



SERVICE MANUAL

UHF TRANSCEIVERS

IC-F4011
IC-F4013

S-14605XZ-C1
May. 2009

Icom Inc.

INTRODUCTION

This service manual describes the latest service information for the **IC-F4011/IC-F4013** UHF TRANSCEIVERS at the time of publication.

MODEL	VERSION	FREQ. (MHz)	CHANNEL SPACING	CHANNELS
F4011	USA-06	400–470	12.5/25.0 kHz	16CH
	USA-07	450–512		
F4013	CSA-01	400–470		
	CSA-02	450–512		
	CSA-03	400–470		
	CSA-04	450–512		

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

CAUTION

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

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

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

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



(IC-F4011)

ORDERING PARTS

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

1. 10-digit Icom parts numbers
2. Component name
3. Equipment model name and unit name
4. Quantity required

<ORDER EXAMPLE>

1110003491	S.IC	TA31136FNG	IC-F4011	MAIN UNIT	5 pieces
8820001210	Screw	2438 screw	IC-F4013	Top cover	10 pieces

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

REPAIR NOTES

1. Make sure that the 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 Standard Signal Generator or a Sweep Generator.
7. **ALWAYS** connect a 50 dB to 60 dB attenuator between the transceiver and a Deviation Meter or Spectrum Analyzer when using such test equipment.
8. **READ** the instructions of test equipment thoroughly before connecting a test equipment to the transceiver.

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SECTION 1

SPECIFICATIONS

■ GENERAL

- Frequency coverage : 400–470 MHz [USA-06], [CSA-01], [CSA-03]
450–512 MHz [USA-07], [CSA-02], [CSA-04]
- Type of emission : 16K0F3E (25.0 kHz) for Wide
: 11K0F3E (12.5 kHz) for Narrow
- Channel spacing : 12.5/25.0 kHz
- Number of conventional channels : 16 ch
- Antenna impedance : 50 Ω
- Operating temperature range : –30°C to +60°C (–22°F to +140°F)
- Power supply requirement : Specified Icom's battery pack only (7.2 V DC nominal; negative ground)
- Current drain (at 7.2 V DC ; approx.) :

RECEIVING		TRANSMITTING	
Stand-by	Max. audio	High (at 4 W)	Low (at 1 W)
75 mA	300 mA	1.6 A	0.8 A

- Dimensions (projections not included) : 53.0 (W)×120.0 (H)×38.0 (D) mm; 2³/₃₂(W)×4²³/₃₂(H)×1¹/₂(D) in
- Weight (Including BP-231) : Approx. 260 g (9³/₁₆ oz)

■ TRANSMITTER

- Output power (at 7.2 V DC) : 4 W (Hi)/2 W (L2)/1 W (L1)
- Modulation : Variable reactance frequency modulation
- Maximum permissible deviation : ±5.0 kHz (Wide), ±2.5 kHz (Narrow)
- Frequency error : ±2.5 ppm
- Spurious emissions : 70 dB (min.)
- Adjacent channel power : 70 dB min. (75dB typ.) for Wide
60 dB min. (68dB typ.) for Narrow
- Audio harmonic distortion : 3% typ. (at 1 kHz, 40% deviation)
- FM Hum and Noise (without CCITT filter) : 40 dB min. (46 dB typ.) for Wide
34 dB min. (40 dB typ.) for Narrow
- Limiting charact of modulator : 60–100% of maximum deviation
- Microphone impedance : 2.2 k Ω

■ RECEIVER

- Receive system : Double conversion superheterodyne system
- Intermediate frequencies : 1st IF: 46.35 MHz, 2nd IF: 450 kHz
- Sensitivity : 0.25 μ V (–119 dBm) typ. at 12 dB SINAD
- Adjacent channel selectivity : 70 dB min. (75 dB typ.) for Wide
60 dB min. (65 dB typ.) for Narrow
- Spurious response : 70 dB min.
- Intermodulation rejection ratio : 70 dB min. (74 dB typ.)
- Hum and Noise (without CCITT filter) : 40 dB min. (45 dB typ.) for Wide
34 dB min. (40 dB typ.) for Narrow
- Audio output power : 0.5 W typ. (at 5% distortion with an 8 Ω load)
- Squelch sensitivity (at threshold) : 0.25 μ V typ.
- Output impedance (audio) : 8 Ω

Specifications are measured in accordance with TIA-603.

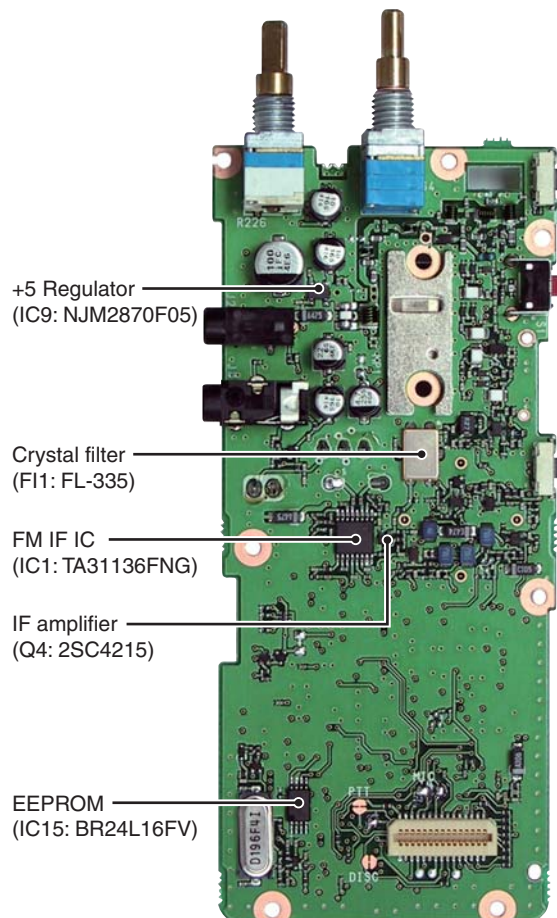
All stated specifications are subject to change without notice or obligation.

SECTION 2

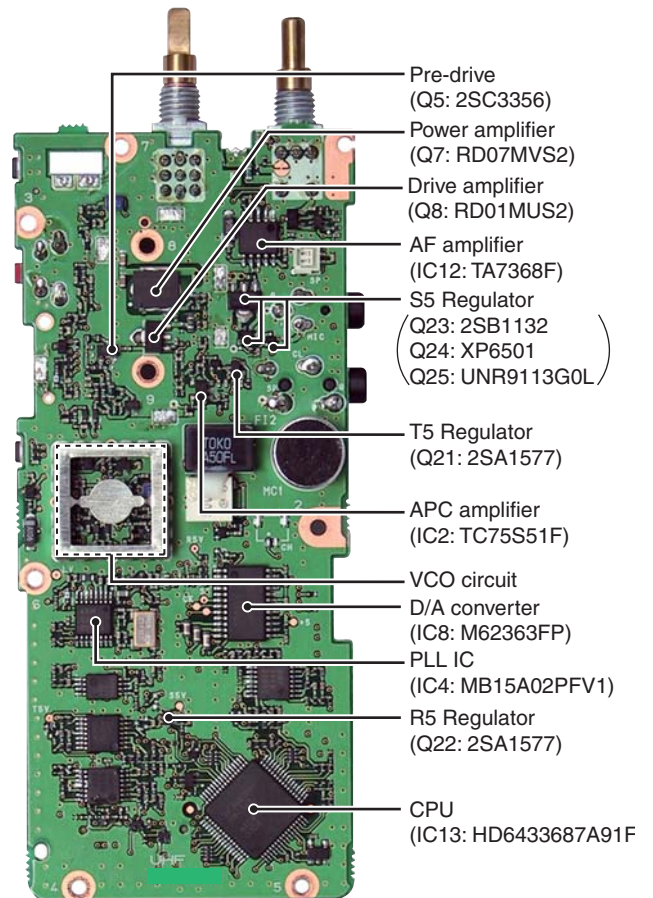
INSIDE VIEWS

• MAIN UNIT

TOP VIEW



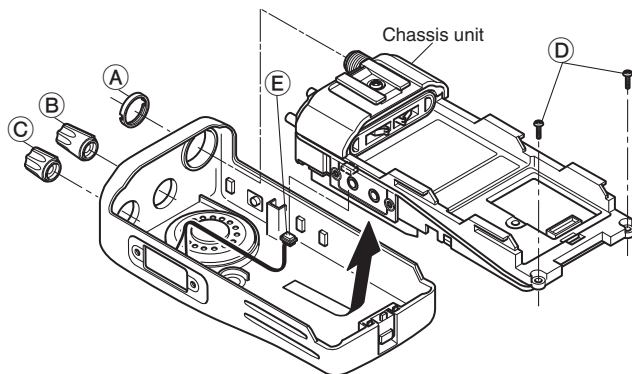
BOTTOM VIEW



SECTION 3 DISASSEMBLY INSTRUCTION

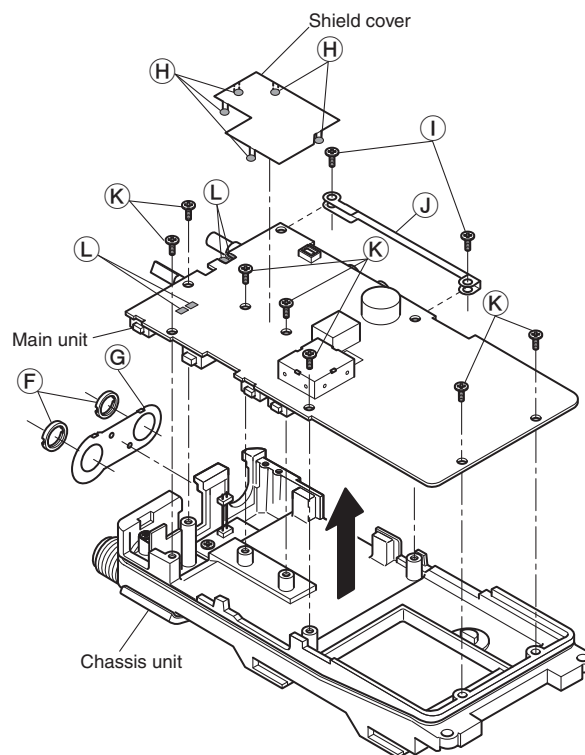
1. REMOVING THE CHASSIS UNIT

- ① Unscrew 1 nut (A), and remove 2 knobs (B), (C).
- ② Unscrew 2 screws (D).
- ③ Take off the chassis unit in the direction of the arrow.
- ④ Unplug the connector (E) from the chassis unit.



2. REMOVING THE MAIN UNIT

- ① Unscrew 2 nuts (F), and remove the top plate (G).
- ② Unsolder 5 points (H), and remove the shield cover.
- ③ Unscrew 2 screws (I), and remove the side plate (J).
- ④ Unscrew 7 screws (K).
- ⑤ Unsolder 4 points (L), and take off the main unit in the direction of the arrow.



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. This circuit does not allow transmit signals to enter the receiver circuits.

Received signals enter the antenna connector (CHASSIS; J1) and pass through the low-pass filters (ANT UNIT; L601, C601) and (MAIN UNIT; L1, L2, L45, C1–C6, C175). The filtered signals are passed through the $1/4\lambda$ type antenna switching circuit (D2, D5, L6) 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 bandpass filter (D3, D4, D7, D8). The filtered signals are amplified at the RF amplifier (Q2) and then passed through the another bandpass filter (D9, D10, C38–C40, C44, C45) to suppress unwanted signals. The filtered signals are applied to the 1st mixer circuit.

D3, D4, D7–D10 employ varactor diodes, that are controlled by the CPU via the D/A converter (IC8), to track the bandpass filter. These varactor diodes tune the center frequency of an RF passband for wide bandwidth receiving and good image response rejection.

4-1-3 1ST MIXER AND 1ST 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 crystal 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 BPF (L38, C49, C304, C305), at the 1st mixer circuit (Q3) to produce a 46.35 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 signal. The filtered signal is applied to the 2nd IF circuit after being amplified at the 1st IF amplifier (Q4).

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 converts receive signals twice) improves the image rejection ratio and obtains stable receiver gain.

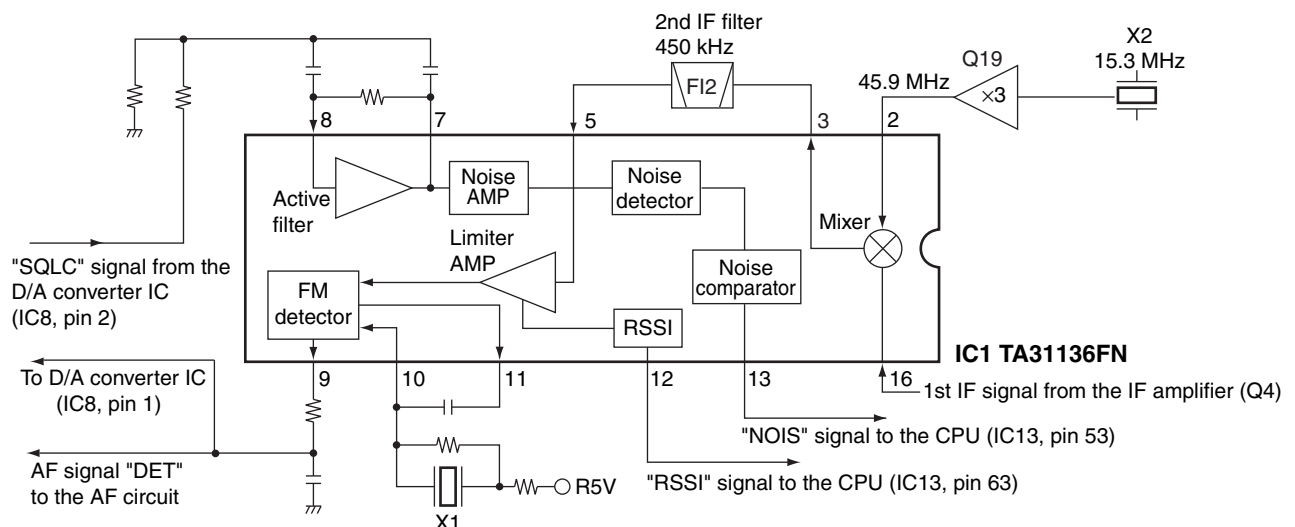
The 1st IF signal from the IF amplifier (Q4) is applied to the 2nd mixer section of the FM IF IC (IC1, pin 16), and is mixed with the 2nd LO signal to be converted into a 450 kHz 2nd IF signal.

The FM IF IC (IC1) contains the 2nd mixer, 2nd local oscillator, limiter amplifier, quadrature detector, active filter and noise amplifier circuits. A 2nd LO signal (45.9 MHz) is produced at the PLL circuit by tripling its reference frequency (15.3 MHz).

The 2nd IF signal from the 2nd mixer (IC1, pin 3) passes through the ceramic filter (FI2) to remove unwanted heterodyned frequencies. It is then amplified at the limiter amplifier section (IC1, pin 5) and applied to the quadrature detector section (IC1, pins 10, 11) to demodulate the 2nd IF signal into AF signals.

The demodulated AF signals are output from pin 9 (IC1) as "DET" signal, and are then applied to the AF 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 (IC1, pin 9) pass through the high-pass filter (IC6, pins 3 and 1) to suppress unwanted harmonic components. The signals pass through the RX mute switch (Q34) which is controlled by "RMUT" signal from the CPU (IC13, pin 56), and are then applied to another high-pass filter (IC6, pins 13 and 14). The filtered signals pass through the low-pass filter (IC6, pins 6 and 7) via the analog switch (IC10, pins 1 and 2). The signals are applied to the analog switch (IC10, pin 10) again, and are then applied to the AF power amplifier (IC12, pin 4) via the AF volume (R226). The amplified AF signals are output from pin 10, and are then applied to the internal speaker which is connected with J1 via the [SP] jack.

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 (IC1, pin 9) are applied to the D/A converter (IC8, pin 1) as "DET" signal, and are then output from pin 2. The signals are applied to the active filter section in the FM IF IC (IC1, pin 8). The active filter section filters and amplifies noise components. The amplified signals are converted into the pulse-type signals at the noise detector section and output from pin 13 as "NOIS" signal.

The "NOIS" signal from the FM IF IC is applied to the CPU (IC13, pin 53). Then the CPU analyzes the noise condition and outputs the AF mute control signal from the CPU (IC13) as "RMUT" signal from pin 56. The signal is applied to the RX mute switch (Q34) to control the AF signal muting.

• CTCSS AND DTCS

The tone squelch circuit detects tone signals and opens the squelch only when receiving a signal containing a matched subaudible tone (CTCSS or DTCS). When the 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 "DET" signals from the FM IF IC (IC1, pin 9) passes through the low-pass filter (IC7, pins 5 and 7) to remove AF (voice) signals, and are then applied to the amplifier (IC7, pin 3). The amplified signals are applied to the CTCSS or DTCS decoder inside of the CPU (IC13, pin 60) as the "CDEC" signal. The CPU outputs AF mute control signal from pin 56, and is then applied to the RX mute switch (Q34) and analog switch (IC10, pins 12 and 13) to control AF signals muting as "RMUT" signal.

4-2 TRANSMITTER CIRCUITS

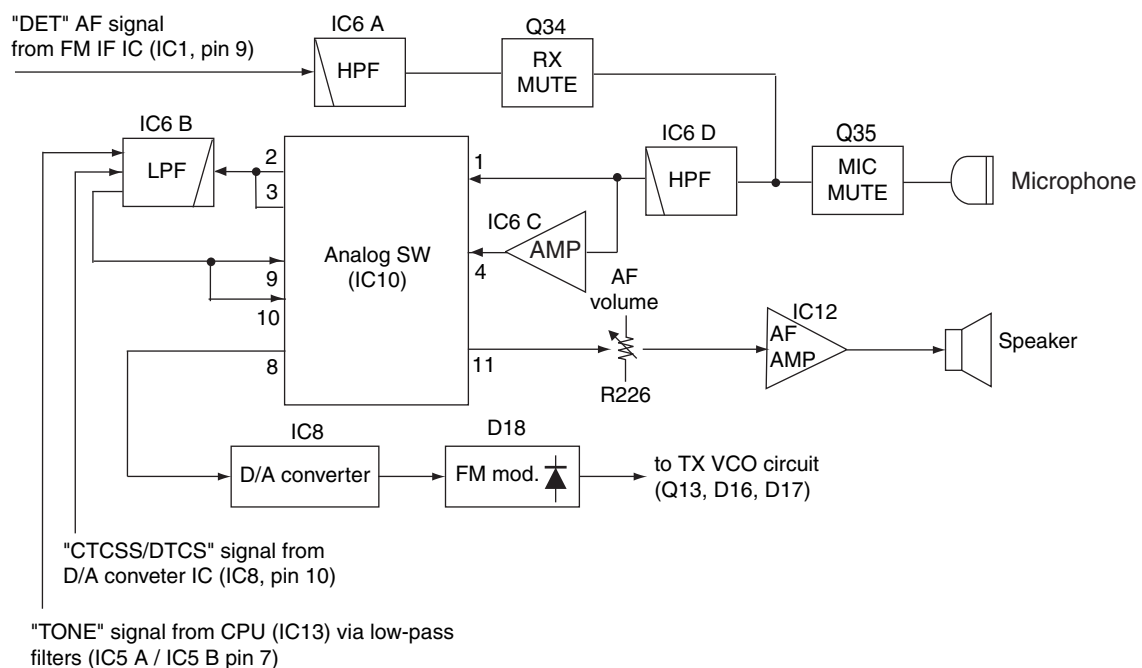
4-2-1 MICROPHONE AMPLIFIER CIRCUIT

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 from the microphone are passed through the microphone mute switch (Q35), and are then applied to the amplifier (IC6, pins 9 and 8) via the high-pass filter (IC6, pins 13 and 14). The amplified signals are applied to the analog switch (IC10, pin 4), and outputs from pin 3. The signals pass through the low-pass filter (IC6, pins 6 and 7), then applied to the analog switch (IC10, pin 9) again and output from pin 8.

The signals are applied to the D/A converter (IC8, pin 4). The converted signals output from pin 3, and applied to the modulation circuit (D18) as "MOD" signal.

• ANALOG SWITCHING CIRCUITS



4-2-2 MODULATION CIRCUIT

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

The AF signals from the D/A converter (IC8, pin 3) change the reactance of varactor diode (D18) to modulate the oscillated signal at the TX VCO circuit (Q13, D17, D18, D21). The modulated VCO signal is amplified at the buffer amplifiers (Q10, Q12) and then applied to the drive amplifier circuit via the T/R switch (D14, D15).

The CTCSS/DTCS signals ("CENC0", "CENC1", "CENC2") from the CPU (IC13, pins 23–25) pass through the low-pass filter (IC5, pins 12 and 14) via 3 registers (R191–R193) to change its wave form. Then the signals are applied to the D/A converter (IC8, pin 9). The output signals from the D/A converter (IC8, pin 10) pass through the low-pass filter (IC6, pins 6 and 7) to be mixed with "MOD" signal, and then applied to the D/A converter again (IC8, pin 4).

4-2-3 DRIVE/POWER AMPLIFIER CIRCUITS

The drive/power amplifier circuits amplify the VCO oscillating signal to a transmit power level.

The modulated RF signal from the TX VCO circuit passes through the T/R switch (D14, D15) and is amplified at the YGR (Q9), pre-drive (Q5), drive (Q8), and power (Q7) amplifiers to obtain 4 W of RF power (at 7.2 V DC).

The amplified signal passes through the low-pass filter (L1, L2, L45, C1–C5, C175, C176), antenna switch (D2) and power detector (D1, D30), then applied to the antenna connector (CHASSIS unit; J1).

4-2-4 APC CIRCUITS

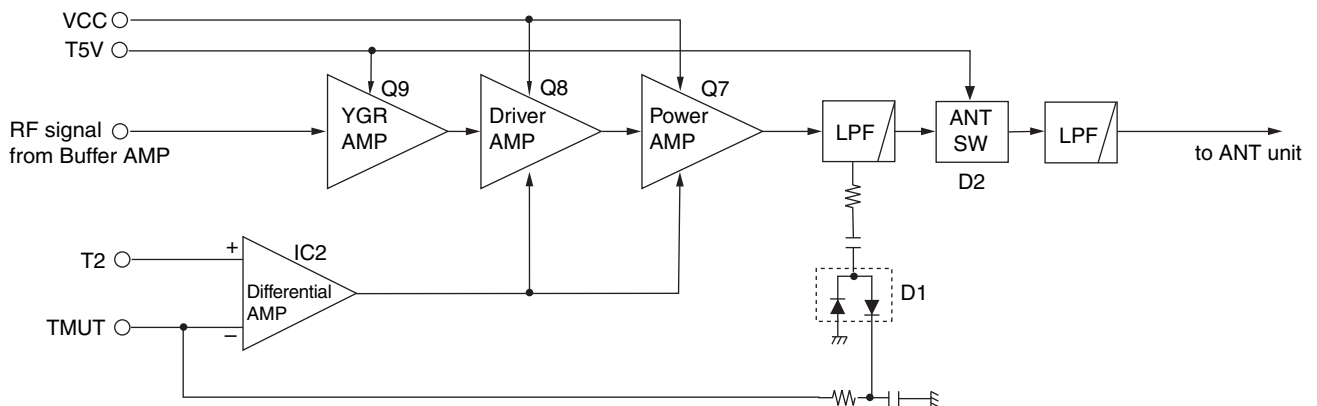
The bias current of the drive (Q8) and power (Q7) amplifiers are controlled by the APC circuit.

The APC circuit (IC2, D1, D30) protects drive and power amplifiers from the reflected signal, and selects output power of HIGH, LOW2 or LOW1.

The power detector (D1, D30) detects transmit output power and converts it into DC voltage. The DC voltage is at a minimum level when the antenna impedance is matched to 50 Ω , and increased when mismatched.

The detected voltage is applied to the differential amplifier (IC2, pin 3), and the "T2" signal from the D/A converter (IC8, pin 23), controlled by the CPU (IC13), is applied to pin 1 for reference. When antenna impedance is mismatched, the detected voltage exceeds the power setting voltage. Then the output voltage of the differential amplifier (IC2, pin 4) controls the input current of the drive (Q8), and power (Q7) amplifiers to reduce the output power.

• APC CIRCUITS



4-3 PLL CIRCUITS

4-3-1 PLL CIRCUIT

A PLL circuit provides stable oscillation for the transmit frequency and the 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/RX VCO circuits (TX: Q13, D17, D21; RX: Q14, D16, D21). The oscillated signal is amplified at the buffer amplifiers (Q11, Q12) and then applied to the PLL IC (IC4, pin 8) after being passed through the low-pass filter (L32, C206, C208).

The phase detected signal is output from pins 15 and 16, and passes through the loop filter (C130, C138, C146, C147, R95–R97), then applied to the TX and RX VCO circuits as a lock voltage.

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.

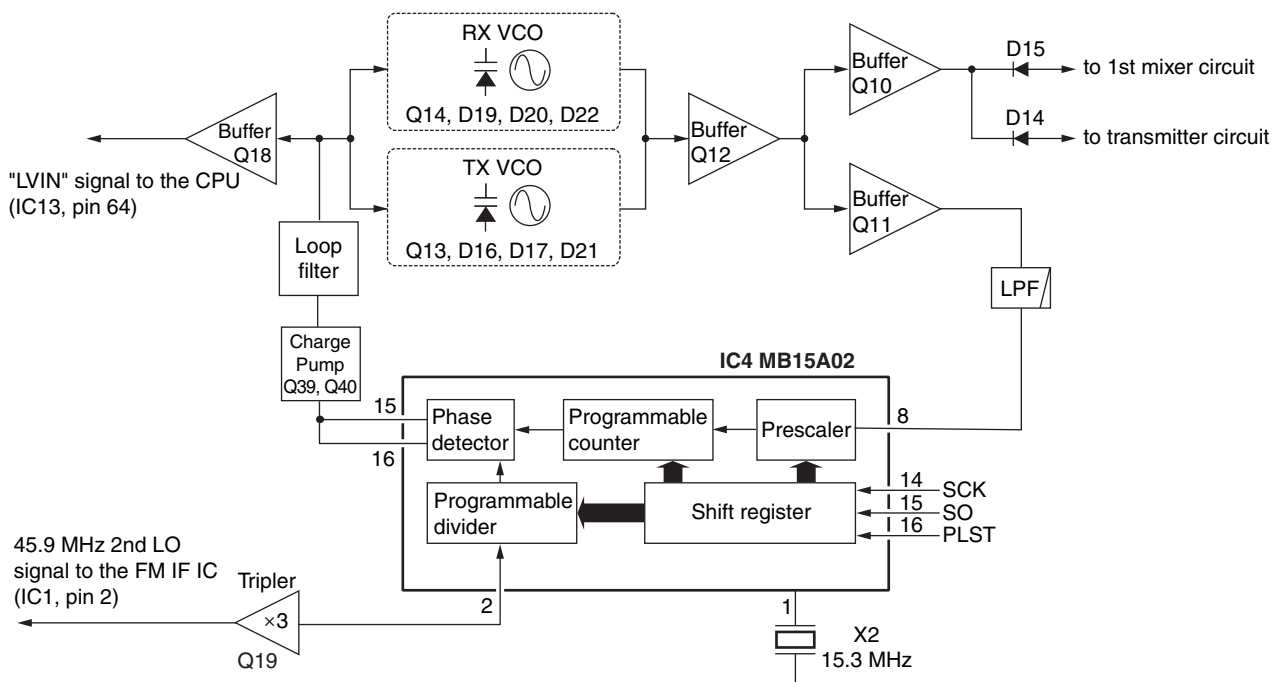
If the oscillated signal drifts, its phase changes from that of the reference frequency, causing a lock voltage change to compensate for the drift in the oscillated frequency.

4-3-2 VCO CIRCUITS

The VCO circuit contains a separate RX VCO (Q14, D16, D22) and TX VCO (Q13, D17, D18, D21). The oscillated signal is amplified at the buffer amplifiers (Q10, Q12) and is then applied to the T/R switch (D14 for TX, D15 for RX). Then the receive 1st LO (RX) signal is applied to the 1st mixer circuit (Q3) and the transmit (TX) signal to the pre-YGR amplifier (Q9).

A portion of the signal from the buffer amplifier (Q12) is fed back to the PLL IC (IC4, pin 8) via the buffer amplifier (Q11) and low-pass filter (L32, C206, C208) as the comparison signal.

• PLL CIRCUITS



4-4 OTHER CIRCUITS

LED CONTROL CIRCUITS

The LED control circuit is composed of the LED driver (Q32) and LED (DS1).

The CPU outputs “RLED” and “TLED” signals from the pins 42 and 43. The signals are applied to the LED driver (Q32, pins 2 and 5).

CONDITION	COLOR
RECEIVING (2/5-TONE CODE)	ORANGE (Lighting)
LOW BATTERY (Nearly exhausted)	RED (Blinks Slowly)
LOW BATTERY (Almost exhausted)	RED (Blinks Fast)
CLONING	ORANGE (Blinking)
RECEIVING/SQUELCH OPEN	GREEN (Lighting)
TRANSMITTING	RED (Lighting)

4-5 POWER SUPPLY CIRCUIT

VOLTAGE LINE

LINE	DESCRIPTION
VCC	The voltage from the attached battery pack.
+5V	Common 5 V converted from the VCC line at the +5 regulator circuit (IC9). The output voltage is supplied to the D/A converter (IC8), analog SW (IC10) and so on.
S5V	Common 5 V converted from the VCC line at the S5 regulator circuit (Q23–Q25). The output voltage is supplied to the ripple filter (Q17), PLL IC (IC4), etc.
R5V	Receive 5 V converted from the S5V line at the R5 regulator circuit (Q22). The output voltage is supplied to the tripler (Q19), FM IF IC (IC1), IF amplifier (Q4), VCO switch (Q15, Q16), 1st mixer (Q3), etc.
T5V	Transmit 5 V converted from the S5V line at the T5 regulator circuit (Q21). The output voltage is supplied to the YGR (Q9), pre-drive (Q5), APC amplifier (IC2), etc..

4-6 PORT ALLOCATION

4-6-1 D/A CONVERTER IC (IC8)

Pin number	Port name	Description
11	BAL	Outputs the modulation balance level control signal. The signal is applied to the buffer amplifier (IC7, pin 3).
23	T2	- Outputs the bandpass filter tuning signal during receive. The output signal is applied to the bandpass filters (D9, D10). - Outputs the TX power control signal during transmit. The output signal is applied to the APC amplifier (IC2, pin 1).
22	T1	Outputs the bandpass filter tuning signal. The output signal is applied to the bandpass filters (D4, D8).
14	LVA	Outputs the PLL lock voltage control signal. The output signal is applied to the buffer amplifier (IC7, pin 3).
15	REF	Outputs the reference oscillator correcting voltage. The voltage is applied to the buffer amplifier (IC7, pin 5).

4-6-2 CPU (IC13)

Pin number	Port name	Description
1	TEMP	Input port for the transceiver's internal temperature detecting signal.
2	BATV	Input port for the detect signal for connecting battery pack's voltage.
7	RES	Input port for power reset signal.
13	SENC0	Output single tone encoder signal.
14	SENC1	
16	DUSE	Outputs DTSC LPF control signal.
18	AFON	Outputs AF power amplifier control signal.
19	SENC2	Output single tone encoder signal.
20	SENC3	
21	CBI0	Input ports for rotary selectoir.
22	CBI1	
23	CENC0	Output CTCSS/DTCS signals.
24	CENC1	
25	CENC2	
26	CBI2	Input ports for rotary selector.
27	CBI3	
28	SCK	Outputs serial clock signal to the PLL IC (IC4, pin 9), D/A convertor (IC8, pin 7), etc.
29	SO	Outputs serial data to the PLL IC (IC4, pin 8) and D/A convertor (IC8, pin 8).
30	BEEP	Outputs beep audio signals.
31	ESDA	I/O port for data signals from/to the EEPROM (IC15, pin 5).
32	ESCL	Outputs clock signal to the EEPROM (IC15, pin 6).
33	UNLK	Input port for unlock signal from PLL IC IC4, pin 9).
34	PLST	Outputs strobe signals to the PLL IC (IC4, pin 11).
36	NWC	Output/input port for wide/narrow control signal.
37	DAST	• Outputs strobe signals to the D/A convertor (IC8, pin 6). • Input port for the connecting battery type detect signal.
38	S5C	Outputs power save control signal.
39	T5C	Outputs T5 regurator control signal. Low: While transmitting
40	R5C	Outputs R5 regurator control signal. Low: While receiving

Pin number	Port name	Description
42	RLED	Outputs receiving LED control signal.
43	TLED	Outputs transmitting LED control signal.
47	PTT	Input port for the PTT switch detection signal. Low : While the PTT switch is pushed.
48	SI	Serial Bus inputport.
49	CLI	Input port for the cloning data signal.
50	CLO	Outputs the cloning data signal.
53	NOIS	Input port for the noise signal from the FM IF IC (IC1, pin 13).
55	CCS	Outputs chip select signal.
56	TMUT	Outputs transmit mute signal.
57	RMUT	Input port for AF mute signal from the RX circuit.
58	MMUT	Outputs MIC mute signal.
59	REMO	Inputs key signal from remote mic.
60	CDEC	Input port for CTCSS/DTCS signal from the amplifier (IC5, pin 8).
61	SDEC	Input port for single tone decode signal from the LPF (IC5, pin 8).
62	KEY	Inputs key input signal.
63	RSSI	Input port for the S-meter signal from the FM IF IC (IC1, pin 12).
64	LVIN	Input port for the PLL lock voltage.

SECTION 5 ADJUSTMENT PROCEDURE

5-1 PREPARATION

■ REQUIRED EQUIPMENTS

EQUIPMENT	SPECIFICATION	EQUIPMENT	SPECIFICATION
Adjustment software	"CS-F3010 ADJ" (Revision 1.0 or later)	JIG cable (see the page 5-3)	Modified OPC-478U/UC (USB type) or OPC-478 (RS-232 type)
Audio generator	Frequency range : 300–3000 Hz Output level : 1–500 mV	Attenuator	Power attenuation : 30 dB Capacity : More than 10 W
RF power meter (terminated type)	Measuring range : 1–10 W Frequency range : 100–600 MHz Impedance : 50 Ω SWR : Less than 1.2 : 1	Standard signal generator (SSG)	Frequency range : 0.1–600 MHz Output level : 0.1 μV to 32 mV (–127 to –17 dBm)
Frequency counter	Frequency range : 0.1–600 MHz Frequency accuracy : ±1 ppm or better Input level : Less than 1 mW	AC millivoltmeter	Measuring range : 10 mV to 10 V
		Oscilloscope	Frequency range : DC–20 MHz Measuring range : 0.01–20 V
Modulation analyzer	Frequency range : 30–600 MHz Measuring range : 0 to ±10 kHz	External speaker	Input impedance : 8 Ω Capacity : More than 1 W

■ SYSTEM REQUIREMENTS

- Microsoft® Windows® 98/SE/ME/2000/XP
- RS-232C/USB port

■ BEFORE STARTING SOFTWARE ADJUSTMENT

Clone adjustment frequencies, TX power, CTCSS frequency, DTCS code and IF bandwidth into the transceiver using the CS-F3011/F3013 CLONING SOFTWARE before starting adjustment.

CAUTION!: BACK UP the originally programmed memory data in the transceiver before programming the adjustment frequencies. When program the adjustment frequencies into the transceiver, the transceiver's memory data will be overwritten and lose original memory data at the same time.

■ ADJUSTMENT CHANNEL SETTING

- Using the CS-F3011/F3013 CLONING SOFTWARE, create the cloning data for adjustments as shown below.

• For [Low band]

Memory CH													
CH	Atr	Inh	Frequency (MHz)				C.Tone						
			RX	TX	TX Inh	W/N	SQL Tight	RX	TX	TOT	RF PWR	RF S	
1	AB		400.000000	<–		W					L1		
2			470.000000	<–		W					L1		
3			400.000000	<–		W					H		
4			400.000000	<–		W					L2		
5			400.000000	<–		W					L1		
6			435.000000	<–		N					L1		
7			435.000000	<–		W					L1		
8			435.000000	<–		N					L1		
9			435.000000	<–		N		,007N			L1		
10			435.000000	<–		W		,007N			L1		
11			435.000000	<–		W		,151.4			L1		
12			400.100000	<–	i	W					L1		
13													

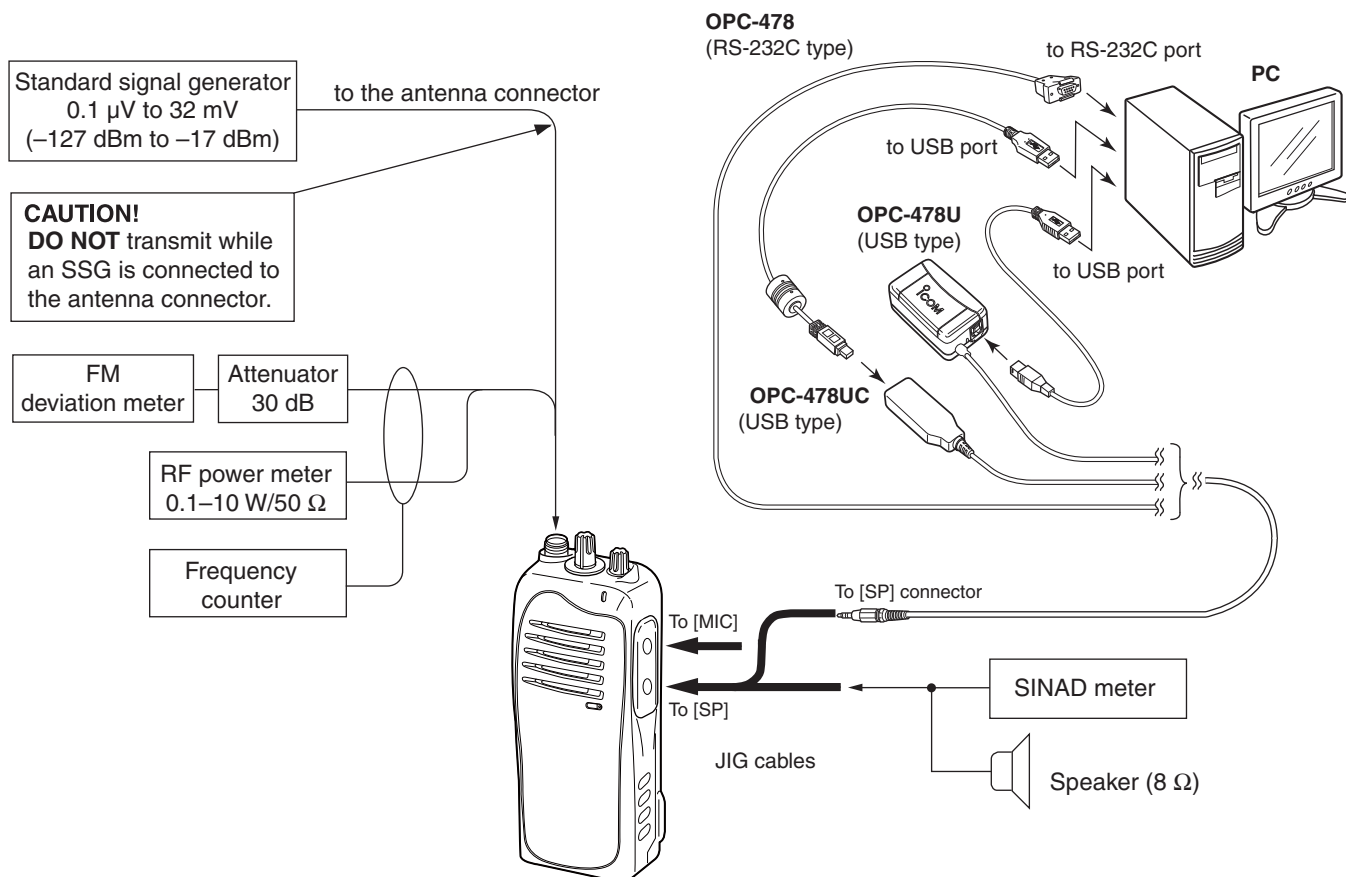
• For [High band]

Memory CH													
CH	Atr	Inh	Frequency (MHz)				C.Tone						
			RX	TX	TX Inh	W/N	SQL Tight	RX	TX	TOT	RF PWR	RF S	
1	AB		450.000000	<–		W					L1		
2			512.000000	<–		W					L1		
3			450.000000	<–		W					H		
4			450.000000	<–		W					L2		
5			450.000000	<–		W					L1		
6			485.000000	<–		N					L1		
7			485.000000	<–		W					L1		
8			485.000000	<–		N					L1		
9			485.000000	<–		N		,007N			L1		
10			485.000000	<–		W		,007N			L1		
11			485.000000	<–		W		,151.4			L1		
12			450.100000	<–	i	W					L1		
13													

- Clone the data file into the transceiver.

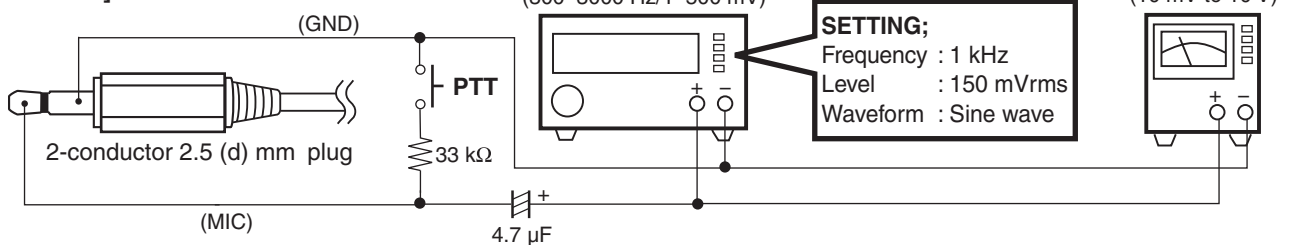
Microsoft, Windows and Windows Vista are registered trademarks of Microsoft Corporation in the United States and/or other countries.

• CONNECTION

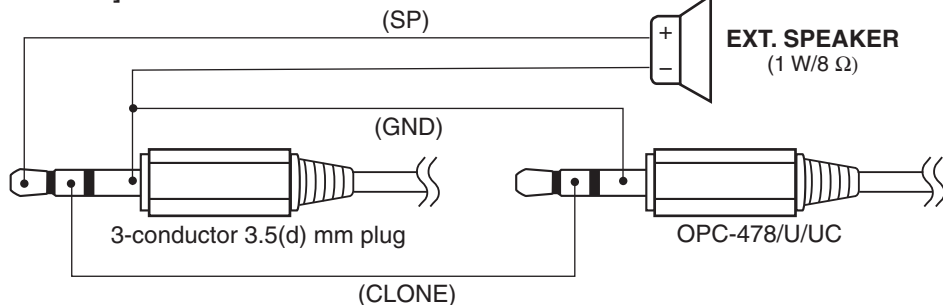


• JIG CABLE

[JIG cable1]



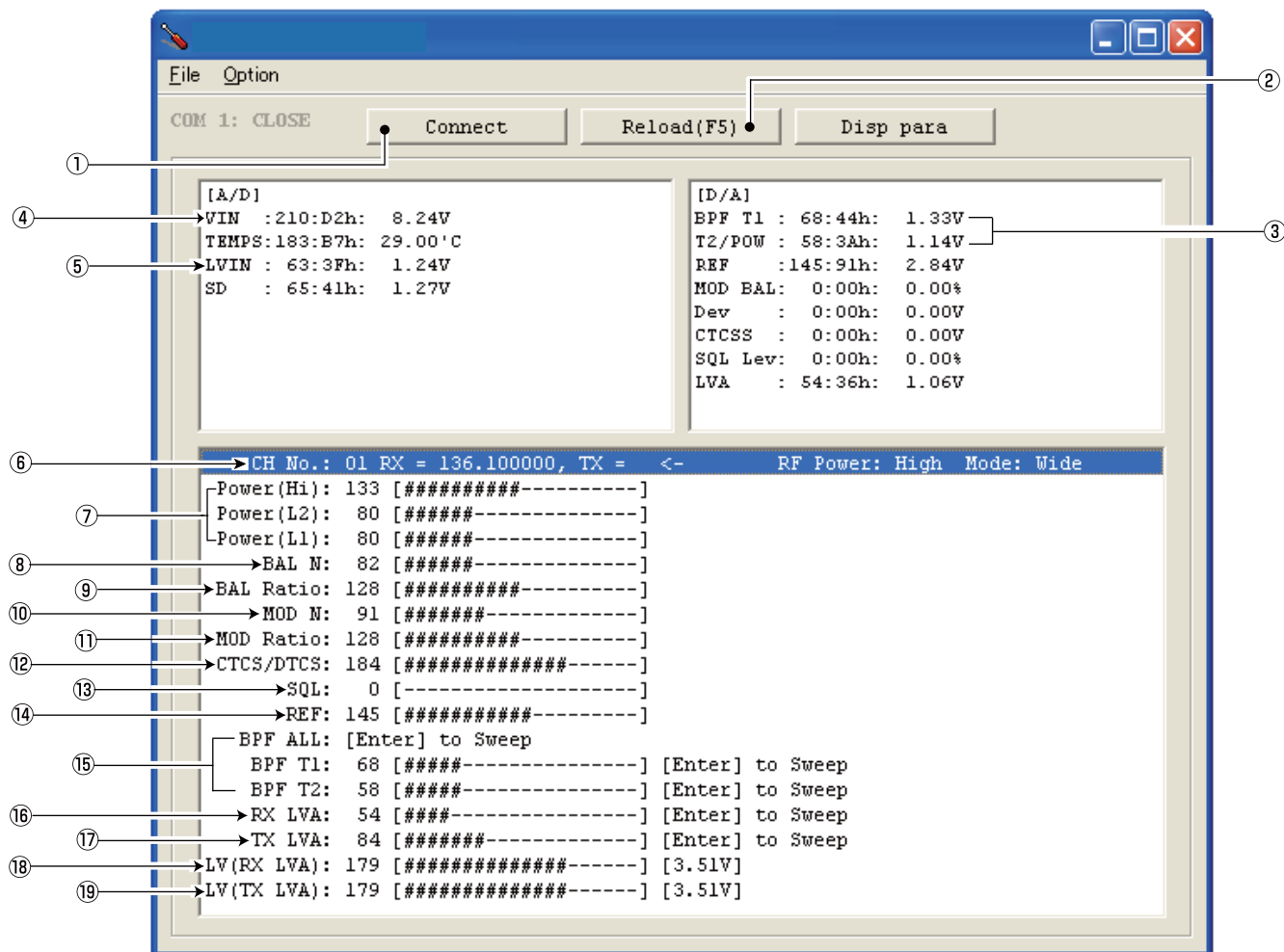
[JIG cable2]



■ STARTING SOFTWARE ADJUSTMENT

- (1) Connect the transceiver and PC with OPC-478/U/UC and JIG CABLE (see the previous page).
- (2) Turn the transceiver power ON.
- (3) Boot up Windows, and click the program group 'CS-F3010 ADJ' in the 'Programs' folder of the [Start] menu, then CS-F3010 ADJ's window appears.
- (4) Click 'Connect' on the CS-F3010's window, then IC-F4011/F4013's up-to-date condition appears as below.
- (5) Set or modify adjustment value as specified in the following guidances.

• PC SCREEN EXAMPLE



NOTE: The above screen is an example.

Each transceiver has its own specific values for each setting.

- | | |
|-------------------------------------|--|
| ①: Transceiver's connection state | ⑫: CTCSS/DTCS deviation |
| ②: Reload adjustment data | ⑬: Squelch level |
| ③: Receive sensitivity measurement | ⑭: Reference frequency |
| ④: Connected DC voltage measurement | ⑮: Receive sensitivity (automatically) |
| ⑤: PLL lock voltage measurement | ⑯: PLL lock voltage for RX (automatically) |
| ⑥: Operating channel select | ⑰: PLL lock voltage for TX (automatically) |
| ⑦: RF output power | ⑱: PLL lock voltage for RX (manually) |
| ⑧: FM deviation balance (Narrow) | ⑲: PLL lock voltage for RX (manually) |
| ⑨: FM deviation balance (Wide) | |
| ⑩: FM deviation (Narrow) | |
| ⑪: FM deviation (Wide) | |

5-2 FREQUENCY ADJUSTMENT

1) Select an adjustment item using cursor or [↑] / [↓] of the PC's keyboard.

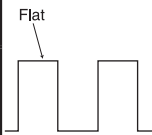
2) Set or modify the adjustment value as specified using [←] / [→] of the PC's keyboard, then push [ENTER].

ADJUSTMENT		ADJUSTMENT CONDITION	OPERATION	ADJUSTMENT ITEM	VALUE
PLL LOCK VOLTAGE	1	—	• Connect an RF power meter to the antenna.	—	—
RX	2	• Channel : CH.1 • Receiving	• Adjust the [RX LVA] using [←] / [→] on the PC's keyboard until the "LVIN" in the "ADJUSTMENT WINDOW" shows the specified value, then push [ENTER]. or • Set the [RX LVA] to "51", then push [ENTER].	[RX LVA]	1.0 V (at the "LVIN" item) or "51" (at the [RX/TX LVA])
TX	3	• Channel : CH.1 • Transmitting	• Adjust the [TX LVA] using [←] / [→] on the PC's keyboard until the "LVIN" in the "ADJUSTMENT WINDOW" shows the specified value, then push [ENTER]. or • Set the [TX LVA] to "51", then push [ENTER].	[TX LVA]	
LOCK VOLTAGE VERIFICATION	1	—	• Connect an RF power meter to the antenna.	—	—
RX	2	• Channel : CH.2 • Receiving	• Verify the lock voltage displayed at the "LVIN" in the "ADJUSTMENT WINDOW" (see the previous page).	[LVIN]	3.3–4.5 V (Verify)
TX	3	• Channel : CH.2 • Transmitting			3.3–4.5 V [Low band] 3.0–4.2 V [High band] (Verify)
REFERENCE FREQUENCY	1	—	• Loosely couple a frequency counter to the antenna connector.	—	—
	2	• Channel : CH.2 • Transmitting	1) Adjust the frequency using [←] / [→] on the PC's keyboard. 2) Push [ENTER] to store the adjust value.	[REF]	470.0000 MHz [Low band] 512.0000 MHz [High band]

5-3 TRANSMIT ADJUSTMENT

1) Select an adjustment item using cursor or [↑] / [↓] of the PC's keyboard.

2) Set or modify the adjustment value as specified using [←] / [→] of the PC's keyboard, then push [ENTER].

ADJUSTMENT		ADJUSTMENT CONDITION	OPERATION	ADJUSTMENT ITEM	VALUE
TRANSMIT OUTPUT POWER	1	—	• Connect an RF power meter to the antenna connector.	—	—
Hi power	2	• Channel : CH.3 • Transmitting	1) Adjust the transmit output power using [←] / [→] on the PC's keyboard. 2) Push [ENTER] to store the adjust value.	[Power (Hi)]	4.0 W
L2 power	3	• Channel : CH.4 • Transmitting		[Power (L2)]	2.0 W
L1 power	4	• Channel : CH.5 • Transmitting		[Power (L1)]	1.0 W
DEVIATION -Preparation-	1	• Connect a modulation analyzer to the antenna connector through an Attenuator.	• Set the modulation analyzer as; HPF : OFF LPF : 20 kHz De-emphasis : OFF Detector : (P-P)/2	—	—
	2	• Connect an audio generator to the MIC line through the JIG cable.	• Set the audio generator as; Modulation : 1 kHz Level : 150 mV rms Wave form : Sine wave	—	—
-Adjustment-NARROW	3	• Channel : CH.6 • Transmitting	1) Adjust the deviation using [←] / [→] on the PC's keyboard. 2) Push [ENTER] to store the adjust value.	[MOD N]	±2.05–2.15 kHz
MODULATION BALANCE -Preparation-	1	• Connect a modulation analyzer to the antenna connector through an attenuator.	• Set the modulation analyzer as; HPF : OFF LPF : 20 kHz De-emphasis : OFF Detector : (P-P)/2	—	—
		• Connect an oscilloscope to the Detect terminal of the modulation analyzer.	—	—	—
-Adjustment-NARROW	2	• Channel : CH.9 • No audio signals are applied. • Transmitting	1) Adjust the waveform using [←] / [→] on the PC's keyboard. 2) Push [ENTER] to store the adjust value.	[BAL N]	Square waveform 
WIDE	4	• Channel : CH.10 • No audio signals are applied. • Transmitting		[BAL Ratio]	
CTCSS/DTCS DEVIATION -Preparation-	1	• Connect a modulation analyzer to the antenna connector through an attenuator.	• Set the modulation analyzer as; HPF : OFF LPF : 20 kHz De-emphasis : OFF Detector : (P-P)/2	—	—
-Adjustment-	2	• Channel : CH.11 • No audio signals are applied. • Transmitting	1) Adjust the deviation using [←] / [→] on the PC's keyboard. 2) Push [ENTER] to store the adjust value.	[CTCSS/DTCS]	±0.66–0.70 kHz

5-4 RECEIVE ADJUSTMENT

1) Select an adjustment item using cursor or [↑] / [↓] of the PC's keyboard.

2) Set or modify the adjustment value as specified using [←] / [→] of the PC's keyboard, then push [ENTER].

ADJUSTMENT		ADJUSTMENT CONDITION	OPERATION	ADJUSTMENT ITEM	VALUE
RECEIVE SENSITIVITY -Preparation-	1	• Connect an SSG to the antenna connector.	• Set the SSG as; Frequency : 400.1000 MHz [Low band] 450.1000 MHz [High band] Level : +20 dBμ (−87 dBm) [†] Modulation : 1 kHz Deviation : 3.5 kHz	—	—
-Adjustment-	2	• Channel : CH.12 • Receiving	1) Select the [BPF (T1)] item, then push [ENTER]. 2) Select the [BPF (T2)] item, then push [ENTER].	[BPF (T1)] [BPF (T2)]	(Automatic adjustment)
CONVINIENT: [BPF (T1)] and [BPF (T2)] can be adjusted at the same time as below.					
	2	• Channel : CH.12 • Receiving	• Select the [BPF ALL] item, then push [ENTER].	[BPF ALL]	(Automatic adjustment)
SQUELCH -Preparation-	1	• Connect an SSG to the antenna connector.	• Set the SSG as; Frequency : 400.1000 MHz [Low band] 450.1000 MHz [High band] Level : −14 dBμ (−121 dBm) [†] Modulation : 1 kHz Deviation : 3.5 kHz	—	—
-Adjustment-	2	• Channel : CH.12 • Receiving	1) Once close the squelch by increasing the value of [SQL] item, then decrease the value to open the squelch. 2) Push [ENTER] to store the value.	[SQL]	(Automatic adjustment)

[†]; The output level of the standard signal generator (SSG) is indicated as the SSG's open circuit.

SECTION 6

PARTS LIST

[ANT UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
L601	6200013010	S.COI 0.30-0.9-5TL 10.3N <COMO>	B	7.2/12.5
C601	4030017600	S.CER ECJ0EC1H080C	B	5.8/15.3

[CONNECT UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C501 C502	4030017460 4030016930	S.CER ECJ0EB1E102K S.CER ECJ0EB1A104K	T T	8.3/5.3 9.3/5.3
J501	6910016390	CON IMSA-9230B-1-02Z145-PT1		

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)
S.=Surface mount

[MAIN UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
IC1	1110003201	S.IC TA31136FNG(EL)	B	51.8/19
IC2	1130008561	S.IC TC75SS1F(TE85L,F)	T	68.9/21
IC4	1140005991	S.IC MB15A02PFV1-G-BND-ERE1	T	38.3/35.7
IC5	1110005340	S.IC NJM12902V-TE1-#ZZZB	T	28.6/7.1
IC6	1110005320	S.IC NJM13403V-TE1-#ZZZB	T	15.9/34.6
IC8	1190000350	S.IC M62363FP-650C	T	40.3/15.2
IC9	1110005350	S.IC NJM2870F05-TE1-#FZZB	B	84.2/14.2
IC10	1130011770	S.IC CD4066BPWR	T	22.9/34.6
IC12	1110001811	S.IC TA7368FG(5,ER)	T	89.3/13.2
IC13	1140012721	S.IC HD6433687C73FPV(FX-2775A-1)	T	12.5/14.3
IC14	1110006260	S.IC BD5242G-TR	T	6.6/5.9
IC15	1130011540	S.IC BR24L16FV-WE2	B	16/11.6
Q1	1560000841	S.FET 2SK1829(TE85R,F)	T	75/39.6
Q2	1580000731	S.FET 3SK293(TE85L,F)	B	76.8/37.9
Q3	1580000800	S.FET 3SK324UG-TL-E	B	66.3/37.9
Q4	1530002601	S.TRA 2SC4215-O(TE85R,F)	B	51.4/23.1
Q5	1530000371	S.TRA 2SC3356-T1B S (R25)	T	74.3/33.5
Q6	1590003231	S.TRA UNR9113G0L	T	72.5/19.1
Q7	1560001232	S.FET RD07MVS2-T112	T	82.6/27
Q8	1560001241	S.FET RD01MUS1-T113	T	76.1/27.5
Q9	1530003311	S.TRA 2SC5107-O(TE85R,F)	T	67/30.3
Q10	1530003311	S.TRA 2SC5107-O(TE85R,F)	T	59.4/36.3
Q11	1530003311	S.TRA 2SC5107-O(TE85R,F)	B	56.3/37
Q12	1530003311	S.TRA 2SC5107-O(TE85R,F)	T	59/31.5
Q13	1530002920	S.TRA 2SC4226-T1 R25	T	54.9/30.7
Q14	1530002920	S.TRA 2SC4226-T1 R25	T	54.2/37.1
Q15	1590001400	S.TRA XP1214(TX)	B	56.5/32.6
Q16	1590003291	S.TRA UNR9213G0L	B	59.1/32.6
Q17	1530002851	S.TRA 2SC4116-BL(TE85R,F)	T	55.5/44.1
Q18	1560000541	S.FET 2SK880-Y(T5RICOM,F)	B	51.8/41.2
Q19	1530002851	S.TRA 2SC4116-BL(TE85R,F)	T	43.3/29.9
Q21	1510000920	S.TRA 2SA1577 T106 Q	T	71.9/16.4
Q22	1510000920	S.TRA 2SA1577 T106 Q	T	24.9/25.9
Q23	1520000460	S.TRA 2SB1132 T100 R	T	81/15.2
Q24	1590001190	S.TRA XP6501-(TX).AB	T	76.2/14.4
Q25	1590003231	S.TRA UNR9113G0L	B	77/14.6
Q27	1590003291	S.TRA UNR9213G0L	T	24.8/16.7
Q28	1590003431	S.TRA UNR911HG0L	B	63.1/10.6
Q29	1590003271	S.TRA UNR9210G0L	B	35.7/9.2
Q30	1510001080	S.TRA 2SA2048 TLR	T	91.9/8.6
Q31	1590001190	S.TRA XP6501-(TX).AB	T	91.4/5.2
Q32	1590003020	S.TRA XP4216-(TX)	T	16.5/23.1
Q34	1560001360	S.FET 2SK3019 TL	T	10.7/30.1
Q35	1560001360	S.FET 2SK3019 TL	T	8.4/26.6
D1	1750001080	S.DIO RB886G T2R	B	90.7/40.1
D2	1750000581	S.DIO 1SV307(TPH3,F)	B	91.5/31.1
D3	1750000711	S.VAR HVC350BTRF-E	B	86/35
D5	1790001261	S.DIO MA2S077G0L	B	86.5/39.3
D6	1790001241	S.DIO MA2S7280GL	B	84.5/39.9
D7	1750000711	S.VAR HVC350BTRF-E	B	81.6/35
D9	1750000711	S.VAR HVC350BTRF-E	B	73.6/35.9
D10	1750000711	S.VAR HVC350BTRF-E	B	72.2/35.9
D14	1790001261	S.DIO MA2S077G0L	T	65.8/35.5
D15	1790001261	S.DIO MA2S077G0L	T	65.8/36.9
D16	1750000711	S.VAR HVC350BTRF-E	T	52.1/38.9
D17	1750000711	S.VAR HVC350BTRF-E	T	49.4/28.3
D18	1720000570	S.VAR MA368(TX)	B	49.6/26.9
D21	1750000711	S.VAR HVC350BTRF-E	T	50.5/33.7
D22	1750000711	S.VAR HVC350BTRF-E	T	50.5/35.2
D24	1790001251	S.DIO MA2S1110GL	T	41.5/39.2
D25	1790001251	S.DIO MA2S1110GL	T	70.5/40.4
D26	1790001790	S.DIO RB876W TL	B	35.7/7.1
D27	1750000520	S.DIO DAN222TL	B	21.3/6
D28	1790001261	S.DIO MA2S077G0L	B	8.5/11.2
D29	1750000940	S.DIO ISS400 TE61	B	23.1/4
D30	1750001080	S.DIO RB886G T2R	T	88.5/36.2
F11	2030000150	S.MON DSF753SB 46.350 MHz(FL-335)	B	62.8/27.1
F12	2020002410	CER LTM450FW <JJE>		
F13	2040001440	S.LC NFE31PT152Z1E9L (NFM60R20T152)	B	81.2/17.8
X1	6070000300	S.DIS JTBM450CX24 <JJE>	T	54.4/20
X2	6050012050	S.XTA CR-794 TTS14VSB-A6 15.3 MHz	T	36.9/28.9
X3	6050011720	S.XTA CR-764 SMD-49TB 19.6608 MHz <KDS>	B	12/5.9
L1	6200012490	S.COI 0.30-0.9-6TR 13.6N <COMO>	B	94.7/36.4
L2	6200013010	S.COI 0.30-0.9-5TL 10.3N <COMO>	B	94.8/31.9
L3	6200012610	S.COI 0.40-0.9-2TL 2.8N <COMO>	B	92.9/26.3
L4	6200012610	S.COI 0.40-0.9-2TL 2.8N <COMO>	B	89.9/20.6
L5	6200010850	S.COI LQW18AN22NG00D (LQW1608A22NG00) [USA-06]	B	89.3/36.4
	6200009070	S.COI LQW18AN18NG00D (LQW1608A18NG00) [USA-07]		
	6200010850	S.COI LQW18AN22NG00D (LQW1608A22NG00) [CSA-01]		
	6200009070	S.COI LQW18AN18NG00D (LQW1608A18NG00) [CSA-02]		
	6200010850	S.COI LQW18AN22NG00D (LQW1608A22NG00) [CSA-03]		
	6200009070	S.COI LQW18AN18NG00D (LQW1608A18NG00) [CSA-04]		

[MAIN UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
L7	6200007700	S.COI LQW2BHN22NJ03L [USA-06]	B	84.3/34.5
	6200007690	S.COI LQW2BHN18NJ03L [USA-07]		
	6200007700	S.COI LQW2BHN22NJ03L [CSA-01]		
	6200007690	S.COI LQW2BHN18NJ03L [CSA-02]		
	6200007700	S.COI LQW2BHN22NJ03L [CSA-03]		
L8	6200007700	S.COI LQW2BHN18NJ03L [CSA-04]	B	79.9/34.6
	6200007690	S.COI LQW2BHN22NJ03L [USA-06]		
	6200007690	S.COI LQW2BHN18NJ03L [USA-07]		
	6200007700	S.COI LQW2BHN22NJ03L [CSA-01]		
	6200007690	S.COI LQW2BHN18NJ03L [CSA-02]		
	6200007700	S.COI LQW2BHN22NJ03L [CSA-03]		
L9	6200007690	S.COI LQW2BHN18NJ03L [CSA-04]	B	75.9/35.2
	6200007680	S.COI LQW2BHN12NJ03L [USA-06]		
	6200007670	S.COI LQW2BHN10NJ03L [USA-07]		
	6200007680	S.COI LQW2BHN12NJ03L [CSA-01]		
	6200007670	S.COI LQW2BHN10NJ03L [CSA-02]		
	6200007680	S.COI LQW2BHN12NJ03L [CSA-03]		
L11	6200007700	S.COI LQW2BHN22NJ03L [CSA-04]	B	70.6/37.8
	6200007230	S.COI LQW2BHN15NJ03L [USA-06]		
	6200007680	S.COI LQW2BHN12NJ03L [USA-07]		
	6200007230	S.COI LQW2BHN15NJ03L [CSA-01]		
	6200007680	S.COI LQW2BHN12NJ03L [CSA-02]		
	6200007230	S.COI LQW2BHN15NJ03L [CSA-03]		
L12	6200011001	S.COI ELJRF 56NJFB	B	64.2/39
L13	6200004770	S.COI ELJNC R56J-F [USA-06]	B	66.8/33.7
	6200007850	S.COI ELJNC R82K-F [USA-07]		
	6200004770	S.COI ELJNC R56J-F [CSA-01]		
	6200007850	S.COI ELJNC R82K-F [CSA-02]		
	6200004770	S.COI ELJNC R56J-F [CSA-03]		
	6200007850	S.COI ELJNC R82K-F [CSA-04]		
L15	6200002851	S.COI NLV25T-R82J	T	94.2/32.4
L17	6200012980	S.COI 0.40-1.4-5TR 18.3N <COMO>	T	81.2/20.9
L19	6200005671	S.COI ELJRE 12NGFA [USA-06]	B	76/35.5
	6200005661	S.COI ELJRE 10NGFA [USA-07]		
	6200005671	S.COI ELJRE 12NGFA [CSA-01]		
	6200005661	S.COI ELJRE 10NGFA [CSA-02]		
	6200005671	S.COI ELJRE 12NGFA [CSA-03]		
L20	6200005661	S.COI ELJRE 10NGFA [CSA-04]	T	68.8/33.1
	6200005691	S.COI ELJRE 18NGFA [USA-06]		
	6200005681	S.COI ELJRE 15NGFA [USA-07]		
	6200005691	S.COI ELJRE 18NGFA [CSA-01]		
	6200005681	S.COI ELJRE 15NGFA [CSA-02]		
	6200005691	S.COI ELJRE 18NGFA [CSA-03]		
	6200005681	S.COI ELJRE 15NGFA [CSA-04]		
L21	6200007881	S.COI ELJRF 33NJFB	T	59.2/38.6
L22	6200007901	S.COI ELJRF 22NJFB	T	59.5/33.3
L23	6200002851	S.COI NLV25T-R82J	T	55.2/28.1
L25	6200013630	S.COI 0.30-0.9-3TR 5.8N 5PER <COMO>	T	49.5/29.9
L26	6200013580	S.COI 0.30-0.9-4TR 5PER <COMO>	T	49/37.9
L27	6200004951	S.COI NLV25T-1R8J	B	52.8/29
L28	6200004951	S.COI NLV25T-1R8J	B	51.7/37
L29	6200004660	S.COI MLF1608A 1R8K-T	T	43.9/36.4
L30	6200007881	S.COI ELJRF 33NJFB	B	85.1/38.7
L32	6200007911	S.COI ELJRF 18NJFB	B	55.8/40.8
L33	6200004480	S.COI MLF1608D R82K-T	T	43.4/25.9
L35	6200003540	S.COI MLF1608D R22K-T	T	41.7/31.8
L38	6200005711	S.COI ELJRE 27NGFA	B	65.6/40.7
L40	6200002851	S.COI NLV25T-R82J	T	53.6/34.6
L41	6200007881	S.COI ELJRF 33NJFB	B	58.4/38.1
L42	6200004951	S.COI NLV25T-1R8J	B	49.4/34
L43	6200004951	S.COI NLV25T-1R8J	B	49.4/31.1
L45	6200012490	S.COI 0.30-0.9-6TR 13.6N <COMO>	B	95.2/39.6
R1	7030003490	S.RES ERJ3GEYJ 272 V (2.7K)	B	92.3/37.6
R2	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	91.1/38.2
R3	7030004970	S.RES ERJ2GEJ 470 X (47) [USA-06]	T	66.7/22.7
	7030005570	S.RES ERJ2GEJ 820 X (82) [USA-07]		
	7030004970	S.RES ERJ2GEJ 470 X (47) [CSA-01]		
	7030005570	S.RES ERJ2GEJ 820 X (82) [CSA-02]		
	7030004970	S.RES ERJ2GEJ 470 X (47) [CSA-03]		
	7030005570	S.RES ERJ2GEJ 820 X (82) [CSA-04]		
R4	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	75.8/20.8
R5	7030005050	S.RES ERJ2GEJ 103 X (10K) [USA-06]	T	73.3/21.1
	7030005220	S.RES ERJ2GEJ 223 X (22K) [USA-07]		
	7030005050	S.RES ERJ2GEJ 103 X (10K) [CSA-01]		
	7030005220	S.RES ERJ2GEJ 223 X (22K) [CSA-02]		
	7030005050	S.RES ERJ2GEJ 103 X (10K) [CSA-03]		
	7030005220	S.RES ERJ2GEJ 223 X (22K) [CSA-04]		
R6	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	66.7/18.2
R7	7030005310	S.RES ERJ2GEJ 124 X (120K)	T	68/17.7
R8	7030005170	S.RES ERJ2GEJ 474 X (470K) [USA-06]	T	71.3/21.1
	7030005100	S.RES ERJ2GEJ 154 X (150K) [USA-07]		
	7030005170	S.RES ERJ2GEJ 474 X (470K) [CSA-01]		
	7030005100	S.RES ERJ2GEJ 154 X (150K) [CSA-02]		
	7030005170	S.RES ERJ2GEJ 474 X (470K) [CSA-03]		
	7030005100	S.RES ERJ2GEJ 154 X (150K) [CSA-04]		
R9	7030008280	S.RES ERJ2GEJ 271 X (270)	T	71.3/22.4
R10	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	68.4/24
R11	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	84/35.8
R12	7030005530	S.RES ERJ2GEJ 100 X (10)	T	77.5/37.5
R13	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	82.3/35.8
R14	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	84/36.7
R15	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	79.1/38.4
R16	7030004980	S.RES ERJ2GEJ 101 X (100)	B	74.8/39.9
R17	7030004970	S.RES ERJ2GEJ 470 X (47)	B	74/33.3
R18	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	78.8/36.7
R19	7030005080	S.RES ERJ2GEJ 823 X (82K)	T	78.8/38.7

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)

S.=Surface mount

[MAIN UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R20	7030005120	S.RES ERJ2GEJ 102 X (1K) [USA-06]	B	75.9/33.7
	7030005240	S.RES ERJ2GEJ 473 X (47K) [USA-07]		
	7030005120	S.RES ERJ2GEJ 102 X (1K) [CSA-01]		
	7030005240	S.RES ERJ2GEJ 473 X (47K) [CSA-02]		
	7030005120	S.RES ERJ2GEJ 102 X (1K) [CSA-03]		
	7030005240	S.RES ERJ2GEJ 473 X (47K) [CSA-04]		
R21	7030005110	S.RES ERJ2GEJ 224 X (220K)	T	72.2/38.9
R22	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	69.2/38.9
R23	7030005110	S.RES ERJ2GEJ 224 X (220K)	T	71.2/38.9
R24	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	64.6/38
R25	7030008010	S.RES ERJ2GEJ 123 X (12K) [USA-06]	B	68.1/37.8
	7030005050	S.RES ERJ2GEJ 103 X (10K) [USA-07]		
	7030008010	S.RES ERJ2GEJ 123 X (12K) [CSA-01]		
	7030005050	S.RES ERJ2GEJ 103 X (10K) [CSA-02]		
	7030008010	S.RES ERJ2GEJ 123 X (12K) [CSA-03]		
	7030005050	S.RES ERJ2GEJ 103 X (10K) [CSA-04]		
	7030007340	S.RES ERJ2GEJ 153 X (15K) [USA-06]		
	7030008010	S.RES ERJ2GEJ 123 X (12K) [USA-07]		
	7030007340	S.RES ERJ2GEJ 153 X (15K) [CSA-01]		
	7030008010	S.RES ERJ2GEJ 123 X (12K) [CSA-02]		
	7030007340	S.RES ERJ2GEJ 153 X (15K) [CSA-03]		
	7030008010	S.RES ERJ2GEJ 123 X (12K) [CSA-04]		
R27	7030005310	S.RES ERJ2GEJ 124 X (120K)		
R28	7030005080	S.RES ERJ2GEJ 823 X (82K)		
R29	7030004980	S.RES ERJ2GEJ 101 X (100)	B	64.2/35.1
R30	7030005120	S.RES ERJ2GEJ 102 X (1K) [USA-06]	B	67.1/35.7
	7030005000	S.RES ERJ2GEJ 471 X (470) [USA-07]		
	7030005120	S.RES ERJ2GEJ 102 X (1K) [CSA-01]		
	7030005000	S.RES ERJ2GEJ 471 X (470) [CSA-02]		
	7030005120	S.RES ERJ2GEJ 102 X (1K) [CSA-03]		
	7030005000	S.RES ERJ2GEJ 471 X (470) [CSA-04]		
R31	7030004980	S.RES ERJ2GEJ 101 X (100)	B	64.2/32.1
R32	7030010040	S.RES ERJ2GEJ-JPW	B	65.7/31.5
R33	7030007270	S.RES ERJ2GEJ 151 X (150)	B	55.5/25.2
R34	7030005110	S.RES ERJ2GEJ 224 X (220K)	B	52.5/25.2
R35	7030004980	S.RES ERJ2GEJ 101 X (100)	B	50.5/25.2
R36	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	T	52.5/15.1
R38	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	46.5/21
R39	7030004970	S.RES ERJ2GEJ 470 X (47)	B	55.8/22.3
R40	7030007270	S.RES ERJ2GEJ 151 X (150)	B	56.2/21.1
R43	7030004970	S.RES ERJ2GEJ 470 X (47)	B	47.5/14.4
R44	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	54.8/15.4
R45	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	52.8/13.7
R46	7030005000	S.RES ERJ2GEJ 471 X (470)	B	53.8/13.7
R48	7030005000	S.RES ERJ2GEJ 471 X (470)	B	51.5/25.2
R50	7030004980	S.RES ERJ2GEJ 101 X (100)	T	66.3/38
R51	7030003670	S.RES ERJ3GEYJ 823 V (82K)	B	94/41.4
R52	7030004990	S.RES ERJ2GEJ 221 X (220)	T	93.3/35.9
R53	7030005530	S.RES ERJ2GEJ 100 X (10) [USA-06]	T	80/22.5
	7030005710	S.RES ERJ2GEJ 121 X (120) [USA-07]		
	7030005530	S.RES ERJ2GEJ 100 X (10) [CSA-01]		
	7030005710	S.RES ERJ2GEJ 121 X (120) [CSA-02]		
	7030005530	S.RES ERJ2GEJ 100 X (10) [CSA-03]		
	7030005710	S.RES ERJ2GEJ 121 X (120) [CSA-04]		
R54	7030005060	S.RES ERJ2GEJ 333 X (33K)	T	81.3/21.4
R55	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	T	80/20.9
R56	7030003860	S.RES ERJ3GE JPW V	T	78/22.4
R57	7030004970	S.RES ERJ2GEJ 470 X (47)	T	75.2/23.2
R58	7030005060	S.RES ERJ2GEJ 333 X (33K) [USA-07]		
	7030005060	S.RES ERJ2GEJ 333 X (33K) [CSA-02]		
	7030005060	S.RES ERJ2GEJ 333 X (33K) [CSA-04]		
R59	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	T	71.2/24
R61	7030004970	S.RES ERJ2GEJ 470 X (47)	T	71.8/36.3
R62	7030005220	S.RES ERJ2GEJ 223 X (22K)	T	72.1/35
R65	7030004980	S.RES ERJ2GEJ 101 X (100)	T	69.4/34.2
R66	7030007340	S.RES ERJ2GEJ 153 X (15K)	T	67.8/34.2
R67	7030004980	S.RES ERJ2GEJ 101 X (100)	T	67.8/35.1
R68	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	69.4/35.1
R69	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	T	65/34.2
R70	7030005530	S.RES ERJ2GEJ 100 X (10)	B	57.6/39.9
R71	7030005070	S.RES ERJ2GEJ 683 X (68K)	T	58.2/38.6
R73	7030004980	S.RES ERJ2GEJ 101 X (100)	B	57.7/30.5
R75	7030005110	S.RES ERJ2GEJ 224 X (220K)	B	58.4/36.1
R76	7030004980	S.RES ERJ2GEJ 101 X (100)	B	57.6/39
R77	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	56.7/30.5
R78	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	57.8/33.3
R79	7030006020	S.RES RR0510P-682-D (6.8K)	T	56.5/38.9
R80	7030008370	S.RES ERJ2GEJ 561 X (560) [USA-06]	B	54.6/32.8
	7030005120	S.RES ERJ2GEJ 102 X (1K) [USA-07]		
	7030008370	S.RES ERJ2GEJ 561 X (560) [CSA-01]		
	7030005120	S.RES ERJ2GEJ 102 X (1K) [CSA-02]		
	7030008370	S.RES ERJ2GEJ 561 X (560) [CSA-03]		
	7030005120	S.RES ERJ2GEJ 102 X (1K) [CSA-04]		
R82	7030009320	S.RES ERJ2GEJ 4R7 X (4.7)	T	52.6/32
R83	7030006020	S.RES RR0510P-682-D (6.8K)	T	54.1/32.6
R84	7030006020	S.RES RR0510P-682-D (6.8K)	T	52.1/28.6
R85	7030006020	S.RES RR0510P-682-D (6.8K)	T	54.7/38.9
R86	7030005530	S.RES ERJ2GEJ 100 X (10)	B	48.2/28.8
R87	7030005110	S.RES ERJ2GEJ 224 X (220K)	B	48.1/25.3
R88	7030008370	S.RES ERJ2GEJ 561 X (560) [USA-06]	B	54.6/31
	7030005010	S.RES ERJ2GEJ 681 X (680) [USA-07]		
	7030008370	S.RES ERJ2GEJ 561 X (560) [CSA-01]		
	7030005010	S.RES ERJ2GEJ 681 X (680) [CSA-02]		
	7030008370	S.RES ERJ2GEJ 561 X (560) [CSA-03]		
	7030005010	S.RES ERJ2GEJ 681 X (680) [CSA-04]		
R89	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	49.4/40.8
R90	7030005170	S.RES ERJ2GEJ 474 X (470K)	B	46.9/25.1
R92	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	46.9/26.1
R93	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	39.8/39.4
R94	7030005100	S.RES ERJ2GEJ 154 X (150K)	T	41.8/40.8
R95	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	49.9/36.4

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REF NO.	PARTS NO.	DESCRIPTION				M.	H/V LOCATION
R96	7030008410	S.RES	ERJ2GEJ 392 X (3.9K)	[USA-06]	B	49.4/39.9	
	7030009140	S.RES	ERJ2GEJ 272 X (2.7K)	[USA-07]			
	7030008410	S.RES	ERJ2GEJ 392 X (3.9K)	[CSA-01]			
	7030009140	S.RES	ERJ2GEJ 272 X (2.7K)	[CSA-02]			
	7030008410	S.RES	ERJ2GEJ 392 X (3.9K)	[CSA-03]			
	7030009140	S.RES	ERJ2GEJ 272 X (2.7K)	[CSA-04]			
R97	7030005120	S.RES	ERJ2GEJ 102 X (1K)		B	49.4/38.1	
R98	7030007290	S.RES	ERJ2GEJ 222 X (2.2K)		T	53.5/44.1	
R100	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)		B	49.1/42	
R101	7030005000	S.RES	ERJ2GEJ 471 X (470)		B	51.7/43.5	
R103	7030005240	S.RES	ERJ2GEJ 473 X (47K)		T	33.1/27.8	
R104	7030005230	S.RES	ERJ2GEJ 334 X (330K)		T	31.5/26.9	
R105	7030005170	S.RES	ERJ2GEJ 474 X (470K)		T	33.1/28.8	
R106	7030005050	S.RES	ERJ2GEJ 103 X (10K)		T	37.5/32	
R107	7030005580	S.RES	ERJ2GEJ 560 X (56)		B	55.8/43.5	
R108	7030005600	S.RES	ERJ2GEJ 273 X (27K)	[USA-06]	T	44.9/21	
	7030008290	S.RES	ERJ2GEJ 183 X (18K)	[USA-07]			
	7030005600	S.RES	ERJ2GEJ 273 X (27K)	[CSA-01]			
	7030008290	S.RES	ERJ2GEJ 183 X (18K)	[CSA-02]			
	7030005600	S.RES	ERJ2GEJ 273 X (27K)	[CSA-03]			
	7030008290	S.RES	ERJ2GEJ 183 X (18K)	[CSA-04]			
	7030005090	S.RES	ERJ2GEJ 104 X (100K)				
	7030005090	S.RES	ERJ2GEJ 104 X (100K)				
R109	7030005090	S.RES	ERJ2GEJ 104 X (100K)		T	43.9/21	
R111	7030005090	S.RES	ERJ2GEJ 104 X (100K)		T	29.2/25.3	
R113	7030006610	S.RES	ERJ2GEJ 394 X (390K)		B	46.9/31.1	
R114	7030005100	S.RES	ERJ2GEJ 154 X (150K)		B	46.9/29.1	
R115	7030007570	S.RES	ERJ2GEJ 122 X (1.2K)		T	40.5/32	
R116	7030007060	S.RES	ERJ2GEJ 684X (680K)		T	43.4/32.7	
R117	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)		T	35.3/40.1	
R118	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)		T	37.2/40.1	
R123	7030008400	S.RES	ERJ2GEJ 182 X (1.8K)		T	75.2/37.7	
R124	7030005170	S.RES	ERJ2GEJ 474 X (470K)		T	72.7/40.4	
R125	7030005110	S.RES	ERJ2GEJ 224 X (220K)		T	73.2/38.9	
R131	7510001730	S.THE	ERTJOEP 473J		T	40.9/27.1	
R132	7030010080	S.RES	ERJ2RHD 104 X (100K)		T	77/12.6	
R133	7030005050	S.RES	ERJ2GEJ 103 X (10K)		T	84.1/14.2	
R134	7030007290	S.RES	ERJ2GEJ 222 X (2.2K)		B	75.5/15	
R135	7030005050	S.RES	ERJ2GEJ 103 X (10K)		T	24.5/24	
R136	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)		T	22.8/24	
R137	7030005050	S.RES	ERJ2GEJ 103 X (10K)		T	69.8/14.7	
R138	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)		T	69.8/16.7	
R141	7030005000	S.RES	ERJ2GEJ 471 X (470)		T	35.4/10	
R142	7030005000	S.RES	ERJ2GEJ 471 X (470)		T	43.3/10	
R143	7030007340	S.RES	ERJ2GEJ 153 X (15K)		T	38.3/21.9	
R144	7030005050	S.RES	ERJ2GEJ 103 X (10K)		B	46.5/13.7	
R145	7030005090	S.RES	ERJ2GEJ 104 X (100K)	[CSA-01]			
	7030005090	S.RES	ERJ2GEJ 104 X (100K)	[CSA-02]			
	7030005090	S.RES	ERJ2GEJ 104 X (100K)	[CSA-03]			
	7030005090	S.RES	ERJ2GEJ 104 X (100K)	[CSA-04]			
R146	7030005090	S.RES	ERJ2GEJ 104 X (100K)	[CSA-01]			
	7030005090	S.RES	ERJ2GEJ 104 X (100K)	[CSA-02]			
	7030005090	S.RES	ERJ2GEJ 104 X (100K)	[CSA-03]			
	7030005090	S.RES	ERJ2GEJ 104 X (100K)	[CSA-04]			
R147	7030007350	S.RES	ERJ2GEJ 393 X (39K)	[CSA-01]			
	7030007350	S.RES	ERJ2GEJ 393 X (39K)	[CSA-02]			
	7030007350	S.RES	ERJ2GEJ 393 X (39K)	[CSA-03]			
	7030007350	S.RES	ERJ2GEJ 393 X (39K)	[CSA-04]			
R148	7030005080	S.RES	ERJ2GEJ 823 X (82K)	[CSA-01]			
	7030005080	S.RES	ERJ2GEJ 823 X (82K)	[CSA-02]			
	7030005080	S.RES	ERJ2GEJ 823 X (82K)	[CSA-03]			
	7030005080	S.RES	ERJ2GEJ 823 X (82K)	[CSA-04]			
R149	7030006610	S.RES	ERJ2GEJ 394 X (390K)	[CSA-01]			
	7030006610	S.RES	ERJ2GEJ 394 X (390K)	[CSA-02]			
	7030006610	S.RES	ERJ2GEJ 394 X (390K)	[CSA-03]			
	7030006610	S.RES	ERJ2GEJ 394 X (390K)	[CSA-04]			
R150	7030008300	S.RES	ERJ2GEJ 184 X (180K)	[CSA-01]			
	7030008300	S.RES	ERJ2GEJ 184 X (180K)	[CSA-02]			
	7030008300	S.RES	ERJ2GEJ 184 X (180K)	[CSA-03]			
	7030008300	S.RES	ERJ2GEJ 184 X (180K)	[CSA-04]			
R151	7030005030	S.RES	ERJ2GEJ 152 X (1.5K)	[CSA-01]			
	7030005030	S.RES	ERJ2GEJ 152 X (1.5K)	[CSA-02]			
	7030005030	S.RES	ERJ2GEJ 152 X (1.5K)	[CSA-03]			
	7030005030	S.RES	ERJ2GEJ 152 X (1.5K)	[CSA-04]			
R152	7030005220	S.RES	ERJ2GEJ 223 X (22K)				
R153	7030005220	S.RES	ERJ2GEJ 223 X (22K)				
R154	7030005220	S.RES	ERJ2GEJ 223 X (22K)		B	64.2/38.1	
R155	7030005090	S.RES	ERJ2GEJ 104 X (100K)		B	62.5/38.1	
R156	7030005170	S.RES	ERJ2GEJ 474 X (470K)		B	62.5/39.9	
R159	7030008010	S.RES	ERJ2GEJ 123 X (12K)		T	15.7/28.8	
R161	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)		T	12.9/27.3	
R162	7030005050	S.RES	ERJ2GEJ 103 X (10K)		T	8.7/29.8	
R163	7030005050	S.RES	ERJ2GEJ 103 X (10K)		T	14.1/29.8	
R164	7030008410	S.RES	ERJ2GEJ 392 X (3.9K)		T	15.7/27.8	
R165	7030008410	S.RES	ERJ2GEJ 392 X (3.9K)		T	12.6/31.9	
R166	7030005240	S.RES	ERJ2GEJ 473 X (47K)		T	12.6/36.1	
R167	7030009290	S.RES	ERJ2GEJ 562 X (5.6K)		T	15.7/29.8	
R168	7030005000	S.RES	ERJ2GEJ 471 X (470)		T	16.3/40.1	
R169	7030005100	S.RES	ERJ2GEJ 154 X (150K)		T	18/41.1	
R170	7030008010	S.RES	ERJ2GEJ 123 X (12K)		T	12.9/29.8	
R171	7030005100	S.RES	ERJ2GEJ 154 X (150K)		T	11.6/36.1	
R172	7030005700	S.RES	ERJ2GEJ 274 X (270K)		T	18/39.1	
R173	7030005310	S.RES	ERJ2GEJ 124 X (120K)		T	19.4/26.8	
R174	7030005090	S.RES	ERJ2GEJ 104 X (100K)		T	19.4/28.8	
R175	7030005110	S.RES	ERJ2GEJ 224 X (220K)	[CSA-01]	T	19.4/27.8	
	7030005110	S.RES	ERJ2GEJ 224 X (220K)	[CSA-02]			
	7030005110	S.RES	ERJ2GEJ 224 X (220K)	[CSA-03]			
	7030005110	S.RES	ERJ2GEJ 224 X (220K)	[CSA-04]			
R176	7030005100	S.RES	ERJ2GEJ 154 X (150K)		T	17.7/27.8	
R177	7030005060	S.RES	ERJ2GEJ 333 X (33K)		T	17.7/28.8	
R178	7030005710	S.RES	ERJ2GEJ 121 X (120)		T	19.4/30.7	
R179	7030005120	S.RES	ERJ2GEJ 102 X (1K)		B	11.9/16.6	
R180	7030005160	S.RES	ERJ2GEJ 105 X (1M)		T	24.7/40.1	
R181	7030005240	S.RES	ERJ2GEJ 473 X (47K)	[CSA-01]	T	21.1/40.1	
	7030005240	S.RES	ERJ2GEJ 473 X (47K)	[CSA-02]			
	7030005240	S.RES	ERJ2GEJ 473 X (47K)	[CSA-03]			
	7030005240	S.RES	ERJ2GEJ 473 X (47K)	[CSA-04]			

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REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R182	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	24.7/39.1
R183	7030006020	S.RES RR0510P-682-D (6.8K)	B	17.2/39.1
R184	7030008250	S.RES RR0510P-562-D (5.6K)	B	17.7/40.4
R185	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	18.7/40.4
R187	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	12.3/17.5
R190	7030007280	S.RES ERJ2GEJ 331 X (330)	T	34.7/18.9
R191	7030008300	S.RES ERJ2GEJ 184 X (180K)	T	18/4.1
R192	7030005720	S.RES ERJ2GEJ 563 X (56K)	T	18/5.1
R193	7030005220	S.RES ERJ2GEJ 223 X (22K)	T	18/6.1
R194	7030005220	S.RES ERJ2GEJ 223 X (22K)	T	23.9/10.9
R195	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	19.7/4.1
R196	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	23.9/11.9
R197	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	23.9/12.9
R198	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	25.7/12.9
R200	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	T	25.7/14.9
R201	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	23.9/14.9
R206	7030005110	S.RES ERJ2GEJ 224 X (220K) [CSA-01]	T	13.4/4.1
	7030005110	S.RES ERJ2GEJ 224 X (220K) [CSA-02]		
	7030005110	S.RES ERJ2GEJ 224 X (220K) [CSA-03]		
	7030005110	S.RES ERJ2GEJ 224 X (220K) [CSA-04]		
R207	7030005090	S.RES ERJ2GEJ 104 X (100K) [CSA-01]	T	13.4/5.1
	7030005090	S.RES ERJ2GEJ 104 X (100K) [CSA-02]		
	7030005090	S.RES ERJ2GEJ 104 X (100K) [CSA-03]		
	7030005090	S.RES ERJ2GEJ 104 X (100K) [CSA-04]		
R208	7030005240	S.RES ERJ2GEJ 473 X (47K) [CSA-01]	T	15.6/5.1
	7030005240	S.RES ERJ2GEJ 473 X (47K) [CSA-02]		
	7030005240	S.RES ERJ2GEJ 473 X (47K) [CSA-03]		
	7030005240	S.RES ERJ2GEJ 473 X (47K) [CSA-04]		
R209	7030005220	S.RES ERJ2GEJ 223 X (22K) [CSA-01]	T	15.6/6
	7030005220	S.RES ERJ2GEJ 223 X (22K) [CSA-02]		
	7030005220	S.RES ERJ2GEJ 223 X (22K) [CSA-03]		
	7030005220	S.RES ERJ2GEJ 223 X (22K) [CSA-04]		
R210	7030008010	S.RES ERJ2GEJ 123 X (12K) [CSA-01]	T	15.6/4.1
	7030008010	S.RES ERJ2GEJ 123 X (12K) [CSA-02]		
	7030008010	S.RES ERJ2GEJ 123 X (12K) [CSA-03]		
	7030008010	S.RES ERJ2GEJ 123 X (12K) [CSA-04]		
R211	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-01]	T	23.9/4.5
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-02]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-03]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-04]		
R212	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-01]	T	23.9/5.5
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-02]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-03]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-04]		
R213	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-01]	T	23.9/6.5
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-02]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-03]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-04]		
R214	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-01]	T	27.9/4.5
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-02]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-03]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-04]		
R215	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-01]	T	31.3/4.5
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-02]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-03]		
	7030005070	S.RES ERJ2GEJ 683 X (68K) [CSA-04]		
R221	7030005000	S.RES ERJ2GEJ 471 X (470)	B	66.5/13.7
R222	7030005080	S.RES ERJ2GEJ 823 X (82K)	B	63.9/8.5
R223	7030005060	S.RES ERJ2GEJ 333 X (33K)	B	61/11.3
R224	7030005000	S.RES ERJ2GEJ 471 X (470)	B	75.5/10.3
R225	7030004980	S.RES ERJ2GEJ 101 X (100)	B	33.9/7.1
R226	7210003061	VAR TP76N00N-15F-A103-2251A		
R227	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	94.9/13.9
R228	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	94.2/15.2
R229	7030005530	S.RES ERJ2GEJ 100 X (10)	T	86/9.7
R230	7030005530	S.RES ERJ2GEJ 100 X (10)	T	87.2/17.2
R231	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	90.6/2.8
R232	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	T	92.2/4.4
R233	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	T	92.7/2.8
R234	7030005100	S.RES ERJ2GEJ 154 X (150K)	B	23.3/6.2
R235	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	20.3/4.2
R236	7030005230	S.RES ERJ2GEJ 334 X (330K)	B	23.3/5.2
R237	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	21.1/39.1
R238	7410001140	S.ARR EXB28V104JX	B	40.9/9.5
R240	7030005590	S.RES ERJ2GEJ 680 X (68)	T	99.7/12.3
R251	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	5.9/9.1
R252	7030005530	S.RES ERJ2GEJ 100 X (10)	B	13.7/9.1
R254	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	9.3/10.1
R255	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	7.6/10.1
R256	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	6/8.6
R257	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	9/22.1
R258	7410001140	S.ARR EXB28V104JX	T	6.6/20.6
R259	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	21.6/22.1
R260	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	21.3/25.2
R261	7410001130	S.ARR EXB28V102JX	T	19.4/19.9
R262	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	21.3/13.9
R263	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	21.3/12.9
R264	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	21.3/10.9
R265	7410001130	S.ARR EXB28V102JX	T	19.7/9.2
R266	7030007340	S.RES ERJ2GEJ 153 X (15K)	T	5.7/18.8
R271	7030005160	S.RES ERJ2GEJ 105 X (1M)	B	10/39.3
R272	7030005160	S.RES ERJ2GEJ 105 X (1M)	B	11/39.3
R273	7030005160	S.RES ERJ2GEJ 105 X (1M)	B	12/39.3
R274	7030005070	S.RES ERJ2GEJ 683 X (68K)	B	15/39.3
R275	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	13/39.3
R276	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	8/39.3
R277	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	9/39.3
R278	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	14/39.3
R287	7030007280	S.RES ERJ2GEJ 331 X (330)	T	18.4/23.8
R288	7030005030	S.RES ERJ2GEJ 152 X (1.5K)	T	14.7/22.7
R291	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	5.9/12.5
R292	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	7.6/12.5
R293	7030008290	S.RES ERJ2GEJ 183 X (18K)	T	61.4/43.4
R294	7030005600	S.RES ERJ2GEJ 273 X (27K)	T	60.4/43.4
R295	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	95.1/43.4

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REF NO.	PARTS NO.	DESCRIPTION		M.	H/V LOCATION
R296	7030003490	S.RES	ERJ3GEYJ 272 V (2.7K)	B	92.8/35.5
R297	7030005120	S.RES	ERJ2GEJ 102 X (1K)	B	91.1/36.4
R301	7030010040	S.RES	ERJ2GEJ-JPW	T	28.5/31.4
R302	7030004990	S.RES	ERJ2GEJ 221 X (220)	T	28.5/32.3
R303	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)	T	30.2/33.2
R304	7030005090	S.RES	ERJ2GEJ 104 X (100K)	T	31.7/35.3
C1	4030017600	S.CER	ECJ0EC1H080C [USA-06]	B	96.5/41.4
	4030017590	S.CER	ECJ0EC1H070C [USA-07]		
	4030017600	S.CER	ECJ0EC1H080C [CSA-01]		
	4030017590	S.CER	ECJ0EC1H070C [CSA-02]		
	4030017600	S.CER	ECJ0EC1H080C [CSA-03]		
	4030017590	S.CER	ECJ0EC1H070C [CSA-04]		
C2	4030017350	S.CER	ECJ0EC1H020B [USA-06]	B	93.2/36.8
	4030017550	S.CER	ECJ0EC1H1R5B [USA-07]		
	4030017350	S.CER	ECJ0EC1H020B [CSA-01]		
	4030017550	S.CER	ECJ0EC1H1R5B [CSA-02]		
	4030017350	S.CER	ECJ0EC1H020B [CSA-03]		
	4030017550	S.CER	ECJ0EC1H1R5B [CSA-04]		
C3	4030017600	S.CER	ECJ0EC1H080C [USA-06]	B	96.5/33.9
	4030017590	S.CER	ECJ0EC1H070C [USA-07]		
	4030017600	S.CER	ECJ0EC1H080C [CSA-01]		
	4030017590	S.CER	ECJ0EC1H070C [CSA-02]		
	4030017600	S.CER	ECJ0EC1H080C [CSA-03]		
	4030017590	S.CER	ECJ0EC1H070C [CSA-04]		
C4	4030017560	S.CER	ECJ0EC1H2R5B	B	94.9/33.9
C5	4030017570	S.CER	ECJ0EC1H040B [USA-06]	B	94.6/30.2
	4030017360	S.CER	ECJ0EC1H030B [USA-07]		
	4030017570	S.CER	ECJ0EC1H040B [CSA-01]		
	4030017360	S.CER	ECJ0EC1H030B [CSA-02]		
	4030017570	S.CER	ECJ0EC1H040B [CSA-03]		
	4030017360	S.CER	ECJ0EC1H030B [CSA-04]		
C6	4030017460	S.CER	ECJ0EB1E102K	B	92.8/33.4
C7	4030017460	S.CER	ECJ0EB1E102K	B	92.9/29.6
C8	4030017370	S.CER	ECJ0EC1H3R5B [USA-06]	B	93.2/28.1
	4030017580	S.CER	ECJ0EC1H060C [USA-07]		
	4030017370	S.CER	ECJ0EC1H3R5B [CSA-01]		
	4030017580	S.CER	ECJ0EC1H060C [CSA-02]		
	4030017370	S.CER	ECJ0EC1H3R5B [CSA-03]		
	4030017580	S.CER	ECJ0EC1H060C [CSA-04]		
C11	4030006980	S.CER	C1608 CH 1H 070D-T [USA-06]	B	91.5/21.9
	4030009530	S.CER	C1608 CH 1H 030B-T [USA-07]		
	4030006980	S.CER	C1608 CH 1H 070D-T [CSA-01]		
	4030009530	S.CER	C1608 CH 1H 030D-T [CSA-02]		
	4030006980	S.CER	C1608 CH 1H 070D-T [CSA-03]		
	4030009530	S.CER	C1608 CH 1H 030B-T [CSA-04]		
C13	4030007020	S.CER	C1608 CH 1H 120J-T [USA-06]	B	88.3/20.8
	4030007000	S.CER	C1608 CH 1H 090D-T [USA-07]		
	4030007020	S.CER	C1608 CH 1H 120J-T [CSA-01]		
	4030007000	S.CER	C1608 CH 1H 090D-T [CSA-02]		
	4030007020	S.CER	C1608 CH 1H 120J-T [CSA-03]		
	4030007000	S.CER	C1608 CH 1H 090D-T [CSA-04]		
C14	4030017570	S.CER	ECJ0EC1H040B	B	87.7/37.8
C16	4030008560	S.CER	C1608 CH 1H 300J-T	B	86.4/21.5
C17	4030017510	S.CER	ECJ0EC1H680J	B	83.4/38.7
C18	4030006860	S.CER	C1608 JB 1H 102K-T		
C19	4030017460	S.CER	ECJ0EB1E102K	B	86/37.6
C20	4030017590	S.CER	ECJ0EC1H070C	B	83.9/37.7
C21	4030017410	S.CER	ECJ0EC1H240J [USA-06]	B	84.1/36.7
	4030017400	S.CER	ECJ0EC1H220J [USA-07]		
	4030017410	S.CER	ECJ0EC1H240J [CSA-01]		
	4030017400	S.CER	ECJ0EC1H220J [CSA-02]		
	4030017410	S.CER	ECJ0EC1H240J [CSA-03]		
	4030017400	S.CER	ECJ0EC1H220J [CSA-04]		
C22	4030017600	S.CER	ECJ0EC1H080C [USA-06]	B	82.1/37.7
	4030017610	S.CER	ECJ0EC1H090C [USA-07]		
	4030017600	S.CER	ECJ0EC1H080C [CSA-01]		
	4030017610	S.CER	ECJ0EC1H090C [CSA-02]		
	4030017600	S.CER	ECJ0EC1H080C [CSA-03]		
	4030017610	S.CER	ECJ0EC1H090C [CSA-04]		
C23	4030017560	S.CER	ECJ0EC1H2R5B [USA-06]	B	82.1/37.7
	4030017350	S.CER	ECJ0EC1H020B [USA-07]		
	4030017560	S.CER	ECJ0EC1H2R5B [CSA-01]		
	4030017350	S.CER	ECJ0EC1H020B [CSA-02]		
	4030017560	S.CER	ECJ0EC1H2R5B [CSA-03]		
	4030017350	S.CER	ECJ0EC1H020B [CSA-04]		
C24	4030017410	S.CER	ECJ0EC1H240J	B	80.3/36.7
C25	4030017600	S.CER	ECJ0EC1H080C	B	78.4/34.6
C27	4030017460	S.CER	ECJ0EB1E102K	T	84/37.7
C28	4030017460	S.CER	ECJ0EB1E102K	T	82.3/37.7
C30	4030017590	S.CER	ECJ0EC1H070C	B	80.3/37.7
C31	4030017460	S.CER	ECJ0EB1E102K	T	79.7/35.8
C32	4030017460	S.CER	ECJ0EB1E102K	B	75.8/39.9
C33	4030017460	S.CER	ECJ0EB1E102K	T	77.1/38.7
C34	4030017420	S.CER	ECJ0EC1H470J	T	77.1/39.7
C35	4030016930	S.CER	ECJ0EB1A104K	T	78.8/37.7
C36	4030017460	S.CER	ECJ0EB1E102K	B	71.8/33.3
C37	4030017460	S.CER	ECJ0EB1E102K	B	73.4/34.2
C38	4030017350	S.CER	ECJ0EC1H020B	B	74.8/37.7
C39	4030017620	S.CER	ECJ0EC1H100C	B	73.5/38.5
C40	4030017520	S.CER	ECJ0EC1H0R3B	B	73.5/39.5
C41	4030017380	S.CER	ECJ0EC1H050B [USA-06]	B	68.5/39.2
	4030017570	S.CER	ECJ0EC1H040B [USA-07]		
	4030017380	S.CER	ECJ0EC1H050B [CSA-01]		
	4030017570	S.CER	ECJ0EC1H040B [CSA-02]		
	4030017380	S.CER	ECJ0EC1H050B [CSA-03]		
	4030017570	S.CER	ECJ0EC1H040B [CSA-04]		
C42	4030017460	S.CER	ECJ0EB1E102K	T	68.5/37.7
C43	4030017460	S.CER	ECJ0EB1E102K	T	70.2/38.9

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REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C44	4030017340	S.CER ECJ0EC1H010B [USA-06]	B	69/37.8
	4030017550	S.CER ECJ0EC1H1R5B [USA-07]		
	4030017340	S.CER ECJ0EC1H010B [CSA-01]		
	4030017550	S.CER ECJ0EC1H1R5B [CSA-02]		
	4030017340	S.CER ECJ0EC1H010B [CSA-03]		
	4030017550	S.CER ECJ0EC1H1R5B [CSA-04]		
C45	4030017630	S.CER ECJ0EC1H120J [USA-06]	B	72.2/38.8
	4030017620	S.CER ECJ0EC1H100C [USA-07]		
	4030017630	S.CER ECJ0EC1H120J [CSA-01]		
	4030017620	S.CER ECJ0EC1H100C [CSA-02]		
	4030017630	S.CER ECJ0EC1H120J [CSA-03]		
	4030017620	S.CER ECJ0EC1H100C [CSA-04]		
C46	4030017460	S.CER ECJ0EB1E102K		
C48	4030017400	S.CER ECJ0EC1H220J	B	64.2/37.2
C49	4030017350	S.CER ECJ0EC1H020B [USA-06]		
	4030017360	S.CER ECJ0EC1H030B [USA-07]		
	4030017350	S.CER ECJ0EC1H020B [CSA-01]		
	4030017360	S.CER ECJ0EC1H030B [CSA-02]		
	4030017350	S.CER ECJ0EC1H020B [CSA-03]		
	4030017360	S.CER ECJ0EC1H030B [CSA-04]		
C50	4030017460	S.CER ECJ0EB1E102K	B	64.2/36.1
C51	4030017460	S.CER ECJ0EB1E102K	B	66.6/31.5
C52	4030017390	S.CER ECJ0EC1H180J [USA-06]	B	66.2/35.7
	4030017620	S.CER ECJ0EC1H100C [USA-07]		
	4030017390	S.CER ECJ0EC1H180J [CSA-01]		
	4030017620	S.CER ECJ0EC1H100C [CSA-02]		
	4030017390	S.CER ECJ0EC1H180J [CSA-03]		
	4030017620	S.CER ECJ0EC1H100C [CSA-04]		
C53	4030016790	S.CER ECJ0EB1C103K	B	64.2/33.1
C54	4030017460	S.CER ECJ0EB1E102K	B	64.2/34.1
C55	4030017340	S.CER ECJ0EC1H010B [USA-06]		
	4030017570	S.CER ECJ0EC1H040B [USA-07]		
	4030017340	S.CER ECJ0EC1H010B [CSA-01]		
	4030017570	S.CER ECJ0EC1H040B [CSA-02]		
	4030017340	S.CER ECJ0EC1H010B [CSA-03]		
	4030017570	S.CER ECJ0EC1H040B [CSA-04]		
C56	4030017400	S.CER ECJ0EC1H220J	B	64.3/23.8
C57	4030017460	S.CER ECJ0EB1E102K	T	64.1/36.8
C58	4030017460	S.CER ECJ0EB1E102K	B	53.9/24.3
C59	4030017460	S.CER ECJ0EB1E102K	B	49.5/25.2
C60	4030017460	S.CER ECJ0EB1E102K	B	52.5/26.9
C61	4030017430	S.CER ECJ0EC1H101J	B	49.5/22.7
C62	4030017510	S.CER ECJ0EC1H680J	B	47.5/17.6
C63	4030017420	S.CER ECJ0EC1H470J	B	46.5/20.7
C65	4030017460	S.CER ECJ0EB1E102K	B	46.5/18.9
C66	4030017460	S.CER ECJ0EB1E102K	B	47.5/13.7
C67	4030017460	S.CER ECJ0EB1E102K	B	53.9/22.3
C68	4030017440	S.CER ECJ0EC1H221J	B	51.8/13.7
C69	4030017730	S.CER ECJ0EB1E471K	B	53.8/15.4
C70	4030017730	S.CER ECJ0EB1E471K	B	54.8/13.7
C71	4030016930	S.CER ECJ0EB1A104K	T	56.2/17.5
C72	4030017420	S.CER ECJ0EC1H470J	T	69.8/18.7
C73	4030017460	S.CER ECJ0EB1E102K	T	69.3/24
C74	4030017460	S.CER ECJ0EB1E102K	B	91.1/37.3
C75	4550005980	S.TAN TEESVA 1A 475M8R	B	54.5/9.9
C76	4030016790	S.CER ECJ0EB1C103K	T	66.7/21.1
C77	4030017460	S.CER ECJ0EB1E102K	T	65.7/22.7
C78	4030017460	S.CER ECJ0EB1E102K	T	74.8/20.8
C79	4030018890	S.CER ECJ0EB0J224K	T	72.3/21.1
C80	4030017780	S.CER ECJ0EB1E472K	T	68/18.7
C81	4030016790	S.CER ECJ0EB1C103K	B	77.2/21.5
C82	4030017460	S.CER ECJ0EB1E102K	B	78.2/21.5
C83	4030017620	S.CER ECJ0EC1H100C [USA-07]		
	4030017620	S.CER ECJ0EC1H100C [CSA-02]		
	4030017620	S.CER ECJ0EC1H100C [CSA-04]		
C84	4030017420	S.CER ECJ0EC1H470J	T	81.3/20.5
C86	4030017420	S.CER ECJ0EC1H470J [USA-06]	T	78.7/24.3
	4030017650	S.CER ECJ0EC1H270J [USA-07]		
	4030017420	S.CER ECJ0EC1H470J [CSA-01]		
	4030017650	S.CER ECJ0EC1H270J [CSA-02]		
	4030017420	S.CER ECJ0EC1H470J [CSA-03]		
	4030017650	S.CER ECJ0EC1H270J [CSA-04]		
C88	4030017460	S.CER ECJ0EB1E102K	T	73.1/24
C89	4030017570	S.CER ECJ0EC1H040B [USA-06]	T	75.5/24.4
	4030017570	S.CER ECJ0EC1H040B [CSA-01]		
	4030017570	S.CER ECJ0EC1H040B [CSA-03]		
C91	4510009280	S.ELE EE1EA4R75R	B	69.7/20.3
C92	4030017630	S.CER ECJ0EC1H120J	T	74.6/30.9
C93	4030017380	S.CER ECJ0EC1H050B [USA-06]	T	70.9/33.5
	4030017600	S.CER ECJ0EC1H080C [USA-07]		
	4030017380	S.CER ECJ0EC1H050B [CSA-01]		
	4030017600	S.CER ECJ0EC1H080C [CSA-02]		
	4030017380	S.CER ECJ0EC1H050B [CSA-03]		
	4030017600	S.CER ECJ0EC1H080C [CSA-04]		
C94	4030017730	S.CER ECJ0EB1E471K	T	70.3/24
C96	4030017460	S.CER ECJ0EB1E102K [USA-07]		
	4030017460	S.CER ECJ0EB1E102K [CSA-02]		
	4030017460	S.CER ECJ0EB1E102K [CSA-04]		
C97	4030017420	S.CER ECJ0EC1H470J	T	74.8/36
C98	4030017380	S.CER ECJ0EC1H050B [USA-06]	T	66.5/34.2
	4030017620	S.CER ECJ0EC1H100C [USA-07]		
	4030017380	S.CER ECJ0EC1H050B [CSA-01]		
	4030017620	S.CER ECJ0EC1H100C [CSA-02]		
	4030017380	S.CER ECJ0EC1H050B [CSA-03]		
	4030017620	S.CER ECJ0EC1H100C [CSA-04]		
C99	4030017460	S.CER ECJ0EB1E102K	T	68.3/36.3
C100	4030017620	S.CER ECJ0EC1H100C	B	61.3/36.1
C102	4030017380	S.CER ECJ0EC1H050B	T	59.5/34.3
C103	4030017350	S.CER ECJ0EC1H020B	B	58.4/35.1
C104	4030017460	S.CER ECJ0EB1E102K	T	58.9/29.4
C105	4030017460	S.CER ECJ0EB1E102K	B	58.4/37.2
C106	4030017420	S.CER ECJ0EC1H470J	B	70.3/33.9
C107	4030017460	S.CER ECJ0EB1E102K	T	70.6/36.3
C108	4030016790	S.CER ECJ0EB1C103K	T	69.7/36.3
C109	4030017460	S.CER ECJ0EB1E102K	B	57.6/40.8

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REF NO.	PARTS NO.	DESCRIPTION		M.	H/V LOCATION
C110	4030017730	S.CER	ECJ0EB1E471K	B	55.7/30.5
C111	4030017420	S.CER	ECJ0EC1H470J	B	56.3/34.4
C112	4030017460	S.CER	ECJ0EB1E102K	T	60.2/38.6
C113	4030017520	S.CER	ECJ0EC1H0R3B	T	56.1/32.6
C114	4030017580	S.CER	ECJ0EC1H060C	T	51.9/36.5
	4030017360	S.CER	ECJ0EC1H030B		
	4030017580	S.CER	ECJ0EC1H060C		
	4030017360	S.CER	ECJ0EC1H030B		
	4030017580	S.CER	ECJ0EC1H060C		
	4030017360	S.CER	ECJ0EC1H030B		
C115	4030017630	S.CER	ECJ0EC1H120J	T	55.7/35.4
	4030017570	S.CER	ECJ0EC1H040B		
	4030017630	S.CER	ECJ0EC1H120J		
	4030017570	S.CER	ECJ0EC1H040B		
	4030017630	S.CER	ECJ0EC1H120J		
	4030017570	S.CER	ECJ0EC1H040B		
C116	4030016790	S.CER	ECJ0EB1C103K	T	56.5/37.9
C117	4030017730	S.CER	ECJ0EB1E471K	T	56.5/36.6
C118	4030017530	S.CER	ECJ0EC1H0R5B	T	56.1/33.9
C119	4030017460	S.CER	ECJ0EB1E102K	T	56.6/31.6
C120	4030017730	S.CER	ECJ0EB1E471K	T	57.5/28.7
C121	4030017630	S.CER	ECJ0EC1H120J	T	52.6/30
	4030017380	S.CER	ECJ0EC1H050B		
	4030017630	S.CER	ECJ0EC1H120J		
	4030017380	S.CER	ECJ0EC1H050B		
	4030017630	S.CER	ECJ0EC1H120J		
C122	4030017380	S.CER	ECJ0EC1H050B		
	4030017620	S.CER	ECJ0EC1H100C	T	53.1/28.6
	4030017570	S.CER	ECJ0EC1H040B		
	4030017620	S.CER	ECJ0EC1H100C		
	4030017570	S.CER	ECJ0EC1H040B		
C123	4030017390	S.CER	ECJ0EC1H180J	T	52.6/31
	4030017640	S.CER	ECJ0EC1H150J		
	4030017390	S.CER	ECJ0EC1H180J		
	4030017640	S.CER	ECJ0EC1H150J		
	4030017390	S.CER	ECJ0EC1H180J		
C124	4030017640	S.CER	ECJ0EC1H150J		
	4030017620	S.CER	ECJ0EC1H100C	T	51.1/29
	4030017380	S.CER	ECJ0EC1H050B		
	4030017620	S.CER	ECJ0EC1H100C		
	4030017380	S.CER	ECJ0EC1H050B		
	4030017620	S.CER	ECJ0EC1H100C		
C126	4030017630	S.CER	ECJ0EC1H120J	T	51.9/37.7
C127	4030017610	S.CER	ECJ0EC1H090C	T	50.5/37.5
	4030017380	S.CER	ECJ0EC1H050B		
	4030017610	S.CER	ECJ0EC1H090C		
	4030017380	S.CER	ECJ0EC1H050B		
	4030017610	S.CER	ECJ0EC1H090C		
	4030017380	S.CER	ECJ0EC1H050B		
C129	4030017530	S.CER	ECJ0EC1H0R5B	T	48.4/31.4
C130	4030016950	S.CER	ECJ0EB1A473K	B	49.4/39
C132	4030017460	S.CER	ECJ0EB1E102K	B	46.9/27.1
C133	4030017390	S.CER	ECJ0EC1H180J	T	51.1/31
	4030017640	S.CER	ECJ0EC1H150J		
	4030017390	S.CER	ECJ0EC1H180J		
	4030017640	S.CER	ECJ0EC1H150J		
	4030017390	S.CER	ECJ0EC1H180J		
	4030017640	S.CER	ECJ0EC1H150J		
C134	4030017390	S.CER	ECJ0EC1H180J	T	50.6/36.3
	4030017630	S.CER	ECJ0EC1H120J		
	4030017390	S.CER	ECJ0EC1H180J		
	4030017630	S.CER	ECJ0EC1H120J		
	4030017390	S.CER	ECJ0EC1H180J		
	4030017630	S.CER	ECJ0EC1H120J		
C135	4030017460	S.CER	ECJ0EB1E102K	T	48.4/34.4
C136	4030016930	S.CER	ECJ0EB1A104K	T	48.4/35.4
C137	4030016790	S.CER	ECJ0EB1C103K	T	57.7/44.1
C138	4030017460	S.CER	ECJ0EB1E102K	B	49.6/28.4
C139	4030016930	S.CER	ECJ0EB1A104K	B	56.7/28.9
C140	4030016930	S.CER	ECJ0EB1A104K	T	43.4/34.7
C141	4030017460	S.CER	ECJ0EB1E102K	B	50/42
C142	4030017460	S.CER	ECJ0EB1E102K	T	42.9/21
C143	4030017460	S.CER	ECJ0EB1E102K	B	53.3/43.5
C144	4030017420	S.CER	ECJ0EC1H470J	B	49.6/29.3
C145	4030017420	S.CER	ECJ0EC1H470J	B	47.1/23.9
C146	4550000270	S.TAN	TEESVA 1E 474M8R	B	52.6/32.7
C147	4550000460	S.TAN	TEESVA 1C 105M8R	B	47.5/41.4
C148	4550006250	S.TAN	TEESVA 1A 106M8R	T	50.1/44.1
C149	4030017460	S.CER	ECJ0EB1E102K	T	43.8/39.1
C150	4030018860	S.CER	ECJ0EB0J105K	T	44.9/22.7
C151	4030016930	S.CER	ECJ0EB1A104K	T	40.2/40.8
C152	4030017420	S.CER	ECJ0EC1H470J	T	35.3/41.1
C153	4030017420	S.CER	ECJ0EC1H470J	T	37.2/41.1
C154	4030017420	S.CER	ECJ0EC1H470J	T	38/39.1
C155	4030017420	S.CER	ECJ0EC1H470J	T	43.8/38.1
C156	4030017460	S.CER	ECJ0EB1E102K	T	39.5/32
C157	4030017620	S.CER	ECJ0EC1H100C	T	38.5/32
C158	4030016930	S.CER	ECJ0EB1A104K	T	36.3/31.4
C159	4030017460	S.CER	ECJ0EB1E102K	T	36.3/32.4
C161	4030017620	S.CER	ECJ0EC1H100C	T	43.4/33.7
C162	4030017500	S.CER	ECJ0EC1H560J	T	43.9/28.1
C163	4030017570	S.CER	ECJ0EC1H040B	T	42.5/27.6
C164	4030017590	S.CER	ECJ0EC1H070C	T	43.9/27.1
C165	4030016790	S.CER	ECJ0EB1C103K	T	43.4/31.7
C166	4030017360	S.CER	ECJ0EC1H030B	T	43.2/24.7
C167	4030016930	S.CER	ECJ0EB1A104K	B	55.8/23.3
C168	4030016930	S.CER	ECJ0EB1A104K	B	56.6/19.8
C169	4030016930	S.CER	ECJ0EB1A104K	B	56.6/18.8
C170	4030017460	S.CER	ECJ0EB1E102K	T	91.5/34.2
C171	4030017420	S.CER	ECJ0EC1H470J	T	91.5/35.2
C173	4030017460	S.CER	ECJ0EB1E102K	T	40.9/30.1

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REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C175	4030017360	S.CER ECJ0EC1H030B [USA-06]	B	94.9/41.4
	4030017560	S.CER ECJ0EC1H2R5B [USA-07]		
	4030017360	S.CER ECJ0EC1H030B [CSA-01]		
	4030017560	S.CER ECJ0EC1H2R5B [CSA-02]		
	4030017360	S.CER ECJ0EC1H030B [CSA-03]		
	4030017560	S.CER ECJ0EC1H2R5B [CSA-04]		
C176	4030017460	S.CER ECJ0EB1E102K	T	77.7/20.4
C177	4030009910	S.CER C1608 CH 1H 040B-T	B	90.7/33.4
C178	4030017420	S.CER ECJ0EC1H470J	T	77.7/21.3
C179	4030006860	S.CER C1608 JB 1H 102K-T	T	86.6/31.4
C180	4030017420	S.CER ECJ0EC1H470J	T	67.1/32.3
C182	4030017600	S.CER ECJ0EC1H070C [USA-06]	T	68.8/31.6
	4030017590	S.CER ECJ0EC1H070C [USA-07]		
	4030017600	S.CER ECJ0EC1H080C [CSA-01]		
	4030017590	S.CER ECJ0EC1H070C [CSA-02]		
	4030017600	S.CER ECJ0EC1H080C [CSA-03]		
	4030017590	S.CER ECJ0EC1H070C [CSA-04]		
C183	4030017420	S.CER ECJ0EC1H470J	T	74.1/24
C185	4030017530	S.CER ECJ0EC1H0R5B	B	91.1/35.5
C186	4030017530	S.CER ECJ0EC1H0R5B	B	92.3/39.2
C188	4030017460	S.CER ECJ0EB1E102K	B	47.5/20.7
C196	4030017420	S.CER ECJ0EC1H470J	B	62.5/39
C197	4030017460	S.CER ECJ0EB1E102K	B	62.5/40.8
C202	4030016930	S.CER ECJ0EB1A104K	T	48.4/33.4
C203	4030017460	S.CER ECJ0EB1E102K	B	46.9/30.1
C205	4030017380	S.CER ECJ0EC1H050B	B	55.8/39.9
C206	4030017590	S.CER ECJ0EC1H070C	B	55.8/41.7
C208	4030017590	S.CER ECJ0EC1H070C	B	55.8/42.6
C209	4030017460	S.CER ECJ0EB1E102K	T	36.6/21.3
C211	4030018910	S.CER C1608 JB 0J 475K-T	T	31.5/27.8
C213	4030017460	S.CER ECJ0EB1E102K	T	19.2/34
C222	4030016930	S.CER ECJ0EB1A104K	T	40.9/29.1
C224	4030016930	S.CER ECJ0EB1A104K	B	83/11.6
C225	4030017460	S.CER ECJ0EB1E102K	B	81.2/13.5
C226	4550005980	S.TAN TEESVA 1A 475M8R	B	86.9/13
C227	4030016790	S.CER ECJ0EB1C103K	B	89.4/15.7
C228	4510008540	S.ELE EEE1CA100SR	B	85.8/17.8
C229	4030017460	S.CER ECJ0EB1E102K	B	85.8/16.8
C230	4030016930	S.CER ECJ0EB1A104K	B	74.6/15
C231	4030016790	S.CER ECJ0EB1C103K	B	79.6/13.4
C232	4030017730	S.CER ECJ0EB1E471K	T	23/25.2
C233	4030016790	S.CER ECJ0EB1C103K	T	24.2/27.8
C234	4030017460	S.CER ECJ0EB1E102K	T	69.8/15.7
C235	4030016790	S.CER ECJ0EB1C103K	T	69.8/17.7
C236	4030017460	S.CER ECJ0EB1E102K	T	27.2/19.5
C237	4510008660	S.ELE EEE0JA220SR	T	27.2/22.5
C238	4030017460	S.CER ECJ0EB1E102K	T	37.1/10
C241	4030016930	S.CER ECJ0EB1A104K	T	44.9/10
C242	4030016930	S.CER ECJ0EB1A104K	T	40.7/10
C243	4030016790	S.CER ECJ0EB1C103K	B	46.5/15.4
C244	4030016930	S.CER ECJ0EB1A104K		
C251	4030016970	S.CER ECJ0EB1C223K [CSA-01]		
	4030016970	S.CER ECJ0EB1C223K [CSA-02]		
	4030016970	S.CER ECJ0EB1C223K [CSA-03]		
	4030016970	S.CER ECJ0EB1C223K [CSA-04]		
C252	4030017740	S.CER ECJ0EB1E821K [CSA-01]		
	4030017740	S.CER ECJ0EB1E821K [CSA-02]		
	4030017740	S.CER ECJ0EB1E821K [CSA-03]		
	4030017740	S.CER ECJ0EB1E821K [CSA-04]		
C253	4030017740	S.CER ECJ0EB1E821K [CSA-01]		
	4030017740	S.CER ECJ0EB1E821K [CSA-02]		
	4030017740	S.CER ECJ0EB1E821K [CSA-03]		
	4030017740	S.CER ECJ0EB1E821K [CSA-04]		
C254	4030016930	S.CER ECJ0EB1A104K [CSA-01]		
	4030016930	S.CER ECJ0EB1A104K [CSA-02]		
	4030016930	S.CER ECJ0EB1A104K [CSA-03]		
	4030016930	S.CER ECJ0EB1A104K [CSA-04]		
C255	4030016950	S.CER ECJ0EB1A473K [CSA-01]		
	4030016950	S.CER ECJ0EB1A473K [CSA-02]		
	4030016950	S.CER ECJ0EB1A473K [CSA-03]		
	4030016950	S.CER ECJ0EB1A473K [CSA-04]		
C256	4030016940	S.CER ECJ0EB1A393K	T	30.2/31.4
C257	4030016930	S.CER ECJ0EB1A104K	T	28.5/33.2
C258	4030017790	S.CER ECJ0EB1E682K	T	30.2/32.3
C259	4030018860	S.CER ECJ0EB0J105K	T	32.6/35.3
C261	4030016930	S.CER ECJ0EB1A104K	T	30.2/39
C264	4510008540	S.ELE EEE1CA100SR	B	69.7/15.5
C265	4030017460	S.CER ECJ0EB1E102K	B	65/12.9
C266	4030016930	S.CER ECJ0EB1A104K	B	62.3/8.5
C269	4030017720	S.CER ECJ0EB1H331K	T	11.6/37.9
C270	4030016950	S.CER ECJ0EB1A473K	T	14.1/28.8
C271	4030016950	S.CER ECJ0EB1A473K	T	14.1/26.8
C272	4030016950	S.CER ECJ0EB1A473K	T	9.8/27.9
C273	4030016950	S.CER ECJ0EB1A473K	T	14.1/27.8
C274	4030016950	S.CER ECJ0EB1A473K	T	11.6/31.9
C275	4030016970	S.CER ECJ0EB1C223K	T	11.6/34.4
C276	4030016950	S.CER ECJ0EB1A473K	T	12.6/34.4
C277	4030016930	S.CER ECJ0EB1A104K	T	14.6/40.1
C278	4030017430	S.CER ECJ0EC1H101J	T	18/40.1
C279	4030018910	S.CER C1608 JB 0J 475K-T	T	36.6/23.2
C280	4030017780	S.CER ECJ0EB1E472K [CSA-01]	T	21.1/27.8
	4030017780	S.CER ECJ0EB1E472K [CSA-02]		
	4030017780	S.CER ECJ0EB1E472K [CSA-03]		
	4030017780	S.CER ECJ0EB1E472K [CSA-04]		
C281	4030018920	S.CER ECJ0EB1H392K	T	17.7/26.8
C282	4030017710	S.CER ECJ0EC1H181J	T	17.7/29.8
C283	4030018900	S.CER ECJ0EB0J474K	T	19.4/31.7
C284	4030016930	S.CER ECJ0EB1A104K	T	22.9/39.1
C285	4030016930	S.CER ECJ0EB1A104K [CSA-01]	T	22.9/40.1
	4030016930	S.CER ECJ0EB1A104K [CSA-02]		
	4030016930	S.CER ECJ0EB1A104K [CSA-03]		
	4030016930	S.CER ECJ0EB1A104K [CSA-04]		
C286	4030017460	S.CER ECJ0EB1E102K	B	16.7/40.4
C287	4550006250	S.TAN TEESVA 1A 106M8R	B	21.8/40.7
C288	4030017460	S.CER ECJ0EB1E102K	B	17.2/38.1

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REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C291	4030016780	S.CER ECJ0EB1C153K	T	25.7/10.9
C292	4030016930	S.CER ECJ0EB1A104K	T	25.7/11.3
C293	4030017740	S.CER ECJ0EB1E821K	T	25.7/11.9
C295	4030018110	S.CER ECJ0EB1H272K [CSA-01]	T	25.7/4.5
	4030018110	S.CER ECJ0EB1H272K [CSA-02]		
	4030018110	S.CER ECJ0EB1H272K [CSA-03]		
	4030018110	S.CER ECJ0EB1H272K [CSA-04]		
C296	4030018240	S.CER ECJ0EB1E562K [CSA-01]	T	23.9/7.5
	4030018240	S.CER ECJ0EB1E562K [CSA-02]		
	4030018240	S.CER ECJ0EB1E562K [CSA-03]		
	4030018240	S.CER ECJ0EB1E562K [CSA-04]		
C297	4030017710	S.CER ECJ0EC1H181J [CSA-01]	T	23.9/8.5
	4030017710	S.CER ECJ0EC1H181J [CSA-02]		
	4030017710	S.CER ECJ0EC1H181J [CSA-03]		
	4030017710	S.CER ECJ0EC1H181J [CSA-04]		
C298	4030018090	S.CER ECJ0EB1C822K [CSA-01]	T	29.6/4.5
	4030018090	S.CER ECJ0EB1C822K [CSA-02]		
	4030018090	S.CER ECJ0EB1C822K [CSA-03]		
	4030018090	S.CER ECJ0EB1C822K [CSA-04]		
C299	4030017510	S.CER ECJ0EC1H680J [CSA-01]	T	33/4.5
	4030017510	S.CER ECJ0EC1H680J [CSA-02]		
	4030017510	S.CER ECJ0EC1H680J [CSA-03]		
	4030017510	S.CER ECJ0EC1H680J [CSA-04]		
C300	4030017450	S.CER ECJ0EB1E271K	T	32.1/8.9
C304	4030017580	S.CER ECJ0EC1H060C	B	19.8/38.2
C306	4030017460	S.CER ECJ0EB1E102K	B	61/12.3
C307	4030017460	S.CER ECJ0EB1E102K	B	59.3/12.3
C308	4030017460	S.CER ECJ0EB1E102K	T	75.7/9.8
C309	4030017460	S.CER ECJ0EB1E102K	B	75.5/11.3
C310	4030016930	S.CER ECJ0EB1A104K	T	21.3/11.9
C311	4030017460	S.CER ECJ0EB1E102K	B	64.9/8.5
C312	4030017420	S.CER ECJ0EC1H470J	B	74.5/5.7
C313	4030017420	S.CER ECJ0EC1H470J	B	32.9/7.1
C314	4030017460	S.CER ECJ0EB1E102K	T	86.6/3.3
C315	4030017460	S.CER ECJ0EB1E102K	T	93.2/6
C316	4030016930	S.CER ECJ0EB1A104K	T	91.7/2.8
C317	4510008540	S.ELE EEE1CA100SR	B	95.9/17.2
C318	4030016930	S.CER ECJ0EB1A104K	T	89.7/8.9
C319	4030016930	S.CER ECJ0EB1A104K	T	89.6/2.8
C320	4030017730	S.CER ECJ0EB1E471K	T	88.6/2.8
C321	4030017460	S.CER ECJ0EB1E102K	B	19.3/4.2
C322	4030016950	S.CER ECJ0EB1A473K	T	93.9/13.9
C323	4030016950	S.CER ECJ0EB1A473K	T	87.6/9.7
C324	4030017420	S.CER ECJ0EC1H470J	T	85/13.7
C325	4550006250	S.TAN TEESVA 1A 106M8R	T	90.6/17.2
C326	4510008900	S.ELE EEEFC0J101P	B	87.8/8.9
C333	4030017420	S.CER ECJ0EC1H470J	B	76.8/39.9
C335	4030018860	S.CER ECJ0EB0J105K	B	57.2/21.1
C339	4030016930	S.CER ECJ0EB1A104K	B	5.9/17.2
C340	4030016930	S.CER ECJ0EB1A104K	B	9.3/12.5
C341	4030016930	S.CER ECJ0EB1A104K	B	5.9/10.1
C342	4030017630	S.CER ECJ0EC1H120J	B	18.3/4.2
C343	4030017580	S.CER ECJ0EC1H060C	B	5.6/4.2
C344	4030017640	S.CER ECJ0EC1H150J	B	7.6/9.1
C345	4030016930	S.CER ECJ0EB1A104K	B	11/11.2
C346	4030016930	S.CER ECJ0EB1A104K	B	11/10.1
C347	4030016790	S.CER ECJ0EB1C103K	T	8.8/6.5
C348	4030016930	S.CER ECJ0EB1A104K	T	6/10
C349	4030016930	S.CER ECJ0EB1A104K	T	21.3/14.9
C350	4030017460	S.CER ECJ0EB1E102K	T	59.4/43.4
C354	4030017460	S.CER ECJ0EB1E102K	T	14.2/24.4
C355	4030018080	S.CER ECJ0EB1H182K	T	43.9/22.7
C356	4030018910	S.CER C1608 JB 0J 475K-T	T	34.6/20.6
C357	4030017400	S.CER ECJ0EC1H220J [USA-06]	T	79/25.5
	4030017400	S.CER ECJ0EC1H220J [CSA-01]		
	4030017400	S.CER ECJ0EC1H220J [CSA-03]		
J1	6510021901	S.CON BM02B-ASRS-TF(LF)(SN)	T	86.6/6.8
J2	6450001680	CON HSJ1122-010010		
J3	6450002250	CON HSJ1456-010320		
F1	5210000830	S.FUS ERBFE3R00U	T	98/14.5
DS1	5040002670	S.LED CL-165HR/YG	T	102.8/12.4
MC1	7700002750	MIC EM9745P-38-G <HOR>		
S1	2260001900	SWI SW-149 (SKHLLD)		
S2	2260002800	S.SWI SW-167 (SKQTLAE010)	B	99.4/44.2
S3	2260002800	S.SWI SW-167 (SKQTLAE010)	B	60.9/44.2
S4	2250000490	ENC TP70TF5163-15.9F-2775		
EP1	6910018460	S.BEA MMZ1005Y102C-T	T	57/29.9
EP3	6910018460	S.BEA MMZ1005Y102C-T	T	35/32
MP1	8410002531	S.HEA 2681 PA HEATSINK-1	B	79/28.2
MP3	8510016470	S.CAS 2775 VCO CASE	T	54.1/33.2

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)
S.=Surface mount

SECTION 7

MECHANICAL PARTS

[CHASSIS PARTS]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6910015910	ANT CONNECTOR 104	1
J2	6910015860	IMSA-6277S-O2A-G	1
SP1	2510001530	PSC-3650P-0806A2 <PRI>	1
W1	8900009640	OPC-963	1
MP1	8010019696	2775 CHASSIS-6	1
MP2	8210024550	2775 A-FRONT PANEL (Inc. MP4, 5, 43)	1
MP3	8210024560	2775 A-PTT PANEL	1
MP4	8930063360	2775 PTT BUTTON	1
MP5	8930063370	2775 PTT RUBBER	1
MP8	8210020550	2721 REAR PANEL	1
MP9	8930063351	2775 LENS-1	1
MP10	8610011930	KNOB N-318 (Incl. MP23)	1
MP11	8610012130	KNOB N-323 (Incl. MP24)	1
MP13	8930075190	2775 C-MAIN SEAL	1
MP14	8930063060	2721 T-RUBBER	1
MP16	8930063400	2775 SIDE PLATE	1
MP17	8930063411	2775 B-TOP PLATE-1	1
MP20	8930043760	1923 MIC SEAL	1
MP21	8930059360	2600 RELEASE BUTTON	1
MP22	8930070362	2775 RELEASE PLATE (A)-2	1
MP23	8610007510	KNOB SPRING NO.7800	1
MP24	8610007920	KNOB SPRING NO.1500	1
MP25	8830001720	2721 ANT NUT	1
MP26	8810009221	SCREW BT B0 2X8 NI-ZK3 (BT)	2
MP27	8810009561	SCREW BT B0 2X6 NI-ZK3 (BT)	2
MP28	8810009511	SCREW BT B0 2X4 NI-ZC3 (BT)	9
MP29	8810009511	SCREW BT B0 2X4 NI-ZC3 (BT)	1
MP30	8810009511	SCREW BT B0 2X4 NI-ZC3 (BT)	1
MP31	8810010430	SCREW TRUSS M3X5 SUS SSBC	1
MP32	8310072660	2775 OPT PLATE	1
MP33	8930042350	1922 MIC SHEET	1
MP34	8930056540	PUSH SPRING (AH)	2
MP35	8830001701	VR NUT (Q)-1	1
MP36	8830001701	VR NUT (Q)-1	1
MP42	8930074580	2775 NAME SHEET	1
MP43	8930074610	SP NET (E)	1

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1*	6510021901	BM02B-ASRS-TF (LF) (SN)	1
J2	6450001680	HSJ1122-010010	1
J3	6450002250	HSJ1456-010320	1
J4*	6510018430	AXN330C038	1
J6*	6510023350	MM8430-2600RA1	1
MC1	7700002750	EM9745P-38-G	1
S1	2260001900	SW-149 (SKHLLD)	1
S2*	2260002800	SW-167 (SKQT)	1
S3*	2260002800	SW-167 (SKQT)	1
S4	2250000490	TP70TF5163 15.9F-2775	1
F1*	5210000830	ERBFE3R00U	1
MP1*	8410002531	2681 PA HEATSINK-1	1
MP2	8510016460	2775 VCO COVER	1
MP3*	8510016470	2775 VCO CASE	1
MP4	8510016580	2775 SHIELD PLATE	1
MP5	8510016770	2776 EARTH PLATE	1

[ANT UNIT]

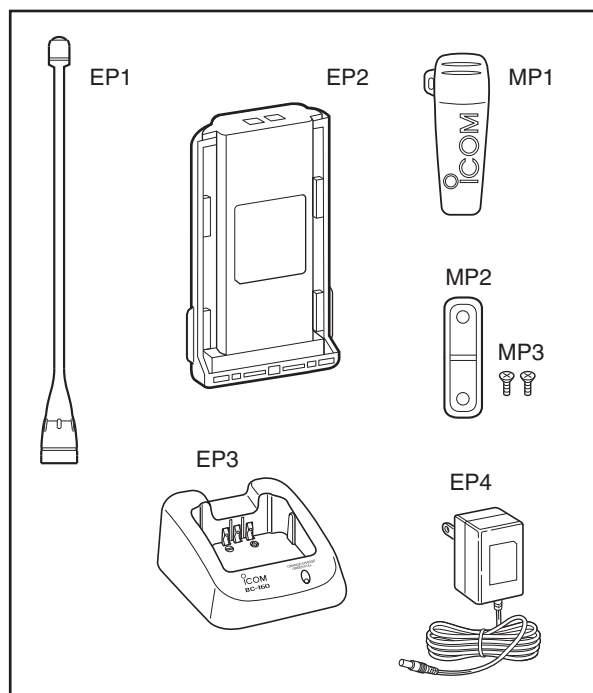
REF NO.	ORDER NO.	DESCRIPTION	QTY.
MP601	8510016350	2721 ANT PLATE	1

[CONNECT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J501	6910016390	IMSA-9230B-1-02Z145-PT1	1

[ACCESSORIES]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
EP1	(Optional)	FA-SC57U-1 [USA-06], [CSA-01], [CSA-03]	1
EP2	(Optional)	FA-SC72U-1 [USA-07], [CSA-02], [CSA-04]	1
EP3	(Optional)	BP-232N	1
EP4	(Optional)	BC-160	1
		BC-145SA	1
MP1	(Optional)	MB-94	1
MP2	8210022780	2927 JACK PANEL	1
MP3	8810004861	SCREW PH M2X6 ZK3	2



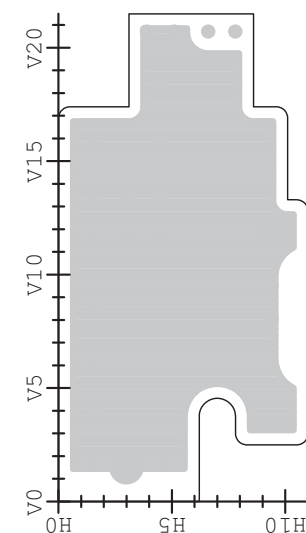
*: Refer to "BOARD LAYOUTS."

** : Optional product.

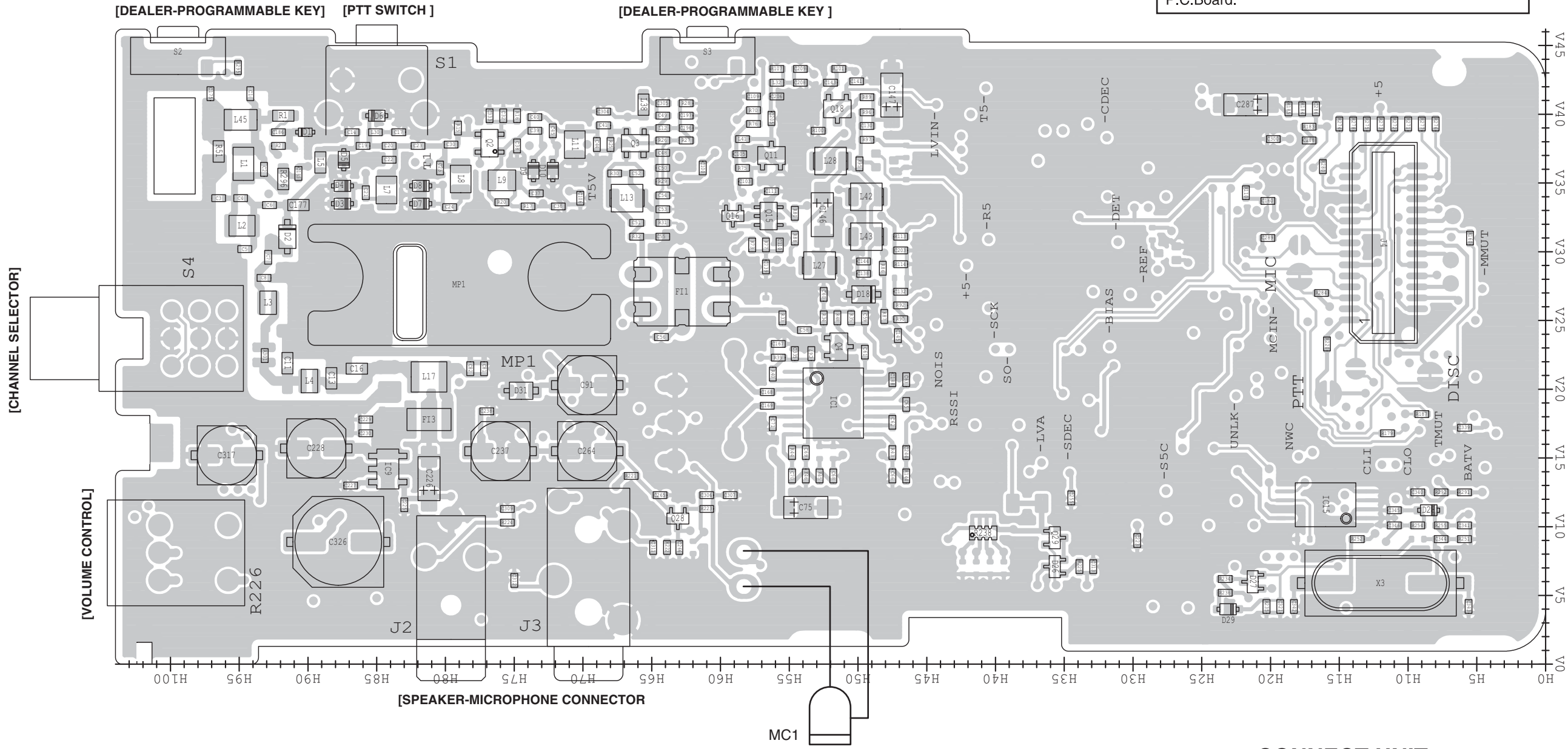
Screw abbreviations A, B0, BT: Self-tapping PH: Pan head ZK: Black NI-ZU: Nickel-Zinc SUS: Stainless

BOARD LAYOUTS

The combination of this side and the bottom side shows the board layout in the same configuration as the actual P.C.Board.

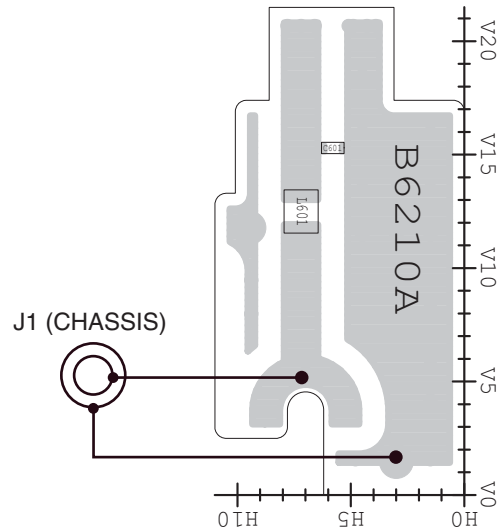


• MAIN UNIT
(BOTTOM VIEW)

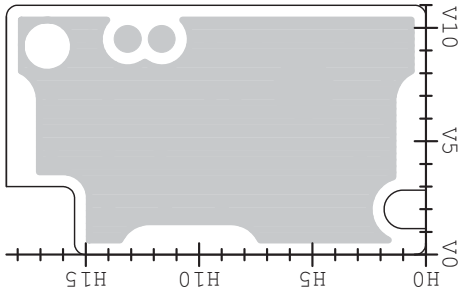


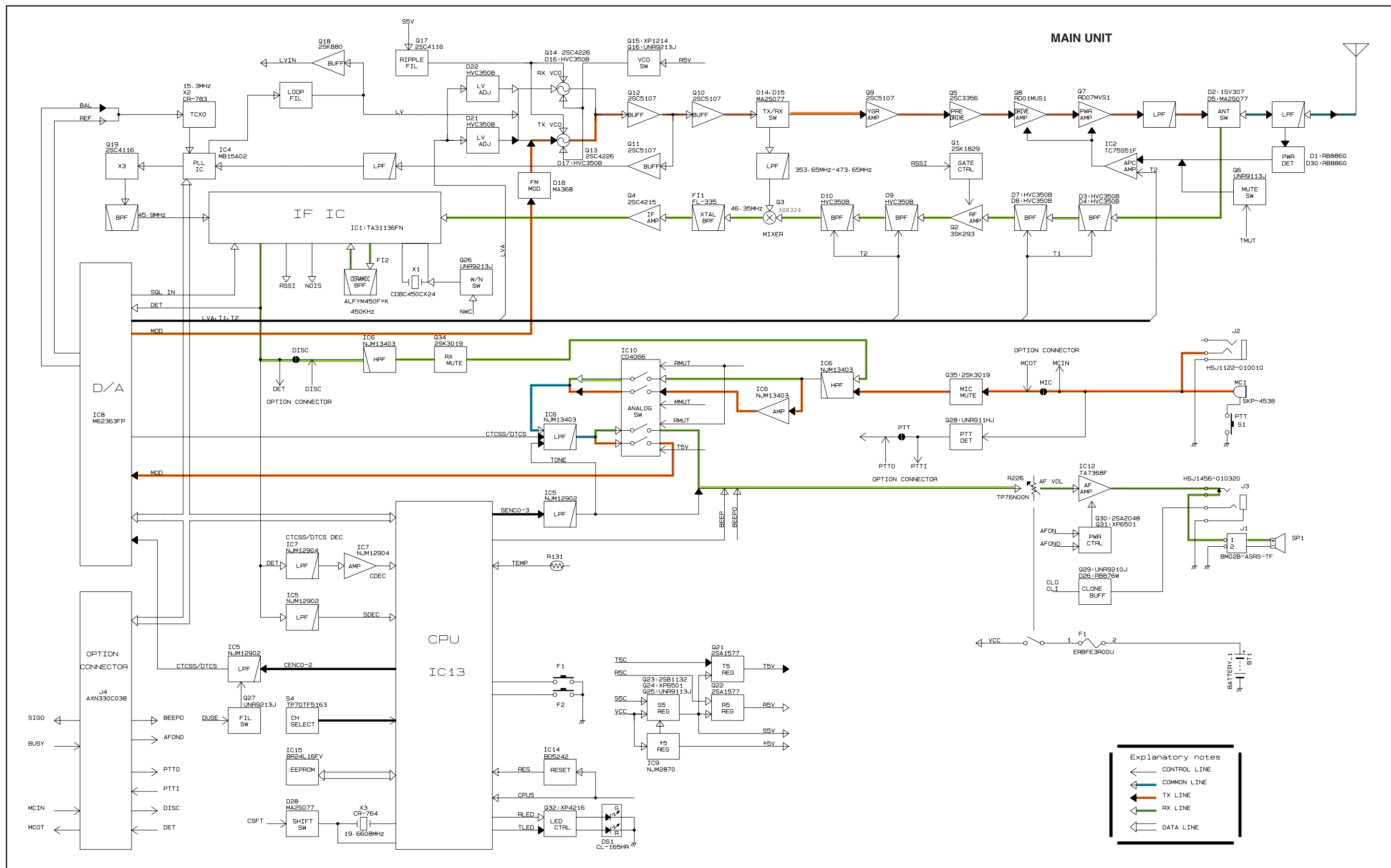
The combination of this side and the bottom side shows the board layout in the same configuration as the actual P.C.Board.

• ANT UNIT
(BOTTOM VIEW)



• CONNECT UNIT
(BOTTOM VIEW)





VOLTAGE DIAGRAM

CONNECT UNIT

ANT UNIT

Explanatory notes

- TX Line
- RX Line
- Common Line
- Voltage Line

*, Refer to "PARTS LIST."

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