

Special Notice about soldering the EC3-S and EC5-S Connectors



Thanks for purchasing our new EC-series connectors with integrated solder tabs. In most cases, the standard EC3 and EC5 connectors are a bit of a pain to use, because the contacts must be soldered onto the wire first, and then the contacts have to be pressed into the proper connector shell. If you get ANY solder on the outside of the connector pins, you must carefully file it off so the pin will properly lock into the shell. Also, you need to have an arbor press and a special press tool to properly insert the contact pins into the plastic shell after you are done soldering them onto the wires.

These new EC-series connectors, which have the contacts with extended solder cups already in place, make it much easier to assemble this type of connector, however, you must be careful when soldering the wires onto these connectors. The EC-series connectors have always been made from polypropylene plastic, which is very strong, but it is more flexible and melts at a lower temperature than the glass-filled nylon plastic that is used on XT series connectors, such as the XT60 and XT90 size or the Deans and T-Plug style connectors. When you solder your wires onto the EC3-S or ES5-S connectors you need to make sure that you do it as described below.

First and foremost, you should have a good 60-watt or higher iron with a 3/16 or ¼-inch chisel tip on it for good heat transfer. When soldering ANY connector with a plastic shell, you should be able to get the part hot, flow the solder, and get the iron out in 5 seconds or less. If you are taking longer than this, then your soldering iron is not large enough to do the job. A small 30 or 35-watt pencil tip soldering iron WILL NOT work to solder these types of connectors and will take way too long to solder.

Another thing to do when soldering this type of connector is to temporarily plug a mating connector into the one that you are going to be soldering on. This does 2 things, first it increases the mass of the connector behind the solder cup, which makes that part of the connector heat up more slowly while you are putting solder into the solder cup end. Second, it keeps the pins in perfect alignment while you are soldering so if you do get it a little too hot, the contact will not move in the connector shell, which will cause problems with misalignment of the connector when you try and plug it in later.

When soldering, it is best to quickly pre-tin the solder cups on the connector, and then allow them to cool. You should also pre-tin the battery or ESC leads with the same solder, even if they are pre-tinned from the factory so you have the same type of solder on both parts. To do the final soldering heat up the wire and solder cup at the same time with your iron that has been coated on both side with some solder, and allow the solder to melt and flow together. As soon as this is complete, remove the iron and allow the parts to cool.

Following these instructions will get you the best results, without overheating and damaging the connectors.