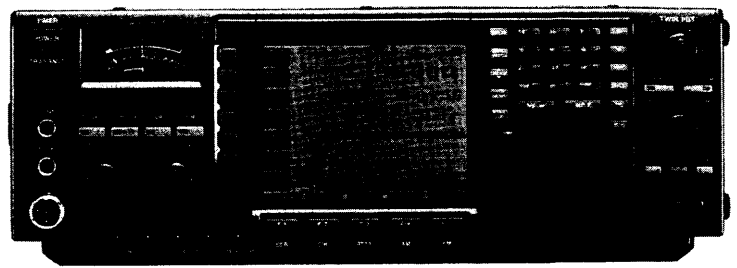


ICOM

INSTRUCTION MANUAL

HF/50 MHz
ALL MODE TRANSCEIVER
IC-756



Icom Inc.

IMPORTANT

READ THIS INSTRUCTION MANUAL CAREFULLY before attempting to operate the transceiver.

SAVE THIS INSTRUCTION MANUAL. This instruction manual contains important safety and operating instructions for the IC-756.

PRECAUTIONS

⚠ WARNING HIGH VOLTAGE! NEVER attach an antenna or internal antenna connector during transmission. This may result in an electrical shock or burn.

⚠ NEVER apply AC to the [DC13.8V] socket on the transceiver rear panel. This could cause a fire or ruin the transceiver.

⚠ NEVER apply more than 16 V DC, such as a 24 V battery, to the [DC13.8V] socket on the transceiver rear panel. This could cause a fire or ruin the transceiver.

⚠ NEVER let metal, wire or other objects touch any internal part or connectors on the rear panel of the transceiver. This will cause electric shock.

⚠ NEVER expose the transceiver to rain, snow or any liquids.

NEVER allow children to play with the transceiver.

AVOID using or placing the transceiver in areas with temperatures below -10°C ($+14^{\circ}\text{F}$) or above $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$). Be aware that temperatures on a vehicle's dashboard can exceed 80°C ($+176^{\circ}\text{F}$), resulting in permanent damage to the transceiver if left there for extended periods.

AVOID placing the transceiver in excessively dusty environments or in direct sunlight.

AVOID placing the transceiver against walls or putting anything on top of the transceiver. This will obstruct heat dissipation.

During mobile operation, **DO NOT** operate the transceiver without running the vehicle's engine. When transceiver power is ON and your vehicle's engine is OFF, the vehicle's battery will soon become exhausted.

Make sure the transceiver power is OFF before starting the vehicle. This will avoid possible damage to the transceiver by ignition voltage spikes.

During maritime mobile operation, keep the transceiver and microphone as far away as possible from the magnetic navigation compass to prevent erroneous indications.

BE CAREFUL! The heatsink will become hot when operating the transceiver continuously for long periods.

BE CAREFUL! If a linear amplifier is connected, set the transceiver's RF output power to less than the linear amplifier's maximum input level, otherwise, the linear amplifier will be damaged.

Use Icom microphones only (supplied or optional). Other manufacturer's microphones have different pin assignments and connection to the IC-756 may damage the transceiver.

EXPLICIT DEFINITIONS

WORD	DEFINITION
⚠ WARNING	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

The explicit definitions described at left apply to this instruction manual.

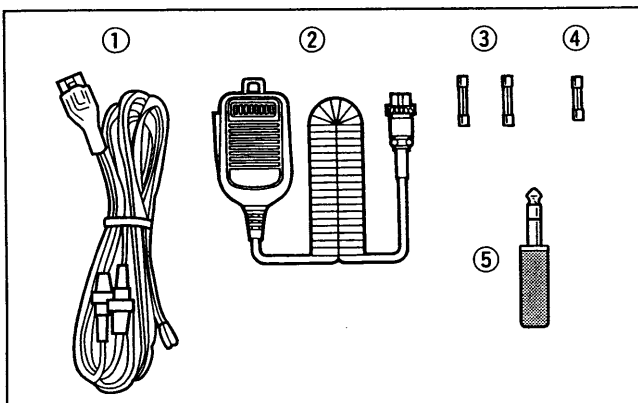


The IC-756 complies with the essential requirements of the 89/336/EEC directive for Electromagnetic Compatibility. This compliance is based on conformity with the ETSI specification prETS300 684 (EMC product standard for Commercially Available Amateur Radio Equipment).

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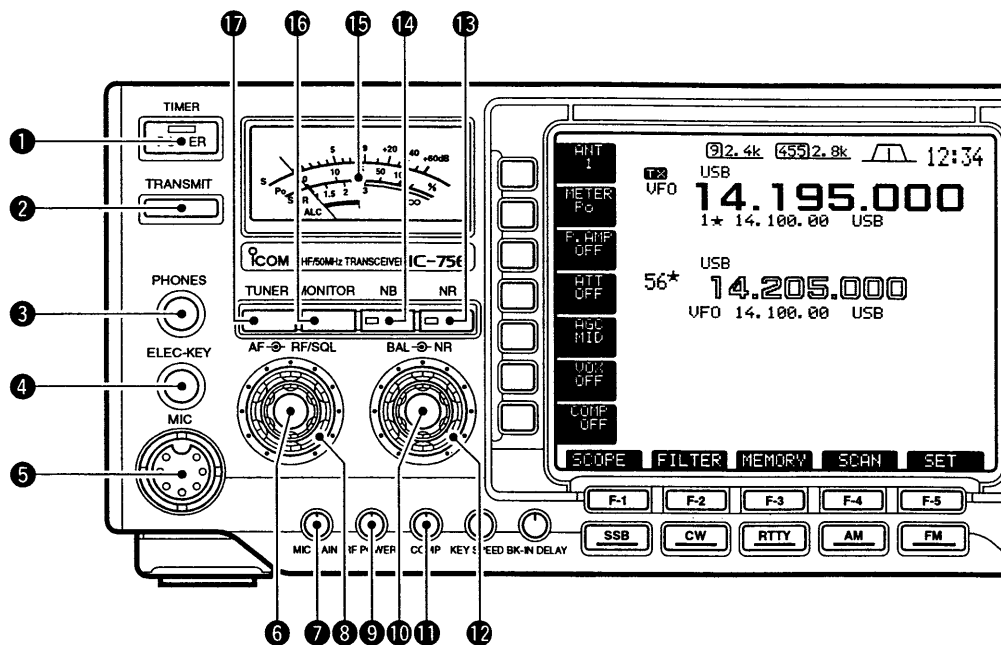
UNPACKING



Accessories included with the IC-756:	Qty.
① DC power cable (OPC-025A)	1
② Hand microphone (HM-36)	1
③ Spare fuses (FGB 20 A)	2
④ Spare fuse (FGB 5 A)	1
⑤ CW keyer plug (AP-330)	1

1 PANEL DESCRIPTION

■ Front panel



1 POWER SWITCH [POWER/TIMER]

- Push momentarily to turn power ON.
 - Turn the optional DC power supply ON in advance.
- Push momentarily to toggle the timer function ON and OFF. (p. 52)
 - The power switch lights while the timer function is ON.
- Push for 2 sec. to turn power OFF.

2 TRANSMIT SWITCH [TRANSMIT]

- Selects transmitting or receiving.
- The [TX] indicator lights red while transmitting and the [RX] indicator lights green when the squelch is open.

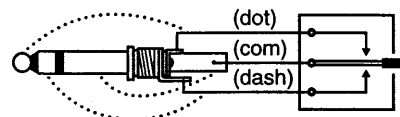
3 HEADPHONE JACK [PHONES]

- Accepts headphones.
- When headphones are connected, the internal speaker or connected external speaker does not function.

4 ELECTRONIC KEYS JACK [ELEC-KEY] (p. 35)

Accepts a paddle to activate the internal electronic keyer for CW operation.

- Selection between the internal electronic keyer, bug-key and straight key operation can be made in keyer set mode. (p. 35)
- A straight key jack is separately available on the rear panel. See [KEY] on p. 11.
- Keyer polarity (dot and dash) can be reversed in keyer set mode. (p. 35)
- 4-channel memory keyer is available for your convenience. (p. 36)

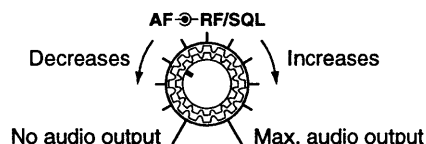


5 MICROPHONE CONNECTOR [MIC]

- Accepts the supplied or optional microphone.
- See p. 68 for appropriate microphones.
 - See p. 8 for microphone connector information.

6 AF CONTROL [AF] (inner control)

- Varies the audio output level from the speaker.



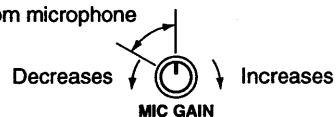
7 MIC GAIN CONTROL [MIC GAIN]

- Adjusts microphone input gain.

✓ How to set the microphone gain.

Set the [MIC] control so that the ALC meter sometimes swings during normal voice transmission in SSB mode.

Recommended level for an Icom microphone

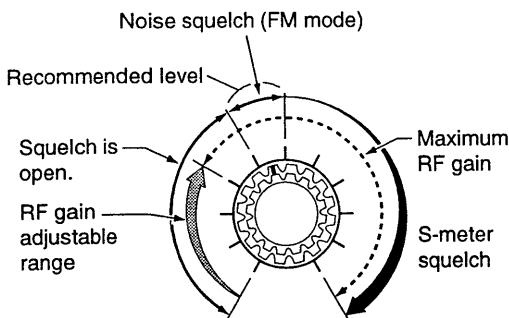


8 RF GAIN CONTROL/SQUELCH CONTROL [RF/SQL] (outer control)

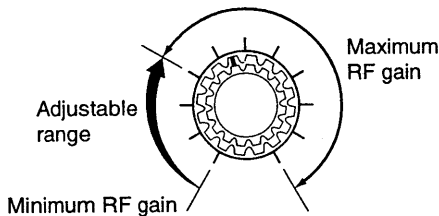
Adjusts the RF gain and squelch threshold level. The squelch removes noise output from the speaker (closed condition) when no signal is received.

- The squelch is particularly effective for FM. It is also available for other modes.
- The control can be set as the RF gain control only (squelch is fixed open) or squelch control (RF gain is fixed at maximum) in set mode as follows. (p. 56)
- 11 to 12 o'clock position is recommended for any setting of the [RF/SQL] control.

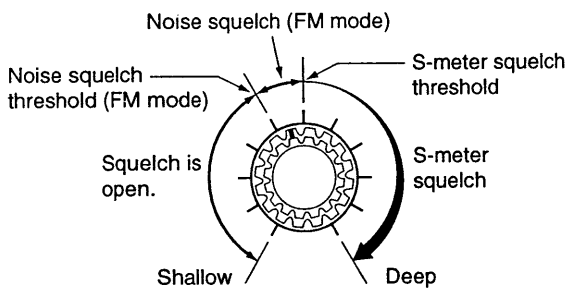
•When setting as RF gain/squelch control



•When setting as RF gain control (Squelch is fixed open.)



•When setting as squelch control (RF gain is fixed at maximum.)



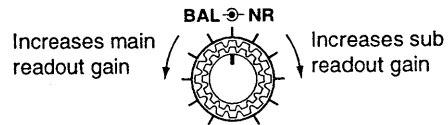
9 RF POWER CONTROL [RF POWER]

Continuously varies the RF output power from minimum (2 W*) to maximum (100 W*).

* AM mode: 1 W to 40 W



10 BALANCE CONTROL [BAL] (inner control; p. 30)
Adjusts the audio output balance between main and sub readout frequencies while in dualwatch.

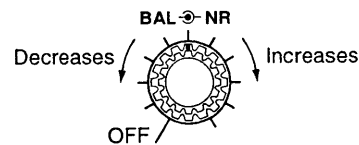


11 COMPRESSION LEVEL CONTROL [COMP] (p. 34)
Adjusts the speech compression level in SSB.



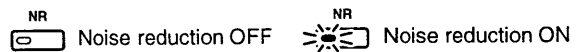
12 NOISE REDUCTION LEVEL CONTROL [NR] (outer control; p. 26)

Adjusts the noise reduction level when the noise reduction is in use. Set for maximum readability.



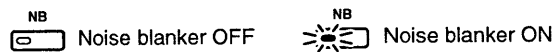
13 NOISE REDUCTION SWITCH [NR] (p. 26)

Toggles the noise reduction ON and OFF. Functions in SSB, CW and RTTY modes.



14 NOISE BLANKER SWITCH [NB] (p. 26)

Toggles the noise blanker ON and OFF. The noise blanker reduces pulse-type noise such as that generated by automobile ignition systems. This function cannot be used for FM, or non-pulse-type noise.



15 S/R F METER (p. 34)

Shows the signal strength while receiving. Shows the relative output power, SWR or ALC levels while transmitting.

16 MONITOR SWITCH [MONITOR] (p. 33)

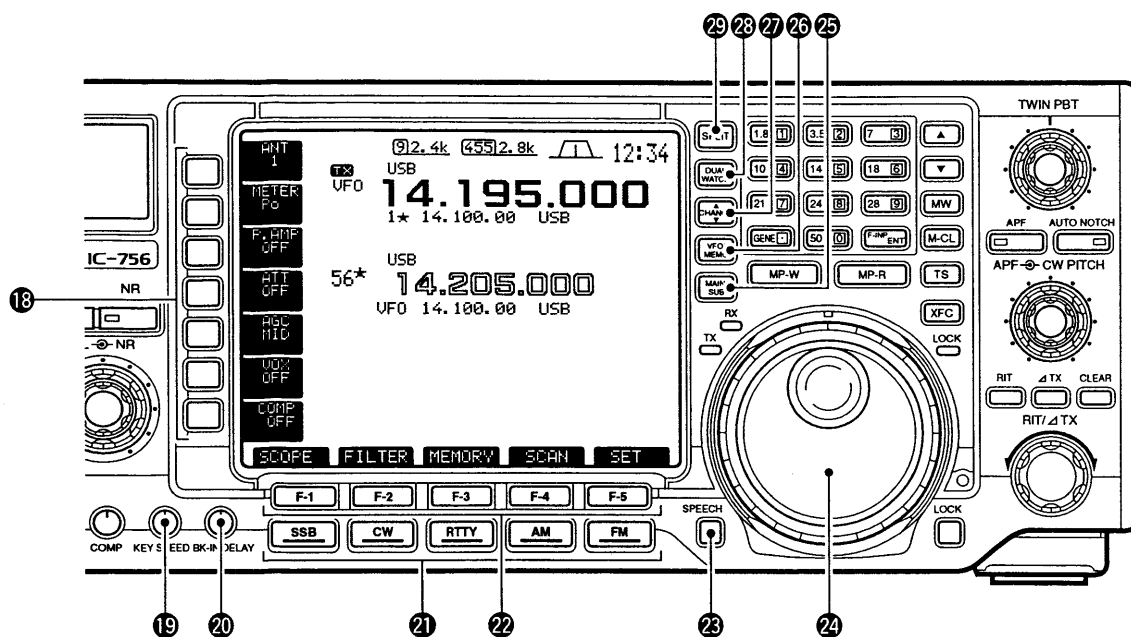
Monitors your transmitted IF signal.

- The CW sidetone functions when [MONITOR] is OFF in CW mode.

17 ANTENNA TUNER SWITCH [TUNER] (p. 39)

- Turns the antenna tuner ON and OFF (bypass) when pushed momentarily.
- Starts to tune the antenna manually when pushed for 2 sec.
- When the tuner cannot tune the antenna, the tuning circuit is bypassed automatically after 20 sec.

1 PANEL DESCRIPTION



18 MULTI-FUNCTION SWITCHES

- Push to select the functions indicated in the LCD display to the right of these switches.
- Functions vary depending on the operating condition.
- Push to input a character for memory keyer programming or memory name. (pgs. 36, 45)



- Toggles the antenna connector selection between ANT1/R and ANT2/R when pushed. (p. 37)
- Toggles the receive antenna ON and OFF when pushed for 2 sec.



- Selects RF power (Po), SWR or ALC metering during transmit. (p. 34)



- Selects one of 2 receive RF preamps or bypasses them.
- "P. AMP1" activates 10 dB preamp for HF all bands.
- "P. AMP2" activates 16 dB high-gain preamp for 21 MHz band and above.

✓ What is the preamp?

The preamp amplifies received signals in the front end circuit to improve the S/N ratio and sensitivity. Select "P. AMP1" or "P. AMP2" when receiving weak signals.



- Selects 6 dB, 12 dB or 18 dB attenuator, or bypasses them.

✓ What is the attenuator?

The attenuator prevents a desired signal from distorting when very strong signals are near the desired frequency or when very strong electric fields, such as from a broadcasting station, are near your location.



- Activates or selects fast, middle or slow AGC time constant when pushed.
- The setting becomes "fast" in FM mode regardless of this setting.
- Deactivates the AGC circuit when pushed for 2 sec.

NOTE: While "AGC OFF" is selected, the S-meter does not function.

✓ What is the AGC?

The AGC controls receiver gain to produce a constant audio output level even when the received signal strength is varied by fading, etc. Select "FAST" for tuning and select "MID" or "SLOW" depending on the receiving condition.



- Turns the VOX function ON and OFF when pushed in non-CW modes. (p. 33)
- Enters the VOX set mode when pushed for 2 sec. in non-CW modes. (p. 33)
- Selects semi break-in, full break-in operation, or turns the break-in operation OFF when pushed in CW mode.

✓ What is the VOX function?

The VOX function (voice operated transmission) starts transmission without pushing the transmit switch or PTT switch when you speak into the microphone; then, automatically returns to receive when you stop speaking.

✓ What is the break-in function?

The break-in function toggles transmit and receive with CW keying. Full break-in (QSK) can monitor the receive signal during keying.

Count on us!