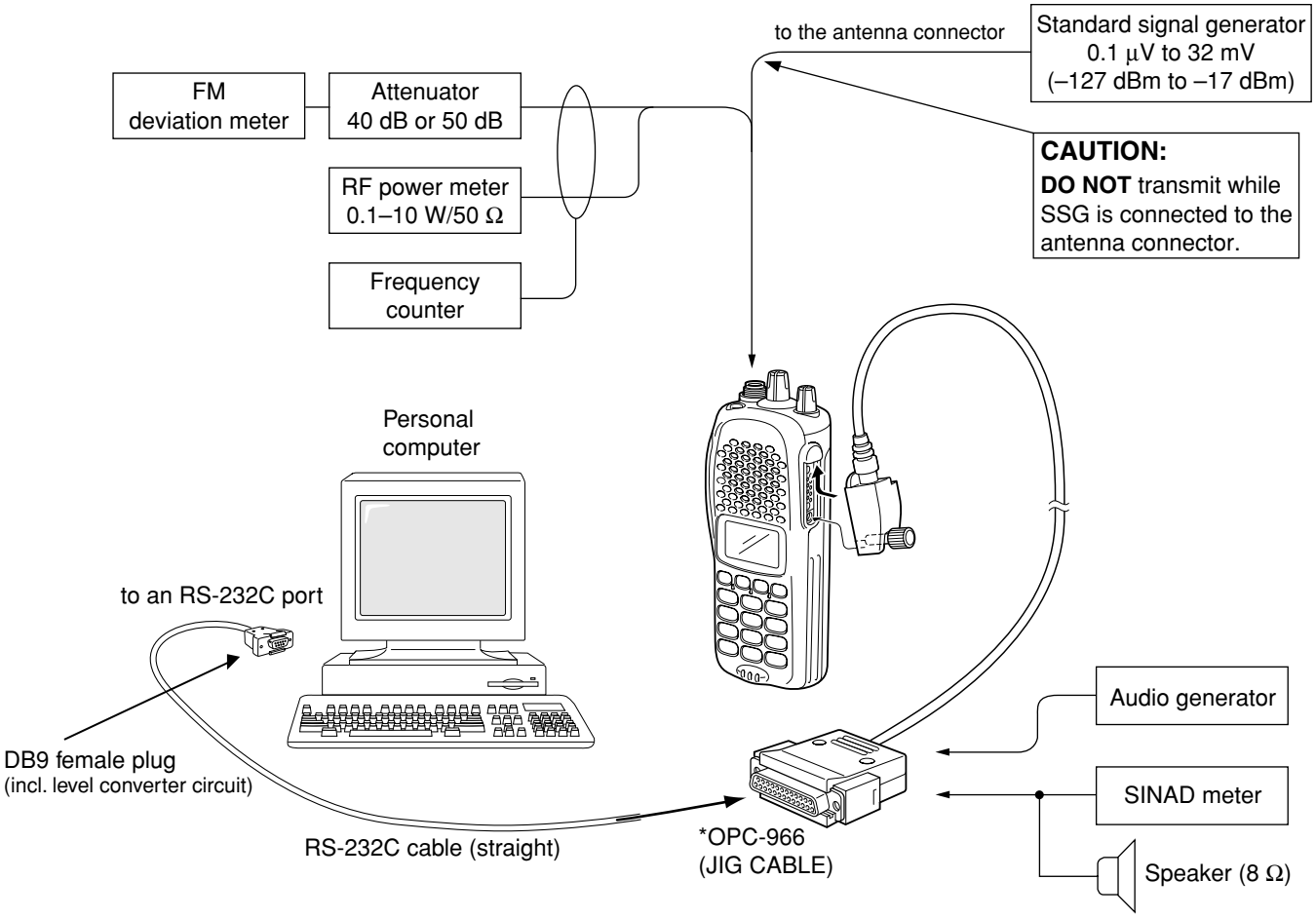
① Connect IC-F40GT, F40GS, F41GT or F41GS and PC with *OPC-966 JIG CABLE.
② Turn the transceiver power ON.
③ Boot up Windows, and click the program group 'CS-F30G ADJ' in the 'Programs' folder of the [Start] menu, then CS-F30G ADJ's window appears.
④ Click 'Connect' on the CS-F30G's window, then appears IC-F40GT, F40GS, F41GT or F41GS's up-to-date condition.
⑤ Set or modify adjustment data as desired.

• High power transmittion

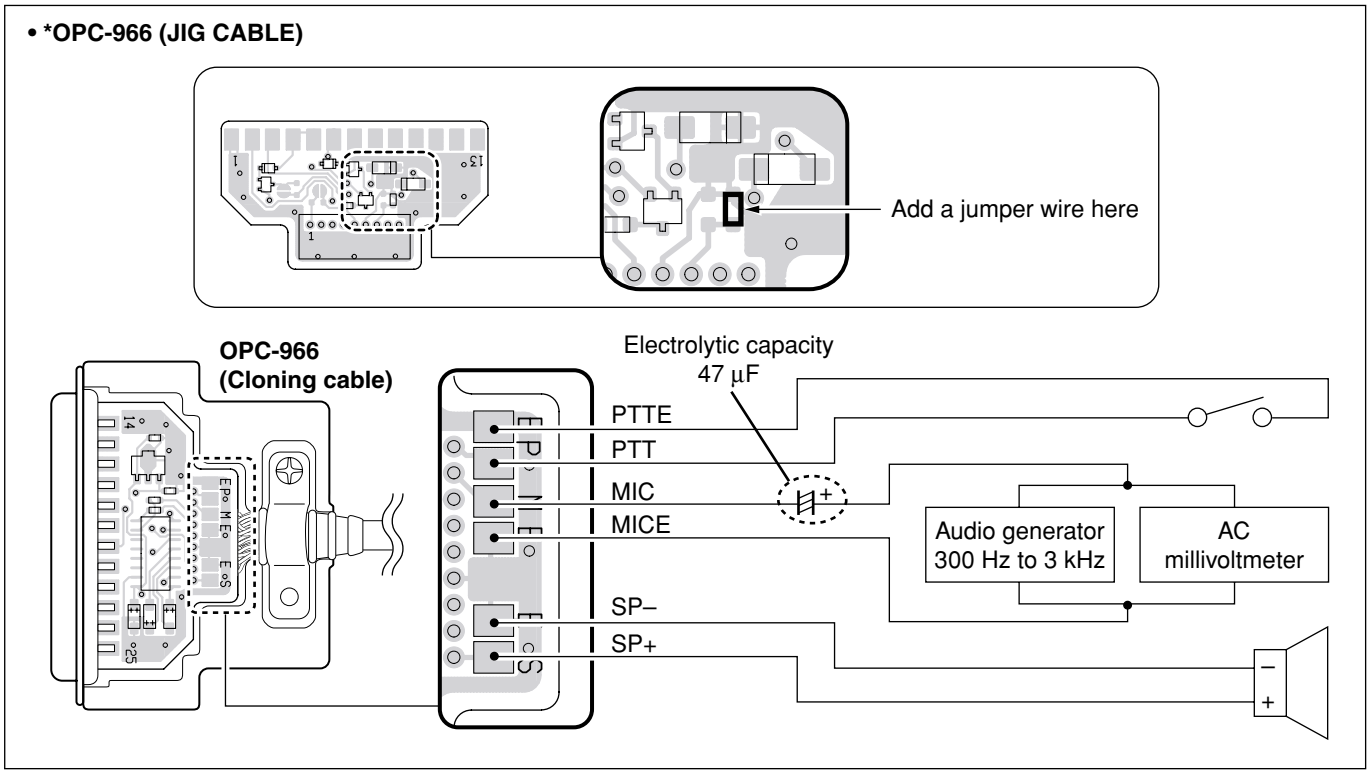
When you adjust the output power (high power), the battery type detector must be connected to GND (see illustration at below). Otherwise the transceiver does not transmit high power, the output power will be low.



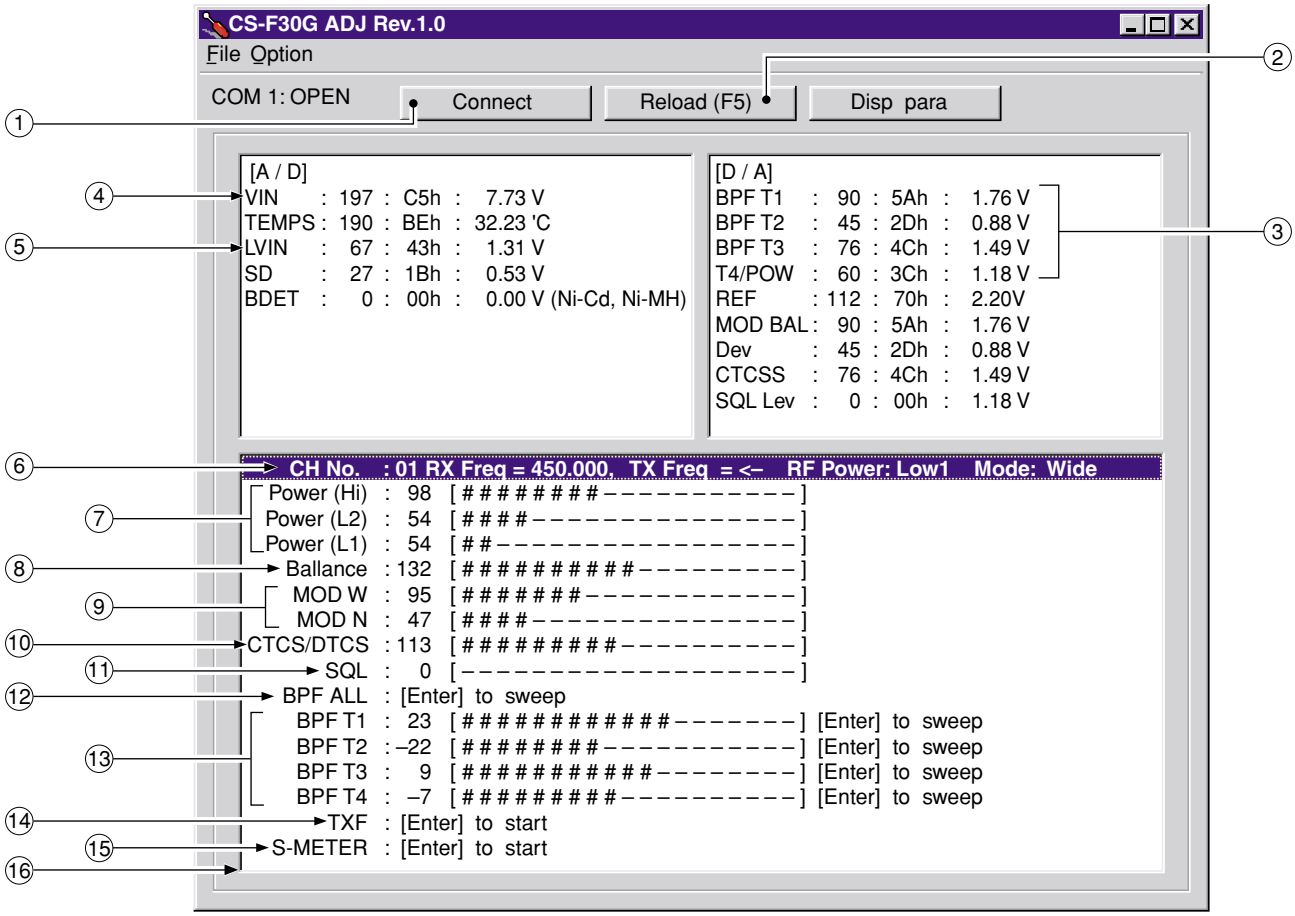
• Connection



• *OPC-966 (JIG CABLE)



• **Screen display exampe**



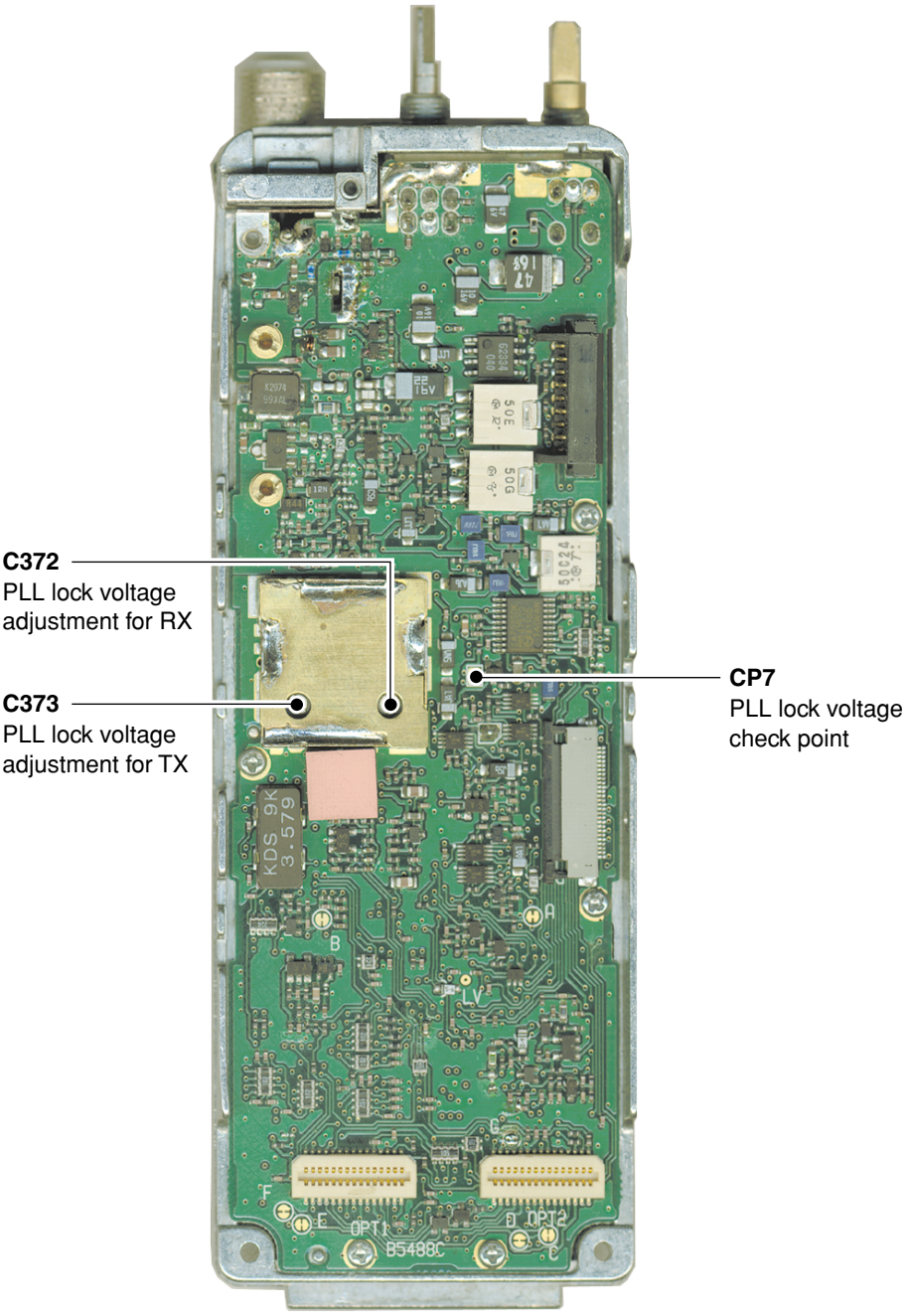
NOTE: The above values for settings are example only.
Each transceiver has its own specific values for each setting.

① : Transceiver's connection state
② : Reload adjustment data
③ : Receive sensitivity measurement
④ : Connected DC voltage
⑤ : PLL lock voltage
⑥ : Operating channel select
⑦ : RF output power
⑧ : Modulation balance
⑨ : FM deviation
⑩ : CTCSS/DTCS deviation
⑪ : Squelch level
⑫ : Receive sensitivity (automatically)
⑬ : Receive sensitivity (manually)
⑭ : Reference frequency
⑮ : S-meter
⑯ : Adjustment items

5-2 PLL ADJUSTMENT

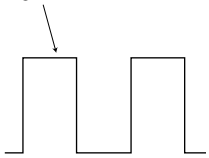
ADJUSTMENT		ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT	
			UNIT	LOCATION		UNIT	ADJUST
PLL LOCK VOLTAGE	1	• Operating freq. : 400.000 MHz [L] 440.000 MHz [ML] 450.000 MHz [MH] 480.000 MHz [H] • Receiving	MAIN	Connect a digital multimeter or an oscilloscope to the check point, “CP7”.	1.3 V	MAIN	C372
	2	• Transmitting			1.3 V		C373
	3	• Operating freq. : 430.000 MHz [L] 480.000 MHz [ML] 490.000 MHz [MH] 520.000 MHz [H] • Receiving			2.5–4.0 V [L] 3.0–4.5 V other		Verify
	4	• Transmitting			3.0–4.5 V		

• MAIN unit



5-3 SOFTWARE ADJUSTMENT

Select an operation using [↑] / [↓] keys, then set specified value using [←] / [→] keys on the connected computer keyboard.

ADJUSTMENT		ADJUSTMENT CONDITION	MEASUREMENT		VALUE
			UNIT	LOCATION	
REFERENCE FREQUENCY [TXF]	1	• Operating freq. : 430.000 MHz [L] 480.000 MHz [ML] 490.000 MHz [MH] 512.000 MHz [H]-USA 520.000 MHz [H]-other • Output power : Low1 • Connect the RF power meter or 50 Ω dummy load to the antenna connector. • Transmitting	Top panel	Loosely couple a frequnecy counter to the antenna connector.	430.0000 MHz [L] 480.0000 MHz [ML] 490.0000 MHz [MH] 512.0000 MHz [H]-USA 520.0000 MHz [H]-other
OUTPUT POWER [Power (Hi)]	1	• Operating freq. : 400.000 MHz [L] 440.000 MHz [ML] 450.000 MHz [MH] 480.000 MHz [H] • Output power : High • Transmitting	Top panel	Connect an RF power meter to the antenna connector.	4.0 W
[Power (L2)]	2	• Output power : Low2 • Transmitting			2.0 W
[Power (L1)]	3	• Output power : Low1 • Transmitting			1.0 W
MODULATION BALLANCE [Ballance]	1	• Operating freq. : 415.000 MHz [L] 460.000 MHz [ML] 470.000 MHz [MH] 496.000 MHz [H]-USA 500.000 MHz [H]-other • Output power : Low1 • Set the FM deviation meter as: HPF : OFF LPF : 20 kHz De-emphasis : OFF Detector : (P–P)/2 • Push [P0] key while transmitting	Top panel	Connect an FM deviation meter with an oscilloscope to the antenna connector through an attenuator.	Set to square wave form 
FM DEVIATION [MOD W]	1	• Operating freq. : 400.000 MHz [L] 440.000 MHz [ML] 450.000 MHz [MH] 480.000 MHz [H] • Output power : Low1 • IF bandwidth : Wide • Set the FM deviation meter as: HPF : OFF LPF : 20 kHz De-emphasis : OFF Detector : (P–P)/2 • Connect the audio generator to the multi connector through the JIG cable (*OPC-966) and set as: 1.0 kHz/150 mVrms • Transmitting	Top panel	Connect an FM deviation meter to the antenna connector through the attenuator.	±4.1 kHz
[MOD N]	2	• IF bandwidth : Narrow • Transmitting			±2.1 kHz

SOFTWARE ADJUSTMENT – continued

Select an operation using [↑] / [↓] keys, then set specified value using [←] / [→] keys on the connected computer keyboard.

ADJUSTMENT		ADJUSTMENT CONDITION	MEASUREMENT		VALUE
			UNIT	LOCATION	
CTCSS/DTCS DEVIATON [CTCS/DTCS]	1	• Operating freq. : 400.000 MHz [L] 440.000 MHz [ML] 450.000 MHz [MH] 480.000 MHz [H] • Output power : Low1 • IF bandwidth : Wide • CTCSS : 88.5 Hz • DTCS code : 007 • Set the FM deviation meter as: HPF : OFF LPF : 20 kHz De-emphasis : OFF Detector : (P–P)/2 • No audio applied to the [MIC] input. • Transmitting	Top panel	Connect an FM deviation meter to the antenna connector through the attenuator.	0.7 kHz
RX SENSITIVITY [BPF T1] – [BPF T4]	1	• Operating freq. : 400.000 MHz [L] 440.000 MHz [ML] 450.000 MHz [MH] 480.000 MHz [H] • IF bandwidth : Wide • Connect a standard signal generator to the antenna connector and set as: Frequency : 400.000 MHz [L] 440.000 MHz [ML] 450.000 MHz [MH] 480.000 MHz [H] Level : 10 µV* (–87 dBm) Modulation : 1 kHz Deviation : ±3.5 kHz • Receiving	MAIN	Connect a SINAD meter with an 8 Ω load to the multi connector through the JIG cable (*OPC-966).	Minimum distortion level
		CONVENIENT: The BPF T1–BPF T4 can be adjusted automatically. ①-1: Set the cursol to “BPF ALL” on the adjustment program and then push [ENTER] key. ①-2: The connected PC tunes BPF T1–BPF T4 to peak levels. or ②-1: Set the cursol to one of BPF T1, T2, T3, or T4 as desired. ②-2: Push [ENTER] key to start tuning. ②-3: Repeat ②-1 and ②-2 to perform additional BPF tuning.			
S-METER [S-METER]	1	• Operating freq. : 400.000 MHz [L] 440.000 MHz [ML] 450.000 MHz [MH] 480.000 MHz [H] • IF bandwidth : Wide • Connect an SSG to the antenna connector and set as: Frequency : 400.000 MHz [L] 440.000 MHz [ML] 450.000 MHz [MH] 480.000 MHz [H] Level : 14 µV* (–84 dBm) Modulation : 1 kHz Deviation : ±3.5 kHz • Receiving	MAIN		Push [ENTER] key on the connected computer keyboard to set “S3 level”.
	2	• Set an SSG as : Level : 0.45 µV* (–114 dBm) Modulation : 1 kHz Deviation : ±3.5 kHz • Receiving			Push [ENTER] key on the connected computer keyboard to set “S1 level”.

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

SOFTWARE ADJUSTMENT – continued

Select an operation using [↑] / [↓] keys, then set specified value using [←] / [→] keys on the connected computer keyboard.

ADJUSTMENT		ADJUSTMENT CONDITION	MEASUREMENT		VALUE
			UNIT	LOCATION	
SQUELCH LEVEL [SQL]	1	• Operating freq. : 415.000 MHz [L] 460.000 MHz [ML] 470.000 MHz [MH] 496.000 MHz [H]-USA 500.000 MHz [H]-other • IF bandwidth : Wide • Connect an SSG to the antenna connector and set as: Frequency : 415.000 MHz [L] 460.000 MHz [ML] 470.000 MHz [MH] 496.000 MHz [H]-USA 500.000 MHz [H]-other Level : 0.2 µV* (–121 dBm) Modulation : 1 kHz Deviation : ±3.5 kHz • Receiving	Front panel	Internal speaker	Set “SQL level” to close squelch. Then set “SQL level” at the point where the audio signals just appears.

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

SECTION 6 PARTS LIST

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1130009860	S.IC	TC74VHC373FT (EL)
Q1	1530002850	S.TRANSISTOR	2SC4116-BL (TE85R)
Q2	1530002850	S.TRANSISTOR	2SC4116-BL (TE85R)
Q3	1590002150	S.TRANSISTOR	DTC144TE TL
Q4	1590002150	S.TRANSISTOR	DTC144TE TL
Q5	1590002150	S.TRANSISTOR	DTC144TE TL
Q6	1560001130	S.FET	CPH3403-TL
Q7	1560001130	S.FET	CPH3403-TL
Q8	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q9	1590000430	S.TRANSISTOR	DTC144EUA T106
D1	1790001280	S.DIODE	MA111 (TX)
D2	1790001280	S.DIODE	MA111 (TX)
D3	1790001200	S.DIODE	MA6S121 (TX)
D4	1790001280	S.DIODE	MA111 (TX)
R1	7030007300	S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ)
R2	7030005030	S.RESISTOR	ERJ2GEJ 152 X (1.5 kΩ)
R3	7030007250	S.RESISTOR	ERJ2GEJ 220 X (22 Ω)
R4	7030009150	S.RESISTOR	ERJ2GEJ 824 X (820 kΩ)
R5	7030009150	S.RESISTOR	ERJ2GEJ 824 X (820 kΩ)
R6	7030006610	S.RESISTOR	ERJ2GEJ 394 X (390 kΩ)
R7	7030008310	S.RESISTOR	ERJ2GEJ 564 X (560 kΩ)
R8	7030008370	S.RESISTOR	ERJ2GEJ 561 X (560 Ω)
R9	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω)
R10	7030005030	S.RESISTOR	ERJ2GEJ 152 X (1.5 kΩ)
R11	7030007300	S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ)
R12	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)
R13	7030007280	S.RESISTOR	ERJ2GEJ 331 X (330 Ω)
R14	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R17	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R18	7410000750	S.ARRAY	EXB-V4V 104JV (100 kΩ)
R19	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R20	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
R21	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R22	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
C1	4030016930	S.CERAMIC	ECJ0EB1A104K
C2	4030016930	S.CERAMIC	ECJ0EB1A104K
C3	4030016930	S.CERAMIC	ECJ0EB1A104K
C4	4550006150	S.TANTALUM	ECST1CY105R
C6	4550006150	S.TANTALUM	ECST1CY105R
C7	4550006150	S.TANTALUM	ECST1CY105R
C8	4550006150	S.TANTALUM	ECST1CY105R
C9	4550006150	S.TANTALUM	ECST1CY105R
C10	4550006150	S.TANTALUM	ECST1CY105R
C11	4550006150	S.TANTALUM	ECST1CY105R
C12	4030014180	S.CERAMIC	ECUE1H470JCQ
C13	4030014180	S.CERAMIC	ECUE1H470JCQ
C14	4030014180	S.CERAMIC	ECUE1H470JCQ
C15	4030014180	S.CERAMIC	ECUE1H470JCQ
C16	4030013850	S.CERAMIC	ECUE1E102KBQ
C17	4030014180	S.CERAMIC	ECUE1H470JCQ
C18	4030014180	S.CERAMIC	ECUE1H470JCQ
C19	4030016930	S.CERAMIC	ECJ0EB1A104K
C20	4030014180	S.CERAMIC	ECUE1H470JCQ
C21	4550006150	S.TANTALUM	ECST1CY105R
C22	4030016930	S.CERAMIC	ECJ0EB1A104K
C23	4550006150	S.TANTALUM	ECST1CY105R
C24	4030014430	S.CERAMIC	C1005 JB 1C 153K-T-A
C25	4030014180	S.CERAMIC	ECUE1H470JCQ
C26	4030016930	S.CERAMIC	ECJ0EB1A104K
J1	6510022360	S.CONNECTOR	26FLZ-SM1-TB
J2	6510022200	S.CONNECTOR	40FLZ-SM1-R-TB
DS1	5010000160	S.LED	LNJ310M6URA
DS2	5010000160	S.LED	LNJ310M6URA
DS3	5010000160	S.LED	LNJ310M6URA

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
DS4	5010000160	S.LED	LNJ310M6URA	
DS5	5040002170	S.LED	LNJ210C6ARA	
DS6	5010000120	S.LED	LN1371G-(TR)	[GT] only
DS7	5010000120	S.LED	LN1371G-(TR)	[GT] only
DS8	5010000120	S.LED	LN1371G-(TR)	[GT] only
DS9	5010000120	S.LED	LN1371G-(TR)	[GT] only
DS10	5030001870	LCD	EDMMUD1FA0	
DS11	5010000120	S.LED	LN1371G-(TR)	[GT] only
DS12	5010000120	S.LED	LN1371G-(TR)	[GT] only
DS13	5010000160	S.LED	LNJ310M6URA	
DS14	5010000120	S.LED	LN1371G-(TR)	[GS] only
DS15	5010000120	S.LED	LN1371G-(TR)	[GS] only
MC1	7700002310	MICROPHONE	EM-140	
S1	2230001060	S.SWITCH	EVQ-PUL 02K	
S2	2230001060	S.SWITCH	EVQ-PUL 02K	
S3	2230001060	S.SWITCH	EVQ-PUL 02K	
S4	2230001060	S.SWITCH	EVQ-PUL 02K	
S5	2230001060	S.SWITCH	EVQ-PUL 02K	
SP1	2510001060	SPEAKER	K036NA500-47	
W1	7120000470	JUMPER	ERDS2T0	
EP1	0910052494	PCB	B 5489D	[F40G]
	0910053635	PCB	B 5489E	[F41G]

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1130009130	S.IC	SA7025DK-T
IC2	1130008560	S.IC	TC75S51F (TE85L)
IC3	1110003490	S.IC	TA31136FN (D, EL)
IC4	1130008560	S.IC	TC75S51F (TE85L)
IC5	1110001810	S.IC	TA7368F (TP1)
IC6	1110002750	S.IC	TA75S01F (TE85R)
IC7	1110002750	S.IC	TA75S01F (TE85R)
IC8	1130008560	S.IC	TC75S51F (TE85L)
IC9	1130009330	S.IC	TC35453F (BR, DRY)
IC10	1110002750	S.IC	TA75S01F (TE85R)
IC12	1110003390	S.IC	AN8005M-(E1)
IC13	1190001350	S.IC	M62364FP 600D
IC14	1140008731	S.IC	HD64F2238FA13
IC15	1130009110	S.IC	S-80942ANMP-DD6-T2
IC16	1140008650	S.IC	HN58X2464TI
IC17	1130009700	S.IC	LC73872M-TRM
IC18	1110002750	S.IC	TA75S01F (TE85R)
IC19	1130009980	S.IC	TC7W53FK (TE85L)
IC20	1110003800	S.IC	NJM2904V-TE1
IC21	1110002750	S.IC	TA75S01F (TE85R)
IC23	1130007570	S.IC	BU4094BCFV-E2
IC24	1140008650	S.IC	HN58X2464TI
IC25	1130009980	S.IC	TC7W53FK (TE85L)
IC26	1130009980	S.IC	TC7W53FK (TE85L)
IC27	1190001340	S.IC	M62334FP 600C
IC28	1130009980	S.IC	TC7W53FK (TE85L)
IC29	1130009980	S.IC	TC7W53FK (TE85L)
IC30	1130007020	S.IC	TC7S66FU (TE85R)
IC31	1130008560	S.IC	TC75S51F (TE85L)
Q1	1560001050	S.FET	2SK2974
Q2	1560001020	S.FET	2SK2973 (MTS101P)
Q3	1530002620	S.TRANSISTOR	2SC3585 R44-T2B
Q5	1530003310	S.TRANSISTOR	2SC5107-O (TE85R)
Q6	1530003310	S.TRANSISTOR	2SC5107-O (TE85R)
Q7	1530003310	S.TRANSISTOR	2SC5107-O (TE85R)
Q8	1530003310	S.TRANSISTOR	2SC5107-O (TE85R)
Q9	1590000430	S.TRANSISTOR	DTC144EUA T106
Q10	1590001400	S.TRANSISTOR	XP1214 (TX)
Q11	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q12	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q13	1530002850	S.TRANSISTOR	2SC4116-BL (TE85R)
Q14	1560000540	S.FET	2SK880-Y (TE85R)
Q15	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q16	1590000720	S.TRANSISTOR	DTA144EUA T106
Q17	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q18	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q19	1580000490	S.FET	3SK166A-2-T7
Q20	1580000730	S.FET	3SK293 (TE85L)
Q21	1560000840	S.FET	2SK1829 (TE85R)
Q22	1590000720	S.TRANSISTOR	DTA144EUA T106
Q23	1520000460	S.TRANSISTOR	2SB1132 T100 R
Q24	1590001190	S.TRANSISTOR	XP6501-(TX) .AB
Q26	1590000430	S.TRANSISTOR	DTC144EUA T106
Q27	1530003090	S.TRANSISTOR	2SC4213-B (TE85R)
Q29	1510000580	S.TRANSISTOR	2SA1362-GR (TE85R)
Q30	1510000580	S.TRANSISTOR	2SA1362-GR (TE85R)
Q31	1510000580	S.TRANSISTOR	2SA1362-GR (TE85R)
Q32	1520000460	S.TRANSISTOR	2SB1132 T100 R
Q33	1590001190	S.TRANSISTOR	XP6501-(TX) .AB
Q39	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q40	1590001400	S.TRANSISTOR	XP1214 (TX)
Q41	1590000430	S.TRANSISTOR	DTC144EUA T106
Q43	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q44	1590000430	S.TRANSISTOR	DTC144EUA T106
Q45	1590002530	S.TRANSISTOR	UN911H (TX)
Q46	1590000430	S.TRANSISTOR	DTC144EUA T106
Q47	1530002060	S.TRANSISTOR	2SC4081 T107 R
D1	1750000580	S.DIODE	1SV307 (TPH3)
D2	1790001670	S.DIODE	RB706F-40T106
D3	1790001670	S.DIODE	RB706F-40T106
D4	1790000620	S.DIODE	MA77 (TX)
D5	1790000620	S.DIODE	MA77 (TX)
D6	1720000370	S.VARICAP	HVU350TRF
D7	1720000520	S.VARICAP	1T365-01-T8A
D8	1720000370	S.VARICAP	HVU350TRF
D9	1720000360	S.DIODE	HSU88TRF
D10	1160000060	S.DIODE	DAN202U T107
D13	1160000050	S.DIODE	DAP202U T107

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
D14	1160000050	S.DIODE	DAP202U T107	
D15	1160000060	S.DIODE	DAN202U T107	
D16	1160000060	S.DIODE	DAN202U T107	
D17	1790001210	S.DIODE	1SS375-TL	
D18	1750000720	S.VARICAP	HVC375BTRF	
D19	1750000720	S.VARICAP	HVC375BTRF	
D20	1750000720	S.VARICAP	HVC375BTRF	
D21	1750000720	S.VARICAP	HVC375BTRF	
D22	1790001250	S.DIODE	MA2S111-(TX)	
D23	1790001210	S.DIODE	1SS375-TL	
D24	1790000620	S.DIODE	MA77 (TX)	
D25	1790000620	S.DIODE	MA77 (TX)	
D26	1790001280	S.DIODE	MA111 (TX)	
D27	1790000620	S.DIODE	MA77 (TX)	
D29	1750000550	S.DIODE	1SS355 TE-17	
D30	1730002360	S.ZENER	MA8062-M (TX)	
D31	1790001280	S.DIODE	MA111 (TX)	
D33	1790001280	S.DIODE	MA111 (TX)	
D34	1730002360	S.ZENER	MA8062-M (TX)	
D35	1730002360	S.ZENER	MA8062-M (TX)	
D36	1730002360	S.ZENER	MA8062-M (TX)	
D38	1790001280	S.DIODE	MA111 (TX)	
D39	1730002590	S.ZENER	MA8033-H (TX)	[L]-F41G
	1730002260	S.ZENER	MA8030-H (TX)	other
D40	1790000980	S.DIODE	MA742 (TX)	
FI1	2010002310	S.MONOLITH	FL-296 (47.250 MHz)	
FI2	2020001490	S.CERAMIC	SFPC450E-TC01	
FI3	2020001080	S.CERAMIC	SFPC450G-TC01	
FI4	2040001440	S.LC	NFM60R20T152	
X1	6050010960	S.XTAL	CR-667 (15.600 MHz)	
X2	6070000210	S.DISCRIMINATOR	CDBCA450CX24	
X3	6050011000	S.XTAL	CR-681 (12.288 MHz)	
X4	6050009910	S.XTAL	CR-563 (3.579545 MHz)	
L1	6200008510	S.COIL	0.30-0.9-4TR 10.5N	
L2	6200008240	S.COIL	0.30-0.9-5TL 14N	
L4	6200002850	S.COIL	NL 252018T-R82J	
L5	6200008240	S.COIL	0.30-0.9-5TL 14N	
L7	6200009470	S.COIL	0.40-0.9-2TL	
L9	6200003590	S.COIL	EXCCL3225U1	
L14	6200003590	S.COIL	EXCCL3225U1	
L15	6200001750	S.COIL	ELJNC 15NK-F	[L]-F40G
	6200001760	S.COIL	ELJNC 22NK-F	[L]-F41G
	6200002470	S.COIL	ELJNC 12NK-F	[ML]-F40G, [MH]
	6200001650	S.COIL	ELJNC 18NK-F	[ML]-F41G
	6200001640	S.COIL	ELJNC 10NK-F	[H]
L16	6200005730	S.COIL	ELJRE 39NG-F	[L]-F40G
	6200005680	S.COIL	ELJRE 15NG-F	[L]-F41G
	6200005660	S.COIL	ELJRE 10NG-F	other
L17	6200005710	S.COIL	ELJRE 27NG-F	[L], [ML]
	6200005700	S.COIL	ELJRE 22NG-F	[MH], [H]
L18	6200005700	S.COIL	ELJRE 22NG-F	[H]
	6200005710	S.COIL	ELJRE 27NG-F	other
L19	6200004660	S.COIL	MLF1608A 1R8K-T	
L20	6200009360	S.COIL	0.45-1.4-3TL 11N	
L21	6200001980	S.COIL	NL 252018T-1R0J	[L]
	6200002860	S.COIL	NL 252018T-4R7J	other
L22	6200004950	S.COIL	NL 252018T-1R8J	
L23	6200009360	S.COIL	0.45-1.4-3TL 11N	
L24	6200002860	S.COIL	NL 252018T-4R7J	
L25	6200004950	S.COIL	NL 252018T-1R8J	
L26	6200001980	S.COIL	NL 252018T-1R0J	
L27	6200002850	S.COIL	NL 252018T-R82J	
L28	6200004950	S.COIL	NL 252018T-1R8J	
L29	6200005680	S.COIL	ELJRE 15NG-F	
L30	6200004950	S.COIL	NL 252018T-1R8J	
L31	6200004480	S.COIL	MLF1608D R82K-T	
L32	6200006670	S.COIL	ELJRE 68NG-F	[L], [ML]
	6200005740	S.COIL	ELJRE 47NG-F	[MH], [H]
L33	6200002320	S.COIL	LQN 1A 8N8J04	
L34	6200002320	S.COIL	LQN 1A 8N8J04	
L35	6200001980	S.COIL	NL 252018T-1R0J	
L36	6200002320	S.COIL	LQN 1A 8N8J04	
L37	6200002320	S.COIL	LQN 1A 8N8J04	
L38	6200002370	S.COIL	LQN 1A 39NJ04	[H]
	6200002820	S.COIL	LQN 1A 47NJ04	other
L39	6200009220	S.COIL	LQW1608A15NG00	

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
L40	6200009220	S.COIL	LQW1608A15NG00
L41	6200003590	S.COIL	EXCCL3225U1
L42	6200004950	S.COIL	NL 252018T-1R8J
L43	6200002860	S.COIL	NL 252018T-4R7J
L44	6200001980	S.COIL	NL 252018T-1R0J
L45	6200004660	S.COIL	MLF1608A 1R8K-T
L46	6200004780	S.COIL	MLF1608A 1R5K-T
L47	6200001980	S.COIL	NL 252018T-1R0J
L48	6200003960	S.COIL	MLF1608A 1R0K-T
L49	6200003960	S.COIL	MLF1608A 1R0K-T
L50	6200005700	S.COIL	ELJRE 22NG-F
L51	6200005590	S.COIL	ELJRE 2N7Z-F [L]-F40G
	6200006780	S.COIL	ELJRE 1N8Z-F [L]-F41G
	6200006770	S.COIL	ELJRE 1N5Z-F other
L53	6200007920	S.COIL	ELJRF 15NJF2 (15) [F41G] only
L54	6200007920	S.COIL	ELJRF 15NJF2 (15) [F41G] only
L55	6200003960	S.COIL	MLF1608A 1R0K-T [F41G] only
L56	6200006190	S.COIL	BLM21P300S [F41G] only
L57	6200007920	S.COIL	ELJRF 15NJF2 (15) [F41G] only
L58	6200007920	S.COIL	ELJRF 15NJF2 (15) [F41G] only
L59	6200007900	S.COIL	ELJRF 22NJF2 (22) [F41G] only
R1	7030000610	S.RESISTOR	MCR10EZHJ 82 kΩ
R2	7030000290	S.RESISTOR	MCR10EZHJ 180 Ω (181)
R3	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R4	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R5	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R6	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R8	7030007340	S.RESISTOR	ERJ2GEJ 153 X (15 kΩ) [F40G]
	7030005720	S.RESISTOR	ERJ2GEJ 563 X (56 kΩ) [F41G]
R10	7030005000	S.RESISTOR	ERJ2GEJ 471 X (470 Ω) [L]-F41G
	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω) [ML]-F41G
	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω) other
R11	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ) [L]-F41G only
R12	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R13	7030005000	S.RESISTOR	ERJ2GEJ 471 X (470 Ω) [L]-F41G
	7030009320	S.RESISTOR	ERJ2GEJ 4R7 X (4.7 Ω) [ML]-F41G
R14	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R15	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R16	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω)
R17	7030005720	S.RESISTOR	ERJ2GEJ 563 X (56 kΩ)
R18	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R19	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)
R20	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R21	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)
R22	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R23	7030007250	S.RESISTOR	ERJ2GEJ 220 X (22 Ω) [F40G] only
R24	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω)
R25	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ)
R26	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω)
R27	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω) [F40G] only
R28	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ)
R29	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R30	7030009140	S.RESISTOR	ERJ2GEJ 272 X (2.7 kΩ)
R31	7030007300	S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ)
R33	7030005710	S.RESISTOR	ERJ2GEJ 121 X (120 Ω) [L]
	7030008280	S.RESISTOR	ERJ2GEJ 271 X (270 Ω) other
R34	7030007300	S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ)
R35	7030007300	S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ)
R36	7030009320	S.RESISTOR	ERJ2GEJ 4R7 X (4.7 Ω)
R37	7030007280	S.RESISTOR	ERJ2GEJ 331 X (330 Ω) [H]
	7030009280	S.RESISTOR	ERJ2GE 391 X (390 Ω) other
R38	7030007290	S.RESISTOR	ERJ2GEJ 222 X (2.2 kΩ) [ML], [MH]
	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ) other
R39	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R40	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R41	7030005110	S.RESISTOR	ERJ2GEJ 224 X (220 kΩ)
R42	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R43	7030009700	S.RESISTOR	ERJ2GEJ 202 X (2 kΩ)
R44	7030008410	S.RESISTOR	ERJ2GEJ 392 X (3.9 kΩ)
R45	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R46	7030008010	S.RESISTOR	ERJ2GEJ 123 X (12 kΩ)
R47	7030009710	S.RESISTOR	ERJ2GEJ 203 X (20 kΩ)
R48	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R49	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R50	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R51	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R52	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R53	7030005110	S.RESISTOR	ERJ2GEJ 224 X (220 kΩ)
R54	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)
R55	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R57	7030009700	S.RESISTOR	ERJ2GEJ 202 X (2 kΩ)
R58	7410000950	S.ARRAY	EXB-V8V 102JV
R59	7030009700	S.RESISTOR	ERJ2GEJ 202 X (2 kΩ)
R60	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R61	7030007060	S.RESISTOR	ERJ2GEJ 684 X (680 kΩ)
R62	7030007570	S.RESISTOR	ERJ2GEJ 122 X (1.2 kΩ)
R63	7030005580	S.RESISTOR	ERJ2GEJ 560 X (56 Ω)
R64	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R65	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R66	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R67	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R69	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R73	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R75	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R77	7030007340	S.RESISTOR	ERJ2GEJ 153 X (15 kΩ)
R78	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R79	7030008010	S.RESISTOR	ERJ2GEJ 123 X (12 kΩ)
R80	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R81	7030009320	S.RESISTOR	ERJ2GEJ 4R7 X (4.7 Ω)
R82	7030007340	S.RESISTOR	ERJ2GEJ 153 X (15 kΩ)
R83	7030007350	S.RESISTOR	ERJ2GEJ 393 X (39 kΩ)
R85	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R86	7030005100	S.RESISTOR	ERJ2GEJ 154 X (150 kΩ)
R87	7030009270	S.RESISTOR	ERJ2GEJ 821 X (820 Ω)
R88	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R89	7030005030	S.RESISTOR	ERJ2GEJ 152 X (1.5 kΩ)
R90	7030004970	S.RESISTOR	ERJ2GEJ 470 X (47 Ω)
R91	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R92	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R93	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R94	7030007570	S.RESISTOR	ERJ2GEJ 122 X (1.2 kΩ)
R96	7030007290	S.RESISTOR	ERJ2GEJ 222 X (2.2 kΩ)
R97	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R98	7030005310	S.RESISTOR	ERJ2GEJ 124 X (120 kΩ)
R99	7030008280	S.RESISTOR	ERJ2GEJ 271 X (270 Ω)
R101	7030008410	S.RESISTOR	ERJ2GEJ 392 X (3.9 kΩ)
R103	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω)
R104	7030009710	S.RESISTOR	ERJ2GEJ 203 X (20 kΩ)
R105	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R106	7030009270	S.RESISTOR	ERJ2GEJ 821 X (820 Ω)
R107	7030010130	S.RESISTOR	ERJ2GE 6R8 X (6.8 Ω)
R108	7030009270	S.RESISTOR	ERJ2GEJ 821 X (820 Ω)
R109	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R110	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R111	7030005100	S.RESISTOR	ERJ2GEJ 154 X (150 kΩ)
R112	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R113	7030005110	S.RESISTOR	ERJ2GEJ 224 X (220 kΩ)
R114	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R115	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R116	7030005110	S.RESISTOR	ERJ2GEJ 224 X (220 kΩ)
R117	7030007280	S.RESISTOR	ERJ2GEJ 331 X (330 Ω)
R118	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R119	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
R120	7030007340	S.RESISTOR	ERJ2GEJ 153 X (15 kΩ)
R121	7030009320	S.RESISTOR	ERJ2GEJ 4R7 X (4.7 Ω)
R122	7030008400	S.RESISTOR	ERJ2GEJ 182 X (1.8 kΩ)
R123	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R124	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
R125	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R126	7030005110	S.RESISTOR	ERJ2GEJ 224 X (220 kΩ)
R127	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)
R128	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
R129	7030007290	S.RESISTOR	ERJ2GEJ 222 X (2.2 kΩ)
R130	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R131	7030005230	S.RESISTOR	ERJ2GEJ 334 X (330 kΩ)
R132	7030005100	S.RESISTOR	ERJ2GEJ 154 X (150 kΩ)
R133	7030005290	S.RESISTOR	ERJ2GEJ 682 X (6.8 kΩ)
R134	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R135	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R136	7030005290	S.RESISTOR	ERJ2GEJ 682 X (6.8 kΩ)
R137	7030009140	S.RESISTOR	ERJ2GEJ 272 X (2.7 kΩ)
R138	7030007300	S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ)
R139	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R140	7030005160	S.RESISTOR	ERJ2GEJ 105 X (1 MΩ)
R141	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ)
R142	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R143	7030008010	S.RESISTOR	ERJ2GEJ 123 X (12 kΩ)
R144	7030005720	S.RESISTOR	ERJ2GEJ 563 X (56 kΩ)
R145	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R146	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R150	7030005110	S.RESISTOR	ERJ2GEJ 224 X (220 kΩ)
R151	7030005100	S.RESISTOR	ERJ2GEJ 154 X (150 kΩ)
R152	7030005310	S.RESISTOR	ERJ2GEJ 124 X (120 kΩ)
R153	7030009320	S.RESISTOR	ERJ2GEJ 4R7 X (4.7 Ω)
R155	7030007350	S.RESISTOR	ERJ2GEJ 393 X (39 kΩ)
R157	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R159	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R161	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ)
R162	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ)
R163	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)
R164	7030005110	S.RESISTOR	ERJ2GEJ 224 X (220 kΩ)
R165	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ) [F40G]
	7030005600	S.RESISTOR	ERJ2GEJ 273 X (27 kΩ) [F41G]
R166	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R167	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
R168	7030007350	S.RESISTOR	ERJ2GEJ 393 X (39 kΩ)
R171	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ)
R172	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ)
R173	7030005100	S.RESISTOR	ERJ2GEJ 154 X (150 kΩ)
R174	7030005600	S.RESISTOR	ERJ2GEJ 273 X (27 kΩ)
R175	7030009290	S.RESISTOR	ERJ2GEJ 562 X (5.6 kΩ)
R176	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R177	7030008290	S.RESISTOR	ERJ2GEJ 183 X (18 kΩ)
R178	7030005600	S.RESISTOR	ERJ2GEJ 273 X (27 kΩ)
R179	7030005600	S.RESISTOR	ERJ2GEJ 273 X (27 kΩ)
R180	7030007340	S.RESISTOR	ERJ2GEJ 153 X (15 kΩ)
R181	7030005600	S.RESISTOR	ERJ2GEJ 273 X (27 kΩ)
R182	7030005600	S.RESISTOR	ERJ2GEJ 273 X (27 kΩ)
R183	7030007290	S.RESISTOR	ERJ2GEJ 222 X (2.2 kΩ) [F40G]
	7030005030	S.RESISTOR	ERJ2GEJ 152 X (1.5 kΩ) [F41G]
R184	7030008410	S.RESISTOR	ERJ2GEJ 392 X (3.9 kΩ) [F40G]
	7030008010	S.RESISTOR	ERJ2GEJ 123 X (12 kΩ) [F41G]
R185	7030010030	S.RESISTOR	ERJ2RHD 913 X (91 kΩ) [F40G]
	7030005310	S.RESISTOR	ERJ2GEJ 124 X (120 kΩ) [F41G]
R186	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ) [F40G]
	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ) [F41G]
R187	7030009320	S.RESISTOR	ERJ2GEJ 4R7 X (4.7 Ω) [F40G]
	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ) [F41G]
R188	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R189	7030005000	S.RESISTOR	ERJ2GEJ 471 X (470 Ω)
R190	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R192	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R193	7210003060	VARIABLE	TP76N00N-15F-10KA-2251
R195	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R196	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R197	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R198	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R199	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R200	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R201	7030007290	S.RESISTOR	ERJ2GEJ 222 X (2.2 kΩ)
R202	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R203	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R206	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)
R207	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R208	7030007340	S.RESISTOR	ERJ2GEJ 153 X (15 kΩ)
R209	7030005230	S.RESISTOR	ERJ2GEJ 334 X (330 kΩ)
R210	7030006610	S.RESISTOR	ERJ2GEJ 394 X (390 kΩ)
R211	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)
R212	7030003830	S.RESISTOR	ERJ3GEYJ 185 V (1.8 MΩ)
R215	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ) [GS] only
R216	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ) [GT] only
R217	7030005000	S.RESISTOR	ERJ2GEJ 471 X (470 Ω)
R218	7030007350	S.RESISTOR	ERJ2GEJ 393 X (39 kΩ)
R219	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R220	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R221	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)
R222	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R223	7410000580	S.ARRAY	EXB-V4V 224JV (220 kΩ)
R224	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R225	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R226	7510001280	S.THERMISTOR	NTCCM20124AG473J-T
R227	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R228	7030010080	S.RESISTOR	ERJ2RHD 104 X (100 kΩ)
R229	7030010080	S.RESISTOR	ERJ2RHD 104 X (100 kΩ)
R230	7030008010	S.RESISTOR	ERJ2GEJ 123 X (12 kΩ)
R231	7030008010	S.RESISTOR	ERJ2GEJ 123 X (12 kΩ)
R232	7030008010	S.RESISTOR	ERJ2GEJ 123 X (12 kΩ)
R233	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R234	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R235	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R236	7410000950	S.ARRAY	EXB-V8V 102JV

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R237	7410000950	S.ARRAY	EXB-V8V 102JV
R238	7410000950	S.ARRAY	EXB-V8V 102JV
R239	7410000770	S.ARRAY	EXB-V4V 102JV (1 kΩ)
R240	7410000770	S.ARRAY	EXB-V4V 102JV (1 kΩ)
R241	7410000770	S.ARRAY	EXB-V4V 102JV (1 kΩ)
R242	7410000700	S.ARRAY	EXB-V8V 105JV (1 MΩ)
R243	7410000900	S.ARRAY	EXB-V4V 105JV (1 MΩ)
R244	7410000950	S.ARRAY	EXB-V8V 102JV
R245	7410000770	S.ARRAY	EXB-V4V 102JV (1 kΩ)
R246	7410000950	S.ARRAY	EXB-V8V 102JV
R247	7410000950	S.ARRAY	EXB-V8V 102JV
R248	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R249	7410000950	S.ARRAY	EXB-V8V 102JV
R250	7410000770	S.ARRAY	EXB-V4V 102JV (1 kΩ)
R251	7410000950	S.ARRAY	EXB-V8V 102JV
R252	7410000950	S.ARRAY	EXB-V8V 102JV
R253	7410000750	S.ARRAY	EXB-V4V 104JV (100 kΩ)
R254	7030008300	S.RESISTOR	ERJ2GEJ 184 X (180 kΩ)
R257	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R258	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R259	7030007350	S.RESISTOR	ERJ2GEJ 393 X (39 kΩ)
R260	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R261	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R262	7030009290	S.RESISTOR	ERJ2GEJ 562 X (5.6 kΩ)
R264	7030005000	S.RESISTOR	ERJ2GEJ 471 X (470 Ω)
R266	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R267	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R268	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)
R269	7030005310	S.RESISTOR	ERJ2GEJ 124 X (120 kΩ)
R270	7030008290	S.RESISTOR	ERJ2GEJ 183 X (18 kΩ)
R271	7030005110	S.RESISTOR	ERJ2GEJ 224 X (220 kΩ)
R272	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ)
R273	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R274	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R275	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R276	7030004970	S.RESISTOR	ERJ2GEJ 470 X (47 Ω)
R277	7030005800	S.RESISTOR	RR0510P-102-D (1 kΩ)
R278	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R279	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R280	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R281	7030005600	S.RESISTOR	ERJ2GEJ 273 X (27 kΩ)
R283	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R284	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R285	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R287	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω) [F40G] only
R288	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R289	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R291	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R292	7030009290	S.RESISTOR	ERJ2GEJ 562 X (5.6 kΩ)
R293	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R294	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R295	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R296	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R297	7410000950	S.ARRAY	EXB-V8V 102JV
R298	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R299	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R307	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R312	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R313	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)
R314	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)
R315	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)
R316	7030009140	S.RESISTOR	ERJ2GEJ 272 X (2.7 kΩ)
R317	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
R318	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)
R321	7030005030	S.RESISTOR	ERJ2GEJ 152 X (1.5 kΩ) [H]
	7030007290	S.RESISTOR	ERJ2GEJ 222 X (2.2 kΩ) other
R322	7410000710	S.ARRAY	EXB-V8V 224JV (220 kΩ)
R323	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R324	7030005000	S.RESISTOR	ERJ2GEJ 471 X (470 Ω)
R325	7030005820	S.RESISTOR	RR0510P-103-D (10 kΩ)
R326	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R327	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ) [L]-F41G
	7030009280	S.RESISTOR	ERJ2GE 391 X (390 Ω) other
R329	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R330	7030009320	S.RESISTOR	ERJ2GEJ 4R7 X (4.7 Ω)
R331	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
R332	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R333	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R334	7030005080	S.RESISTOR	ERJ2GEJ 823 X (82 kΩ)
R336	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R337	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
R338	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)	
R339	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)	
R340	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)	
R342	7030007300	S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ)	
R343	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)	
R346	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)	
R347	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)	
R348	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)	
R349	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)	
R350	7030007570	S.RESISTOR	ERJ2GEJ 122X (1.2 kΩ)	
R357	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)	
R358	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)	
R359	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)	
R360	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)	
R361	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)	
R362	7030005290	S.RESISTOR	ERJ2GEJ 682 X (6.8 kΩ)	[H]
	7030005210	S.RESISTOR	ERJ2GEJ 822 X (8.2 kΩ)	other
R363	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)	
R364	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)	
R365	7030007350	S.RESISTOR	ERJ2GEJ 393 X (39 kΩ)	
R366	7030005080	S.RESISTOR	ERJ2GEJ 823 X (82 kΩ)	
R367	7030005070	S.RESISTOR	ERJ2GEJ 683 X (68 kΩ)	
R368	7030006610	S.RESISTOR	ERJ2GEJ 394 X (390 kΩ)	
R369	7030008300	S.RESISTOR	ERJ2GEJ 184 X (180 kΩ)	
R370	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)	
R371	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)	
R372	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)	
R373	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)	
R374	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)	
R375	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)	
R376	7030008410	S.RESISTOR	ERJ2GEJ 392 X (3.9 kΩ)	
R377	7030005500	S.RESISTOR	RR0816R-124-D (120 kΩ)	
R378	7030005840	S.RESISTOR	RR0510R-473-D (47 kΩ)	
R379	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)	
R380	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)	
R381	7030007280	S.RESISTOR	ERJ2GEJ 331 X (330 Ω)	
C1	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A	[L]-F41G
	4030006990	S.CERAMIC	C1608 CH 1H 080D-T-A	[H]
	4030007000	S.CERAMIC	C1608 CH 1H 090D-T-A	other
C2	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A	[L]
	4030009530	S.CERAMIC	C1608 CH 1H 030B-T-A	other
C4	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C5	4030014220	S.CERAMIC	ECUE1E471KBQ	
C6	4030013850	S.CERAMIC	ECUE1E102KBQ	
C7	4030013850	S.CERAMIC	ECUE1E102KBQ	
C8	4030013850	S.CERAMIC	ECUE1E102KBQ	
C9	4030013980	S.CERAMIC	ECUE1H010BCQ	
C10	4030013850	S.CERAMIC	ECUE1E102KBQ	
C11	4030013850	S.CERAMIC	ECUE1E102KBQ	
C12	4030014050	S.CERAMIC	ECUE1H030BCQ	[L] only
C14	4030004880	S.CERAMIC	C2012 CH 1H 120J-T-A	[H]
	4030004900	S.CERAMIC	C2012 CH 1H 180J-T-A	other
C16	4030008680	S.CERAMIC	C2012 JF 1C 105Z-T-A	
C17	4030013850	S.CERAMIC	ECUE1E102KBQ	
C18	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C19	4030014170	S.CERAMIC	ECUE1H330JCQ	[H]
	4030009780	S.CERAMIC	C1005 CH 1E 270J-T-A	other
C20	4030013850	S.CERAMIC	ECUE1E102KBQ	[F40G]
	4030016930	S.CERAMIC	ECJ0EB1A104K	[F41G]
C21	4030014220	S.CERAMIC	ECUE1E471KBQ	
C23	4550006660	S.TANTALUM	ECST1CC226R	
C24	4030014220	S.CERAMIC	ECUE1E471KBQ	
C26	4030014180	S.CERAMIC	ECUE1H470JCQ	
C27	4030013850	S.CERAMIC	ECUE1E102KBQ	
C28	4030014180	S.CERAMIC	ECUE1H470JCQ	
C29	4030013850	S.CERAMIC	ECUE1E102KBQ	
C30	4030014220	S.CERAMIC	ECUE1E471KBQ	
C32	4030014180	S.CERAMIC	ECUE1H470JCQ	
C33	4030013850	S.CERAMIC	ECUE1E102KBQ	
C34	4030014090	S.CERAMIC	ECUE1H060CCQ	[L]-F40G
	4030009780	S.CERAMIC	C1005 CH 1E 270J-T-A	[L]-F41G
	4030014240	S.CERAMIC	ECUE1H180JCQ	[ML]-F41G
	4030014130	S.CERAMIC	ECUE1H120JCQ	other
C35	4030014180	S.CERAMIC	ECUE1H470JCQ	
C36	4030014180	S.CERAMIC	ECUE1H470JCQ	
C37	4030016930	S.CERAMIC	ECJ0EB1A104K	[L]-F41G
	4030014220	S.CERAMIC	ECUE1E471KBQ	other
C38	4030014020	S.CERAMIC	ECUE1H020BCQ	[L]-F41G only
C39	4030014050	S.CERAMIC	ECUE1H030BCQ	[L]-F41G
	4030014080	S.CERAMIC	ECUE1H050BCQ	other

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
C40	4030016930	S.CERAMIC	ECJ0EB1A104K	
C41	4030014180	S.CERAMIC	ECUE1H470JCQ	
C42	4030013850	S.CERAMIC	ECUE1E102KBQ	
C43	4030014220	S.CERAMIC	ECUE1E471KBQ	
C44	4030014110	S.CERAMIC	ECUE1H080CCQ	[L]-F41G
	4030014120	S.CERAMIC	ECUE1H100CCQ	other
C46	4030014090	S.CERAMIC	ECUE1H060CCQ	[L]-F40G
	4030014050	S.CERAMIC	ECUE1H030BCQ	[ML]-F41G
	4030014080	S.CERAMIC	ECUE1H050BCQ	other
C47	4030014220	S.CERAMIC	ECUE1E471KBQ	
C48	4030014080	S.CERAMIC	ECUE1H050BCQ	[L]-F41G
	4030014050	S.CERAMIC	ECUE1H030BCQ	[ML]-F41G
	4030014130	S.CERAMIC	ECUE1H120JCQ	other
C49	4030014130	S.CERAMIC	ECUE1H120JCQ	
C50	4030013980	S.CERAMIC	ECUE1H010BCQ	
C51	4030014220	S.CERAMIC	ECUE1E471KBQ	
C52	4030014220	S.CERAMIC	ECUE1E471KBQ	
C53	4030014180	S.CERAMIC	ECUE1H470JCQ	
C54	4030013850	S.CERAMIC	ECUE1E102KBQ	[H]
	4030014180	S.CERAMIC	ECUE1H470JCQ	[F41G]
	4030014220	S.CERAMIC	ECUE1E471KBQ	other
C55	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	[F40G]
	4030013850	S.CERAMIC	ECUE1E102KBQ	[F41G]
C56	4030013980	S.CERAMIC	ECUE1H010BCQ	[F40G]
	4030014420	S.CERAMIC	ECUE1H0R5BCQ	[F41G]
C57	4030014240	S.CERAMIC	ECUE1H180JCQ	[L]
	4030014120	S.CERAMIC	ECUE1H100CCQ	[ML], [MH]
	4030014110	S.CERAMIC	ECUE1H080CCQ	[H]
C58	4030014050	S.CERAMIC	ECUE1H030BCQ	[H]
	4030014090	S.CERAMIC	ECUE1H060CCQ	other
C59	4030008180	S.CERAMIC	C1608 UJ 1H 030C-T-A	[L]
	4030008190	S.CERAMIC	C1608 UJ 1H 040C-T-A	other
C61	4030014290	S.CERAMIC	ECUE1H090CCQ	[L]
	4030014120	S.CERAMIC	ECUE1H100CCQ	[ML]
	4030014090	S.CERAMIC	ECUE1H060CCQ	[MH]
	4030014070	S.CERAMIC	ECUE1H040BCQ	[H]
C62	4550006700	S.TANTALUM	ECST1AY106R	
C63	4550006700	S.TANTALUM	ECST1AY106R	
C64	4030013850	S.CERAMIC	ECUE1E102KBQ	
C65	4030014220	S.CERAMIC	ECUE1E471KBQ	
C66	4030014280	S.CERAMIC	ECUE1H0R3BCQ	[L]-F41G
	4030014420	S.CERAMIC	ECUE1H0R5BCQ	other
C67	4030014090	S.CERAMIC	ECUE1H060CCQ	[L], [ML]
	4030014070	S.CERAMIC	ECUE1H040BCQ	[MH], [H]
C68	4030014050	S.CERAMIC	ECUE1H030BCQ	[H]
	4030014100	S.CERAMIC	ECUE1H070CCQ	other
C69	4030008180	S.CERAMIC	C1608 UJ 1H 030C-T-A	[H]
	4030008200	S.CERAMIC	C1608 UJ 1H 050C-T-A	other
C71	4030014280	S.CERAMIC	ECUE1H0R3BCQ	
C72	4030014080	S.CERAMIC	ECUE1H050BCQ	[H]
	4030014100	S.CERAMIC	ECUE1H070CCQ	other
C73	4030014180	S.CERAMIC	ECUE1H470JCQ	
C74	4550006810	S.TANTALUM	ECST1VY473R	
C76	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A	
C77	4550006410	S.TANTALUM	ECST1VY334R	
C78	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C79	4030013850	S.CERAMIC	ECUE1E102KBQ	
C80	4030016930	S.CERAMIC	ECJ0EB1A104K	
C81	4030014180	S.CERAMIC	ECUE1H470JCQ	
C82	4030014120	S.CERAMIC	ECUE1H100CCQ	
C83	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C84	4030014070	S.CERAMIC	ECUE1H040BCQ	
C85	4030014070	S.CERAMIC	ECUE1H040BCQ	
C86	4030014080	S.CERAMIC	ECUE1H050BCQ	
C87	4030014050	S.CERAMIC	ECUE1H030BCQ	
C88	4030013850	S.CERAMIC	ECUE1E102KBQ	
C89	4030014090	S.CERAMIC	ECUE1H060CCQ	
C90	4030014090	S.CERAMIC	ECUE1H060CCQ	
C91	4030016930	S.CERAMIC	ECJ0EB1A104K	
C95	4030014180	S.CERAMIC	ECUE1H470JCQ	
C98	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C99	4030014180	S.CERAMIC	ECUE1H470JCQ	
C100	4030013850	S.CERAMIC	ECUE1E102KBQ	
C101	4030013850	S.CERAMIC	ECUE1E102KBQ	
C102	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N	
C103	4030014120	S.CERAMIC	ECUE1H100CCQ	
C104	4030016930	S.CERAMIC	ECJ0EB1A104K	
C105	4030013850	S.CERAMIC	ECUE1E102KBQ	
C106	4030016930	S.CERAMIC	ECJ0EB1A104K	
C107	4030014180	S.CERAMIC	ECUE1H470JCQ	
C108	4030014180	S.CERAMIC	ECUE1H470JCQ	
C109	4030016930	S.CERAMIC	ECJ0EB1A104K	

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
C110	4030016930	S.CERAMIC	ECJ0EB1A104K	
C111	4030013850	S.CERAMIC	ECUE1E102KBQ	
C112	4030014220	S.CERAMIC	ECUE1E471KBQ	
C113	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C114	4030016930	S.CERAMIC	ECJ0EB1A104K	
C115	4030013850	S.CERAMIC	ECUE1E102KBQ	
C116	4030014220	S.CERAMIC	ECUE1E471KBQ	
C117	4030013850	S.CERAMIC	ECUE1E102KBQ	
C118	4030013850	S.CERAMIC	ECUE1E102KBQ	
C121	4030016930	S.CERAMIC	ECJ0EB1A104K	
C123	4030014200	S.CERAMIC	ECUE1H101JCQ	
C124	4550006700	S.TANTALUM	ECST1AY106R	
C125	4030014200	S.CERAMIC	ECUE1H101JCQ	
C126	4030014220	S.CERAMIC	ECUE1E471KBQ	
C127	4550006170	S.TANTALUM	ECST1AY225R	
C128	4030014140	S.CERAMIC	ECUE1H150JCQ	
C129	4030014070	S.CERAMIC	ECUE1H040BCQ	
C131	4030014130	S.CERAMIC	ECUE1H120JCQ	
C132	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C133	4030013850	S.CERAMIC	ECUE1E102KBQ	
C134	4030013850	S.CERAMIC	ECUE1E102KBQ	
C135	4030014150	S.CERAMIC	ECUE1H220JCQ	
C136	4030013980	S.CERAMIC	ECUE1H010BCQ	[L]-F41G
	4030014420	S.CERAMIC	ECUE1H0R5BCQ	except [L]-F41G, [ML]-GEN
C137	4030014110	S.CERAMIC	ECUE1H080CCQ	[L]
	4030014090	S.CERAMIC	ECUE1H060CCQ	[ML]
	4030014080	S.CERAMIC	ECUE1H050BCQ	[MH]
	4030014070	S.CERAMIC	ECUE1H040BCQ	[H]
C138	4030014290	S.CERAMIC	ECUE1H090CCQ	[L]-F40G
	4030014120	S.CERAMIC	ECUE1H100CCQ	[L]-F41G
	4030014110	S.CERAMIC	ECUE1H080CCQ	[ML]-F41G
	4030014100	S.CERAMIC	ECUE1H070CCQ	other
C139	4030014180	S.CERAMIC	ECUE1H470JCQ	
C140	4030016820	S.CERAMIC	ECUE1HR75BCQ	[L]
	4030014420	S.CERAMIC	ECUE1H0R5BCQ	other
C141	4030014120	S.CERAMIC	ECUE1H100CCQ	[L]
	4030014290	S.CERAMIC	ECUE1H090CCQ	[ML]
	4030014110	S.CERAMIC	ECUE1H080CCQ	[MH]
	4030014090	S.CERAMIC	ECUE1H060CCQ	[H]
C142	4030014180	S.CERAMIC	ECUE1H470JCQ	
C143	4030014420	S.CERAMIC	ECUE1H0R5BCQ	[L], [H]
	4030014050	S.CERAMIC	ECUE1H030BCQ	[ML]
C144	4030014120	S.CERAMIC	ECUE1H100CCQ	[L]
	4030014070	S.CERAMIC	ECUE1H040BCQ	[ML]
	4030014100	S.CERAMIC	ECUE1H070CCQ	[MH]
	4030014090	S.CERAMIC	ECUE1H060CCQ	[H]
C145	4030014420	S.CERAMIC	ECUE1H0R5BCQ	
C146	4030014130	S.CERAMIC	ECUE1H120JCQ	[L]
	4030014120	S.CERAMIC	ECUE1H100CCQ	[ML]
	4030014110	S.CERAMIC	ECUE1H080CCQ	[MH], [H]
C147	4030014180	S.CERAMIC	ECUE1H470JCQ	
C148	4030013850	S.CERAMIC	ECUE1E102KBQ	
C149	4030014220	S.CERAMIC	ECUE1E471KBQ	
C150	4030014180	S.CERAMIC	ECUE1H470JCQ	
C151	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C152	4030014070	S.CERAMIC	ECUE1H040BCQ	
C154	4030014180	S.CERAMIC	ECUE1H470JCQ	
C155	4030013850	S.CERAMIC	ECUE1E102KBQ	
C156	4030014290	S.CERAMIC	ECUE1H090CCQ	[L]
	4030014240	S.CERAMIC	ECUE1H180JCQ	other
C157	4550006140	S.TANTALUM	ECST1EY474R	
C158	4030014180	S.CERAMIC	ECUE1H470JCQ	
C159	4030013850	S.CERAMIC	ECUE1E102KBQ	
C160	4030014070	S.CERAMIC	ECUE1H040BCQ	[L], [MH]
	4030014050	S.CERAMIC	ECUE1H030BCQ	[ML]
	4030014020	S.CERAMIC	ECUE1H020BCQ	[H]
C161	4030014110	S.CERAMIC	ECUE1H080CCQ	[L]
	4030014100	S.CERAMIC	ECUE1H070CCQ	[ML]
	4030014060	S.CERAMIC	ECUE1H3R5BCQ	[MH]
	4030014080	S.CERAMIC	ECUE1H050BCQ	[H]
C162	4030014180	S.CERAMIC	ECUE1H470JCQ	
C163	4030014020	S.CERAMIC	ECUE1H020BCQ	
C165	4030014080	S.CERAMIC	ECUE1H050BCQ	[L]
	4030014050	S.CERAMIC	ECUE1H030BCQ	[ML], [MH]
	4030014070	S.CERAMIC	ECUE1H040BCQ	[H]
C166	4030014180	S.CERAMIC	ECUE1H470JCQ	
C167	4030014180	S.CERAMIC	ECUE1H470JCQ	[L], [H]
	4030014080	S.CERAMIC	ECUE1H050BCQ	[ML], [MH]
C168	4030014080	S.CERAMIC	ECUE1H050BCQ	[L]
	4030014050	S.CERAMIC	ECUE1H030BCQ	other

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
C169	4030014120	S.CERAMIC	ECUE1H100CCQ	[L]
	4030014110	S.CERAMIC	ECUE1H080CCQ	[ML], [MH]
	4030014100	S.CERAMIC	ECUE1H070CCQ	[H]
C170	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A	[L]
	4030007000	S.CERAMIC	C1608 CH 1H 090D-T-A	[ML], [MH]
	4030011770	S.CERAMIC	C1608 CH 1H 060B-T-A	[H]
C171	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C172	4550006540	S.TANTALUM	ECST1CY475R	
C173	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	[F40G]
C174	4030014180	S.CERAMIC	ECUE1H470JCQ	
C175	4030017040	S.CERAMIC	ECJ0EB1A333K	[F40G]
	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	[L]-F41G
C176	4030013850	S.CERAMIC	ECUE1E102KBQ	
C177	4030014220	S.CERAMIC	ECUE1E471KBQ	
C178	4550006670	S.TANTALUM	ECST1AD107R	
C179	4030013960	S.CERAMIC	C1005 JB 1A 473K-T-N	
C180	4030014180	S.CERAMIC	ECUE1H470JCQ	
C181	4550006700	S.TANTALUM	ECST1AY106R	
C182	4030013930	S.CERAMIC	C1005 JB 1C 183K-T-N	
C183	4030013850	S.CERAMIC	ECUE1E102KBQ	
C184	4550006210	S.TANTALUM	ECST1CX106R	
C185	4030016930	S.CERAMIC	ECJ0EB1A104K	
C186	4030016930	S.CERAMIC	ECJ0EB1A104K	
C187	4030014180	S.CERAMIC	ECUE1H470JCQ	
C188	4030014180	S.CERAMIC	ECUE1H470JCQ	
C189	4030013850	S.CERAMIC	ECUE1E102KBQ	
C190	4030013850	S.CERAMIC	ECUE1E102KBQ	
C191	4030016930	S.CERAMIC	ECJ0EB1A104K	
C192	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N	
C193	4550006320	S.TANTALUM	ECST0JY475R	
C194	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N	
C195	4030014220	S.CERAMIC	ECUE1E471KBQ	
C197	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C198	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N	
C199	4030014500	S.CERAMIC	ECUE1H121JCQ	
C200	4030014350	S.CERAMIC	ECUE1H560JCQ	
C202	4030017230	S.CERAMIC	ECUE1E271KBQ	
C203	4030016920	S.CERAMIC	ECUE1H222KBQ	
C205	4550006360	S.TANTALUM	ECST1VY104R	
C206	4030016930	S.CERAMIC	ECJ0EB1A104K	
C207	4030016930	S.CERAMIC	ECJ0EB1A104K	
C208	4550006320	S.TANTALUM	ECST0JY475R	
C213	4550006320	S.TANTALUM	ECST0JY475R	
C214	4550006360	S.TANTALUM	ECST1VY104R	
C215	4030016930	S.CERAMIC	ECJ0EB1A104K	
C216	4030013960	S.CERAMIC	C1005 JB 1A 473K-T-N	
C217	4030016930	S.CERAMIC	ECJ0EB1A104K	
C218	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N	
C219	4030011300	S.CERAMIC	C1005 CH 1E 121J-T-A	
C220	4030013850	S.CERAMIC	ECUE1E102KBQ	[H] only
C224	4030016930	S.CERAMIC	ECJ0EB1A104K	
C225	4030013960	S.CERAMIC	C1005 JB 1A 473K-T-N	
C226	4030013960	S.CERAMIC	C1005 JB 1A 473K-T-N	
C227	4030016930	S.CERAMIC	ECJ0EB1A104K	[F40G]
	4030017040	S.CERAMIC	ECJ0EB1A333K	[F41G]
C230	4550006700	S.TANTALUM	ECST1AY106R	
C231	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N	
C232	4030016920	S.CERAMIC	ECUE1H222KBQ	
C233	4030016930	S.CERAMIC	ECJ0EB1A104K	
C234	4030014180	S.CERAMIC	ECUE1H470JCQ	
C235	4550006620	S.TANTALUM	ECST0JY226R	
C236	4550006620	S.TANTALUM	ECST0JY226R	
C237	4550006620	S.TANTALUM	ECST0JY226R	
C238	4550006620	S.TANTALUM	ECST0JY226R	
C239	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C240	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C241	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	
C242	4550006320	S.TANTALUM	ECST0JY475R	
C243	4550006950	S.TANTALUM	ECST0JX476R	
C244	4030013850	S.CERAMIC	ECUE1E102KBQ	
C246	4030013850	S.CERAMIC	ECUE1E102KBQ	
C247	4550006210	S.TANTALUM	ECST1CX106R	
C248	4030013930	S.CERAMIC	C1005 JB 1C 183K-T-N	
C249	4030013930	S.CERAMIC	C1005 JB 1C 183K-T-N	
C250	4030014220	S.CERAMIC	ECUE1E471KBQ	
C251	4550006170	S.TANTALUM	ECST1AY225R	
C252	4030014220	S.CERAMIC	ECUE1E471KBQ	
C253	4030013850	S.CERAMIC	ECUE1E102KBQ	
C254	4550006320	S.TANTALUM	ECST0JY475R	
C257	4030016930	S.CERAMIC	ECJ0EB1A104K	
C258	4030016930	S.CERAMIC	ECJ0EB1A104K	
C259	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A	

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C260	4030013850	S.CERAMIC	ECUE1E102KBQ
C261	4030016930	S.CERAMIC	ECJ0EB1A104K
C262	4030014220	S.CERAMIC	ECUE1E471KBQ
C264	4550006780	S.TANTALUM	TEMSVB2 0J 476M-8R
C265	4550006780	S.TANTALUM	TEMSVB2 0J 476M-8R
C266	4030014220	S.CERAMIC	ECUE1E471KBQ
C268	4030016930	S.CERAMIC	ECJ0EB1A104K
C271	4030017030	S.CERAMIC	ECJ0EB1A273K
C272	4030014180	S.CERAMIC	ECUE1H470JCQ
C273	4030014180	S.CERAMIC	ECUE1H470JCQ
C275	4030014180	S.CERAMIC	ECUE1H470JCQ
C276	4030014150	S.CERAMIC	ECUE1H220JCQ
C277	4030014100	S.CERAMIC	ECUE1H070CCQ
C278	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A
C279	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A
C280	4030014170	S.CERAMIC	ECUE1H330JCQ
C282	4030014180	S.CERAMIC	ECUE1H470JCQ
C283	4030014180	S.CERAMIC	ECUE1H470JCQ
C284	4030014180	S.CERAMIC	ECUE1H470JCQ
C285	4030014180	S.CERAMIC	ECUE1H470JCQ
C287	4030014180	S.CERAMIC	ECUE1H470JCQ
C288	4030014180	S.CERAMIC	ECUE1H470JCQ
C289	4030014180	S.CERAMIC	ECUE1H470JCQ
C291	4030014180	S.CERAMIC	ECUE1H470JCQ
C292	4030014180	S.CERAMIC	ECUE1H470JCQ
C293	4030014180	S.CERAMIC	ECUE1H470JCQ
C294	4030014180	S.CERAMIC	ECUE1H470JCQ
C295	4030014180	S.CERAMIC	ECUE1H470JCQ
C296	4030014180	S.CERAMIC	ECUE1H470JCQ
C297	4030014180	S.CERAMIC	ECUE1H470JCQ
C298	4030014180	S.CERAMIC	ECUE1H470JCQ
C299	4030014180	S.CERAMIC	ECUE1H470JCQ
C300	4030014180	S.CERAMIC	ECUE1H470JCQ
C304	4030014180	S.CERAMIC	ECUE1H470JCQ
C305	4030014180	S.CERAMIC	ECUE1H470JCQ
C306	4030016930	S.CERAMIC	ECJ0EB1A104K
C307	4030014180	S.CERAMIC	ECUE1H470JCQ
C309	4030014180	S.CERAMIC	ECUE1H470JCQ
C310	4030014180	S.CERAMIC	ECUE1H470JCQ
C311	4030014180	S.CERAMIC	ECUE1H470JCQ
C312	4030014180	S.CERAMIC	ECUE1H470JCQ
C313	4030014180	S.CERAMIC	ECUE1H470JCQ
C314	4030014180	S.CERAMIC	ECUE1H470JCQ
C315	4030014180	S.CERAMIC	ECUE1H470JCQ
C316	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N
C317	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N
C319	4030014180	S.CERAMIC	ECUE1H470JCQ
C320	4030014180	S.CERAMIC	ECUE1H470JCQ
C321	4030014180	S.CERAMIC	ECUE1H470JCQ
C322	4030014180	S.CERAMIC	ECUE1H470JCQ
C323	4030014180	S.CERAMIC	ECUE1H470JCQ
C324	4030014180	S.CERAMIC	ECUE1H470JCQ
C325	4030014180	S.CERAMIC	ECUE1H470JCQ
C326	4030014180	S.CERAMIC	ECUE1H470JCQ
C327	4030014180	S.CERAMIC	ECUE1H470JCQ
C328	4030014180	S.CERAMIC	ECUE1H470JCQ
C329	4030014180	S.CERAMIC	ECUE1H470JCQ
C330	4030016930	S.CERAMIC	ECJ0EB1A104K
C331	4030014180	S.CERAMIC	ECUE1H470JCQ
C332	4030014180	S.CERAMIC	ECUE1H470JCQ
C333	4030014180	S.CERAMIC	ECUE1H470JCQ
C334	4030014180	S.CERAMIC	ECUE1H470JCQ
C335	4030014180	S.CERAMIC	ECUE1H470JCQ
C336	4030014180	S.CERAMIC	ECUE1H470JCQ
C338	4030014180	S.CERAMIC	ECUE1H470JCQ
C340	4030014180	S.CERAMIC	ECUE1H470JCQ
C341	4030013930	S.CERAMIC	C1005 JB 1C 183K-T-N
C342	4030016930	S.CERAMIC	ECJ0EB1A104K
C343	4030017250	S.CERAMIC	ECUE1E821KBQ
C345	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A
C346	4030017060	S.CERAMIC	ECUE1E332KBQ
C347	4030016930	S.CERAMIC	ECJ0EB1A104K
C348	4030016930	S.CERAMIC	ECJ0EB1A104K
C349	4030017240	S.CERAMIC	ECUE1C682KBQ
C350	4030009820	S.CERAMIC	C1005 JB 1C 103K-T-A
C351	4030016930	S.CERAMIC	ECJ0EB1A104K
C352	4030013950	S.CERAMIC	C1005 JB 1A 393K-T-N
C353	4030013850	S.CERAMIC	ECUE1E102KBQ
C354	4030013850	S.CERAMIC	ECUE1E102KBQ
C355	4030013850	S.CERAMIC	ECUE1E102KBQ
C356	4030014180	S.CERAMIC	ECUE1H470JCQ
C357	4550006770	S.TANTALUM	TEMSVD2 1C 476M-12R

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C358	4030014220	S.CERAMIC	ECUE1E471KBQ
C359	4030013850	S.CERAMIC	ECUE1E102KBQ
C360	4030012600	S.CERAMIC	C2012 JB 1A 105M-T-A
C361	4030014120	S.CERAMIC	ECUE1H100CCQ [L]
	4030014100	S.CERAMIC	ECUE1H070CCQ [ML]
	4030014130	S.CERAMIC	ECUE1H120JCQ [MH]
	4030014140	S.CERAMIC	ECUE1H150JCQ [H]
C362	4030017220	S.CERAMIC	ECUE1E122KBQ
C364	4030014180	S.CERAMIC	ECUE1H470JCQ
C365	4030014180	S.CERAMIC	ECUE1H470JCQ
C366	4030014180	S.CERAMIC	ECUE1H470JCQ
C367	4030014180	S.CERAMIC	ECUE1H470JCQ
C369	4030014130	S.CERAMIC	ECUE1H120JCQ
C371	4030014180	S.CERAMIC	ECUE1H470JCQ
C372	4610001590	S.TRIMMER	TZC03R100A110 10P
C373	4610001920	S.TRIMMER	TZC03Z060A110 6P
C375	4030016930	S.CERAMIC	ECJ0EB1A104K
C377	4030014180	S.CERAMIC	ECUE1H470JCQ
C378	4030016930	S.CERAMIC	ECJ0EB1A104K
C379	4030014180	S.CERAMIC	ECUE1H470JCQ
C380	4030014180	S.CERAMIC	ECUE1H470JCQ
C381	4030014180	S.CERAMIC	ECUE1H470JCQ
C382	4030014180	S.CERAMIC	ECUE1H470JCQ
C383	4030016930	S.CERAMIC	ECJ0EB1A104K
C384	4030013850	S.CERAMIC	ECUE1E102KBQ
C385	4030016930	S.CERAMIC	ECJ0EB1A104K
C386	4030014180	S.CERAMIC	ECUE1H470JCQ
C393	4030012600	S.CERAMIC	C2012 JB 1A 105M-T-A
C394	4030013930	S.CERAMIC	C1005 JB 1C 183K-T-N
C395	4030014190	S.CERAMIC	ECUE1H680JCQ
C396	4030012600	S.CERAMIC	C2012 JB 1A 105M-T-A
C397	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N
C398	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N
C399	4030013910	S.CERAMIC	C1005 JB 1E 472K-T-N
C400	4030013850	S.CERAMIC	ECUE1E102KBQ
C401	4030014180	S.CERAMIC	ECUE1H470JCQ
C402	4550006780	S.TANTALUM	TEMSVB2 0J 476M-8R
C403	4030013850	S.CERAMIC	ECUE1E102KBQ
C404	4030014180	S.CERAMIC	ECUE1H470JCQ
C405	4030014180	S.CERAMIC	ECUE1H470JCQ
C406	4030013940	S.CERAMIC	C1005 JB 1C 223K-T-N
C407	4030016930	S.CERAMIC	ECJ0EB1A104K
C408	4030016930	S.CERAMIC	ECJ0EB1A104K
C409	4030016930	S.CERAMIC	ECJ0EB1A104K
C410	4030016930	S.CERAMIC	ECJ0EB1A104K
C411	4550006320	S.TANTALUM	ECST0JY475R
C412	4030014180	S.CERAMIC	ECUE1H470JCQ
C414	4030016930	S.CERAMIC	ECJ0EB1A104K
C415	4550006170	S.TANTALUM	ECST1AY225R
C416	4030016930	S.CERAMIC	ECJ0EB1A104K
C417	4030014100	S.CERAMIC	ECUE1H070CCQ [L]
	4030014030	S.CERAMIC	ECUE1H2R5BCQ [ML], [MH]
	4030014000	S.CERAMIC	ECUE1H1R5BCQ [H]
C418	4030014060	S.CERAMIC	ECUE1H3R5BCQ [L]
	4030014420	S.CERAMIC	ECUE1H0R5BCQ [ML]
	4030013980	S.CERAMIC	ECUE1H010BCQ [MH]
C419	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C420	4030009910	S.CERAMIC	C1608 CH 1H 040B-T-A [H]
	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A other
C421	4030014220	S.CERAMIC	ECUE1E471KBQ
C422	4030013850	S.CERAMIC	ECUE1E102KBQ
C423	4030011810	S.CERAMIC	C1608 JB 1A 224K-T-N
C424	4550006320	S.TANTALUM	ECST0JY475R
C425	4030016930	S.CERAMIC	ECJ0EB1A104K
C426	4030016930	S.CERAMIC	ECJ0EB1A104K
C427	4030014180	S.CERAMIC	ECUE1H470JCQ
C428	4030014180	S.CERAMIC	ECUE1H470JCQ
C429	4030014180	S.CERAMIC	ECUE1H470JCQ
C430	4030014220	S.CERAMIC	ECUE1E471KBQ
C432	4030014220	S.CERAMIC	ECUE1E471KBQ
C433	4030014180	S.CERAMIC	ECUE1H470JCQ
C434	4030014180	S.CERAMIC	ECUE1H470JCQ
C435	4030014180	S.CERAMIC	ECUE1H470JCQ
C436	4030014180	S.CERAMIC	ECUE1H470JCQ
C437	4030014180	S.CERAMIC	ECUE1H470JCQ
C438	4030014180	S.CERAMIC	ECUE1H470JCQ
C439	4550006540	S.TANTALUM	ECST1CY475R
C440	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C441	4030004850	S.CERAMIC	C2012 CH 1H 080D-T-A [L]-F40G
	4030004860	S.CERAMIC	C2012 CH 1H 090D-T-A [L]-F41G
	4030004810	S.CERAMIC	C2012 CH 1H 040C-T-A [ML]
	4030004800	S.CERAMIC	C2012 CH 1H 030C-T-A [MH]

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
	4030004820	S.CERAMIC	C2012 CH 1H 050C-T-A	[H]
C442	4030014030	S.CERAMIC	ECUE1H2R5BCQ	[L]
	4030014420	S.CERAMIC	ECUE1H0R5BCQ	[ML], [MH]
C443	4030013850	S.CERAMIC	ECUE1E102KBQ	
C444	4030014490	S.CERAMIC	ECUE1H331KBQ	
C445	4030013940	S.CERAMIC	C1005 JB 1C 223K-T-N	
C446	4030017250	S.CERAMIC	ECUE1E821KBQ	
C447	4030017250	S.CERAMIC	ECUE1E821KBQ	
C448	4030013850	S.CERAMIC	ECUE1E102KBQ	
C449	4030016930	S.CERAMIC	ECJ0EB1A104K	
C450	4030016930	S.CERAMIC	ECJ0EB1A104K	
C451	4030016930	S.CERAMIC	ECJ0EB1A104K	
C452	4030016930	S.CERAMIC	ECJ0EB1A104K	
C453	4030014140	S.CERAMIC	ECUE1H150JCQ	
C454	4030014240	S.CERAMIC	ECUE1H180JCQ	
C455	4030016930	S.CERAMIC	ECJ0EB1A104K	
C456	4030016930	S.CERAMIC	ECJ0EB1A104K	
C457	4030014070	S.CERAMIC	ECUE1H040BCQ	
C458	4030014200	S.CERAMIC	ECUE1H101JCQ	
C459	4030014180	S.CERAMIC	ECUE1H470JCQ	[F41G] only
C460	4030014130	S.CERAMIC	ECUE1H120JCQ	[F41G] only
C461	4030014080	S.CERAMIC	ECUE1H050BCQ	[F41G] only
C462	4030014080	S.CERAMIC	ECUE1H050BCQ	[F41G] only
C463	4030014180	S.CERAMIC	ECUE1H470JCQ	[F41G] only
C464	4030014180	S.CERAMIC	ECUE1H470JCQ	[F41G] only
C465	4030014180	S.CERAMIC	ECUE1H470JCQ	[F41G] only
C466	4030014180	S.CERAMIC	ECUE1H470JCQ	[F41G] only
C467	4030014080	S.CERAMIC	ECUE1H050BCQ	[F41G] only
C468	4030014080	S.CERAMIC	ECUE1H050BCQ	[F41G] only
C469	4030014080	S.CERAMIC	ECUE1H050BCQ	[F41G] only
C470	4030014080	S.CERAMIC	ECUE1H050BCQ	[F41G] only
C471	4030014180	S.CERAMIC	ECUE1H470JCQ	[F41G] only
C472	4030014180	S.CERAMIC	ECUE1H470JCQ	[F41G] only
C473	4550006700	S.TANTALUM	ECST1AY106R	[F41G] only
C474	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A	[H] only
J1	6510018430	S.CONNECTOR	AXN330C038P	
J2	6510018430	S.CONNECTOR	AXN330C038P	
J3	6510022360	S.CONNECTOR	26FLZ-SM1-TB	
F1	5210000710	S.FUSE	KAB 2402 322 NA29	
S1	2250000180	ENCODER	EC10SP16-47	
W2	7030003860	S.JUMPER	ERJ3GE JPW V	
W3	7030003860	S.JUMPER	ERJ3GE JPW V	
W5	8900009790	CABLE	OPC-972	
W7	7030003860	S.JUMPER	ERJ3GE JPW V	
W8	7030009970	S.JUMPER	MJ-0.1	
W9	7030003860	S.JUMPER	ERJ3GE JPW V	
W10	7030000010	S.JUMPER	MCR10EZHJ JPW (000)	
W11	7030010040	S.JUMPER	ERJ2GE-JPW	
W12	7030010040	S.JUMPER	ERJ2GE-JPW	[F40G] only
W13	7030003860	S.JUMPER	ERJ3GE JPW V	[H] only
EP1	0910052503	PCB	B 5488C	[F40G]
	0910053620	PCB	B 5619	[F41G]
EP2	6910013350	S.BEAD	BLM10A121S	[F41G] only

S.=Surface mount

SECTION 7 MECHANICAL PARTS AND DISASSEMBLY

[CHASSIS PARTS]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8210017211	2337 front panel-1 assembly [GT]	1
	8210017350	2337 S-front panel assembly [GS]	1
MP2	8310049450	2337 window plate	1
MP4	8930052850	2337 release button	1
MP5	8930052970	2337 PTT plate	1
MP8	8210017100	2337 rear panel	1
MP9	8210017080	2337 reflector	1
MP10	8930052981	2337 S.W plate-1	1
MP11	8210017070	2337 C-panel	1
MP12	8010018251	2337 chassis-1	1
MP13	8930052640	2337 key board [GT]	1
	8930053170	2337 4-key [GS]	1
MP14	8930053650	2336 main seal	1
MP16	8930052840	2337 T-rubber	1
MP17	8930054540	2336 Top key	1
MP18	8930052991	2337 terminal-1	1
MP19	8610010910	Knob N281	1
MP20	8610010920	Knob N282	1
MP21	8510013161	2337 main shield-1	1
MP22	8930053670	2337 side plate	1
MP23	8930053000	2337 window sheet	1
MP26	8830001480	VR nut (O)	1
MP29	8930053210	2337 microphone sheet	1
MP32	8830001500	2337 nut	1
MP33	8830001511	Nut (I)-1	1
MP34	8810009220	Screw FH B0 M2 × 8 ZK (BT)	2
MP35	8930042080	1922 minus terminal	1
MP37	8950004420	1652 9-pin connector	1
MP40	8810008970	Screw FH BT No.0 M2 × 3.5 NI-ZU	6
MP41	8810009180	Screw FH BT No.0 M2 × 5 NI-ZU	1
MP43	8210017090	2337 terminal holder	1
MP44	8950005310	Antenna connector-103	1
MP49	8510013220	2337 antenna plate	1
MP50	8930053440	2337 A-PTT plate	1
MP51	8930053431	Sponge (GP)-1	2
MP52	8820000801	1327 screw-1	2
MP53	8930053630	Seal O-ring (AH)	1
MP54	8930053680	Spring (AG)	1
MP55	8810004890	Screw PH No.0 M2 × 6 ZK	2
MP56	8810005360	Screw PH No.0 M2 × 3 ZK	10
MP57	8810009560	Screw PH BT M2 × 6 ZK	2
MP58	8810005700	Screw PH No.0 M2 × 4 ZK	3
MP59	8810009510	Screw PH BT M2 × 4 NI-ZU	8
MP60	8930053180	2337 microphone seal [GS]	1
MP61	8930053660	2337 side seal	1
MP62	8810003700	ICOM screw B4	1
MP63	8930053880	2337 key sheet [GT]	1
	8930054010	2337 4-key sheet [GS]	1
MP64	8930051781	Insulation sheet GA-1	1
MP65	8930053890	2337 T-K sheet	1
MP66	8930054230	2337 main plate [F41G] only	1
MP67	8930023660	Sponge (CU) F40G-[H] only	1
MP68	8930030380	Ferrite sheet (C) [F41G] only	1
MP69	8930052270	Shield spong (D) [F41G] only	1

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
DS10	5030001870	LCD EDMMUD1FA0	1
SP1	2510001060	Speaker K036NA500-47	1
MC1	7700002310	Microphone EM-140	1
W1	7120000470	Jumper ERDS2T0	2
MP1	8510013230	2337 LOGIC shield	1
MP2	8930053320	2337 LOGIC spring	1
MP3	8930034250	Sponge (DS)	1
MP4	8930050030	Sponge (GI)	1

[MAIN UNIT]

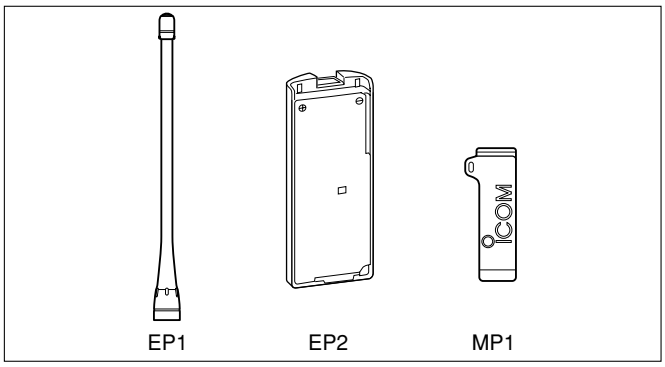
REF NO.	ORDER NO.	DESCRIPTION	QTY.
W5	8900009790	Flexible cable OPC-972	1
MP1	8510013000	2336 VCO case	1
MP2	8510011180	1923 VCO cover	1
MP3	8410002370	2337 PA heatsink	1
MP6	8950005330	M.connector 2337 9-pin base	1
MP7	8950005320	M.connector 2337 contact	1
MP8	8510013242	2337 VR shield-2	1
MP11	8930053460	Thermally sheet (Q)	1
MP12	8930053110	Alminium sheet (AE) [F41G] only	1

Screw abbreviations
B0, BT: Self-tapping PH: Pan head FH: Flat head
NI-ZU: Nickel-Zinc ZK: Black

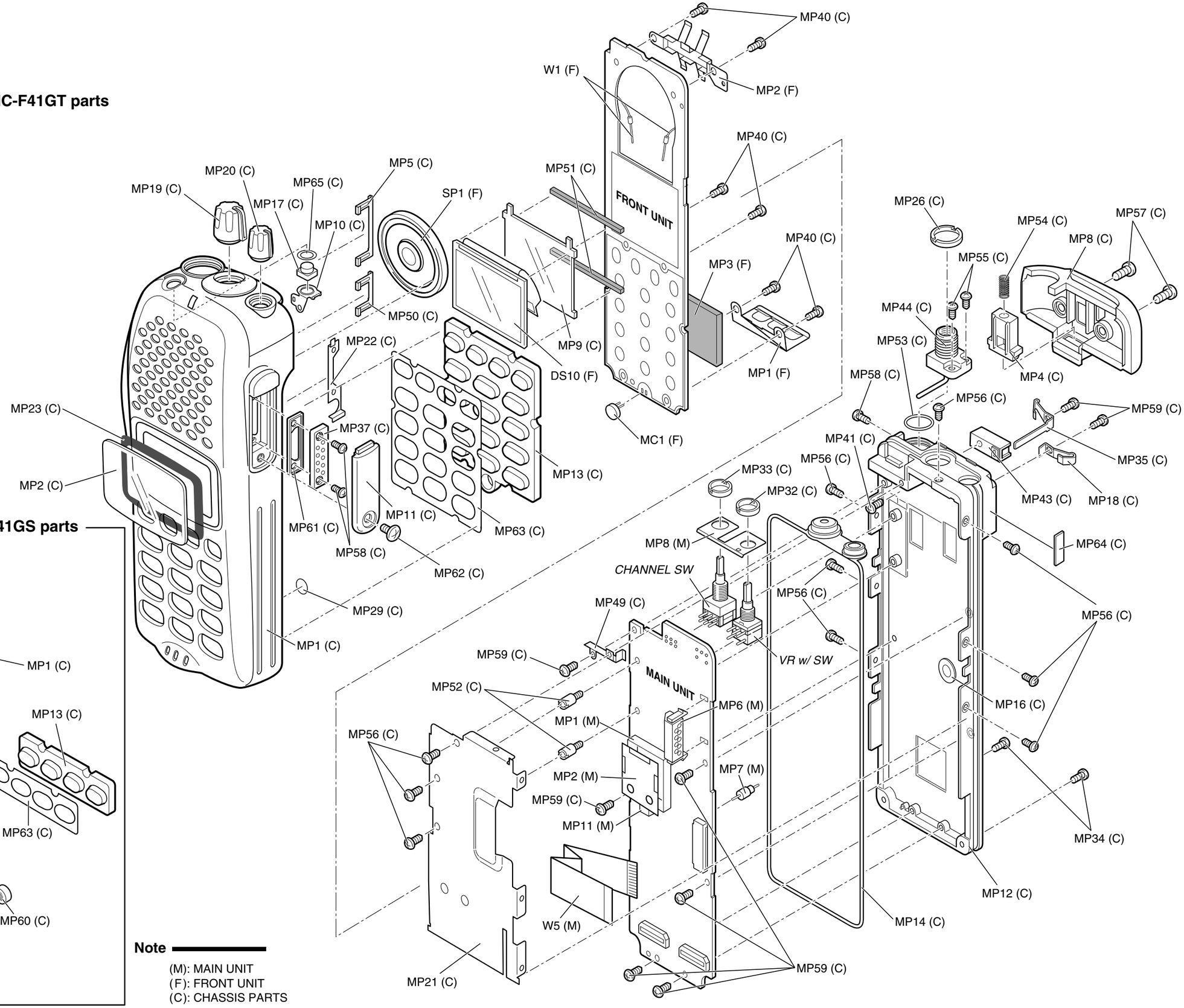
[GT]: IC-F40GT/F41GT
[GS]: IC-F40GS/F41GS

[ACCESSORIES]

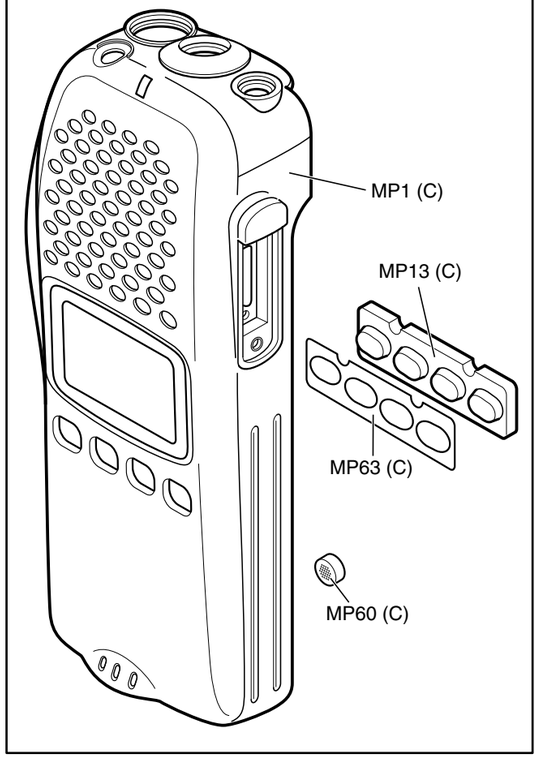
REF NO.	ORDER NO.	DESCRIPTION	QTY.
EP1	Optional product	Antenna FA-SC25U [L-band]	1
	Optional product	Antenna FA-SC57U [ML-band], [MH-band]	1
	Optional product	Antenna FA-SC72U [H-band]	1
EP2	Optional product	Battery BP-210	1
MP1	Optional product	1922 Belt clip-1	1



IC-F40GT and IC-F41GT parts



IC-F40GS and IC-F41GS parts

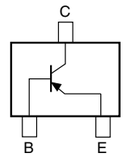
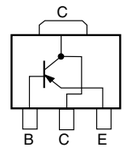
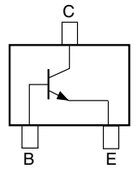
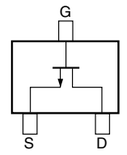
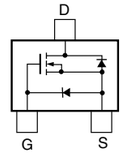
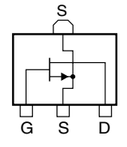
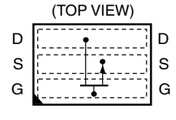


Note

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

SECTION 8 SEMI-CONDUCTOR INFORMATION

8 - 1 TRANSISTORS AND FETS

NAME	SYMBOL	INSIDE VIEW
2SA1362 GR	AEG	
2SB1132 R	BARB	
2SC3585 R44 2SC4081 R 2SC4116 BL 2SC4213 B 2SC4215 O 2SC4226 R25 2SC5107 O	R44 BR LL AB QO R25 MFO	
2SK880-Y	XY	
2SK1829	K1	
2SK2973	K1	
2SK2974	K2974	

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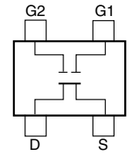
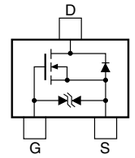
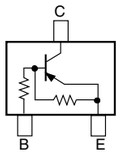
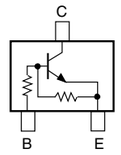
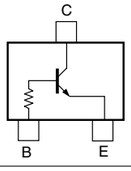
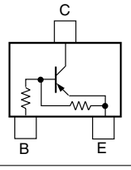
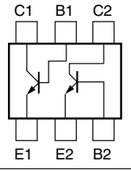
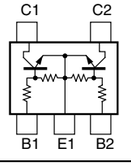
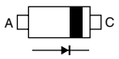
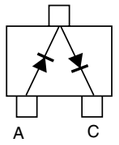
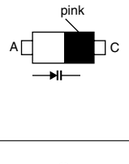
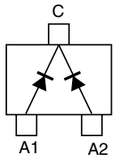
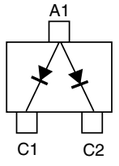
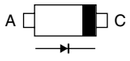
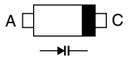
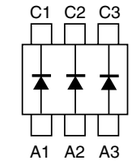
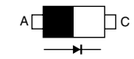
3SK166A-2 3SK293	K UF	
CPH3403-TL	KD	
DTA144EUA	16	
DTC144EUA	26	
DTC144TE TL	06	
UN911H	6P	
XP6501 AB	5N	
XP1214	9H	

8 - 2 DIODES

NAME	SYMBOL	INSIDE VIEW
1SS355 1SV307	A TX	
1SS375 MA742 RB706F-40	FH M1U 3J	
1T365-01	PINK LINE	
DAN202U	N	
DAP202U	P	
HSU88TRF MA111 MA2S111 MA8030-H MA8033-H MA8062-M	9 1B A 3^0 3^3 6-2	
HVC375BTRF HVU350TRF	6B 4	

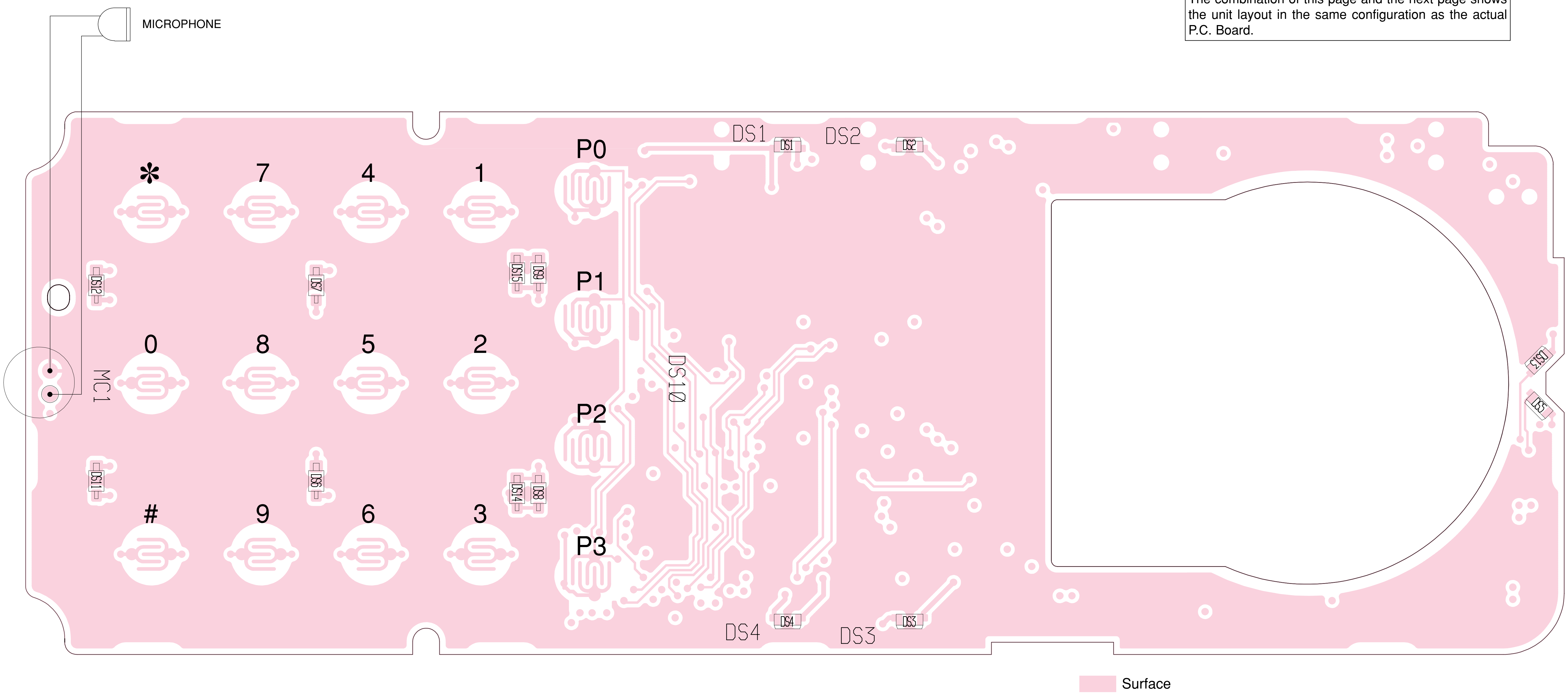
NAME	SYMBOL	INSIDE VIEW
MA6S121	M2D	
MA77	4B	

SECTION 9 BOARD LAYOUTS

9 - 1 F40G FRONT UNIT

• TOP VIEW

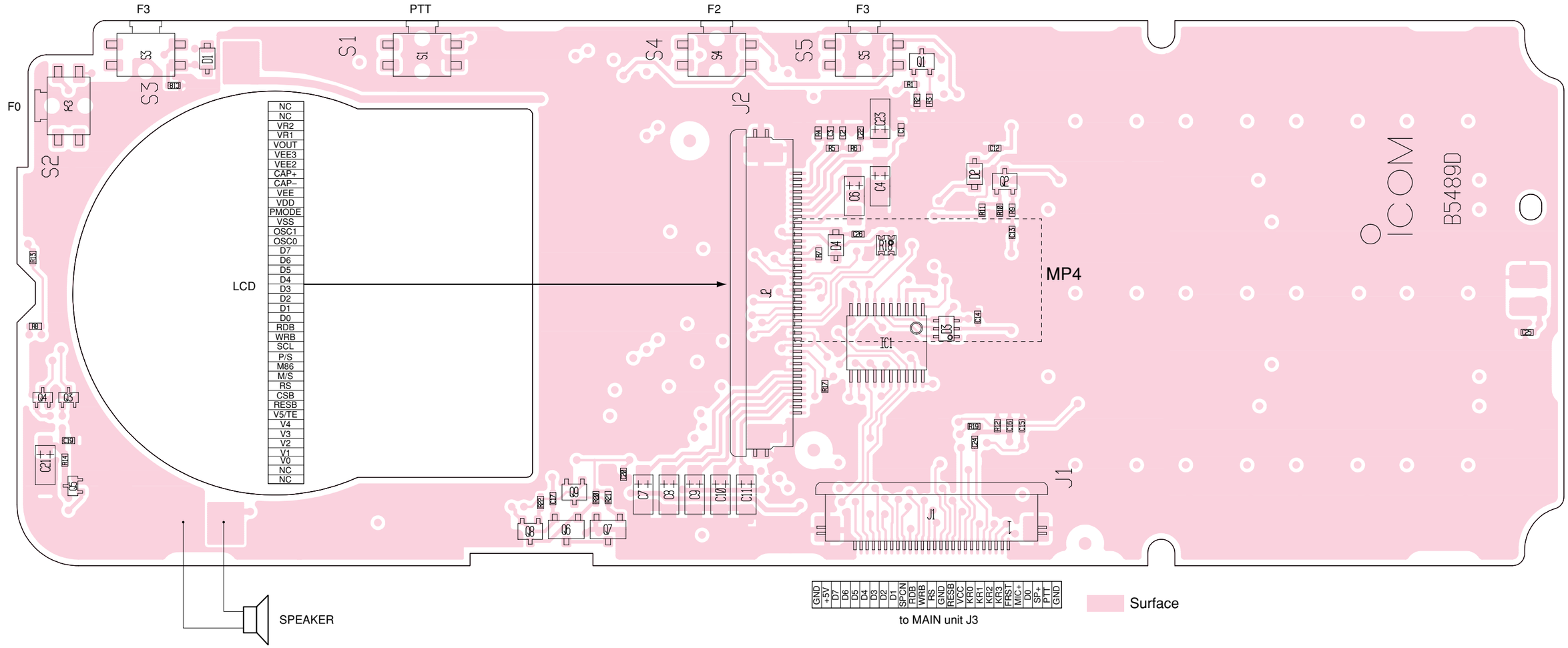
The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.



F40G (FRONT unit)

• BOTTOM VIEW

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



9 - 2 F41G FRONT UNIT

• TOP VIEW

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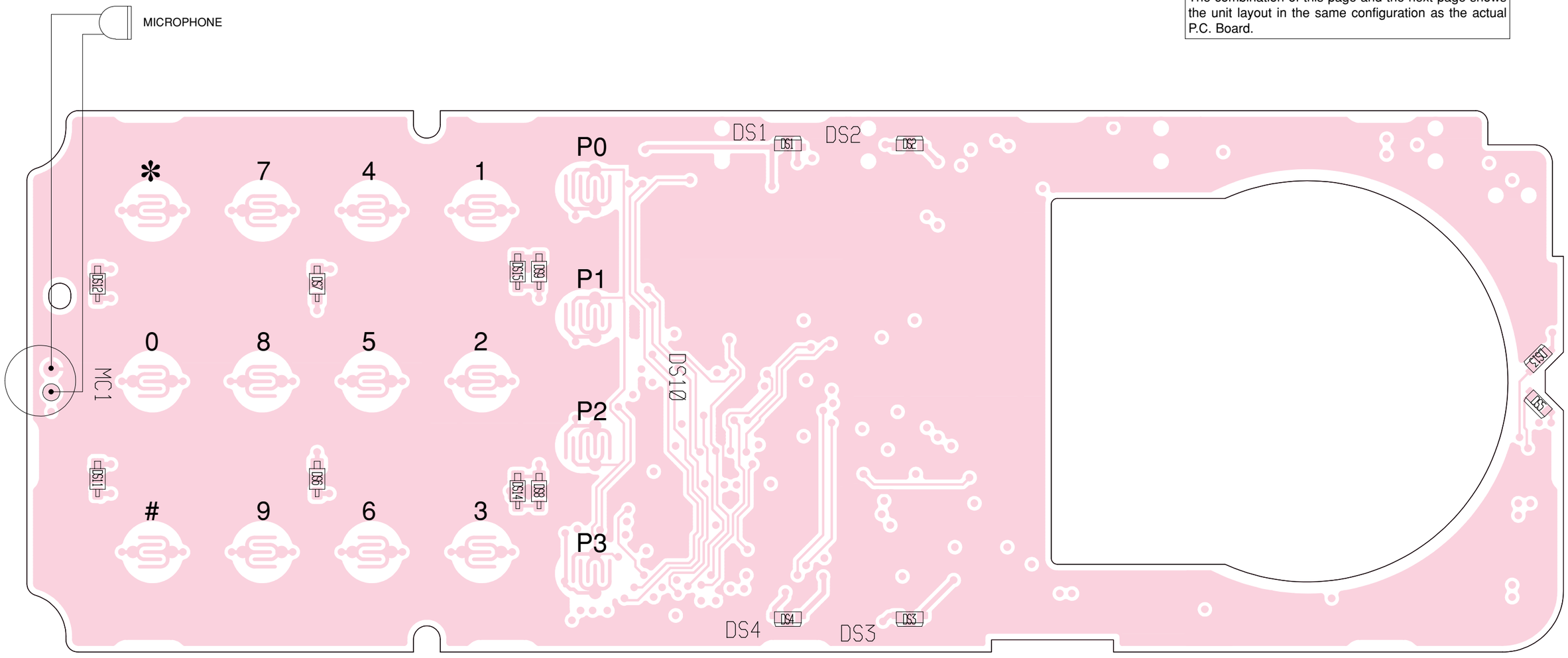

Surface

F41G (FRONT unit)

• BOTTOM VIEW

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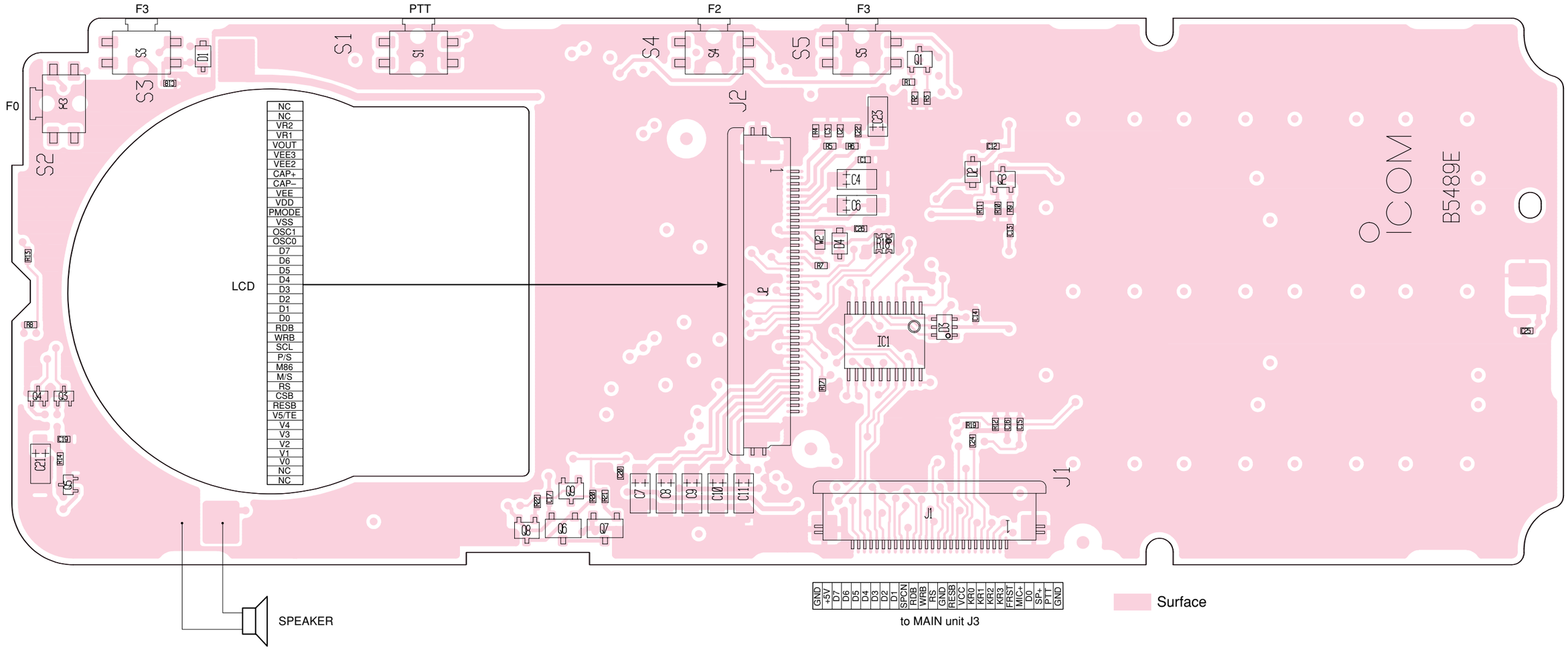

9 - 3 F40G MAIN UNIT

• TOP VIEW

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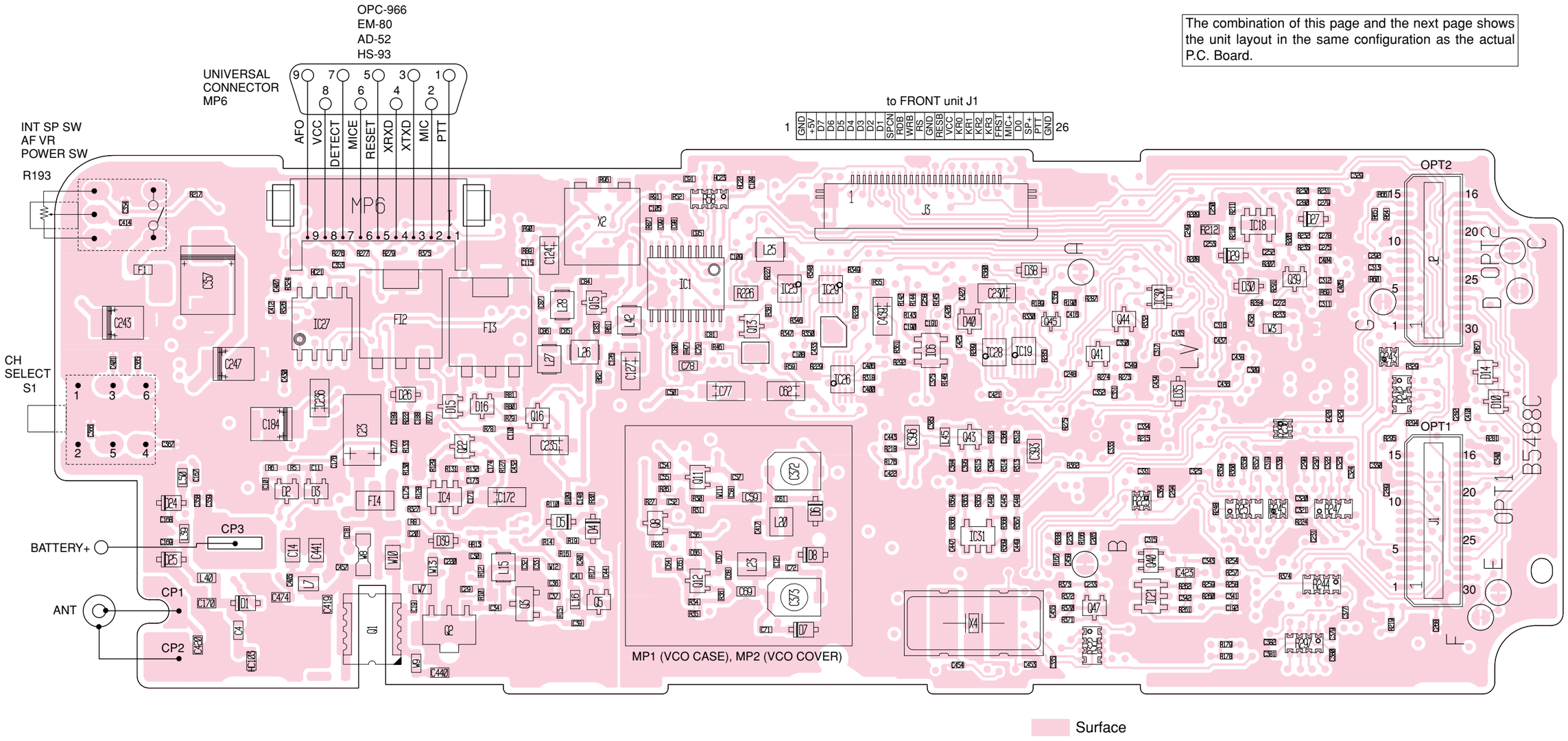

F40G (MAIN unit)

• BOTTOM VIEW

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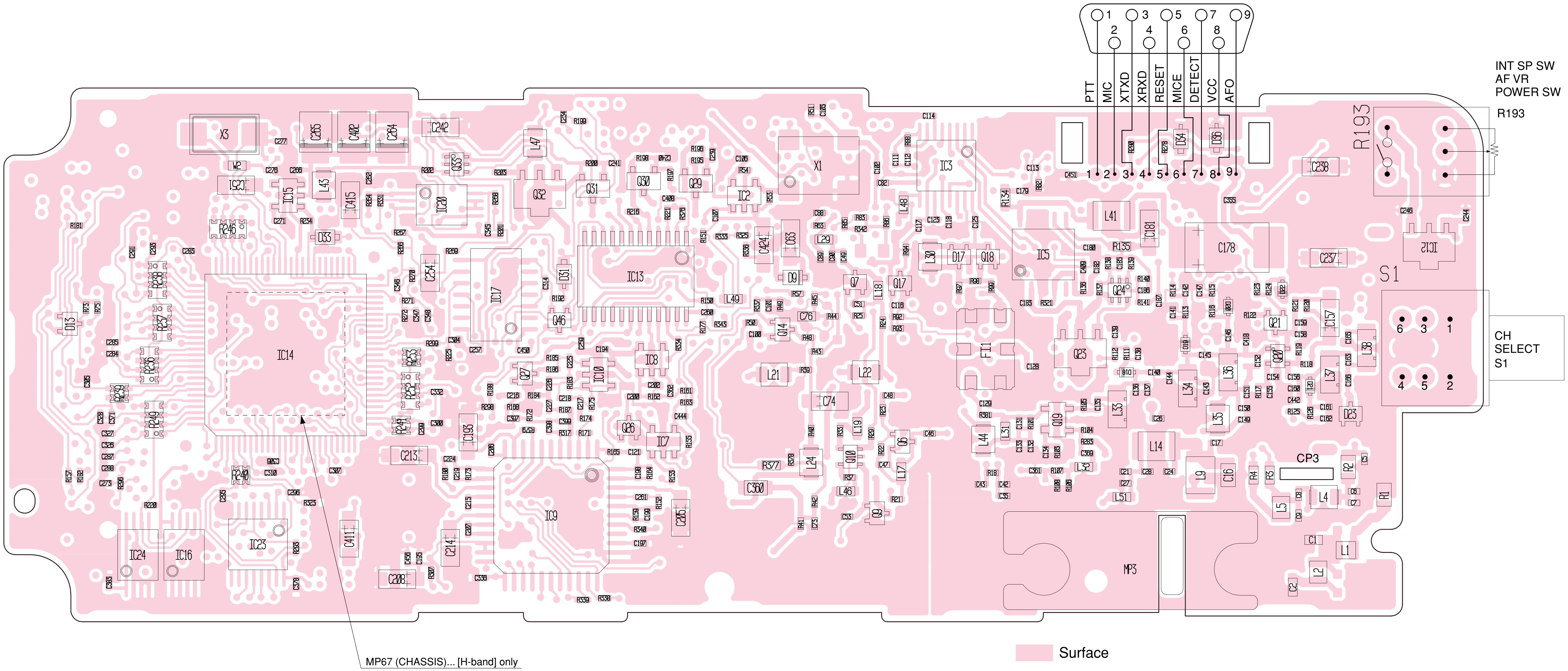

9 - 4 F41G MAIN UNIT

• TOP VIEW

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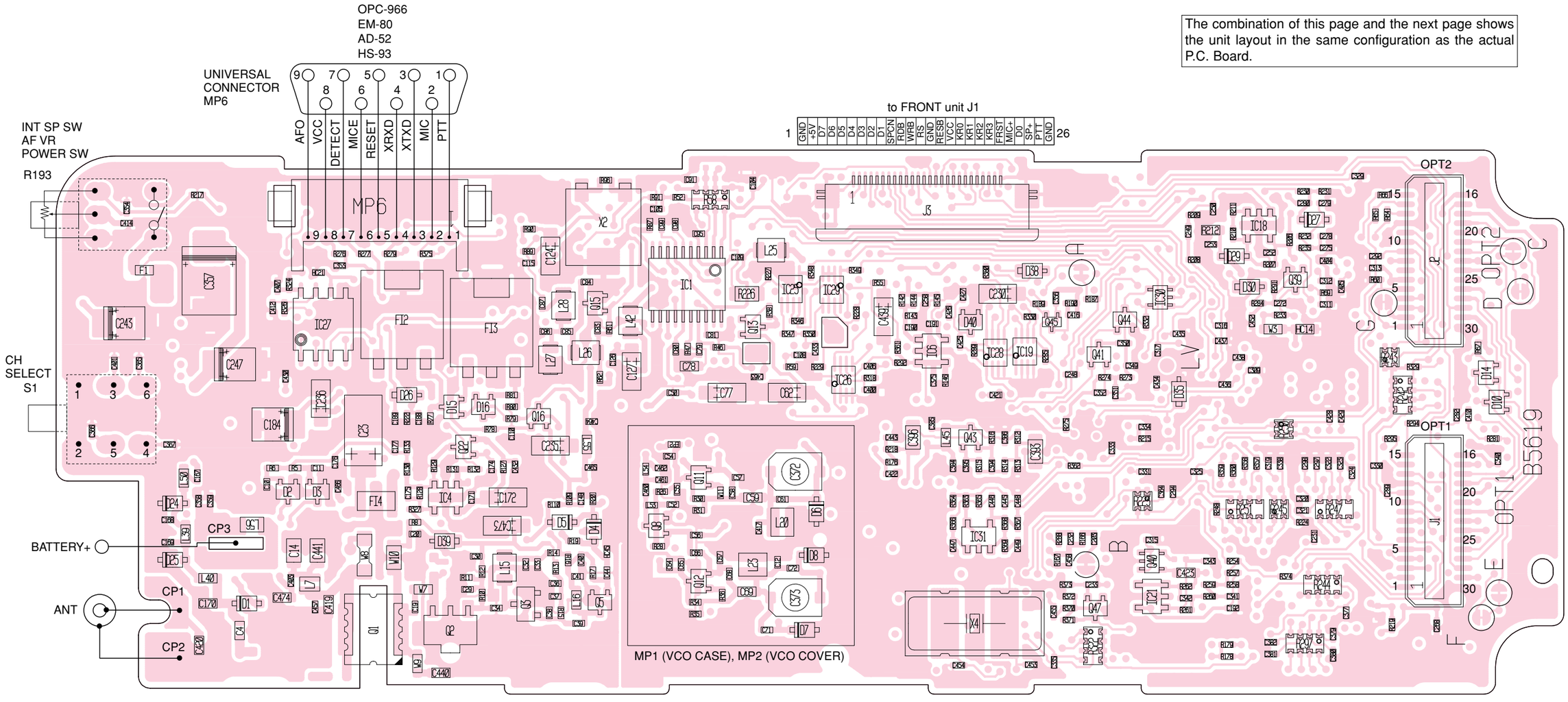

F41G (MAIN unit)

• BOTTOM VIEW

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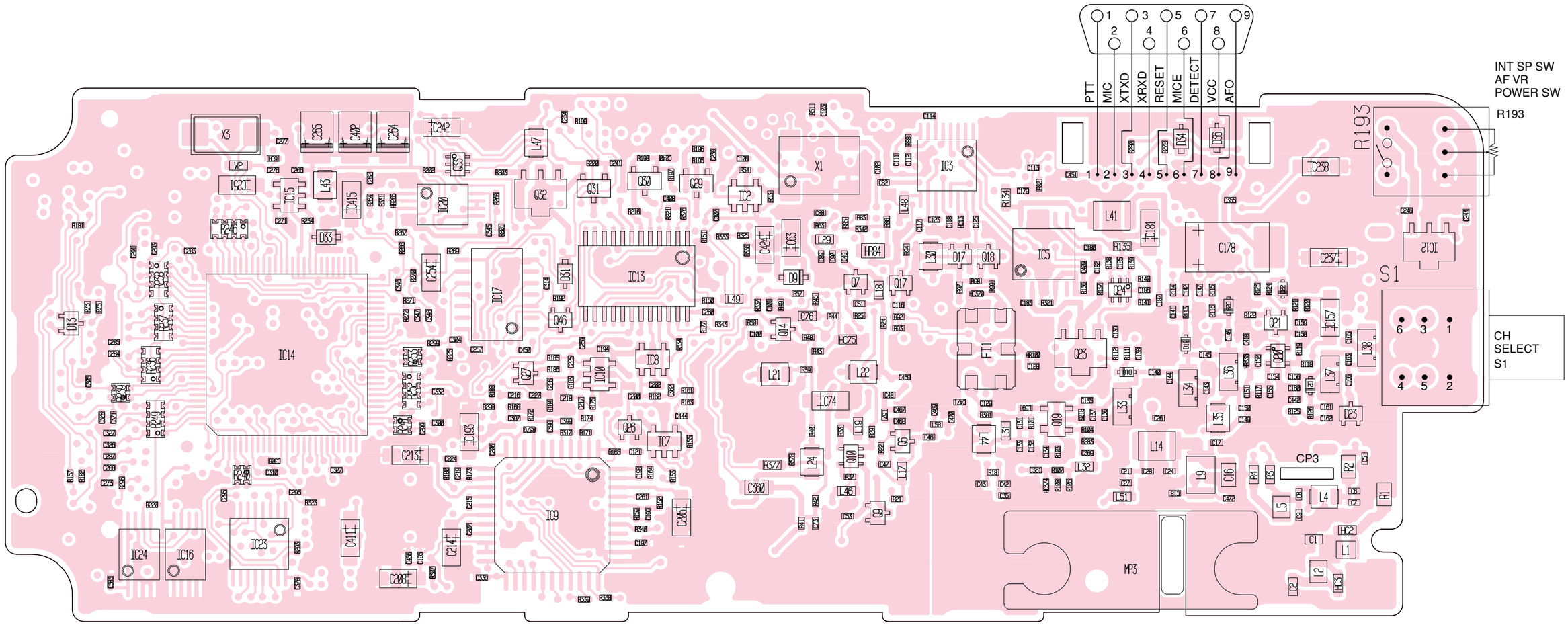
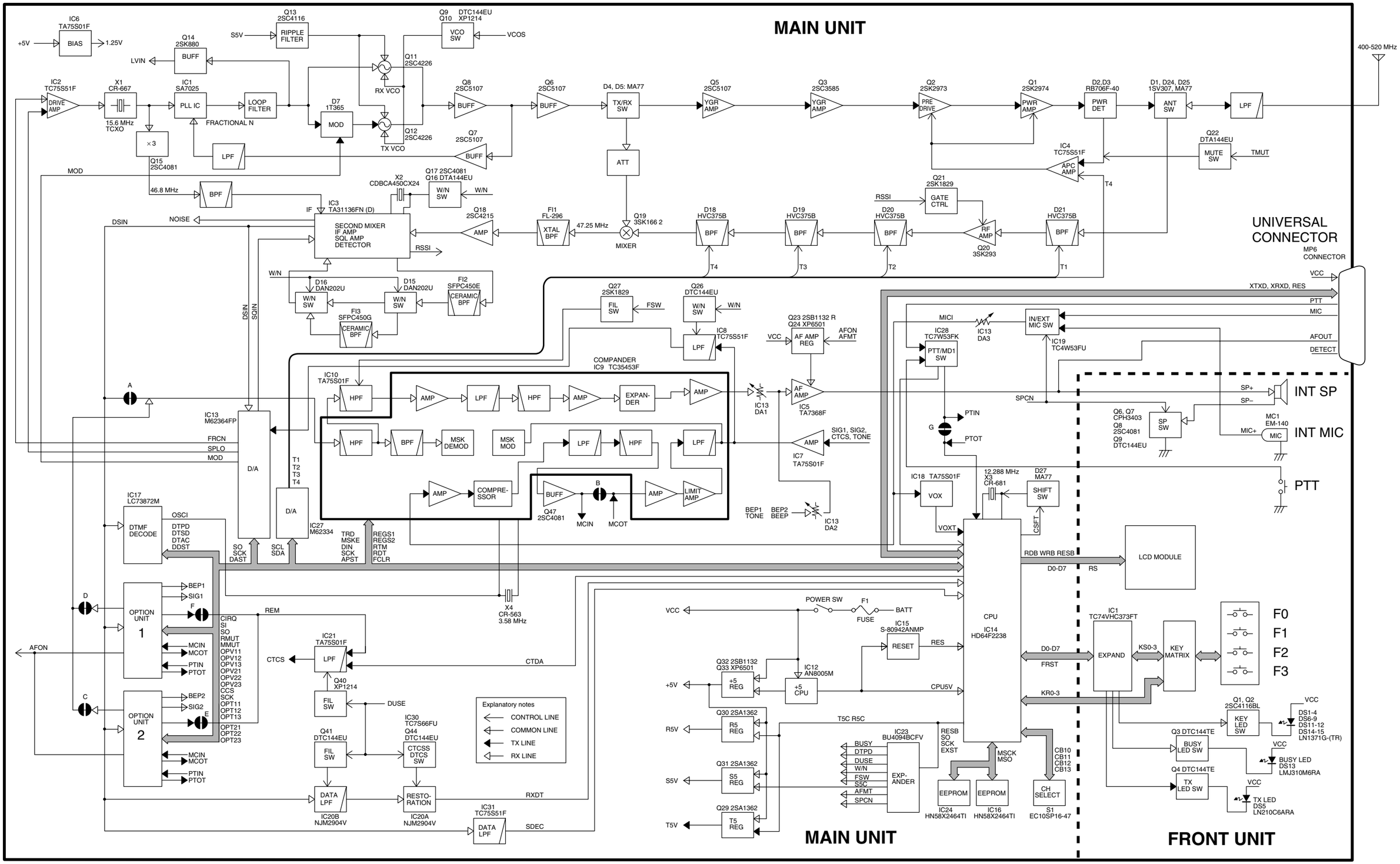
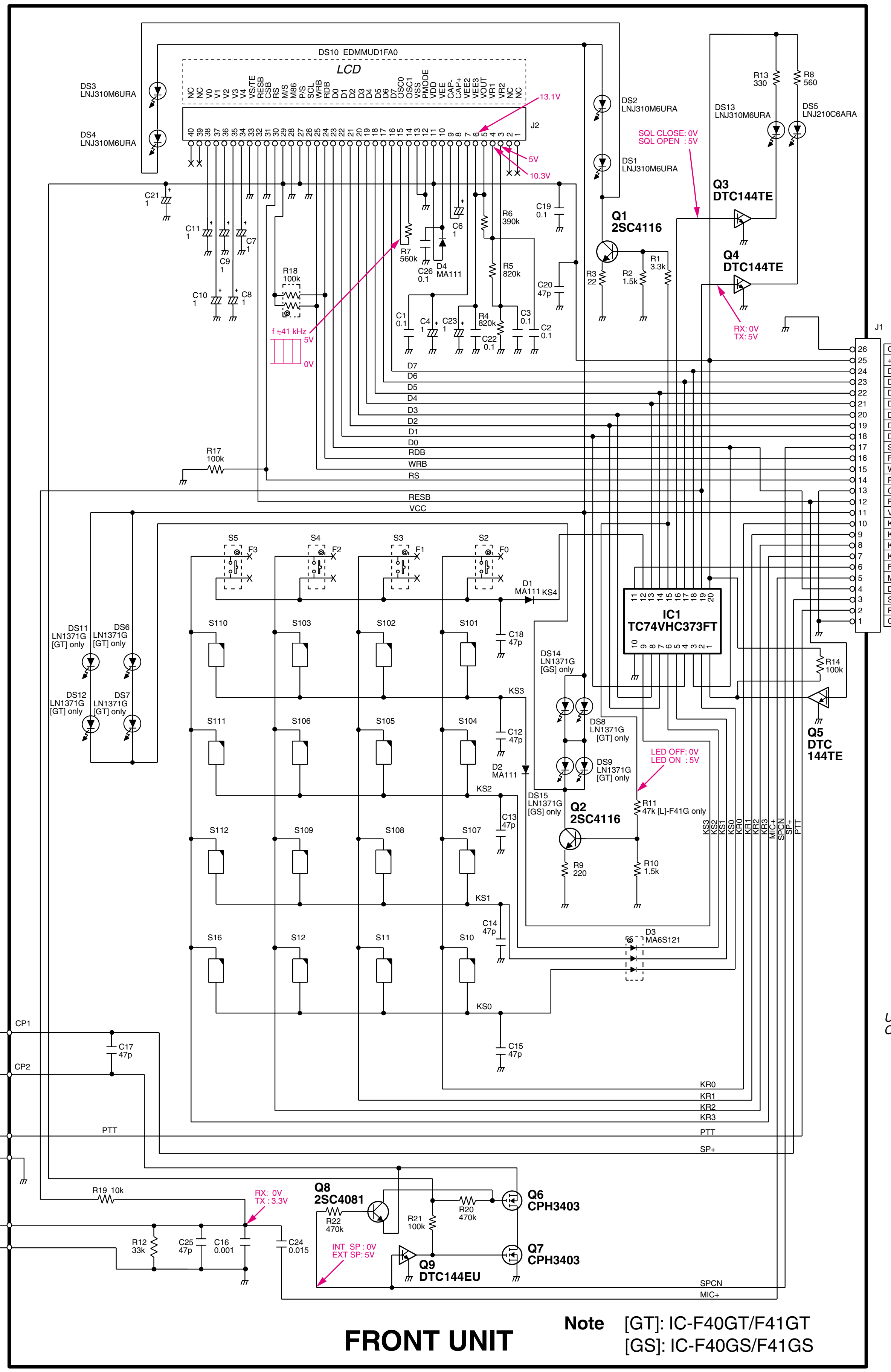
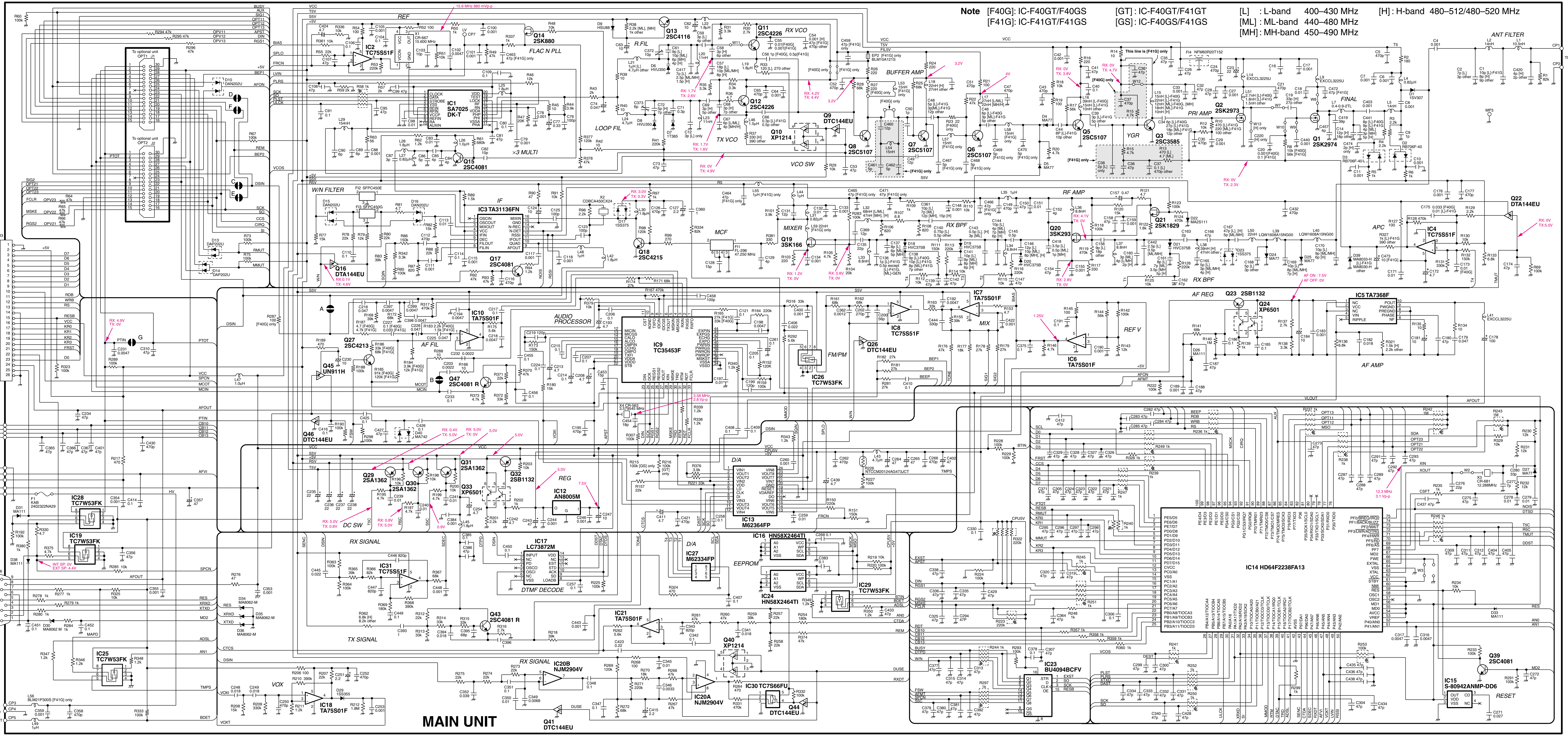


SECTION 10 BLOCK DIAGRAM



SECTION 11 VOLTAGE DIAGRAM





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Auckland, New Zealand
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URL : http://www.icom.co.nz

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