ARTEX ME406/ELT1000 EMERGENCY LOCATOR TRANSMITTER (ELT) SYSTEM - MAINTENANCE PRACTICES

1. General

NOTE: The Artex ELT1000 unit (if installed) has the same maintenance and function as the Artex ME406 ELT unit unless otherwise noted.

A. This section gives maintenance practices for the emergency locator transmitter (ELT) system. Components in the ELT system include the ELT, antenna, remote switch, and buzzer.

2. Emergency Locator Transmitter (ELT) Removal/Installation

A. Remove the Emergency Locator Transmitter (ELT) (Refer to this document, Figure 201).

(1) Make sure the MASTER switch is in the OFF position.

(2) Remove access panel 340A on the right side of the tail dorsal assembly. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(3) Keep the ON/ARM switch on the ELT in the ARM position.

CAUTION: Remove the electrical connector and the ELT is off. However, the ELT can be activated with the electrical connector removed if the switch on the front is moved to the ON position. Be careful not to move the switch to the ON position.

(4) Disconnect the BNC connector (PT1002) and the electrical connector (PT903) from the ELT.

NOTE: The ELT is off when the electrical connector is removed from the ELT.

(5) Open the latch on the ELT strap assembly and lift the hinged strap up and away from the ELT.

(6) Open the Velcro strap that holds the ELT to the mounting tray.

(7) Remove the ELT from the mounting tray.

B. Install the ELT (Refer to this document, Figure 201).

NOTE: The ELT is off when the electrical connector is removed from the ELT.

CAUTION: Remove the electrical connector and the ELT is off. However, the ELT can be activated with the electrical connector removed if the switch on the front is moved to the ON position. Be careful not to move the switch to the ON position.

(1) Put the ELT in the mounting tray at the angle necessary to engage the lock mechanism at the opposite end of the ELT.

(2) Push the ELT down into the mounting tray until it is fully installed in the tray.

(3) Connect the Velcro strap that holds the ELT firmly to the mounting tray.

(4) Move the hinged strap down on the ELT and close the ELT strap assembly latch.

(5) Connect the BNC connector and the electrical connector to the ELT.

(6) Make sure the ON/ARM switch is in the ARM position.

(7) For Airplanes 20800500 and On and 208B02000 and On do the software configuration load. Refer to Garmin G1000 Integrated Avionics System - Adjustment/Test, G1000 Option Software/Configuration Load.

(8) Do the Transmitter Test of the Artex ME406/ELT1000 Emergency Locator Transmitter (ELT) System. Refer to this chapter, Emergency Equipment - Inspection/Check.

(9) Install access panel 340A on the right side of the tail dorsal assembly.

3. ELT Buzzer Removal/Installation

A. Remove the ELT Buzzer (Refer to this document, Figure 201).

(1) Remove electrical power from the airplane.

(2) Remove access panel 340A on the right side of the tail dorsal assembly. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(3) Remove the screws from the terminals on the top of the buzzer.

(4) Remove the electrical connectors from the terminals on the buzzer.

(5) Remove the mounting nut on the bottom side of the bracket from the bottom of the buzzer.

(6) Lift the buzzer from the bracket and remove the buzzer from the tailcone.

B. Install the buzzer (Refer to this document, Figure 201).

(1) Carefully put the buzzer in position on the bracket.

(2) Install the mounting nut on the bottom of the buzzer.

(3) Put the electrical connectors on the terminals on the top of the buzzer.

(4) Install screws to the terminals to hold the electrical connectors on the terminals.

(5) Do the ELT system Transmitter Test. Refer to this chapter, Emergency Equipment - Inspection/Check.

(6) Install access panel 340A on the right side of the tail dorsal assembly. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

4. Remote Switch Removal/Installation

A. Remove the Remote Switch (Refer to this document, Figure 201).

(1) Remove electrical power from the aircraft.

(2) Remove access panel 340A on the right side of the tail dorsal assembly. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(3) Disconnect the electrical connector (PT903) from the ELT.

(4) Remove the screws from the front of the switch.

(5) Pull the remote switch from the panel to get to the electrical connector.

(6) Disconnect the connector from the back of the switch.

B. Install the Remote Switch.

(1) Connect the electrical connector to the back of the switch.

(2) Put the remote switch into the panel.

(3) Install the screws on the front of the switch.

(4) Connect the electrical connector to the ELT.

(5) Do the ELT system Transmitter Test. Refer to this chapter, Emergency Equipment - Inspection/Check.

(6) Install access panel 340A on the right side of the tail dorsal assembly.

5. ELT Antenna Removal/Installation

A. Remove the ELT Antenna (Refer to this document, Figure 201).

NOTE: The ELT antenna is found on the top surface of the fuselage at FS 311.45 and RBL 3.62 for the Model 208. For the Model 208B, the antenna is at FS 359.45 and RBL 15.55.

(1) Remove access panel 340A on the right side of the tail dorsal assembly.

NOTE: The ELT is off when the electrical connector is removed from the ELT.

CAUTION: Remove the electrical connector and the ELT is off. However, the ELT can be activated with the electrical connector removed if the switch on the front is moved to the ON position. Be careful not to move the switch to the ON position.

(2) Make sure the ELT ON/ARM switch is in the ARM position and disconnect the electrical connector (PT903) from the ELT.

(3) Remove the ELT antenna. Refer to this document, Figure 201.

(a) Remove and keep the screws that attach the ELT antenna to the top surface of the fuselage.

(b) Carefully lift the antenna from the fuselage surface.

(c) Disconnect the BNC connector (PT1000) from the antenna.

B. Install the ELT Antenna (Refer to this document, Figure 201).

(1) Make sure that you remove all of the old sealant from the ELT antenna and the airplane skin. Refer to Chapter 20, Fuel, Weather, Pressure and High Temperature Sealing - Maintenance Practices.

(2) Connect the BNC connector (PT1000) to the ELT antenna.

(3) Apply a chemically conductive chemical film treatment to the faying surfaces of the ELT antenna and to the airplane structure to make sure that there is an electrical bond. Refer to Chapter 20, Electrical Bonding - Maintenance Practices.

(4) Put the ELT antenna in position on the top surface of the fuselage.

(5) Attach the ELT antenna to the top surface of the fuselage with the kept screws.

(a) Torque the screws to a maximum of 20 inch-pounds.

(6) Use a Type I, Class B sealer to apply a fillet seal around the antenna where it touches the outside surface of the airplane. Refer to Chapter 20, Fuel, Pressure, Weather and High-Temperature Sealing - Maintenance Practices.

(7) With the ELT ON/ARM switch in the ARM position, connect the electrical connector to the ELT.

(8) Do the ELT System Transmitter Test. Refer to this chapter, Emergency Equipment - Inspection/Check.

6. Artex ELT Configuration

NOTE: The following procedure is only necessary if you install a new or different ELT on the aircraft. ELTs must be programmed with the correct 15-Digit Hex Code ID, Country Code, and Aircraft Identification Number. Examine the placard on the ELT to determine its configuration.

A. Artex Emergency Locator Transmitter Configuration:

(1) Remove the ELT from the aircraft. Refer to this document, Emergency Locator Transmitter (ELT) Removal/Installation.

(2) Connect the Artex Test & Programmer Set P/N 8715 and included interface cable to the ELT. Refer to the Tools, Materials, and Equipment table in this chapter, Equipment/Furnishings - General.

(3) Select PROGRAM on the Artex programmer menu.

(4) Select the ELT model (ELT1000 or ME406) on the model selection menu.

(5) Select the program protocol. Short message program protocols should be selected for the ME406. Long message program protocols should be selected for the ELT1000. Refer to Table 201, Accepted Short Program Protocols by Country, or to Table 202, Accepted Long Program Protocols by Country, to determine which program protocol to select based on the country of aircraft certification.

NOTE: If the table is blank for the country of your aircraft's certification, the recommended default protocol for the ME406 is SERIAL USER / AIRCRAFT 24 BIT ADDR (SHORT).

NOTE: If the table is blank for the country of your aircraft's certification, the recommended default protocol for the ELT 1000 is STD LOCATION / AIRCRAFT 24 BIT ADDRESS (LONG).

(a) For the AVIATION ELT / TAIL NUMBER (SHORT), enter the country code and the tail number of the aircraft.

(b) For the SERIAL USER / AIRCRAFT 24 BIT ADDR (SHORT), enter the country code and enter the 24-bit address. Make sure you select the desired number system (octal or hex) to match the format of the address.

(c) For the AVIATION ELT / TAIL NUMBER / LOCATION (LONG) program protocol, enter the country code and tail number of the aircraft.

(d) For the STD LOCATION / AIRCRAFT 24 BIT ADDRESS (LONG) program protocol, enter the country code and enter the 24-bit address. Make sure you select the desired number system (octal or hex) to match the format of the address.

Table 201. Accepted Short Program Protocols by Country

Country	Country Code	Aviation ELT / Tail Number (Short)	Serial User / Aircraft 24 Bit Address (Short)
Albania	201		
Argentina	701	X	X
Armenia	216		
Australia	503	X	X
Austria	203	X	
Bangladesh	405		
Belgium	205		X
Bermuda	310	X	
Brazil	710	X	X

Bulgaria	207		
Canada	316		X
Cayman Islands	319		X
Chile	725	X	X
Columbia	730	X	
Costa Rica	321		
Croatia	238		
Cyprus	209	X	X
Czech Republic	270		
Denmark	219		X
Ecuador	735		
Egypt	622		X
Estonia	276		
Finland	230		X
France	227		
Germany	218	X	X
Greece	237	X	
Hong Kong	477	X	
Hungary	243	X	
Iceland	251	X	
India	419	X	X
Indonesia	525	X	
Ireland	250	X	
Israel	428		
Italy	247		X
Japan	431	X	X
Kenya	634		
Latvia	275		
Lithuania	277	X	
Luxembourg	253	X	
Macedonia	274		
Malaysia	533		
Malta	249	X	
Mexico	345	X	
Moldova	214		
Monaco	254		
Netherlands	244		X
New Zealand	512	X	X
Nigeria	657		X

Norway	257		X
Paraguay	755		
Philippines	548		
Poland	261	X	X
Portugal	263		X
Romania	264		
Russia	273	X	
Saudi Arabia	403	X	
Slovak Republic	267	X	
Slovenia	278		X
South Africa	601		X
South Korea	440	X	
Spain	224	X	
Sweden	265		X
Switzerland	269	X	X
Thailand	567		
Turkey	271		X
United Arab Emirates	470		
Ukraine	272		
United Kingdom	232	X	X
United States	366	X	X
Uruguay	770		
Venezuela	775		
Zambia	678		

Table 202. Accepted Long Program Protocols by Country

Country	Country Code	Aviation ELT / Tail Number / Location (Long)	STD Location / Aircraft 24 Bit Address (Long)
Albania	201		
Argentina	701	X	X
Armenia	216		
Australia	503	X	X
Austria	203	X	
Bangladesh	405		
Belgium	205		X
Bermuda	310	X	
Brazil	710	X	X
Bulgaria	207		
Canada	316		X

Cayman Islands	319		X
Chile	725	X	X
Columbia	730	X	
Costa Rica	321		
Croatia	238		
Cyprus	209	X	X
Czech Republic	270		
Denmark	219		X
Ecuador	735		
Egypt	622		X
Estonia	276		
Finland	230		X
France	227		X
Germany	218	X	X
Greece	237		X
Hong Kong	477	X	
Hungary	243	X	
Iceland	251	X	
India	419	X	X
Indonesia	525	X	
Ireland	250	X	
Israel	428		
Italy	247		X
Japan	431	X	X
Kenya	634		
Latvia	275		
Lithuania	277	X	
Luxembourg	253	X	
Macedonia	274		
Malaysia	533		
Malta	249	X	
Mexico	345		X
Moldova	214		
Monaco	254		
Netherlands	244		X
New Zealand	512	X	X
Nigeria	657		X
Norway	257		X
Paraguay	755		

Philippines	548		
Poland	261	X	
Portugal	263		X
Romania	264		
Russia	273	X	
Saudi Arabia	403	X	
Slovak Republic	267	X	
Slovenia	278		X
South Africa	601		X
South Korea	440	X	
Spain	224	X	
Sweden	265		X
Switzerland	269	X	X
Thailand	567		
Turkey	271		X
United Arab Emirates	470		
Ukraine	272		
United Kingdom	232	X	X
United States	366	X	X
Uruguay	770		
Venezuela	775		
Zambia	678		

(6) Select ENTER on the screen.

(7) Select PROGRAM to install the entered data onto the ELT.

(8) Make sure that the screen shows the message PROGRAMMING SUCCESSFUL VERIFY ELT USING SARCALC.

(9) Touch the SARCALC button. The Artex programmer screen will show the message WAITING FOR DATA.

(10) Put the ELT switch to ON for one second then put the switch back to ARM. Once a valid message is received from the ELT unit, all encoded data is displayed on the programmer screen.

(11) Make sure that tests completed by the SARSAT test passed and that the Country code, 15-Digit Hex ID, GPS Coordinates, and country the data you entered into the ELT.

(12) Select DONE to save message and complete the ELT configuration.

NOTE: Because the ELT placard must match the information configured into the ELT, a new 15-Digit Hex Code placard must replace the old one.

(13) Create a new placard for the ELT unit that matches to new information installed into the ELT.

NOTE: The settings on your label maker can be different from the settings called out in Table 203. Placards that are clear and legible are acceptable to use on the ELT nameplate.

(a) With label maker and the settings called out in Table 203, Label Maker Settings, create a new placard for the ELT unit. Make sure the placard contains the information that follows:

- 15-Digit Hex ID
- Country
- Country Code

(b) Install the placard on the ELT nameplate.

Table 203. Label Maker Settings

Font: F1 (HELSINKI)	**Underline Format:** None
Size: 12 PT	**Format Horizontal Alignment:** Center
Width: Normal	**Format Vertical Alignment:** Center
Style: Bold	

(14) Disconnect the Artex Test & Programmer Set P/N 8715 and interface cable from the ELT.

(15) Install the ELT on the aircraft. Refer to the Emergency Locator Transmitter (ELT) Installation procedure in this document.

(16) Do the ELT System Transmitter Test. Refer to this chapter, Emergency Equipment - Inspection/Check.

Figure 201 : Sheet 1 : ELT System Installation

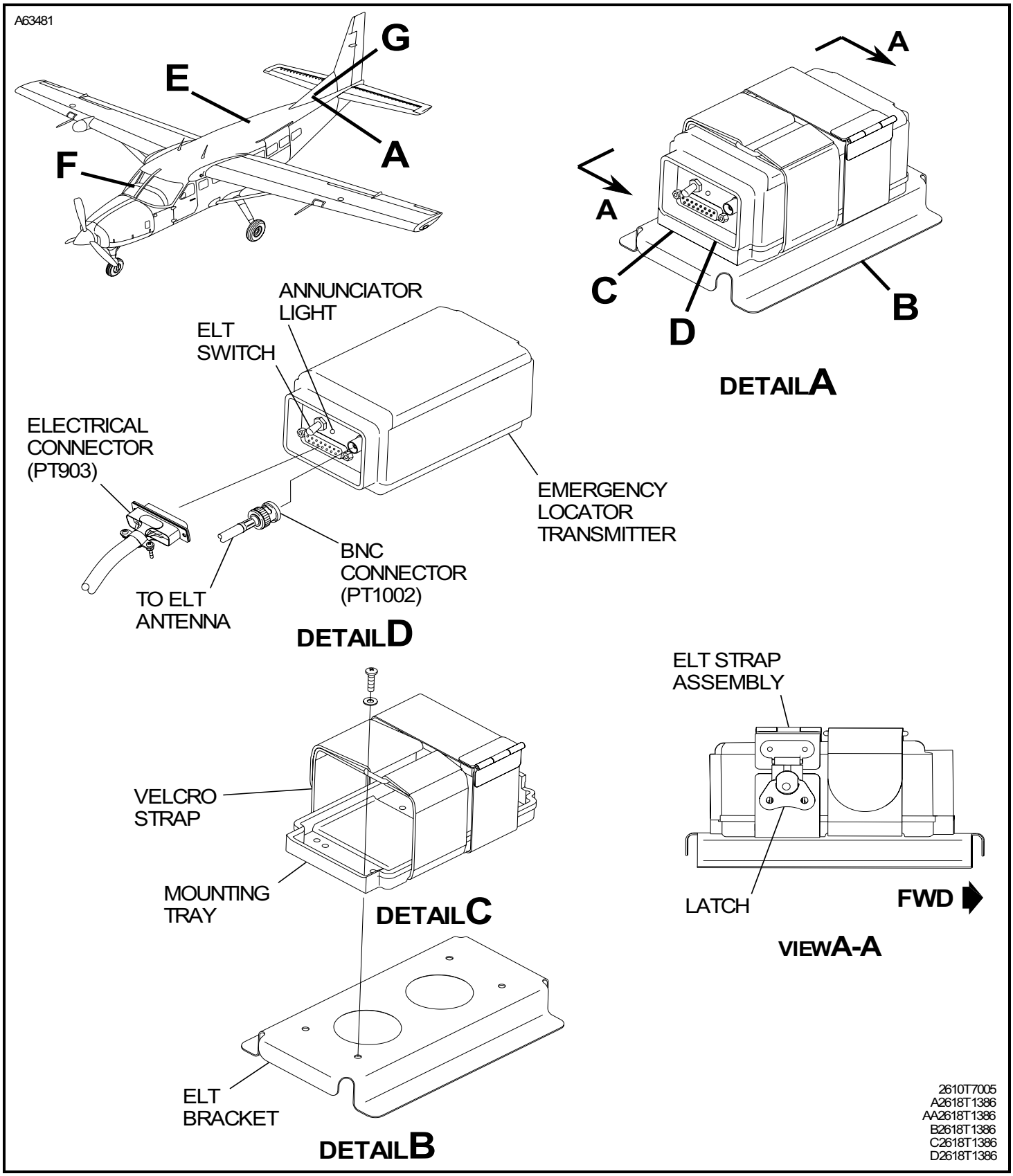

Figure 201 : Sheet 2 : ELT System Installation