



IC-A14/S, A15/S

Handheld Air Band Radios

NEW PRODUCT INFORMATION

Icom Incorporated

Export Sales Department

To : Icom Distributors
From : Icom Inc., Japan
Date : 21 November, 2007
Ref. No. : NPI-128

Confidentiality Level

- Public
- Dealers
- Distributor
- Selected recipients only

We are sending the new product information for the IC-A14/S, A15/S series handheld air band radios. You are authorized to circulate the attached information in its current form to your Dealers if you wish (Layout changes also permitted). Also, refer to the following information about delivery schedule, product features and advertising timing as below.

Model	Accessories	Months Available
IC-A14S #01 USA	BP-232N, BC-179, BC-174A, MB-94, ANT	End/Dec 2007
IC-A14S #02 EXP	BP-232N, BC-179, BC-174E, MB-94, ANT	End/Dec 2007
IC-A15S #03 EUR	BP-232N, BC-179, BC-174E, MB-94, ANT	End/Feb 2008
IC-A15S #04 UK	BP-232N, BC-179, MB-94, ANT	End/Feb 2008
IC-A14S #11 USA-01	BP-261, MB-94, ANT	End/Mar 2008*
IC-A14S #12 EXP-01	BP-261, MB-94, ANT	End/Mar 2008*
IC-A15S #13 EUR-01	BP-261, MB-94, ANT	End/Mar 2008*
IC-A14 #21 USA	BP-232N, BC-179, BC-174A, MB-94, ANT	End/Jan 2008
IC-A14 #22 EXP	BP-232N, BC-179, BC-174E, MB-94, ANT	End/Dec 2007
IC-A15 #23 EUR	BP-232N, BC-179, BC-174E, MB-94, ANT	End/Feb 2008
IC-A15 #24 UK	BP-232N, BC-179, MB-94, ANT	End/Mar 2008*
IC-A14 #31 USA-01	BP-261, MB-94, ANT	End/Mar 2008*
IC-A14 #32 EXP-01	BP-261, MB-94, ANT	End/Mar 2008*
IC-A15 #33 EUR-01	BP-261, MB-94, ANT	End/Mar 2008*

* Production arrangements for these versions depend on forecast orders.

		<u>IC-A14/S</u>	<u>IC-A15/S</u>
Permitted date for advertising		Now	Now
Advertising material	Photo	Now	Now
	Leaflet	End/Dec '07	End/Feb '08
	Poster	No plan	No plan
	Other	No plan	No plan
Instruction manual*		End/Dec '07	End/Feb '08
Service manual*		End/Jan '08	End/Mar '08

*Service and instruction manuals will be available for download in the months indicated above from the Extranet. For distributors who do not have Extranet access, please contact your sales representative in the Export Sales department.

Best regards,



Kei Kassai
For Aaron Camp
Export Sales Department



NEW PRODUCT INFORMATION

VHF AIR BAND TRANSCEIVERS

IC-A14

(With full keypad — U.S.A.)

IC-A15

(With full keypad — Europe)

IC-A14S

(With simple keypad — U.S.A.)

IC-A15S

(With simple keypad — Europe)



The photo shows IC-A14 (left) and IC-A14S (right).

Icom proudly announces the debut of the new entry class air band transceivers, IC-A14/S and IC-A15/S. The IC-A14/S series is a successor to the IC-A4. However, the IC-A14/S series will come in two versions, one with full keypad (non-"S" version) targeted to student pilots and the other with a simple keypad ("S" version) targeted to ground crews.

The IC-A14/S series has a modern design and rugged body sharing the same design concept with the F3020 series land mobile radio. The 700mW of audio with built-in BTL amplifier, large capacity Lithium-Ion battery pack and 200 memory channels provide practical operation while keeping this operation simple without any frill functions.*

* IC-A14/A15 only. 100 channels for IC-A14S/A15S.

SELLING POINTS

- Full keypad type, Simple keypad type
- 700 mW loud audio with built-in BTL amplifier (Internal speaker)
- 5W typ. (pep) output power
- Large capacity Lithium-Ion battery pack
- Modern design, rugged body
- Water resistant, equivalent to IPX4
- 200 alphanumeric memory channels with memory banks (IC-A14/IC-A15)
- Side Tone function
- ANL function
- Alphanumeric LCD
- New BC-179 holder type battery charger

FEATURES

Full keypad type, Simple keypad type

The IC-A14 and IC-A15 full keypad type are for student pilots or back-up radio in an emergency. The full keypad allows you to input of the channel (frequency) directly and has an exclusive button for the 121.5MHz emergency channel. The IC-A14 receives NAV channels and WX channels and the duplex function allows you to call a flight service station while receiving the beacon signal of a VOR station. (IC-A14 only)

On the other hand, the IC-A14S and IC-A15S simple keypad type are for ground crews. It provides more simple operation with a minimum of buttons. The 121.5 MHz emergency channel is available on this version too.

700 mW loud audio with built-in BTL amplifier

Because air band transceivers are usually operated in high-noise environments, it is essential for the radio to provide loud and clear audio. The IC-A14/S series employs a built-in BTL audio amplifier that doubles the audio output. As a result, it delivers 700mW of loud and clear sound.

Large capacity Lithium-Ion battery pack

With the 2000mAh large capacity Lithium-Ion battery pack, BP-232N, the IC-A14/S series provides stable output power and 18 hours (approx.) of operating time.

The new BP-261*, battery case will take 6 AA (LR6) alkaline cells for convenient battery backup.

* Available later.

Battery packs	BP-230N	BP-232N	BP-261
Type	Li-Ion	Li-Ion	AA (LR6)
Voltage	7.4V	7.4V	batteries
Capacity	980mAh	2000mAh	× 6
Operating time	8.5 hours*	18 hours*	–

* Typical operation; Tx:Rx:Stand-by duty cycle=5:5:90

Modern design, rugged body

The IC-A14/S series shares the same design concept with the IC-F3020 land mobile radio. The IC-A14/S series is compact (120mm height) and light weight (approximate 350g with BP-232N and antenna). The large size 10-key buttons have ample button-pitch to allow blind touch operation. The aluminum die-cast chassis is the basis for this rugged construction, allowing long-life usage in various environments.

IPX4, MIL-STD-810

The IC-A14/S series is designed to pass the MIL-STD-810 environmental tests and IPX4 rating. The water resistant construction provides reliable operation in wet conditions.

Alphanumeric LCD

For the function display, an 8-character 14-segment alphanumeric LCD is employed to make a variety of information visually recognizable immediately. The LCD backlight is available for night time operation.

200 memory channels with memory banks

A total of 200* memory channels can be named with an 8-character channel name for easy recognition. By grouping these channels into 10 memory banks*, quick and easy operation is possible. The optional PC cloning software, CS-A14 allows you quick and easy memory management from your PC.

* IC-A14/A15 only. IC-A14S/A15S has 100 memory channels and memory banks are not available.

New BC-179 holder type battery charger

The new BC-179 is a light weight holder type battery charger for charging the radio in a limited space such as in an airplane or a vehicle. The charger securely holds and charges the radio, even in bumpy conditions. The CP-22, cigarette lighter cable can be used with the BC-179.

Side Tone function

The side tone function allows you to hear your own voice via a headset. By monitoring your own voice, this function eliminates unnecessary shouting on a noisy runway. Side tone level is adjustable from the radio.

* Optional OPC-499 headset adapter cable and third party aviation headset are required.

Other functions

- NOAA weather channels (IC-A14, USA version only)
- 5W typ. (PEP), 1.5W (CW) output power
- ANL (Auto Noise Limiter) reduces noise components
- Low battery indication and low battery beep
- BNC type antenna connector
- Adjustable microphone gain setting
- Home function returns the radio to the default settings (Except memory channels)

SPECIFICATIONS

Specifications described below are target values. They may be subject to change.

Specifications for IC-A14/A14S

■ GENERAL

- Frequency coverage :

IC-A14 Tx	118.000– 136.975MHz
Rx	108.000– 136.975MHz
WX	161.650– 163.275MHz
IC-A14S Tx/Rx	118.000– 136.975MHz
- Channel spacing : 25kHz
- Mode : 6K00A3E (AM)
- WX (IC-A14 only) 16K0G3E (FM)
- No. of memory channels :

IC-A14	200 channels (Max.) with 10 banks
IC-A14S	100 channels (Max.)
- Antenna impedance : 50Ω (BNC)
- Power supply requirement : 7.4V DC (with Icom battery pack)
- Current drain (at 7.4V DC) :

Transmit	: 1.5A
Receive	Max. audio 500mA
Stand-by	50mA typ.
- Operating temp. range : –10°C to +60°C; +14°F to +140°F
- Dimensions (W×H×D) : 53×120×36.9 mm
(projections not included) $2\frac{3}{32} \times 4\frac{23}{32} \times 1\frac{7}{16}$ in
- Weight :

Without ant. and battery pack	180g; 6.3oz (approx.)
With ant. and BP-232N	350g; 12.3oz (approx.)

■ TRANSMITTER

- Output power (at 7.4V) : 5.0W typ. (PEP), 1.5W (CW)
- Modulation system : Low level modulation
- Modulation limiting : 70–100%
- Audio harmonic distortion : Less than 10% (at 60% mod.)
- Spurious emissions : More than 46dB
(Except operating frequency ± 62.5 kHz range)
- Hum and noise ratio : More than 35dB
- Frequency stability : ± 5 ppm
- Ext. microphone connector : 3-conductor 2.5 (d) mm
($\frac{1}{10}$ " / 150Ω)

■ RECEIVER

- Intermediate frequencies : 46.35MHz/450kHz (1st/2nd)
- Sensitivity COM : 0.5μV (typ., at 6dB S/N)
- NAV (IC-A14 only) 0.71μV (typ., at 6dB S/N)
- WX (IC-A14 only) 0.22μV (typ., at 12dB SINAD)
- Squelch sensitivity : Less than 1.0μV (threshold)
- WX (IC-A14 only) Less than 0.56μV (threshold)
- Selectivity : More than 7.5kHz/–6dB
Less than 25kHz/–60dB
- Hum and noise : More than 35dB at 30% mod.
- Spurious response rejection : More than 60dB
- WX (IC-A14 only) More than 30dB
- Audio output power :

Internal speaker	More than 700mW
External speaker	More than 500mW

 (at 7.4V DC, AM 10% dist., 30% mod. with an 8Ω load)
- Ext. speaker connector : 3-conductor 3.5 (d) mm
($\frac{1}{8}$ " / 8 Ω)

Measurements made in accordance with FCC Part 87 for IC-A14/A14S.

Specifications for IC-A15/A15S

■ GENERAL

- Frequency coverage :

Tx	118.000– 136.975MHz
Rx	118.000– 136.975MHz
- Channel spacing : 25kHz
- Mode : 6K00A3E (AM)
- No. of memory channels :

IC-A15	200 channels (Max.) with 10 banks
IC-A15S	100 channels (Max.)
- Antenna impedance : 50Ω (BNC)
- Power supply requirement : 7.4V DC (with Icom battery pack)
- Current drain (at 7.4V DC) :

Transmit	: 1.5A
Receive	Max. audio 500mA
Stand-by	50mA typ.
- Operating temp. range : –20°C to +55°C
- Dimensions (W×H×D) : 53×120×36.9 mm
(projections not included) $2\frac{3}{32} \times 4\frac{23}{32} \times 1\frac{7}{16}$ in
- Weight :

Without ant. and battery pack	180g (approx.)
With ant. and BP-232N	350g (approx.)

■ TRANSMITTER

- Output power (at 7.4V) : 5.0W typ. (PEP), 1.5W (CW)
- Modulation system : Low level modulation
- Modulation depth : 85%
- Audio harmonic distortion : Less than 10%
(at 85%+3dB mod.)
- Spurious emissions : More than –36dBm
(Except operating frequency ± 1 MHz range)
- Frequency stability : ± 5 ppm
- Ext. microphone connector : 3-conductor 2.5 (d) mm
($\frac{1}{10}$ " / 150Ω)

■ RECEIVER

- Intermediate frequencies : 46.35MHz/450kHz (1st/2nd)
- Sensitivity : –3dBμ (typ., at 12dB SINAD
with CCITT filter)
- Squelch sensitivity : Less than 0dBμ (threshold)
- Selectivity : More than 7.5kHz/–6dB
Less than 25kHz/–60dB
- Hum and noise : More than 40dB at 90% mod.
- Spurious response rejection : More than 70dB
- Audio output power :

Internal speaker	More than 700mW
External speaker	More than 500mW

 (at 7.4V DC, AM 10% dist., 30% mod. with an 8Ω load)
- Ext. speaker connector : 3-conductor 3.5 (d) mm
($\frac{1}{8}$ " / 8 Ω)

Measurements made in accordance with EN 300 676 for IC-A15/A15S.

OPTIONS

■ BATTERY PACKS AND CASE

- BP-230N : 7.4V/980mAh Li-Ion battery.
 BP-232N : 7.4V/2000mAh Li-Ion battery.
 BP-261 : AA (LR6) × 6 battery case (New, available later)

■ BATTERY CHARGERS

- BC-179 : Regular battery charger. Charges the BP-232N in 12 hours (approx.). (New)
 + BC-174 : AC adaptor (BC-174A/E version available) (New)
 BC-171 : Regular desktop charger. Charges the battery pack in 8–10 hours (approx.).
 + BC-174 : AC adaptor (BC-174A/E version available) (New)
 BC-160 : Rapid desktop charger. Charges the battery pack in 1.5–2 hours (approx.).
 An AC adaptor, BC-145, is supplied depending on version.
 + BC-145 : AC adaptor (BC-145A/E version available)
 BC-119N : Rapid desktop charger. Charges the battery pack in 1.5–2 hours (approx.).
 An AC adaptor, BC-145, is supplied depending on version.
 + BC-145 : AC adaptor (BC-145A/E version available)
 + AD-106 : Charger adaptor for BC-119N/BC-121N
 BC-121N : Multi-charger. Rapidly charges up to six battery packs.
 Charges the battery pack in 1.5–2 hours (approx.).
 + BC-157 : AC adaptor (USA/Euro/AU/UK version available)
 + AD-106 : Charger adaptor for BC-119N/BC-121N (Six AD-106s are required)



■ CLONING SOFTWARE AND CABLES

- CS-A14 : Cloning software. Allows quick and simple setting from a PC.
 (Microsoft® Windows® 2000, Windows® XP and Windows Vista™). (New)
 + OPC-478/UC : Cloning cable (RS-232C type/USB type)
 OPC-474 : Transceiver to transceiver cloning cable

■ ANTENNA

- FA-B02AR : BNC type flexible antenna

■ SPEAKER-MICROPHONE

- HM-173 : Compact type speaker microphone.



■ HEADSET ADAPTER CABLE

- OPC-499 : Headset adapter cable. For use with a third party aviation headset.

■ CIGARETTE LIGHTER CABLE AND DC POWER CABLE

- CP-22 : Cigarette lighter cable with DC-DC converter for use with BC-179. (12/24V DC input to 11V DC output) (New)
 OPC-515L : DC power cable for use with the BC-119N or BC-160.
 OPC-656 : DC power cable for use with the BC-121N.



■ BELT CLIP AND LEATHER BELT HANGER

- MB-94 : Alligator type. Same as supplied.
 MB-96F : Fixed type leather belt hanger. For use with the MB-94.

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