



VHF AIR BAND TRANSCEIVERS

# IC-A120 IC-A120E

**Top Performance Mobile Airband Radio**  
with Active Noise Cancelling and Bluetooth® Wireless Connectivity



## High Visibility, Simple Operation

The full dot-matrix LCD allows for high visibility and clearly shows alphanumeric characters and icons. Programming memory channels and other radio settings can be simply made from the front panel by radio users. These customizing functions can also be restricted, depending on the radio settings.

## Optional Bluetooth® Headset Connectivity

With the optional UT-133 Bluetooth® unit, the IC-A120/E can be used with a third-party wireless Bluetooth® headset. Also, using the optional VS-3 Bluetooth® headset, the side tone function is available.

## Active Noise Cancelling (ANC)

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.

## IP54 Dust-Protection and Water Resistance

The IC-A120/E has IP54 dust-protection and water resistance. This construction allows for use in open-air vehicles.

**ON-Hook Scan and ON-Hook Dualwatch Functions**

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

**Side Tone Function**

When using a third-party headset with the optional OPC-871A headset adapter, the side tone function allows you to monitor your own transmitted voice via the connected headset. Even when using a hand microphone, your voice can be monitored from the headset.

**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.

**Other Features**

- A total of 200 memory channels with 12-character channel names
- Both 12- and 24- volt systems compatible
- 8.33 kHz\* and 25 kHz channel spacing  
\* Use of 8.33 kHz channel spacing is prohibited in Canada
- 36W (P.E.P) RF output power
- Dualwatch and priority scan functions
- 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

**OPTIONS**

**Bluetooth® UNIT & Bluetooth® HEADSET**



**UT-133**  
**VS-3**  
Use with UT-133 in a pair.

**HAND MICROPHONES**



**HM-216**  
Same as supplied.


**HM-217**  
Speaker-microphone.

**HEADSET ADAPTER**



**OPC-871A**  
To interconnect with a third-party aviation headset.

**RoIP GATEWAY & CABLE**



**VE-PG3**  
To interconnect with other radio devices.

**OPC-2275**

**SPECIFICATIONS**

GENERAL	USA version	EUR version
Frequency coverage (Tx/Rx)	118.000-136.992MHz	
Channel spacing	25kHz/8.33kHz	
Type of emission	A3E (AM)	
Operating temperature	-30°C to +60°C	-20°C to +55°C
Frequency stability	±5ppm (-30°C to +60°C)	±1ppm (0°C to +40°C)
Antenna connector	M type (50Ω)	
Number of memory channels	200 channels	
Power supply requirement	13.75V/27.5V DC	
Current drain (at 13.75V)		
Transmitting	5.0A (maximum)	
Receiving	4.0A (at AF max.), 0.5A (at stand-by)	
Dimensions (W×H×D, Projections not included)	161×45×175mm; 6.34×1.77×6.89in (approximately)	
Weight (approximately)	1.5kg; 3.3lb	
TRANSMITTER	USA version	EUR version
Output power (at 13.75V) (Carrier Power)	9.0W typ.	9.0W +1.5dB/-3dB (-20°C to +55°C)
Spurious emissions (* Harmonics/Non-harmonics, 30MHz-1GHz)	Less than 60dB	Less than -36dBm/ Less than -46dBm*
Modulation	70% to 100%	Linear 85% Max. 95%
Microphone impedance	600Ω	
RECEIVER	USA version	EUR version
Intermediate frequencies	38.85MHz/450kHz (1st/2nd)	
Sensitivity	1 μV (6dB S/N)	1.8 μV (12dB SINAD)
Selectivity	8.33kHz 25kHz	2.778/7.37kHz (6dB/60dB) 8/25kHz (6dB/60dB)
Spurious response	More than 74dBμ	More than 70dB
Audio output power (10% distortion, 60% modulation)	1.5W typical More than 10W More than 100mW	

Measurements made in accordance with FCC Part 87 for USA version or EN 300 676-1 for Europe version. All stated specifications are subject to change without notice or obligation.

**Applicable U.S. Military Specifications**

Standard	MIL 810 G	
	Method	Procedure
Low Pressure	500.5	I, II
High Temperature	501.5	I, II
Low Temperature	502.5	I, II
Temperature Shock	503.5	I-C
Solar Radiation	505.5	I
Humidity	507.5	II
Vibration	514.6	I
Shock	516.6	I

Also meets equivalent MIL-STD-810-C, -D, -E and -F.

**Applicable IP Rating**

Ingress Protection Standard	
Dust & Water	IP54 (Dust-protection and water resistance)

**Supplied Accessories**

- Hand microphone, HM-216
- DC power cable
- Microphone hanger kit
- Mounting bracket kit
- Fuses

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