ICOM

AVIATION COMMUNICATIONS + NAVIGATION

Icom Inc.

IC-A23
with VOR navigation

IC-A5
without VOR navigation

Fly the airwaves with this simple air band transceiver

Compact and water resistant construction

Measuring only 58(W)×107(H)×28.5(D) mm*, its palm size is very convenient for carrying on your belt or slipping into a flight bag. The IC-A23/IC-A5 features water resistant construction, equivalent to JIS 4 grade, which allows safe operation in rainy conditions.
* $2^9/_{32}$(W)×$4^7/_{32}$(H)×$1^1/_8$(D) in.

VOR navigation (*IC-A23 only)

The IC-A23 has a VOR navigation function, which indicates the bearing to or from the VOR station. A Course Deviation Indicator shows the deviation between your flying course and the desired course. In CDI mode, the ABSS (Auto Bearing Set System) function allows you to center your flying course in one touch.

Simple operation

Well labeled and well spaced keys are easy to operate, even while wearing gloves. The wide and large LCD lets you see every readout at a glance.

Reversible analog rotary selector and digital Up/Down switches

Volume and channel selection can be controlled by the rotary selector on the top panel, or Up/Down switches on the front. You can change the assignment at your convenience. The volume level and channel number is displayed during adjustment.

Voice recording and playback function

Received conversation can be recorded and played back with the built-in voice recorder. Recorded contents can be transmitted and kept even with power off or when the battery is discharged.

Other features

- 200 memory channels (20Ch × 10 banks) with 6 character names
- One touch access to the 121.5MHz emergency channel
- Large capacity, 760mAh of Ni-MH battery pack
- NOAA weather channel and Duplex operation
- Tag scanning and memory bank scanning for checking channels
- ANL (Auto Noise Limiter) for noise reduction
- Low battery alert and backlit keypad
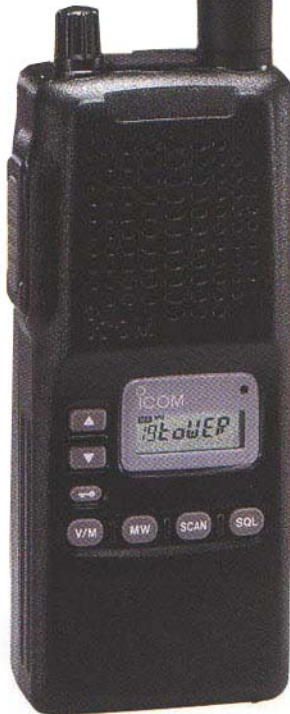- Built-in sidetone function with headset

IC-A5

IC-A23

IC-A22
IC-A22E

with VOR navigation

IC-A3
IC-A3E

without VOR navigation

Reliable communications
with crystal clear audio

Meets
MIL-STD 810

Meets
MIL-STD 810

Slim size with superior audio

Though the IC-A22/E and IC-A3/E is compact, the audio is not compromised. Crystal clear audio output is easy to hear even without a headset. The ergonomic keypad design provides convenient access to all functions and a rotary control and allows quick and easy tuning of all frequency and memory channels.

Navigation features (*IC-A22/IC-A22E only)

The IC-A22/E has following Navigation features.
- Displays the radial heading TO or FROM the VOR station.
- CDI (Course Deviation Indicator) shows deviation from original set course at a glance.
- All 200 navigation channels.
- ABSS (Automatic Bearing Set System) identifies the direct radial to the VOR.
- Semi-duplex function allows you to contact flight services, etc. while receiving VOR signals (U.S.A. version only).

Built-in sidetone function with headset

The sidetone function allows the use of a simple low cost headset adapter to monitor your transmitted audio.

Alphanumeric display with large, easy-to-read characters

6-character alphanumeric notes can be used for convenient display of airport names, call signs, etc. for up to 50 memories. When you want to view frequencies instead, toggling between the two display types is a snap. In addition, lockout information can be programmed into memories for scanning purposes.

Other-features

- One-touch selection of the 121.5MHz emergency frequency
- LCD and keypad backlighting for nighttime operation
- Versatile scanning capabilities
- DC connector allows operation with a 12 to 15V DC power source
- Powerful 5W of output power (5W P.E.P. typ., 1.5W carrier typ.)
- FET power module provides stable operation at high duty cycles
- Rugged die-cast aluminum chassis and polycarbonate casing
- ANL (automatic noise limiter) function to reduce pulse-type noise
- Low battery indicator

IC-A3

IC-A22

IC–A4

Icom's favourite airbander for everyone in aviation

Meets MIL-STD 810

Rugged construction

The one piece, die-cast aluminum chassis and polycarbonate front panel provide the durability needed for reliable operation under the most demanding conditions.

Simple operation

Reliable communication is essential in the hectic airport work environment. The IC-A4's large display is easy to read and shows the operating status at a glance. Up/down keys allow you to change channels quickly and easily. Up to 19 memory channels can be programmed for easy recall.

PC programmable

PC programming and cloning allows you to customize each radio to your needs. Transmit can be inhibited by channel. (These features must be activated by your dealer.)

Alphanumeric memory

The channel name function allows you to assign up to 5-character alphanumeric names to each channel. This provides a convenient way to remember channel contents and to recognize selected channels at a glance.

Compact body

Measuring only 58(W)×140.5(H)×32.3(D) mm*, the IC-A4 is truly portable. Small enough to fit into a pocket.

* $2^9/_{32}$(W)×$5^{17}/_{32}$(H)×$1^9/_{32}$(D) in

Other features

- LCD backlighting allows you to read the display easily during night-time operation
- Maintenance-free EEPROM stores memory channel information
- Side-tone permits hearing your own transmitted audio while using a standard aviation headset (optional headset adapter required–OPC-752)
- Optional 1050mAh battery for longer lifespan available, same physical size
- Optional (AA) alkaline battery case availbale – holds 8 batteries

Meets MIL-STD 810

VHF AIR BAND TRANSCEIVER

IC-A110
IC-A110EURO

Rugged and reliable for serious ground crew communications

Capable for use in any vehicle

The IC-A110/EURO are adaptable to vehicles working on a 12V, as well as a 24V power source.

Front mounted loud speaker

A loud speaker mounted in front of the transceiver is free of any obstacles blocking audio reproduction. And, 10W of powerful output power is available for the external speaker.

Dial selection

With a simple rotation of the dial, frequently used memory channels, or desired frequency selection can be made.

Memory channel name display

Up to 7-character memory names can be assigned for each channel. Allows simple and quick channel recognition and selection.

Side tone function

The operator's transmitted messages and calls are audio modulated and can be heard by standard airband headsets*, even in the most demanding operating airport conditions.
*Option OPC-871 is required.

Convenient on hook scan functions

Hanging the microphone on the mic. hanger activates the auto scan function. When released, the transceiver will return to the last used, or priority channel, depending on the selection.

Usable in extreme cold

The adopted LCD guaranteed usable in temperatures from –30°C to +70°C (–22°F to +158°F). Normal performance, as well as display indications, are guaranteed even in extremely cold areas.

Other features

- An extra version complying to new regulations is available for 8.33kHz channel spacing
- Equipped EEPROM system provides maintenance free memory backup capability, without the use of a separate backup battery
- Various scan functions, such as VFO and priority scans
- A total of 20 memory channels are available
- 36W (pep) of powerful output
- Ideal compact size of 150(W)×50(H)×180(D) mm* to mount in various types of vehicles
  *$5^{29}/_{32}$(W)×$1^{31}/_{32}$(H)×$7^{3}/_{32}$(D) in

Meets
MIL-STD 810

VHF AIR BAND TRANSCEIVER **IC-A200**

Easy to see, simple to operate in the cockpit

Easy-to-see function display

All important information is provided in extra large characters for easy viewing, day or night. The effective viewing angle increases side visibility making the IC-A200 easier to read. At all times, the USE and STBY (standby) window frequencies simultaneously appear on a large function display.

Simple operation

The automatic squelch function eliminates the need to make inconvenient squelch adjustments. All required functions are activated with a minimum number of switches and controls.

Remote control capability

Memory channel selection and exchanging of the USE and STBY window frequencies can also be accomplished with remote switches. Hence, you can set these switches into the most convenient positions.

Full frequency coverage

The advanced IC-A200 covers 118.000–136.975MHz continuously in 25kHz tuning steps. A total of 760 communication channels are available.

Compact body for easy installation

Measuring just 160(W)×34(H)×271(D) mm*, the IC-A200 neatly fits the mounting brackets used on most aircraft. Required connectors are also included.
* $6^5/_{16}$(W)×$1^{11}/_{32}$(H)×$10^{21}/_{32}$(D) in

Other features

- 9 memory channels
- Stable 7W of RF output
- Illuminated switches and function display
- 2 way to select the desired frequency
- 3 kinds of tuning steps for quick and easy channel selection
- Intercom functions

PS-80 DC POWER SUPPLY

The PS-80 power supply lets you use the IC-A200 as a ground base station. The PS-80 has a built-in speaker and a microphone*.
* Some versions do not come with a microphone.
Dimensions (W×H×D):
   200×200×300 mm
   $7^7/_8$×$7^7/_8$×$11^{13}/_{16}$ in
Output: 13.8V DC/6A
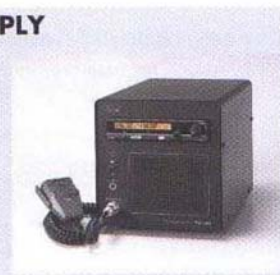
OPTIONS

MODEL NAME	BATTERY PACKS				BATTERY CASES		WALL CHARGERS		CHARGERS
	BP-195 9.6V / 700mAh	BP-196 9.6V / 1050mAh	BP-200L 9.6V / 760mAh (Ni-MH)	CM-166 12V / 600mAh	BP-194 AA (R6)×8 cells	CM-167 AA (R6)×10 cells	BC-110	BM-112	BC-121
IC-A23/IC-A5			✓				✓		✓
IC-A22/IC-A3				✓		✓		✓	✓
IC-A4	✓	✓			✓				✓

MODEL NAME	CHARGERS			AC ADAPTERS			CHARGER ADAPTERS		
	BC-133	BC-143	BC-119	BC-123 12V / 1A	BC-124 12V / 7A	BC-145 16V / 1A	AD-50+AD-75	AD-81	AD-87+AD-88
IC-A23/IC-A5			✓	✓ (Use with BC-119)	✓ (Use with BC-121)				✓ (Use with BC-119/BC-121)
IC-A22/IC-A3			✓	✓ (Use with BC-119)	✓ (Use with BC-121)			✓ (Use with BC-119/BC-121)	
IC-A4	✓	✓	✓	✓ (Use with BC-119)	✓ (Use with BC-121)	✓ (Use with BC-143)		✓ (Use with BC-119/BC-121)	

MODEL NAME	MOUNTING BRACKET AND BELT CLIPS				CARRYING CASES		SPEAER MICROPHONES	
	MB-25	MB-68	MB-74	MB-76	LC-122	LC-147	HM-112	HM-119
IC-A23/IC-A5				✓		✓		
IC-A22/IC-A3	✓				✓		✓	
IC-A4		✓	✓					✓

MODEL NAME	CIGARETTE LIGHTER CABLES		DC POWER CABLES		HEADSET ADAPTER CABLES			ANTENNAS	
	CP-12/L with noise filter	CP-17L	OPC-254/L	OPC-515L	OPC-499	OPC-752	OPC-967	FA-B01AR	FA-B02AR
IC-A23/IC-A5	✓		✓				✓		✓
IC-A22/IC-A3		✓		✓	✓			✓	
IC-A4				✓		✓			✓

MODEL NAME	HEADSET ADAPTER	DC POWER SUPPLY					
	OPC-871	PS-80					
IC-A110/EURO	✓						
IC-A200		✓					

SPECIFICATIONS

		IC-A23	IC-A5	IC-A22/E	IC-A3/E	IC-A4	IC-A110/EURO	IC-A200
Frequency range (Unit: MHz)	Tx	118.000–136.975	118.000–136.975	118.000–136.975	118.000–136.975	118.000–136.975	118.000–136.975	118.000–136.975
	Rx	108.000–136.975 161.650–163.275*¹	118.000–136.975 161.650–163.275*¹	108.000–136.975 161.650–163.275*¹	118.000–136.975 161.650–163.275*¹	108.000–136.975	118.000–136.975	118.000–136.975
Number of memory channels		200 Ch		50 Ch		19 Ch	20 Ch	9 Ch
Channel spacing (Unit: kHz) (varies according to version)		25		25		25	8.33 and/or 25	25
Power supply requirement		9.6 –12.0V DC		12–15V DC		9.6V DC ± 15%	13.75V DC or 27.5V DC	13.8V DC ± 15%
Current drain	Tx at high	1.1A typ.		1.0A typ.		0.7A typ.	5.0A max.	2.6A
	Rx Stand-by	70mA typ.		55mA typ.		55mA typ.	500mA	320mA
	Max. audio	500mA typ.		400mA typ.		250mA max.	4.0A	600mA
Dimensions (W×H×D) (proj. not included; in)		58×107×28.5 mm 2⁹/₃₂×4⁷/₃₂×1¹/₈ in		57×153×35 mm 2¹/₄×6¹/₃₂×1³/₈ in		58×140.5×32.3 mm 2⁹/₃₂×5¹⁷/₃₂×1⁹/₃₂ in	150×50×180 mm 5²⁹/₃₂×1³¹/₃₂×7³/₃₂ in	160 × 34 × 271 mm 6⁵/₁₆×1¹¹/₃₂×10⁹¹/₃₂ in
Weight		340g ; 12oz (w/BP-200L and antenna)		465g ; 16oz (w/CM-166 and antenna)		425g ; 15oz (w/BP-195 and antenna)	1.5kg ; 3lb 5oz	1.1kg ; 2.4lb
Frequency stability		± 17ppm (-10°C to + 60°C)		± 20ppm (-10°C to + 50°C)		± 10ppm (0°C to + 50°C)	IC-A110 ± 5ppm (-30°C to +60°C) IC-A110 EURO ± 1ppm (0°C to +40°C)	± 15ppm (-20°C to + 55°C)
RF output power		5W (pep) 1.5W (Carrier power)		5W (pep) 1.5W (Carrier power)		3.7W (pep) 1.0W (Carrier power)	36W typ. (pep) 9W typ. (Carrier power)	7W (Carrier power)
Microphone impedance		150Ω		150Ω		150Ω	600Ω	600Ω
Sensitivity (at 6dB S/N)		1μV		1μV		1μV	IC-A110 1μV IC-A110 EURO 5dBμV (at 12dB SINAD)	2μV
Selectivity		7.5kHz/−6dB 25kHz/−60dB		8kHz/−6dB 25kHz/−60dB		8kHz/−6dB 25kHz/−60dB	25kHz CH. spacing 8kHz/−6dB 25 kHz/−60dB 8.33kHz CH. spacing 2.778kHz/−6dB 7.37kHz/−60dB	8kHz/−6dB 22kHz/−60dB
Spurious response rejection ratio		60dB		60dB		60dB	IC-A110 74dBμ IC-A110 EURO 70dB	80dB
Audio output power (at 10% distortion)		500mW with an 8Ω load at 9.6V		600mW with an 8Ω load at 12V		500mW with an 8Ω load at 9.6V	10W with an 8Ω load at 13.75V 100mW with a 500Ω load at 13.75V	5 W with a 4Ω loard at 13.8V 100mW with a 500Ω load at 13.8V

*1 U.S.A. version only

Meets MIL-STD 810

Applicable U.S. Military specifications

Icom makes rugged products that meet MIL-STD requirements and strict environmental standards as follows.

Standard	Low Pressure		High Temp.		Low Temp.		Temp. Shock	Solar Radiation	Rain		Salt Fog	Dust	Humidity		Vibration			Shock			
Method/Procedure	500.3/I	500.3/II	501.3/I	501.3/II	502.3/I	502.3/II	503.3/I	505.3/I	506.3/I	506.3/II	509.3/I	510.3/I	507.3/I	507.3/II	514.2/X	514.3/I	514.4/I	516.2/I	516.3/I	516.4/I	516.4/IV
Applicable MIL-810 series	E	E	E	E	E	E	E	E	E	E	E	E	E	E	C	D	E	C	D	E	E
IC-A3/E															✔	✔	✔	✔	✔	✔	
IC-A22/E															✔	✔	✔	✔	✔	✔	
IC-A4															✔	✔	✔	✔	✔	✔	
IC-A110/EURO	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
IC-A200															✔	✔	✔	✔	✔	✔	