



# Cable Protector Installation

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## 2 Cable Protector

Cable protectors serve two roles. First they provide a larger diameter surface on which to clamp sensors or sediment traps. Second they protect the coating of the mooring cable from damage sometimes caused by clamping action or rotation of these sensors or traps.

### 2.1 Components

The cable protector consists of two clamps and a length of polyurethane tubing. Both the clamps and the tubing are sized to fit the mooring cable.



Figure 1 Urethane Tube

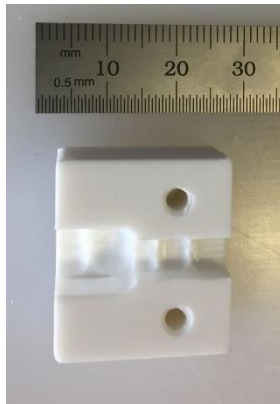


Figure 2 Clamp A



Figure 3 Clamp B

### 2.2 Assembly

There are two ways to assemble cable protectors: whole tube or split tube. Whole tube assembly requires sliding the urethane tube onto the mooring cable from a cut end of the cable. This is appropriate for shallow moorings and drifters. Split tube assembly is when the urethane tube is split halfway allowing it to fit over the mooring cable.



Both approaches require two clamps and a length of urethane tube. The tube should be long enough to prevent any part of the sensor or sediment trap from contacting the cable directly.

### 2.2.1 Assembling Clamps

Each clamp has two parts, an 'A' and a 'B'. Refer to Figure 2 and Figure 3. The A part fits around both the cable and the urethane tube. The B part presses the cable and tube against the A part. The action of A against B creates the clamping force.

Before assembling clamps wipe off any lubricant from the cable and the end of the urethane tube.

On the B part there is a recess on one side the screw holes. The recess should face the A part when assembled. It allows the clamp pieces to press tightly together even if small deformations form near the screw threads on the A part.

The screws provided are both thread forming and vibration resistant. Tighten the screws to about 0.4 Nm (3.5 inch-pounds). There should be no visible gap between the two pieces.

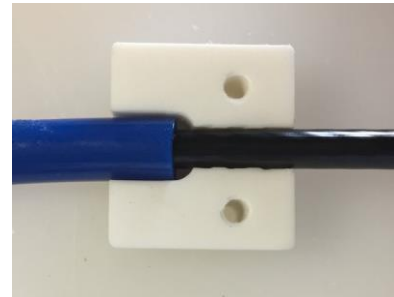


Figure 4 Clamp A Part Assembly

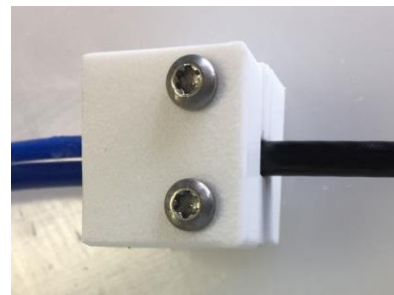


Figure 5 Assembled Clamp

### 2.2.2 Whole Tube Assembly

Apply a small amount of petroleum jelly or o-ring lubricant to the end of the mooring cable. Slide the urethane tube over the cable and into the desired position. Apply lubricant as required. It may be very difficult to slide the tube over the cable without lubricant.

With the tube in the desired position fit clamps on both ends. Before tightening the second clamp press the clamp down the wire towards the tube and the first clamp to remove any space between the two clamps and the tube.

### 2.3 Split Tube Assembly

After cutting the tube to the desired length use a utility knife to make a single straight radial cut to the center of the tube down the entire length of the tube. Refer to Figure 6.

Using the split, fit the tube over the mooring cable at the desired position. Attach the clamps as in whole tube assembly.

After installing the sensor or trap use a few wraps of vinyl electrical tape around the tube to help keep the split closed. The split is not likely to open when deployed, but it may open during deployment if the cable bends significantly.



Figure 6 Split Urethane Tube

Table 1 Cable Protector Components (for 1/8" wire rope with 1/4" jacket diameter)

Qty	Description	S9 Part Number
2	Clamp A part	5005Y
2	Clamp B part	5005Z
1	Urethane tube (blue)	20726
4	Thread forming screws for plastic	20429

