



# SERVICE MANUAL

VHF TRANSCEIVERS

**IC-F3001**  
**IC-F3002**  
**IC-F3003**  
**IC-F3006**  
**IC-F3008**

---

---

---

S-14621XZ-C1  
Dec. 2009

## INTRODUCTION

This service manual describes the latest technical information for the **IC-F3001/F3002/F3003/F3006/F3008** VHF TRANSCEIVERS TRANSCEIVER, at the time of publication.

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

| MODEL    | VERSION | CHANNEL SPACING (kHz) | FREQUENCY RANGE (MHz) |
|----------|---------|-----------------------|-----------------------|
| IC-F3001 | USA-11  | 15.0/25.0             | 136–174               |
|          | USA-12  |                       |                       |
|          | USA-13  |                       |                       |
| IC-F3002 | EUR-21  | 15.0/20.0/25.0        |                       |
|          | EUR-22  |                       |                       |
|          | EUR-23  |                       |                       |
|          | UK-01   |                       |                       |
|          | UK-02   |                       |                       |
|          | UK-03   |                       |                       |
| IC-F3003 | EXP-11  | 15.0/25.0             |                       |
|          | EXP-12  |                       |                       |
|          | EXP-13  |                       |                       |
|          | EXP-21  |                       |                       |
|          | EXP-22  |                       |                       |
|          | EXP-23  |                       |                       |
|          | EXP-01  |                       |                       |
|          | EXP-03  |                       |                       |
|          | EXP-31  |                       |                       |
|          | AUS-21  |                       |                       |
|          | AUS-22  |                       |                       |
|          | AUS-23  |                       |                       |
| IC-F3006 | RUS-21  |                       |                       |
|          | RUS-22  |                       |                       |
|          | RUS-23  |                       |                       |
| IC-F3008 | CHN-31  |                       |                       |

## ORDERING PARTS

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

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

### <ORDER EXAMPLE>

|            |       |            |          |           |           |
|------------|-------|------------|----------|-----------|-----------|
| 1110003491 | S.IC  | TA31136FNG | IC-F3001 | MAIN UNIT | 5 pieces  |
| 8820001210 | Screw | 2438 screw | IC-F3003 | Top cover | 10 pieces |

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

## CAUTION

**NEVER** connect the transceiver to an AC outlet or to a DC power supply that uses more than the specified voltage. 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.



## 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 the test equipment thoroughly before connecting it to the transceiver.

---

## TABLE OF CONTENTS

---

**SECTION 1 SPECIFICATIONS**

**SECTION 2 INSIDE VIEWS**

**SECTION 3 DISASSEMBLY INSTRUCTION**

**SECTION 4 CIRCUIT DESCRIPITON**

|     |                                     |     |
|-----|-------------------------------------|-----|
| 4-1 | RECEIVER CIRCUITS.....              | 4-1 |
| 4-2 | TRANSMITTER CIRCUITS.....           | 4-2 |
| 4-3 | FREQUENCY SYNTHESIZER CIRCUITS..... | 4-3 |
| 4-4 | VOLTAGE BLOCK DIAGRAM.....          | 4-3 |
| 4-5 | PORT ALLOCATIONS.....               | 4-4 |

**SECTION 5 ADJUSTMENT PROCEDURES**

|     |                           |     |
|-----|---------------------------|-----|
| 5-1 | PREPARATION.....          | 5-1 |
| 5-2 | FREQUENCY ADJUSTMENT..... | 5-5 |
| 5-3 | TRANSMIT ADJUSTMENT.....  | 5-6 |
| 5-4 | RECEIVE ADJUSTMENT.....   | 5-7 |

**SECTION 6 PARTS LIST**

**SECTION 7 MECHANICAL PARTS**

**SECTION 8 BOARD LAYOUTS**

**SECTION 9 BLOCK DIAGRAM**

**SECTION 10 VOLTAGE DIAGRAM**

## SECTION 1

## SPECIFICATIONS

### ■ GENERAL

|                                                     |                                                                                                                                                                       |                                   |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| • Frequency range                                   | : 136–174 MHz                                                                                                                                                         |                                   |
| • Number of conventional channels                   | : 16 channels                                                                                                                                                         |                                   |
| • Type of emission                                  | : [EUR] Wide: 16K0F3E (25.0 kHz)<br>Middle: 14K0F3E (20.0 kHz)<br>Narrow: 8K50F3E (12.5 kHz)<br>Except [EUR] Wide: 16K0F3E (25.0 kHz)<br>Narrow: 11K0F3E (12.5 kHz)   |                                   |
| • Antenna impedance                                 | : 50 $\Omega$ (Nominal)                                                                                                                                               |                                   |
| • Operating temperature range                       | : –30°C to +60°C; –22°F to +140°F<br>–25°C to +55°C                                                                                                                   | Except [EUR], [UK]<br>[EUR], [UK] |
| • Power supply voltage                              | : Specified Icom's battery packs only (7.2 V DC; negative ground)                                                                                                     |                                   |
| • Current drain (Approx.)                           | : Receiving 75 mA (stand-by)<br>330 mA (max. audio)<br>Transmitting 1.3 A (at 5.0 W)                                                                                  |                                   |
| • Dimensions<br>(Projections not included, approx.) | : With BP-264 58.0 (W)×111.0 (H)×31.0 (D) mm; 2 5/16 (W)×4 3/8 (H)×1 7/32 (D) in.<br>With BP-265 58.0 (W)×111.0 (H)×35.5 (D) mm; 2 5/16 (W)×4 3/8 (H)×1 13/32 (D) in. |                                   |
| • Weight                                            | : With BP-264 Approx. 330 g; 11 21/32 oz.<br>With BP-265 Approx. 270 g; 9 17/32 oz.                                                                                   |                                   |

### ■ TRANSMITTER

|                                                                   |                                                                                                  |                                   |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------|
| • Output power                                                    | : 5 W                                                                                            |                                   |
| • Modulation                                                      | : Variable reactance frequency modulation                                                        |                                   |
| • Maximum frequency deviation                                     | : Narrow $\pm 2.5$ kHz<br>Middle $\pm 4.0$ kHz<br>Wide $\pm 5.0$ kHz                             |                                   |
| • Frequency stability                                             | : $\pm 2.5$ ppm                                                                                  |                                   |
| • Spurious emissions                                              | : 70 dB min.<br>0.25 $\mu$ W ( $\leq 1$ GHz), 1.0 $\mu$ W ( $> 1$ GHz)                           | Except [EUR], [UK]<br>[EUR], [UK] |
| • Adjacent channel power                                          | : Narrow 60 dB min., 70 dB typ.<br>Middle 70 dB min., 80 dB typ.<br>Wide 70 dB min., 80 dB typ.  |                                   |
| • Audio harmonic distortion                                       | : Wide, Middle 1.0% typ. at AF 1 kHz 40% deviation<br>Narrow 1.5% typ. at AF 1 kHz 40% Deviation |                                   |
| • FM hum and Noise (Except [EUR], [UK])<br>(Without CCITT FILTER) | : Narrow 34 dB min., 40 dB typ.<br>Wide 40 dB min., 46 dB typ.                                   |                                   |
| • Residual modulation ([EUR], [UK])<br>(With CCITT FILTER)        | : Narrow 40 dB min.<br>Middle 43 dB min.<br>Wide 45 dB min.                                      |                                   |
| • Limiting charact of modulator                                   | : 60–100% of max. deviation                                                                      |                                   |
| • Audio input impedance                                           | : 2.2 k $\Omega$                                                                                 |                                   |

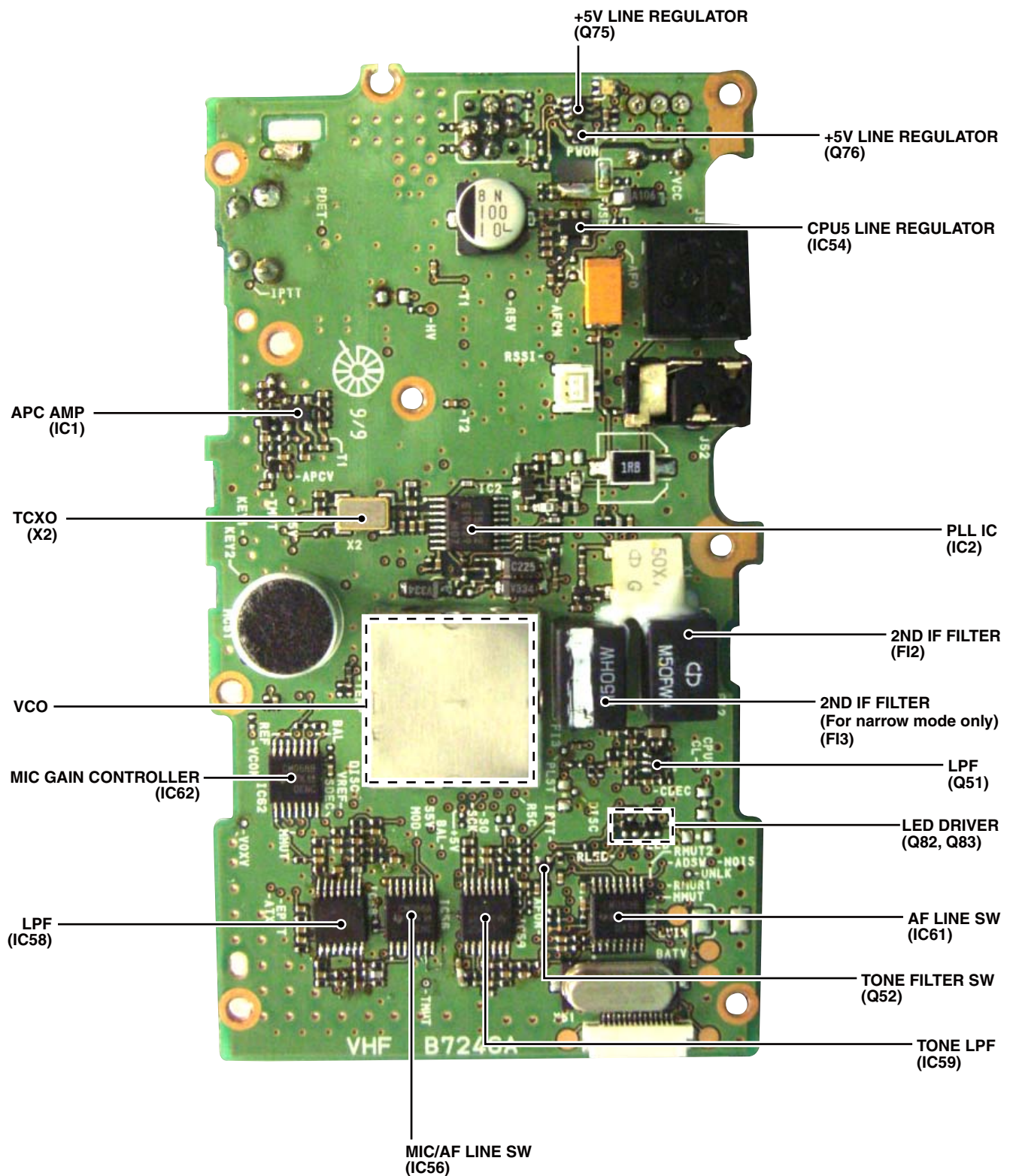
## ■ RECEIVER

|                                                                |                                                                                                                                            |                                   |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| • Sensitivity                                                  | : 0.25 $\mu$ V typ. at 12 dB SINAD<br>–4 dB $\mu$ V (EMF) typ. at 20 dB SINAD                                                              | Except [EUR], [UK]<br>[EUR], [UK] |
| • Squelch sensitivity (at threshold)                           | : 0.25 $\mu$ V typ.<br>–4 dB $\mu$ V (EMF) typ.                                                                                            | Except [EUR], [UK]<br>[EUR], [UK] |
| • Intermediate frequency                                       | : 1st 46.35 MHz<br>2nd 450 kHz                                                                                                             |                                   |
| • Intermodulation                                              | : 70 dB min., 75 dB typ.<br>65 dB min.                                                                                                     | Except [EUR], [UK]<br>[EUR], [UK] |
| • Spurious response                                            | : 70 dB min.                                                                                                                               |                                   |
| • Audio output power                                           | : 0.8 W typ. at 5% distortion with a 12 $\Omega$ load (Int. speaker)<br>0.4 W typ. at 5% distortion with an 8 $\Omega$ load (Ext. speaker) |                                   |
| • Hum and noise (Except [EUR], [UK])<br>(Without CCITT Filter) | : Narrow 34 dB min., 50 dB typ.<br>Wide 40 dB min., 54 dB typ.                                                                             |                                   |
| • Hum and noise ([EUR], [UK])<br>(With CCITT Filter)           | : Narrow 40 dB min.<br>Middle 43 dB min.<br>Wide 45 dB min.                                                                                |                                   |
| • Adjacent channel selectivity                                 | : Narrow 60 dB min., 70 dB typ.<br>Wide, Middle 70 dB min., 78 dB typ.                                                                     |                                   |
| • Audio output impedance                                       | : 8 $\Omega$                                                                                                                               |                                   |

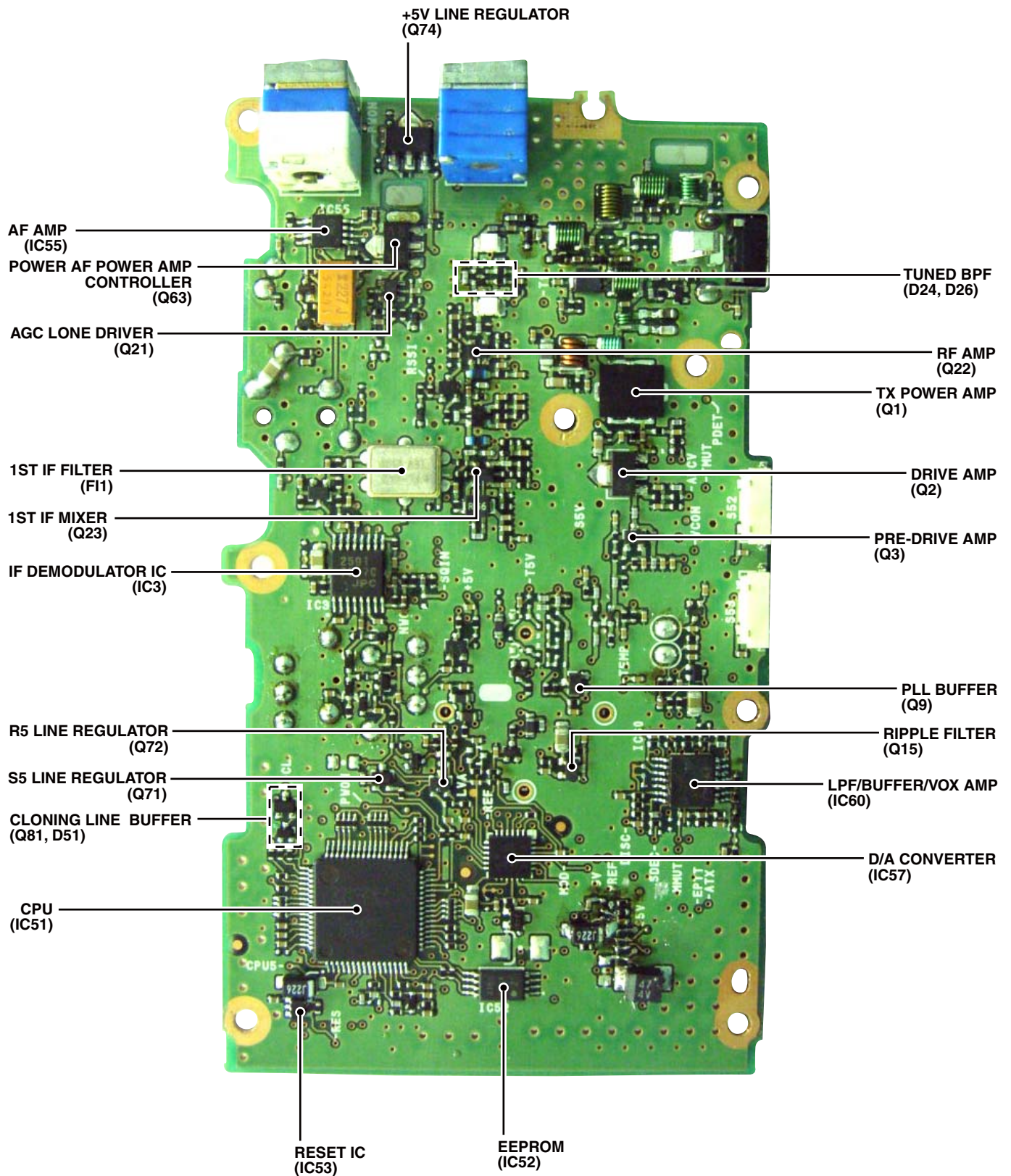
Specifications are measured in accordance with TIA/EIA-603B or EN 300 086

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

## • MAIN UNIT (TOP VIEW)



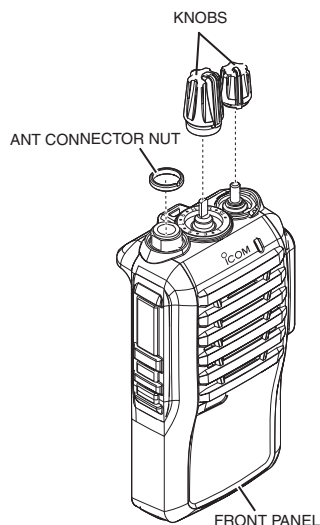
• MAIN UNIT  
(BOTTOM VIEW)



## SECTION 3 DISASSEMBLY INSTRUCTION

### 1. REMOVING THE CHASSIS

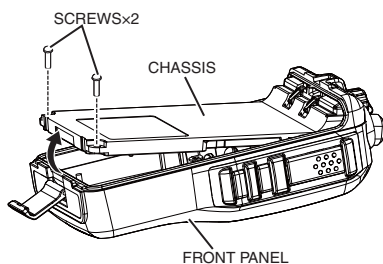
1) Remove the ANT connector nut and 2 knobs.



2) Remove 2 screws from the bottom of the CHASSIS.

3) Lift the bottom of the CHASSIS up in the direction of the arrow.

**BE CAREFUL** to not pull out the **speaker wire** when separating the CHASSIS and the FRONT PANEL.



#### For easy separation of the CHASSIS

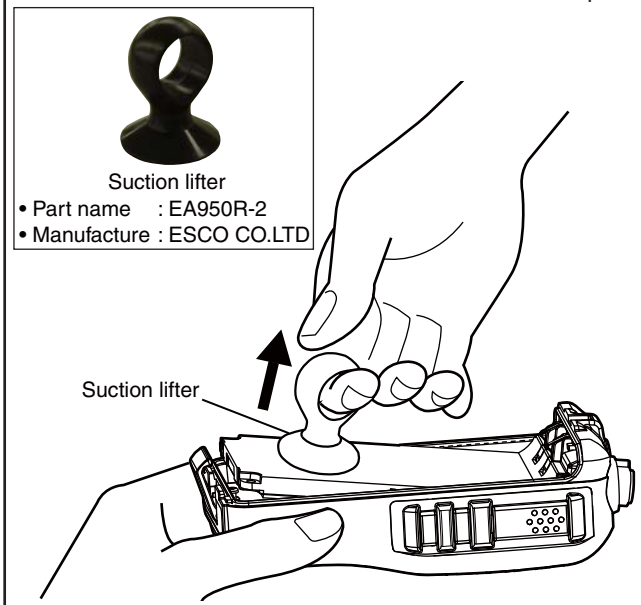
Use a suction lifter to lift the bottom of the CHASSIS up.



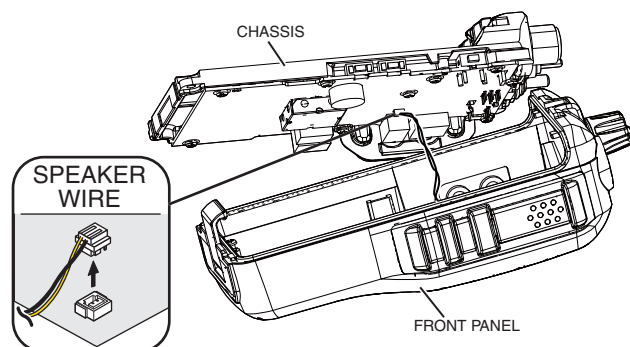
Suction lifter

- Part name : EA950R-2
- Manufacture : ESCO CO.LTD

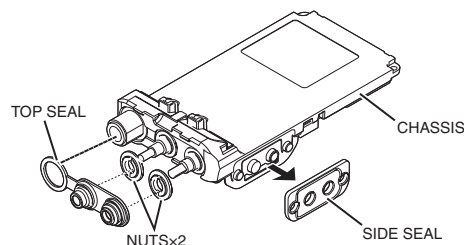
Suction lifter



4) CAREFULLY lift the chassis out of the FRONT PANEL and turn it over in order to unplug the speaker wire.



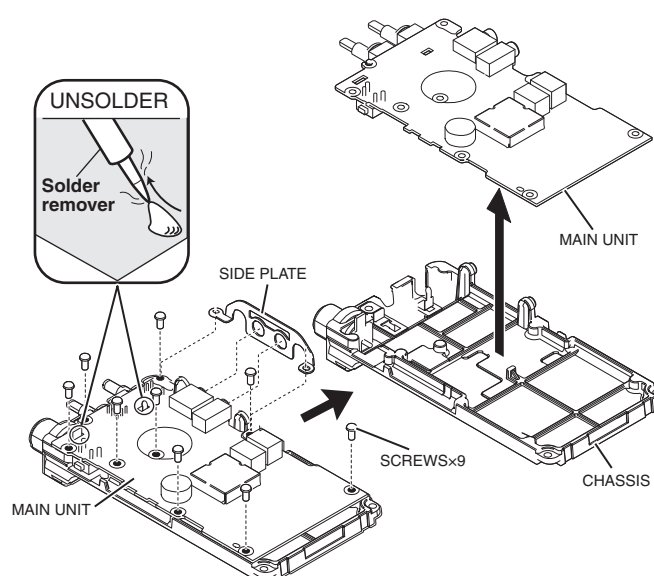
5) Remove the seals and nuts from the CHASSIS.



### 2. REMOVING THE MAIN UNIT

1) Remove the 9 screws and the side plate from the MAIN UNIT.

2) Unsolder the 2 points shown, and then remove the MAIN UNIT.



(Continued to the right above)

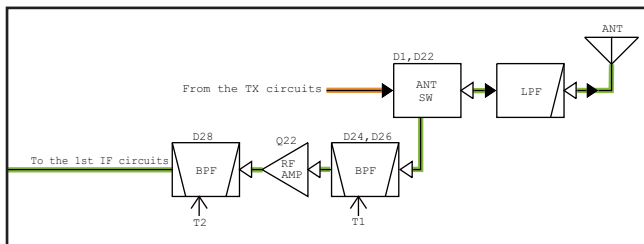
## 4-1 RECEIVER CIRCUITS

### RF CIRCUITS

The RX signal from the antenna is passed through the LPF and antenna SW, then filtered by the 2-staged tuned BPF to eliminate unwanted out-of-band signal. The filtered RX signal is amplified by the RF AMP, and filtered by another 2-staged tuned BPF to obtain a good image response, then applied to the 1st IF circuits.

The tuned BPFs are tuned to the RX frequency by applying adequate tuning voltages; "T1" and "T2" to the variable capacitors.

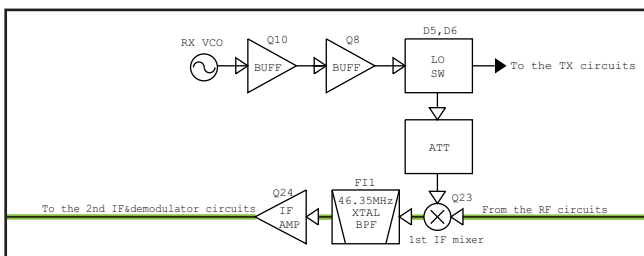
### • RF CIRCUITS



### 1ST IF CIRCUITS

The RX signal from the RF circuits is applied to the 1st IF mixer and mixed with the 1st LO signal from the RX VCO, resulting in the 46.35 MHz 1st IF signal. The 1st IF signal is filtered by the crystal filter, amplified by the 1st IF AMP, then applied to the 2nd IF circuits.

### • 1ST IF CIRCUITS



### 2ND IF CIRCUITS AND DEMODULATOR

The signal from the 1st IF circuits is applied to the IF demodulator IC which contains the 2nd IF mixer, 2nd IF AMP, FM detector, etc. in its package.

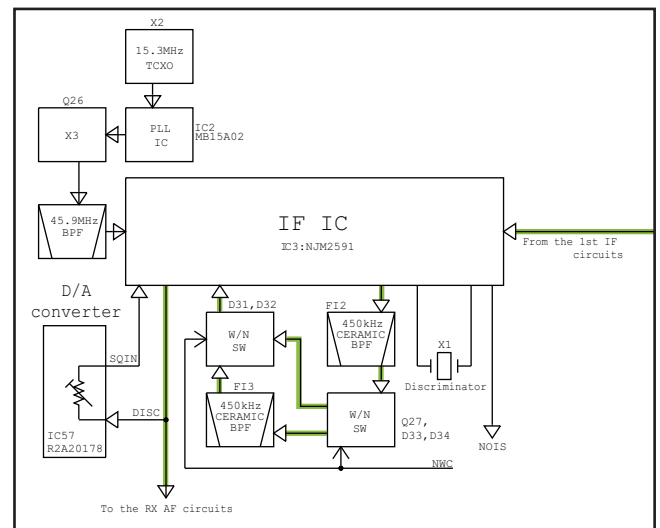
The 1st IF signal is applied to the 2nd IF mixer and mixed with the 2nd LO signal resulting in the 450 kHz 2nd IF signal.

The 2nd LO signal is generated by tripling the 15.3 MHz reference frequency signal oscillated by the reference frequency oscillator (TCXO).

The converted 2nd IF signal is filtered by the crystal filter/ filters to eliminate unwanted signal, and amplified by the 2nd IF AMP, then demodulated by the detector circuit which employs a discriminator as the phase shifter.

The demodulated AF signal is applied to the RX AF circuits.

### • 2ND IF CIRCUITS

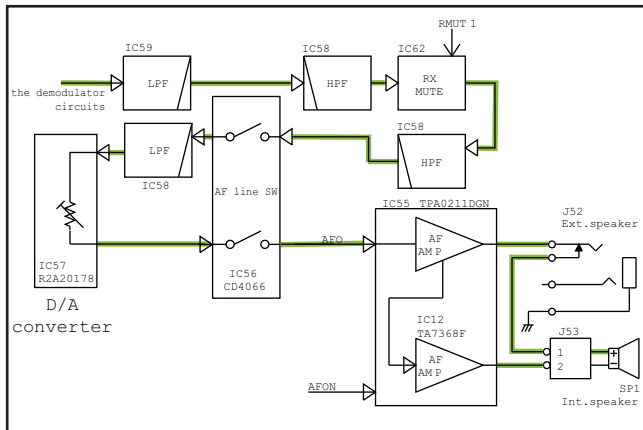


## RX AF CIRCUITS

The demodulated AF signal from the IF demodulator IC is passed through the LPF, HPF which attenuates frequencies 300 Hz and below. The filtered AF signal is passed through the AF line SW, HPF which additionally attenuates frequencies 300 Hz and below, de-emphasis circuit which provides  $-6$  dB/oct of frequency response. The de-emphasized AF signal is passed through the AF SW, LPF which attenuates frequencies 3 kHz and above, is adjusted in level by the D/A converter. The level-adjusted AF signal is then applied to the AF power AMP via the AF line SW.

The amplified AF signal is applied to the internal or external speaker.

### • RX AF CIRCUITS



## 4-2 TRANSMITTER CIRCUITS

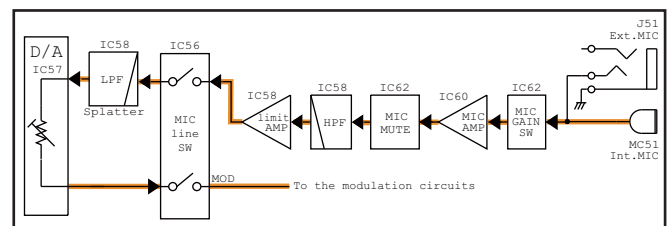
### TX AF CIRCUITS

The audio signal from the internal or external microphone (MIC signal) is passed through the MIC gain SW and applied to the MIC AMP. The amplified MIC signal is passed through the MIC mute SW, HPF which attenuates frequencies 300 Hz and below. The filtered MIC signal is passed through the pre-emphasis circuit which provides  $+6$  dB/oct of frequency response, then they applied to the limiter AMP.

The amplitude-limited MIC signal is passed through the MIC line SW, and applied to the splatter filter, which attenuate harmonics in the MIC signal to prevent exceeding permissible deviation.

The filtered MIC signal is applied to the D/A converter which adjusts its level (=deviation). The level-adjusted MIC signal is applied to the TX VCO as the modulation signal.

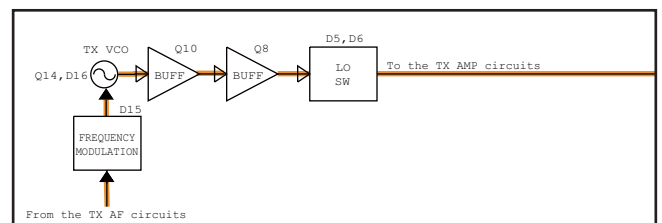
### • TX AF CIRCUITS



### MODULATION CIRCUIT

The modulation signal from the TX AF circuits is applied to D15 of the TX VCO to frequency-modulate it. The frequency-modulated signal from the TX VCO is buffer-amplified by two buffers, and applied to the TX AMP circuits via the TX/RX SW (D5).

### • MODULATION CIRCUITS



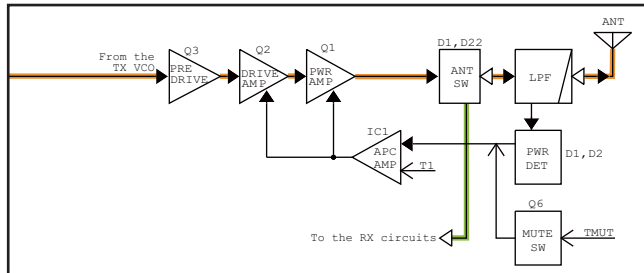
## TX AMPLIFIERS

The buffer amplified signal from the LO SW (D5) is amplified by the pre-drive AMP, drive AMP, and power AMP in sequence, to obtain TX power. The amplified TX signal is passed through the antenna SW and the LPF, which eliminates harmonics, and then fed to the antenna.

## APC CIRCUITS

D1 and D2 rectify a portion of the TX signal to direct current, and the APC AMP compares the voltage and the TX power control reference voltage, "T1." The resulting voltage controls the gain of the power and drive AMPs to keep the TX power constant.

### • TX AMPLIFIERS AND APC CIRCUIT



## 4-3 FREQUENCY SYNTHESIZER CIRCUITS

The RX VCO is composed of Q13, D11 and D12. The VCO output signal is buffer-amplified by two buffers and applied to the 1st IF mixer, via the LO SW (D6) and the attenuator.

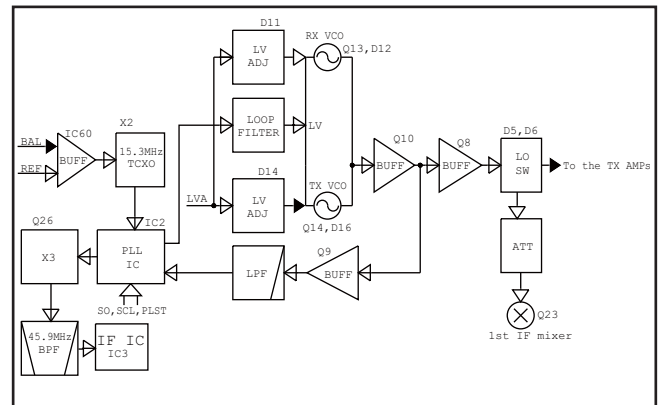
The TX VCO is composed of Q14 and D14–D16. The VCO output signal is buffer-amplified by two buffers and applied to the 1st IF mixer, via the LO SW (D6) and the LPF.

A portion of oscillated signal from each VCO is fed back to the PLL IC via the buffer and the LPF.

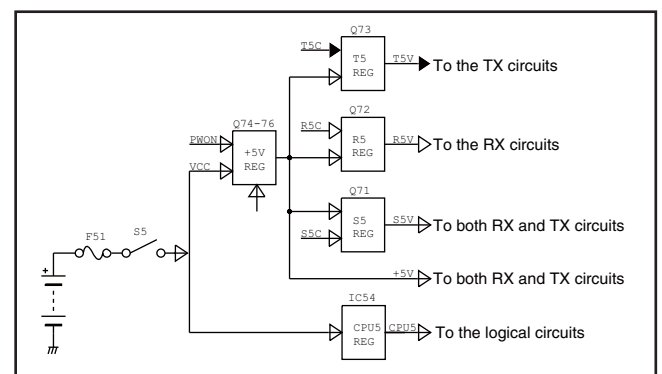
The applied VCO output signal is divided and phase-compared with a 15.3 MHz reference frequency signal from the TCXO, which is also divided. The resulting signal is output from the PLL IC, and DC-converted by the loop filter, and then applied to the VCO as the lock voltage.

When the oscillation frequency drifts, its phase changes from that of the reference frequency, causing a lock voltage change to compensate for the drift in the VCO oscillating frequency.

### • FREQUENCY SYNTHESIZER CIRCUITS



## 4-4 VOLTAGE BLOCK DIAGRAM



## 4-5 PORT ALLOCATIONS

### • CPU (IC51)

| PIN NO.    | LINE NAME           | DESCRIPTION                                                                                      | I/O |
|------------|---------------------|--------------------------------------------------------------------------------------------------|-----|
| 1          | CDEC                | Tone signal (CTCSS/DTCS) decoding input.                                                         | I   |
| 2          | STONE               | Tone signal (5/2 TONE, DTMF, BISS) decoding/encoding .                                           | I/O |
| 13         | CSFT                | Clock frequency shift.<br>H=Clock frequency is shifted.                                          | O   |
| 14         | NWC                 | RX mode (narrow/wide) switching.<br>L=While receiving in the narrow mode                         | O   |
| 15         | EPTT                | External PTT input.<br>H=An external PTT is pushed.                                              | I   |
| 16         | ATX                 | Automatic TX control for VOX mode.<br>H=Microphone input is detected.                            | O   |
| 17         | BEEP                | Beep sounds. (Square waves)                                                                      | O   |
| 18         | AFON                | AF power AMP control.<br>H=AF power AMP (IC55) is activated.                                     | O   |
| 19         | SCK                 | Common clock.                                                                                    | O   |
| 20         | SO                  | Common serial data.                                                                              | O   |
| 22         | KEY2                | [UPPER] key input.<br>L=Pushed                                                                   | I   |
| 23         | KEY1                | [LOWER] key input.<br>L=Pushed                                                                   | I   |
| 24         | PLST                | PLL strobe.<br>H=Load enable.                                                                    | I/O |
| 25         | DAST                | D/A converter strobe.<br>H=Load enable.                                                          | I/O |
| 26         | ESDA                | EEPROM data.                                                                                     | I/O |
| 27         | ESCL                | EEPROM clock.                                                                                    | I/O |
| 28         | R5C                 | Power supply switching control.<br>H=Supplying current to the receiver circuits ("R5"line).      | O   |
| 29         | T5C                 | Power supply switching control.<br>H=Supplying current to the transmitter circuits ("T5"line).   | O   |
| 30         | S5C                 | Power supply switching control.<br>H=Supplying current to the RX/ TX common circuits ("S5"line). | O   |
| 31         | PWON                | Power supply switching control.<br>H=The transceiver's power is ON.                              | O   |
| 32         | IPTT                | Internal PTT input.<br>L=PTT pushed.                                                             | I   |
| 33, 34, 36 | CENC2, CENC1, CENC0 | CTCSS/DTCS signal.                                                                               | O   |
| 37–40      | CBI0–CBI3           | [ROTARY SELECTOR] input.                                                                         | I   |
| 41         | DUSE                | Frequency response switching.<br>H=DTCS encoding                                                 | O   |
| 42         | RLED                | Busy LED (Green) control.<br>L=LED lights. (Squelch open)                                        | O   |
| 43         | TLED                | Busy LED (Red) control.<br>L=LED lights. (Transmit)                                              | O   |
| 47         | MGC0                | MIC gain control.                                                                                | O   |
| 48         | MGC1                | MIC gain control.                                                                                | O   |
| 49         | CLI                 | Cloning data.                                                                                    | I   |
| 50         | CLO                 |                                                                                                  | O   |

| PIN NO. | LINE NAME | DESCRIPTION                                                                                                | I/O |
|---------|-----------|------------------------------------------------------------------------------------------------------------|-----|
| 51      | ADSW      | A/D conversion select.<br>H=RSSI input, L=BATV input                                                       | O   |
| 53      | NOIS      | Noise level detect.<br>H=Squelch close                                                                     | I   |
| 54      | UNLK      | PLL unlock detect.                                                                                         | I   |
| 55      | RMUT2     | RX AF mute switch control.<br>L=AF mute.                                                                   | O   |
| 56      | RMUT1     | RX AF mute switch control.<br>L=AF mute.                                                                   | O   |
| 57      | MMUT      | MIC mute switch control.<br>L=MIC mute.                                                                    | O   |
| 58      | TMUT      | Transmission mute.<br>L=TX inhibit.                                                                        | O   |
| 59      | MDET      | External microphone connection detect.                                                                     | I   |
| 60      | LVIN      | Lock voltage input.                                                                                        | I   |
| 61      | TEMP      | Temperature sensing voltage.                                                                               | I   |
| 62      | AFVI      | [VOLUME CONTROL] input.                                                                                    | I   |
| 63      | VOXV      | Microphone input sensing voltage.                                                                          | I   |
| 64      | AD5       | Remaining battery voltage.<br>(or)<br>RSSI voltage.<br>(The input signal depends on the status of pin 51.) | I   |

### • D/A CONVERTER (IC57)

| PIN No. | LINE NAME | DESCRIPTION                            |
|---------|-----------|----------------------------------------|
| 23      | T1 (TXPO) | BPF tuning voltage<br>TX power control |
| 24      | T2        | BPF tuning voltage                     |
| 7       | REF       | Reference frequency adjust voltage.    |
| 8       | LVA       | Additional lock voltage adjustment.    |
| 11      | SQLC      | Squelch threshold setting.             |
| 12      | TENC      | CTCSS deviation adjustment.            |
| 19      | BAL       | DTCS balance.                          |
| 20      | VRAF      | Max. deviation/AF volume adjustment.   |

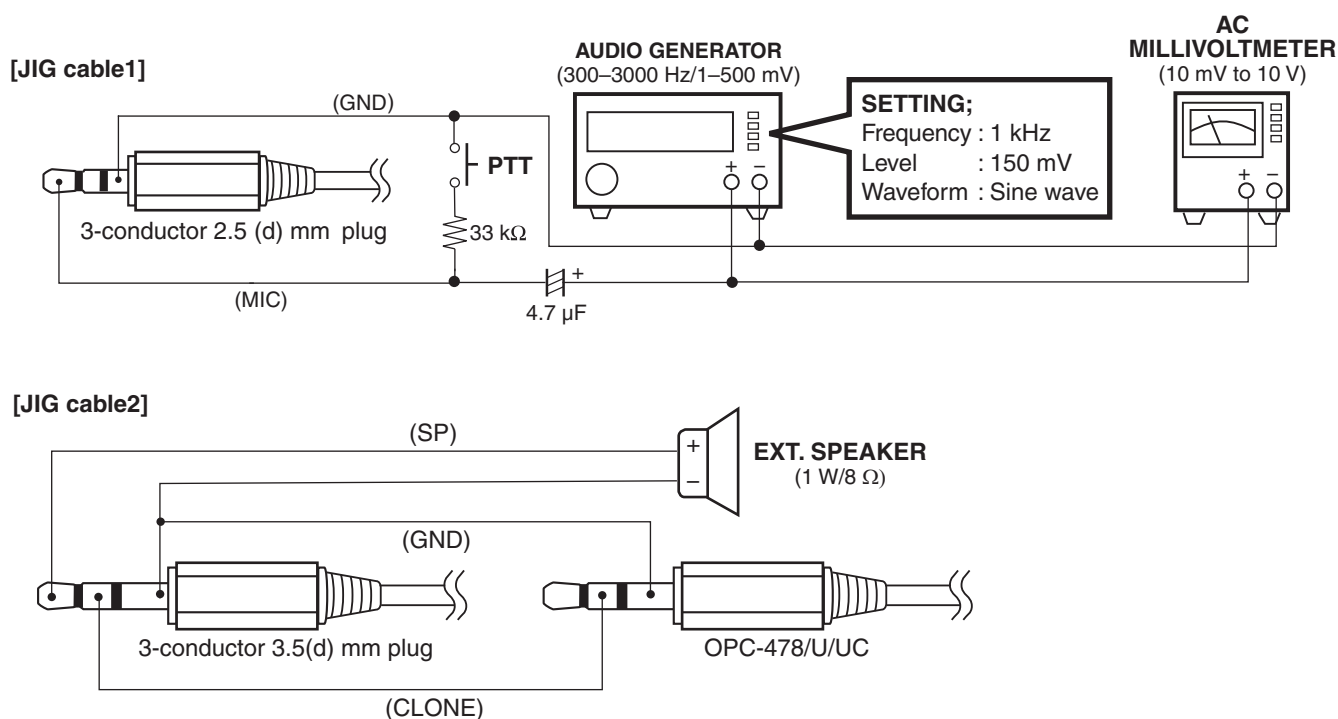
## SECTION 5 ADJUSTMENT PROCEDURE

### 5-1 PREPARATION

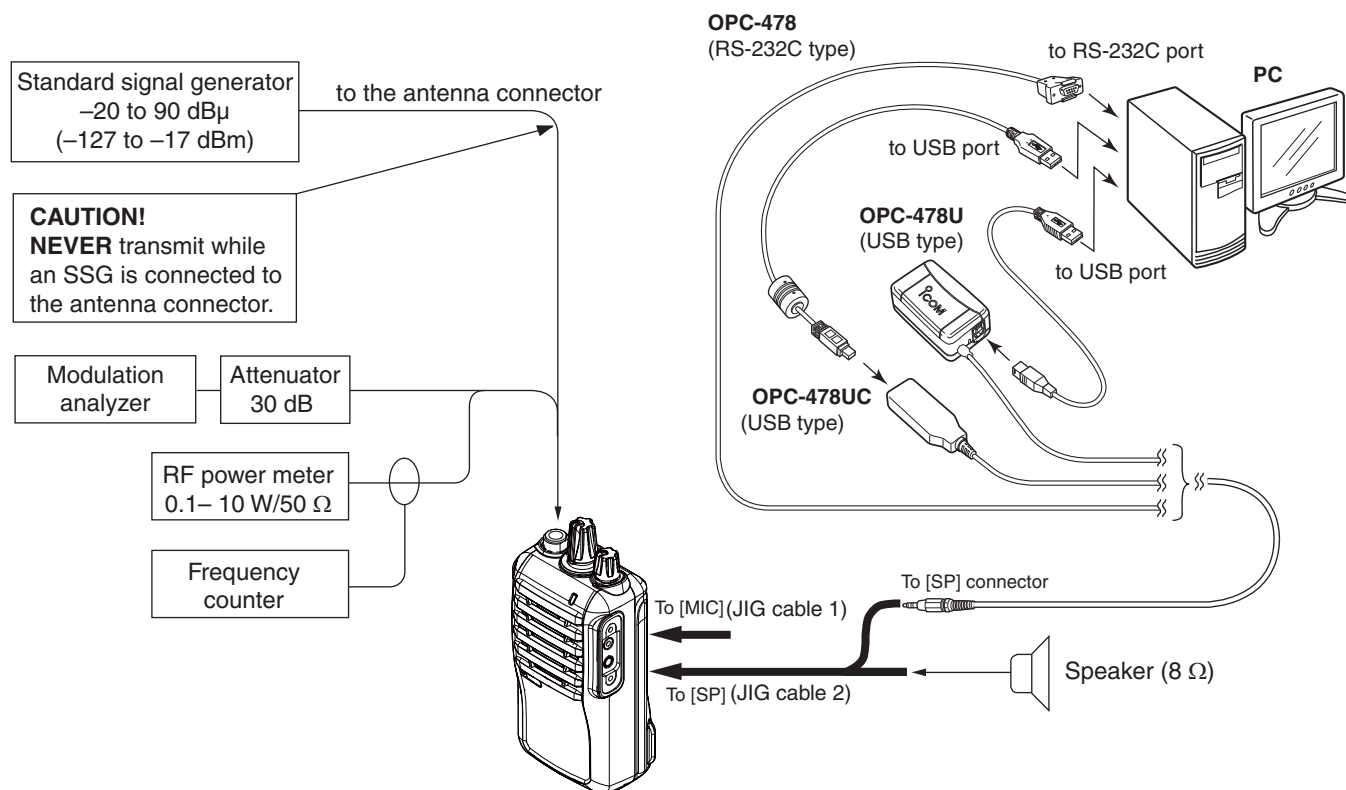
#### ■ REQUIRED EQUIPMENTS

| EQUIPMENT                                  | GRADE AND RANGE                                                                        | EQUIPMENT                       | GRADE AND RANGE                                                                                             |
|--------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------|
| Cloning software                           | CS-F3000 CLONING SOFTWARE<br>(Revision 1.0 or later)                                   | JIG cable                       | Modified OPC-478/U/UC<br>(See the illust below)                                                             |
| RF power meter<br>(50 $\Omega$ terminated) | Measuring range : 0.1–10 W<br>Frequency range : 100–300 MHz<br>SWR : Less than 1.2 : 1 | Frequency counter               | Frequency range : 0.1–300 MHz<br>Frequency accuracy : $\pm 1$ ppm or better<br>Input level : Less than 1 mW |
| Modulation Analyzer                        | Frequency range : 30–300 MHz<br>Measuring range : 0 to $\pm 10$ kHz                    | Standard signal generator (SSG) | Frequency range : 0.1–300 MHz<br>Output level : $-20$ to $90$ dB $\mu$<br>( $-127$ to $-17$ dBm)            |
| AC millivoltmeter                          | Measuring range : 10 mV to 10 V                                                        | Attenuator                      | Power attenuation : 30 dB<br>Capacity : More than 10 W                                                      |
| Oscilloscope                               | Frequency range : DC–20 MHz<br>Measuring range : 0.01–20 V                             | External speaker                | Input impedance : 8 $\Omega$<br>Capacity : More than 1 W                                                    |
| Audio generator (AG)                       | Frequency range : 300–3000 Hz<br>Output level : 1–500 mV                               |                                 |                                                                                                             |

#### ■ JIG CABLE



## CONNECTION



## ADJUSTMENT CHANNELS

Before starting the adjustments, use the cloning software to create the same cloning file as shown below, then upload it into the transceiver.

| CH | Atr | Inh | Frequency (MHz) |    |        | W/N | SQL Tight | C.Tone |       |     | RF PWR | PWR Save | Lock-out |
|----|-----|-----|-----------------|----|--------|-----|-----------|--------|-------|-----|--------|----------|----------|
|    |     |     | RX              | TX | TX Inh |     |           | RX     | TX    | TOT |        |          |          |
| 1  | AB  |     | 174.000000      | <- |        | W   |           |        |       |     | L1     | ON       |          |
| 2  |     |     | 136.000000      | <- |        | W   |           |        |       |     | L1     | ON       |          |
| 3  |     |     | 174.000000      | <- |        | W   |           |        |       |     | L1     | ON       |          |
| 4  |     |     | 155.000000      | <- |        | W   |           |        |       |     | H      | ON       |          |
| 5  |     |     | 155.000000      | <- |        | W   |           |        |       |     | L2     | ON       |          |
| 6  |     |     | 155.000000      | <- |        | W   |           |        |       |     | L1     | ON       |          |
| 7  |     |     | 155.000000      | <- |        | W   |           |        | 007N  |     | L1     | ON       |          |
| 8  |     |     | 155.000000      | <- |        | N   |           |        |       |     | L1     | ON       |          |
| 9  |     |     | 155.000000      | <- |        | W   |           |        |       |     | L1     | ON       |          |
| 10 |     |     | 155.000000      | <- |        | W   |           |        | 225.7 |     | L1     | ON       |          |
| 11 |     |     | 136.000000      | <- |        | W   |           |        |       |     | L1     | ON       |          |
| 12 |     |     |                 |    |        |     |           |        |       |     |        |          |          |
| 13 |     |     |                 |    |        |     |           |        |       |     |        |          |          |
| 14 |     |     |                 |    |        |     |           |        |       |     |        |          |          |
| 15 |     |     |                 |    |        |     |           |        |       |     |        |          |          |
| 16 |     |     |                 |    |        |     |           |        |       |     |        |          |          |

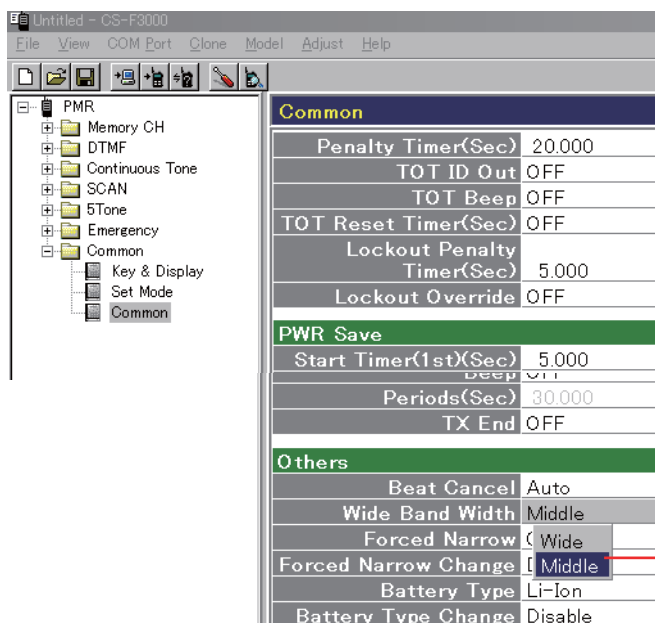
### CONVENIENT: The same cloning file is available.

Right-click  below, and select "Save Embedded File to Disk."



### For [EUR] versions:

When adjusting "Deviation" in the middle band, change the bandwidth to "Middle" as shown below.



ADJUSTMENT UTILITY

Click  or [Read <- TR] in the [Adjust] menu to open the "Adjust Utility" window as shown below.

Click to open the "I/O Check window"

ADJ. CHANNEL

TX OUTPUT POWER

MOD. BALANCE

DEVIATION

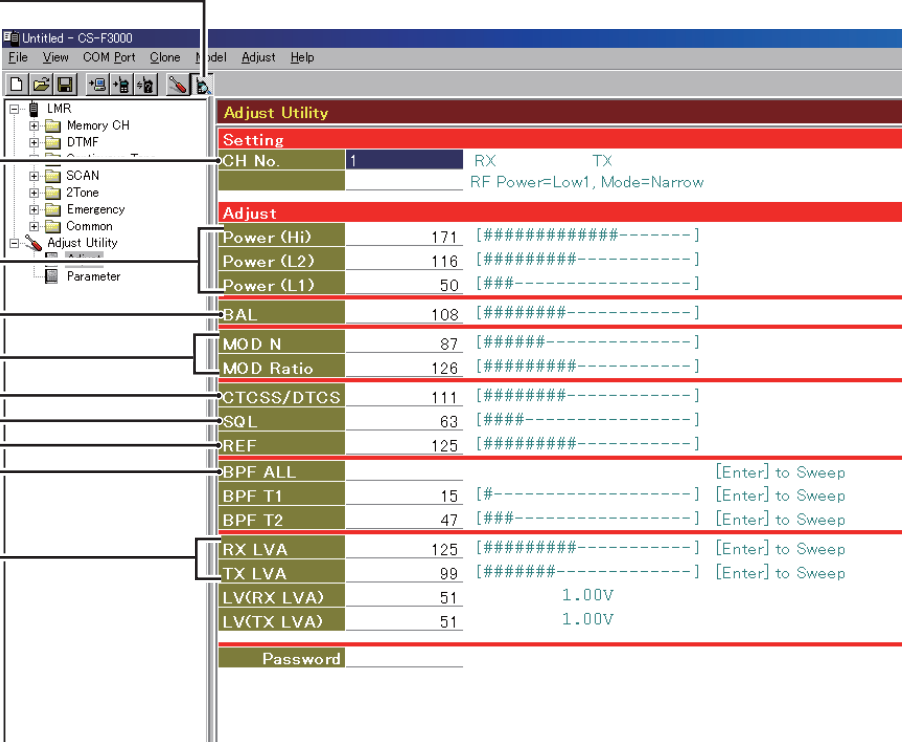
CTCSS\DTCS

SQUELCH

REF. FREQUENCY

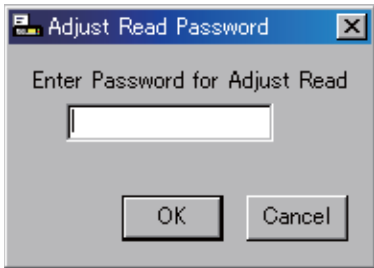
RX SENSITIVITY

LOCK VOLTAGE (Adjustment)



| Adjust Utility             |     |                               |    |
|----------------------------|-----|-------------------------------|----|
| Setting                    |     |                               |    |
| CH No.                     | 1   | RX                            | TX |
| RF Power=Low1, Mode=Narrow |     |                               |    |
| Adjust                     |     |                               |    |
| Power (Hi)                 | 171 | [#####-----]                  |    |
| Power (L2)                 | 116 | [#####-----]                  |    |
| Power (L1)                 | 50  | [###-----]                    |    |
| BAL                        | 108 | [#####-----]                  |    |
| MOD N                      | 87  | [#####-----]                  |    |
| MOD Ratio                  | 126 | [#####-----]                  |    |
| CTCSS/DTCS                 | 111 | [#####-----]                  |    |
| SQ L                       | 63  | [#####-----]                  |    |
| REF                        | 125 | [#####-----]                  |    |
| BPF ALL                    |     | [Enter] to Sweep              |    |
| BPF T1                     | 15  | [#-----] [Enter] to Sweep     |    |
| BPF T2                     | 47  | [###-----] [Enter] to Sweep   |    |
| RX LVA                     | 125 | [#####-----] [Enter] to Sweep |    |
| TX LVA                     | 99  | [#####-----] [Enter] to Sweep |    |
| LV(RX LVA)                 | 51  | 1.00V                         |    |
| LV(TX LVA)                 | 51  | 1.00V                         |    |
| Password                   |     |                               |    |

If the window below appears, the utility is password-protected. Enter the password to open the "Adjust Utility" window.

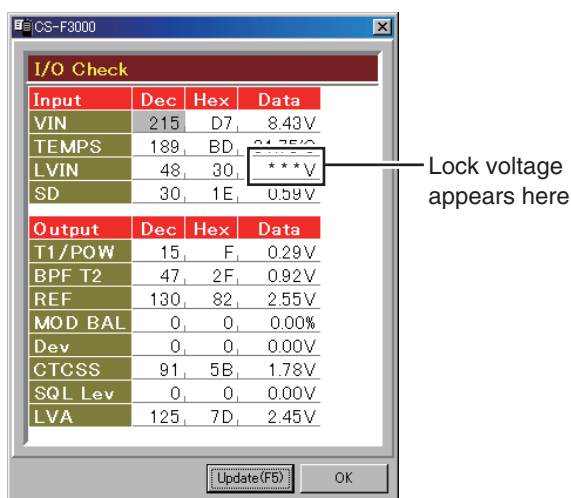


## 5-2 FREQUENCY ADJUSTMENTS

- 1) Select an adjustment item using [↑]/[↓] on the PC's keyboard.
- 2) Set or modify the adjustment value as specified using [←]/[→] on the PC's keyboard, then push [ENTER].

| ADJUSTMENT          | TRANSCEIVER'S CONDITION       | OPERATION                                                                                 | ADJUSTMENT ITEM                       | VALUE                     |
|---------------------|-------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------|---------------------------|
| PLL LOCK VOLTAGE    | 1 • CH. : 1<br>• Receiving    | • Connect an RF power meter to the antenna connector.                                     | [RX LVA]                              | 3.51 V                    |
|                     | 2 • CH. : 1<br>• Transmitting |                                                                                           | [TX LVA]                              |                           |
|                     | 3 • CH. : 2<br>• Receiving    | • Click the [Reload (F5)] button to check on the "I/O Check window" as illustrated below. | [LVIN]<br>(On the "I/O Check window") | 0.9–1.5 V<br>(Verify)     |
|                     | 4 • CH. : 2<br>• Transmitting |                                                                                           |                                       |                           |
| REFERENCE FREQUENCY | 1 • CH. : 3<br>• Transmitting | • Loosely couple a frequency counter to the antenna connector.                            | [REF]                                 | 174.0000 MHz<br>(±250 Hz) |

### • I/O Check window

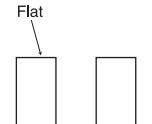


(The values shown above are example only.  
Each transceiver has own values.)

### 5-3 TRANSMIT ADJUSTMENTS

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

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

| ADJUSTMENT                                | TRANSCEIVER'S<br>CONDITION                                        | OPERATION                                                                                                                                                                                                                                                                                 | ADJUSTMENT<br>ITEM  | VALUE                                                                                                  |
|-------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------|
| <b>TX OUTPUT<br/>POWER<br/>(Hi power)</b> | 1 • CH. : 4<br>• Transmitting                                     | • Connect an RF power meter to the antenna connector.                                                                                                                                                                                                                                     | <b>[Power (Hi)]</b> | 5.0 W                                                                                                  |
| <b>(L2 power)</b>                         | 2 • CH. : 5<br>• Transmitting                                     |                                                                                                                                                                                                                                                                                           | <b>[Power (L2)]</b> | 2.0 W                                                                                                  |
| <b>(L1 power)</b>                         | 3 • CH. : 6<br>• Transmitting                                     |                                                                                                                                                                                                                                                                                           | <b>[Power (L1)]</b> | 1.0 W                                                                                                  |
| <b>MODULATION<br/>BALANCE</b>             | 1 • CH. : 7<br>• No audio signals are applied.<br>• Transmitting  | 1) Connect a modulation analyzer with an oscilloscope to the antenna connector through an attenuator.<br>2) Set the modulation analyzer as;<br>HPF : OFF<br>LPF : 20 kHz<br>De-emphasis : OFF<br>Detector : (P-P)/2                                                                       | <b>[BAL]</b>        | Square waveform<br> |
| <b>FM DEVIATION<br/>(Narrow mode)</b>     | 1 • CH. : 8<br>• Transmitting                                     | 1) Connect a modulation analyzer to the antenna connector through an attenuator.<br>2) Set the modulation analyzer as;<br>HPF : OFF<br>LPF : 20 kHz<br>De-emphasis : OFF<br>Detector : (P-P)/2<br>3) Connect an audio generator to the MIC line through the JIG cable. (See the page 5-1) | <b>[MOD N]</b>      | ±2.05 to ±2.15 kHz                                                                                     |
| <b>(Middle mode)*</b>                     | 2 • CH. : 9<br>• Transmitting                                     |                                                                                                                                                                                                                                                                                           | <b>[MOD Ratio]</b>  | ±3.25 to ±3.35 kHz                                                                                     |
| <b>(Wide mode)</b>                        | 3 • CH. : 9<br>• Transmitting                                     |                                                                                                                                                                                                                                                                                           | <b>[MOD Ratio]</b>  | ±4.05 to ±4.15 kHz                                                                                     |
| <b>CTCSS/DTCS<br/>DEVIATION</b>           | 1 • CH. : 10<br>• No audio signals are applied.<br>• Transmitting | 1) Connect a modulation analyzer to the antenna connector through an attenuator.<br>2) Set the modulation analyzer as;<br>HPF : OFF<br>LPF : 20 kHz<br>De-emphasis : OFF<br>Detector : (P-P)/2                                                                                            | <b>[CTCSS/DTCS]</b> | ±0.65 to ±0.75 kHz                                                                                     |

\*; [EUR] versions only

## 5-4 RECEIVE ADJUSTMENTS

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

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

| ADJUSTMENT     |   | TRANSCIVER'S<br>CONDITION                                                         | OPERATION                                                                                                                                                                                                                                                                                                     | ADJUSTMENT<br>ITEM | VALUE                  |
|----------------|---|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------|
| RX SENSITIVITY | 1 | <ul style="list-style-type: none"> <li>• CH. : 11</li> <li>• Receiving</li> </ul> | 1) Connect an SSG to the antenna connector and set it as;<br>Frequency : 136.000 MHz<br>Level* : 20 dBμ (−87 dBm)<br>Modulation : 1 kHz<br>Deviation : ±3.0 kHz<br>2) Put the cursor on the adjustment item, then push [ENTER].                                                                               | [BPF ALL]          | (Automatic adjustment) |
| SQUELCH        | 1 | <ul style="list-style-type: none"> <li>• CH. : 11</li> <li>• Receiving</li> </ul> | 1) Connect an SSG to the antenna connector and set it as;<br>Frequency : 136.000 MHz<br>Level* : −13 dBμ (−120 dBm)<br>Modulation : 1 kHz<br>Deviation : ±3.0 kHz<br>2) Once close the squelch by increasing [SQL] value, then decrease the value to open the squelch.<br>3) 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

## [MAIN UNIT]

| REF NO. | PARTS NO.  | DESCRIPTION                  | M. | H/V LOCATION |
|---------|------------|------------------------------|----|--------------|
| IC1     | 1110002751 | S.IC TA75S01F(TE85R,F)       | T  | 32.5/8.8     |
| IC2     | 1140005991 | S.IC MB15A02PFV1-G-BND-ERE1  | T  | 42.9/24.7    |
| IC3     | 1110007320 | S.IC NJM2591V-TE1-#ZZZB      | B  | 45.8/38.9    |
| IC51    | 1140015230 | S.IC R4F20102NFA (EMPTY)     | B  | 77.7/38      |
| IC52    | 1130015240 | S.IC R1EX24016ATA00A         | B  | 85/25.2      |
| IC53    | 1110007620 | S.IC NJU7704F3-42A-TE1-#ZZZB | B  | 87.6/44.6    |
| IC54    | 1180003600 | S.REG NJM2871BF05-TE1-#ZZZB  | T  | 15.6/34.8    |
| IC55    | 1110007610 | S.IC TPA0211DGNR             | B  | 13.3/42.1    |
| IC56    | 1130011770 | S.IC CD4066BPWR              | T  | 80.1/18.8    |
| IC57    | 1110007550 | S.IC R2A20178NP              | B  | 72.5/24.5    |
| IC58    | 1110005340 | S.IC NJM12902V-TE1-#ZZZB     | T  | 80.1/12      |
| IC59    | 1110006350 | S.IC LM2902PWR               | T  | 80.1/25.9    |
| IC60    | 1110005340 | S.IC NJM12902V-TE1-#ZZZB     | B  | 65.1/7.5     |
| IC61    | 1140013200 | S.IC CD4053BPWR              | T  | 80.1/38.3    |
| IC62    | 1130011770 | S.IC CD4066BPWR              | T  | 66.7/8.1     |
|         |            |                              |    |              |
| Q1      | 1560001700 | S.FET RD07MUS2B-T112         | B  | 28.6/13.5    |
| Q2      | 1560001241 | S.FET RD01MUS1-T113          | B  | 36.3/14.4    |
| Q3      | 1530003311 | S.TRA 2SC5107-O(TE85R,F)     | B  | 42.2/13.1    |
| Q6      | 1590004050 | S.TRA LDTA144EET1G <SLVJ>    | T  | 33.3/5.9     |
| Q8      | 1530003311 | S.TRA 2SC5107-O(TE85R,F)     | T  | 54.8/18.5    |
| Q9      | 1530003311 | S.TRA 2SC5107-O(TE85R,F)     | B  | 55.9/18.5    |
| Q10     | 1530003311 | S.TRA 2SC5107-O(TE85R,F)     | T  | 60.7/18.5    |
| Q11     | 1590004070 | S.TRA LDTA144EET1G <SLVJ>    | B  | 54.9/23.8    |
| Q12     | 1590004070 | S.TRA LDTA144EET1G <SLVJ>    | B  | 62.5/24.4    |
| Q13     | 1530002920 | S.TRA 2SC4226-T1 R25         | T  | 57.5/23.6    |
| Q14     | 1530002920 | S.TRA 2SC4226-T1 R25         | T  | 60/23.6      |
| Q15     | 1530002851 | S.TRA 2SC4116-BL(TE85R,F)    | B  | 64.1/18.7    |
| Q17     | 1560000541 | S.FET 2SK880-Y(T5RICOM,F)    | B  | 52.6/29.7    |
| Q19     | 1590004070 | S.TRA LDTA144EET1G <SLVJ>    | B  | 63.5/33.5    |
| Q21     | 1560000841 | S.FET 2SK1829(TE85R,F)       | B  | 28.4/30.5    |
| Q22     | 1580000731 | S.FET 3SK293(TE85L,F)        | B  | 25/27.8      |
| Q23     | 1580000731 | S.FET 3SK293(TE85L,F)        | B  | 36.4/27.3    |
| Q24     | 1530003311 | S.TRA 2SC5107-O(TE85R,F)     | B  | 38.3/42.6    |
| Q25     | 1590004070 | S.TRA LDTA144EET1G <SLVJ>    | T  | 49.3/35.1    |
| Q26     | 1530002851 | S.TRA 2SC4116-BL(TE85R,F)    | T  | 39.6/30.1    |
| Q27     | 1590004050 | S.TRA LDTA144EET1G <SLVJ>    | B  | 56/36.4      |
| Q51     | 1590001650 | S.TRA XP4601(TX)             | T  | 65.5/42      |
| Q52     | 1590004070 | S.TRA LDTA144EET1G <SLVJ>    | T  | 75.4/31.4    |
| Q58     | 1590003431 | S.TRA UNR911HG0L             | B  | 54.9/7.1     |
| Q59     | 1590004070 | S.TRA LDTA144EET1G <SLVJ>    | B  | 49.1/7.3     |
| Q63     | 1520000460 | S.TRA 2SB1132 T100 R         | B  | 15.1/35.5    |
| Q64     | 1590001190 | S.TRA XP6501-(TX)AB          | B  | 19.3/36      |
| Q71     | 1510001090 | S.TRA KTA2015Y-RTK/P         | B  | 65.1/36.6    |
| Q72     | 1510000771 | S.TRA 2SA1586-GR(TE85L,F)    | B  | 65.6/31.1    |
| Q73     | 1510001090 | S.TRA KTA2015Y-RTK/P         | B  | 78.6/23.8    |
| Q74     | 1520000460 | S.TRA 2SB1132 T100 R         | B  | 5.3/34.4     |
| Q75     | 1590001190 | S.TRA XP6501-(TX)AB          | T  | 4.5/35.2     |
| Q76     | 1590004070 | S.TRA LDTA144EET1G <SLVJ>    | T  | 6.8/35.2     |
| Q81     | 1590003271 | S.TRA UNR9210G0L             | B  | 70.5/45.8    |
| Q82     | 1590004050 | S.TRA LDTA144EET1G <SLVJ>    | T  | 71.6/39.5    |
| Q83     | 1590004050 | S.TRA LDTA144EET1G <SLVJ>    | T  | 71.6/41.6    |
| Q84     | 1590004070 | S.TRA LDTA144EET1G <SLVJ>    | B  | 19.2/43.8    |
| Q85     | 1590004070 | S.TRA LDTA144EET1G <SLVJ>    | T  | 21.1/31.8    |
|         |            |                              |    |              |
| D1      | 1750001910 | S.DIO HVD144AKRF-E           | B  | 16.2/16.3    |
| D3      | 1790001790 | S.DIO RB876W TL              | B  | 19.4/9.1     |
| D5      | 1750001890 | S.DIO HVD142AKRF-E           | B  | 49.6/15.2    |
| D6      | 1750001890 | S.DIO HVD142AKRF-E           | B  | 49.6/16.6    |
| D11     | 1750001880 | S.VAR HVL375CKRF-E           | T  | 57.4/29.2    |
| D12     | 1750001550 | S.VAR HVD376BKRF-E           | T  | 54.1/25.6    |
| D13     | 1750001550 | S.VAR HVD376BKRF-E           | T  | 55.1/25.6    |
| D14     | 1750001880 | S.VAR HVL375CKRF-E           | T  | 59.3/27.2    |
| D15     | 1750001570 | S.VAR HVL355CMKRF-E          | T  | 59.3/29.2    |
| D16     | 1750001550 | S.VAR HVD376BKRF-E           | T  | 63.8/25.1    |
| D17     | 1750001550 | S.VAR HVD376BKRF-E           | T  | 62.8/23.2    |
| D18     | 1750001810 | S.DIO L1SS400T1G <SLVJ>      | T  | 46.3/32.6    |
| D21     | 1750001810 | S.DIO L1SS400T1G <SLVJ>      | B  | 30.9/33.2    |
| D22     | 1750001910 | S.DIO HVD144AKRF-E           | B  | 16.2/20.5    |
| D23     | 1750001910 | S.DIO HVD144AKRF-E           | B  | 14.1/23.3    |
| D24     | 1750001880 | S.VAR HVL375CKRF-E           | B  | 17.4/27.7    |
| D26     | 1750001880 | S.VAR HVL375CKRF-E           | B  | 18.4/27.7    |
| D28     | 1750001780 | S.VAR HVB350BYPTL-E          | B  | 31/27.8      |
| D31     | 1750001790 | S.DIO 1SS390 TE61            | B  | 54.1/39.8    |
| D32     | 1750001790 | S.DIO 1SS390 TE61            | B  | 51.7/36.8    |
| D33     | 1750001790 | S.DIO 1SS390 TE61            | B  | 56.7/39.8    |
| D34     | 1750001790 | S.DIO 1SS390 TE61            | B  | 58.1/38.5    |
| D35     | 1790001241 | S.DIO MA2S7280GL [USA-11]    | T  | 37.5/6.3     |
|         | 1790001241 | S.DIO MA2S7280GL [USA-12]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [USA-13]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [EXP-11]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [EXP-12]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [EXP-13]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [EXP-21]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [EXP-22]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [EXP-23]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [EXP-01]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [EXP-03]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [EXP-31]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [CHN-31]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [AUS-21]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [AUS-22]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [AUS-23]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [RUS-21]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [RUS-22]    |    |              |
|         | 1790001241 | S.DIO MA2S7280GL [RUS-23]    |    |              |

## [MAIN UNIT]

| REF NO. | PARTS NO.  | DESCRIPTION                           | M. | H/V LOCATION |
|---------|------------|---------------------------------------|----|--------------|
| D51     | 1750001820 | S.DIO LRB706F-40T1G <SLVJ>            | B  | 67.9/45.8    |
| D52     | 1750001790 | S.DIO 1SS390 TE61                     | B  | 87/33.7      |
| D53     | 1750001810 | S.DIO L1SS400T1G <SLVJ>               | B  | 69.1/3.1     |
| D55     | 1750001810 | S.DIO L1SS400T1G <SLVJ>               | B  | 21.9/33.8    |
|         |            |                                       |    |              |
| F11     | 2030000870 | S.MON MFT46.3P3 46.350 MHz (FL-442)   | B  | 36.2/34.6    |
| F12     | 2020002410 | CER LTM450FW <JJE>                    |    |              |
| F13     | 2020002570 | CER LTM450HW <JJE>                    |    |              |
|         |            |                                       |    |              |
| X1      | 6070000310 | S.DIS JTBM450CX70 <JJE>               | T  | 47.6/40.9    |
| X2      | 6050012050 | S.XTA CR-794 TTS14VSB-A6 15.3 MHz     | T  | 41.9/15      |
| X51     | 6050012730 | S.XTA CR-864(SMD-49/12.288 MHz) <JJE> | T  | 86.9/38.5    |
|         |            |                                       |    |              |
| L1      | 6200012780 | S.COI 0.30-1.4-6TL 27.2N <COMO>       | B  | 9.4/7.9      |
| L2      | 6200012470 | S.COI 0.30-1.7-TTL 45.3N <COMO>       | B  | 9.6/11.7     |
| L3      | 6200012910 | S.COI 0.35-1.6-8TL 45.5N <COMO>       | B  | 11.2/15.6    |
| L4      | 6200002861 | S.COI NLV25T-4R7J                     | B  | 18.4/17.8    |
| L5      | 6200012470 | S.COI 0.30-1.7-TTL 45.3N <COMO>       | B  | 18.4/14.1    |
| L6      | 6200012390 | S.COI 0.30-0.92-3TR 5.8N <COMO>       | B  | 22/14.1      |
| L7      | 6200013010 | S.COI 0.30-0.9-5TL 10.3N <COMO>       | B  | 24.3/15.3    |
| L8      | 6200013100 | S.COI 0.45-1.5-5TL 18.3N <COMO>       | B  | 25.2/19      |
| L9      | 6200007871 | S.COI ELJRF 39NJFB                    | B  | 42.2/11.3    |
| L11     | 6200012470 | S.COI 0.30-1.7-TTL 45.3N <COMO>       | B  | 14.1/19.6    |
| L12     | 6200011021 | S.COI ELJRF 82NJFB                    | B  | 12.4/23.1    |
| L13     | 6200008090 | S.COI LQW2BHN68NJ03L                  | B  | 14.9/26.8    |
| L14     | 6200008090 | S.COI LQW2BHN68NJ03L                  | B  | 20.9/26.8    |
| L15     | 6200010910 | S.COI LQW18AN56NG00D                  | B  | 27.1/27.8    |
| L16     | 6200010910 | S.COI LQW18AN56NG00D                  | B  | 33.3/27.8    |
| L18     | 6200007901 | S.COI ELJRF 22NJFB                    | B  | 32.8/13.4    |
| L19     | 6200011011 | S.COI ELJRF 68NJFB                    | B  | 34.4/25.1    |
| L20     | 6200004770 | S.COI ELJNC R56J-F                    | B  | 39.4/27.7    |
| L23     | 6200012170 | S.COI MLG1608SR18J-T                  | T  | 39.4/34.6    |
| L24     | 6200012170 | S.COI MLG1608SR18J-T                  | T  | 41.5/31.8    |
| L31     | 6200011031 | S.COI ELJRF R10JFB                    | B  | 56.6/17.7    |
| L32     | 6200011031 | S.COI ELJRF R10JFB                    | B  | 56.5/20.4    |
| L33     | 6200011031 | S.COI ELJRF R10JFB                    | B  | 62.5/17.7    |
| L34     | 6200007170 | S.COI MLF1608A 3R3K-T                 | B  | 57.4/29.2    |
| L35     | 6200008090 | S.COI LQW2BHN68NJ03L                  | T  | 55.7/27.7    |
| L36     | 6200003640 | S.COI MLF1608E 100K-T                 | T  | 53/25.6      |
| L37     | 6200007720 | S.COI LQW2BHN33NJ03L                  | T  | 53.8/22.6    |
| L38     | 6200007170 | S.COI MLF1608A 3R3K-T                 | B  | 50.6/25.7    |
| L39     | 6200007170 | S.COI MLF1608A 3R3K-T                 | B  | 59.1/28.5    |
| L40     | 6200007760 | S.COI LQW2BHN82NJ03L                  | T  | 62.9/27.9    |
| L41     | 6200003640 | S.COI MLF1608E 100K-T                 | T  | 64.6/27.5    |
| L42     | 6200008090 | S.COI LQW2BHN68NJ03L                  | T  | 64.3/20.6    |
| L43     | 6200007170 | S.COI MLF1608A 3R3K-T                 | B  | 60/22.7      |
| L46     | 6200007881 | S.COI ELJRF 33NJFB                    | B  | 48.2/19.3    |
|         |            |                                       |    |              |
| R1      | 7030005070 | S.RES ERJ2GEJ 683 X (68K)             | B  | 9.1/5.7      |
| R2      | 7030008280 | S.RES ERJ2GEJ 271 X (270)             | B  | 20.6/19.2    |
| R6      | 7030005290 | S.RES ERJ2GEJ 682 X (6.8K)            | B  | 19.4/10.8    |
| R7      | 7030005120 | S.RES ERJ2GEJ 102 X (1K)              | B  | 17.9/7.9     |
| R8      | 7030005060 | S.RES ERJ2GEJ 333 X (33K)             | T  | 30.8/5.9     |
| R9      | 7030005050 | S.RES ERJ2GEJ 103 X (10K)             | T  | 31.7/5.9     |
| R10     | 7030005070 | S.RES ERJ2GEJ 683 X (68K)             | T  | 32.6/11.3    |
| R11     | 7030005310 | S.RES ERJ2GEJ 124 X (120K)            | T  | 31.7/11.3    |
| R12     | 7030005110 | S.RES ERJ2GEJ 224 X (220K)            | T  | 35.7/5.9     |
| R13     | 7030005530 | S.RES ERJ2GEJ 100 X (10)              | T  | 35.7/9.6     |
| R14     | 7030004980 | S.RES ERJ2GEJ 101 X (100)             | T  | 34.8/7.6     |
| R15     | 7030005030 | S.RES ERJ2GEJ 152 X (1.5K)            | T  | 35.7/7.6     |
| R16     | 7030005050 | S.RES ERJ2GEJ 103 X (10K)             | T  | 29.4/7.1     |
| R17     | 7510001730 | S.THE ERTJOEP 473J                    | T  | 29.4/8.9     |
| R18     | 7030004980 | S.RES ERJ2GEJ 101 X (100)             | T  | 29.4/8       |
| R21     | 7030007250 | S.RES ERJ2GEJ 220 X (22)              | B  | 32.3/10.9    |
| R22     | 7030005090 | S.RES ERJ2GEJ 104 X (100K)            | B  | 33.2/9.2     |
| R23     | 7030005040 | S.RES ERJ2GEJ 472 X (4.7K)            | B  | 34.1/9.2     |
| R24     | 7030005590 | S.RES ERJ2GEJ 680 X (68)              | B  | 38.4/10.9    |
| R25     | 7030005060 | S.RES ERJ2GEJ 333 X (33K)             | B  | 39.3/9.2     |
| R26     | 7030005040 | S.RES ERJ2GEJ 472 X (4.7K)            | B  | 38.4/9.2     |
| R31     | 7030005530 | S.RES ERJ2GEJ 100 X (10)              | B  | 42.2/14.9    |
| R32     | 7030005120 | S.RES ERJ2GEJ 102 X (1K)              | B  | 44/14.9      |
| R33     | 7030004980 | S.RES ERJ2GEJ 101 X (100)             | B  | 44.6/13.1    |
| R35     | 7030007290 | S.RES ERJ2GEJ 222 X (2.2K)            | B  | 46.4/14      |
| R36     | 7030005050 | S.RES ERJ2GEJ 103 X (10K)             | B  | 49.6/13.1    |
| R37     | 7030004980 | S.RES ERJ2GEJ 101 X (100)             | B  | 49.6/14      |
| R38     | 7030005120 | S.RES ERJ2GEJ 102 X (1K)              | B  | 51.8/15.2    |
| R41     | 7030005530 | S.RES ERJ2GEJ 100 X (10)              | T  | 53/17.7      |
| R42     | 7030005240 | S.RES ERJ2GEJ 473 X (47K)             | T  | 56.6/19.4    |
| R44     | 7030005530 | S.RES ERJ2GEJ 100 X (10)              | B  | 56.5/21.3    |
| R45     | 7030005240 | S.RES ERJ2GEJ 473 X (47K)             | B  | 57.7/18.6    |
| R47     | 7030004980 | S.RES ERJ2GEJ 101 X (100)             | T  | 63.4/17.7    |
| R48     | 7030005310 | S.RES ERJ2GEJ 124 X (120K)            | T  | 62.5/19.3    |
| R51     | 7030008370 | S.RES ERJ2GEJ 561 X (560)             | B  | 56.5/22.9    |
| R52     | 7030008370 | S.RES ERJ2GEJ 561 X (560)             | B  | 60.5/24.4    |
| R53     | 7030008340 | S.RES RR0510P-182-D (1.8K)            | T  | 55.7/23.7    |
| R54     | 7030011000 | S.RES RR0510P-392-D (3.9K)            | T  | 57.9/25.9    |
| R55     | 7030008340 | S.RES RR0510P-182-D (1.8K)            | T  | 61.8/23.7    |
| R56     | 7030011000 | S.RES RR0510P-392-D (3.9K)            | T  | 58.9/25.9    |
| R57     | 7030009320 | S.RES ERJ2GEJ 4R7 X (4.7)             | T  | 60.7/25.9    |
| R61     | 7030005040 | S.RES ERJ2GEJ 472 X (4.7K)            | B  | 60.6/28.9    |
| R62     | 7030005220 | S.RES ERJ2GEJ 223 X (22K)             | B  | 64.4/27.7    |
| R65     | 7030005720 | S.RES ERJ2GEJ 563 X (56K)             | B  | 64.4/26.1    |
| R66     | 7030008300 | S.RES ERJ2GEJ 184 X (180K)            | B  | 65.4/26.1    |

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 |
|---------|------------|------------------------------------|----|--------------|
| R67     | 7030007290 | S.RES ERJ2GEJ 222 X (2.2K)         | B  | 62.3/18      |
| R68     | 7030005170 | S.RES ERJ2GEJ 474 X (470K)         | B  | 61.5/30.7    |
| R69     | 7030005060 | S.RES ERJ2GEJ 333 X (33K)          | B  | 61.5/31.6    |
| R70     | 7030005090 | S.RES ERJ2GEJ 104 X (100K)         | B  | 63.7/30.8    |
| R71     | 7030005050 | S.RES ERJ2GEJ 103 X (10K)          | B  | 50.3/29.5    |
| R72     | 7030005120 | S.RES ERJ2GEJ 102 X (1K)           | B  | 50.3/27.9    |
| R73     | 7030005050 | S.RES ERJ2GEJ 103 X (10K)          | B  | 54.7/28.9    |
| R76     | 7030005120 | S.RES ERJ2GEJ 102 X (1K)           | T  | 48.3/26.3    |
| R77     | 7030007570 | S.RES ERJ2GEJ 122 X (1.2K)         | T  | 46.7/25.4    |
| R78     | 7030004990 | S.RES ERJ2GEJ 221 X (220)          | T  | 46.7/24.2    |
| R80     | 7410001130 | S.ARR EXB28V102JX                  | T  | 44.4/29.9    |
| R81     | 7030005100 | S.RES ERJ2RHD 104 X (150K)         | B  | 62/35.3      |
| R82     | 7030005050 | S.RES ERJ2GEJ 103 X (10K)          | T  | 40.1/19.4    |
| R83     | 7030004970 | S.RES ERJ2GEJ 470 X (47)           | T  | 46.1/19.8    |
| R87     | 7030005090 | S.RES ERJ2GEJ 104 X (100K)         | B  | 61.5/29.8    |
| R88     | 7510001730 | S.THE ERTJOEP 473J                 | T  | 58.2/9.6     |
| R89     | 7030010080 | S.RES ERJ2RHD 104 X (100K)         | T  | 57.3/12.3    |
| R101    | 7030005230 | S.RES ERJ2GEJ 334 X (330K)         | B  | 28.7/32.3    |
| R102    | 7030005170 | S.RES ERJ2GEJ 474 X (470K)         | B  | 28.7/33.2    |
| R103    | 7030009290 | S.RES ERJ2GEJ 562 X (5.6K)         | B  | 31/30.7      |
| R104    | 7030005040 | S.RES ERJ2GEJ 472 X (4.7K)         | B  | 17.4/25.8    |
| R105    | 7030005040 | S.RES ERJ2GEJ 472 X (4.7K)         | B  | 18.4/25.8    |
| R106    | 7030005310 | S.RES ERJ2GEJ 124 X (120K)         | B  | 22.8/26.9    |
| R107    | 7030008290 | S.RES ERJ2GEJ 183 X (18K)          | B  | 22.6/30.3    |
| R108    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)         | B  | 22.8/28.7    |
| R109    | 7030005530 | S.RES ERJ2GEJ 100 X (10)           | B  | 23.5/30      |
| R110    | 7030008280 | S.RES ERJ2GEJ 271 X (270)          | B  | 23.5/25.6    |
| R111    | 7030005110 | S.RES ERJ2GEJ 224 X (220K)         | B  | 24.4/30      |
| R112    | 7030004970 | S.RES ERJ2GEJ 470 X (47)           | B  | 27.1/25.6    |
| R113    | 7030008370 | S.RES ERJ2GEJ 561 X (560) [USA-11] | B  | 29.2/27.5    |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [USA-12] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [USA-13] |    |              |
|         | 7030007280 | S.RES ERJ2GEJ 331 X (330) [EUR-21] |    |              |
|         | 7030007280 | S.RES ERJ2GEJ 331 X (330) [EUR-22] |    |              |
|         | 7030007280 | S.RES ERJ2GEJ 331 X (330) [EUR-23] |    |              |
|         | 7030007280 | S.RES ERJ2GEJ 331 X (330) [UK-01]  |    |              |
|         | 7030007280 | S.RES ERJ2GEJ 331 X (330) [UK-02]  |    |              |
|         | 7030007280 | S.RES ERJ2GEJ 331 X (330) [UK-03]  |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [EXP-11] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [EXP-12] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [EXP-13] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [EXP-21] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [EXP-22] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [EXP-23] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [EXP-01] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [EXP-03] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [EXP-31] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [CHN-31] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [AUS-21] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [AUS-22] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [AUS-23] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [RUS-21] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [RUS-22] |    |              |
|         | 7030008370 | S.RES ERJ2GEJ 561 X (560) [RUS-23] |    |              |
| R114    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)         | B  | 30.1/25.6    |
| R115    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)         | B  | 31/25.6      |
| R116    | 7030005080 | S.RES ERJ2GEJ 823 X (82K)          | B  | 35.4/29.3    |
| R117    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)         | B  | 33.4/25.1    |
| R118    | 7030005100 | S.RES ERJ2GEJ 154 X (150K)         | B  | 36.4/25.1    |
| R119    | 7030005310 | S.RES ERJ2GEJ 124 X (120K)         | B  | 36.4/29.3    |
| R120    | 7030005590 | S.RES ERJ2GEJ 680 X (68)           | B  | 39.4/25.1    |
| R121    | 7030007300 | S.RES ERJ2GEJ 332 X (3.3K)         | B  | 41.2/27.7    |
| R122    | 7030004970 | S.RES ERJ2GEJ 470 X (47)           | B  | 42.4/25.1    |
| R123    | 7030005530 | S.RES ERJ2GEJ 100 X (10)           | B  | 39.4/29.8    |
| R125    | 7030008370 | S.RES ERJ2GEJ 561 X (560)          | B  | 35.6/40.8    |
| R126    | 7030004980 | S.RES ERJ2GEJ 101 X (100)          | B  | 39/40.8      |
| R127    | 7030005110 | S.RES ERJ2GEJ 224 X (220K)         | B  | 37.3/40.8    |
| R128    | 7030005010 | S.RES ERJ2GEJ 681 X (680)          | B  | 39.1/44.4    |
| R129    | 7030005000 | S.RES ERJ2GEJ 471 X (470)          | B  | 37.4/23.5    |
| R130    | 7030005530 | S.RES ERJ2GEJ 100 X (10)           | B  | 36.4/23.5    |
| R131    | 7030005000 | S.RES ERJ2GEJ 471 X (470)          | B  | 35.4/23.5    |
| R132    | 7030005050 | S.RES ERJ2GEJ 103 X (10K)          | B  | 47.4/17.6    |
| R134    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)         | B  | 40.4/40.3    |
| R135    | 7030007290 | S.RES ERJ2GEJ 222 X (2.2K)         | T  | 43/36.7      |
| R136    | 7030007290 | S.RES ERJ2GEJ 222 X (2.2K)         | T  | 43/37.6      |
| R137    | 7030008410 | S.RES ERJ2GEJ 392 X (3.9K)         | T  | 45.7/36.4    |
| R138    | 7030005000 | S.RES ERJ2GEJ 471 X (470)          | B  | 43/35.5      |
| R139    | 7030005310 | S.RES ERJ2GEJ 124 X (120K)         | B  | 48.3/35.5    |
| R140    | 7030008410 | S.RES ERJ2GEJ 392 X (3.9K)         | B  | 46.5/34.6    |
| R141    | 7030005220 | S.RES ERJ2GEJ 223 X (22K)          | B  | 46.5/33.7    |
| R142    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)         | B  | 46.5/31.9    |
| R146    | 7030004970 | S.RES ERJ2GEJ 470 X (47)           | B  | 45.6/44      |
| R147    | 7030005030 | S.RES ERJ2GEJ 152 X (1.5K)         | B  | 47.1/42.2    |
| R148    | 7030005120 | S.RES ERJ2GEJ 102 X (1K)           | T  | 37.8/31.4    |
| R149    | 7030007060 | S.RES ERJ2GEJ 684X (680K)          | T  | 37.8/29.6    |
| R151    | 7030005600 | S.RES ERJ2GEJ 273 X (27K)          | B  | 51.7/39      |
| R152    | 7030005210 | S.RES ERJ2GEJ 822 X (8.2K)         | B  | 53.9/35.1    |
| R153    | 7030007300 | S.RES ERJ2GEJ 322 X (3.3K)         | B  | 55.5/38.5    |
| R154    | 7030005210 | S.RES ERJ2GEJ 822 X (8.2K)         | B  | 57.5/36.9    |
| R155    | 7030005600 | S.RES ERJ2GEJ 273 X (27K)          | B  | 58.8/39.8    |
| R156    | 7030005120 | S.RES ERJ2GEJ 102 X (1K)           | B  | 19.4/24.1    |
| R157    | 7030005120 | S.RES ERJ2GEJ 102 X (1K)           | B  | 31/23.9      |
| R158    | 7030005120 | S.RES ERJ2GEJ 102 X (1K)           | B  | 59.4/35.7    |
| R301    | 7030007340 | S.RES ERJ2GEJ 153 X (15K)          | B  | 68.4/12.4    |
| R302    | 7030008010 | S.RES ERJ2GEJ 123 X (12K)          | B  | 66.6/12.4    |
| R303    | 7030005720 | S.RES ERJ2GEJ 563 X (56K)          | B  | 67.5/12.4    |
| R304    | 7030005030 | S.RES ERJ2GEJ 152 X (1.5K)         | B  | 69.3/10.7    |
| R310    | 7030005220 | S.RES ERJ2GEJ 223 X (22K)          | T  | 66.2/36.7    |
| R311    | 7030005220 | S.RES ERJ2GEJ 223 X (22K)          | T  | 64.6/37.9    |
| R312    | 7030005220 | S.RES ERJ2GEJ 223 X (22K)          | T  | 64.6/39.6    |
| R313    | 7030007300 | S.RES ERJ2GEJ 332 X (3.3K)         | T  | 62.6/39.6    |
| R314    | 7030006610 | S.RES ERJ2GEJ 394 X (390K)         | T  | 63.7/41.2    |
| R315    | 7030005080 | S.RES ERJ2GEJ 823 X (82K)          | T  | 63.7/42.8    |
| R316    | 7030005000 | S.RES ERJ2GEJ 471 X (470)          | T  | 67.3/42.8    |
| R317    | 7030005290 | S.RES ERJ2GEJ 682 X (6.8K)         | T  | 66.4/39.6    |

[MAIN UNIT]

| REF NO. | PARTS NO.  | DESCRIPTION |                         | M. | H/V LOCATION |
|---------|------------|-------------|-------------------------|----|--------------|
| R318    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | T  | 67.3/39.6    |
| R321    | 7030007340 | S.RES       | ERJ2GEJ 153 X (15K)     | T  | 73.7/27.7    |
| R322    | 7030008300 | S.RES       | ERJ2GEJ 184 X (180K)    | B  | 69.1/33      |
| R323    | 7030005720 | S.RES       | ERJ2GEJ 563 X (56K)     | B  | 70/33        |
| R324    | 7030005220 | S.RES       | ERJ2GEJ 223 X (22K)     | B  | 70.9/33      |
| R325    | 7030005290 | S.RES       | ERJ2GEJ 682 X (6.8K)    | T  | 72.8/29.5    |
| R326    | 7030005240 | S.RES       | ERJ2GEJ 473 X (47K)     | T  | 73.7/29.5    |
| R327    | 7030005240 | S.RES       | ERJ2GEJ 473 X (47K)     | T  | 75.5/29.5    |
| R328    | 7030005240 | S.RES       | ERJ2GEJ 473 X (47K)     | T  | 75.5/27.7    |
| R329    | 7030005040 | S.RES       | ERJ2GEJ 472 X (4.7K)    | T  | 77.9/29.5    |
| R330    | 7030005090 | S.RES       | ERJ2GEJ 104 X (100K)    | T  | 74.5/32.9    |
| R331    | 7030005240 | S.RES       | ERJ2GEJ 473 X (47K)     | T  | 77.4/31.6    |
| R341    | 7030005070 | S.RES       | ERJ2GEJ 683 X (68K)     | T  | 84.8/31.1    |
| R342    | 7030005070 | S.RES       | ERJ2GEJ 683 X (68K)     | T  | 84.8/29.4    |
| R343    | 7030005070 | S.RES       | ERJ2GEJ 683 X (68K)     | T  | 84.8/27.7    |
| R344    | 7030005070 | S.RES       | ERJ2GEJ 683 X (68K)     | T  | 86.6/27.7    |
| R345    | 7030005070 | S.RES       | ERJ2GEJ 683 X (68K)     | T  | 85.7/26      |
| R346    | 7030005170 | S.RES       | ERJ2GEJ 474 X (470K)    | T  | 85.7/24.3    |
| R347    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | B  | 81.3/15.6    |
| R348    | 7030005160 | S.RES       | ERJ2GEJ 105 X (1M)      | T  | 82.3/34.6    |
| R349    | 7030005160 | S.RES       | ERJ2GEJ 105 X (1M)      | T  | 83.2/34.6    |
| R350    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | T  | 86.6/24.3    |
| R351    | 7030008290 | S.RES       | ERJ2GEJ 183 X (18K)     | T  | 75.5/24.3    |
| R352    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | T  | 71.8/12      |
| R353    | 7030005210 | S.RES       | ERJ2GEJ 822 X (8.2K)    | T  | 72.7/10.2    |
| R354    | 7030005160 | S.RES       | ERJ2GEJ 105 X (1M)      | T  | 75.4/10.2    |
| R355    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | T  | 73.7/24.3    |
| R356    | 7030010040 | S.RES       | ERJ2GEJ-JPW             | T  | 85.7/23.1    |
| R359    | 7030010040 | S.RES       | ERJ2GEJ-JPW             | B  | 56/10.5      |
| R360    | 7030007290 | S.RES       | ERJ2GEJ 222 X (2.2K)    | B  | 56/9.6       |
| R361    | 7030005000 | S.RES       | ERJ2GEJ 471 X (470)     | B  | 25.1/43.9    |
| R362    | 7030005060 | S.RES       | ERJ2GEJ 333 X (33K)     | B  | 51.6/7.5     |
| R363    | 7030005000 | S.RES       | ERJ2GEJ 471 X (470)     | B  | 57.8/8.7     |
| R364    | 7030005240 | S.RES       | ERJ2GEJ 473 X (47K)     | T  | 59.5/5.5     |
| R366    | 7030005100 | S.RES       | ERJ2GEJ 154 X (150K)    | B  | 57.8/9.6     |
| R368    | 7030005700 | S.RES       | ERJ2GEJ 274 X (270K)    | T  | 61.7/8.7     |
| R369    | 7030005100 | S.RES       | ERJ2GEJ 154 X (150K)    | T  | 61.7/10.4    |
| R370    | 7030005170 | S.RES       | ERJ2GEJ 474 X (470K)    | B  | 61.7/11.1    |
| R371    | 7030005290 | S.RES       | ERJ2GEJ 682 X (6.8K)    | T  | 74.5/8.4     |
| R372    | 7030009290 | S.RES       | ERJ2GEJ 562 X (5.6K)    | T  | 80.2/8.4     |
| R373    | 7030005080 | S.RES       | ERJ2GEJ 823 X (82K)     | T  | 84.7/10.2    |
| R374    | 7030008410 | S.RES       | ERJ2GEJ 392 X (3.9K)    | T  | 86.5/10.2    |
| R375    | 7030005000 | S.RES       | ERJ2GEJ 471 X (470)     | T  | 85.6/12      |
| R377    | 7030005060 | S.RES       | ERJ2GEJ 333 X (33K)     | T  | 84.7/13.8    |
| R378    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | T  | 86.5/15.6    |
| R379    | 7030005700 | S.RES       | ERJ2GEJ 274 X (270K)    | T  | 84.7/15.6    |
| R381    | 7030005700 | S.RES       | ERJ2GEJ 274 X (270K)    | T  | 70.9/15.6    |
| R382    | 7030005170 | S.RES       | ERJ2GEJ 474 X (470K)    | T  | 71.8/13.8    |
| R383    | 7030008310 | S.RES       | ERJ2GEJ 564 X (560K)    | T  | 70.9/13.8    |
| R384    | 7030005090 | S.RES       | ERJ2GEJ 104 X (100K)    | T  | 80.9/15.4    |
| R385    | 7030005310 | S.RES       | ERJ2GEJ 124 X (120K)    | T  | 74.5/13.8    |
| R386    | 7030005060 | S.RES       | ERJ2GEJ 333 X (33K)     | T  | 73.6/13.8    |
| R387    | 7030005030 | S.RES       | ERJ2GEJ 152 X (1.5K)    | T  | 73.6/15.6    |
| R388    | 7030008010 | S.RES       | ERJ2GEJ 123 X (12K)     | B  | 82.8/17.3    |
| R389    | 7030005800 | S.RES       | RR0510P-102-D (1K)      | B  | 83.7/17.3    |
| R390    | 7030005810 | S.RES       | RR0510P-152-D (1.5K)    | B  | 77.2/15.6    |
| R391    | 7030007290 | S.RES       | ERJ2GEJ 222 X (2.2K)    | T  | 74.5/15.6    |
| R393    | 7030005700 | S.RES       | ERJ2GEJ 274 X (270K)    | B  | 61.7/7.8     |
| R394    | 7030005310 | S.RES       | ERJ2GEJ 124 X (120K)    | B  | 60.8/6.2     |
| R395    | 7030005080 | S.RES       | ERJ2GEJ 823 X (82K)     | B  | 60.8/7.8     |
| R396    | 7030008300 | S.RES       | ERJ2GEJ 184 X (180K)    | B  | 61.7/6.2     |
| R397    | 7030008310 | S.RES       | ERJ2GEJ 564 X (560K)    | B  | 60.8/4.6     |
| R398    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | B  | 61.7/9.4     |
| R401    | 7030005120 | S.RES       | ERJ2GEJ 102 X (1K)      | T  | 66.2/35.8    |
| R402    | 7030005000 | S.RES       | ERJ2GEJ 471 X (470)     | B  | 68.5/22.5    |
| R403    | 7030010040 | S.RES       | ERJ2GEJ-JPW             | B  | 67.5/28.7    |
| R405    | 7030011290 | S.RES       | ERJ12YJ1R8U (1.8)       | T  | 33.6/35.3    |
| R406    | 7030005090 | S.RES       | ERJ2GEJ 104 X (100K)    | B  | 12.2/45.6    |
| R407    | 7030010040 | S.RES       | ERJ2GEJ-JPW             | T  | 34/37.9      |
| R408    | 7030004980 | S.RES       | ERJ2GEJ 101 X (100)     | B  | 35.6/46.3    |
| R412    | 7030005040 | S.RES       | ERJ2GEJ 472 X (4.7K)    | B  | 15.9/39.5    |
| R413    | 7030005090 | S.RES       | ERJ2GEJ 104 X (100K)    | T  | 20.4/33.4    |
| R414    | 7030005230 | S.RES       | ERJ2GEJ 334 X (330K)    | B  | 20.2/33.7    |
| R416    | 7030005120 | S.RES       | ERJ2GEJ 102 X (1K)      | B  | 21.5/35.8    |
| R417    | 7030007340 | S.RES       | ERJ2GEJ 153 X (15K)     | B  | 21.3/37.1    |
| R418    | 7030005120 | S.RES       | ERJ2GEJ 102 X (1K)      | B  | 19.8/37.9    |
| R420    | 7030005090 | S.RES       | ERJ2GEJ 104 X (100K)    | T  | 79.6/32.3    |
| R421    | 7210003061 | VAR         | TP76N00N-15F-A103-2251A |    |              |
| R423    | 7030005090 | S.RES       | ERJ2GEJ 104 X (100K)    | T  | 6.9/37.8     |
| R424    | 7030005090 | S.RES       | ERJ2GEJ 104 X (100K)    | T  | 5.2/38.7     |
| R426    | 7030007340 | S.RES       | ERJ2GEJ 153 X (15K)     | B  | 69.3/6.3     |
| R427    | 7030005230 | S.RES       | ERJ2GEJ 334 X (330K)    | B  | 69.3/4.6     |
| R428    | 7030005120 | S.RES       | ERJ2GEJ 102 X (1K)      | B  | 65.1/3.1     |
| R429    | 7030008300 | S.RES       | ERJ2GEJ 184 X (180K)    | B  | 66.8/3.1     |
| R430    | 7030005160 | S.RES       | ERJ2GEJ 105 X (1M)      | B  | 72.1/3.1     |
| R431    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | B  | 66.6/34.8    |
| R432    | 7030005040 | S.RES       | ERJ2GEJ 472 X (4.7K)    | B  | 70.5/30.9    |
| R433    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | B  | 67.5/30.3    |
| R434    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | B  | 70.5/30      |
| R435    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | B  | 76.8/24.5    |
| R436    | 7030005040 | S.RES       | ERJ2GEJ 472 X (4.7K)    | B  | 75.4/30      |
| R437    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | B  | 8.4/34.7     |
| R438    | 7030005040 | S.RES       | ERJ2GEJ 472 X (4.7K)    | T  | 4.8/33.3     |
| R439    | 7030007290 | S.RES       | ERJ2GEJ 222 X (2.2K)    | T  | 83.2/8.4     |
| R440    | 7030009280 | S.RES       | ERJ2GEJ 391 X           | B  | 17.4/43.5    |
| R441    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | T  | 19.5/32.2    |
| R442    | 7030007280 | S.RES       | ERJ2GEJ 331 X (330)     | B  | 21.5/34.9    |
| R451    | 7030005530 | S.RES       | ERJ2GEJ 100 X (10)      | B  | 85.2/33.7    |
| R453    | 7030008010 | S.RES       | ERJ2GEJ 123 X (12K)     | B  | 87.9/35.2    |
| R454    | 7030005220 | S.RES       | ERJ2GEJ 223 X (22K)     | B  | 87/32.2      |
| R455    | 7030008010 | S.RES       | ERJ2GEJ 123 X (12K)     | B  | 86.1/35.2    |
| R456    | 7030005050 | S.RES       | ERJ2GEJ 103 X (10K)     | B  | 87.6/42.7    |
| R457    | 7030005040 | S.RES       | ERJ2GEJ 472 X (4.7K)    | T  | 80.7/35      |
| R458    | 7030005120 | S.RES       | ERJ2GEJ 102 X (1K)      | B  | 81.3/30      |
| R459    | 7030005120 | S.RES       | ERJ2GEJ 102 X (1K)      | B  | 80.4/30      |

[MAIN UNIT]

| REF NO. | PARTS NO.  | DESCRIPTION                       | M. | H/V LOCATION |
|---------|------------|-----------------------------------|----|--------------|
| R460    | 7410001140 | S.ARR EXB28V104JX                 | B  | 77.7/30      |
| R461    | 7030005040 | S.RES ERJ2GEJ 472 X (4.7K)        | B  | 84/30.8      |
| R462    | 7030005040 | S.RES ERJ2GEJ 472 X (4.7K)        | B  | 84/29.9      |
| R463    | 7030005050 | S.RES ERJ2GEJ 103 X (10K)         | T  | 71.8/37.7    |
| R464    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)        | T  | 73.4/34.8    |
| R466    | 7410001140 | S.ARR EXB28V104JX                 | B  | 69.5/40      |
| R467    | 7410001140 | S.ARR EXB28V104JX                 | B  | 69.5/37      |
| R468    | 7030008400 | S.RES ERJ2GEJ 182 X (1.8K)        | T  | 70/41.6      |
| R469    | 7030009280 | S.RES ERJ2GEJ 391 X               | T  | 70/39.5      |
| R470    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)        | B  | 74.7/46.1    |
| R471    | 7030007340 | S.RES ERJ2GEJ 153 X (15K)         | B  | 72.6/45.4    |
| R472    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)        | B  | 72.6/47.2    |
| R473    | 7410001140 | S.ARR EXB28V104JX                 | B  | 77.7/46.1    |
| R474    | 7030007340 | S.RES ERJ2GEJ 153 X (15K)         | B  | 72.6/46.3    |
| R475    | 7030005090 | S.RES ERJ2GEJ 104 X (100K)        | B  | 79.5/30      |
| R476    | 7030005120 | S.RES ERJ2GEJ 102 X (1K)          | B  | 75.9/46.1    |
| R477    | 7030005120 | S.RES ERJ2GEJ 102 X (1K)          | B  | 85.2/34.5    |
| C2      | 4030009740 | S.CER C1005 CH 1H 100C-T          | B  | 10.3/6.1     |
| C3      | 4030010080 | S.CER C1005 CH 1H 240J-T          | B  | 7.4/12       |
| C4      | 4030011700 | S.CER C1005 CH 1H 040B-T          | B  | 11.5/11.4    |
| C5      | 4030009780 | S.CER C1005 CH 1H 270J-T          | B  | 12.4/11.4    |
| C6      | 4030011650 | S.CER C1005 CH 1H 1R5B-T          | B  | 11.5/13      |
| C7      | 4030009760 | S.CER C1005 CH 1H 150J-T          | B  | 12.4/13      |
| C8      | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 14.5/17.2    |
| C11     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 20.6/20.1    |
| C15     | 4030009770 | S.CER C1005 CH 1H 220J-T          | B  | 16.2/14.1    |
| C16     | 4030009830 | S.CER C1005 CH 1H 180J-T          | B  | 17.9/11.3    |
| C17     | 4030011630 | S.CER C1005 CH 1H 0R5B-T          | B  | 19.4/11.7    |
| C18     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 17.9/9.6     |
| C20     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 20.4/14.1    |
| C21     | 4030007070 | S.CER C1608 CH 1H 330J-T          | B  | 21.3/10.4    |
| C23     | 4030007050 | S.CER C1608 CH 1H 220J-T          | B  | 22.7/10.4    |
| C26     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 29.9/5.9     |
| C27     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 39.2/5.9     |
| C28     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 33.6/11.3    |
| C29     | 4030019930 | S.CER C1005 JB 1A 104K-T          | T  | 30.8/11.3    |
| C30     | 4030019950 | S.CER C1005 JB 0J 224K-T          | T  | 34.8/5.9     |
| C31     | 4030019930 | S.CER C1005 JB 1A 104K-T          | T  | 35.7/11.3    |
| C32     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 36.6/9.6     |
| C33     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 36.6/7.6     |
| C34     | 4030019970 | S.CER C1005 JB 0J 105K-T [USA-11] | T  | 37.5/7.6     |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [USA-12] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [USA-13] |    |              |
|         | 4030020120 | S.CER C1005 JB 0J 225M-T [EUR-21] |    |              |
|         | 4030020120 | S.CER C1005 JB 0J 225M-T [EUR-22] |    |              |
|         | 4030020120 | S.CER C1005 JB 0J 225M-T [EUR-23] |    |              |
|         | 4030020120 | S.CER C1005 JB 0J 225M-T [UK-01]  |    |              |
|         | 4030020120 | S.CER C1005 JB 0J 225M-T [UK-02]  |    |              |
|         | 4030020120 | S.CER C1005 JB 0J 225M-T [UK-03]  |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [EXP-11] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [EXP-12] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [EXP-13] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [EXP-21] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [EXP-22] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [EXP-23] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [EXP-01] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [EXP-03] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [EXP-31] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [CHN-31] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [AUS-21] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [AUS-22] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [AUS-23] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [RUS-21] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [RUS-22] |    |              |
|         | 4030019970 | S.CER C1005 JB 0J 105K-T [RUS-23] |    |              |
| C35     | 4030011320 | S.CER C1005 CH 1H 470J-T          | B  | 37.5/9.2     |
| C36     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 44.6/9.5     |
| C41     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 28/17.6      |
| C43     | 4030017490 | S.CER C1608 JB 1A 105K-T          | B  | 27.8/20.3    |
| C44     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 32.7/16.6    |
| C46     | 4030010250 | S.CER C1005 CH 1H 101J-T          | B  | 32.8/12.4    |
| C48     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 32.3/9.2     |
| C49     | 4030011320 | S.CER C1005 CH 1H 470J-T          | B  | 31.4/9.2     |
| C51     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 23.4/22.7    |
| C52     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 32.8/14.4    |
| C53     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 37.5/10.9    |
| C54     | 4030019810 | S.CER C1005 JB 1E 103K-T          | B  | 39.3/10.9    |
| C55     | 4030017490 | S.CER C1608 JB 1A 105K-T          | B  | 33.5/16.6    |
| C56     | 4030010250 | S.CER C1005 CH 1H 101J-T          | B  | 39.9/13.1    |
| C57     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 40.5/14.9    |
| C58     | 4030011320 | S.CER C1005 CH 1H 470J-T          | B  | 44.6/11.3    |
| C59     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 44.6/10.4    |
| C60     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 44.6/12.2    |
| C63     | 4030009780 | S.CER C1005 CH 1H 270J-T          | B  | 46.4/14.9    |
| C64     | 4030019810 | S.CER C1005 JB 1E 103K-T          | B  | 49.6/12.1    |
| C65     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 51.2/14      |
| C71     | 4030009740 | S.CER C1005 CH 1H 100C-T          | B  | 51.8/16.6    |
| C72     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 51.2/17.8    |
| C73     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 53/19.4      |
| C74     | 4030009710 | S.CER C1005 CH 1H 070C-T          | T  | 58/18.9      |
| C75     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 54.1/20.4    |
| C76     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 58.6/18.6    |
| C77     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 64.3/17.7    |
| C78     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 58.9/18.9    |
| C79     | 4030019930 | S.CER C1005 JB 1A 104K-T          | B  | 64.3/21.2    |
| C80     | 4030019740 | S.CER C1005 JB 1H 102K-T          | B  | 62.5/25.9    |
| C81     | 4030011680 | S.CER C1005 CH 1H 030B-T          | T  | 58.5/17.3    |
| C83     | 4030011720 | S.CER C1005 CH 1H R75B-T          | T  | 58.9/21.2    |
| C85     | 4030019740 | S.CER C1005 JB 1H 102K-T          | T  | 57.1/21.2    |
| C86     | 4030009790 | S.CER C1005 CH 1H 330J-T          | T  | 57/25.9      |
| C87     | 4030009790 | S.CER C1005 CH 1H 330J-T          | T  | 58/21.2      |
| C88     | 4030009790 | S.CER C1005 CH 1H 330J-T          | T  | 56.1/25.9    |
| C89     | 4030009830 | S.CER C1005 CH 1H 180J-T          | T  | 57.9/27.5    |

[MAIN UNIT]

| REF NO. | PARTS NO.  | DESCRIPTION |                    | M. | H/V LOCATION |
|---------|------------|-------------|--------------------|----|--------------|
| C90     | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 56.3/30.6    |
| C93     | 4030011320 | S.CER       | C1005 CH 1H 470J-T | T  | 53.2/28.5    |
| C94     | 4030009730 | S.CER       | C1005 CH 1H 090C-T | T  | 53.2/27.5    |
| C101    | 4030011630 | S.CER       | C1005 CH 1H 0R5B-T | T  | 59.8/21.2    |
| C102    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | T  | 56.2/21.8    |
| C103    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | T  | 61.8/21.8    |
| C104    | 4030009830 | S.CER       | C1005 CH 1H 180J-T | T  | 59.8/25.9    |
| C105    | 4030009790 | S.CER       | C1005 CH 1H 330J-T | T  | 60.7/21.2    |
| C106    | 4030011610 | S.CER       | C1005 CH 1H 680J-T | T  | 61.6/25.9    |
| C107    | 4030009770 | S.CER       | C1005 CH 1H 220J-T | T  | 61.1/27.2    |
| C108    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | B  | 56.3/28.9    |
| C109    | 4030019970 | S.CER       | C1005 JB 0J 105K-T | B  | 61.4/27.7    |
| C111    | 4030011640 | S.CER       | C1005 CH 1H 010B-T | T  | 61.1/29.2    |
| C112    | 4030019690 | S.CER       | C1005 CH 1H 221J-T | T  | 62.8/25.3    |
| C113    | 4030011680 | S.CER       | C1005 CH 1H 030B-T | T  | 64.8/23.7    |
| C114    | 4030011680 | S.CER       | C1005 CH 1H 030B-T | T  | 63.8/23.1    |
| C115    | 4030009730 | S.CER       | C1005 CH 1H 090C-T | T  | 64.8/25.3    |
| C116    | 4030019970 | S.CER       | C1005 JB 0J 105K-T | B  | 65.4/27.7    |
| C117    | 4030019750 | S.CER       | C1005 JB 1H 122K-T | B  | 60.2/31.1    |
| C118    | 4030011320 | S.CER       | C1005 CH 1H 470J-T | B  | 65.9/24.9    |
| C120    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 61.5/32.5    |
| C121    | 4030019560 | S.CER       | GRM21BB31C106KE15L | B  | 61.1/19.7    |
| C122    | 4030019810 | S.CER       | C1005 JB 1E 103K-T | B  | 61.1/17.6    |
| C123    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 48.8/28.4    |
| C124    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 54.7/30.5    |
| C127    | 4030019690 | S.CER       | C1005 CH 1H 221J-T | B  | 62.8/30.8    |
| C130    | 4030011320 | S.CER       | C1005 CH 1H 470J-T | B  | 59.9/21.6    |
| C132    | 4550000560 | S.TAN       | TEESVA 1V 334M8R   | T  | 48.9/29.5    |
| C134    | 4550002980 | S.TAN       | TEESVA 1C 225M8R   | T  | 46.7/29.5    |
| C135    | 4550000560 | S.TAN       | TEESVA 1V 334M8R   | T  | 47.9/20.5    |
| C141    | 4030009740 | S.CER       | C1005 CH 1H 100C-T | B  | 51.4/19.3    |
| C145    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 48.3/23.8    |
| C149    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | T  | 46.1/21.4    |
| C150    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | T  | 43.1/20.3    |
| C151    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | T  | 43.1/19.4    |
| C152    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | T  | 43.1/18.5    |
| C153    | 4030011320 | S.CER       | C1005 CH 1H 470J-T | T  | 44.5/32.6    |
| C154    | 4030011320 | S.CER       | C1005 CH 1H 470J-T | T  | 43.6/32.6    |
| C155    | 4030011320 | S.CER       | C1005 CH 1H 470J-T | T  | 42.7/32.6    |
| C156    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | T  | 48.6/32.6    |
| C157    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | T  | 41/19.4      |
| C158    | 4030009740 | S.CER       | C1005 CH 1H 100C-T | T  | 39.2/19.4    |
| C159    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | T  | 40.1/10.9    |
| C160    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | T  | 41.9/10.9    |
| C167    | 4030009750 | S.CER       | C1005 CH 1H 120J-T | B  | 48.8/21.5    |
| C168    | 4030009750 | S.CER       | C1005 CH 1H 120J-T | B  | 47.9/21.5    |
| C169    | 4030009740 | S.CER       | C1005 CH 1H 100C-T | B  | 48.2/20.2    |
| C171    | 4030019660 | S.CER       | C1005 CH 1H 110J-T | B  | 16.2/18.5    |
| C172    | 4030009760 | S.CER       | C1005 CH 1H 150J-T | B  | 13.9/22.2    |
| C173    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 13.4/24.8    |
| C174    | 4030009840 | S.CER       | C1005 CH 1H 060C-T | B  | 12.4/24.8    |
| C175    | 4030009840 | S.CER       | C1005 CH 1H 060C-T | B  | 13.4/26.5    |
| C176    | 4030010250 | S.CER       | C1005 CH 1H 101J-T | B  | 16.4/25.8    |
| C178    | 4030011650 | S.CER       | C1005 CH 1H 1R5B-T | B  | 17.9/29.1    |
| C179    | 4030011690 | S.CER       | C1005 CH 1H 3R5B-T | B  | 19.4/27.7    |
| C180    | 4030010250 | S.CER       | C1005 CH 1H 101J-T | B  | 19.4/25.8    |
| C181    | 4030011690 | S.CER       | C1005 CH 1H 3R5B-T | B  | 22.8/27.8    |
| C182    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | T  | 19.2/21.7    |
| C183    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 18.4/24.1    |
| C184    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | B  | 17.4/24.1    |
| C186    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | B  | 21.7/30      |
| C188    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | B  | 25.3/30      |
| C189    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 27.1/23.9    |
| C191    | 4030019810 | S.CER       | C1005 JB 1E 103K-T | B  | 28.7/28.7    |
| C192    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 26.2/25.6    |
| C193    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 25.3/25.6    |
| C195    | 4030011700 | S.CER       | C1005 CH 1H 040B-T | B  | 28.2/27.5    |
| C196    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 29.2/25.6    |
| C197    | 4030011650 | S.CER       | C1005 CH 1H 1R5B-T | B  | 31/29.8      |
| C198    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 31.9/25.6    |
| C199    | 4030019650 | S.CER       | C1005 CH 1H 050B-T | B  | 34.4/26.8    |
| C200    | 4030009840 | S.CER       | C1005 CH 1H 060C-T | B  | 34.4/28.5    |
| C201    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | T  | 31.8/23.2    |
| C202    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 29.2/23.9    |
| C203    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | B  | 30.1/23.9    |
| C206    | 4030009740 | S.CER       | C1005 CH 1H 100C-T | B  | 47.4/16.6    |
| C210    | 4030009750 | S.CER       | C1005 CH 1H 120J-T | B  | 35.4/25.1    |
| C211    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 34.4/23.5    |
| C214    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 37.4/25.1    |
| C215    | 4030009830 | S.CER       | C1005 CH 1H 180J-T | B  | 42.2/27.7    |
| C216    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 41.4/25.1    |
| C217    | 4030019810 | S.CER       | C1005 JB 1E 103K-T | B  | 40.4/25.1    |
| C218    | 4030019810 | S.CER       | C1005 JB 1E 103K-T | B  | 37.7/29.8    |
| C220    | 4030009710 | S.CER       | C1005 CH 1H 070C-T | B  | 40.4/34.6    |
| C223    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 42.4/23.5    |
| C224    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 45.7/17.6    |
| C225    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 39/39.8      |
| C226    | 4030019810 | S.CER       | C1005 JB 1E 103K-T | B  | 37.3/44.4    |
| C227    | 4030019810 | S.CER       | C1005 JB 1E 103K-T | B  | 35.6/41.8    |
| C228    | 4030011630 | S.CER       | C1005 CH 1H 0R5B-T | B  | 35.6/39.8    |
| C231    | 4030010250 | S.CER       | C1005 CH 1H 101J-T | B  | 40.9/41.8    |
| C232    | 4030009770 | S.CER       | C1005 CH 1H 220J-T | T  | 43/38.6      |
| C233    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 40.9/39      |
| C234    | 4030019810 | S.CER       | C1005 JB 1E 103K-T | T  | 47.3/35.5    |
| C235    | 4030019560 | S.CER       | GRM21BB31C106KE15L | B  | 44.5/42.6    |
| C236    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 47.1/43.1    |
| C238    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 41.3/40.3    |
| C239    | 4030014260 | S.CER       | C1005 JB 1H 331K-T | T  | 43/39.6      |
| C240    | 4030019740 | S.CER       | C1005 JB 1H 102K-T | B  | 44.7/35.5    |
| C241    | 4030011300 | S.CER       | C1005 CH 1H 121J-T | B  | 46.5/32.8    |
| C242    | 4030019690 | S.CER       | C1005 CH 1H 221J-T | B  | 48.3/34.6    |
| C243    | 4030019690 | S.CER       | C1005 CH 1H 221J-T | B  | 46.5/35.5    |
| C244    | 4030019930 | S.CER       | C1005 JB 1A 104K-T | B  | 50.2/37      |
| C251    | 4030011680 | S.CER       | C1005 CH 1H 030B-T | T  | 41.5/34.4    |
| C252    | 4030010090 | S.CER       | C1005 CH 1H 560J-T | T  | 39.4/33.4    |

[MAIN UNIT]

| REF NO. | PARTS NO.  | DESCRIPTION              | M. | H/V LOCATION |
|---------|------------|--------------------------|----|--------------|
| C253    | 4030009840 | S.CER C1005 CH 1H 060C-T | T  | 41.5/33.6    |
| C254    | 4030010090 | S.CER C1005 CH 1H 560J-T | T  | 39.4/32.5    |
| C255    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 41.5/29.6    |
| C256    | 4030009740 | S.CER C1005 CH 1H 100C-T | T  | 39.2/24.6    |
| C257    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 36.9/31.4    |
| C261    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 50.5/38.6    |
| C262    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 50.2/40.7    |
| C263    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 57.1/41.5    |
| C264    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 53.9/36      |
| C265    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 58.7/36.9    |
| C266    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 57.4/35.1    |
| C267    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 50.9/34.6    |
| C301    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 69.3/12.4    |
| C302    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 66.6/14.1    |
| C303    | 4030019690 | S.CER C1005 CH 1H 221J-T | B  | 68.4/10.7    |
| C304    | 4030019460 | S.CER C1608 JB 0J 106M-T | T  | 62.6/42      |
| C305    | 4030019900 | S.CER C1005 JB 1A 473K-T | T  | 76.4/32.9    |
| C306    | 4030019890 | S.CER C1005 JB 1A 393K-T | T  | 65.5/37.9    |
| C307    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 63.5/39.6    |
| C308    | 4030019800 | S.CER C1005 JB 1H 682K-T | T  | 65.5/39.6    |
| C309    | 4030019860 | S.CER C1005 JB 1E 223K-T | T  | 67.3/41.2    |
| C310    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 62.6/37.9    |
| C312    | 4030019850 | S.CER C1005 JB 1E 183K-T | T  | 74.6/29.5    |
| C313    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 77/29.5      |
| C314    | 4030019750 | S.CER C1005 JB 1H 122K-T | T  | 74.6/26      |
| C316    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 77.4/30.7    |
| C318    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 70.6/28.7    |
| C321    | 4030019720 | S.CER C1005 JB 1H 561K-T | T  | 85.7/29.4    |
| C322    | 4030019740 | S.CER C1005 JB 1H 102K-T | T  | 85.7/27.7    |
| C323    | 4030019710 | S.CER C1005 JB 1H 391K-T | T  | 84.8/26      |
| C324    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 86.6/26      |
| C325    | 4030011320 | S.CER C1005 CH 1H 470J-T | T  | 87.5/26      |
| C326    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 71.8/15.6    |
| C328    | 4030019970 | S.CER C1005 JB 0J 105K-T | T  | 72.8/24.3    |
| C329    | 4030013910 | S.CER C1005 JB 1H 472K-T | T  | 74.6/24.3    |
| C330    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 72.7/13.8    |
| C331    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 72.7/12      |
| C332    | 4030013910 | S.CER C1005 JB 1H 472K-T | T  | 73.6/10.2    |
| C333    | 4030013910 | S.CER C1005 JB 1H 472K-T | T  | 74.5/10.2    |
| C334    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 15/46.6      |
| C335    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 26/43.9      |
| C336    | 4030019970 | S.CER C1005 JB 0J 105K-T | B  | 56/8.7       |
| C337    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 52.5/7.5     |
| C338    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 50.7/7.5     |
| C339    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 53.4/7.5     |
| C340    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 57.8/10.5    |
| C342    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 47.1/6.4     |
| C343    | 4030019560 | S.CER GRM21BB31C106KE15L | B  | 57.6/7.3     |
| C344    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 59.5/6.4     |
| C346    | 4030019890 | S.CER C1005 JB 1A 393K-T | T  | 79.2/8.4     |
| C347    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 82.2/8.4     |
| C348    | 4030019890 | S.CER C1005 JB 1A 393K-T | T  | 81.2/8.4     |
| C349    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 85.6/10.2    |
| C350    | 4030009800 | S.CER C1005 JB 1H 471K-T | T  | 86.5/13.8    |
| C351    | 4030019690 | S.CER C1005 CH 1H 221J-T | T  | 85.6/15.6    |
| C352    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 86.5/12      |
| C353    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 87.4/23.1    |
| C354    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 84.1/23.1    |
| C356    | 4030019560 | S.CER GRM21BB31C106KE15L | B  | 76.9/28      |
| C357    | 4030019810 | S.CER C1005 JB 1E 103K-T | T  | 83.2/33      |
| C358    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 82.3/33      |
| C361    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 76.8/22.2    |
| C362    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 72.1/19.7    |
| C363    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 69/28.7      |
| C364    | 4030013910 | S.CER C1005 JB 1H 472K-T | B  | 60.8/9.4     |
| C365    | 4030011320 | S.CER C1005 CH 1H 470J-T | B  | 61.7/4.6     |
| C371    | 4030013910 | S.CER C1005 JB 1H 472K-T | T  | 74.5/12      |
| C372    | 4030019680 | S.CER C1005 CH 1H 181J-T | T  | 75.4/13.8    |
| C373    | 4030019900 | S.CER C1005 JB 1A 473K-T | T  | 74.5/17.4    |
| C376    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 77.6/16.9    |
| C377    | 4550007320 | S.TAN F930J226MAABMA     | B  | 79.7/17.3    |
| C378    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 76.7/17.4    |
| C379    | 4550006780 | S.TAN TEESVB2 0J 476M8R  | B  | 84.5/11.6    |
| C380    | 4030011320 | S.CER C1005 CH 1H 470J-T | B  | 60.8/11      |
| C381    | 4030019850 | S.CER C1005 JB 1E 183K-T | B  | 68.4/8       |
| C382    | 4030019850 | S.CER C1005 JB 1E 183K-T | B  | 68.4/6.3     |
| C383    | 4030009800 | S.CER C1005 JB 1H 471K-T | B  | 70.2/4.6     |
| C385    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 72.1/4.1     |
| C388    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 20.9/3.5     |
| C389    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 43.6/2.8     |
| C390    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 53.1/2.8     |
| C391    | 4030011320 | S.CER C1005 CH 1H 470J-T | B  | 37.3/46.3    |
| C393    | 4520000020 | S.NIO NOJC227M006        | B  | 19.8/40.5    |
| C395    | 4520000020 | S.NIO NOJC227M006        | T  | 21.7/37.1    |
| C397    | 4030019740 | S.CER C1005 JB 1H 102K-T | T  | 25.5/37.4    |
| C398    | 4030019740 | S.CER C1005 JB 1H 102K-T | B  | 12.2/32      |
| C399    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 22.2/37.1    |
| C400    | 4550006250 | S.TAN TEESVA 1A 106M8R   | T  | 12.9/40.8    |
| C401    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 12.2/37.6    |
| C403    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 15/39.5      |
| C404    | 4030019930 | S.CER C1005 JB 1A 104K-T | B  | 12.2/38.5    |
| C405    | 4030019970 | S.CER C1005 JB 0J 105K-T | B  | 19.3/33.7    |
| C406    | 4030019740 | S.CER C1005 JB 1H 102K-T | T  | 21.4/34.6    |
| C408    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 5.2/37.8     |
| C412    | 4030019740 | S.CER C1005 JB 1H 102K-T | T  | 6.5/42.8     |
| C413    | 4030019740 | S.CER C1005 JB 1H 102K-T | T  | 6.8/44.8     |
| C421    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 75.4/12      |
| C423    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 65.2/38.4    |
| C424    | 4030019740 | S.CER C1005 JB 1H 102K-T | T  | 63.8/34.4    |
| C426    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 69/30.3      |
| C427    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 73.7/26      |
| C429    | 4030019810 | S.CER C1005 JB 1E 103K-T | B  | 77.2/25.7    |
| C430    | 4030019930 | S.CER C1005 JB 1A 104K-T | T  | 65.9/11.4    |
| C431    | 4510009870 | S.ELE 10 CE 100 LD       | T  | 14.7/27.1    |
| C432    | 4030019740 | S.CER C1005 JB 1H 102K-T | T  | 14.3/31.7    |

[MAIN UNIT]

| REF NO. | PARTS NO.  | DESCRIPTION                 | M.       | H/V LOCATION |
|---------|------------|-----------------------------|----------|--------------|
| C433    | 4030019930 | S.CER C1005 JB 1A 104K-T    | T        | 16.2/32.2    |
| C434    | 4030019810 | S.CER C1005 JB 1E 103K-T    | T        | 14.3/32.6    |
| C435    | 4030019740 | S.CER C1005 JB 1H 102K-T    | T        | 18/32.2      |
| C436    | 4550007320 | S.TAN F930J226MAABMA        | B        | 85.2/44.4    |
| C437    | 4030019930 | S.CER C1005 JB 1A 104K-T    | T        | 17.1/32.2    |
| C448    | 4030019490 | S.CER C2012 JB 1A 106K-T    | B        | 27.8/46      |
| C451    | 4030009790 | S.CER C1005 CH 1H 330J-T    | B        | 86.6/38.5    |
| C452    | 4030009740 | S.CER C1005 CH 1H 100C-T    | B        | 86.1/37.3    |
| C453    | 4030009770 | S.CER C1005 CH 1H 220J-T    | B        | 87/35.2      |
| C454    | 4030019930 | S.CER C1005 JB 1A 104K-T    | B        | 86.1/32.2    |
| C456    | 4030019930 | S.CER C1005 JB 1A 104K-T    | B        | 87.9/32.2    |
| C457    | 4030019870 | S.CER C1005 JB 1A 273K-T    | B        | 86.8/46.9    |
| C458    | 4030019930 | S.CER C1005 JB 1A 104K-T    | T        | 84.7/45.5    |
| C459    | 4030019930 | S.CER C1005 JB 1A 104K-T    | B        | 85.2/40.6    |
| C460    | 4030019930 | S.CER C1005 JB 1A 104K-T    | B        | 79.5/46.1    |
| C461    | 4030019930 | S.CER C1005 JB 1A 104K-T    | B        | 80.4/46.1    |
| C462    | 4030019930 | S.CER C1005 JB 1A 104K-T    | B        | 81.3/46.1    |
| C465    | 4030019930 | S.CER C1005 JB 1A 104K-T    | T        | 77.4/35      |
| C466    | 4030019810 | S.CER C1005 JB 1E 103K-T    | T        | 79/35        |
| C467    | 4030019930 | S.CER C1005 JB 1A 104K-T    | B        | 85.2/32.2    |
| C469    | 4030019740 | S.CER C1005 JB 1H 102K-T    | B        | 29.1/43.9    |
| C470    | 4030011320 | S.CER C1005 CH 1H 470J-T    | B        | 28.2/43.9    |
| J51     | 6450000131 | CON HSJ1102-018540          |          |              |
| J52     | 6450002250 | CON HSJ1456-010320          |          |              |
| J53     | 6510021901 | S.CON BM02B-ASRS-TF(LF)(SN) | T        | 27.8/34.5    |
| F51     | 5210000970 | S.FUS ERBSE3R00U            | T        | 10.7/37.6    |
| DS51    | 5040002670 | S.LED CL-165HR/YG           | T        | 2.6/37.9     |
| MC51    | 7700002920 | MIC EM9745P-38-G-01 <HOR>   |          |              |
| S51     | 2260001900 | SWI SW-149 (SKHLLD)         |          |              |
| S52     | 2260002800 | S.SWI SW-167 (SKQTLAE010)   | B        | 39.2/1.8     |
| S53     | 2260002800 | S.SWI SW-167 (SKQTLAE010)   | B        | 48.7/1.8     |
| S54     | 2250000670 | ENC TP70TF5169-15.9F-3285   |          |              |
| EP2     | 6910018460 | S.BEA MMZ1005Y102C-T        | B        | 32.8/15.5    |
| EP3     | 6910018460 | S.BEA MMZ1005Y102C-T        | B        | 63.4/21.2    |
| EP4     | 6910018460 | S.BEA MMZ1005Y102C-T        | T        | 41.9/19.4    |
| EP5     | 6910018460 | S.BEA MMZ1005Y102C-T        | T        | 41/10.9      |
| EP6     | 6910014730 | S.BEA MPZ2012S331A-T        | B        | 25.2/21.4    |
| EP51    | 6910018460 | S.BEA MMZ1005Y102C-T        | B        | 19.1/46.2    |
| MP3     | 8510016471 | S.CAS 2775 VCO CASE-1       | T        | 58.8/23.2    |
| MP4     | 6910014760 | S.PLA OG-503040             | B        | 15.1/8.2     |
| MP5     | 6910014760 | S.PLA OG-503040             | B        | 29.8/35.6    |
|         | 6910014760 | S.PLA OG-503040             | [EUR-21] |              |
|         | 6910014760 | S.PLA OG-503040             | [EUR-22] |              |
|         | 6910014760 | S.PLA OG-503040             | [EUR-23] |              |
|         | 6910014760 | S.PLA OG-503040             | [UK-01]  |              |
|         | 6910014760 | S.PLA OG-503040             | [UK-02]  |              |
|         | 6910014760 | S.PLA OG-503040             | [UK-03]  |              |
| MP51    | 6910014760 | S.PLA OG-503040             | [EUR-21] | B            |
|         | 6910014760 | S.PLA OG-503040             | [EUR-22] |              |
|         | 6910014760 | S.PLA OG-503040             | [EUR-23] |              |
|         | 6910014760 | S.PLA OG-503040             | [UK-01]  |              |
|         | 6910014760 | S.PLA OG-503040             | [UK-02]  |              |
|         | 6910014760 | S.PLA OG-503040             | [UK-03]  |              |

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

# SECTION 7

# MECHANICAL PARTS

## [CHASSIS PARTS]

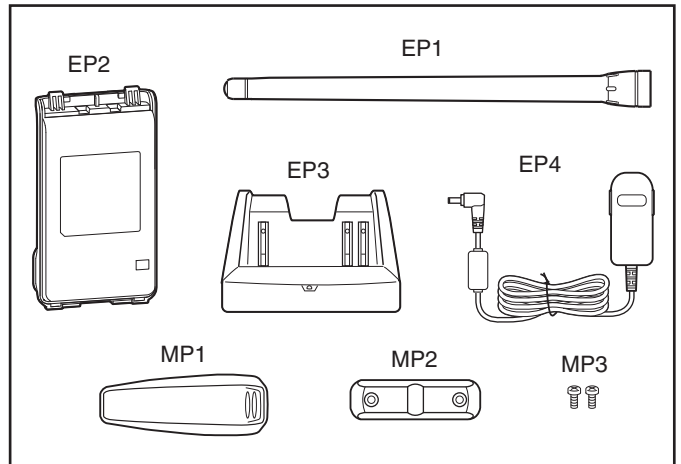
| REF NO. | ORDER NO.  | DESCRIPTION                          | QTY. |
|---------|------------|--------------------------------------|------|
| J1      | 6910021491 | ANT CONNECTOR 106-1                  | 1    |
| SP1     | 2510001560 | 045P01202-02                         | 1    |
| W1      | 8900009640 | OPC-963                              | 1    |
| EP1     | 0910066420 | ANT PCB B-7261                       | 1    |
| MP1     | 8010021710 | 3285 CHASSIS                         | 1    |
| MP2     | 8210026011 | 3285 FRONT PANEL-1 (incl. MP3-9)     | 1    |
| MP3     | 8210025830 | 3285 PTT PANEL                       | 1    |
| MP4     | 8930080110 | 3285 PTT BUTTON                      | 1    |
| MP5     | 8930080130 | 3285 PTT RUBBER                      | 1    |
| MP6     | 8930079890 | 3285 LOCK PLATE                      | 1    |
| MP7     | 8210025800 | 3285 BOTTOM PANEL                    | 1    |
| MP8     | 8930080380 | 3285 SHAFT                           | 1    |
| MP9     | 8930080180 | SP NET (F)                           | 1    |
| MP10    | 8930080170 | 3285 NAME SHEET                      | 1    |
| MP11    | 8930080120 | 3285 LENS                            | 1    |
| MP12    | 8930080620 | O-RING (CF)                          | 1    |
| MP13    | 8930080630 | 3285 SP PLATE                        | 1    |
| MP14    | 8930042350 | 1922 MIC SHEET                       | 1    |
| MP15    | 8930080410 | 3285 MIC SPONGE                      | 1    |
| MP16    | 8930079900 | 3285 TERMINAL HOLDER                 | 1    |
| MP17    | 8930080100 | 3285 PLUS TERMINAL                   | 1    |
| MP18    | 8930080400 | 3285 MINUS TERMINAL                  | 1    |
| MP19    | 8930069710 | THERMALLY SHEET (BC)                 | 1    |
| MP20    | 8830003390 | VR NUT (AB)                          | 2    |
| MP21    | 8930080091 | 3285 SIDE PLATE-1                    | 1    |
| MP22    | 8930080150 | 3285 SIDE SEAL                       | 1    |
| MP23    | 8930080140 | 3285 TOP SEAL                        | 1    |
| MP24    | 8830003440 | 3285 ANT NUT                         | 1    |
| MP25    | 8610014180 | KNOB N-389 (incl. MP26)              | 1    |
| MP26    | 8610007510 | KNOB SPRING NO.7800                  | 1    |
| MP27    | 8610014190 | KNOB N-390 (incl. MP28)              | 1    |
| MP28    | 8610007920 | KNOB SPRING NO.1500                  | 1    |
| MP31    | 8810008761 | SCREW BT B0 2X8 NI-ZC3 (BT)          | 2    |
| MP32    | 8810009511 | SCREW BT B0 2X4 NI-ZC3 (BT)          | 9    |
| MP33    | 8810009511 | SCREW BT B0 2X4 NI-ZC3 (BT)          | 1    |
| MP34    | 8810009181 | OTAP 1FLAT WASHER B0 2X5 NI-ZC3 (BT) | 2    |

## [ACCESSORIES]

| REF NO. | ORDER NO.  | DESCRIPTION                                                                                                                                                                        | QTY. |
|---------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| EP1     | (Optional) | FA-SC55V-2                                                                                                                                                                         | 1    |
| EP2     | (Optional) | BP-264 EXP                                                                                                                                                                         | 1    |
|         |            | [USA-11], [USA-12], [EXP-11], [EXP-12], [EXP-21], [EXP-22], [EXP-01], [AUS-21], [AUS-22], [RUS-21], [RUS-22], [EUR-21], [EUR-22], [UK-01], [UK-02]                                 | 1    |
|         | (Optional) | BP-265                                                                                                                                                                             | 1    |
|         |            | [USA-13], [EXP-13], [EXP-23], [EXP-03], [AUS-23], [RUS-23], [EUR-23], [UK-03]                                                                                                      | 1    |
| EP3     | (Optional) | BC-191 EXP                                                                                                                                                                         | 1    |
|         |            | [USA-11], [EXP-11], [EXP-21], [AUS-21], [RUS-21], [EUR-21], [UK-01]                                                                                                                | 1    |
|         | (Optional) | BC-192 EXP                                                                                                                                                                         | 1    |
|         |            | [USA-12], [EXP-12], [EXP-22], [AUS-22], [RUS-22], [EUR-22], [UK-02]                                                                                                                | 1    |
|         | (Optional) | BC-193 EXP                                                                                                                                                                         | 1    |
|         |            | [USA-13], [EXP-13], [EXP-23], [AUS-23], [RUS-23], [EUR-23], [UK-03]                                                                                                                | 1    |
| EP4     | (Optional) | BC-123SA (L)                                                                                                                                                                       | 1    |
|         |            | [USA-11], [USA-13], [EXP-11]                                                                                                                                                       | 1    |
|         | (Optional) | BC-147SA                                                                                                                                                                           | 1    |
|         |            | [USA-12], [EXP-12]                                                                                                                                                                 | 1    |
|         | (Optional) | BC-123SA                                                                                                                                                                           | 1    |
|         |            | [EXP-21], [EXP-23], [RUS-21], [RUS-23], [EUR-21], [EUR-23]                                                                                                                         | 1    |
|         | (Optional) | BC-147SE                                                                                                                                                                           | 1    |
|         |            | [EXP-22], [RUS-22], [EUR-22]                                                                                                                                                       | 1    |
|         | (Optional) | BC-123SV (L)                                                                                                                                                                       | 1    |
|         |            | [AUS-21], [AUS-23]                                                                                                                                                                 | 1    |
|         | (Optional) | BC-147SV                                                                                                                                                                           | 1    |
|         |            | [AUS-22]                                                                                                                                                                           | 1    |
| MP1     | (Optional) | MB-124                                                                                                                                                                             | 1    |
|         |            | [USA-11], [USA-12], [USA-13], [EXP-11], [EXP-12], [EXP-13], [EXP-21], [EXP-22], [EXP-23], [EXP-01], [EXP-03], [EXP-31], [AUS-21], [AUS-22], [AUS-23], [RUS-21], [RUS-22], [RUS-23] | 1    |
| MP2     | 8210025840 | 3285 JACK PANEL                                                                                                                                                                    | 1    |
| MP3     | 8810004861 | SCREW PH M2X6 ZK3                                                                                                                                                                  | 2    |

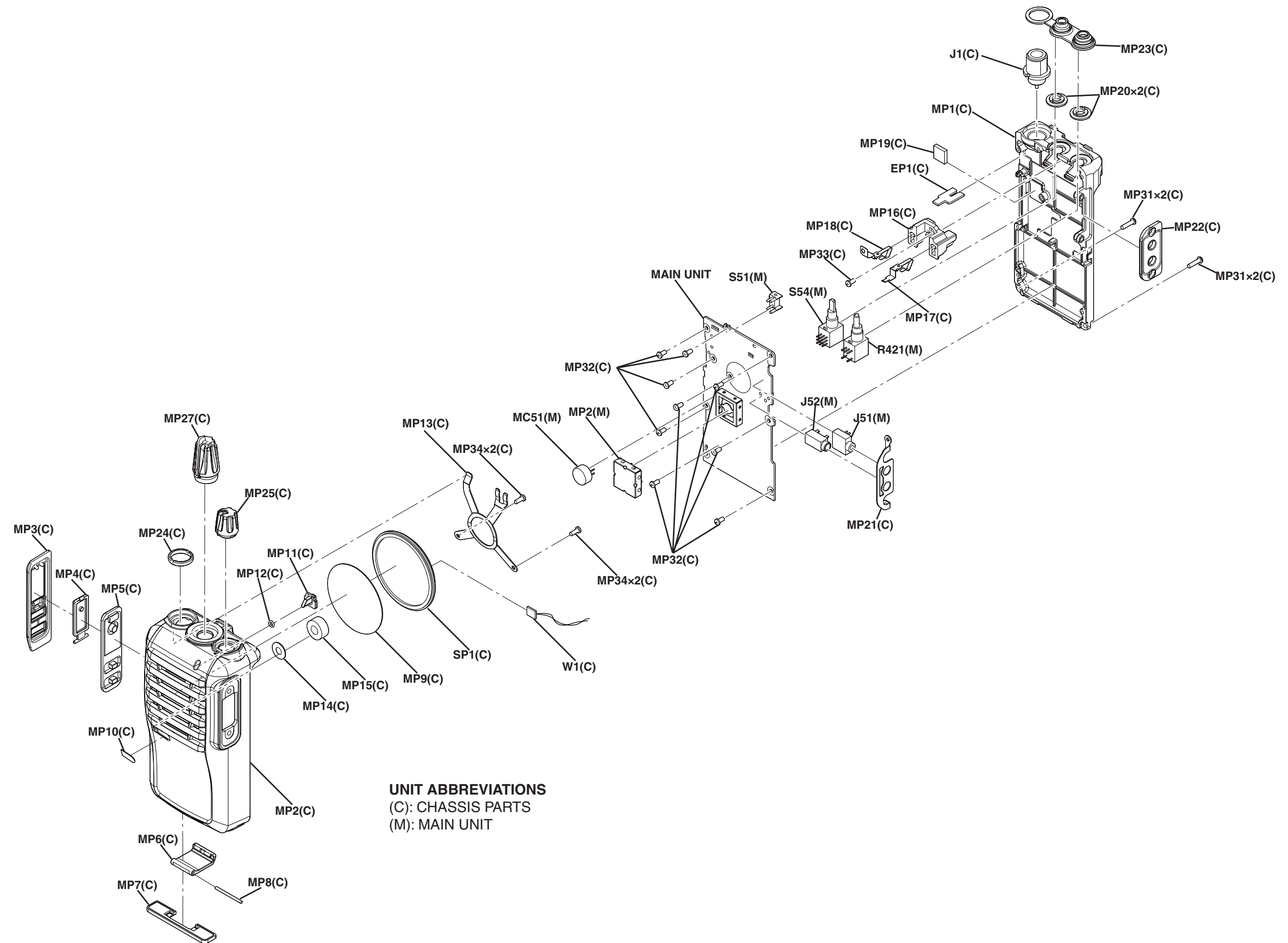
## [MAIN UNIT]

| REF NO. | ORDER NO.  | DESCRIPTION                 | QTY. |
|---------|------------|-----------------------------|------|
| R421    | 7210003061 | VAR TP76N00N-15F-A103-2251A | 1    |
| J51     | 6450000131 | HSJ1102-018540              | 1    |
| J52     | 6450002250 | HSJ1456-010320              | 1    |
| J53*    | 6510021901 | BM02B-ASRS-TF (LF) (SN)     | 1    |
| DS51*   | 5040002670 | CL-165HR/YG                 | 1    |
| MC51    | 7700002920 | EM9745P-38-G-01             | 1    |
| S51     | 2260001900 | SW-149 (SKHLLD)             | 1    |
| S52*    | 2260002800 | SW-167 (SKQT)               | 1    |
| S53*    | 2260002800 | SW-167 (SKQT)               | 1    |
| S54     | 2250000670 | TP70TF5169-15.9F-3285       | 1    |
| MP2     | 8510016461 | 2775 VCO COVER-1            | 1    |
| MP3*    | 8510016471 | 2775 VCO CASE-1             | 1    |
| MP4*    | 6910014760 | OG-503040                   | 1    |
| MP5*    | 6910014760 | OG-503040 [IC-F3002] only   | 1    |
| MP6     | 8930080760 | SPONGE (KT)                 | 1    |
| MP51*   | 6910014760 | OG-503040 [IC-F3002] only   | 1    |

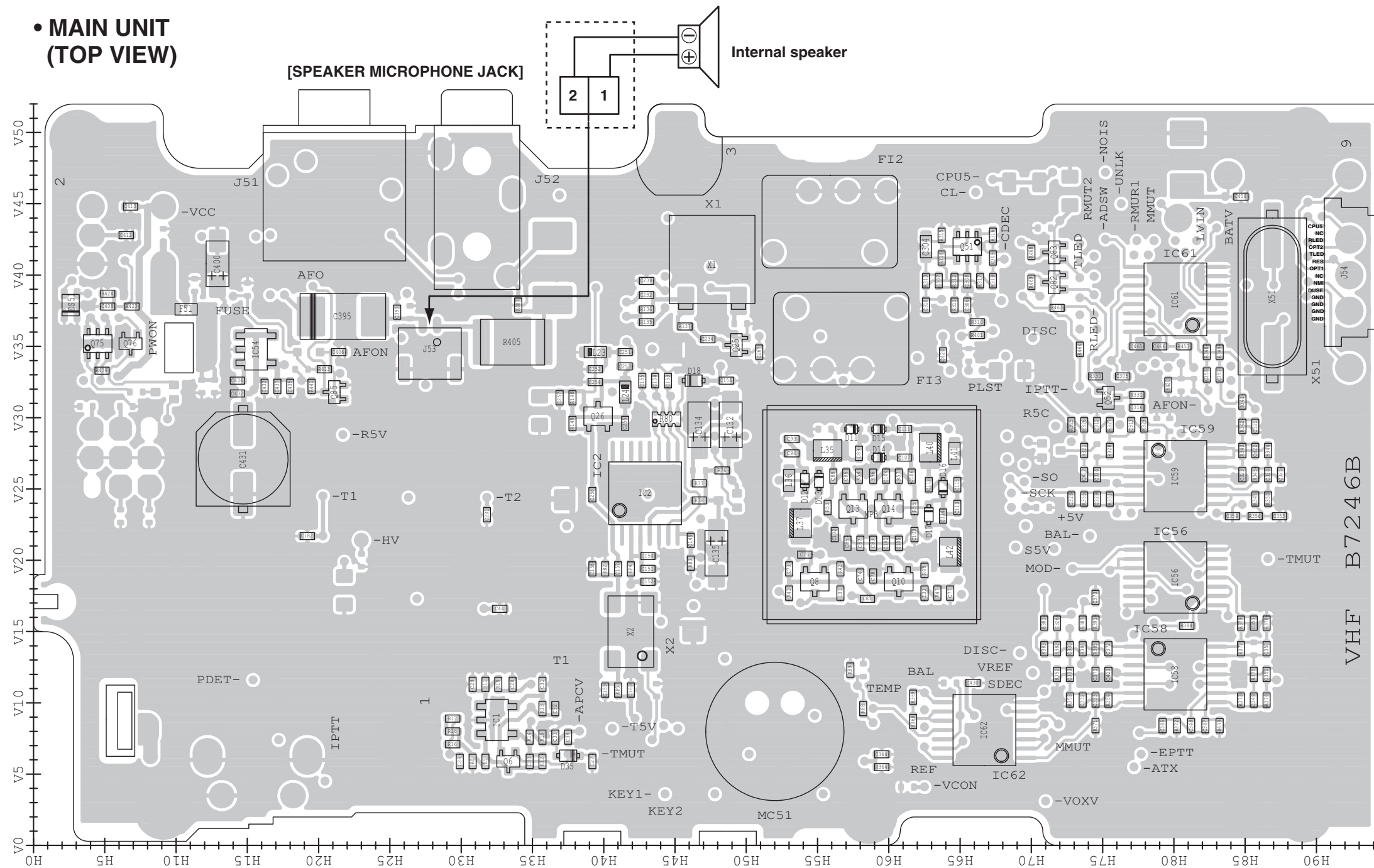


\*: Refer to "BOARD LAYOUTS" for the location.

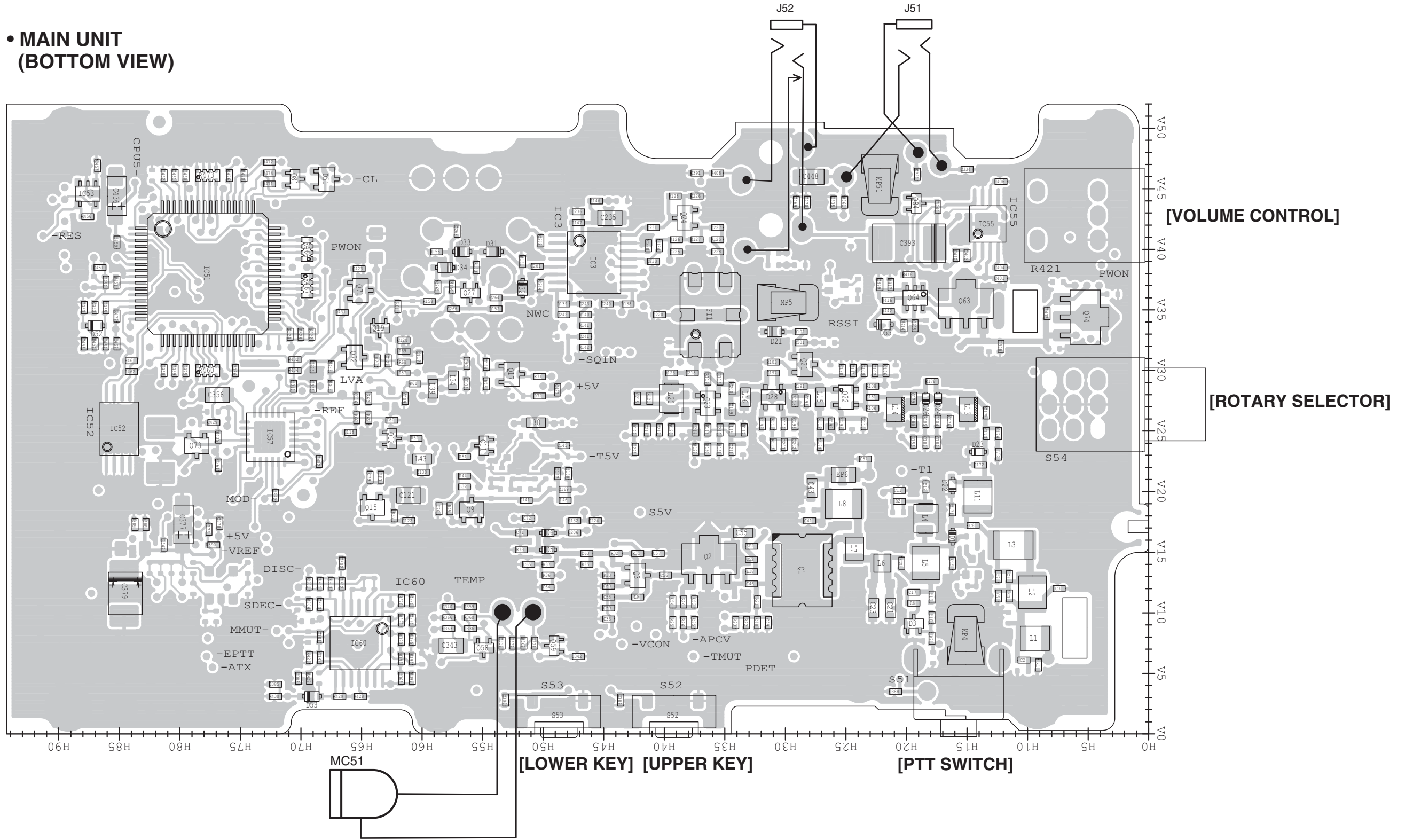
Screw abbreviations A, B0, BT: Self-tapping PH: Pan head ZK: Black NI-ZU: Nickel-Zinc SUS: Stainless



- **MAIN UNIT  
(TOP VIEW)**

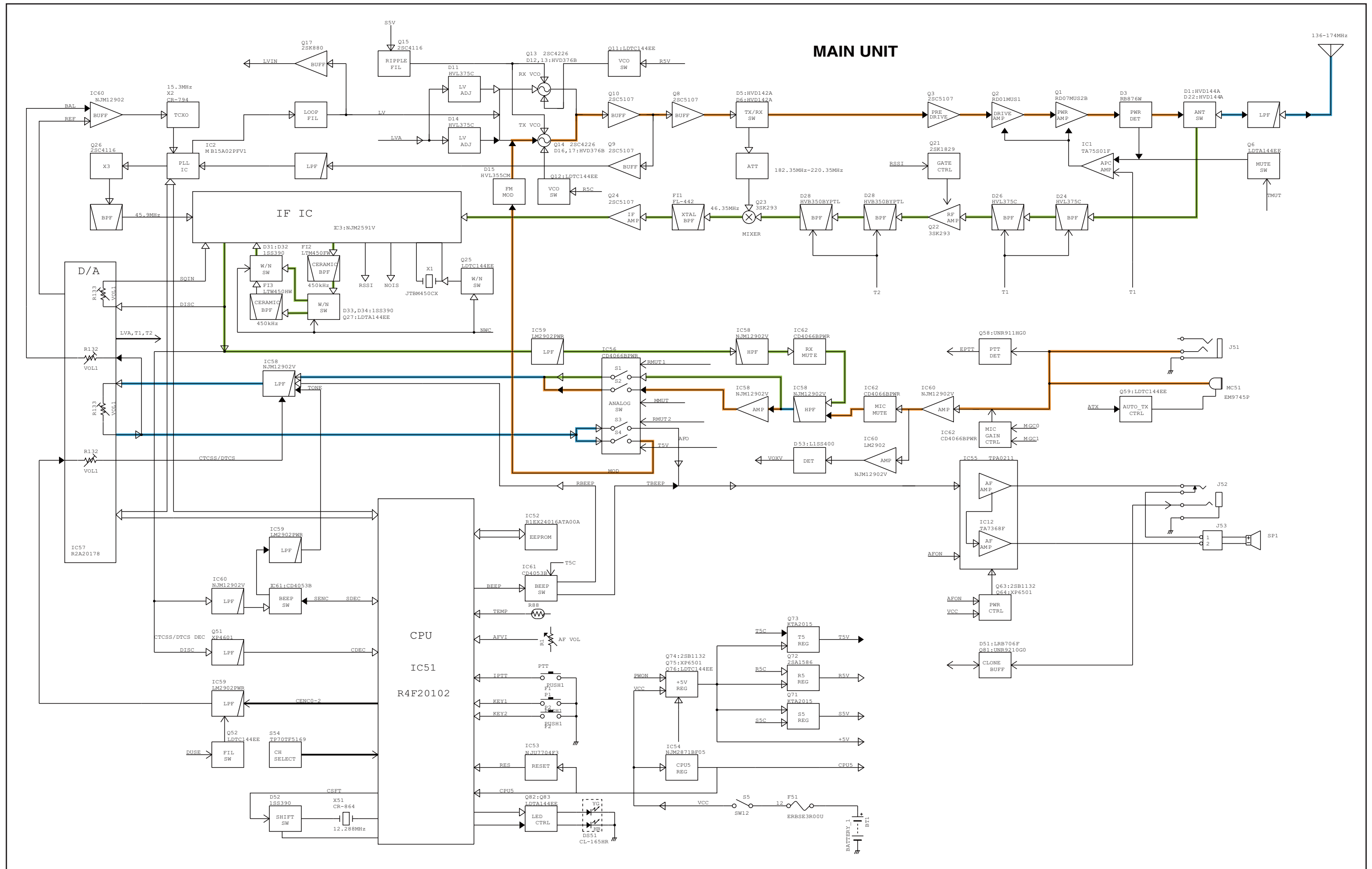


- **MAIN UNIT  
(BOTTOM VIEW)**



# SECTION 9

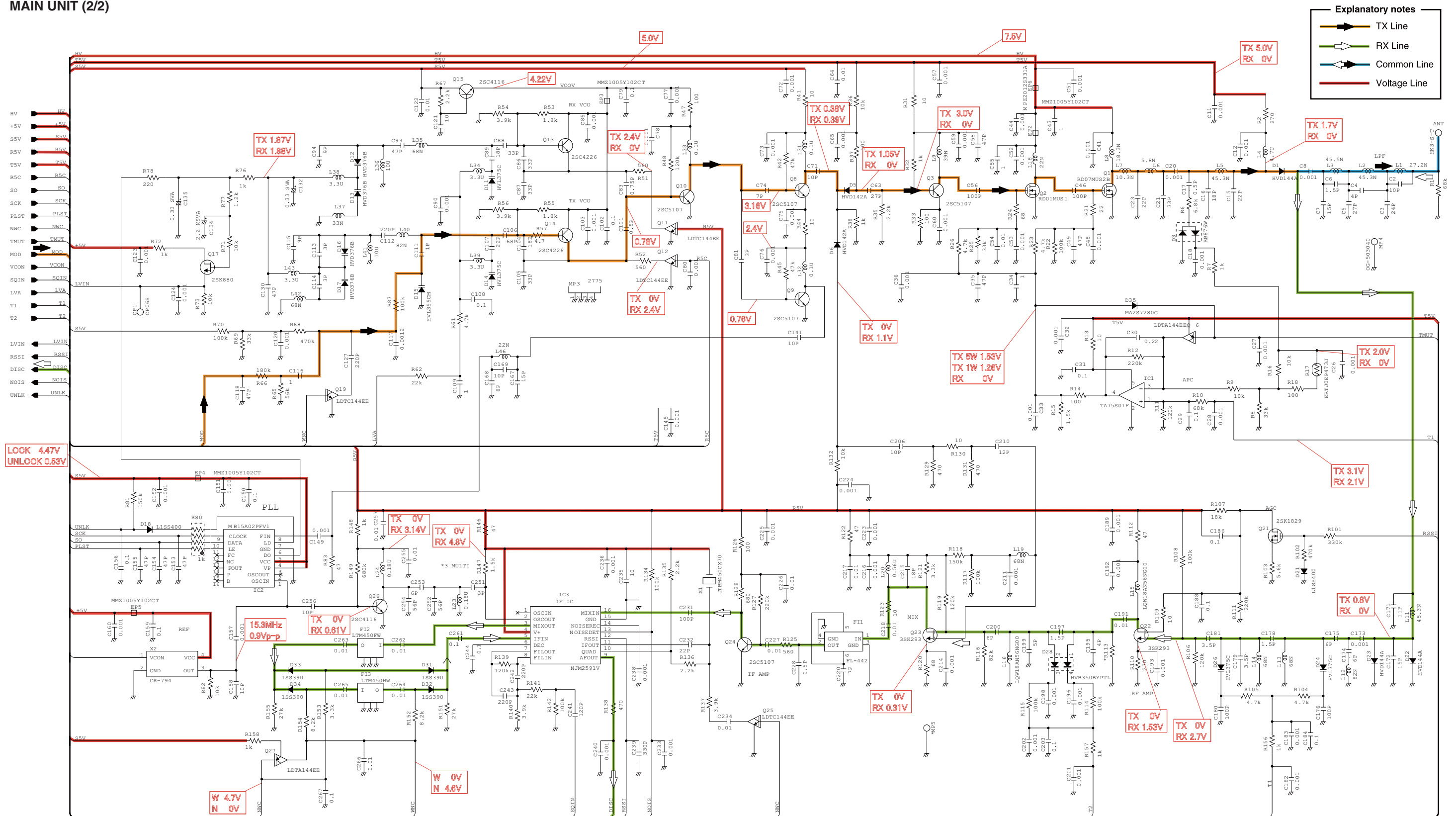
# BLOCK DIAGRAM



## VOLTAGE DIAGRAM

\*: Refer to the PARTS LIST for the value and name of component.

## MAIN UNIT (2/2)



\*: Refer to the PARTS LIST for the value and name of component.

## Icom Inc.

1-1-32, Kamiminami, Hirano-ku, Osaka 547-0003, Japan  
Phone : +81 (06) 6793 5302  
Fax : +81 (06) 6793 0013  
URL : <http://www.icom.co.jp/world/index.html>

### Icom America Inc.

<Corporate Headquarters>  
2380 116th Avenue N.E., Bellevue, WA 98004, U.S.A.  
Phone : +1 (425) 454-8155 Fax : +1 (425) 454-1509  
URL : <http://www.icomamerica.com>  
E-mail : [sales@icomamerica.com](mailto:sales@icomamerica.com)  
<Customer Service>  
Phone : +1 (425) 454-7619

### Icom Canada

Glenwood Centre #150-6165  
Highway 17 Delta, B.C., V4K 5B8, Canada  
Phone : +1 (604) 952-4266 Fax : +1 (604) 952-0090  
URL : <http://www.icomcanada.com>  
E-mail : [info@icomcanada.com](mailto:info@icomcanada.com)

### Icom (Australia) Pty. Ltd.

Unit 1 / 103 Garden Road, Clayton VIC 3168 Australia  
Phone : +61 (03) 9549-7500 Fax : +61 (03) 9549-7505  
URL : <http://www.icom.net.au>  
E-mail : [sales@icom.net.au](mailto:sales@icom.net.au)

### Icom New Zealand

146A Harris Road, East Tamaki,  
Auckland, New Zealand  
Phone : +64 (09) 274 4062 Fax : +64 (09) 274 4708  
URL : <http://www.icom.co.nz>  
E-mail : [inquiries@icom.co.nz](mailto:inquiries@icom.co.nz)

### Beijing Icom Ltd.

10C07, Long silver Mansion, No.88, Yong Ding  
Road, Haidian District, Beijing, 100039, China  
Phone : +86 (010) 5889 5391/5392/5393  
Fax : +86 (010) 5889 5395  
E-mail : [bjicom@bjicom.com](mailto:bjicom@bjicom.com)  
URL : <http://www.bjicom.com>

### Icom (Europe) GmbH

Communication Equipment  
Auf der Krautweide 24  
65812 Bad Soden am Taunus, Germany  
Phone : +49 (6196) 76685-0 Fax : +49 (6196) 76685-50  
URL : <http://www.icomeurope.com>  
E-mail : [info@icomeurope.com](mailto:info@icomeurope.com)

### Icom Spain S.L

Ctra. Rubi, No. 88 Bajos A 08174, Sant Cugat del Valles, Barcelona, Spain  
Phone : +34 (93) 590 26 70 Fax : +34 (93) 589 04 46  
URL : <http://www.icomspain.com>  
E-mail : [icom@icomspain.com](mailto:icom@icomspain.com)

### Icom (UK) Ltd.

Blacksole House, Altira Park, Herne Bay, Kent CT6 6GZ, UK  
Phone : +44 (01227) 741741 Fax : +44 (01227) 741742  
URL : <http://www.icomuk.co.uk>  
E-mail : [info@icomuk.co.uk](mailto:info@icomuk.co.uk)

### Icom France s.a.s.

Zac de la Plaine  
1 Rue Brindejonc des Moulinais BP 5804  
31505 Toulouse Cedex, France  
Phone : +33 (5) 61 36 03 03 Fax : +33 (5) 61 36 03 00  
URL : <http://www.icom-france.com>  
E-mail : [icom@icom-france.com](mailto:icom@icom-france.com)

### Asia Icom Inc.

6F No.68, Sec. 1 Cheng-Teh Road, Taipei, Taiwan, R.O.C.  
Phone : +886 (02) 2559 1899 Fax : +886 (02) 2559 1874  
URL : <http://www.asia-icom.com>  
E-mail : [sales@asia-icom.com](mailto:sales@asia-icom.com)

### Icom Polska

81-850 Sopot, ul. 3 Maja 54, Poland  
Phone : +48 (58) 550 7135 Fax : +48 (58) 551 0484  
E-mail : [icompolska@icompolska.com.pl](mailto:icompolska@icompolska.com.pl)

Count on us!