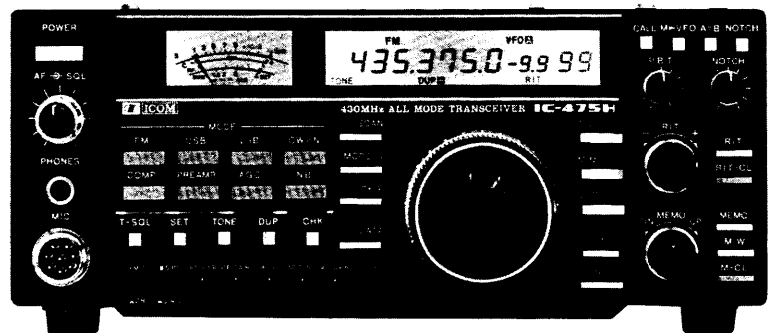


IC-475H

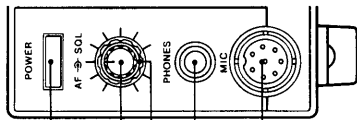
430MHz ALL MODE TRANSCEIVER

INSTRUCTION MANUAL

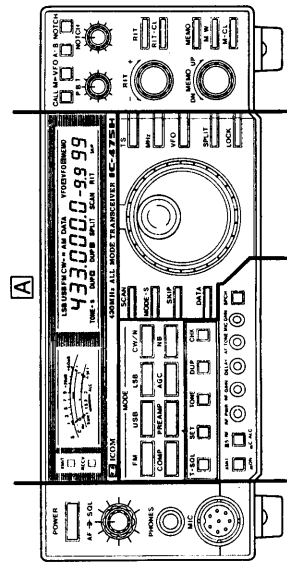


FRONT PANEL

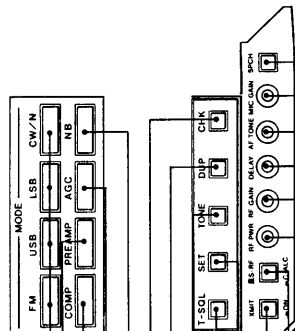
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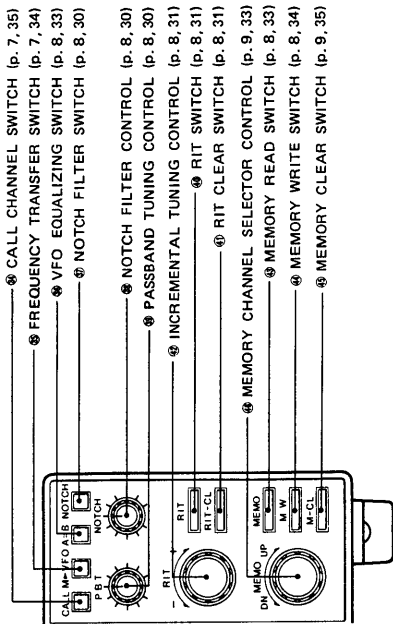
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C

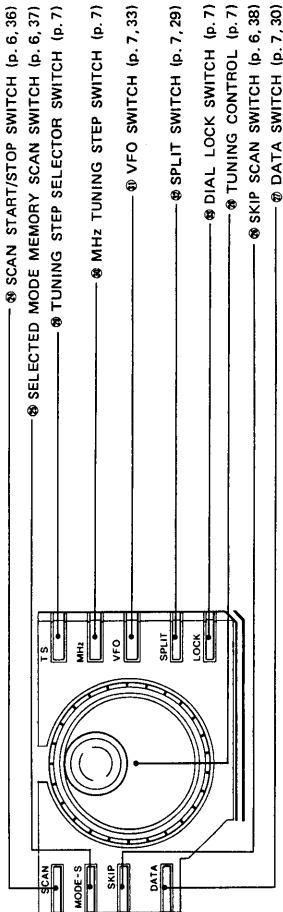


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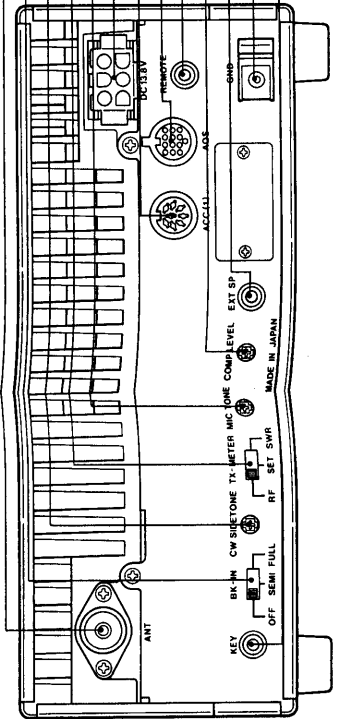
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FOREWORD

Thank you very much for choosing this ICOM product.

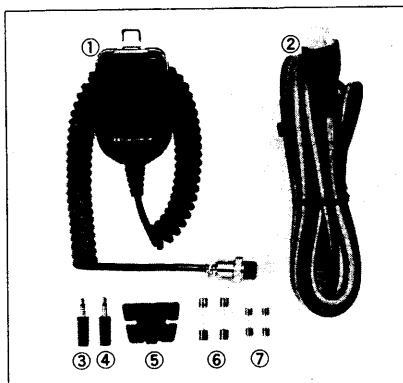
The most sophisticated, 430MHz band all mode transceiver on the market today, the **IC-475H** is the result of both advanced ICOM engineering and state-of-art computer interface technology from ICOM such as the new CI-V System: a feature that allows for easy and convenient computer control of your **IC-475H**. The **IC-475H** delivers 75 full watts of high output power and is equipped with ICOM's pioneering new DDS (Direct Digital Synthesizer) System, an advanced, computer-developed innovation that enhances the PLL circuit in the **IC-475H**.

To fully understand and appreciate the uses of your new **IC-475H**, please study this instruction manual carefully prior to operation. Feel free to contact any authorized ICOM Dealer or Service Center if you have questions regarding the operation or capabilities of the **IC-475H**.

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UNPACKING



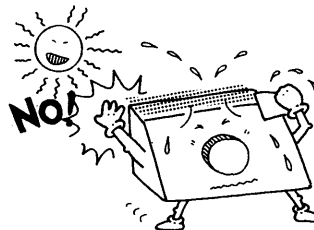
Accessories included with the IC-475H.	Qty.
① Microphone (HM-12)	1
② DC Power Cable	1
③ External Speaker Plug	1
④ Key Plug	1
⑤ Microphone Hanger	1
⑥ Spare Fuses (DC cable, 20A)	2
⑦ Spare Fuses (PA unit, 3A)	2

PRECAUTIONS AND PREPARATIONS

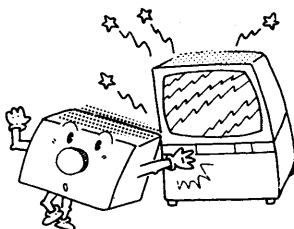
■ INSTALLATION LOCATIONS



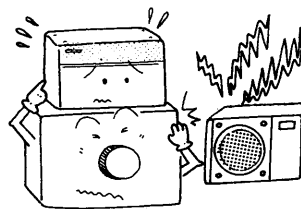
- **DO NOT** place in excessively hot, humid, or dusty environments.



- **DO NOT** use in direct sunlight.



- **DO NOT** place near radios or TV sets where unwanted noise or signals may be received.

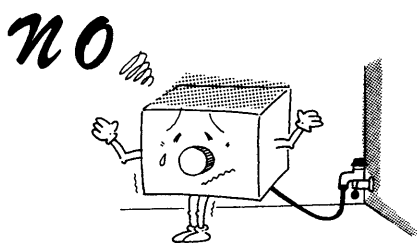


- **DO NOT** place an AC power supply on the transceiver or vice versa.

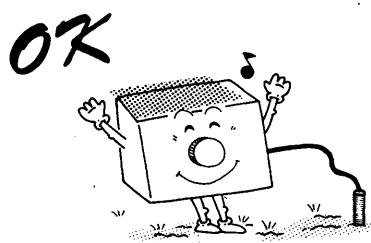
■ GROUNDING

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.



- **NEVER** use a gas pipe or electrical conduit pipe for grounding.



- **USE** the heaviest gauge wire or strap available and make the connection as short as possible.

■ OPERATING TEMPERATURE NOTE

The IC-475H especially may become hot while transmitting for long periods of time.

WARNING—DO NOT allow babies or small children to touch the IC-475H during operations.

2 FEATURES

■ ICOM'S NEWLY DEVELOPED STATE-OF-THE-ART FREQUENCY SYNTHESIZER

- 5msec lockup time.

ICOM proudly announces its recent technological breakthrough in developing a new frequency synthesizer system: the ICOM DDS (Direct Digital Synthesizer) unit. Operating in just 5 milliseconds, this new system provides one of the fastest transceiver lockup times available on the market today, and is ideal for use with the popular PACKET and AMTOR communications systems. ICOM engineering has achieved this through the design of a sophisticated PLL UNIT which mixes, in split second time, DDS generated source frequencies in an advanced double phase-locked loop system.

■ NEWLY DEVELOPED ICOM CPU INSTALLED

- Built-in 99-channel large memory capacity.

Ninety-nine programmable memories are provided in the IC-475H to store frequency, mode, subaudible tone frequency, subaudible tone function ON/OFF, duplex direction, and offset frequency information. These memories are backed up by a lithium backup battery for up to five years.

- Advanced remote control system.

Full communications using a personal computer equipped with an RS-232C port are possible by using the serial port mounted on the rear panel of the IC-475H. 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 transfer rate.

- Easy-to-read display.

An LCD (Liquid Crystal Display) in the IC-475H uses a soft orange illumination for easy visibility when operating on bright days. This display indicates the VFO in use, operating mode, memory channel, split mode, scan mode and other information.

- Scanning versatility.

The IC-475H incorporates a total of four separate scanning functions for easy access to a wide range of frequencies.

- **MEMORY SCAN** repeatedly scans the entire 99-channel memory in sequence.

- **PROGRAMMED SCAN** offers detailed coverage of a specific frequency range through repeated scanning.

- **SELECTED MODE MEMORY SCAN** automatically monitors all memories which contain programmed frequencies with a similar mode.

- **SKIP SCAN** allows you to continuously scan your favorite programmed memory channels.

■ OUTSTANDING RECEIVER PERFORMANCE

- PBT and NOTCH control.

ICOM's Passband Tuning and Notch Filter systems have been incorporated in the past as standard high class features in ICOM HF transceivers, but now these convenient features can also be enjoyed in a UHF transceiver: the IC-475H. Passband Tuning allows continuous center frequency adjustment of the IF passband, while the IF Notch Filter provides clear operating reception even in the presence of strong interference.

- **High sensitivity, high dynamic range.**

The IC-475H RF amplifier uses a low noise figure, high gain, disk-type GaAs-FET (3SK129) for UHF applications. Also, high sensitivity and a very high dynamic range are ensured since it uses a balanced-type mixer in the mixer stage. This mixer incorporates a UHF applicable transistor (2SC2026) with 2GHz frequency characteristics.

■ COMPLETE UHF TRANSCEIVER

- **Compact size.**

The IC-475H's compact size - only 241mm(9.5'')(W) x 95mm (3.7'')(H) x 239mm(9.4'')(D) - simplifies installation in most mobile and portable situations: in automobiles, airplanes, boats or even in suitcases.

- **PACKET, AMTOR operations.**

The rear panel of the IC-475H has an easy-to-access terminal socket for AFSK (Audio Frequency Shift Keying) operation. Use the [DATA] SWITCH to rapidly switch between receive and transmit operations. This convenient function is made possible in the IC-475H by ICOM's exclusive new DDS (Direct Digital Synthesizer) System.

- **Full break-in function.**

For CW operators, both semi break-in and full break-in are provided for smooth, fast, and natural CW conversations.

■ OPERATIONS AVAILABLE

- **UT-34 TONE SQUELCH UNIT**

Provides you with interference-free communications.

- **UT-36 VOICE SYNTHESIZER UNIT**

Announces the displayed frequency.

- **CT-16 SATELLITE INTERFACE UNIT**

Satellite communication interface unit with the IC-275A/E/H.

- **CT-17 CI-V LEVEL CONVERTER**

Connect the IC-475H to a standard RS-232C I/O port.

- **AG-35 WEATHERPROOF PREAMPLIFIER**

430MHz preamplifier.

- **FL-32A CW NARROW FILTER**

500Hz at -6dB point.

- **CR-64 HIGH-STABILITY CRYSTAL UNIT**

0.5ppm (-30°C ~ +60°C)



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