

Mini –Sub (Submarine) Cable

This cable goes from Red Lake to Northern Ontario (Bearskin Lake, Wapekeka) then South to Cat Lake, Sturgeon Lake and ending at Ignace.

Much of this area is lakes, swamps (Muskeg) and islands. Many of the First Nation Reserves are on these islands. This cable is suitable for these applications.

This Backbone cable has been installed by BELL and it is hoped that First Nation Groups will install the fiber to the home systems.



The cable has a hard jack and a torch or heat gun will help for the jacket removal. You will probably remove 6 or 7 feet of outer jacket

The armor strands protect the center tube which holds the fibers. I recommend using the Dremel and cut-off blade to remove them as opposed to a hack saw or mini grinder. Unless you want to risk pieces of Dremel blade decorating your face you will wear a face mask (shield) and gloves.



Next you need to remove the tube. A mini tube cutter will do this. The tube is about 3.5 or 4mm in Diameter. Don't cut it all the way through. Treat it as you would a regular loose tube. (Cut mostly through then bend it) You will find a heavier than normal gel in the tubes which you will remove with your Gel Remover liquid.



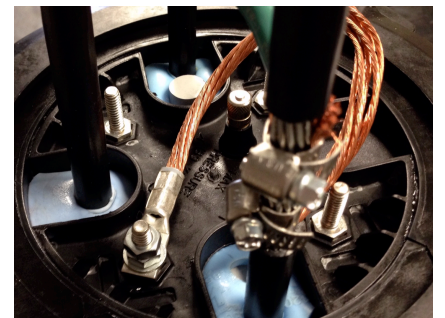
Next thing is to protect the 250 um fibers from the sharp edge. A piece of 3mm cable jacket, furcation tube or shrink sleeve will do this.

Now we find there are 24 fibers in this tube. The groups of 12 are separated by a Blue and an Orange thread. ** Don't mix them up.



You probably need to protect at least 18" of each fiber group with a piece of loose tube, or transition tubing to get them on the tray. Be careful as any damage will result in starting over and putting up with a disgruntled boss.

Next you can seal the transition from the copper tube to the loose tube with a piece of shrink sleeve. You might want to put a bit of epoxy under it first.



Let us not forget the **grounding**. The CEC and NEC require that the ground conductor have the ampacity to carry at least the amount of current that the cable armor can carry. In this case I recommend a #6 AWG copper conductor connected to the enclosure ground terminal, passing through two hose clamps with a three ft (or whatever length required) insulated tailpiece to connect to the system ground, ground rod or whatever.

Covering this joint over the ground wire and clamps will give it some protection from the elements. In severe conditions put some epoxy under the shrink sleeve.

