1. SUPPLIED ACCESSORIES

The following accessories are supplied with the transceiver. Carefully check the quantity of each part.

- Mounting bracket
- D-Sub 25 pin connector
- Connector pin (MOROSEN/3-386)
- Screen print (50 V, 30,000 μF)
- Micro Nut (No. 6)
- Screw (No. 6)
- Speed nut (No. 6)
- Screen print (No. 6)
- Speed nut (No. 6)
- D-Sub 25-pin connector
- Receiver (Icom washer V)
- Antenna clip
- Self-crimping plug (No. 6)
- Screw (No. 6 x 1/2)
- Nut (No. 6)
- Crimp nut (No. 6)
- Nut (No. 6)
- Speed nut (No. 6)
- Headphone jack 1
- Headphone jack 2
- COMMIN1 sticker
- COMMIN2 sticker
- Speed nut UNC (No. 6)
- Crimp nuts (No. 6)
- Comm wire (10 m)
- Nut (No. 6)
- Screws (No. 6)
- Speed nut (No. 6)
- Screws (No. 6 x 2)
- Screws (No. 6 x 3/8)
- Screws (No. 6 x 2/3)
- Speed nut UNC (No. 6)
- Screws (No. 6 x 1)

2. INSTALLATION PROCEDURES

1. Check the quantity of parts. Refer to SUPPLIED ACCESSORIES.
2. Prepare miscellaneous items required for installation. Refer to miscellaneous items in SUPPLIED ACCESSORIES.
3. Prepare the required wiring. Refer to CONNECTOR INFORMATION and CONNECTING THE CABLES FOR D-SUB 25 PIN.
4. Assemble supplied mounting bracket and other parts. Refer to MOUNTING BRACKET ASSEMBLY.
5. Cut the mounting hole. Refer to MARKING A MOUNTING HOLE.
6. Mount the transceiver into the mounting bracket. Refer to MOUNTING TO THE BRACKET.
7. Check the transceiver operation. Refer to OPERATION CHECK.

3. PRECAUTIONS

NEVER bend the cables sharply or place the cables too near the aircraft control cables. DO NOT place the transceiver where hot or cold air flows directly on it. AVOID placing the transceiver in areas with temperatures below -30°C or above +50°C (-76°F to +122°F). NEVER connect the transceiver to a power source using reverse polarity. Reverse polarity will damage the transceiver.

4. CONNECTOR INFORMATION

- D-sub 25-pin
- Screw (No. 6 x 1/2)
- Nut (No. 6)
- Crimp nut (No. 6)
- Nut (No. 6)
- Speed nut (No. 6)
- Headphone jack 1
- Headphone jack 2
- COMMIN1 sticker
- COMMIN2 sticker
- Speed nut UNC (No. 6)
- Crimp nuts (No. 6)
- Comm wire (10 m)
- Nut (No. 6)
- Screws (No. 6)
- Speed nut (No. 6)
- Screws (No. 6 x 2)
- Screws (No. 6 x 3/8)
- Screws (No. 6 x 2/3)
- Speed nut UNC (No. 6)
- Screws (No. 6 x 1)

5. INSTALLATION LIMITATION

The conditions and tests required for TSO approval of this article are minimum performance standards. Those making this article, either within a specific type or class of aircraft, are responsible for determining that the aircraft installation conditions are suitable for the TSO article. TSO articles must have separate approval for installation in an aircraft. The article may be installed only if performed under 14 CFR part 43 or the applicable airworthiness requirements.

6. CONNECTING THE CABLES FOR D-SUB 25 PIN

1. Connect the D-Sub 25-pin connector of the antenna cable to the transceiver. The transceiver provides a matched impedance of 50 Ω. When connecting the antenna cable, use the reverse polarity connection. Reverse polarity will damage the transceiver.

2. Connect the power cable to the transceiver. The transceiver requires a power supply of 13.8/27.5 V DC. To prevent voltage drops, solder or crimp the cable lug before connecting it to the power supply.

3. Connect the intercom switch to the transceiver. The intercom switch is used to connect the aircraft intercom system to the transceiver.

4. Connect the microphone and earphone to the transceiver. The microphone and earphone are connected to the transceiver to enable communication.

5. Connect the COMMIN1 and COMMIN2 stickers to the transceiver. The COMMIN1 and COMMIN2 stickers are used to distinguish one transceiver from another.

6. Connect the external speaker to the transceiver. The external speaker is connected to the transceiver to enable loudspeaker communication.

7. Connect the COMMIN1 and COMMIN2 stickers to the transceiver. The COMMIN1 and COMMIN2 stickers are used to distinguish one transceiver from another.

8. Connect the power cable to the transceiver. The transceiver requires a power supply of 13.8/27.5 V DC. To prevent voltage drops, solder or crimp the cable lug before connecting it to the power supply.

9. Connect the intercom switch to the transceiver. The intercom switch is used to connect the aircraft intercom system to the transceiver.

10. Connect the microphone and earphone to the transceiver. The microphone and earphone are connected to the transceiver to enable communication.

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12. Connect the external speaker to the transceiver. The external speaker is connected to the transceiver to enable loudspeaker communication.

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16. Connect the microphone and earphone to the transceiver. The microphone and earphone are connected to the transceiver to enable communication.

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43. Connect the COMMIN1 and COMMIN2 stickers to the transceiver. The COMMIN1 and COMMIN2 stickers are used to distinguish one transceiver from another.
MOUNTING BRACKET ASSEMBLY

1. Remove the front panel from the transceiver's main unit.
2. Insert a 3/32″ allen driver into the lock screw and rotate clockwise until the metal catch touches the back of the lock chassis. (Fig. 2)
3. Slowly pull the transceiver out from the mounting bracket.
4. Connect the cable to the front panel.
5. Attach the front panel and tighten the allen screws.

OPERATION CHECK

1. Remove the front panel from the transceiver's main unit.
2. Insert a 3/32″ allen driver into the lock screw and rotate clockwise until the metal catch touches the back of the lock chassis. (Fig. 2)
3. Slowly pull the transceiver out from the mounting bracket.
4. Connect the cable to the front panel.
5. Attach the front panel and tighten the allen screws.

MARKING A MOUNTING HOLE

- Notes for marking the mounting hole
- The transceiver can be mounted securely in the supplied mounting bracket. Remember to allow adequate space for installation of cables and connectors.
- When installing two or more transceivers in a stack, the mounting bracket should be 1.3 mm (0.02″) apart.

OPERATION CHECK

1. Check the following points after transceiver installation.
   - Polarity of the power supply
   - NO interference caused to other equipment
   - NO noise or interference from other equipment
   - VSWR is less than 2.5:1
   - Communication capability on both the highest and lowest communication frequencies, if possible.

INFORMATION

1. FCC Grant of Equipment Authorization
2. TSO/RTCA Application SW P/Ns
   - DO-178C Level
   - Model
   - FCC ID
   - IC ID

TSO/RTCA

<table>
<thead>
<tr>
<th>Function</th>
<th>TSO/RTCA</th>
<th>Application SW P/Ns</th>
<th>DO-178C Level</th>
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<td>DO-168b</td>
<td>IC-A220 AFJ297410 202D-297410</td>
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</tbody>
</table>

Non-TSO function list

These functions operate per the system requirements for this transceiver and do not interfere with the TSO/DO-178C compliance.

Function Description

- Weather Channels Reception
- The radio provides reception of the weather channels which Icom America evaluated as part of the DO-168b and RTCA/DO-178C test/verification process and additional system level tests were also performed.
- Two Station Intercom
- The radio provides a user interface to select two station intercoms as an option to the pilot. This function was tested as part of the DO-168b and the RTCA/DO-178C test/verification process and additional system level tests were also performed.

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