

# ICOM IC-M700TY

Now a marine SSB with CW and RTTY!



An innovator in marine communication technology, ICOM introduces the IC-M700TY... a full-featured HF SSB transceiver with CW and RTTY. The 150 watt PEP output combined with a 100% duty cycle makes the IC-M700TY ideal for the most demanding commercial applications.

**CW and RTTY.** The IC-M700TY operates both CW and RTTY. The RTTY mode is formatted to the CCIR system with a center frequency of 1700Hz and utilizes easy-to-connect DIN connectors. The CW mode has full break-in capability and 1kHz sidetone. For superior selectivity, a 500Hz IF filter is installed at no additional charge.

**High Stability.** A high stability crystal provides superb frequency stability and meets commercial specifications worldwide.

**64 Memory Channels.** The IC-M700TY can be operated semi-duplex or simplex. Independent transmit and receive programming provides flexibility. The 64 memories are fully field programmable from the front panel keyboard.

**2182kHz Alarm.** The IC-M700TY is equipped with an automatic 2182kHz alarm generator, the international safety signalling system.

**All Modes.** Radiotelephone modes are accessible with the IC-M700TY including High

Seas transmission modes J3E (SSB suppressed carrier) and H3E.

**Full Coverage.** The reliable IC-M700TY features full transmit and receive coverage of all marine bands 1.600MHz through 23.999MHz as well as general coverage reception of UPI/AP news broadcasts, weather charts and foreign short-wave broadcasts.

**Easy to Operate.** With clearly labeled controls, convenient size and large tuning knobs, the IC-M700TY is simple to operate.

**More Features.** Additional features include a transmit/receive stand-by switch, a

wide range clarifier with center detent, audio-activated squelch, noise blanker, digital readout, noise-cancelling microphone, and a heavy duty mounting bracket.

**Options.** Also available is the optional AT-120 automatic microprocessor-controlled antenna tuner with eight memory channels and quick tune up, and an IC-HS2 telephone handset for privacy.

**See the IC-M700TY** and other ICOM marine communications products, including the IC-M700 marine SSB transceiver, at your local authorized ICOM marine dealer.

(Specifications on reverse side)

HF/VHF/UHF AMATEUR, MARINE AND BUSINESS USE COMMUNICATION EQUIPMENT

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## SPECIFICATIONS

## ■GENERAL

Frequency coverage	Receive : 1.6MHz~23.9999MHz Transmit : 2.0MHz~2.9999MHz 4.0MHz~4.9999MHz 6.0MHz~6.9999MHz 8.0MHz~8.9999MHz 12.0MHz~13.9999MHz 16.0MHz~17.9999MHz 22.0MHz~22.9999MHz
Frequency control	CPU based 100Hz step digital PLL synthesizer Independent transmit/receive frequency programmable on any band
Frequency readout	6 digit 100Hz readout
Frequency stability	Less than $\pm 10$ Hz in the range $-30^{\circ}\text{C} \sim +60^{\circ}\text{C}$
Memory channel capacity	64 simplex or semi-duplex channels (lower programmable)
Power supply requirements	DC 13.6V $\pm 15\%$ (negative ground) Current drain 30A max. AC power supply available for AC operation
Current Drain	Receiving Stand-by : 12A Max. audio output : 1.9A Transmitting Maximum : 30A
Antenna impedance	50 ohms unbalanced
Weight	7.3kg (16.1 lb)
Dimensions	287(297mm)(W) $\times$ 112(124mm)(H) $\times$ 356(376mm)(D) Bracketed values include projections.

## ■TRANSMITTER

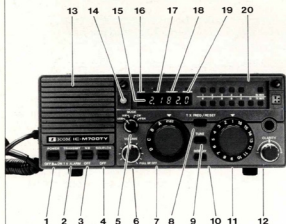
Emission modes	J3E (A3J) USB, LSB H3E (A3H) AM A1A (A1) CW F1A (F1) FSK
RF output power	150W
Spurious emissions	65dB below peak power output
Carrier suppression	50dB
Unwanted sideband	$-55$ dB with 1000Hz AF input
Microphone	600 ohm, noise cancelling microphone with Push-To-Talk switch

## ■RECEIVER

Receive system	Double conversion superheterodyne
Receive modes	J3E (A3J) USB, LSB A3E(A3) AM A1A(A1) CW F1A(F1) FSK
Intermediate frequencies	1st 2nd SSB, CW, FSK 70.4515MHz 9011.5kHz AM 70.4500MHz 3010.0kHz
Sensitivity	SSB, CW, FSK 0.5 $\mu$ V for 12dB SINAD 2.0 $\mu$ V for 12dB SINAD
Selectivity	SSB 2.3kHz/-6dB, 4.2kHz/-60dB CW, FSK 4.0kHz/-6dB, 20.0kHz/-60dB AM, FSK * 0.5kHz/-6dB, 1.6kHz/-60dB
Spurious and image rejection	70dB
Clarity control range	$\pm 150$ Hz
Audio output	5W into 4 ohms with 10% distortion
AF output impedance	2-8 ohms

\*Bandwidth for 170Hz shift FSK operation. Internal switches available for 425Hz and 850Hz shift FSK operation.

## FRONT PANEL



- 1) POWER:** Push ON/Push OFF.
- 2) T/R (TRANSMIT/RECEIVE)**
- 3) NB:** Turns noise blanker ON/OFF.
- 4) SQUELCH:** Turns audio squelch ON/OFF.
- 5) MODE:** Selects one of the four operating modes: J3E, H3E/A3E, A1A or F1A.
- 6) VOLUME:** Controls the audio output level.
- 7) A, B, C, D:** Channel selection switch, Channels A, B, C and D have 16 channel capacity each, and 64 channels are available totally. Each channel can be used for simplex, semi-duplex or FX only operation.
- 8) TX FREQUENCY:** Checks transmit frequency of selected channel.
- 9) TUNE:** Activates auto tune mode of external tuner optional.
- 10) DISPLAY** Turns illuminated display ON/OFF.
- 11) CHANNEL:** Selects channels 1-16.
- 12) CLARITY:** Fine tunes receiver.
- 13) INTERNAL SPEAKER**
- 14) ALARM:** Activates emergency two-tone alarm and automatically goes to 2182.0kHz.
- 15) FREQUENCY DISPLAY:** Displays both Rx and Tx frequency for easier programming.
- 16) ALARM LED:** When alarm is activated LED illuminates.
- 17) TUNE LED:** While coupler is tuning LED illuminates - if antenna coupler cannot find a match it will stay illuminated.
- 18) TRANSMIT LED:** Lights during transmit. The illumination of the LED increases with power output.
- 19) RECEIVE LED:** When a signal is being received, the LED is lit. The LED is not lit under closed SQUELCH condition.
- 20) TEN KEYS:** Frequencies can be entered into any of the 64 channels by these keys.  
A. Select the desired channel - A, B, C or D and 1 to 16.  
B. Enter a receive frequency by the TEN KEY pad (i.e. when 2182.0kHz is being entered) Press these key buttons in order: 21820 RX WRITE. If wrong key button is pressed, press C and enter the frequency from beginning.  
C. Enter a transmit frequency by the TEN KEY pad (i.e. when 2182.0kHz is being entered) Press these key buttons in order: 21820 TX WRITE. If the frequency is allocated only for receiving, enter D TX WRITE.  
D. Press TX FREQUENCY button and confirm transmit frequency.  
NOTE: If attempt is made to enter other than authorized marine frequencies the FREQUENCY DISPLAY will be blank.

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