



FLRK-50 Fuse Link Repair Kit

Murphy's Law* is always in effect, meaning some day you may short an eCanoe fused jumper or extension cord across a live battery and the internal fuse link will blow - saving your battery, wires, boat, and body from possible injury. This repair kit saves you money by replacing the blown fuse link. The kit may also be used to add a fuse link to unfused 14-gauge trolling motor wires near the positive battery connector as recommended by motor manufacturers (for motors with 8 to 12 AWG wires, use FLRK-75). Repair takes some technical skill. An 80 to 100 Watt soldering iron and heat gun or a small butane torch are required. For 12 to 48 volt systems and wires from 8 AWG to 14 AWG. Full instructions included.

* Murphy's Law: "If anything can go wrong, it will!"



CAUTION

Repairing or adding eCanoe fuse links requires technical skill and proper equipment. Use caution when working with high heat, especially open flame. Hot solder may cause burns or eye injury.

Eye Protection Required!

Gloves recommended.

Protective Clothing recommended.

Have Fire Extinguisher or water nearby.



FLRK-50



Fuse Link Repair Kit

FLRK-50 Kit contains:

Precision 50-Amp tinned Fuse Link Wire
Two all-copper Crimp Sleeves
Adhesive-lined heat-shrink tubing
Lead-free solder to make the connections
full illustrated instructions

8-08

Made in the USA by
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FLRK-50 Fuse Link Repair Kit

Tools Required:

Sharp Knife or Razor

Wire Cutter

Wire Stripper (or use knife)

Ruler or Tape Measure

Terminal Crimp Tool

Soldering Iron - 80 to 100 Watt size
and Hot Air Gun

or

Butane Torch

with flame-spreading attachment

NOTE: If you are using the Fuse Link Repair Kit to add a **new** fuse in a wire, cut the wire where needed and go to Step 3.

1. Slit the old Heat-Shrink Tubing (HST) lengthwise. Use care not to damage the wires. Peel the HST off to expose the blown fuse link.

2. Cut the wires to remove the crimp sleeves.
NOTE: This will shorten the final cable length by about one inch. De-soldering the crimps to maintain length is not recommended and is hazardous to eyes and skin.

3. Strip 1/2 inch of the insulation off the wires.
 If the wires show corrosion, scrape them clean as best as possible and coat well with electronics soldering flux (not supplied) to ensure a good solder bond.

4. Slip the fuse link wire into one crimp sleeve, then insert the stranded wires completely into the sleeve. The end of the wires should reach the end of the sleeve. Crimp the small end of the sleeve to hold the wires in place. If the wires slip out, use an awl or nail to open up the sleeve and try again.

5. Then heat the sleeve and apply solder where shown. The solder should fill the sleeve opening fully and be drawn partially into the sleeve, forming a water-tight seal.

If using a butane torch, aim the flame below the sleeve and allow just the upper edge of the flame to carefully heat the crimp. Avoid overheating!

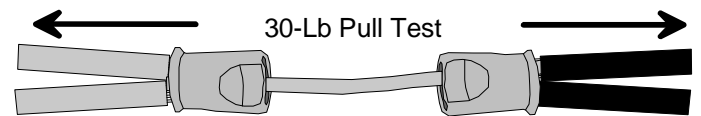
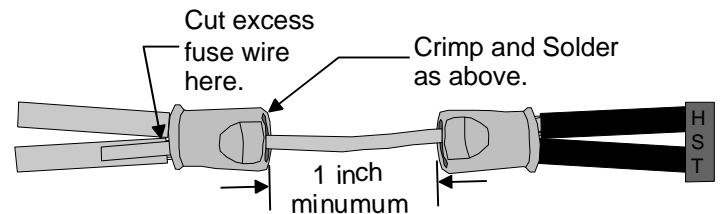
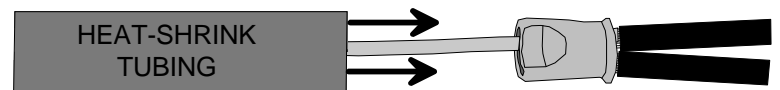
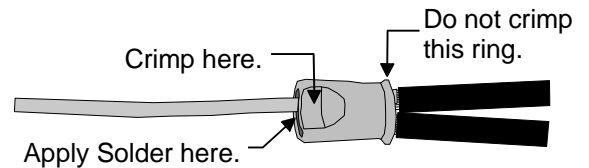
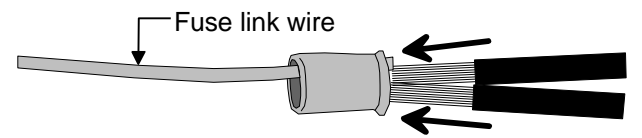
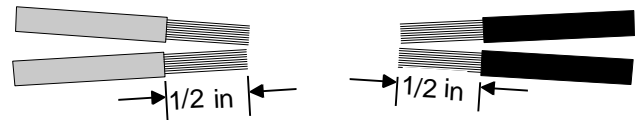
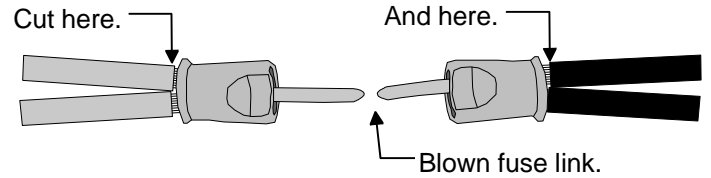
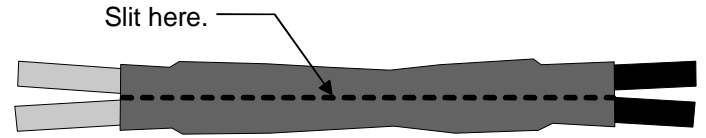
6. After the crimp joint has cooled, slide the new HST on to the wires far enough so that it is out of the way of the next step. Do this step **NOW**, before you forget to do it!

7. Crimp the second sleeve in place so that it is one inch (1.0" or 2.5cm) from the first crimp sleeve. This spacing is important to ensure correct fuse operation.* Solder this connection like the first one. Then cut off any surplus fuse wire, being careful not to damage the other wires.

8. When the assembly has cooled, pull on the wires to be sure they are fully soldered. Pull straight without twisting. The new link should withstand at least a 30-Lb pull without damage. If the wires pull out, you will have to replace them if possible and re-solder. A new FLRK-50 kit may be required.

9. If the Pull Test is OK, slide the HST to the middle of the new fuse link and shrink it into place. If using a torch, a flame spreading adapter is recommended. Heat the tubing enough so the adhesive liner melts and makes a water-tight seal at the two crimp sleeve rings.

10. When cool, the repair is complete and the new fuse link can be put into service.



* If you want to make a wire connection **WITHOUT** the Fuse action, ignore the one-inch spacing between crimp sleeves and solder them close together with lots of solder.
CAUTION: Possibility of injury or damage! These splices will **NOT** protect against dangerous overcurrents.

