Icom IC-A210E

ICOM IC-A210E Aircraft Equipment Floor Radio Station User Manual

Model: IC-A210E

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the ICOM IC-A210E Aircraft Equipment Floor Radio Station. The IC-A210E is a permanently installable VHF aviation radio designed for reliable communication with aircraft cockpits. It features an advanced OLED display and supports both 12V and 24V DC power systems.
Please read this manual thoroughly before using the equipment to ensure safe and optimal performance.

2. Key Features

- **OLED Display:** Features a bright, high-contrast OLED display for superior readability in various lighting conditions. An automatic dimmer function adjusts brightness optimally.
- **Flexible Power Input:** Operates on both 12V and 24V DC power supplies, thanks to an internal DC-DC converter.
- **8.33 kHz Channel Raster:** Compatible with both 8.33 kHz and 25 kHz channel spacing for broad compatibility.
- **Easy Channel Selection:** Quick and easy selection of stored channels.
- **Flip-Flop Button:** Allows quick switching between main and stand-by channels.
- **Dual Watch Function:** Monitor two channels simultaneously.
- **Automatic Stack Storage:** Stores the last 10 used channels for quick recall.
- **GPS Memory Function:** When connected to an optional external GPS receiver, relevant flight frequencies are automatically set.
- **Voice-Controlled Intercom:** Integrated intercom function with adjustable sound power and switch.
- **PC Programmable:** Allows for computer-based programming.

3. Setup and Installation

The ICOM IC-A210E is designed for permanent installation. Professional installation is recommended.

1. **Mounting:** Securely mount the radio station in a suitable location within the vehicle or aircraft, ensuring adequate ventilation.
2. **Power Connection:** Connect the radio to a 12V or 24V DC power source. The internal DC-DC converter handles voltage conversion automatically. Ensure correct polarity and fuse protection.
3. **Antenna Connection:** Connect a suitable VHF aviation antenna to the antenna port. Ensure the connection is secure and weatherproof.
4. **External GPS Receiver (Optional):** If using the GPS memory function, connect a compatible external GPS receiver to the designated port. Refer to the GPS receiver's manual for specific connection details.
5. **Intercom System:** Connect headsets and microphones to the intercom ports as required. Adjust sound power and switch sensitivity via the radio's settings.
6. **Initial Power-Up:** After all connections are made, power on the unit. The OLED display will illuminate.



Figure 3.1: Front panel of the ICOM IC-A210E, showing the OLED display and control knobs.

4. Operating Instructions

4.1 Power On/Off and Volume

- To power on, rotate the **VOL** knob clockwise. To power off, rotate it counter-clockwise until it clicks.
- Adjust the volume by rotating the **VOL** knob.

4.2 Channel Selection

- Use the main tuning knob (COMM) to select frequencies.
- Press the **RCL** (Recall) button to access stored memory channels. Rotate the tuning knob to scroll through channels.
- Press the **MEM** (Memory) button to store the currently selected frequency into a memory channel.
- The **Flip-Flop** button (often indicated by two horizontal arrows) allows quick switching between the main operating frequency and the standby frequency.

4.3 Dual Watch Function

- Activate the **DUAL** function to monitor two channels simultaneously. One channel will be active for transmission, while the other is monitored for reception.
- Refer to the on-screen indicators for which channel is currently active.

4.4 Intercom Operation

- The integrated voice-controlled intercom activates when speech is detected.
- Adjust the intercom's sound power and switch sensitivity through the radio's menu settings to suit your environment and headsets.

4.5 GPS Memory Function

- If an external GPS receiver is connected and active, the radio can automatically retrieve and set relevant flight frequencies based on your current location.
- Ensure the GPS receiver is properly configured and receiving satellite signals.



Figure 4.1: The ICOM IC-A210E integrated into an aircraft environment.

5. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Do not use abrasive cleaners or solvents.
- **Display Care:** The OLED display is sensitive. Avoid pressing on it with sharp objects. Clean gently with a microfiber cloth if necessary.
- **Connections:** Periodically check all cable connections (power, antenna, GPS, intercom) for security and signs of wear.
- **Firmware Updates:** Check the ICOM website periodically for any available firmware updates for your model. Follow the instructions provided by ICOM for any update procedures.

- **Professional Inspection:** It is recommended to have the unit professionally inspected and calibrated at regular intervals, especially in aviation applications.

6. Troubleshooting

Problem	Possible Cause	Solution
Unit does not power on.	No power supply; incorrect wiring; blown fuse.	Check power connections. Verify fuse. Ensure correct voltage (12V or 24V DC).
No audio output.	Volume too low; headset not connected; faulty headset; squelch too high.	Increase volume. Check headset connection. Test with another headset. Adjust squelch level.
Poor reception/transmission.	Antenna issue; interference; incorrect frequency.	Check antenna connection and condition. Move away from sources of interference. Verify correct frequency and channel spacing (8.33/25 kHz).
GPS memory function not working.	GPS receiver not connected; no GPS signal; incompatible receiver.	Ensure GPS receiver is properly connected and powered. Verify GPS signal reception. Consult GPS receiver manual for compatibility.

If the problem persists after attempting these solutions, please contact ICOM customer support or a qualified service technician.

7. Specifications

Brand	Icom
Model	A210E
Manufacturer	ICOM
Tuner Technology	VHF
Voltage	24 Volts (compatible with 12V and 24V DC)
Number of Channels	10 (normal memory)
Special Features	Adjustable brightness, programmable, radio, OLED display, 8.33 kHz channel grid, intercom, GPS memory function.
Product Dimensions	16.99 x 8 x 15.01 cm
Item Weight	998 g
ASIN	B00NNQNLTU
Date First Available	16 April 2016

8. Warranty and Support

For warranty information, please refer to the warranty card included with your product or visit the official ICOM website. ICOM provides customer support for technical assistance, service, and parts.

ICOM Official Website: www.icomjapan.com

Please have your model number (IC-A210E) and serial number ready when contacting support.

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Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question