



INSTRUCTION MANUAL

144MHz ALL MODE TRANSCEIVER
IC-275A
IC-275E
IC-275H



FOREWORD

Thank you very much for choosing this ICOM product.

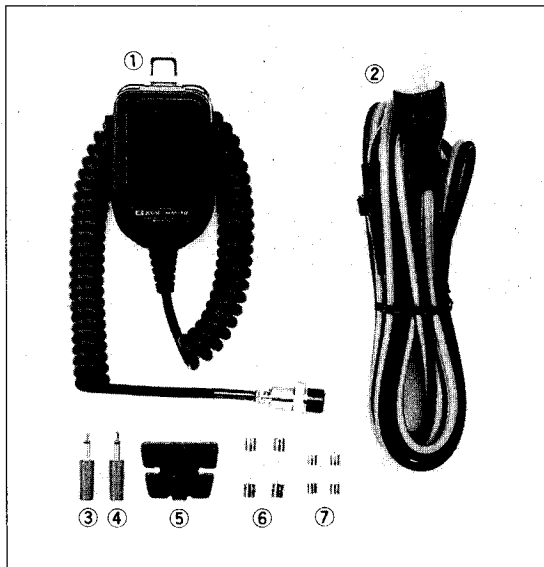
The most sophisticated 144MHz all mode transceiver on the market today, the **IC-275A/E/H** is the result of both advanced ICOM engineering and state-of-art computer interface technology from ICOM such as the new CI-V System: a feature that allows for easy and convenient computer control of your **IC-275A/E/H**. In addition, the **IC-275A/E/H** 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-275A/E/H**. The **IC-275H** delivers 100 full watts* of output power.

*25 watts for the **IC-275A/E**.

To fully understand your new **IC-275A/E/H**, 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-275A/E/H**.

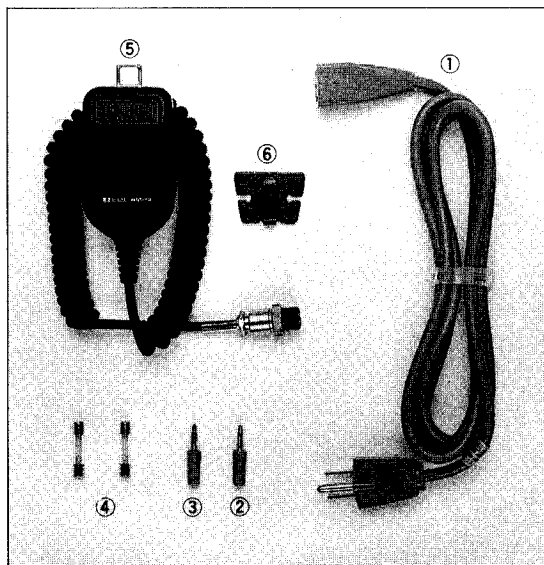
UNPACKING

●IC-275H



Accessories	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

●IC-275A/E



Accessories	Qty.
① Microphone (HM-12)	1
② AC Power Cable	1
③ Microphone Hanger	1
④ Spare Fuses	2
⑤ External Speaker Plug	1
⑥ Key plug	1

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1. 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-275H 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 jack are possible through the serial port on the rear panel of the transceiver. 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.

An LCD (Liquid Crystal Display) in the transceiver 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 transceiver has 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

- Excellent NOTCH control.

ICOM's superb notch filter system ensures strong receiver performances. Clear operating reception is possible even in the presence of a single tone noise.

- High sensitivity, high dynamic range.

The RF amplifier uses a low noise figure, high gain, disk-type GaAs-FET (3SK121) for UHF applications. Also, high sensitivity and a very high dynamic range are ensured since it uses a balanced-type mixer with Junction-FETs (2SK125) in the mixer stage.

■ COMPLETE VHF TRANSCEIVER

- Compact size with 100W output power or with built-in power supply.

The transceiver'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.

And even though the IC-275H is conveniently compact, it delivers 100 full watts of output power. The IC-275A/E's compact body contains a high-performance, built-in power supply.

- PACKET, AMTOR operations.

The rear panel of the transceiver 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 transceiver by ICOM's advanced new DDS (Direct Digital Synthesize) 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.

■ OPTIONS AVAILABLE

- AG-25 PERAMPLIFIER UNIT
- UT-36 VOICE SYNTHESIZER UNIT
- UT-34 TONE SQUELCH UNIT
- CT-16 SATELLITE INTERFACE UNIT
- CT-17 CI-V LEVEL CONVERTER
- FL-83 CW NARROW FILTER
- CR-64 HIGH-STABILITY CRYSTAL UNIT

Weatherproof 144MHz Preamplifier.

Announces the displayed frequency.

Provides you with interference-free communications.

Satellite communication interface unit with IC-475A/E/H.

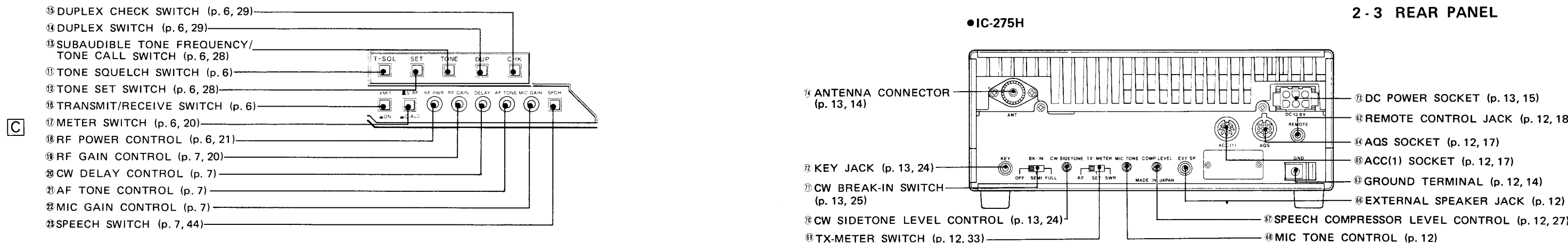
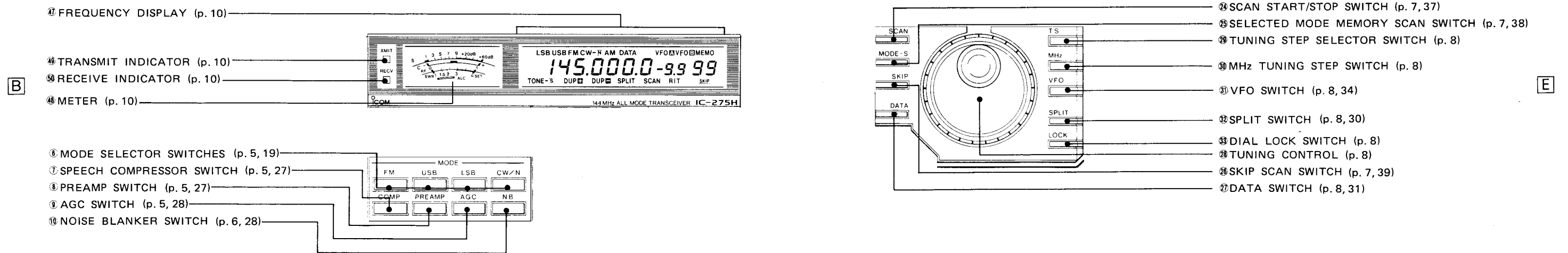
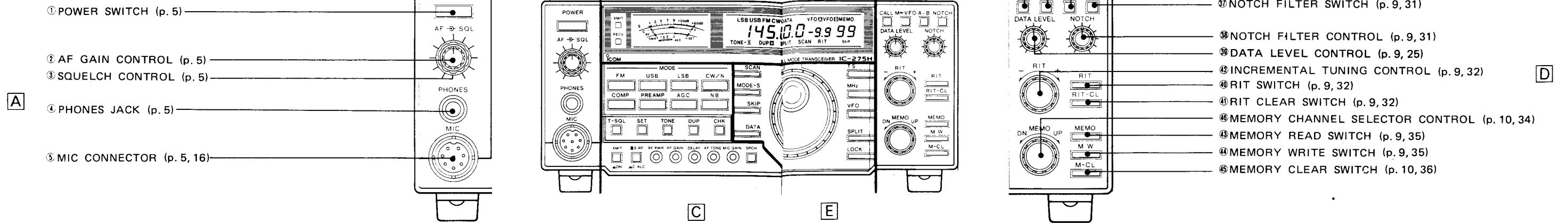
Connects the transceiver to a standard RS-232C I/O port.

±250Hz at -6dB point.

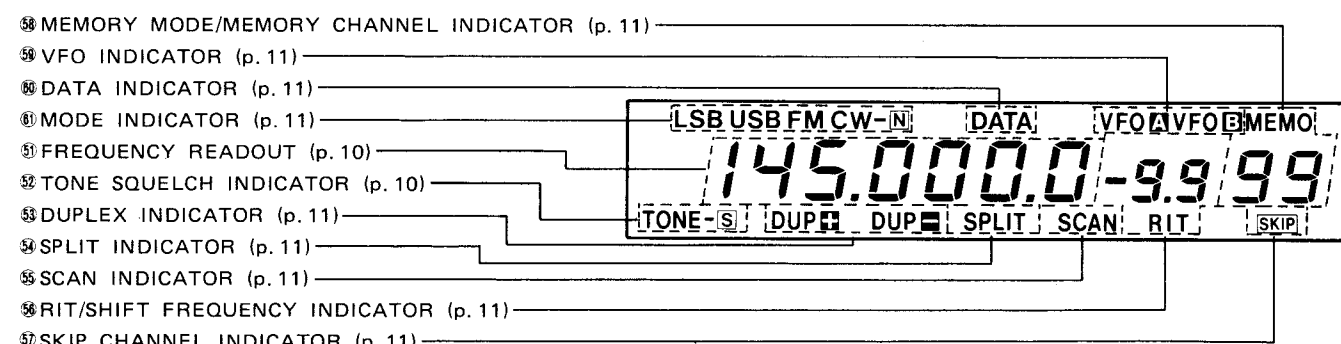
±0.5ppm (-30°C ~ +60°C).

2. CONTROL FUNCTIONS

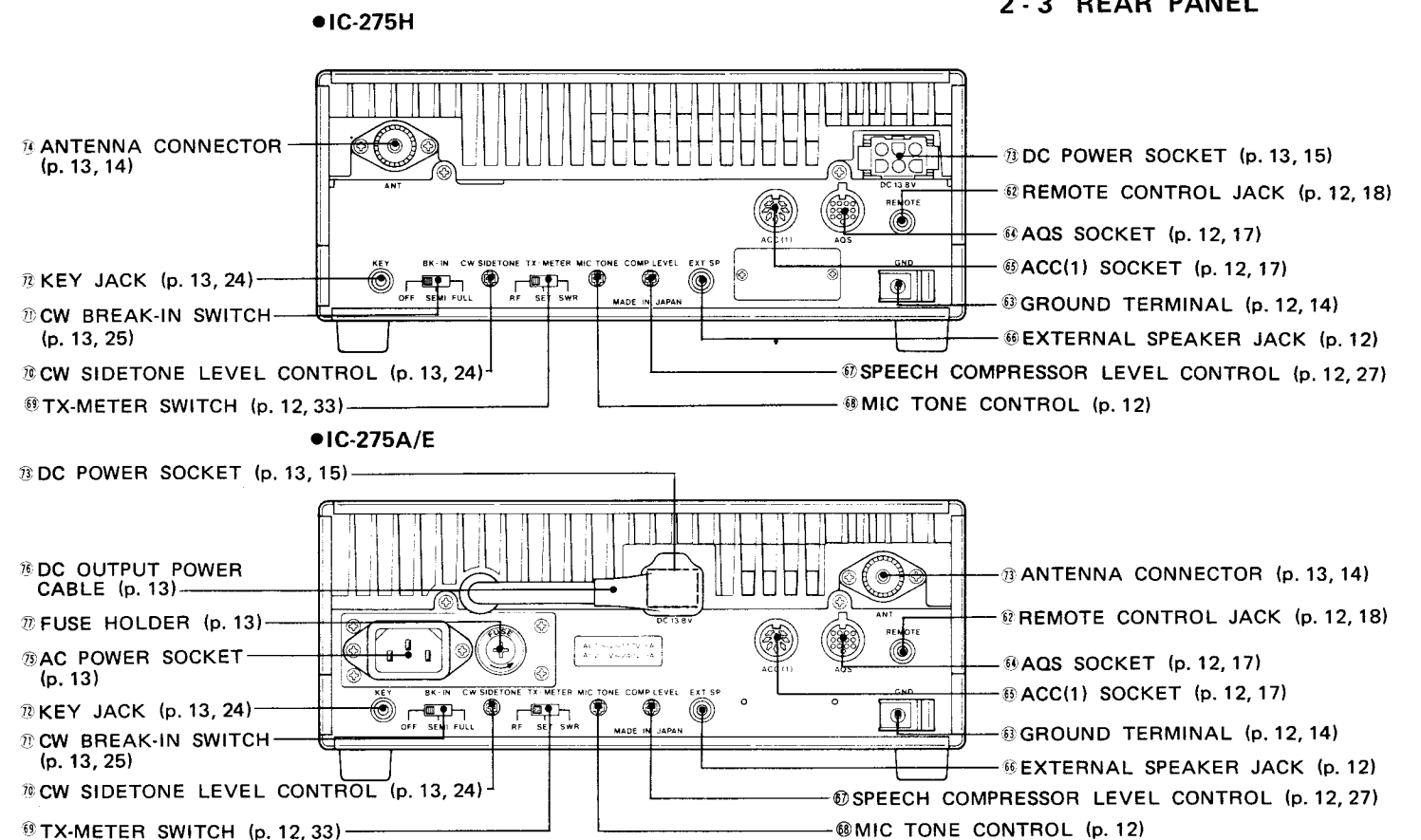
2-1 FRONT PANEL



2-2 FREQUENCY DISPLAY



2-3 REAR PANEL



Count on us!

