

ARTEX ME406 EMERGENCY LOCATOR TRANSMITTER SYSTEM - TROUBLESHOOTING**1. General**

- A. This section contains the information that is needed to complete the self test for the ARTEX ME406 Emergency Locator Transmitter (ELT) system. The system transmits on two frequencies at the same time.

2. Tools and Equipment

- A. For information on tools and equipment, refer to Equipment and Furnishings - General.

3. ME406 Emergency Locator Transmitter (ELT) Self Test Preparation

CAUTION: Operate the Emergency Locator Transmitter (ELT) system only during the first five minutes of each hour. If you must complete the functional test at a time other than the first five minutes of the hour, you must do the test with a direct connection to the ELT and a 30 dB attenuator. Refer to the FAA Advisory Circular AC-91-44A.

CAUTION: Do not operate the Emergency Locator Transmitter (ELT) for more than five seconds at a time. Do not operate the ELT again for 15 seconds. The ELT will transmit a 406.028 MHz signal after it is activated for approximately 50 seconds. This signal is identified as a distress signal.

- A. Prepare the Airplane for the ME406 Emergency Locator Transmitter Troubleshooting.
- (1) Put the BATTERY switch in the ON position.
 - (2) Examine the ELT battery to make sure that it is serviceable.
 - (a) If the battery must be replaced, follow the manufacturer's instructions to replace it.
- B. Do a ELT 121.5 MHz Test.
- (1) Tune the receiver (usually the aircraft radio) to 121.5 MHz.
 - (2) Turn the ELT instrument panel remote switch to the ON position and wait for 3 sweeps on the receiver which takes about 1 second.
 - (3) Turn the remote switch back to the ARM (OFF) position immediately and the switch's LED and the buzzer will give 1 pulse. If more pulses are displayed, find the problem from the list below:
 - (a) One flash - Indicates that the system is operational and that there were no error conditions found.
 - (b) Three flashes - Shows an open or short condition on the antenna output or cable. Use the list below to isolate and repair the problem:
 - 1 Make sure the BNC cable is connected and in good condition. Do a continuity check of the center conductor and shield. Examine for a shorted cable.
 - 2 Examine for a intermittent connection in the BNC cable.
 - 3 Examine the antenna installation if this error code persists. You can examine it with a VSWR meter. Examine the antenna for opens, shorts, and a resistive ground plane connection.
 - (c) Four flashes - This shows a low power condition. This occurs if the output power is below approximately 33 dBm (2 watts) for the 406.028 MHz signal, or 17 dBm (50mW) for the 121.5 MHz signal. Also, this may indicate that the 406.028 MHz signal is off frequency. For this error code, the ELT must be sent back to ARTEX for repair or replacement.
 - (d) Five flashes - This shows that the ELT has not been programmed. However, this does not show erroneous or corrupted programmed data.
 - (e) Six flashes - This shows that the G-switch loop between pins 5 and 12 at the D-sub connector is not installed. The ELT will not activate during a crash.
 - 1 Do a resistance test to make sure the harness D-sub jumper is installed. There must be less than 1 ohm of resistance between pins 5 and 12.
 - (f) Seven flashes - This shows that the ELT battery has too much accumulated operation time and you must replace it to meet FAA specifications.
- C. Put the BATTERY switch in the OFF position.