KANNAD

QUICK INSTALLATION GUIDE

406 AF-COMPACT

SYSTEM KIT FOR GENERAL AVIATION

P/N S1840501-02

- **VERY SMALL** 140 x 98 x 80 mm (5.51"x3.85"x3.14")
- **VERY LIGHT WEIGHT** 850 gr (1,873lb)
- **VERY AFFORDABLE**

406 MHz EMERGENCY LOCATOR TRANSMITTER

121.5 MHz HOMING FREQUENCY

INCLUDING: REMOTE CONTROL PANEL, MOUNTING BRACKET AND CONNECTORS

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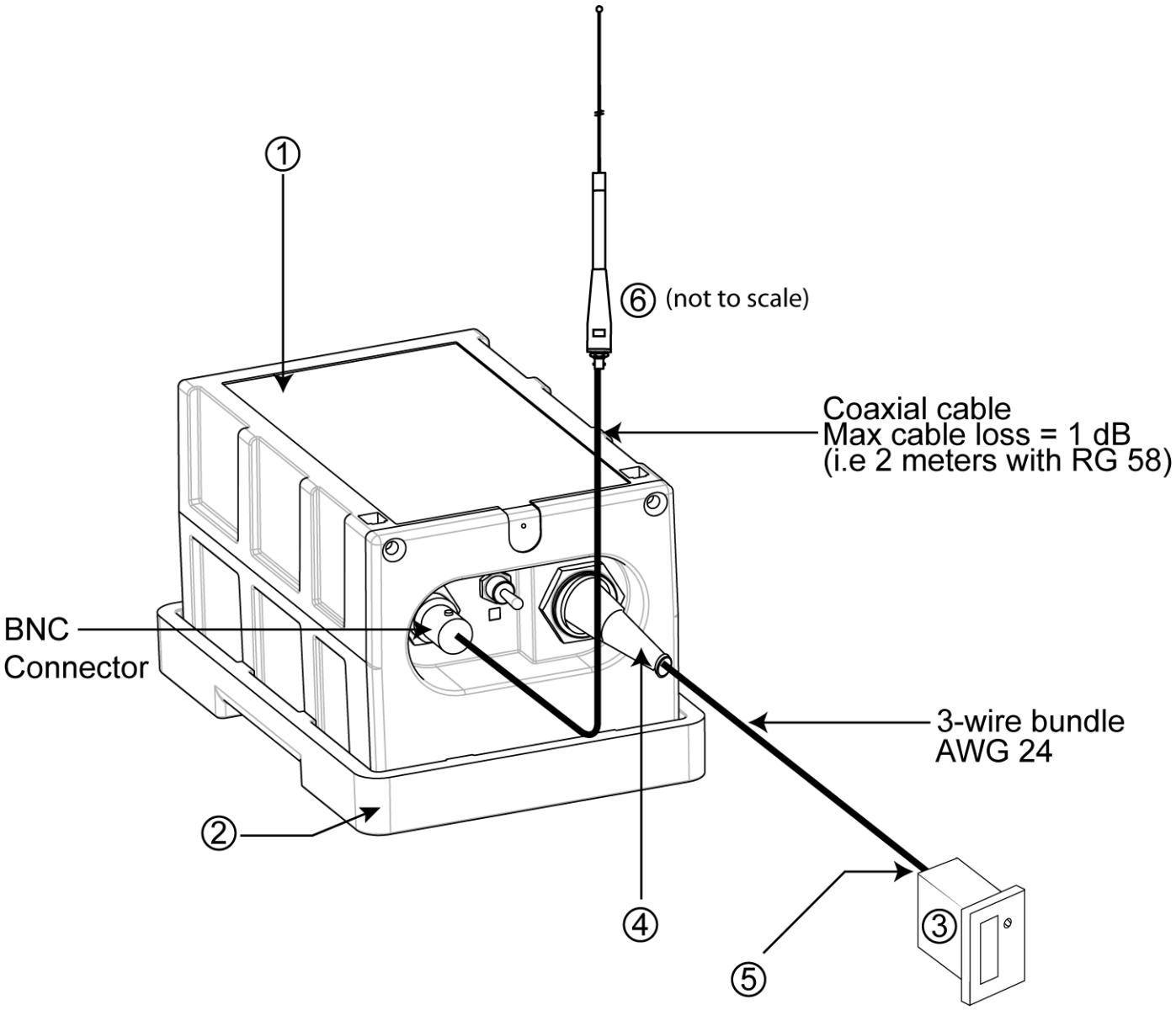
1. CHECK PACK COMPOSITION

Check that your KANNAD 406 AF COMPACT Pack is composed of:

1. transmitter;
2. mounting bracket;
3. RC200 remote control panel;
4. DIN-12 connector;
5. SUB D 9 Pts Female connector.

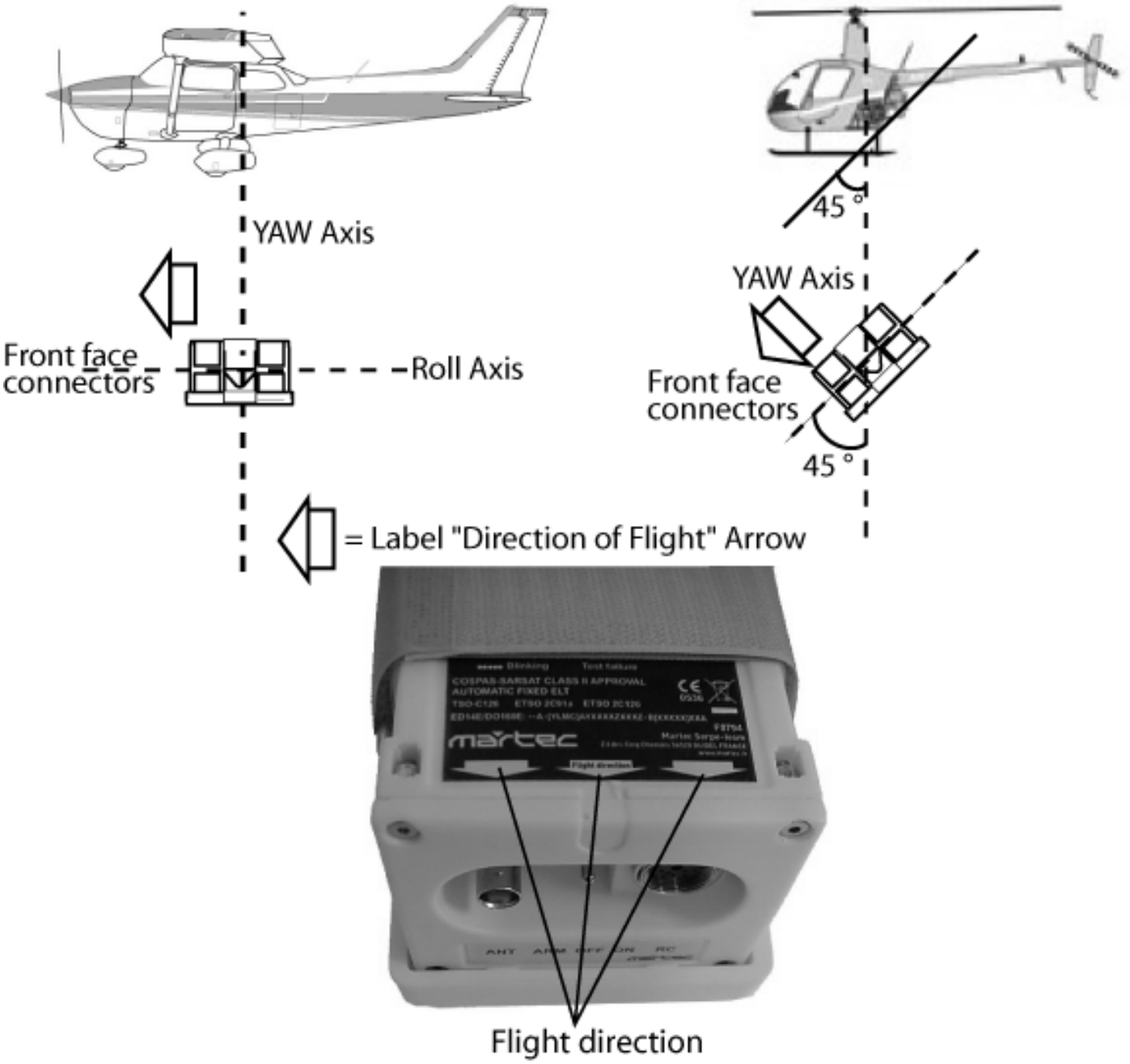
Outside antenna (6) is purchased separately.



- Install ELT and bracket in the aircraft near the tail.
- Mount outside antenna on the fuselage near the tail and connect it to the ELT with a coaxial cable.
- Install remote control panel in the cockpit and fabricate a 3-wire bundle).
- Connect the ELT.
- Check and power the ELT.

2. DETERMINE LOCATION OF ELT

Determine the location of the ELT on board according to FAR/RTCA recommendations.



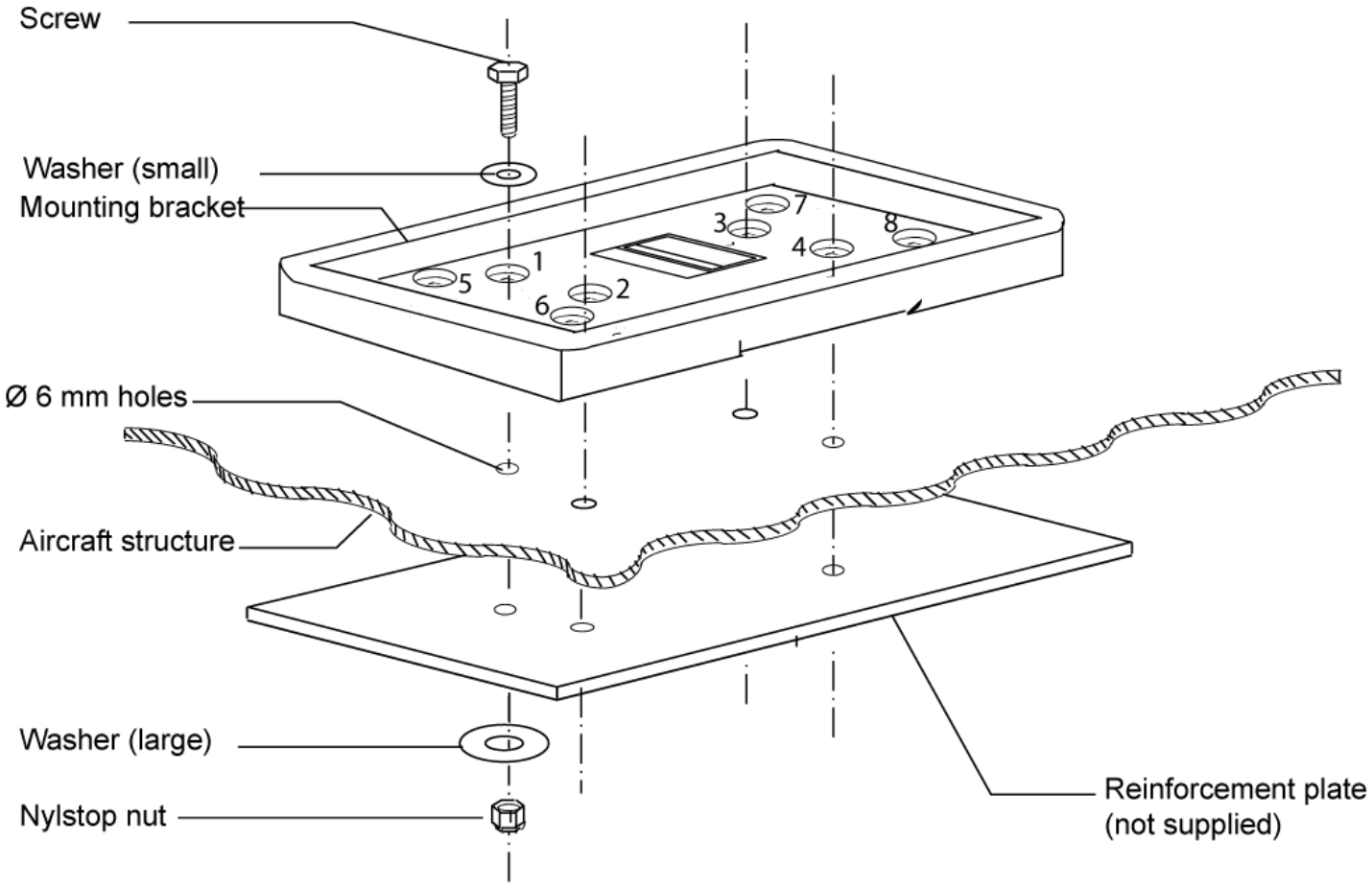
1. Fixed wings
   Mount the KANNAD 406-AF COMPACT with the arrow of the "Flight direction" label pointed towards the front of the aircraft.
2. Helicopters
   Mount the KANNAD 406 AF COMPACT:
   - with the front face connectors pointing downwards at a 45° angle to the yaw axis;
   - and with "Flight direction" arrow towards the front of the helicopter.

NOTE: Should the KANNAD 406 AF COMPACT be installed on board helicopter, it will be necessary to make a special mounting base to install the ELT.

3. INSTALL BRACKET

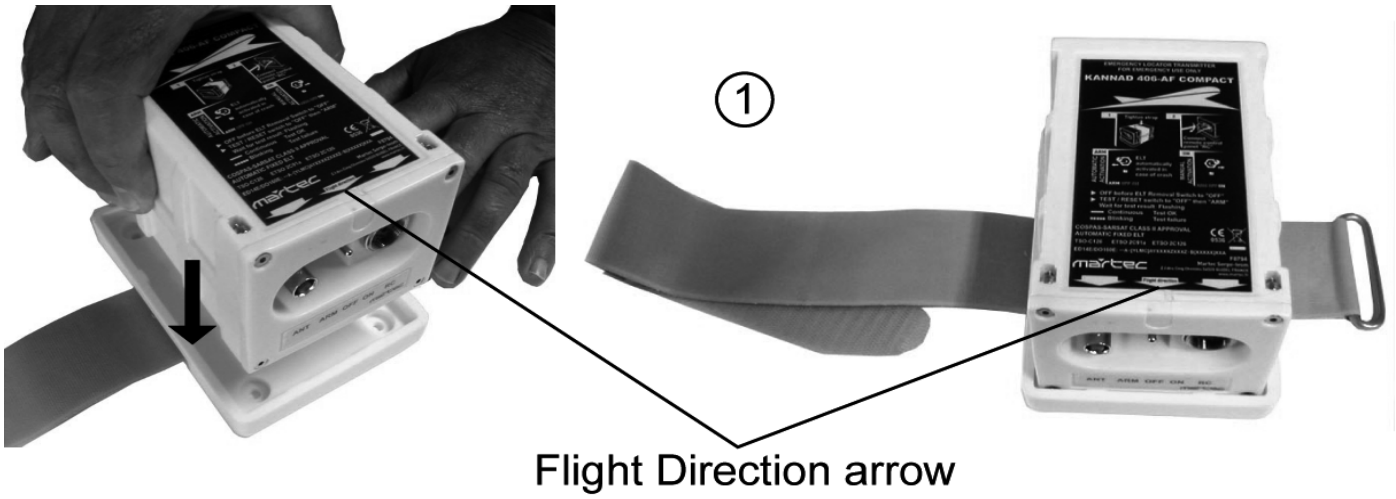
1. Drill 4 holes Ø 6 mm in the aircraft structure according to "Drilling mask" (Refer to § 2. ELT Drilling Mask, page 502 of installation manual). Inner holes (1, 2, 3, 4) shall be preferred.
2. If the aircraft structure is not solid enough to withstand a 500 kg traction on the bracket, a reinforcement plate (not supplied) should be installed as shown figure hereunder.
3. Fix the bracket with the 4 screws, 8 washers and 4 nylstop nuts supplied.

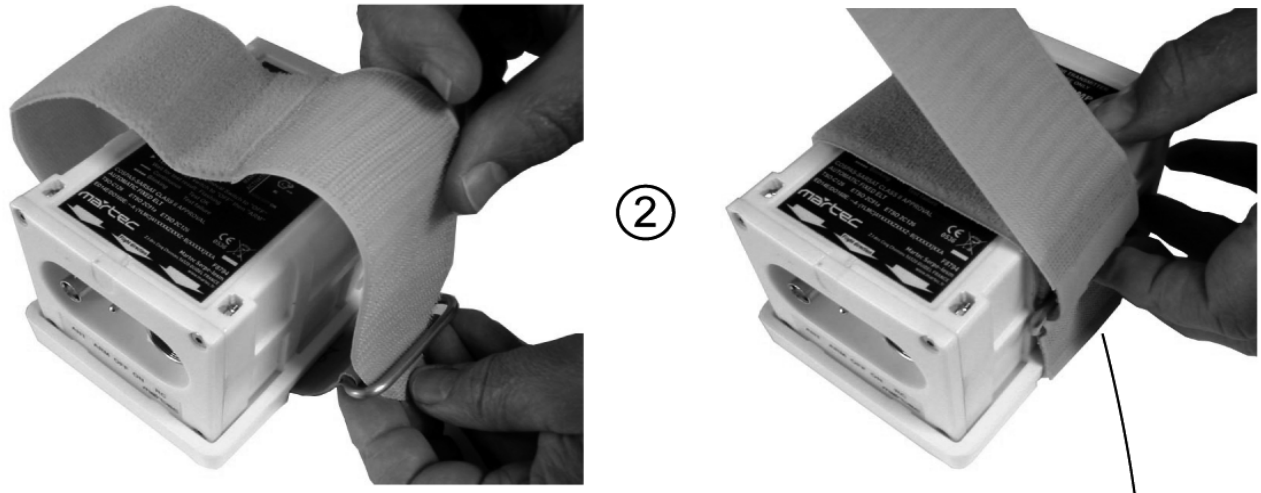
IMPORTANT: tighten to a torque between 4 and 5 Newton x meter.

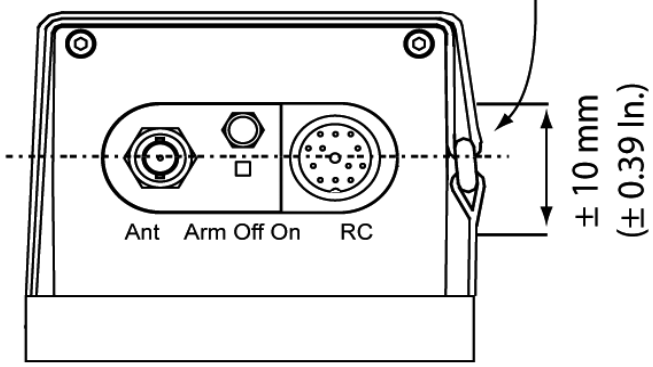


4. INSTALL ELT

1. Mount the transmitter on the bracket "Flight direction" arrow pointed towards the front of the aircraft.
2. Slide the self-stripping strap throught the buckle. **Ensure the buckle is correctly positioned (indifferently on righ or left side of ELT) regarding the horizontal center line of ELT as shown Detail A.**
3. Fasten the self-stripping strap tightly.



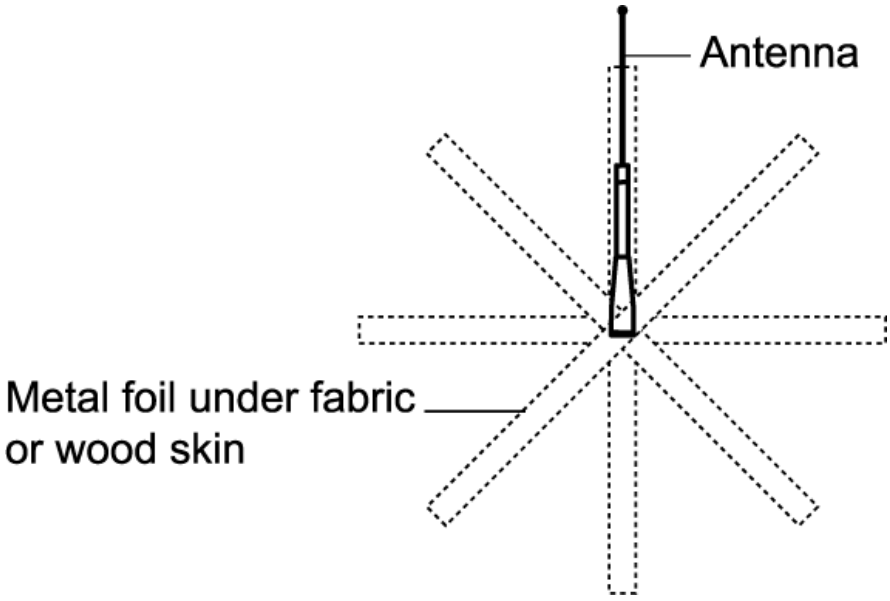




5. INSTALL ANTENNA

Mount the antenna out of the aircraft on the fuselage according to recommendations below.

- Locate a position on the fuselage where:
  - the antenna must be installed vertically with clearance at least equal to the antenna length from other antennas (specially VHF) mounted on the aircraft,
  - when installed, the coaxial cable of the antenna will not cross any major structural sections in the aircraft so that, in the event of a crash, the ELT and the antenna are in the same section (placing the antenna directly above the ELT unit being the best solution)..
- A double plate will most likely be necessary for the antenna to meet rigidity specifications in § Antenna mounting location page 207 of installation manuel.
- Each of the approved antennas requires a ground plane. On fabric-covered aircraft or aircraft with other types on nonmetallic skins, a ground plane must be added. This can be accomplished by providing a number of metal foil strips in a radial position from the antenna base and secured under the fabric or wood skin of the aircraft. The length of each foil radial should be at least equal to the antenna length.

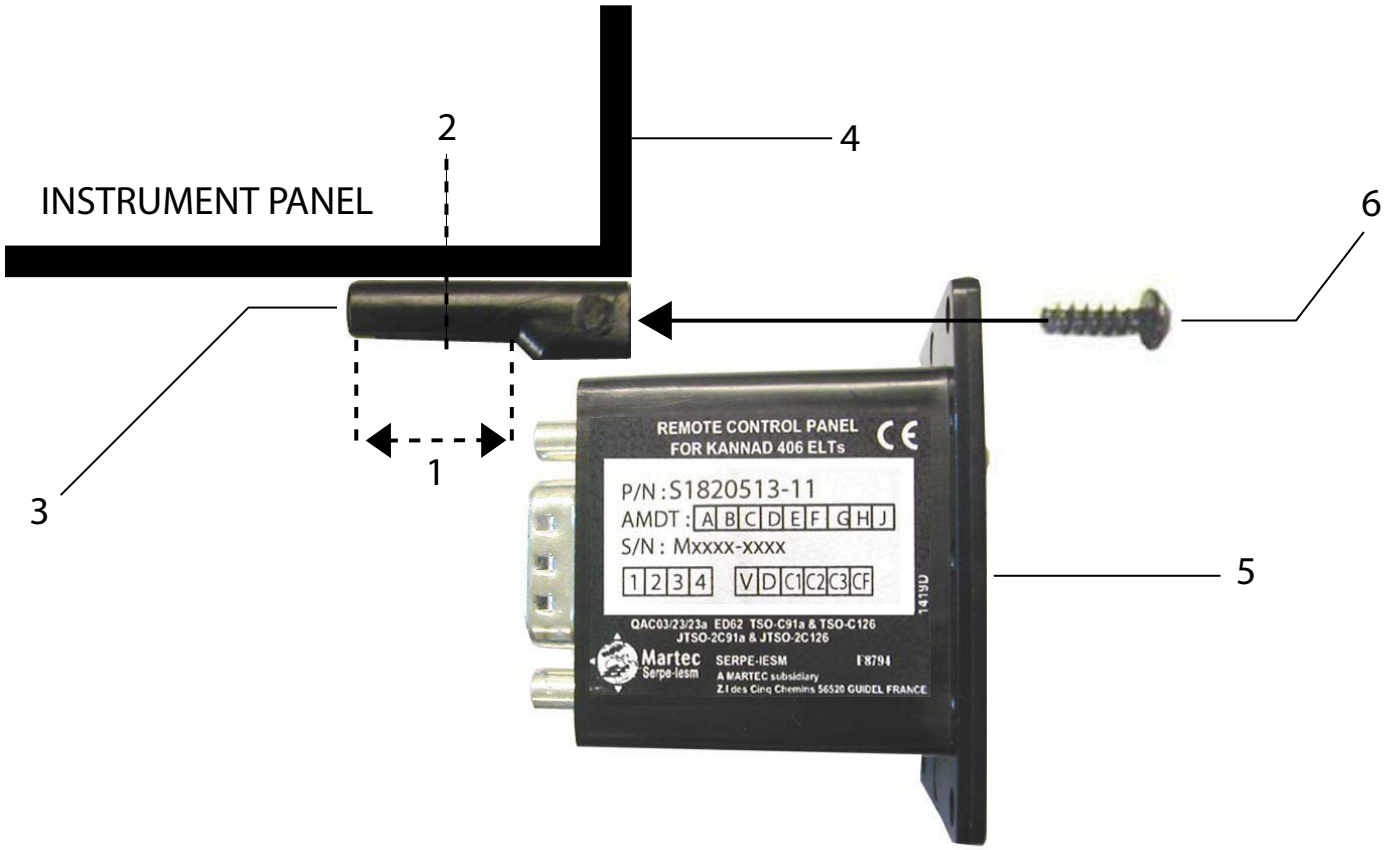


- A 9 Kilogram force (20 pound force) applied in all direction should not cause an appreciable distorsion in the aircraft skin.
- According to the antenna to be installed, use the appropriate outline drawings and drilling masks to determine the hole patern and drill size (Refer to the appropriate Outline Dimensions of installation manuel).
- Fix the antenna to the fuselage
- Fabricate a 50 Ohms coaxial cable long enough to reach between the ELT installation location and the antenna location.
  IMPORTANT: The length of the coaxial cable should not exceed 2 meters (6 ft) for a standard RG58 or equivalent coaxial cable. If the cable length exceeds 2 meters, a low loss cable of attenuation less than 1 dB must be used.
- Fit both ends of coaxial cable with a waterproof Male BNC connector (not supplied), reference RADIALL R141007.
- Connect one Male BNC connector to the antenna Female BNC socket.

6. INSTALL RCP

Determine RC200 location on or below the instrument panel (be sure the location meets the requirements established in RTCA-DO-183) in an area that is not directly exposed to sun rays.

1. On the instrument panel
   - Mark a cutout on the instrument panel according to the Drilling mask (Refer to § 4. RC200 Drilling Mask, page 504 of installation manuel).
   - Make the cutout.
   - Mark the 4 holes needed for the RC200 using the drilling mask or the RC200 as a guide.
   - Drill the 4 marked holes, diameter depending on rivets bush used.
   - Install the RC200 by fitting it into the cutout.
   - Secure the RC200 (4 rivets bush recommended).
2. Below the instrument panel
   - According to the "area to be drilled" (1) of the mounting tray (3), determine the location of the screws or rivets (2) used to secure the mounting tray (3) to the instrument panel (4).
   - Drill 2 holes on the mounting tray and on the instrument panel, diameter depending on screws or rivets used.
   - Secure the mounting tray (3) to the instrument panel (4).
   - Secure the RC200 (5) to the mounting tray (3) with the 2 screws (6) supplied (torque 0.8 Nm).

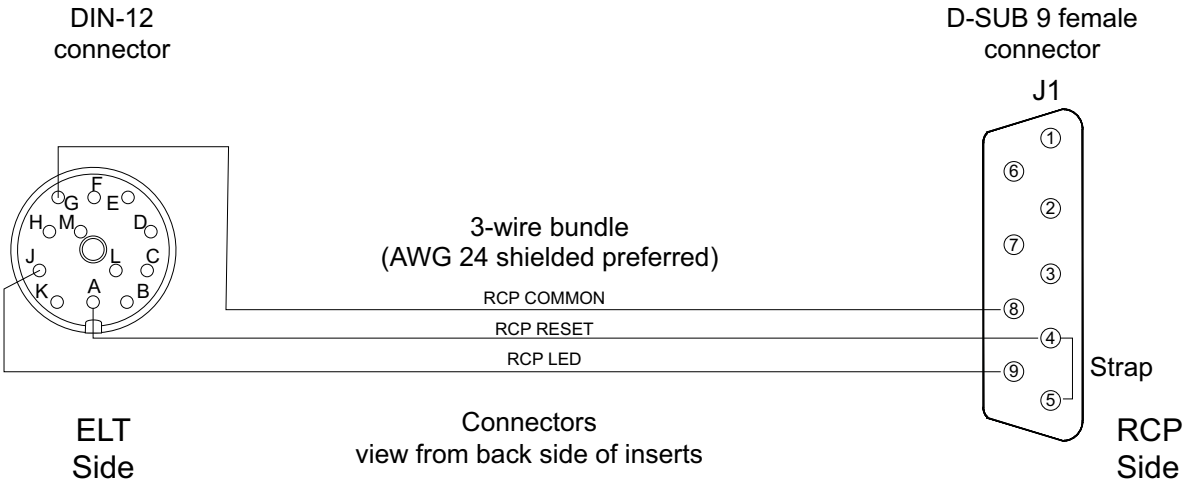


7. WIRE DIN-12 AND SUB-D 9 FEMALE CONNECTORS

Strap pins 4 and 5 of the female 9-pin D-SUB connector supplied with the pack.

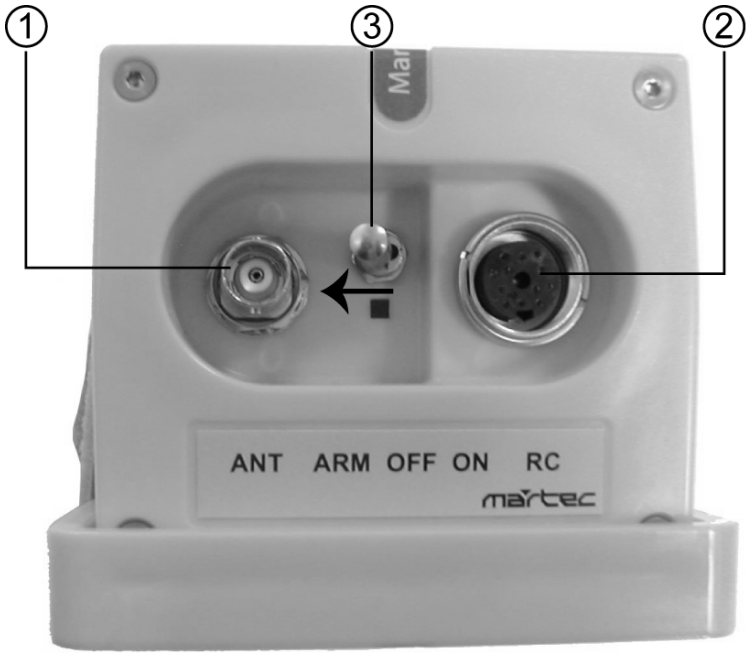
Fabricate a 3-wire bundle (AWG 24, shielded preferred) long enough to reach between the ELT installation location and the cockpit panel RCP location:

- Slide heat-shrinkable sleeves on both sides of each wire.
- Connect Pin 8 of D-SUB 9 to Pin G of DIN-12 connector;
- Connect Pin 4 of D-SUB 9 to Pin A of DIN-12 connector;
- Connect Pin 9 of D-SUB 9 to Pin J DIN-12 connector.
- Put heat-shrinkable sleeves to protect the pins.
- Connect the female 9-pin D-SUB connector to the male 9-pin D-SUB socket of the RC200.



8. CONNECT ELT AND SWITCH TO ARM

1. Connect the cable of the outside antenna to the BNC connector of the front panel.
2. Connect the DIN12 connector of the Remote Control Panel cable to the DIN 12 socket of the front panel.
3. Set the 3-position switch of the front panel to ARM.



Perform the following tests:

1. ELT operational tests: Refer to § A. ELT operational tests, page 302 of installation manual.
2. RCP operational tests: Refer to § B. RCP operational tests, page 302 of installation manual.
3. 406 & 121.5 MHz transmission tests (optional): Refer to § C. 406 and 121.5 MHz transmission test, page 303 of installation manual.
4. **At the end of this procedure, switch the ELT to ARM.**