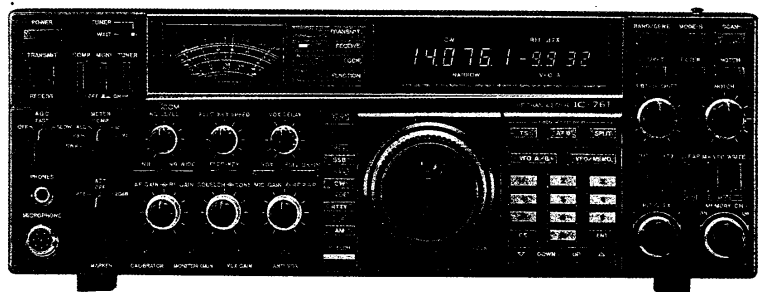




INSTRUCTION MANUAL

HF ALL BAND TRANSCEIVER
GENERAL COVERAGE RECEIVER

IC-761



Icom Inc.

FOREWORD

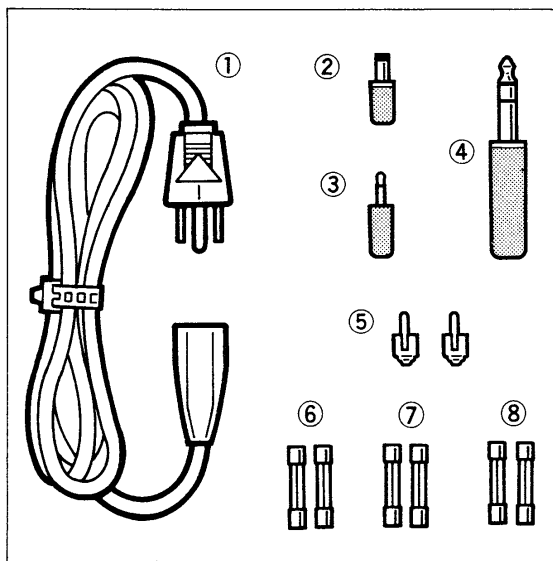
ICOM's new, multi-function **IC-761** all solid state HF transceiver is designed to answer the increasing demand of today's Amateur radio operators for higher precision, sophisticated radio communications. The **IC-761** incorporates the latest in ICOM engineering advances in solid state transceiver design such as a higher dynamic range for receiving and greater quality final amplifier circuits.

In the past, ICOM HF transceivers have been used on various DX-peditions in many countries. Their performances on those occasions have helped establish their reputation for excellence among Amateur radio operators all over the world today. An added benefit of these DX-peditions has been the positive response from Amateur users to ICOM's advanced HF automatic antenna tuners which provide comprehensive, uncomplicated antenna tuning operations on the HF bands. Feedback to ICOM from Amateur users everywhere has therefore been very instrumental in the design effort to provide the finest HF equipment available to Amateurs.

The result of this feedback is the **IC-761**, an all mode, multi-purpose base station HF transceiver with general coverage and advanced HF automatic antenna tuning capability.

To thoroughly understand the capabilities of your new **IC-761**, please study this instruction manual carefully before attempting operation. If you have additional questions regarding the operation or capabilities of the **IC-761**, feel free to contact your nearest ICOM Dealer or Service Center.

UNPACKING



| Accessories included with the IC-761: | Qty. |
|--|------|
| ① AC cord. | 1 |
| ② DC power plug | 1 |
| ③ External speaker plug. | 1 |
| ④ CW key plug. | 1 |
| ⑤ Pin plugs (RCA plugs) | 2 |
| ⑥ Spare fuses for AC line (See below). | 2 |
| ⑦ Spare fuses for DC line (5A) | 2 |
| ⑧ Spare fuses for 13.8V DC OUTPUT (2A) | 2 |

120V AC type : 10A
220 ~ 240V AC type : 5A

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1. PRECAUTIONS AND PREPARATIONS

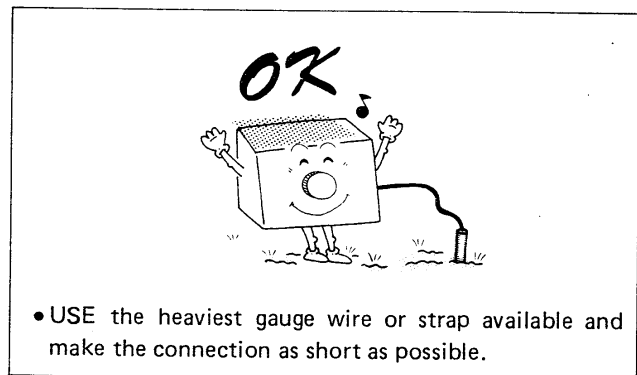
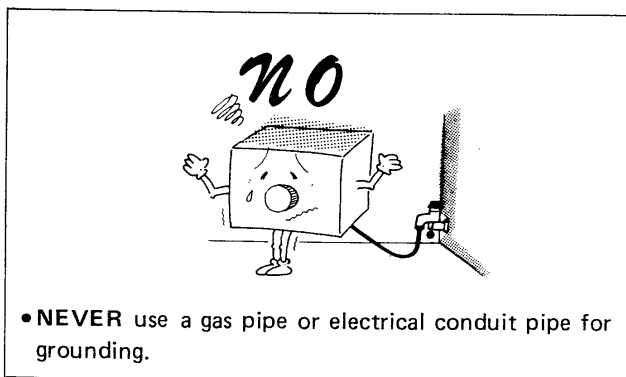
■ INSTALLATION PRECAUTIONS

1. Avoid using the **IC-761** in the following situations:
 - a. Where temperatures under -10°C or over $+60^{\circ}\text{C}$ are encountered. For example, **DO NOT** use the **IC-761** in areas exposed to direct sunlight or near heat-producing devices such as heaters or ranges.
 - b. In humid or moist places including bathrooms.
2. **DO NOT** run the antenna feedline near electronic instruments or magnetic compasses.
3. **DO NOT** place the transceiver within the reach of babies or small children when turning the transceiver **ON**.
4. **DO NOT** place any liquids on or near the transceiver as spilling could result in fire risk or electric shocks.
5. An extension cord should not be used unless absolutely necessary. Use of improper extension cords could result in fire risk or electric shocks.
6. **DO NOT** let metal strips, wire, etc., come into contact with internal components in the transceiver.

■ GROUNDING

To prevent electrical shocks, TVI, BCI and other problems, be sure to ground the transceiver through the **GROUND TERMINAL**. For best results, use the heaviest gauge wire or strap available and make the connection as short as possible.

ONLY use a city water pipe as a good earth point if the pipe is well grounded and made of metal. **NEVER** use a gas pipe or electrical conduit pipe for grounding.



■ ANTENNA

Antennas play a very important role in radio communication. If the antenna is inferior, your transceiver cannot give you the best performance. A well-matched 50Ω antenna and feedline will provide the desired performance.

2. FEATURES

■ COMPLETE HF TRANSCEIVER

- BUILT-IN AUTOMATIC ANTENNA TUNER

The IC-761 is equipped with an advanced HF antenna tuner system for quick, complete, and well matched antenna performance.

- FULL BREAK-IN FUNCTION

Full break-in as well as semi break-in operation are provided for smooth, fast, and natural CW conversations.

- BUILT-IN ELECTRONIC KEYSER FUNCTION

Automatic keying is possible in the IC-761 with the simple connection of an iambic paddle. The number of dots and dashes can be controlled by the operator with the result that CW operation is easier and more enjoyable.

- BUILT-IN HIGH STABILITY CRYSTAL UNIT

The IC-761 has a built-in high stability crystal unit which incorporates a temperature-compensating oven heater, resulting in a frequency stability of less than $\pm 100\text{Hz}$ at $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$.

■ OUTSTANDING RECEIVER PERFORMANCE

- GENERAL COVERAGE RECEIVER

The IC-761 features general coverage receive capability with a tuning range from 100kHz to 30MHz. This wide range is accomplished by means of up-conversion using a high side IF and a CPU control system.

- ICOM'S DFM SYSTEM

The ICOM DFM (Direct Feed Mixer) feeds the incoming signals directly into a high level first mixer developed by ICOM. This advanced system produces a higher spurious response rejection ratio, a higher receiver sensitivity and a wider dynamic range.

- 105dB DYNAMIC RANGE

The IC-761 has a 105dB dynamic range. Even with the PREAMP switched ON, the dynamic range is approximately 100dB.

■ LARGE MEMORY CAPACITY CPU INSTALLED

- 32 MEMORIES

Thirty-two programmable memories are provided to store mode and frequency, and the CPU is backed up by an internal lithium battery to maintain the memories for up to ten years.

- ADVANCED REMOTE CONTROL SYSTEM

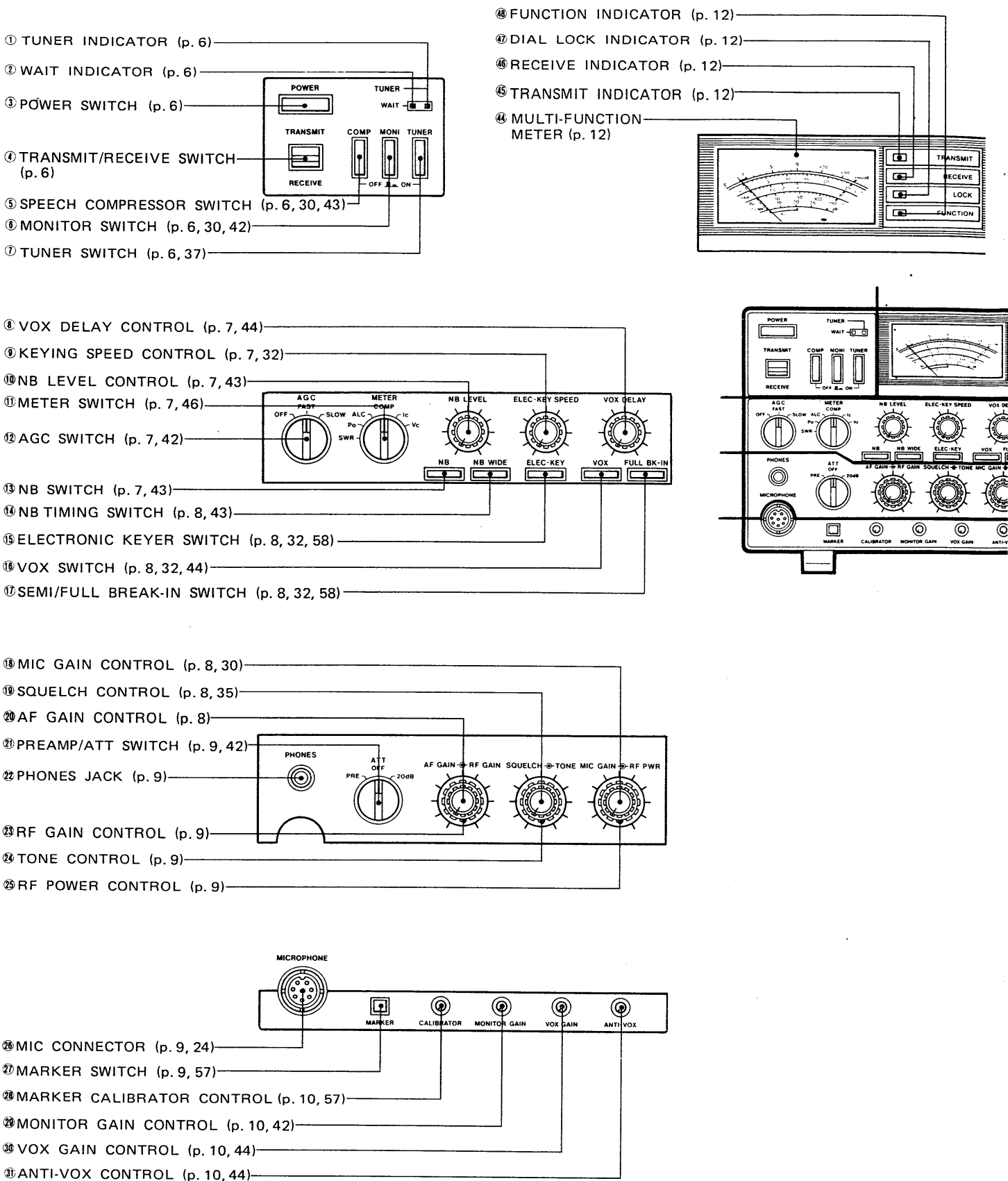
Full communications using a personal computer equipped with an RS-232C jack are possible by using the serial port mounted on the rear panel of the IC-761. The computer controls frequency, mode, VFO A/B selection, and memories when an appropriate interface is used. The serial port uses a standard 1200bps data rate.

- SCANNING VERSATILITY

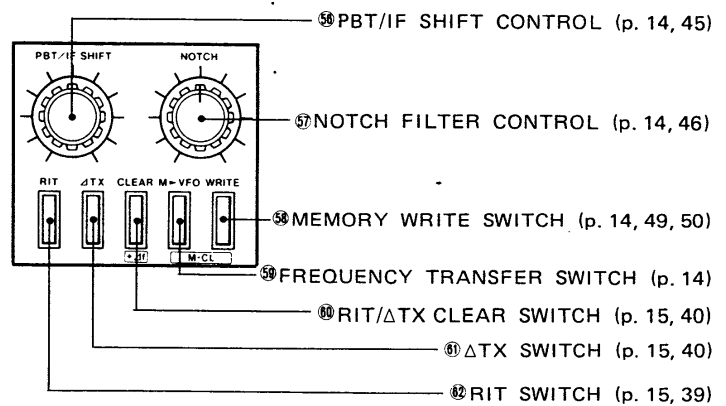
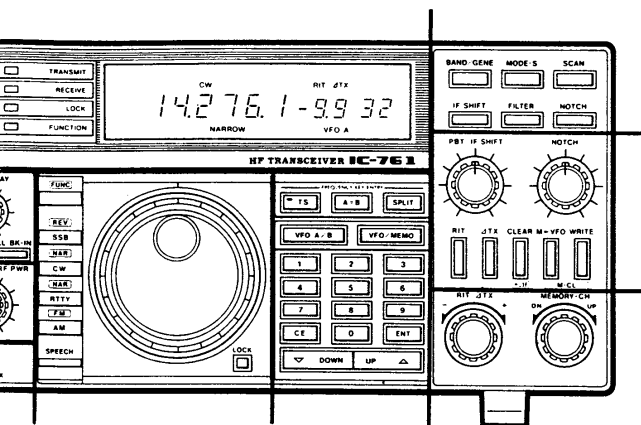
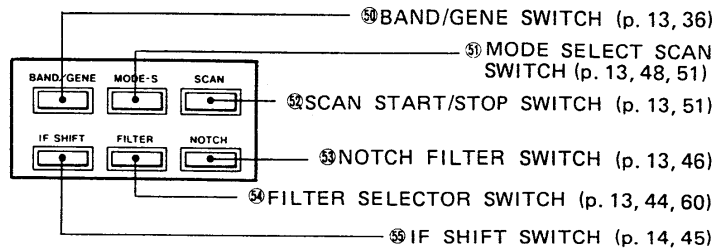
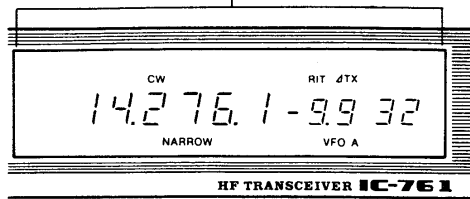
The IC-761 incorporates a total of four separate scanning functions for easy access to a wide range of frequencies.

3. CONTROL FUNCTIONS

FRONT PANEL



④ FREQUENCY DISPLAY (p. 13, 15, 16)



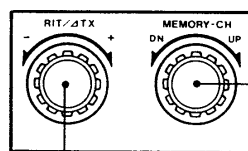
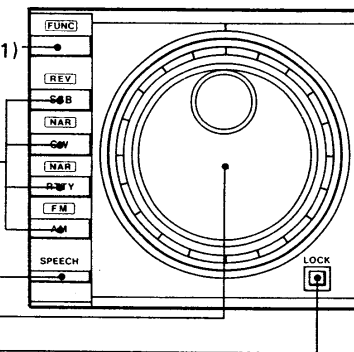
⑮ FUNCTION SWITCH (p. 10, 11)

⑯ MODE SWITCHES (p. 11, 28)

⑰ SPEECH SWITCH (p. 11, 59)

⑱ TUNING CONTROL (p. 10)

⑲ DIAL LOCK SWITCH (p. 10)

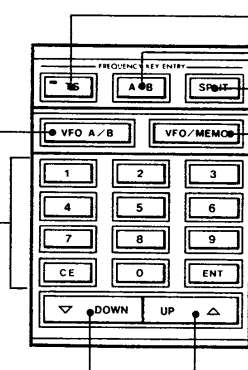


⑳ MEMORY-CH SELECTOR CONTROL (p. 15, 48, 49)

㉑ RIT/ΔTX TUNING CONTROL (p. 15, 39)

㉒ VFO A/B SWITCH (p. 11, 47, 48)

㉓ KEYBOARD (p. 12, 28)



㉔ TUNING SPEED SWITCH (p. 11)

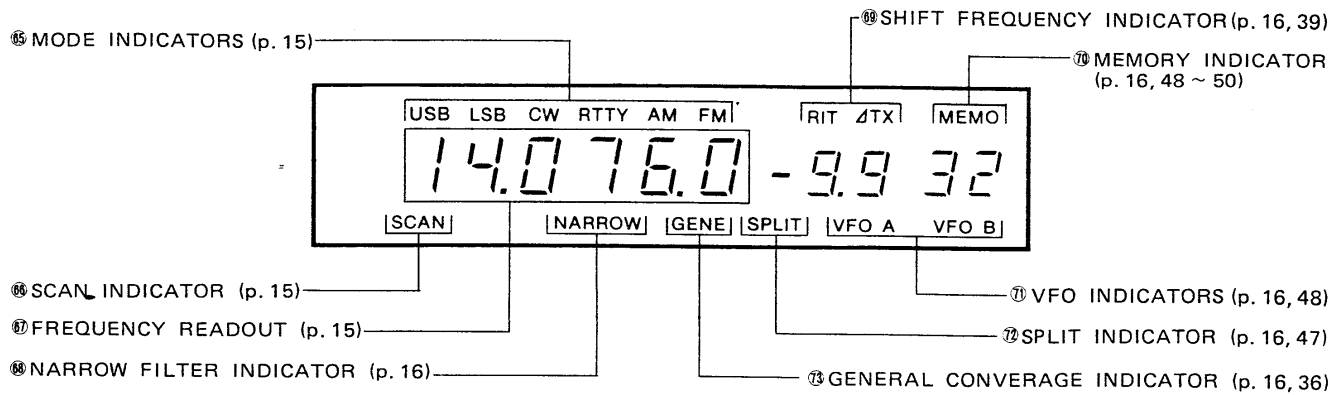
㉕ VFO EQUALIZING SWITCH (p. 11)

㉖ SPLIT (DUPLEX) SWITCH (p. 12, 47)

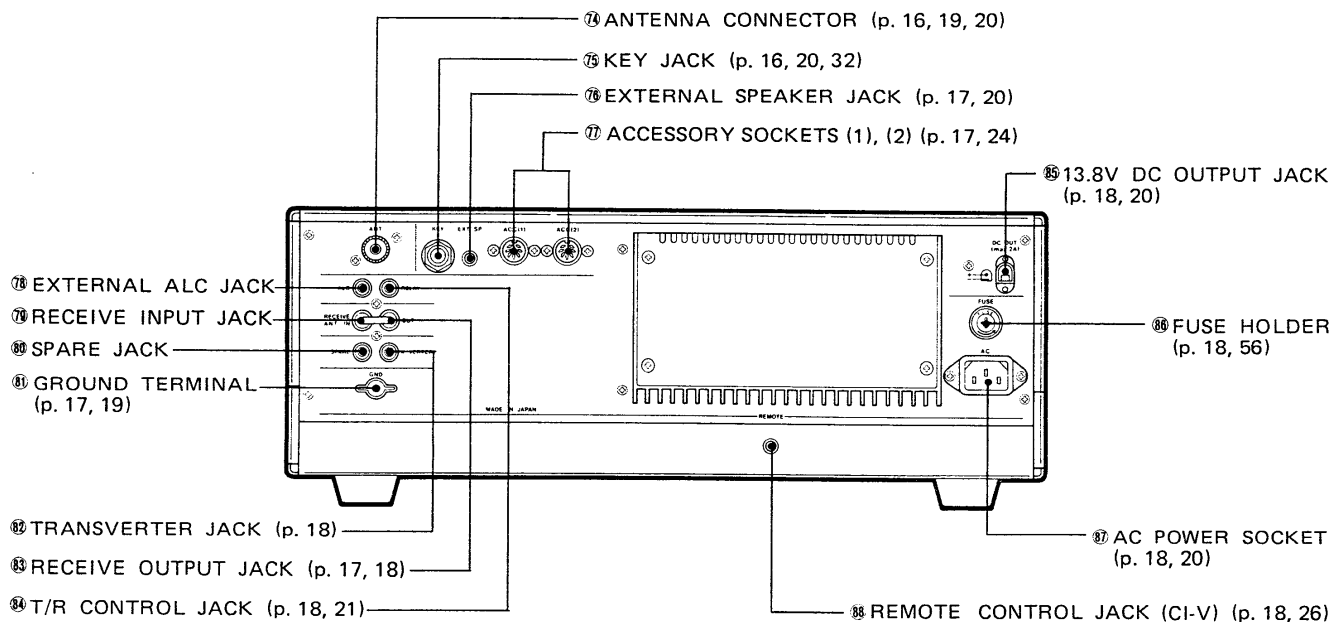
㉗ VFO/MEMORY SWITCH (p. 12, 48)

㉘ UP/DOWN SWITCHES (p. 12, 27)

■ FREQUENCY DISPLAY



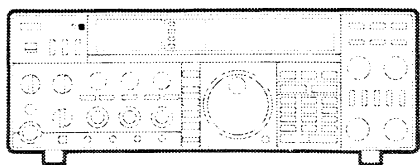
■ REAR PANEL



3-1 FRONT PANEL

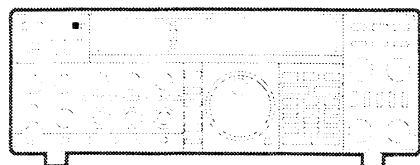
① TUNER INDICATOR [TUNER]

Lights up when the built-in antenna tuner is turned ON.



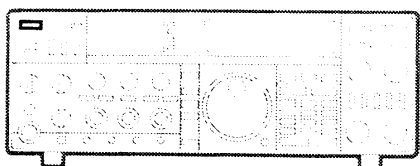
② WAIT INDICATOR [WAIT]

Lights up while the tuning capacitors in the antenna tuner move to preset positions.



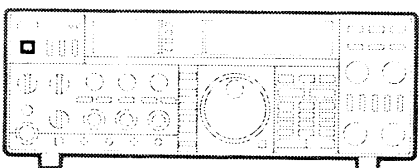
③ POWER SWITCH [POWER]

This is a push-lock switch which controls the input AC power to the IC-761.



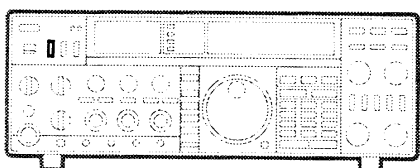
④ TRANSMIT/RECEIVE SWITCH

This switch is used to manually switch the transceiver from transmit to receive mode and vice versa.



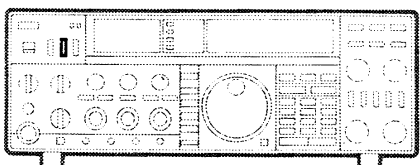
⑤ SPEECH COMPRESSOR SWITCH [COMP] (p. 30, 43)

This switch turns the built-in speech compressor circuit ON and OFF.



⑥ MONITOR SWITCH [MONI] (p. 30, 42)

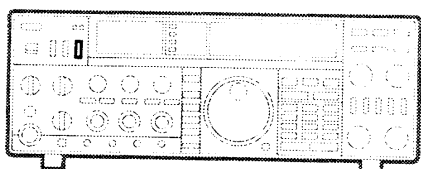
This switch turns the monitor circuit ON and OFF.



⑦ TUNER SWITCH [TUNER] (p. 37)

This switch turns the built-in antenna tuner ON and OFF.

- Output power bypasses the built-in antenna tuner when the [TUNER] SWITCH is in OUT (OFF) position.



Count on us!

