

TEMPORARY REVISION

AMM-TR-MOD0333

Installation of Artex ELT 1000

This Temporary Revision AMM-TR-MOD0333 is approved in conjunction with the Mandatory Design Change Advisory MOD0333 and is valid in conjunction with the Airplane Maintenance Manual (AMM) until this Temporary Revision has been incorporated into the AMM.

The limitations and information contained herein either supplement or, in the case of conflict, override those in the AMM.

The technical information in this document has been approved.

Doc. No	Section	Affected Pages
DA201-C1	25-60-01	Pages 1
		Insert before page 1
		Pages 2 and 3 (new)
		Insert before page 2
		Page 4, 5
		Insert before existing pages 3 and 4, respectively
		Pages 201, 202, 203, 204, 205
		Insert before each respective page
		Page 206 (new)
		Insert after page 205

Filing Instructions:

- Print this Temporary Revision on single sided 8.5 X 11 inch yellow paper.
- Insert this cover page as the first page of the AMM.
- Insert the pages of this temporary revision in the AMM as instructed in the Affected Pages column.
- Record the incorporation of this Temporary Revision on the yellow RECORD OF TEMPORARY REVISIONS sheet at the front of the manual.
- Keep this Temporary Revision until normal revision service incorporates the information into the DA20-C1 AMM.

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EMERGENCY LOCATOR TRANSMITTER (ELT)

1. General

This chapter describes about the optional Emergency Locator Transmitter (ELT) Artex ME 406/ELT 1000. Refer to the manufacturer's Operator's Manual for more data.

- For the ME 406, refer to Doc. No. 570-1600, latest revision.
- For the ELT 1000, refer to Doc. No. Y1-03-0259, latest revision.

2. Description

A. ELT Equipment

(1) Location

The ME 406/ELT 1000 is located in a mounting bracket on the right side of the rear fuselage compartment adjacent to the baggage tray. For reverse panel configurations, the ME 406 / ELT 1000 is located in a side bracket on the left side of the rear fuselage compartment adjacent to the baggage tray. A Velcro or metal strap attached to the mounting bracket holds the ME 406/ELT 1000 in position. The ME 406/ELT 1000 has an antenna installed through a side bracket hole in accordance with the respective Artex Manual.

(2) Signal Transmission

The ME 406/ELT 1000 transmits signals automatically after a crash on the emergency frequencies of 121.5 and 406.028 Megahertz (MHz). Every 50 seconds the transmitter transmits a signal on the 406.028 MHz frequency to a satellite. The signal to the satellite contains the serial number of the ELT transmitter or the aircraft ID, a country code and a unique identity code. The satellite will also give the emergency services a more accurate location for the aircraft.

(3) Functional Test

Do regular functional tests (Refer to the Maintenance Practices in this Section).

B. ELT Batteries

The ME 406/ELT 1000 has its own battery pack to supply electrical power. When the ELT is ON and transmitting, the batteries will keep the ELT transmitting the 121.5 MHz frequency until battery power is drained out and will transmit the 406.028 MHz frequency for up to 24 hours.

It is important to monitor the battery expiry dates for the battery pack. The expiry date for the battery pack is shown on the identity plate for the transmitter. The battery pack must be replaced:

- After use in an emergency
- After the transmitter has been accidentally switched ON for an unknown period of time
- After 1 hour of accumulated use (testing)
- On or before the battery pack expiry date.

3. Operation

A. ELT

The ELT has a switch with the following positions:

- ON
- ARM
- TEST (For ELT 1000)

The ON position is for ground test. When the aircraft is in use, the switch must be in the ARM position.

(1) Emergency Operation

If the aircraft crashes, then the accelerometer senses the crash. The accelerometer sets the transmitter to ON. The transmitter transmits the international distress frequency and on 406.028 MHz. The battery in the ELT supplies power to the transmitter. The battery can operate the ELT for at least 50 hours.

(2) Test

If you switch the ELT to 'ON' (ME 406) or 'TEST' (ELT 1000) for approximately one second, then return switch to 'ARM', the following occurs:

- A LED flashes in the ELT unit.
- If more than 1 flash is observed, refer to the Artex Installation Manual:
 - For the ME 406, refer to Doc. No. 570-1600, latest revision
 - For the ELT 1000, refer to Doc. No. Y1-03-0259, latest revision.
- If you set the radio to 121.5 MHz, you can hear three (ME 406) or two (ELT 1000) audio sweeps tone from the ELT.

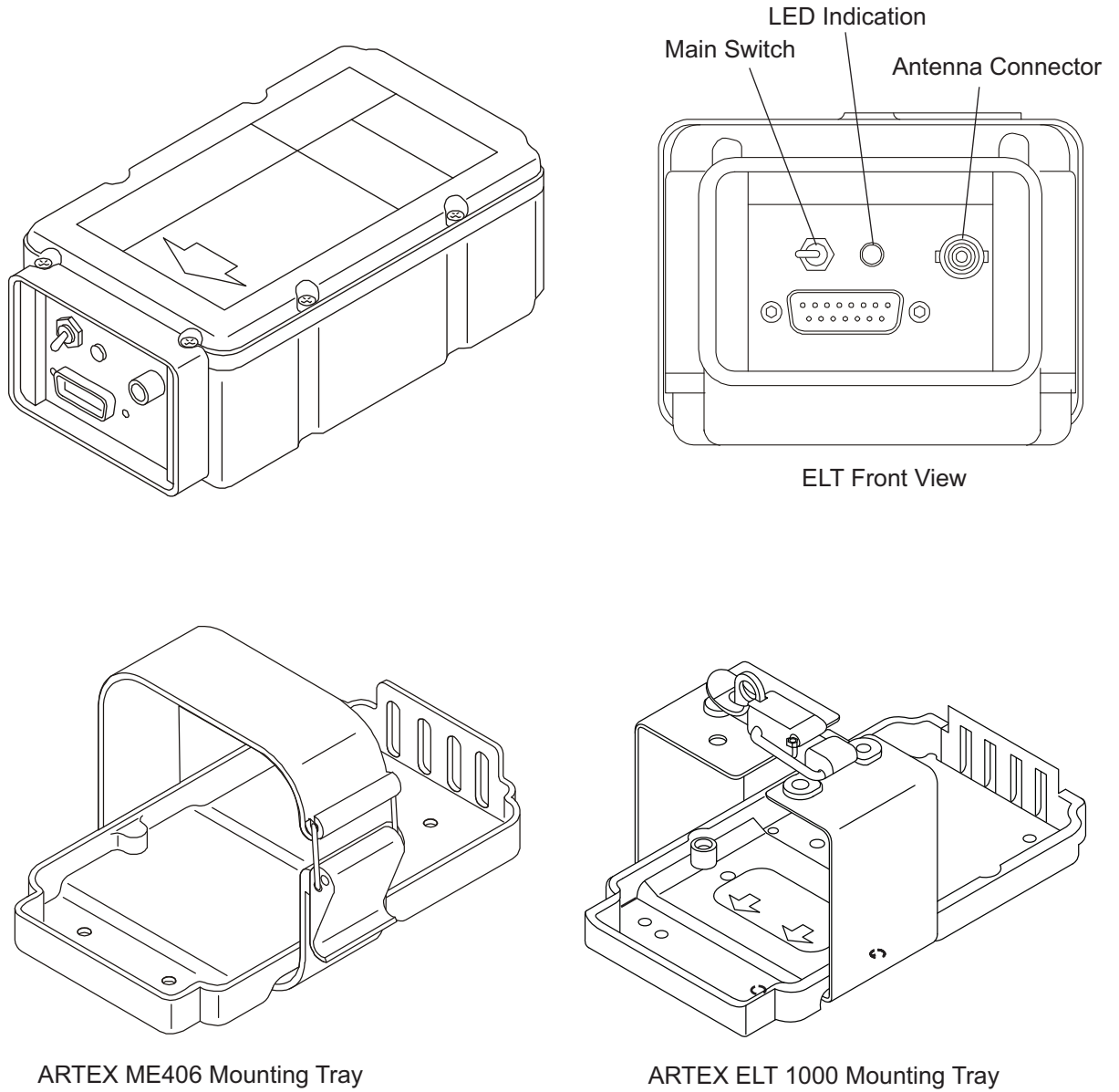


Figure 1 - ARTEX ELT

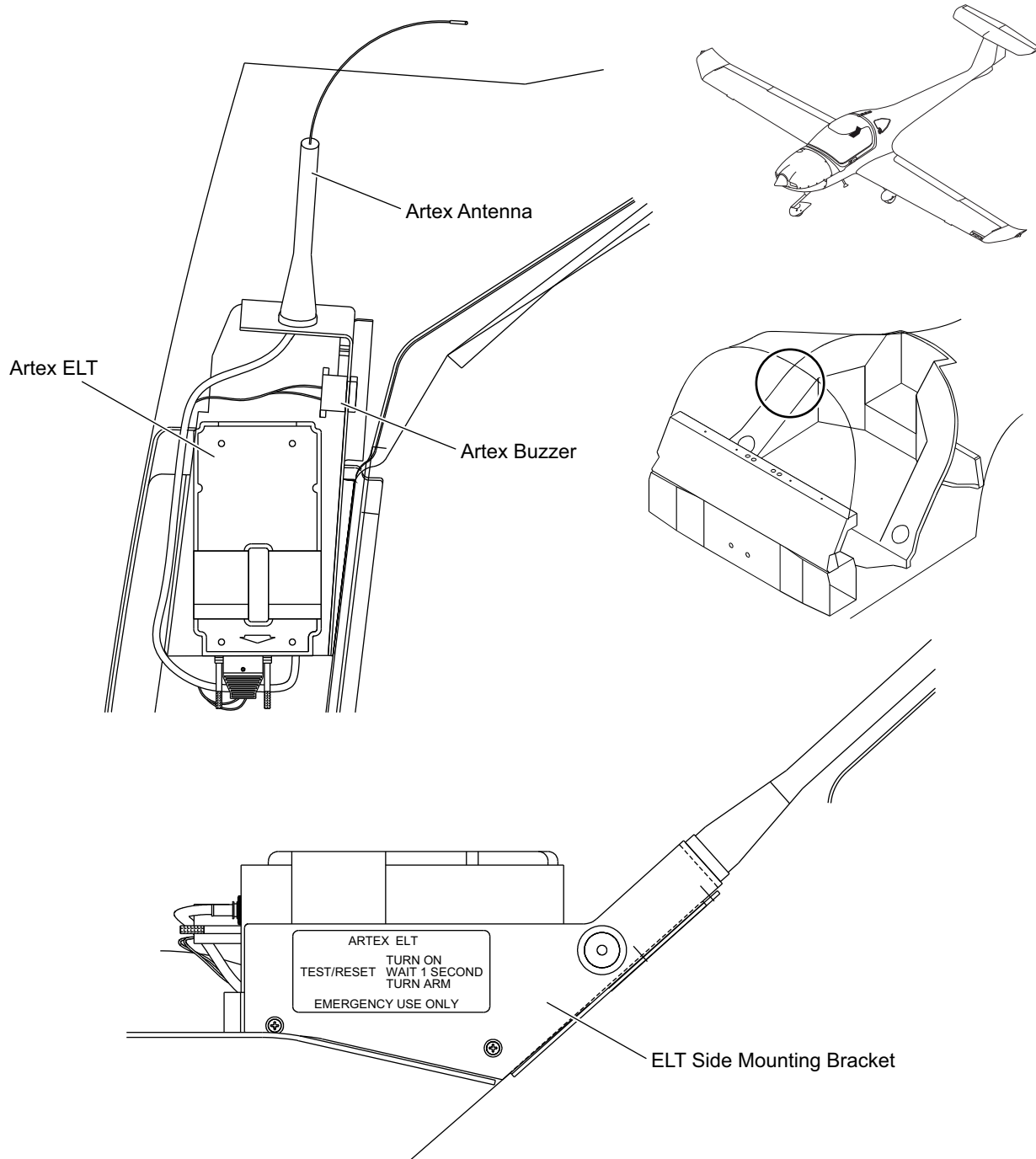


Figure 2 - ARTEX Model ME 406 ELT / ELT 1000 Installation

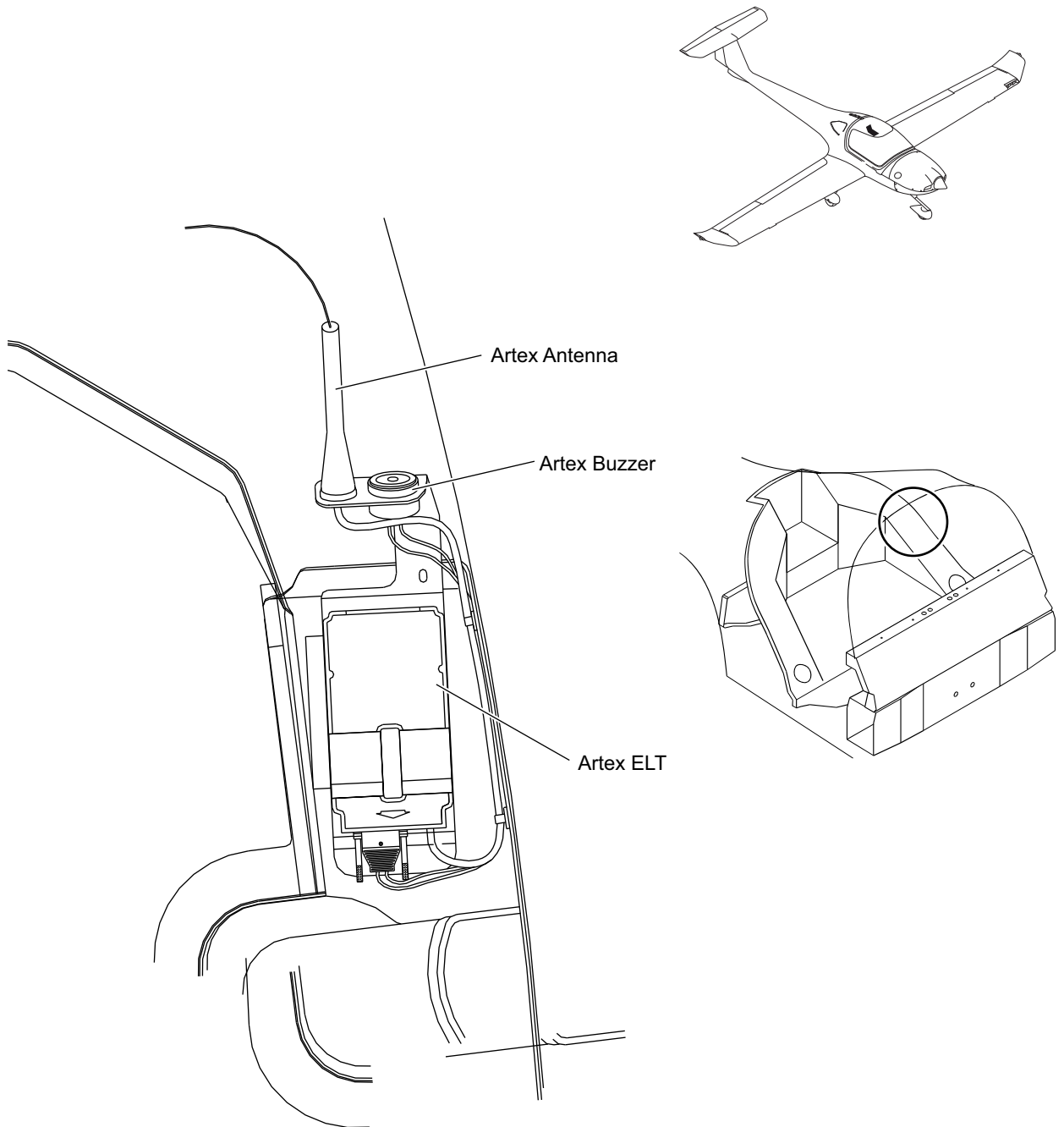


Figure 3 - ARTEX Model ME 406 ELT / ELT 1000 Installation
(Reverse Panel Configuration)

ELT - MAINTENANCE PRACTICES

1. General

This chapter describes how to:

- Remove and install the ELT
- Test the ELT in the airplane
- Replace the batteries in the ELT.

This chapter also describes the periodic maintenance necessary to maintain the ELT equipment in a serviceable condition.

2. Remove/Install the ELT

A. Remove the ELT

	Detail Steps/Work Items	Key Items/References
1.	Disconnect all the cables from ELT.	At the ELT.
2.	Release the strap that holds the ELT in its mounting and remove the ELT from the aircraft.	Velcro or metal strap.
<p>NOTE: IF THE ELT IS MOVED TO A DIFFERENT AIRCRAFT THAN WHICH IT WAS ORIGINALLY REGISTERED WITH, THEN THE ELT MUST BE RE-REGISTERED AND THE PRODUCT LABEL RE-MARKED TO INDICATE THE NEW PROGRAMMING AND/OR NEW COUNTRY OF REGISTRY.</p>		

B. Install the ELT

	Detail Steps/Work Items	Key Items/References
<p>NOTE: IF THE ELT IS MOVED TO A DIFFERENT AIRCRAFT THAN WHICH IT WAS ORIGINALLY REGISTERED WITH, THEN THE ELT MUST BE RE-REGISTERED AND THE PRODUCT LABEL RE-MARKED TO INDICATE THE NEW PROGRAMMING AND/OR NEW COUNTRY OF REGISTRY.</p>		
1.	Put the ELT into position to the mounting bracket.	
2.	Secure the ELT with the strap.	Velcro or metal strap.
3.	Connect all the cables to the ELT that were disconnected during removal.	
4.	Do a test for the correct operation of the ELT.	Refer to Paragraph 3.

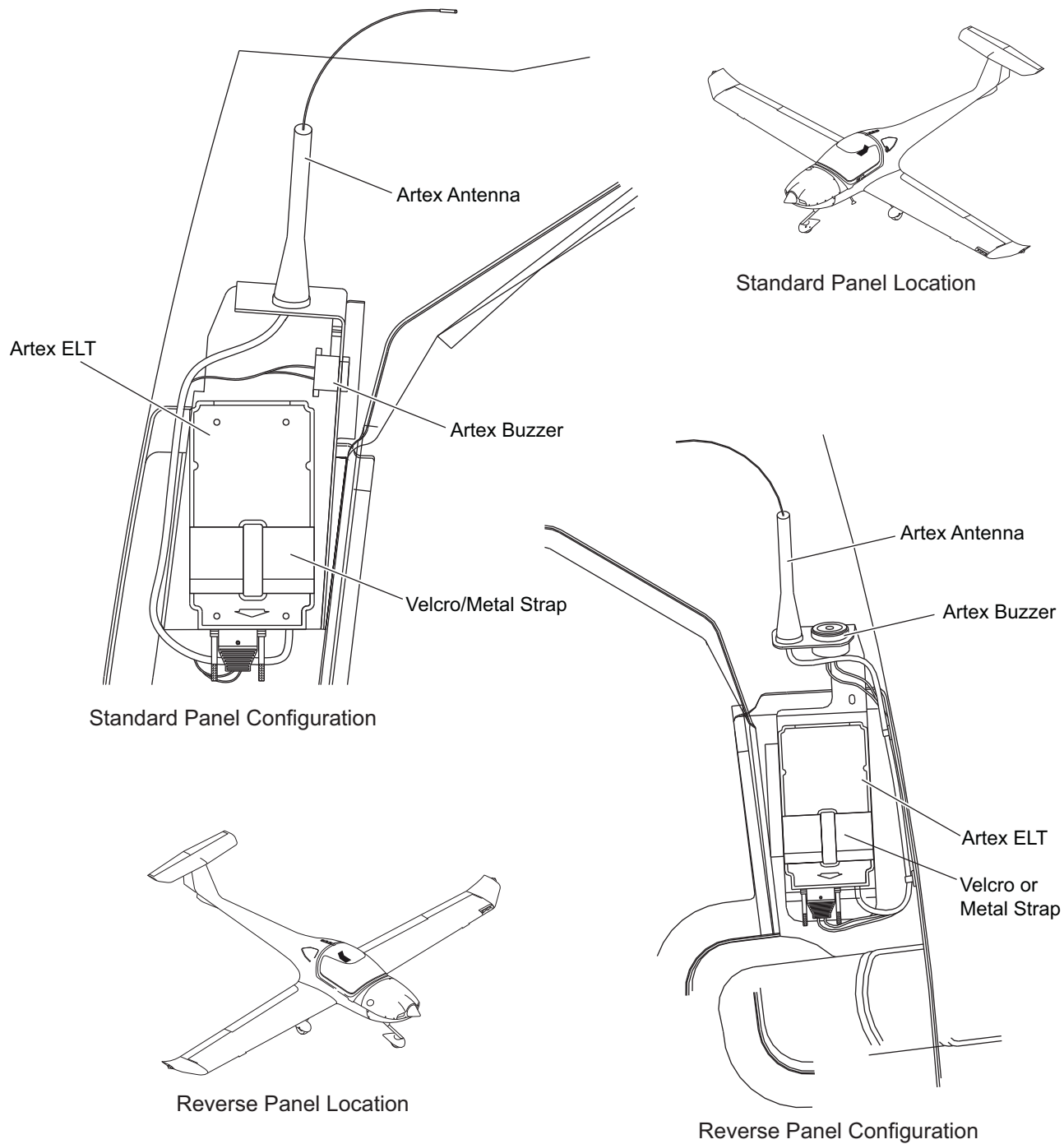


Figure 201 - Artex ME 406 / 1000 ELT - Removal/Installation

3. ELT Functional Test

CAUTION: DO NOT ALLOW THE TEST DURATION TO EXCEED 5 SECONDS. THE ELT WILL TRANSMIT A 406.025 MHZ SIGNAL AFTER THE ELT IS ACTIVE FOR APPROXIMATELY 47 SECONDS. THE SATELLITE SYSTEM CONSIDERS THIS TRANSMISSION TO BE A VALID DISTRESS SIGNAL.

NOTE: Do this test only during the first 5 minutes of each hour. If you are at a location with a control tower or other monitoring facility, tell them before you do the test.

NOTE: For maintenance done to FAR 91 (aircraft registered in the USA) an additional functional test of the ELT is required. Refer to FAA Action Notice 8150.3 for more data.

	Detail Steps/Work Items	Key Items/References
1.	Set the AVIONICS MASTER switch to ON.	
2.	Set the radio to receive on 121.5 MHz.	
3.	Set the ELT switch to ON (for ME 406 ELT) or TEST (for ELT 1000) for 1 second.	A LED flashes in the ELT unit.
4.	Make sure that the receiver voices three audio sweep tones (for ME 406 ELT) or two audio sweep tones (for ELT 1000).	
5.	Set the ELT switch to ARM.	Pay special attention to the LED activity upon entering the 'ARM' condition.
6.	Make sure that the ELT unit flashes once.	
<p>NOTE: If more than 1 flash is observed, refer to the Artex Installation Manual:</p> <ul style="list-style-type: none"> - For the ME 406 ELT, refer to Doc. No. 570-1600, latest revision. Table 6 Self-test Error Codes. - For the ELT 1000, refer to Doc. No. Y1-03-0259, latest revision. Table 6 Self-test Error Codes. 		
7.	Set the AVIONICS MASTER switch to OFF.	

4. Replace the ELT Batteries

You must only use a battery pack that is supplied by the equipment manufacturer.

NOTE: The battery pack contains components that are sensitive to static electricity. You must take electro-static discharge precautions before doing work on the battery pack.

NOTE: The battery pack is connected to the ELT by a short electrical cable assembly. You must take care not to strain this cable when you separate the battery pack from the ELT.

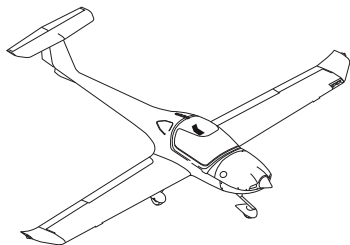
	Detail Steps/Work Items	Key Items/References
1.	Remove the ELT from the aircraft ELT mounting.	Refer to Paragraph 2.
2.	Remove the battery pack as follows: <ul style="list-style-type: none"> - Remove the eight screws from the battery side cover - Carefully move the battery pack a short distance clear of the ELT - Disconnect the wiring harness - Move the battery pack clear of the ELT. 	Refer to Figure 202. Hold the battery pack to the ELT with your hand to prevent the battery pack separating from the ELT.
3.	Do a visual inspection of the underside of the ELT (the battery pack side). Look especially for corrosion or other damage to the ELT casing.	
4.	Prepare the new battery pack for installation.	
5.	Lay the battery pack on the work surface with the batteries facing up.	
6.	Install the replacement seal.	In the slot along the perimeter housing.
7.	Position the ELT over the battery pack and plug the connector into the battery assembly.	Make sure that the cable is not twisted and that the connector is correctly attached.
8.	Mate the ELT to the battery.	Make sure that the seal is positioned correctly.
9.	Install the 8 screws that attach the battery pack to the ELT.	Torque to 10-12 lbf-in (1.13-1.36 Nm)

	Detail Steps/Work Items	Key Items/References
10.	Install the ELT in the aircraft mounting and attach the Battery Pack Replacement Date label to the top surface of the ELT protective cover where it can be easily seen.	Refer to Paragraph 2.
11.	Record the details of the ELT battery pack replacement date in the airplane log-book.	
12.	Do a functional test of the ELT.	Refer to Paragraph 3.

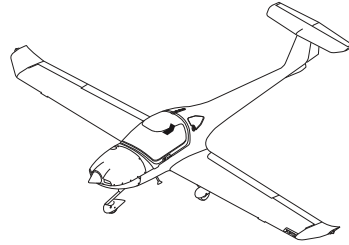
5. ELT Periodic Inspection

The ELT installation must be inspected at least once every 12 months to maintain serviceability.

	Detail Steps/Work Items	Key Items/References
1.	Examine the ELT and the ELT mounting tray, look specially for: <ul style="list-style-type: none"> - Security of the fasteners - Security of all mechanical assemblies. 	Refer to Figure 202.
2.	Examine the cable which connects the ELT. Look specially for: <ul style="list-style-type: none"> - Cuts or abrasions to the outer sheath of the cable. 	
3.	Read the expiry date of the system battery and replace the battery if necessary.	Refer to Paragraph 4.



Reverse Panel - ELT Location



Standard Panel - ELT Location

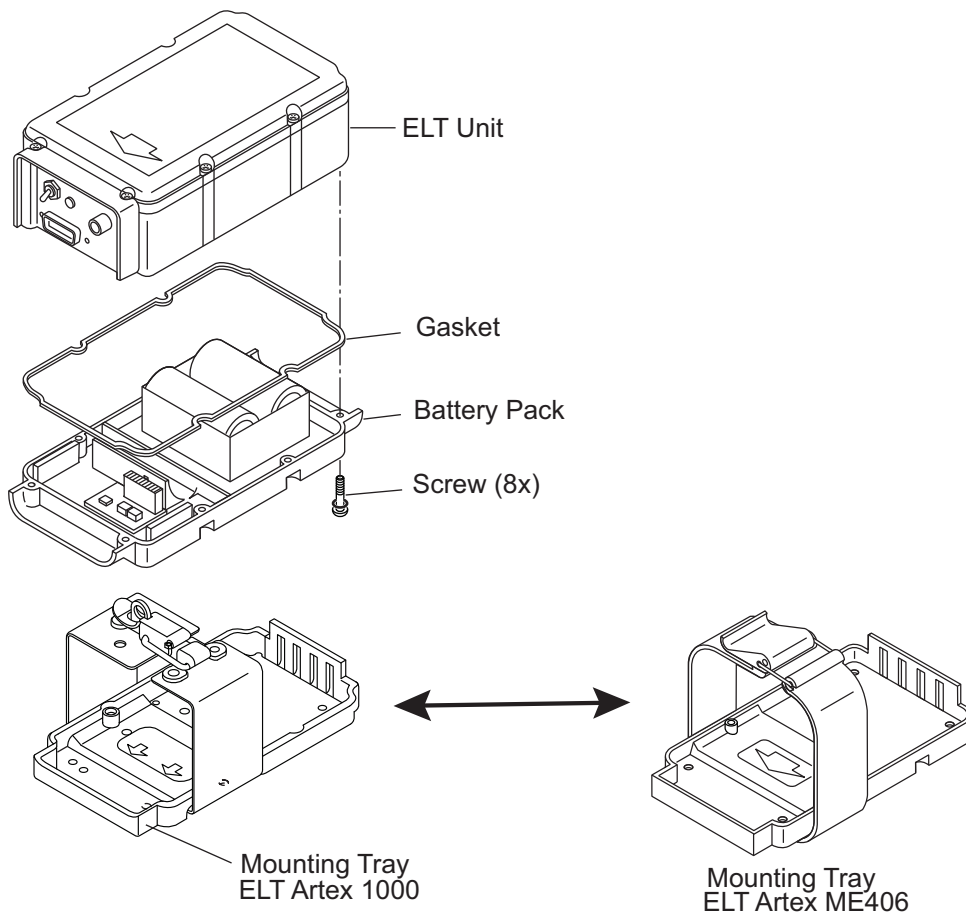


Figure 202 - Battery Pack - Replace