



Aviation Radios

2017–2018 Edition



6 W (PEP) Powerful Air Band Radio with Built-in GPS and Bluetooth®

VHF AIR BAND TRANSCEIVERS

IC-A25N

NAV & COM channels for USA/EXP

IC-A25C

COM channels for USA/EXP

IC-A25NE

NAV & COM channels for EUR/AUS

IC-A25CE

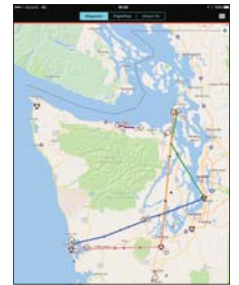
COM channels for EUR/AUS

General Features

- Class-leading 6 W typical (PEP) and 1.8 W typical (carrier) high power RF output
- Easy-to-use interface
- 2.3 inch large high-visibility LCD with night mode
- “Flip-Flop” channel recall
- Built-in Bluetooth® for hands-free operation (IC-A25N/NE)
- Intelligent battery with detailed battery status
- 25 kHz/8.33 kHz dual channel spacing

Navigation Functions (IC-A25N/NE)

- Built-in GPS with simplified waypoint NAV (Direct-To NAV and Flight Plan NAV)
- Flight plans with Android™ /iOS™ app RS-AERO1A/RS-AERO1I
- VOR navigation functions
- Near station search function



RS-AERO1I map screen example



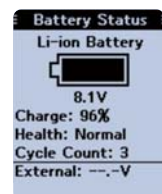
Waypoint NAV screen



VOR screen



Night mode screen



Detailed battery information screen

And more

- IP57 dust-protection and waterproof construction • 2350 mAh typ. battery pack, BP-288 supplied • BP-289 battery case supplied (depending on version)
- BNC antenna • 121.5 MHz emergency key • NOAA weather channels (IC-A25N/C)
- Priority watch • VFO scan, memory channel scan and priority scan • ANL (Auto Noise Limiter) for pulse-type noise reduction • Side tone function enables you to hear your own voice through a third party aviation headset • Built-in VOX capability • 300 memory channels (in 15 memory groups) with 12 character names • 8.33 kHz/25 kHz channel spacing (depending on version) • External DC power jack • Optional waterproof speaker microphone, HM-231



Simple VHF VOR/COM Transceiver

700 mW Loud Audio with a Compact Body

VHF AIR BAND TRANSCEIVERS

IC-A24

NAV & COM channels for USA/EXP

IC-A6

COM channels for USA/EXP

IC-A24E

NAV & COM channels for EUR

IC-A6E

COM channels for EUR

- Simple one-hand operation
- "Flip-Flop" channel recall
- Dedicated 121.5 MHz emergency key
- 25 kHz/8.33 kHz dual channel spacing (depending on version)
- External DC power jack
- VOR navigation functions (IC-A24/E)



VOR screen

And more

- 5 W (PEP), 1.5 W (carrier) output power • IPX4 water resistant
- 200 memory channels (20 Ch × 10 banks) with 6 character names
- Side tone function allows you to hear your own voice via a third party aviation headset • NOAA weather channels (IC-A24/A6 only) • Tag scanning and memory bank scanning • ANL (Auto Noise Limiter) for pulse-type noise reduction



IPX4

VHF AIR BAND TRANSCEIVERS

IC-A14

Full keypad for USA/EXP

IC-A14S

Simple keypad for USA/EXP

IC-A15

Full keypad for EUR/AUS

IC-A15S

Simple keypad for EUR

- 700 mW loud audio* *Internal speaker
- Full keypad type or simple keypad type
- Compact, lightweight and IPX4 rugged body
- 2350 mAh (typ.) large capacity Lithium-Ion battery pack
- 200 channels with memory banks

And more

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

Note: 8.33 kHz channel spacing is NOT available for the IC-A14/S and IC-A15/S.



IPX4

High-Quality Panel Mount Radio with TSO Certification



IC-A220 TSO version

VHF AIR BAND TRANSCEIVER

IC-A220

 TSO version

- TSO certified to be used as a primary VHF radio in general aviation (Part 23) aircraft (Certified TSO C128a and C169a)
- The IC-A220 TSO version is also accepted as an ETSO radio under the TSO/ETSO reciprocal acceptance policy
- High visibility OLED (Organic Light Emitting Diode) screen
- Easy channel selection with large “Flip-Flop” arrow button
- Auto squelch function and quick squelch adjustment
- Quick squelch adjustment with the Volume knob
- Auto dimmer function and external dimmer control
- Intercom function

And more

- 8.33 kHz/25 kHz channel spacing (depending on version)
- Remote control capability via the rear panel connector
- 9 V power supply operation • 20 memory channels and 20 history memory channels • Dualwatch and priority watch functions • One touch access to 121.5 MHz emergency frequency • Side tone function for monitoring your voice with a headset • ANL (Automatic Noise Limiter) function reduces pulse type noise • Time-out-timer • D-SUB 25-pin connector and MIL-Spec M39029/63-368 compliant socket pins • Two types of menu mode; settings menu and configuration menu • Both 13.8 V and 27.5 V electrical systems compatible • NOAA weather channel receive (USA version only) • 8 W carrier power

* For more details, see the Environmental Qualification Form at www.icomamerica.com. The IC-A220 TSO version is manufactured and serviced by Icom America Inc. All repairs or adjustment information will be provided from Icom America. (<http://www.icomamerica.com>)

Ideal Communication Tool for Your Experimental/Light Sport Aircraft or Ground Use



IC-A220

VHF AIR BAND TRANSCEIVER

IC-A220

For USA

- High visibility OLED (Organic Light Emitting Diode) screen
- GPS memory function* for transmitting frequency data of nearby airports * External GPS receiver required.
- Easy channel selection with large “Flip-Flop” arrow button
- Auto squelch function and quick squelch adjustment
- Auto dimmer function and external dimmer control
- Intercom function
- Optional PS-80 power supply for desktop use

And more

- 8.33 kHz/25 kHz channel spacing (depending on version)
- Remote control capability through a rear panel connector
- 20 memory channels and 20 history memory channels
- Dualwatch and priority watch functions • One touch access to 121.5 MHz emergency frequency • Side tone function for monitoring your voice with a headset • ANL (Automatic Noise Limiter) function reduces pulse type noise • PC programming capability • Dial lock and panel lock • Time-out-timer • D-SUB 25-pin connector and MIL-spec M39029/63-368 compliant socket pins • Two types of menu mode; settings menu and configuration menu • Both 13.8 V and 27.5 V electrical systems compatible • NOAA weather channel receive (USA version only) • 8 W carrier power

Stay Connected with Various Airport Systems



IC-A210E

VHF AIR BAND TRANSCEIVER

IC-A210E

For EUR

- High visibility OLED (Organic Light Emitting Diode) screen
- GPS memory function* for transmitting frequency data of nearby airports * External GPS receiver required.
- Easy channel selection with large “Flip-Flop” arrow button
- Auto dimmer function
- Intercom function
- Easy installation with two types of rear-panel adapters

And more

- 8.33 kHz/25 kHz channel spacing (depending on version)
- Remote control capability via the rear panel connector
- 10 regular memory channels with a 6-character channel name
- 200 group memory channels (20 Chx10 banks) with a channel tag
- One touch access to 121.5 MHz emergency frequency
- Side tone function for monitoring your voice with headset
- ANL (Automatic Noise Limiter) function reduces pulse type noise
- Time-out-timer
- PC programming capability
- Squelch test function
- Dualwatch and priority watch functions
- Both 13.8 V and 27.5 V electrical systems compatible
- 6 W typ. carrier power
- Dial lock and panel lock

Enhanced Ground Crew Communications



IC-A120

VHF AIR BAND TRANSCEIVERS

IC-A120

For USA/EXP

IC-A120E

For EUR

IP54










- Full dot-matrix display, simple operation
- Optional Bluetooth® headset connectivity
- Active Noise Cancelling (ANC) for background noise reduction
- IP54 dust-protection and water resistance
- ON-hook scan function
- Optional speaker-microphone, HM-217 with two programmable buttons

And more

- Dualwatch and priority scan functions
- Side tone function enables you to hear your own voice via a third party aviation headset
- A total of 200 memory channels with 12-character channel names
- Both 13.8 V and 27.5 V electrical system compatible
- 8.33 kHz and 25 kHz channel spacing (depending on version)
- 36 W (PEP) RF output power
- Power on password protection
- PC programming capability
- CI-V Commands for external control
- VE-PG3 RoIP gateway for interconnect with other radio devices
- Compliant with European E-marking for installation in vehicles (IC-A120E)









OPTIONS FOR HANDHELD TRANSCEIVERS

	BATTERY PACKS				BATTERY CASES			CHARGERS	
MODEL NAME	BP-288 Li-ion: 7.2 V/2200 mAh (min.) 2350 mAh (typ.) 	BP-210N Ni-MH: 7.2 V/1480 mAh (min.) 1650 mAh (typ.) 	BP-230N Li-Ion: 7.4 V/950 mAh (min.) 980 mAh (typ.) 	BP-232H Li-Ion: 7.4 V/2200 mAh (min.) 2350 mAh (typ.) 	BP-289 LR6 (AA) × 6 cells 	BP-208N LR6 (AA) × 6 cells 	BP-261 LR6 (AA) × 6 cells 	BC-224 Rapid charger 	BC-119N Rapid charger 
IC-A25N/A25NE IC-A25C/A25CE	✓				✓			✓	
IC-A24/A24E IC-A6/A6E		✓				✓			✓ (Use with AD-101)
IC-A14/A14S IC-A15/A15S			✓	✓			✓		










	CHARGERS				MULTI-CHARGERS		AC ADAPTERS		
MODEL NAME	BC-144N *1 Rapid charger 	BC-160 Rapid charger 	BC-171 *1 Regular charger 	BC-179 *1 Regular charger 	BC-121N Rapid multi-charger 	BC-197 Rapid multi-charger 	BC-123S *2 12 V/1 A 	BC-145S *2 16 V/0.93 A 	BC-147S *2 12 V/250 mA 
IC-A25N/A25NE IC-A25C/A25CE							✓ (Use with BC-224)		
IC-A24/A24E IC-A6/A6E	✓				✓ (Use with AD-101)			✓ (Use with BC-119N/ BC-144N)	
IC-A14/A14S IC-A15/A15S		✓	✓	✓		✓ (Use with AD-122)	✓ (Use with BC-160)		✓ (Use with BC-171 /BC-179)








*1 Not available in USA.

*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.

	AC ADAPTER	WALL CHARGER	CHARGER ADAPTERS		DC POWER CABLES		CIGARETTE LIGHTER CABLES	
MODEL NAME	BC-157S 12 V/7.5 A 	BC-167S *3 12 V/500 mA 	AD-101 	AD-122 (Supplied with BC-197, depending on version) 	OPC-515L 	OPC-656 	CP-20 	CP-22 
IC-A25N/A25NE IC-A25C/A25CE							✓	
IC-A24/A24E IC-A6/A6E	✓ (Use with BC-121N)	✓	✓ (Use with BC-119N /BC-121N)		✓ (Use with BC-119N)	✓ (Use with BC-121N)	✓	
IC-A14/A14S IC-A15/A15S	✓ (Use with BC-197)			✓ (Use with BC-197)		✓ (Use with BC-197)		✓ (Use with BC-179)









*3 BC-167SA for USA plug. SD for Europe plug. SV for Australia plug.






	SPEAKER MICROPHONES		HEADSET ADAPTERS		Bluetooth® HEADSET	BELT CLIPS			
MODEL NAME	HM-231 Waterproof 	HM-234 	OPC-2379 	OPC-499 	VS-3 The side tone function is available. 	MB-133 	MB-86 	MB-103 	MB-94 
IC-A25N/A25NE IC-A25C/A25CE	✓		✓		✓	✓			
IC-A24/A24E IC-A6/A6E		✓		✓			✓	✓	
IC-A14/A14S IC-A15/A15S		✓		✓					✓

	LEATHER BELT HANGERS			CHARGER BRACKET	CARRYING CASE	ANTENNA	APPLICATION	
MODEL NAME	MB-96F Fixed type	MB-96FL Long type	MB-96N Swivel type	MB-130	LC-159	FA-B02AR	RS-AERO1A ^{*3} Android™ app for flight planning.	RS-AERO1I ^{*4} iOS™ app for flight planning.
								
IC-A25N/A25NE IC-A25C/A25CE	✓ (Use with MB-133)	✓ (Use with MB-133)	✓			✓	✓ (IC-A25N/A25NE)	✓ (IC-A25N/A25NE)
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)		✓		

^{*3} The application for Android™ can be downloaded free from Google Play™.
^{*4} The application for iOS™ can be downloaded free from App Store.

OPTIONS FOR PANEL MOUNT AND MOBILE TRANSCEIVERS

	HAND MICROPHONES			Bluetooth® HEADSET	Bluetooth® UNIT	HEADSET ADAPTER	REAR PANEL ADAPTERS	
MODEL NAME	HM-176 Same as supplied with PS-80 and MB-53.	HM-216	HM-217 Speaker-microphone	VS-3	UT-133A	OPC-871A	MBA-3 Card edge connector for use with PS-80.	MB-113 For D-sub 15-pin connection system
								
IC-A220 TSO version*								
IC-A220	✓ (Use with PS-80/MB-53)						✓	
IC-A210E	✓ (Use with MB-53)							✓
IC-A120/A120E		✓	✓	✓ (Use with UT-133A)	✓	✓		

	EXTERNAL SPEAKER	MOUNTING BRACKET	DC POWER SUPPLY	RoIP GATEWAY	CONNECTION CABLE
MODEL NAME	SP-35	MB-53	PS-80	VE-PG3	OPC-2275 For connection with VE-PG3. 5m; 16.4ft
					
IC-A220 TSO version*					
IC-A220	✓	✓	✓		
IC-A210E		✓			
IC-A120/A120E				✓	✓

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

* The IC-A220 TSO version requires user supplied accessories such as headset, speaker and power supply for use.

☒ :Applicable
 ☐ :Not applicable

SPECIFICATIONS

HANDHELD TRANSCEIVERS

		IC-A25N IC-A25C	IC-A25NE IC-A25CE	IC-A24 IC-A6	IC-A24E IC-A6E	IC-A14 IC-A14S	IC-A15 IC-A15S
NAV/COM channels		VOR NAV & COM (IC-A25N) COM (IC-A25C)	VOR NAV & COM (IC-A25NE) COM (IC-A25CE)	VOR NAV & COM (IC-A24) COM (IC-A6)	VOR NAV & COM (IC-A24E) COM (IC-A6E)	COM	COM
Built-in GPS		✓(IC-A25N)	✓(IC-A25NE)	—	—	—	—
Bluetooth®		✓(IC-A25N)	✓(IC-A25NE)	—	—	—	—
IP rating		IP57	IP57	IPX4	IPX4	IPX4	IPX4
Flip-flop channel recall		✓	✓	✓	✓	—	—
MIL-STD 810		✓(G)	✓(G)	✓(F)	✓(F)	✓(F)	✓(F)
Android™/iOS™ app for flight planning		✓(IC-A25N)	✓(IC-A25NE)	—	—	—	—
Frequency range (unit: MHz)	TX RX	118.000–136.992 IC-A25N 108.000–136.992 161.650–163.275 IC-A25C 118.000–136.992 161.650–163.275	118.000–136.992 IC-A25NE 108.000–136.992 IC-A25CE 118.000–136.992	118.000–136.992 IC-A24 108.000–136.992 161.650–163.275 IC-A6 118.000–136.992 161.650–163.275	118.000–136.992 IC-A24E 108.000–136.992 IC-A6E 118.000–136.992	118.000–136.975 IC-A14 108.000–136.975 161.650–163.275 IC-A14S 118.000–136.975	118.000–136.975
Number of memory channels		300 channels (15 groups)		200 channels (20 channels × 10 banks)		200 channels (20 channels × 10 banks, IC-A14/A15) 100 channels (IC-A14/A15)	
Channel spacing*1		25 kHz/8.33 kHz		25 kHz/8.33 kHz		25 kHz	
Power supply requirements		7.2 V DC (BP-288) 11.0 V DC (External DC jack)		7.2 V DC (BP-210N), 11.0 V DC (External DC jack)		7.4 V DC (BP-232H)	
Current drain	TX High RX Stand-by RX Max. audio	1.8 A 90 mA typical (GPS, Bluetooth, Light:OFF) 500 mA		1.8 A 70 mA typical 500 mA		1.5 A 50 mA typical 500 mA	
Dimensions*2 (W×H×D)		58.9 × 148.4 × 31.8 mm; 2.3 × 5.8 × 1.3 in		54 × 129.3 × 35.5 mm; 2.1 × 5.1 × 1.4 in		53 × 120 × 36.9 mm; 2.1 × 4.7 × 1.5 in	
Weight (approx.)		384 g; 13.6 oz (with BP-288 and ANT)		430 g; 15.2 oz (with BP-210N and ANT)		350 g; 12.3 oz (with BP-232H and ANT)	
Operating temperature range		-10°C to +60°C		-10°C to +60°C		-10°C to +60°C	
Frequency stability		±0.4 kHz		±1 ppm		±5 ppm	
Output power (PEP/carrier power)		6 W typical/1.8 W		5 W/1.5 W		5 W typical/1.5 W typical	
Microphone impedance		150 Ω		100 kΩ		150 Ω	
Sensitivity	COM	1 μV (6 dB S/N)		1 μV (12 dB SINAD)		0.5 μV typical (6 dB S/N) 0.71 μV typical (12 dB SINAD)	
Selectivity	8.33 kHz 25 kHz	2.778/7.37 kHz (6 dB/60 dB) 7.5/25 kHz (6 dB/60 dB)		2.778/7.37 kHz (6 dB/60 dB) 7.5/25 kHz (6 dB/60 dB)		7.5/25 kHz (6 dB/60 dB)	
Spurious response (COM)		60 dB		60 dB		60 dB	
Audio output power (at 10% distortion)		350 mW into an 8 Ω load		470 mW typical into an 8 Ω load		700 mW into an 8 Ω load (Internal SP) 500 mW into an 8 Ω load (External SP)	

PANEL MOUNT TRANSCEIVERS and MOBILE TRANSCEIVERS

		IC-A220 [TSO version]	IC-A220	IC-A210E	IC-A120	IC-A120E
TSO certification		✓	—	—	—	—
NAV/COM channels		COM	COM	COM	COM	COM
Intercom		✓	✓	✓	—	—
Automatic SQL		✓	✓	—	—	—
Active Noise Canceling		—	—	—	✓	✓
Bluetooth®		—	—	—	✓ (Use with UT-133A)	✓ (Use with UT-133A)
IP rating		—	—	—	IP54	IP54
MIL-STD 810		✓(G)	✓(G)	✓(F)	✓(G)	✓(G)
Frequency range (unit: MHz)	TX RX	118.000–136.992 118.000–136.992 161.650–163.275	118.000–136.992 161.650–163.275	118.000–136.992	118.000–136.992	118.000–136.992
Number of memory channels		20 channels (Regular)		10 channels (Regular)	200 channels	
Channel spacing*1		25 kHz/8.33 kHz		25 kHz/8.33 kHz	25 kHz/8.33 kHz	
Power supply requirements		13.8 V or 27.5 V DC (automatic selection)		13.75 V or 27.5 V DC (automatic selection)	13.75 V or 27.5 V DC (automatic selection)	
Current drain	TX High RX Stand-by RX Max. audio	5.0 A maximum 500 mA 4.0 A		5.0 A maximum 500 mA 4.0 A	5.0 A maximum 500 mA 4.0 A	
Dimensions*2 (W×H×D)		160 × 34 × 271 mm; 6.3 × 1.3 × 10.7 in		161 × 45 × 175 mm; 6.3 × 1.8 × 6.9 in	161 × 45 × 175 mm; 6.3 × 1.8 × 6.9 in	
Weight (approx.)		1.2 kg; 2.6 lb		1.0 kg; 2.2 lb	1.5 kg; 3.3 lb (main unit)	
Operating temperature range		-20°C to +55°C		-30°C to +60°C	-20°C to +55°C	
Frequency stability		±5 ppm		±1 ppm (0°C to +40°C)	±5 ppm (-30°C to +60°C)	
Carrier power		8.0 W		6.0 W (4.5–8 W)	9 W typical	
Microphone impedance		600 Ω		600 Ω	600 Ω	
Sensitivity (COM)		2 μV (6 dB S/N)		2 μV (12 dB SINAD)	1 μV (6 dB S/N) 1.8 μV (12 dB SINAD)	
Selectivity	8.33 kHz (6 dB/60 dB) 25 kHz (6 dB/60 dB)	±2.778/±7.37 kHz ±3/±22 kHz		±2.778/±7.37 kHz ±3/±22 kHz	±2.778/±7.37 kHz ±3/±22 kHz	
Spurious response (COM)		74 dBμ		70 dB	74 dBμ	
Audio output power (at 10% distortion)		5 W into a 4 Ω load (External SP) 60 mW into a 500 Ω load (Headphone)		10 W typical into an 8 Ω load (External SP) 100 mW typical into a 500 Ω load (Headphone)	10 W typical into an 8 Ω load (External SP) 100 mW typical into a 500 Ω load (Headphone)	

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

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