25 Equipment/Furnishings

CHAPTER 25

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CHAPTER 25-EQUIPMENT/FURNISHINGS

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GENERAL - MAINTENANCE PRACTICES

FLIGHT COMPARTMENT SEAT REMOVAL

a. Remove the three seat stops at the forward end of the three seat tracks.
b. Release the fore and aft seat adjustment lock.
c. Slide the seat forward and off the seat tracks.
d. Unhook the seat spring on the bottom of the seat.

FLIGHT COMPARTMENT SEAT INSTALLATION

a. Hook the seat spring on the bottom of the seat.
b. Position the seat and slide aft onto the seat track.
c. Secure the fore and aft seat adjustment lock.
d. Install the three seat stops at the forward end of the three seat tracks and secure.

FLIGHT COMPARTMENT SEAT BACK ADJUSTMENT

On airplanes P-4 and after, the pilot's seat back adjustments are controlled by a mechanical three-position stop. The adjustment selector is located at the base of the seat back, on the inboard side.

On airplanes P-4 thru P-510 and P-512 thru P-519, the copilot's seat back adjustments are controlled by a mechanical three-position stop or by a Roton lock for selected positioning. On airplanes P-511, P-520 and after, the copilot's seat back adjustments are controlled by a mechanical three-position stop or by a Hydrolok lock for selected positioning. The mechanical adjustment selectors are located at the base of the seat backs, on the inboard side. The Roton of Hydrolok adjustment lever is located on the inboard side of the seat. For information concerning Roton or Hydrolok servicing refer to ROTON LOCKS or HYDROLOK LOCKS in this chapter.

PASSENGER SEAT REMOVAL

a. Remove the seat stop from the middle seat track.
b. Release the fore and aft seat adjustment lock.
c. Slide the seat forward and off of the seat tracks.

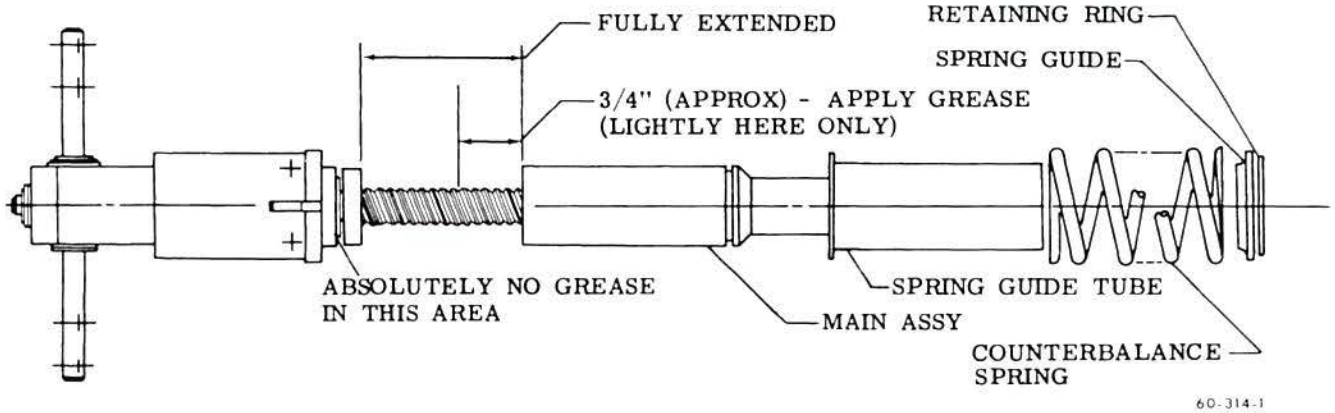
PASSENGER SEAT INSTALLATION

a. Position the seat and slide aft onto the seat tracks.
b. Secure the fore and aft seat adjustment lock.
c. Install the seat stop at the forward end of the middle seat track and secure.

PASSENGER SEAT BACK ADJUSTMENT

On airplanes P-4 thru P-510 and P-512 thru P-519, adjustment for the passenger seat backs is controlled by a mechanical three-position stop or by a Roton lock for selected positioning. On airplanes P-511, P-520 and after, adjustment for the passenger seat backs is controlled by a mechanical three-position stop or by a Hydrolok lock for selected positioning. The adjustment selector for the mechanical stop is located at the base of the seat back on the inboard side. The adjustment lever for the Roton or Hydrolok lock is located on the inboard side of the seat.

On airplanes P-511, P-520 and after, adjustment for the optional fifth and sixth passenger seat backs is controlled by



Roton Lock
Figure 201

two individually operated Hydrolok locks. The adjustment levers for the Hydrolok locks are located on the outboard armrests.

For information concerning Roton or Hydrolok servicing refer to ROTON LOCKS or HYDROLOK LOCKS in this chapter.

ROTON LOCKS
(Figure 201)

Usually Roton locks will need no service. If there is a grinding and binding in the lock as the seat reclines or the return action becomes jerky, a little grease properly applied as follows should improve the operation.

a. Use only grease (30, Chart 207, 91-00-00) on the threads as shown in Figure 201. Too much grease or grease in the wrong place can cause improper operation.
b. Compress the spring guide and counter-balance spring approximately one inch.
c. Remove the retaining ring.
d. Relax pressure on the spring guide and counter-balance spring slowly until the spring is fully extended.
e. Remove the lock from the fixture and remove the spring guide, counter-balance spring, and spring guide tube.
f. Apply a small quantity of grease to the completely extended thrust screw (see Figure 201).
g. Reassemble the lock.

NOTE

A new lock will need to be purchased if service other than lubrication is required.

HYDROLOK LOCKS

Hydrolok locks will usually need no service, but if service is required return the unit to the manufacturer.

"END"

EMERGENCY - DESCRIPTION AND OPERATION

EMERGENCY LOCATOR TRANSMITTER

Airplane serials P-166, P-183 thru P-185, P-187 thru P-244 and P-246 and after are equipped with an emergency locator transmitter (ELT) to assist in the tracking and recovery of any airplane and crew in the event of a crash, or if an emergency landing is necessitated. Airplane serials P-166, P-183 thru P-185, P-187 thru P-244 and P-246 thru P-536 are equipped with Collins/Communications Corporation ELT units. Narco ELT units are installed on airplane serials P-537 and after and earlier airplanes equipped with Kit No. 101-3046-1.

The ELT is mounted in the aft fuselage on the RH side at approximately F.S. 290.00. An antenna for the ELT is mounted on top of the fuselage under the vertical stabilizer at approximately F.S. 297.00. The output frequencies of the ELT are 121.5 and 243.0 MHz simultaneously. Range is approximately line of sight. The ARM-OFF-ON switch located on the transmitter controls the operation of the set. The ON position turns the set on for testing and the ARM position actuates the set to operate automatically upon impact. A reset switch, located on the forward end of the transmitter, resets the transmitter in the event the impact switch is accidentally triggered. Airplane serials P-166, P-183 thru P-185, P-187 thru P-244 and P-246 thru P-536 equipped with Kit No. 101-3039-1 have a remote switch located on the RH side of the rear fuselage. The remote switch, placarded REARM-ARM-XMIT, is accessible thru an access hole with a spring-loaded door located adjacent to the transmitter. The XMIT position turns the set on for testing and the ARM position actuates the set to operate automatically upon impact. The REARM position resets the transmitter in the event the impact switch is accidently triggered. Airplane serials P-537 and after, and earlier airplanes equipped with Kit No. 101-3046-1 have a remote switch installed on the RH side of the rear fuselage. The remote switch, placarded ARM-XMIT, is accessible thru an access hole with a spring-loaded door located adjacent to the transmitter. An optional installation is available for the remote switch so that it may be installed in the instrument panel. The remote switch is a momentary switch that enables manual activation of the ELT for testing purposes while the unit is installed in the airplane.

"END"

EMERGENCY - MAINTENANCE PRACTICES

EMERGENCY LOCATOR TRANSMITTER MAINTENANCE

Maintenance on the ELT is normally limited to replacing the battery. The following is a list of the various conditions which warrant battery replacement.

a. Visual inspection shows signs of leakage, corrosion, or unsecured leads.

b. Elapsed replacement date noted on the battery case (this date represents 50% of the useful life of the battery).

NOTE

The useful life of the battery is the length of time which the battery may be stored without losing its ability to continuously operate the ELT for 48 hours.

c. After any emergency use.

d. After one cumulative hour of use.

e. After operation of unknown duration.

f. If the transmitter is stored in an area where the temperature is normally above 38°C (100°F), battery life will be shortened.

CAUTION

Avoid storage of batteries at temperatures in excess of 55°C (130°F).

The information on battery life and replacement is included in the data furnished with each ELT, and is usually placarded on the battery.

NOTE

Replacement batteries should be obtained only from ELT and airplane manufacturers or other acceptable suppliers, since the condition and useful life of over-the-counter batteries, such as those sold for flashlights, portable radios, etc., are usually unknown.

CAUTION

The ELT switch should not be turned ON unless the ELT is connected to its associated antenna or a 50-ohm dummy load.

COLLINS/COMMUNICATIONS COMPONENTS CORPORATION BATTERY REPLACEMENT

NOTE

The Narco ELT may be supplied by Kit No. 101-3046 for airplanes originally equipped with units produced by Collins/Communications Components Corporation.

a. Place the RM-OFF-ON switch on the ELT in the OFF position.

b. Disconnect the antenna cable and the remote switch wiring, if installed, and remove the ELT from the airplane.

c. Remove the screws which hold the mounting base on the transmitter and remove the base.

d. Remove the old battery and disconnect the electrical connector. Discard the old battery.

WARNING

DO NOT discard the battery in fire.

NOTE

Inspect for and properly treat any corrosion in the area when the battery is replaced.

e. Connect a fresh battery and install it in the compartment.

f. Replace the base and screws.

g. Install the transmitter in the airplane and attach the antenna cable and remote switch wiring, if installed.

h. The new replacement date should be marked on the ELT in a visible area. This will aid in future inspections of the ELT. This date is 50% of the useful life of the battery as defined by the battery manufacturer.

NARCO BATTERY REPLACEMENT

a. Place the ARM-OFF-ON switch on the ELT in the OFF position.

b. Disconnect the antenna cable from the ELT. Disconnect the remote switch wiring, if installed, from the terminals on the ELT.

c. Unlatch the mounting strap and remove the ELT from the airplane.

d. Extend the portable antenna.

CAUTION

To avoid damage to the antenna or the plastic tab on the upper end, care must be exercised in extending the portable antena and handling the control head.

e. Remove the four screws attaching the control head to the battery casing and slide the control head and the battery case apart. The battery connection leads are approximately 3 inches long.

NOTE

Do not remove the sealant on the inside lip of the battery pack or a water tight seal will not be made when the ELT unit is reassembled.

f. Disconnect the battery by unsnapping the battery terminals from the bottom of the transmitter PC board. Discard the old battery.

NOTE

Inspect for and properly treat any corrosion in the area when the battery is replaced.

WARNING

DO NOT discard the battery in fire.

g. Connect the terminals of the new battery to the bottom of the transmitter PC board.

h. Using a stick, apply a bead of sealant (supplied with each battery pack) around the area of the control head which is joined with the battery case when reassembled.

NOTE

This sealant provides a water-tight seal when the unit is assembled.

i. Insert the control head section into the battery case, being careful not to pinch the wires, and install the four attaching screws. Wipe any excess sealant from the outside of the unit.

NOTE

If the four screw holes do not line up, rotate the battery case 180° and reinsert.

j. Stow the portable antenna.

CAUTION

Exercise extreme care in order to avoid damage to the antenna or the plastic tab on the upper end.

k. Install the transmitter in the airplane and secure the mounting strap.

l. Connect the fixed antenna cable to the ELT. Ensure that the (plastic) contact separator is inserted between the portable antenna contact and the portable antenna.

NOTE

Without the contact separator in place, a very weak signal may be transmitted. This signal may be strong enough for a functional test but too weak for emergency use.

m. Connect the remote switch wiring, if installed, to the terminals on the ELT.

n. Press the RESET button and place the ARM-OFF-ON switch on the ELT in the ARM position.

o. The new replacement date should be marked on the ELT in a visible area. This will aid in future inspections of the ELT. This date is 50% of the useful life of the battery as defined by the battery manufacturer.

TESTING EMERGENCY LOCATOR TRANSMITTER.

Generally, tests will be performed following maintenance or repair of ELTs, other than battery replacement, to determine their operational capability. Testing the ELT, if improperly done, could trigger false alerts and create frequency jamming and may interfere with the reception of a bonafide emergency transmission. Federal Communications Comission regulations require that this testing be performed in a screened or shielded test room, or in a test enclosure that will hold the self contained ELT unit with the antenna fully extended.

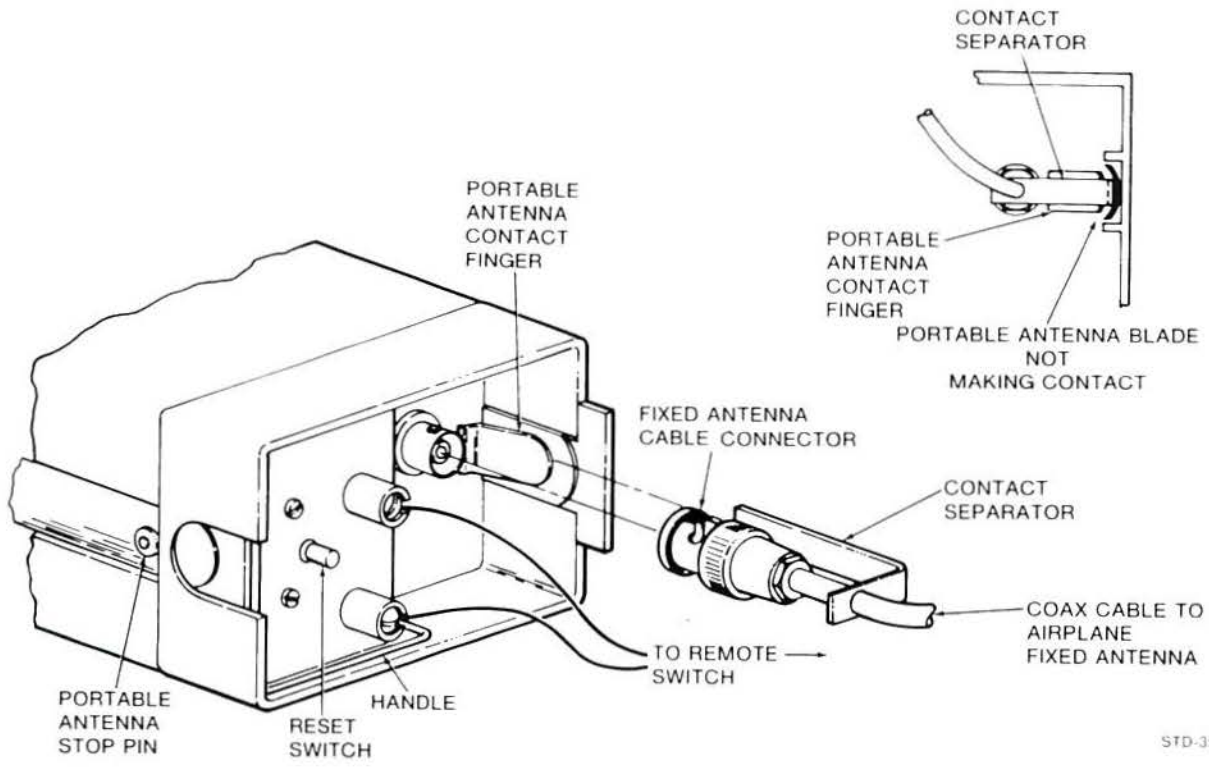
CAUTION

The ELT switch should not be turned ON unless the ELT is connected to its associated antenna or a 50-ohm dummy load.

Operational testing of installed ELTs may be accomplished as follows:

NOTE

Tests should not be longer than three audio sweeps. One audio sweep may be defined as amplitude modulating the carrier with an audio frequency sweeping downward over a range of not less than 700



Narco ELT
Figure 201

Hz, within the range 1600 to 300 Hz, and a sweep repetition rate between two and four Hz. Tests should be conducted only in the first five minutes of any hour. If the operational tests must be made at a time not included within the first five minutes after the hour, the tests should be coordinated with the nearest FAA tower or flight service station.

a. Turn COMM-1 ON and tune the transceiver to 121.5 MHz.

b. Turn the COMM-1 audio switch to the SPEAKER position and place the volume control in the center of its range.

c. Turn the ELT ARM-OFF-ON (TEST AUTO XMIT, XMIT ARM) switch to ON and monitor the ELT signal.

NOTE

If there is no audible signal, the battery is probably disconnected or dead, assuming that the VHF transceiver is operational.

d. Place the ARM-OFF-ON (TEST AUTO XMIT, XMIT ARM) switch on the ELT to the OFF position. The audio signal should disappear completely.

e. Place the switch in the ARM position. There should be no audio signal present.

NOTE

If a signal is heard, the impact switch has probably been activated and should be reset.

f. Firmly press the reset switch on the front of the ELT and listen to ensure the audio signal disappears from COMM-1.

"END"