ICOM

AVIATION
COMMUNICATIONS

The world's favorite airband handheld!

8.33 kHz Compatible

Rugged MIL-STD 810

IPX4

VHF AIR BAND TRANSCEIVERS

IC-A24   IC-A6
IC-A24E   IC-A6E

NAV & COM channels   COM channels

Easy to Use

Simple one-handed operation is the most essential feature of the IC-A24/E and A6/E. The well labeled, large keypad provides user friendly operation. The large display shows both letters and numbers and is easy to see, making for fast frequency recognition. The display is backlit, and so is the keypad. The light stays on until you turn it off – a very handy feature for flying at night.

"Flip-Flop" Channel Recall

The IC-A24/E and A6/E stores the last 10 channels used. You can easily recall those channels by pushing the "flip-flop" recall ◄ ► buttons on the front panel. It is convenient for switching between several channels such as NAV and COM channels.

VOR Navigation*

The IC-A24/E has VOR navigation functions. The DVOR mode shows the radial to or from a VOR station and the CDI mode shows the course deviation to/from a VOR station. You can also input your intended radial to/from the VOR station and show the course deviation on the display. In the USA version, the duplex operation allows you to call a COM channel, while you are using VOR navigation.
(* IC-A24/E only)

External DC Power Jack

An external DC power jack allows for operation with the wall charger, BC-167S, or the cigarette lighter cable, CP-20. When the battery pack is installed, simultaneous charging during operation is also possible. In addition, an optional battery case, BP-208N, is available.

And More...

- 8.33kHz/25kHz channel spacing (Depending on version)
- Water resistant construction, equivalent to IPX4
- 200 memory channels (20 Ch × 10 banks) with 6 character names
- Dedicated 121.5MHz emergency key
- Side tone function allows you to hear your own voice via an external aviation headset
- NOAA marine weather channels (IC-A24/A6 only)
- Tag scanning and memory bank scanning
- ANL (Auto Noise Limiter) for noise reduction

IC-A6E

IC-A24

Easy to use, rugged and compact with 700mW loud audio!

Rugged
MIL-STD 810

IPX4

VHF AIR BAND TRANSCEIVERS

IC-A14 IC-A14S
IC-A15 IC-A15S

Full keypad   Simple keypad

700mW* Loud Audio
Because air band radios are usually operated in high-noise environments, it is essential for the radio to provide loud and clear audio. The IC-A14/S and A15/S employ a BTL amplifier that doubles the audio output, offering loud and clear audio that'll cut through cabin or tarmac noise. (* Internal speaker only)

Full Keypad Type or Simple Keypad Type
The IC-A14/A15 full keypad type allows you to input the channel or frequency directly and both have an exclusive button for the 121.5MHz emergency channel. The IC-A14 receives NAV and WX channels. The IC-A14S/A15S simple keypad type provide simpler operation with a minimum of buttons that is suitable for ground crews.

Compact, Light Weight and Rugged Body
The IC-A14/S and A15/S are compact (only 120mm tall) and light weight (approx. 350g including antenna and BP-232H). The water resistant construction, equivalent to IPX4, provides reliable operation in wet conditions.

Large Capacity Lithium-Ion Battery Pack
With the 2300mAh (typ.) large capacity Lithium-Ion battery pack, BP-232H, the IC-A14/S and A15/S series provide stable output power and 20 hours long (approx.) operating time*. The BP-261 battery case takes 6 AA (LR6) alkaline cells for convenient battery backup.

* Typical operation, Tx:Rx: Stand-by=5:5:90.

200 Channels with Memory Banks
A total of 200* memory channels can be named with an 8-character channel name for easy recognition. For fast and simple operation, these channels can be grouped into 10 memory banks*.

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

And More...
- 5W typ. (PEP), 1.5W typ. (CW) output power
- Side tone function allows you to hear your own voice via a third party aviation headset
- LCD backlight for night time operation
- ANL (Auto Noise Limiter) for noise reduction
- Low battery indication and beep alert
- Adjustable microphone gain setting
- BNC type antenna connector
- Optional BC-179 holder type battery charger

IC-A15S

IC-A14

Easy to install panel mount airband with white OLED and key backlight

8.33 kHz Compatible

Rugged MIL-STD 810

IC-A220

VHF AIR BAND TRANSCEIVER

IC-A220

White OLED Display and White Key Backlight

The IC-A220 has a bright organic light emitting diode (OLED) display with a very wide 170 degree viewing angle. White characters on a black background show clear, easy to read operating information. The auto dimmer function adjusts the display for optimum brightness at day or night.

Easy Channel Selection

It's fast and easy to select any of memory channels in the IC-A220. The "flip-flop" arrow button switches between main and stand-by channels. The dualwatch function allows you to monitor two channels simultaneously. The auto stack memory stores the last 20 channels used and allows you to recall those channels easily.

Automatic Squelch Function

The new automatic squelch function detects the signal level and automatically adjusts the squelch level to maintain a received call. The manual squelch function allows you to instantly adjust the squelch level.

Intercom Functions

The IC-A220 has a built-in voice activated intercom function allowing the pilot to talk with the copilot via the headset. The audio and squelch levels are adjustable.

GPS Memory Function

When connected to an external GPS receiver* equipped with an airport frequency database, the frequency data such as nearby airports can be transferred and made available in the IC-A220. * Ask your dealer for available GPS receiver details.

Other Features

- 12- and 24-volt systems compatible
- 8.33kHz/25kHz channel spacing (Depending on version)
- NOAA weather channel receive (USA version only)
- One touch access to 121.5MHz emergency frequency
- 50 group memory channels (10 Ch × 5 groups)
- Side tone function • ANL (Automatic Noise Limiter) function
- Remote control capability • PC programmable
- Slim 34mm (1.34 in) height for installing in a limited panel space
- D-SUB 25-pin connector for easy installation
- Two types of menu mode; settings and configuration menu

VHF AIR BAND TRANSCEIVER

IC-A210E

Enhanced reliability for serious ground crew communications

8.33 *kHz* Compatible

IP54

Rugged **MIL-STD 810**

IC-A120

VHF AIR BAND TRANSCEIVERS

IC-A120 IC-A120E

200 Memory Channels with Channel Name

The IC-A120/E has 200 memory channels to store often used frequencies with 12-character channel name. With a high contrast dot matrix display, operating channels can be selected quickly and recognized easily. You can instantly program memory channels without requiring PC programming.

Active Noise Canceling

The newly added built-in ANC reduces background noise in the received and transmitting signals. This function is effective in extremely noisy airport environments full of aircraft noise. The automatic noise limiter (ANL)* reduces pulse-type noise such as engine ignition.
* The ANL and ANC functions cannot be used at the same time.

Optional Bluetooth® Unit

When the optional UT-133A Bluetooth® unit is installed, the IC-A120/E can be used with a third-party wireless Bluetooth® headset. When used the optional VS-3 Bluetooth® headset, the side tone function is available for monitoring own transmitted voice.

IP54 Dust-Protection and Water Resistance

The IC-A120/E has IP54 dust-protection and water resistance, allowing it to be used in wet and dusty conditions.

Optional Speaker-Microphone, HM-217

Listen to received audio through the HM-217's built-in speaker. From the speaker-microphone's front panel, access up/down buttons and two programmable buttons (P1/P2) which can be used as a shortcut to activate frequently used functions.

Dualwatch and ON-Hook Scan Function

The dualwatch function checks the priority and operating channels alternatively. The ON-Hook scan function automatically starts scanning when the hand microphone is hooked on the microphone hanger. When you take the microphone OFF hook, the scanning stops at the priority channel or displayed channel (according to the preprogramming).

Other Features

• 12- and 24-volt system compatible
• 8.33 kHz and 25 kHz channel spacing
• Side tone function with optional OPC-871A
• Priority scan and Dualwatch function
• Power on Password protection
• CI-V command for external control
• VE-PG3 RoIP gateway for interconnect with other radio systems and/or other audio devices
• Compliant with European E-marking for installation in vehicles

OPTIONS FOR HANDHELD TRANSCEIVERS

MODEL NAME	BATTERY PACKS			BATTERY CASES		WALL CHARGER		CHARGERS	
	BP-210N Ni-MH: 7.2V/1480mAh (min.) 1650mAh (typ.)	BP-230N Li-Ion: 7.4V/950mAh (min.) 980mAh (typ.)	BP-232H Li-Ion: 7.4V/2250mAh (min.) 2300mAh (typ.)	BP-208N LR6 (AA)×6 cells	BP-261 LR6 (AA)×6 cells	BC-167S[*1] 12V/500mA		BC-119N Rapid charger	BC-144N Rapid charger
IC-A24/A24E IC-A6/A6E	✔			✔		✔		✔ (Use with AD-101)	✔
IC-A14/A14S IC-A15/A15S		✔	✔		✔			✔ (Use with AD-106)	

*1 BC-167SA for 120V AC. SD for 230V AC. SV for 240V AC.

MODEL NAME	CHARGERS			MULTI-CHARGERS		AC ADAPTERS			
	BC-160 Rapid charger	BC-171 Regular charger	BC-179 Regular charger	BC-121N Rapid multi-charger	BC-197 Rapid multi-charger	BC-123S[*2] 12V/1A	BC-145S[*2] 16V/0.93A	BC-147S[*2] 12V/200mA	BC-157S 12V/6.6A
IC-A24/A24E IC-A6/A6E				✔ (Use with AD-101)			✔ (Use with BC-119N/BC-144N)		✔ (Use with BC-121N)
IC-A14/A14S IC-A15/A15S	✔	✔	✔	✔ (Use with AD-106)	✔ (Use with AD-122)	✔ (Use with BC-160)	✔ (Use with BC-119N)	✔ (Use with BC-171/BC-179)	✔ (Use with BC-121N/BC-197)

*2 BC-123/BC-145/BC-147SA for USA plug. SE for Europe plug. SV for Australia plug. BC-123/BC-145SUK for UK plug.

MODEL NAME	CHARGER ADAPTERS			DC POWER CABLES		CIGARETTE LIGHTER CABLES		SPEAKER-MICROPHONE	HEADSET ADAPTER
	AD-101	AD-106	AD-122 (Supplied with BC-197, depending on version)	OPC-515L	OPC-656	CP-20	CP-22	HM-173	OPC-499
IC-A24/A24E IC-A6/A6E	✔ (Use with BC-119N/BC-121N)			✔ (Use with BC-119N)	✔ (Use with BC-121N)	✔		✔	✔
IC-A14/A14S IC-A15/A15S		✔ (Use with BC-119N/BC-121N)	✔ (Use with BC-197)	✔ (Use with BC-119N)	✔ (Use with BC-121N/BC-197)		✔ (Use with BC-179)	✔	✔

MODEL NAME	BELT CLIPS			LEATHER BELT HANGERS			CHARGER BRACKET	CARRYING CASE	ANTENNA
	MB-86	MB-94	MB-103	MB-96F Fixed type	MB-96FL Long type	MB-96N Swivel type	MB-130	LC-159	FA-B02AR
IC-A24/A24E IC-A6/A6E	✔		✔	✔ (Use with MB-103)	✔ (Use with MB-103)	✔		✔	✔
IC-A14/A14S IC-A15/A15S		✔		✔ (Use with MB-94)	✔ (Use with MB-94)		✔ (Use with BC-160)		✔

* Some options may not be available in some countries, or unavailable due to no T/A. Please ask your dealer for details.

✔ : Applicable   : Not applicable

Rugged MIL-STD 810

Applicable U.S. Military Specifications

Icom makes rugged products that have been tested to and passed the MIL-STD requirements and strict environmental standards for shock, vibration and other criteria.

OPTIONS FOR MOBILE TRANSCEIVERS

MODEL NAME	HAND MICROPHONES			Bluetooth® HEADSET	Bluetooth® UNIT	HEADSET ADAPTER	REAR PANEL ADAPTERS	
	HM-176 Same as supplied with PS-80 and MB-53.	HM-216	HM-217 Speaker-microphone	VS-3	UT-133A	OPC-871A	MB-113 For D-sub 15-pin connection system	MBA-3 Card edge connector for use with PS-80.
IC-A220	(Use with PS-80/MB-53)							✔
IC-A210E	(Use with MB-53)						✔	
IC-A120/E		✔	✔	✔ (Use with UT-133A)	✔	✔		

MODEL NAME	EXTERNAL SPEAKER	MOUNTING BRACKET	DC POWER SUPPLY	RoIP GATEWAY	CONNECTION CABLE
	SP-35	MB-53	PS-80	VE-PG3	OPC-2275 For connection with VE-PG3. 5m; 16.4ft
IC-A220	✔	✔	✔		
IC-A210E		✔			
IC-A120/E				✔	✔

✔ : Applicable   : Not applicable

SPECIFICATIONS

		IC-A24 IC-A6	IC-A24E IC-A6E	IC-A14 IC-A14S	IC-A15 IC-A15S	IC-A220	IC-A210E	IC-A120	IC-A120E
Frequency range (unit: MHz)	TX	118.000–136.992		118.000–136.975		118.000–136.992		118.000–136.992	
	RX	IC-A24 108.000–136.992 161.650–163.275 IC-A6 118.000–136.992 161.650–163.275	IC-A24E 108.000–136.992 IC-A6E 118.000–136.992	IC-A14 108.000–136.975 161.650–163.275 IC-A14S 118.000–136.975	118.000–136.975	118.000–136.992 161.650–163.275	118.000–136.992	118.000–136.992	
Number of memory channels		200 ch (20 ch × 10 banks)		200 ch (20 ch × 10 banks, IC-A14, A15) 100 ch (IC-A14S, A15S)		20 ch (Regular)	10 ch (Regular)	200 ch	
Channel spacing*1		25kHz/8.33kHz		25kHz		25kHz/8.33kHz		25kHz/8.33kHz	
Power supply requirements		7.2V DC (Battery pack), 11.0V DC (External DC jack)		7.4V DC		13.8V or 27.5V DC (automatic selection)		13.75V or 27.5V DC (automatic selection)	
Current drain	TX High	1.8A		1.5A		5.0A Max.		5.0A Max.	
	RX Stand-by	70mA typ.		50mA typ.		500mA		500mA Max.	
	RX Max. audio	500mA		500mA		4.0A		4.0A Max.	
Dimensions*2 (W×H×D)		54×129.3×35.5 mm; 2.13×5.09×1.4 in		53×120×36.9 mm; 2.09×4.72×1.45 in		160×34×271 mm; 6.3×1.34×10.67 in		161×45×175 mm; 6.34×1.77×6.89 in	
Weight (approx.)		430g; 15.2oz (with BP-210N and ANT)		350g; 12.3oz (with BP-232H and ANT)		1.0kg; 2.2lb		1.5kg; 3.3lb (main unit)	
Operating temperature range		−10°C to +60°C	−20°C to +55°C	−10°C to +60°C	−20°C to +55°C	−20°C to +55°C		−30°C to +60°C	−20°C to +55°C
Frequency stability		±1ppm		±5ppm		±5ppm	±1ppm (0°C to +40°C)	±5ppm (-30°C to +60°C)	±1ppm (0°C to +40°C)
Carrier power		1.5W		1.5W		8.0W	6.0W (4.5–8W)	9W typ.	9W (+1.5dB/−3dB)
Microphone impedance		100kΩ		150Ω		600Ω		600Ω	
Sensitivity (COM)		1μV (6dB S/N)	1μV (12dB SINAD)	0.5μV typ. (6dB S/N)	0.71μV typ. (12dB SINAD)	2μV (6dB S/N)	2μV (12dB SINAD)	1μV (6dB S/N)	1.8μV (12dB SINAD)
Selectivity	8.33kHz (6dB/60dB)	2.778/7.37kHz		–		2.778/7.37kHz	2.8kHz (6dB)	2.778/7.37kHz	
	25kHz (6dB/60dB)	7.5/25kHz		7.5/25kHz		3/22kHz	8.5kHz (6dB)	8/25kHz	
Spurious response (COM)		60dB	70dB	60dB	70dB	74dBμ	70dB	74dBμ	70dB
Audio output power (at 10% distortion)		470mW typ. with an 8Ω load		700mW with an 8Ω load (Internal SP) 500mW with an 8Ω load (External SP)		5W with a 4Ω load (External SP) 60mW with a 500Ω load (Headphone)		10W typ. with an 8Ω load (External SP) 100mW typ. with a 500Ω load (Headphone)	

All stated specifications are subject to change without notice or obligation. *1 Use of 8.33kHz channel spacing may be prohibited in some countries. *2 Projections are not included.

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