eCanoe®

BCF-75x
Fused Battery Clip

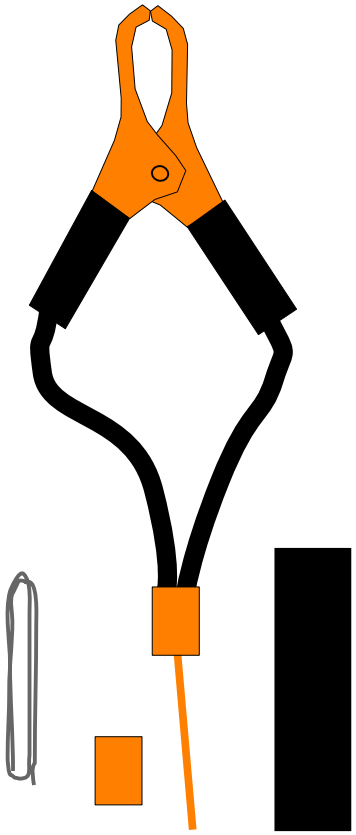
For adding or replacing a battery clip for powering small motors up to 75 Amps. For 12 to 48 Vdc systems and stranded wires from 8 to 12 AWG. Installation takes technical skill. A 80 to100 Watt soldering iron and heat gun or a torch is required.

BCF-75x Kit contains:

Copper Battery Clip
with 10 Ga wires and 75 Amp fuse installed
One all-copper Crimp Sleeve
Adhesive-lined heat-shrink tubing
Lead-free solder to make the connections
Full illustrated instructions

10-08

Made in the USA by
eCanoe, LLC
www.ecanoe.net
www.ecanoe.org
write comments to:
info@ecanoe.net



CAUTION

Repairing or adding eCanoe Battery Clips 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.

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Fused Battery Clip

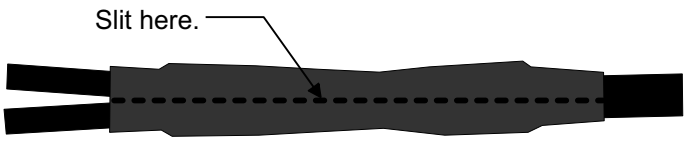
Tools Required:

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

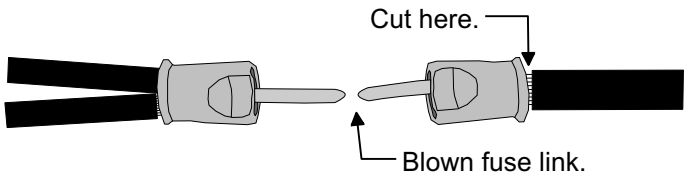
eCanoe® Fused Battery Clip Installation Instructions

NOTE: If you are using this Kit to add a **new** clip on an unfused wire, cut the wire if needed and go to Step 3.

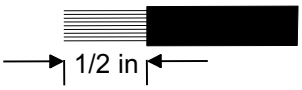
1. Slit the old Heat-Shrink Tubing (HST) lengthwise. Use care not to damage the wires. Peel the HST off to expose the blown fuse link.



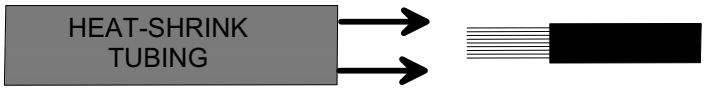
2. Cut the wire to remove the crimp sleeve.
NOTE: This will shorten the final cable length by about one-half inch. De-soldering the crimp to maintain length is not



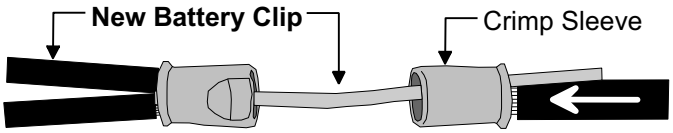
3. Strip 1/2 inch of the insulation off the wire.
If the wire shows corrosion, scrape it clean as best as possible and coat well with electronics soldering flux (not supplied) to ensure a good solder bond.



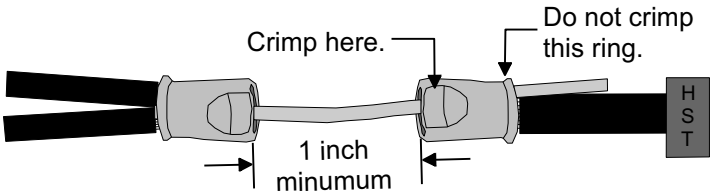
4. Slide the new HST on to the wire far enough so that it is out of the way of the next step. Do this step NOW, before you forget to do it!



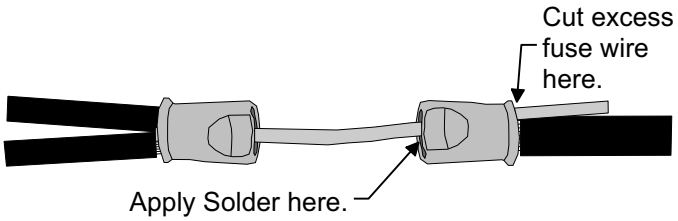
5. Align the crimp sleeve as shown and slip it over the new clip's fuse link wire, then insert the stranded wire completely into the sleeve. The end of the stranded wire should reach the end of the sleeve.



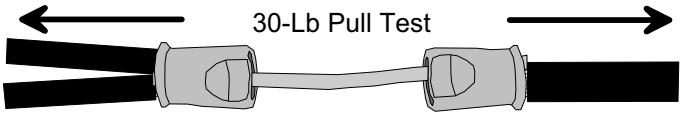
6. Crimp the small end of the sleeve so that it is one inch (1.0" or 2.5cm) from the other crimp sleeve. This spacing is important to ensure correct fuse operation.* If the wire slips out, use an awl or nail to open up the sleeve and try again. Use clamps or other methods to hold the parts for soldering.



7. Then heat the sleeve and apply solder where shown. The solder should fill the sleeve opening fully and be drawn 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!
Allow to cool.



8. Cut off any excess fuse wire, being careful not to damage the other wire. Then 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 fuse link repair 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 fused battery clip can be put into service.

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* If you want to add a battery clip WITHOUT the Fuse action, ignore the one-inch spacing between crimp sleeves and solder them close together with lots of solder, then go to step 8.
CAUTION: Possibility of injury or damage! These splices will NOT protect against dangerous overcurrents.