

 ICOM

Pre-release Product Information

HF/VHF/UHF ALL MODE TRANSCEIVER

IC-7000



## IF-DSP Technology Comes To A New Multi-Bander!

### 2 × DSP

That's two times the DSP in the IC-7000 that will leave many base station rigs in the noise! While it is too early to list all the great features, here are a few to keep you talking!

### Improved AGC loop performance

With Multiple AGC loops, you will never experience AGC pumping from a signal filtered out by the DSP! The digital IF filter and manual notch filter are included in the AGC loop, so you will never encounter AGC blocking. As with the 756PROIII and IC-7800, the AGC time constants are adjustable for slow, middle, fast for each operating mode.

### Digital IF filters

All the filters you want at your fingertips! You will never have to purchase "Optional" filters as the IC-7000 has 41 different filter widths. You just dial in the width you want and select whether you want a sharp or soft filter shape for SSB and CW modes. Then to pull-in the weak ones, a quick turn of the the concentric twin PBT knobs, allow you to either narrow the IF passband, or shift the entire passband to eliminate the QRM.



IF filter setting screen

### 2 × MNF (Manual Notch Filter)

Pull out the weak signals in crowded band conditions with Icom's NEW two-point MNF manual notch filter. Apply 70 dB of rejection to two signals at once! Notch width is adjustable – wide, medium, and narrow – and an auto-tuning notch filter is available, too.



Manual notch filter setting

### Digital voice recorder (DVR)

Record your callsign, CQ, or other information in 4 transmit playback memories with alphanumeric labels. A total of 90 seconds is available for the four memories. A front panel REC control allows you to record incoming signals, too! The DVR makes portable contesting or mini-expeditions a breeze!

### Flexible installation with detachable panel

Smaller than the IC-706MKIIG, the IC-7000 measures only 167(W)×58(H)×180(D) mm\*. With the detachable front panel\*\* many installation possibilities are available.

\* 6<sup>1</sup>/<sub>16</sub>(W)×2<sup>1</sup>/<sub>16</sub>(H)×7<sup>1</sup>/<sub>16</sub>(D) in

\*\* An optional separation cable is required

### Remote control Microphone

The supplied HM-151 remote control microphone allows you to control often used functions of the IC-7000. This includes band hopping with Icom's Triple Band Stack registers.

### 2-mode band scope

The band scope function lets you watch conditions around the band. In Center mode the band scope is centered on the receiving frequency. In Fixed mode the band scope sweeps a fixed range.



Icom Inc.

## 2.5-inch color TFT display with TV screen receive capability

The IC-7000's display presents numbers and indicators in bright, concentrated colors for easy recognition. You can choose from 3 background colors and 2 font styles to suit your preference. Not only does the display provide radio status, but you can watch NTSC M or PAL B on VHF-TV channels!\*



\* Not available in all versions.

### One-touch operation

Eight of the most-used radio functions are controlled by dedicated function keys grouped around the display for easy visibility. One quick touch turns the function on and off. A longer touch activates adjustment of the function's setting.

## SPECIFICATIONS

### GENERAL

- Frequency coverage\*\*
  - Receiver 0.020-199.999MHz\*\* 400.000-470.000MHz\*\*
  - Transmit 1.805-1.999MHz 3.500-3.999MHz
  - 5.3005, 5.3465, 5.3665, 5.3715, 5.4035MHz\*\*
  - 7.000-7.300MHz 10.100-10.150MHz
  - 14.000-14.350MHz 18.068-18.168MHz
  - 21.000-21.450MHz 24.880-24.990MHz
  - 28.000-28.700MHz 50.000-54.000MHz
  - 144.000-146.500MHz 430.000-490.000MHz
- \*\* Showing USA version. Values according to version.
- \*\* Some frequency bands are not guaranteed. \*\* USB only
- Mode USB, USB, CW, RTTY, PSK31, AM, FM, WFM (FM only)
- No. of memory channels 1503 (MS regular 2 set, 8 scan-edged)
- Antenna impedance 50 Ω (50-50Ω for HF-50 MHz and VHF/UHF)
- Power supply requirement 13.8V DC ±10%
- Operating temp. range -10°C to +60°C, +14°F to +140°F
- Frequency stability Less than ±0.5ppm (+2°C to +50°C)
- Current drain Transmit Max. power 25A  
Receive Standby 1.3A  
Max. audio 1.6A
- Dimensions (W×H×D) 167×56×180 mm, 6.61×2.21×7.10 in (grip/cover not included)
- Weight (approx.) 2.3kg, 5.1 lb

### TRANSMITTER

- Output power
- | SSB/CW/RTTY/FM AM | HF-50MHz | 14MHz | 48MHz |
|-------------------|----------|-------|-------|
|                   | 2-100W   | 2-50W | 2-35W |
|                   | 1-40W    | 2-20W | 2-18W |
- Spurious emissions Less than -30dB (Below 30MHz)  
Less than -45dB (Above 30MHz)
  - Carrier suppression More than 50dB
  - Unwanted sideband suppression More than 50dB

This device has not been approved by the appropriate authorities in each country. This device may not be sold or leased, or be offered for sale or lease, until approval has been obtained. All stated features, appearances, screen shots and specifications may be subject to change without notice. All screens show simulated pictures.

**READ ALL INSTRUCTIONS carefully and completely before using the transceiver.**

## Memory Keyer

The internal memory keyer provides 4 memories for station information or contest exchanges, calling CQ and call sign with up to 55 characters for each memory. The keyer also performs automatic repeat, automatic contest serial numbers, and "cut-numbers".

## Other features

- [Installation] • Control circuit for optional antenna tuners
- [Operation] • Built-in voice synthesizer • CI-V control capability
- Auto repeater functions • Total of 503 channels • Quick band change
- Multi-function S/PWR/SWR meter • Backlit buttons • 24-hour Clock
- [Receiver] • Preamp • Attenuator • 100-step digital noise blanker
- 16-step digital noise reduction • RIT • CTCSS, DTCS tone squelch
- [Transmitter] • ±0.5 ppm high frequency stability • Continuously adjustable RF output power • Digital RF speech compressor • Powerful 35W on 70cm band • Bass and treble audio equalizer
- Adjustable SSB transmit bandwidth • DTMF memory • dTX • VOX [CW] • Full break-in • CW reverse sideband • Adjustable CW pitch

### RECEIVER

- Intermediate frequencies 134.487MHz, 455kHz, 16.15MHz
  - SSB/CW/AM/FM 134.730MHz, 70.700MHz
  - WFM
  - Sensitivity (based on except 4-4.5 and 8-MHz)
- |        | 0.5-1.8MHz | 1.8-28.9MHz     | 50-50MHz           | 144-146MHz |
|--------|------------|-----------------|--------------------|------------|
| SSB/CW | -          | 0.15μV          | 0.12μV             | 0.11μV     |
| AM     | 4.0μV      | 2.0μV           | 1.0μV              | 1.0μV      |
| FM     | -          | 0.5μV (25-25.7) | 0.25μV             | 0.18μV     |
| WFM    | -          | -               | 10.0μV (25-100MHz) | -          |
- SSB/CW, AM 100R SPL, FM, WFM 12dB SPOUR
  - Squelch sensitivity SSB Less than 5.0μV (threshold, pre-amp on)  
FM Less than 0.3μV
  - Selectivity SSB (BW=2.4kHz) More than 2.4kHz-6dB  
Less than 3.9kHz-60dB  
More than 500Hz-6dB  
CW (BW=600Hz) Less than 300Hz-60dB  
More than 650Hz-60dB  
RTTY (BW=350Hz) More than 300Hz-60dB  
Less than 650Hz-60dB  
AM (BW=6kHz) More than 13kHz-60dB  
Less than 12kHz-60dB  
FM (BW=15kHz) More than 20kHz-60dB
  - Spurious and image rejection ratio HF bands More than 70dB  
50-144MHz More than 55dB  
(except 144MHz IF path)  
• Audio output power (at 13.8V DC) More than 2.0W (at 13.8V DC)

### Supplied accessories:

- Hand microphone
- DC power cable
- Spare fuses
- Key plug
- Electronic keyer plug
- ACC cable

## OPTIONS

- **AT-180** HF-50MHz AUTOMATIC ANTENNA TUNER
- **AH-4** HF-50MHz AUTOMATIC ANTENNA TUNER
- **AH-2b** ANTENNA ELEMENT
- **CT-17** CI-V LEVEL CONVERTER
- **HM-151** REMOTE-CONTROL MICROPHONE
- **SM-20** DESKTOP MICROPHONE  
Optional OPC-589 is required.
- **SP-10** EXTERNAL SPEAKER
- **MB-62** BRACKET for main unit or the AT-180
- **MB-105** CONTROLLER MOUNTING BRACKET
- **MB-65** MOUNTING BASE  
Optional MB-105 is required.
- **MB-106** CARRYING HANDLE
- **OPC-1443** OPC-1444 SEPARATION CABLES  
OPC-1443 3.5 m (11 ft), OPC-1444 5 m (16 ft)
- **OPC-589** MODULAR 8-PIN CABLE ADAPTER  
For using a 8-pin type microphone.
- **OPC-598** ACC 13 PIN CABLE FOR AT-180 (7 m)
- **OPC-599** ACC 13 PIN CABLE ADAPTER  
For IC-PW1/EURO
- **OPC-742** ACC 13 PIN CABLE FOR AT-180 WITH  
2 m/70 cm LINEAR AMPLIFIER
- **IC-PW1/EURO** HF-50 MHz 1 kW LINEAR AMPLIFIER  
2 exciter inputs are available. OPC-599 is required.

## REAR VIEW



Icom Inc. 1-1-32, Kamematsu, Maori-ku, Chiba 547-0002, Japan Phone: +81 (0)6 6793 5307 Fax: +81 (0)6 6793 0013 URL: <http://www.icom.co.jp/world/index.html>

Count on us!

### Icom America Inc.

2380 118th Avenue NE  
Bellevue, WA 98004, U.S.A.  
Phone: +1 (425) 454-4100  
Fax: +1 (425) 454-1300  
E-mail: [sales@icomamericas.com](mailto:sales@icomamericas.com)  
URL: <http://www.icomamericas.com>

### Icom Canada

General Centre #1150-1150 Highway 17,  
Oshawa, B.C., Unit 158, Canada  
Phone: +1 (904) 952-4039  
Fax: +1 (904) 952-0098  
E-mail: [info@icomcanada.com](mailto:info@icomcanada.com)  
URL: <http://www.icomcanada.com>

### Icom (Australia) Pty. Ltd.

A.B.N. 66 000 082 576  
Unit 1 1108 Garden Road,  
Creswick VIC 3193 Australia  
Phone: +61 (0)3 9649 7500  
Fax: +61 (0)3 9649 7500  
E-mail: [sales@icom.net.au](mailto:sales@icom.net.au)  
URL: <http://www.icom.net.au>

### Icom New Zealand

1868 Hays Road, 5107 Tamaki,  
Auckland, New Zealand  
Phone: +64 (0)6 274 4082  
Fax: +64 (0)6 274 4758  
E-mail: [inquiries@icom.co.nz](mailto:inquiries@icom.co.nz)  
URL: <http://www.icom.co.nz>

### Icom (Europe) GmbH

Communication Equipment  
Hornseaer Str. 53b,  
D-42099 Düsseldorf, Germany  
Phone: +49 (0)21 348067  
Fax: +49 (0)21 333039  
E-mail: [info@icom.europa.com](mailto:info@icom.europa.com)  
URL: <http://www.icom.europa.com>

### Icom Spain S.L.

Ctra. de Oresca s/ Marrover Km. 14,750  
38450 Corti Duperlar Válor Seville, Spain  
Phone: +34 (0)1 590 26 70  
Fax: +34 (0)1 590 04 46  
E-mail: [icom@icomspan.com](mailto:icom@icomspan.com)  
URL: <http://www.icomspan.com>

### Icom (UK) Ltd.

Unit 3, Sels St., Home Bay,  
Went, CT9 8LD, UK  
Phone: +44 (0)1227 747791  
Fax: +44 (0)1227 747742  
E-mail: [info@icom.co.uk](mailto:info@icom.co.uk)  
URL: <http://www.icom.co.uk>

### Icom France S.a

Zac de la Plaine, 1,  
Rue Bénédictine 935 Montreuil SP 93494,  
21026 Tournon Cedex, France  
Phone: +33 (0)1 61 26 02 03  
Fax: +33 (0)1 61 26 03 00  
E-mail: [icom@icom-france.com](mailto:icom@icom-france.com)  
URL: <http://www.icom-france.com>

### Icom Polska

Skoczn. 3 major SA, Polkowice,  
Phone: +48 (0)1 490 7195  
Fax: +48 (0)1 591 5494  
E-mail: [icompolska@icom.pl](mailto:icompolska@icom.pl)  
URL: <http://www.icompolska.com.pl>

### Asia Icom Inc.

#F-10, 3rd, Sec. 1, Cheng Tei Road,  
Taipei, Taiwan, R.O.C.  
Phone: +886 (0)2 2660 1889  
Fax: +886 (0)2 2660 1816  
E-mail: [asia@icom.com](mailto:asia@icom.com)  
URL: <http://www.asia.icom.com>

### Beijing Icom Ltd.

9222, Lang Street, Haidian, Beijing, 100089, China  
Phone: +86 (0)10 8889 1391/5340/5349  
Fax: +86 (0)10 8889 5346  
E-mail: [bjicom@icom.com](mailto:bjicom@icom.com)  
URL: <http://www.bjicom.com>



Icom Inc. (Japan), is an ISO 9001 and ISO 14001 certified and audited company.

Your local distributor/dealer:

ISAW0070 © 2000 Icom Inc.

Printed in Japan