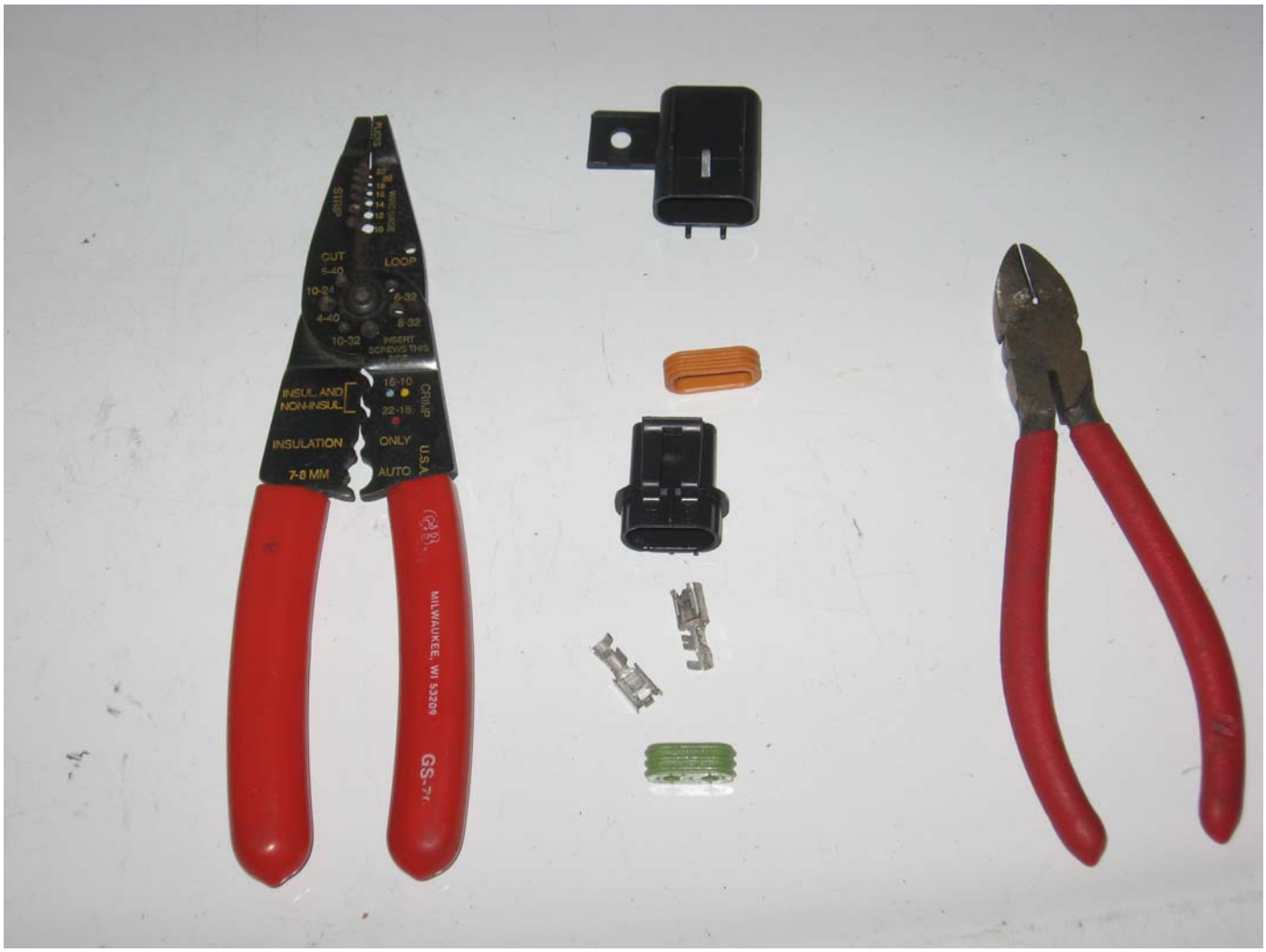
Works in Progress

ATO/ATC Weatherpack Single Fuse Holder Instructions



The above image shows you what you should have gotten in the kit (the centre "stack") and the tools you'll need to assemble your fuse holder (wire cutters on the right, stripper/crimpers on the left. Yes, most stripper/crimpers have wire cutters – but they've never worked well for me. Thus, the separate cutters.)

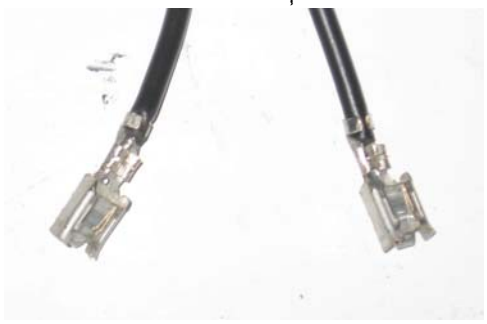
The body (lower black bit) and the two seals (tan upper and green lower) should all be put together, but will come apart easily so you can put it together properly. The two terminals would be loose in the bag your kit came in. No, you *didn't* get tools with the kit – sorry, but I don't have that many of those things around! Besides, you should already have them – if you don't, you'd better get them before you start doing electrical work...

Why do I offer this as a kit? Because I like to have as few wiring connections as possible – in this case, I'd rather run the wiring directly into the bottom of the thing than have tails coming out of the thing and use crimp sleeves to attach it to the circuit. Since most of what I work on is a new installation, that's fine. Since you're probably going to be doing new installations, it will work for you as well. This will tell you how the thing gets wired up and put together.

Anyhow, take your fuse holder apart as in the above picture. Get your wiring and the green seal, and look at the picture below:

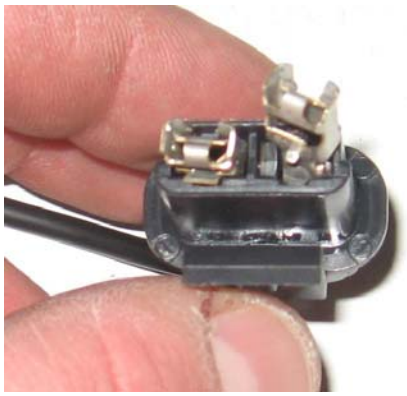
Insert the wiring through the green seal. It should be a slip-fit – that's how it's going to seal (the seals provided should work with 12-16AWG wire, which is about what you want for most circuit supply anyhow.) Leave plenty of "tail" past the seal – you'll need it while you finish putting it all together, although most of it will be coming back out.

Insert the wiring "tails" up through the *bottom* of the fuse holder body. Which side is the bottom? Remember which side you took the seal out of in the first place? That's the bottom.



Strip about ¼" at the end of each wire, and crimp the terminals on. Note above (and in the detail pic below) that the terminals gets crimped onto *both* the stripped wire *and* the insulated portion – crimping the lead over the insulation helps to prevent pull-out, and makes the connection stronger! If you look at your crimper, you'll probably see a batch of crimp spots labeled "insulated and non-insulated" – that's for the bare wire bit. There will likely be another spot called "insulation only" – this is the spot you use to crimp the fingers over the insulated part of the wire. Again, refer to the picture below for more detail:

I decided to *not* reduce this for printing – so it's a full-size pic. Note what I described earlier – the "double fingers" get crimped over the bare wire, and the "single fingers" at the far end get crimped over the insulation proper – this helps with retention of the wire in the terminal.



When you start to pull the terminals back into the house, you can see here how it should happen. There are locking tabs on the backside of the terminals, and they should go on the same side as the small grooves in the housing – those are there so you can release the locking tabs with a pick, if you need to. Gently press them in (you can use a flat surface to get them flush, then a small rod to get them the rest of the way) until they click – should look something like this:

Once you've got that done, then just push (gently) the green seal up into the fuse holder body:

Using something fairly small and *not sharp* (a pin punch can work here, as can a Popsicle stick.) Push the seal in until it's all the way into the shell:

And reinstall the tan body-to-cap seal if you took it off before (you should have – it helps keep that seal from getting buggered up):

The fuse holder is actually mounted using the screw tab on the cap – so the cap will stay in place when you go to change the fuse. This is a single fuse holder suitable for use up to 20A – the limitation is due more to the wire size than anything else – you'd need 10AWG wire to run more than 20A, and the seals provided with the kit won't fit wire that large – easily. (It can probably be done, but you'd want to use a bit of something to lubricate the wire so it doesn't tear the boot – something like corrosion inhibitor, I'd think. I've not tried.) The fuses themselves will be standard ATO/ATC fuses (mid-size plastic blade types,) and they're not retained by anything except the friction between the contacts. This fuse holder is sealed (when properly assembled) against water splashing and brief immersion – which makes it suitable for use underhood. The terminals and seals work with 12-16AWG wire, so you should be good for anything up to 20A.