

INTRODUCTION

Thank you for purchasing the IC-775 or IC-775DSP. This guide describes installation of internal units or filters, some adjustment procedures and fuse/battery replacement.

⚠ WARNING: DISCONNECT the AC power cable from the transceiver and wait a few minutes before performing any work on the transceiver.

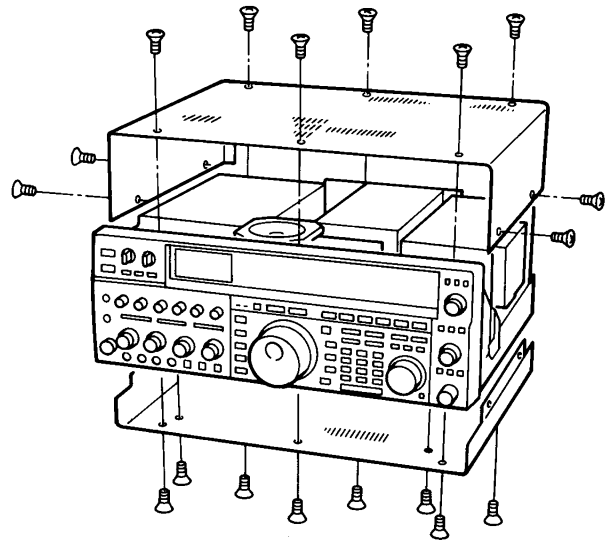
Bracketed page numbers refer to the instruction manual.

OPENING THE TRANSCEIVER'S CASE

Follow the case and cover opening procedures shown here when you want to install an optional unit or adjust the internal units, etc.

• **To see the RF, IF and PLL units**

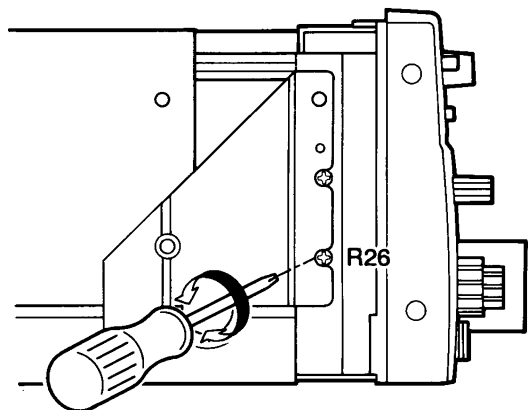
- ① Remove 6 screws from the transceiver's top and 4 screws from the sides, then remove the top cover.
- ② Turn the transceiver upside down.
- ③ Remove 8 screws from the bottom cover, then remove the bottom cover.
- ④ Now you can see the RF, IF and PLL units.



BEEP TONE VOLUME ADJUSTMENT

Confirmation beeps sound each time a switch is pushed. The beep volume can be adjusted as follows.

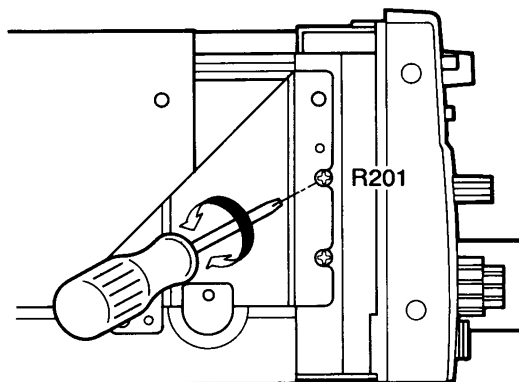
- ① Remove the top cover as described above.
- ② Set [AF] to the desired audio output level.
- ③ Turn the confirmation beeps ON in H-set mode. (p. 44)
- ④ Rotate R26 (see right) while pushing [SET] to obtain the desired volume.



DISPLAY DIMMER ADJUSTMENT

The low intensity of the display backlighting can be adjusted as follows.

- ① Remove the top cover as described on the first page.
- ② Select low intensity for the display dimmer in P-set mode. (p. 41)
- ③ Rotate R201 (see right) to obtain the desired intensity as shown at right.

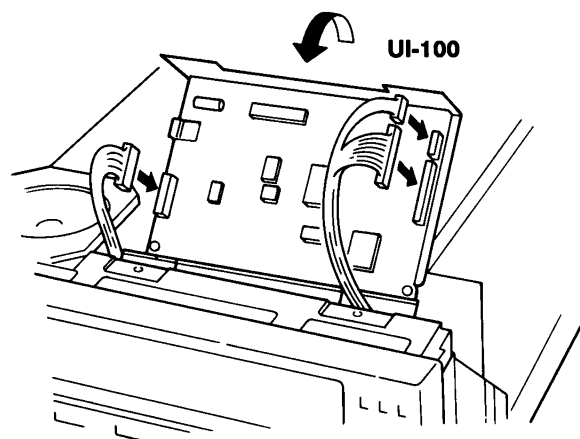


UI-100 DSP UNIT INSTALLATION

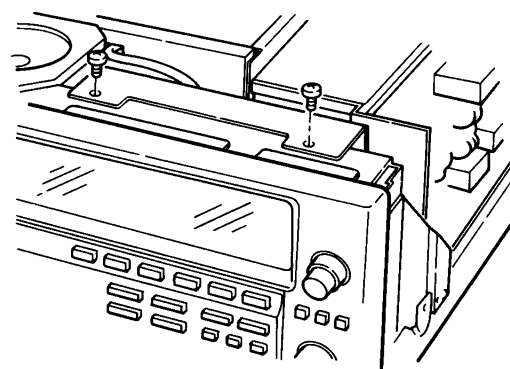
The UI-100 DSP UNIT provides noise reduction, DSP modulation/demodulation, DSP filters, auto notch, auto APF, etc. for the IC-775. The IC-775DSP has a DSP unit as standard.

Install the DSP unit as follows:

- ① Remove the top cover as described on the first page.
- ② Connect the 3 plugs (attached to the backside of the front panel) to the appropriate connectors as shown below.



- ③ Insert the DSP unit into the slots at the backside of the main and sub dials.
- ④ Tighten the 2 supplied screws as shown below.
- ⑤ Replace the top cover.



After installation, read the instruction manual as for a "DSP-equipped type" transceiver. The [AF LPF] switch functions as the auto notch switch in SSB mode and the auto APF switch in CW mode.

For DSP function details, refer to the instruction manual.

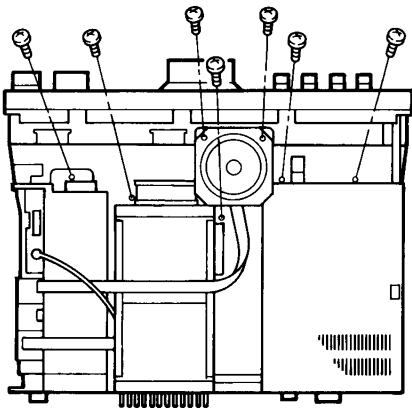
- Noise reduction (p. 29)
- DSP modulation/demodulation (p. 42)
- DSP filters (p. 42)
- Auto notch (p. 29)
- Auto APF/80 Hz ultra narrow filter (p. 30)

AC VOLTAGE SELECTION

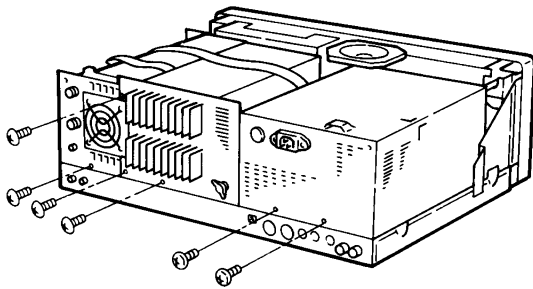
⚠ WARNING: DISCONNECT the AC power cable from the transceiver and wait a few minutes before selecting an AC power voltage.

The regulator unit in the IC-775DSP can be switched to 120 or 230 V AC.

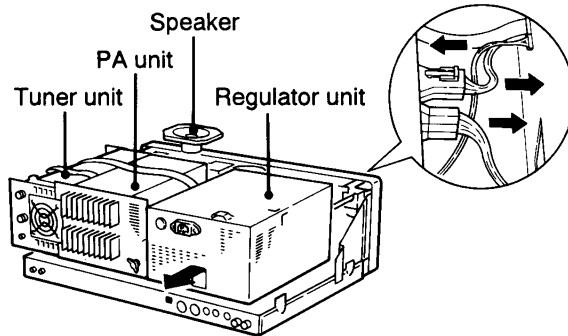
- ① Remove the top and bottom covers as described on the first page.
- ② Remove the 7 screws and the [POWER] switch cover as shown below.



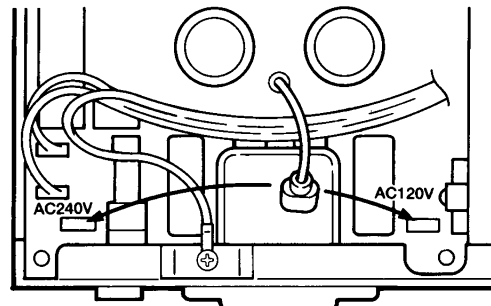
- ③ Remove the 6 screws as shown below.



- ④ Remove the speaker, tuner unit, PA unit and regulator unit in sequence. Unplug the 3 power connectors as shown below.



- ⑤ Remove the 16 screws to remove the internal shield cover of the regulator unit.
- ⑥ Unplug the cable as shown in the diagram below, then connect it to the desired voltage position.



- ⑦ Change the AC fuse to an appropriate one. (p. 56)
- ⑧ Replace the internal shield cover and plug in the 3 power connectors. Replace the regulator unit, then check the movement of the [POWER] switch. Replace the remaining units, covers and screws.

⚠ WARNING: DO NOT forget to change the AC fuse when you change the AC input voltage. An incorrect fuse may pose a fire hazard.

- 12 A FGMB fuse for 100–120 V versions
- 5 A high breaking capacity fuse for 220–240 V versions

OPTIONAL FILTER INSTALLATION

After installing optional filters, the transceiver has 3* kinds of selectivity for 2nd and 3rd IF filters to provide better S/N (signal-to-noise ratio), or to reject nearby interference.

* FM mode: 2 kinds of selectivity

Following optional filters are available.

IF	Filter	Passband width	Used selectivity
2nd	FL-101	250 Hz/ - 6 dB	CW nar.
	FL-102	6.0 kHz/ - 6 dB	SSB wide, AM med., FM nar.
	FL-223	1.9 kHz/ - 6 dB	SSB nar.
3rd	FL-53A	250 Hz/ - 6 dB	CW nar.
	FL-222	1.9 kHz/ - 6 dB	SSB nar.

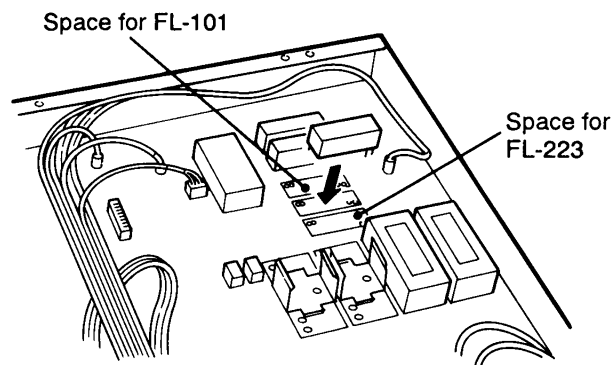
When only 1 filter is installed for selectivity, such as a FL-101 installed but no FL-53A installed, optimum performance cannot be obtained for the selectivity and the twin PBT function does not operate correctly. Both filters, such as FL-101 and FL-53A, should be installed.

FILTER SELECTION

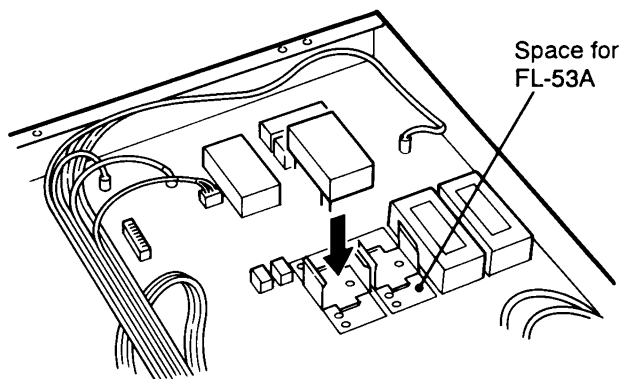
After the filter(s) are installed, activate the optional filter(s) in H-set mode. (p. 47) If this is not correctly set, the installed filter(s) cannot be selected.

- ① Remove the top and bottom covers as described on the first page.
- ② Insert the filter(s) to the proper position. The locations are shown in the figures below.
 - The FL-53A and FL-222 must be installed in the proper direction.
 - The FL-101, FL-102 or FL-223 work regardless of the direction they are installed in.
- ③ Replace the top and bottom covers.

FL-102 (or FL-101, FL-223) installation



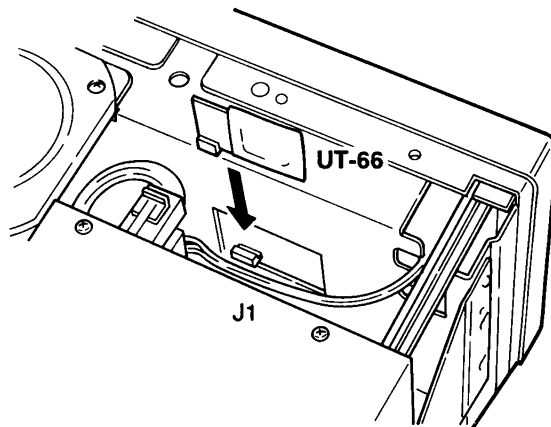
FL-222 (or FL-53A) installation



UT-66 VOICE SYNTHESIZER UNIT INSTALLATION

The UT-66 announces the operating frequency or selected mode in a clear, electronically-generated voice (in English or Japanese).

- ① Remove the top cover as described on the first page.
- ② Plug the UT-66 into J1 on the MAIN unit (back-side of the S/RF meter) as shown in the figure at right.
- ③ Replace the top cover.
- ④ Set the language and speech speed in H-set mode. (p. 44)



CR-282 HIGH-STABILITY CRYSTAL UNIT INSTALLATION

By replacing the original crystal unit with this unit, the total frequency stability of the transceiver will be improved.

CR-282 frequency stability:

± 0.5 ppm

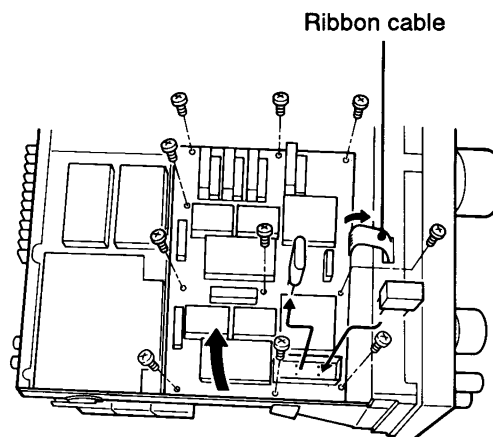
(-30°C to $+60^{\circ}\text{C}$; -22°F to $+140^{\circ}\text{F}$)

- ① Remove the top and bottom covers as described on the first page.
- ② Remove 10 screws from the PLL unit and the ribbon cable from J11; then turn over the PLL unit to see the reverse side. (Fig. 1)
- ③ Unsolder the leads of the installed crystal, then remove the crystal.
 - Use a desoldering braid.
- ④ Unsolder the 4 positions on the PLL unit where the CR-282 will be installed.
- ⑤ Install the CR-282 in the PLL unit, paying attention to orientation.
 - Symbols on the bottom of the CR-282 must be identically matched with symbols on the P.C. board.
- ⑥ Bend the leads of the CR-282 at the foil side of the P.C. board and solder them as shown in figure 2 at right.
- ⑦ Trim the leads even with the solder points.
- ⑧ Replace the PLL unit, ribbon cable and covers.

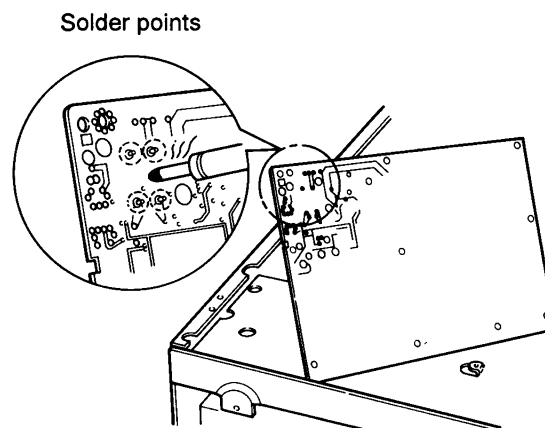
After changing the crystal unit, frequency adjustment is necessary with L4 on the PLL unit.

- Ask your Icom Dealer or Icom Service Center for details.

NOTE: The CR-282 is an oven-heat-type crystal unit, and the specified frequency stability described above is guaranteed 1 min. after power ON.



(Fig. 1)



(Fig. 2)

FUSE REPLACEMENT

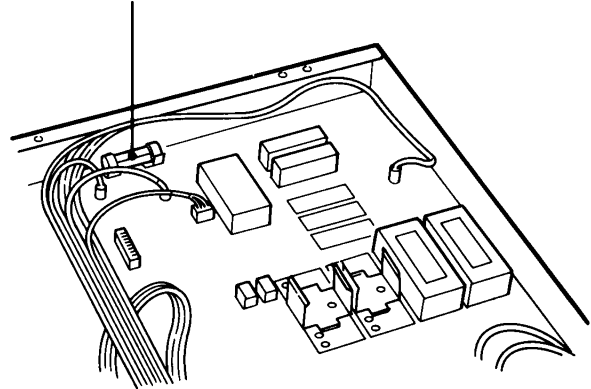
WARNING: DISCONNECT the AC power cable and wait a few minutes before opening the top and bottom covers.

The transceiver has an external DC line fuse independent of the AC line fuse. This fuse is installed under the bottom cover.

If the fuse blows, try to find the source of the problem, and replace the damaged fuse with a new, rated fuse.

- ① Remove the top and bottom covers as described on the first page.
- ② Replace the damaged fuse with a new, rated fuse as shown at right.
- ③ Replace the top and bottom covers.

2 A FGB fuse for 100 – 120 V versions
2 A high breaking capacity fuse for 220 – 240 V versions



BACKUP BATTERY REPLACEMENT

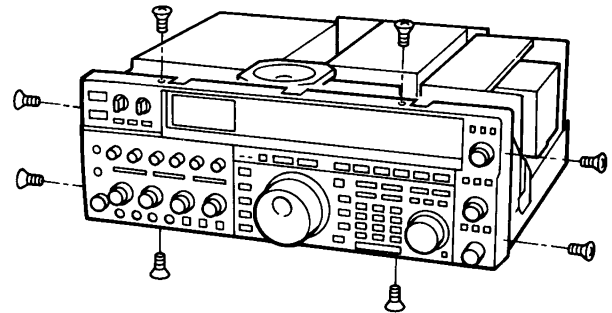
The transceiver has a lithium backup battery on the inside of the front panel (MAIN unit) for retaining operating conditions. The usual life of the backup battery is approximately 5 years.

When the backup battery is exhausted, the transceiver transmits and receives normally but cannot retain operating conditions except for memory channels.

CAUTION: If the lithium battery is incorrectly replaced, it could explode. Replace with a CR-2032 or equivalent type.

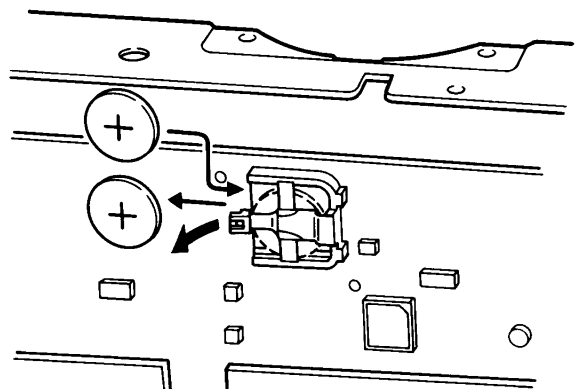
- ① Remove the top and bottom covers as described on the first page.
- ② Remove 8 screws from the front panel as shown in figure 1 at right.
- ③ Remove the front panel.
- ④ Replace the backup battery as shown in figure 2 at right.
- ⑤ Reassemble the front panel.
- Check that the [POWER] switch works smoothly.
- ⑥ Replace the top and bottom covers.

CAUTION: After replacing the lithium battery, turn power ON and OFF, otherwise, the lithium battery will become exhausted rapidly.



(Fig. 1)

Top side : ⊕
Bottom side : ⊖
(⊕ terminal is visible after installation.)



(Fig. 2)