

ELT Battery Replacement Tips

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Replacing an emergency locator transmitter's battery pack is so quick and easy, it's hard to imagine that anybody would pay a mechanic to do it (kind of like paying somebody to put air in your tires). If you've been wanting to get started in do-it-yourself maintenance, this is as good a place as any to start.

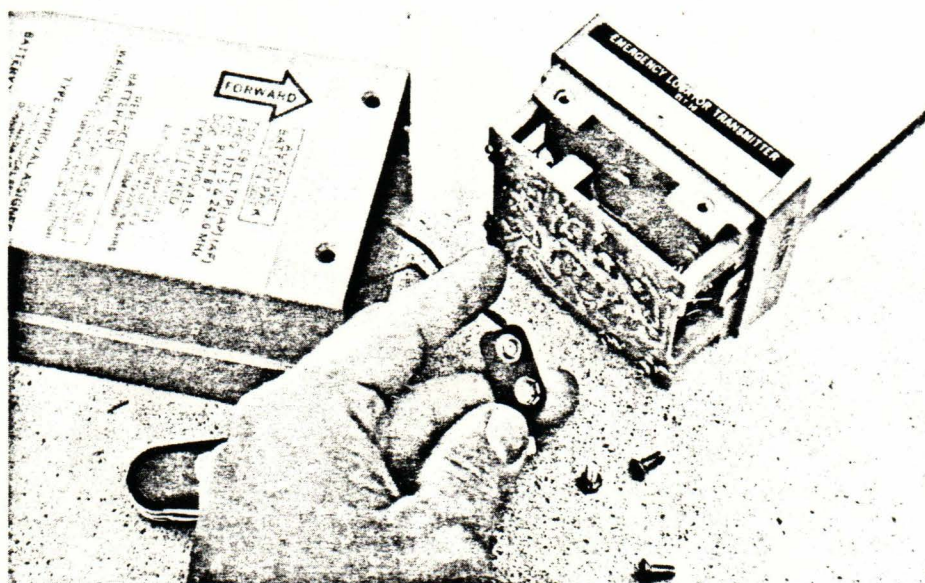
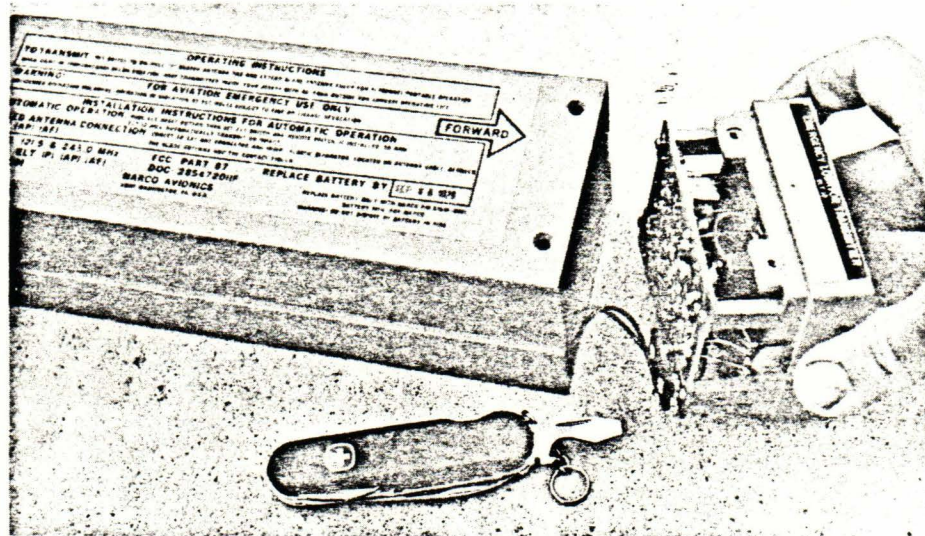
The Narco ELT-10 (shown in the accompanying photos) is among the most popular units on the market. It can be bought, new, for as low as \$220 (Kelly Sales Co., 545 W. Allen, No. 17, San Dimas, CA 91773; phone 1-800-368-8684 or 714/592-2021), and—unlike most ELTs—battery packs can be bought in both 2-year (\$26.50) and 3-year (\$49.95) varieties. (Prices quoted are from Independent Aviation Supply, 1816 Delmar, Granite City, IL 62040; 1-800-851-8020 or 618/452-2351.)

Other ELTs for which 3-year power packs are available include the Sharc-7, Rescue-88, Pointer 3000, and Dorne & Margolin. A flat 25-percent discount is available on all ELT batteries from: Aircraft Suppliers Co., P.O. Box 14344, Haltom City, TX 76117 (1-800-468-6900 or 817/589-1688).

The ELT-10 is fairly typical of emergency beacons in general for its battery-change procedure. Always start by disarming the unit (find the "off" switch) and removing it from the airplane. If an external (airframe) antenna is connected—and it should be—disconnect it by untwisting the coax cable and pulling straight out.

Deploy the Narco unit's tape antenna (portable antenna) by pulling it out all the way. (This antenna wraps around the battery pack lengthwise. Deploying it gets it out of the way.) Now look for four tiny, countersunk, slot-head screws at the top of the pack (under the transmitter nameplate; see photos). These screws—two to a side—must come out to liberate the battery. (Set them aside.)

With the retaining screws removed, you can pull the transmitter portion of the ELT straight out of the power pack. You'll notice that the transmitter is quite small (the "guts" fit on



Top photo: To access the transmitter portion of the Narco ELT-10, undo the four small retaining screws at the top of the battery pack, and pull. Lower photo: The battery (large bottom portion) attaches to the transmitter circuit board via a pair of snaps.

one PC board), weighing in at less than half a pound.

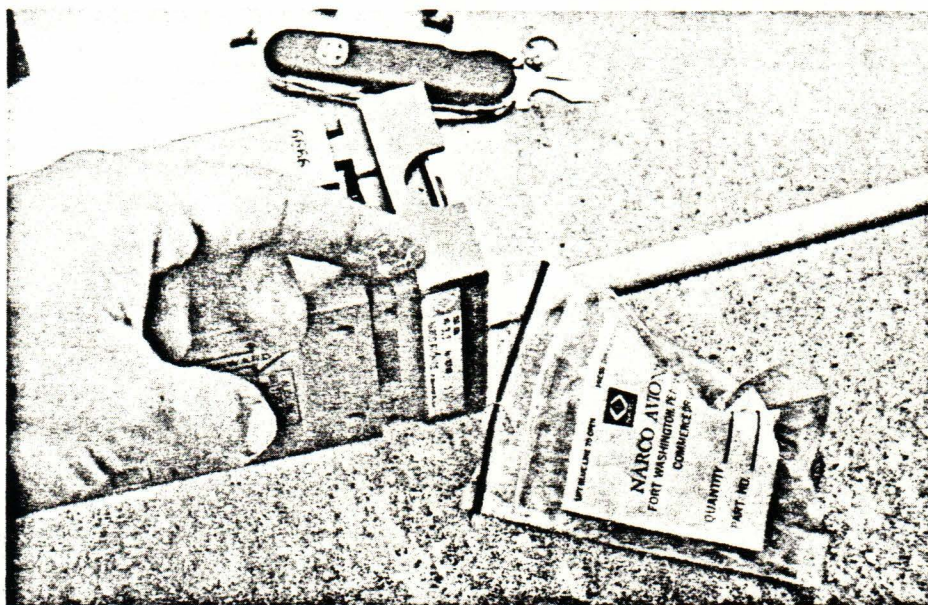
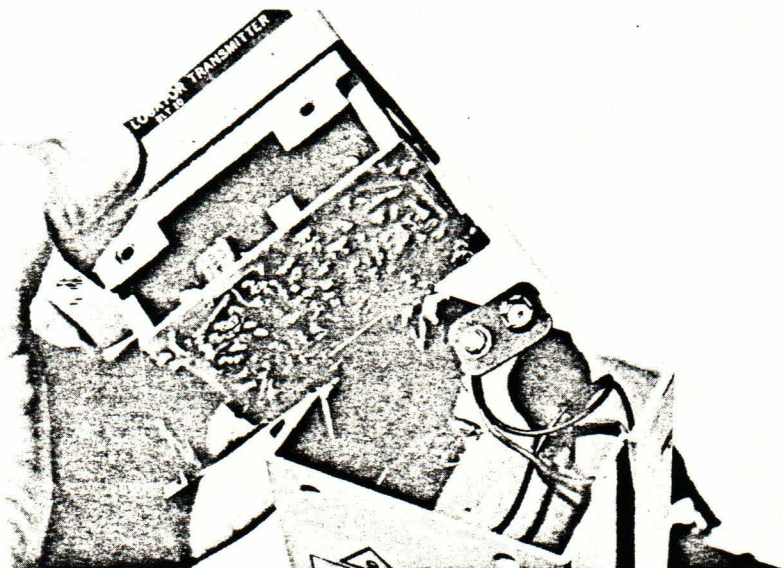
Look for a pair of wires (red and black) leading to a pair of snaps on the circuit-board. (These snaps should be familiar to anyone who's ever owned a cheap transistor radio.) Pry the snaps apart with fingertips—then give your old battery pack a decent burial (do not cremate).

Inspect your transmitter, by the way, for signs of corrosion (or other) damage, while you have the chance. If any funkiness is found, return the

unit to the factory, or to an FAA-approved ELT repair shop (such as Beuco, Inc., 3308 Cottonwood, St. Charles, MO 63301; phone 1-800-325-6163 or 314/947-0212).

Now. If your new battery comes with a little plastic pouch full of something resembling Vaseline, smear some of this stuff (sparingly) around the edges of the transmitter's case before sliding same into the power pack rim. Wipe off any excess sealant. Then reinstall those tiny slot-

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Top photo: Inspect the transmitter PC board for obvious damage/corrosion before snapping the new battery to it. Lower photo: Apply a thin coating of petroleum-jelly sealant to the rim of the transmitter before sliding it into the new power pack.

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head screws that you set aside before. (The jelly gives you ELT a water-tight, gas-tight seal for maximum reliability.)

If you have an airframe antenna, stow the ELT's tape (portable) antenna and check to see that there is a plastic contact guard separating the contact finger of the transmitter from the tape antenna itself (Narco units only). Many ELT-10s were shipped without a contact separator; Piper had a service bulletin on this some years ago. *You want a separator to break contact with the tape antenna while the airframe antenna is installed.* If the portable antenna is hot while the coax is

hooked up, the coax is shorted out. (Not really; but the impedance mismatch is bad enough to give you ELT zero range.) If necessary, put masking tape on the inside of the portable antenna at the contact finger.

Now reinstall the ELT in the plane going through the removal steps in reverse. Set the switch to "arm," turn on your main comm radio, and listen (on 121.5, or any nearby frequency) for the familiar "whoop-whoop" sweep-tone of an active ELT. If your ELT is transmitting when it shouldn't be, find out what the problem is, pronto.

Do check the unit's transmit capability at least every 6 months (and at each battery change), by purposely setting the switch from "arm" to "on" while a friend listens from across the airport (or miles away, in flight) on 121.5 MHz. (Don't just listen on one of your comm radios. You want to check the *long-range* effectiveness of your ELT/antenna combination, which is something you can only do with the aid of a long-distance observer.) It's legal to turn your ELT on, for testing purposes, within five minutes past the top of every hour. (Common courtesy dictates that you advise Ground Control of your intentions, if you are based at a busy airport.)

And that's about it, except for the normal log entry (something you can do yourself). Oh, and don't forget to post the battery-replacement sticker in plain view of your mechanic, so that the ELT's power pack won't automatically be changed out at your next annual inspection (as most are).

Narco ELT Calibration

Narco Avionics, under Service Bulletin No. ELT-14, now considers yearly calibration and testing of ELTs mandatory; otherwise, the so-called "lifetime warranty" of the ELT-10 is voided. (The lifetime warranty is also voided by use of any battery other than a genuine Narco battery, but at least one battery maker—Merl, Inc., P.O. Box 188, Meriden, CT 06450, phone 203/237-8811—has said it will pick up the lifetime warranty for ELT-10 users who specify a non-Narco power pack.) According to Narco, a complete system performance check can't be performed without specialized test equipment. Therefore, owners should send their units to ELT Labs, 2825 Laguna Canyon Rd., Laguna Beach, CA 92651 (1-800-ELT-LABS or 714/497-5077) for calibration and testing. ELT Labs is the only Narco authorized ELT-10 service center in the U.S. (Narco doesn't want units sent to the factory). Overhauled/exchange ELT-10s are available from ELT Labs with fresh battery pack for \$54.95 (wholesale) or \$78.50 (customer list), exchange, with a \$100 core charge to ensure return of old transmitters. For more information on Narco's customer service policy, contact James McNabb, Manager, Customer Service, Narco Avionics, 270 Commerce Dr., Ft. Washington, PA 19034 (phone 215/643-2900).