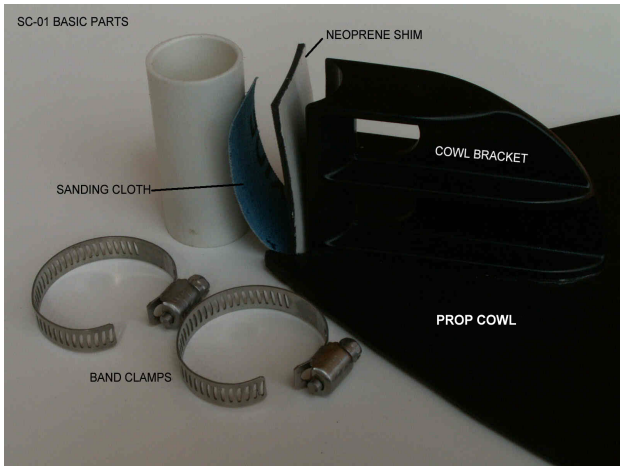
# How to install the eCanoe SC-01 Propeller Cowl




## SC-01 Cowl Kit contains:

1 - black ABS 8”W x 10”L cowl and bracket assembly
2 - 5/16” stainless steel band clamps, size SAE 12
1 - adhesive neoprene shim 1/16” thick
1 - sanding cloth
1 - instruction sheet

## Assembly Tools Required:

¼” nut driver or flat-blade screwdriver
Tape measure or ruler
Paper towel or clean cloth

For 1” shaft mounting:
RTV Silicone or epoxy putty
Toothpick or other small applicator
Razor blade or sharp knife

For 1-1/8” shaft mounting:
Awl, pencil, or other scribing device

If Cowl size is to be trimmed:
Marking pencil or scribe
Jigsaw or band saw
Belt sander or sanding block

**CAUTION! Disconnect Motor from Power before proceeding.**
**Prop Blades are sharp and may cause injury!**

**CAUTION! Trolling motors are heavy and clumsy to handle.**
**Handle motor with care to avoid bodily injury!**

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Assemble all tools and supplies as on page 1.

Clamp the motor on a sawhorse or other sturdy support.

And *read these instructions* before proceeding!

# First:

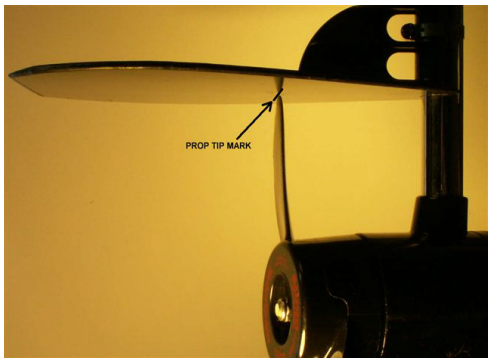
**Check the Cowl size:**

Hold the cowl in position on the motor shaft. If the Cowl extends more than three inches behind the tip of the prop blades, it can be trimmed to avoid excess drag and hitting the boat hull. It is much easier to trim and shape the Cowl before mounting it. Trimming the cowl is an extra step reserved for custom uses.

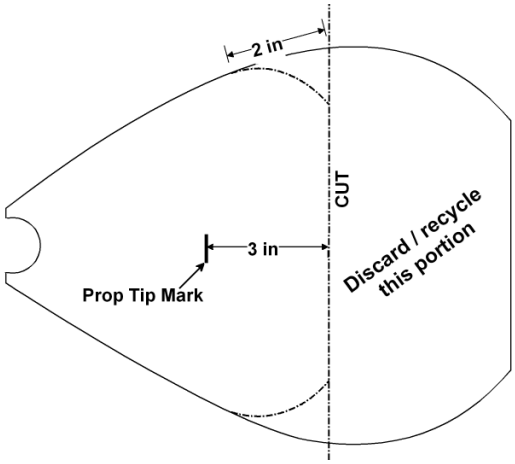
**To trim the Cowl to custom size (not required):**

NOTE: Do this step right! Custom-trimmed cowls *cannot* be returned on warranty.

Hold the Cowl against the motor shaft, align it with the motor, and make a mark where the prop tip hits the Cowl.

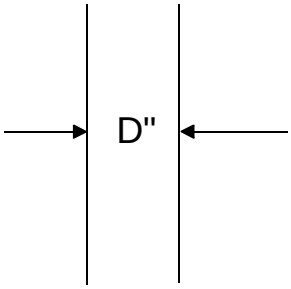



Then draw a straight line across the Cowl 3” beyond the prop tip mark. Cut the Cowl straight across on this line. Measure 2 inches forward of this cut on both sides of the cowl and mark curved lines approximately as shown in the diagram. Cut along these lines with the saw. After the trimming is satisfactory, sand off the corners of the side cuts. Sand the TOP of the rear cut back to a tapered edge like the factory original. A fine sandpaper may be used to smooth out the final finish.



# Second:

**Measure the motor shaft diameter (D).**




One inch (2.54cm) and 1-1/8 inch (2.86cm) are the common standard sizes. MotorGuide trolling motors usually have a one-inch metal shaft. MinnKota motors usually have a 1-1/8 inch composite shaft.

**Then follow the appropriate instructions below depending on shaft size:**

## Instructions for mounting on one-inch shafts:

**Wipe down the shaft to remove any dirt, grease, or oil.**

Unscrew the two stainless band clamps and remove them from the cowl bracket.

Remove the plastic tubular piece (it is made of ¾" PVC plastic plumbing pipe and may be re-used or recycled ).

Find the piece of 1/16" thick black flexible neoprene held underneath the tubing. The piece of sanding cloth is not needed and may be set aside.

**Attach the Neoprene Shim.**

Remove the backing sheet from the piece of neoprene to expose the adhesive layer. Carefully stick the adhesive side to the inside curved surface of the cowl bracket.

While holding the cowl against the motor shaft, replace one band clamp loosely. Tighten the band slightly so the cowl position can still be adjusted.

**Check Prop Clearance.**

If the cowl is too close to the prop tip, an annoying vibration will be produced by tip vortex at cruising speeds.

To reduce this vibration, position the cowl so it is about 1 inch above the highest point reached by the tips of the propeller. The width of a large thumb is a good measurement for most trolling props, or use a gap width 10 to 20% of the prop diameter to be scientific.

Tighten the band clamp a bit more when the prop clearance is about right.

**Install the Band Clamps.**

Install both clamp screws so they are in the openings of the bracket where they will create almost no drag.

**Final Alignment.**

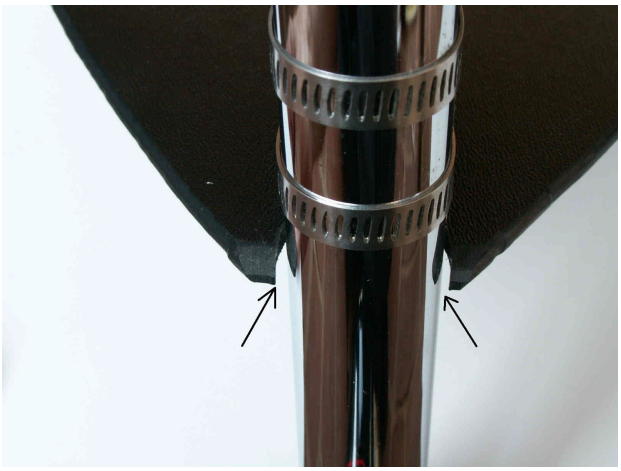
**CAUTION: Do NOT over tighten**.

Sight along the motor and align the cowl with the body of the motor. When the position is satisfactory, tighten the two band clamps fully. **Do NOT over tighten**. The threads of the clamps can be stripped! (12 in-lb is the maximum recommended fastening torque).

**Seal the Cowl to the Shaft.**

This sealing step prevents air being drawn through these two small openings and causing unnecessary prop noise when cruising.

Using a small amount of RTV Silicone or epoxy putty (not supplied), fill these 1/16" spaces between the cowl and the motor shaft. If the sealant is too liquid, use masking tape underneath to keep it from running. A toothpick or small nail makes a good tool to work the sealant into these cracks. Wipe off any excess. Allow to harden.



Trim off any excess portion of the neoprene shim and cured sealant material with a razor blade or other sharp knife.

## The cowl and motor are now ready to go.

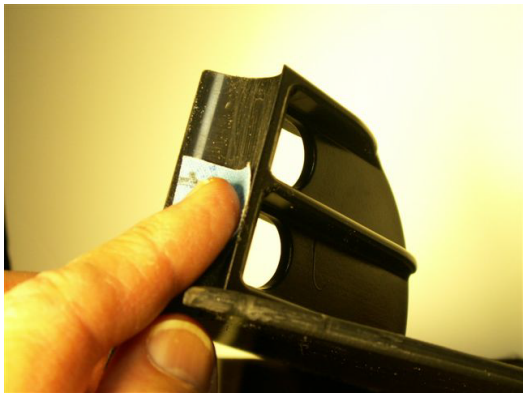
# Instructions for mounting on 1-1/8 (1.125)-inch shafts:

**Wipe down the shaft to remove any dirt, grease, or oil.**

Unscrew the two stainless band clamps and remove them from the cowl bracket.

Remove the plastic tubular piece (it is made of ¾" PVC plastic plumbing pipe and may be re-used or recycled).

The piece of black adhesive neoprene held underneath the PVC may be discarded or used elsewhere.



**Roughen the inner curved surface of the cowl bracket.**

Use the sanding cloth to break the surface glaze.

**Snap the cowl on to the motor shaft.**

Fasten it with a band clamp. Tighten the band slightly so the cowl position can still be adjusted.

**Check Prop Clearance.**

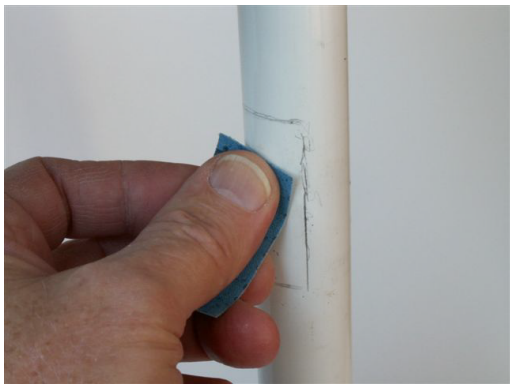
If the cowl is too close to the prop tip, an annoying vibration will be produced by tip vortex at cruising speeds.

To reduce this vibration, position the cowl so it is about 1 inch above the highest point reached by the tip of the propeller. The width of a large thumb is a good measurement for most trolling props, or use a gap width 10 to 20% of the prop diameter to be scientific.

**Mark the Bracket Position on the Shaft.**

Sight along the motor and align the cowl with the body of the motor. When the position is satisfactory, mark the location of the bracket.

Then slide the cowl up out of the way.



**Roughen the marked area of the shaft.**

Use the sanding cloth to break the surface glaze.

**Re-align the Cowl and clamp into place.**

**CAUTION: Do NOT over tighten**.

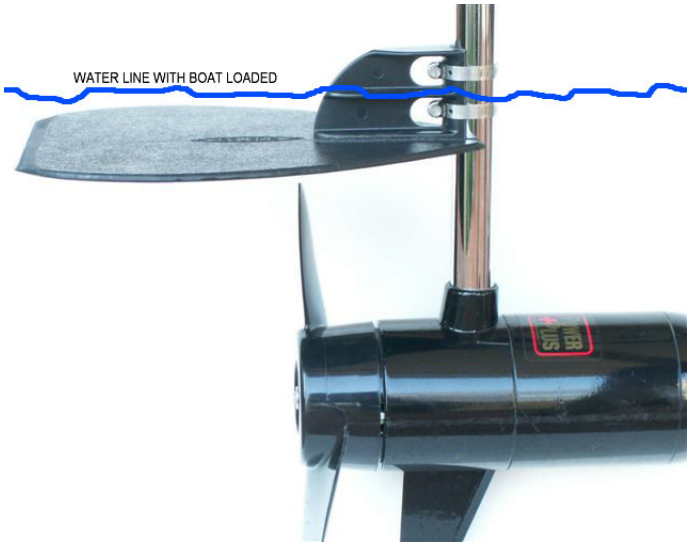
Slide the cowl back into its proper location and check to be sure alignment and prop clearance are correct. Install both clamp screws so they are in the openings of the bracket where they will create almost no drag. When the position is satisfactory, tighten the two band clamps fully. **Do NOT over tighten**. The threads of the clamps can be stripped! (12 in-lb is the maximum recommended fastening torque).

## The cowl and motor are now ready to go.

# Adjusting the SC-01 Propeller Cowl on the Water

**Note**: Carry a medium flat-blade screwdriver or 1/4" nut driver with you!

### Adjust the motor depth.

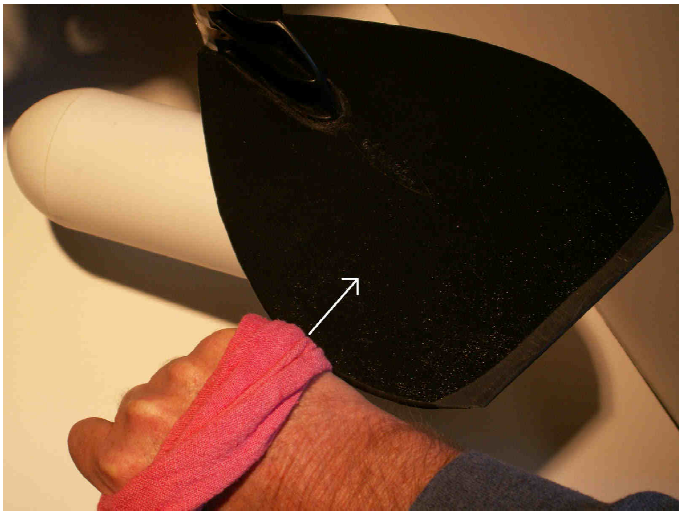



Load the boat with all supplies, batteries,and passengers.

For shallow water, set the motor depth so that the water line is about in the middle of the cowl bracket.

The motor can also be set an inch or two deeper to provide slightly more speed, and to better clear the bottom of the boat when steering.

### If the Cowl gets knocked out of alignment.



Hitting a snag, dock, or rock can push the Cowl out of alignment with the axis of the motor.

In this case, raise the motor up out of the water and use the blow from the edge of a fist (gloved or wrapped with a rag for protection) to rotate the Cowl back into position.

If the Cowl is very loose, re-tighten the Band Clamps carefully, **But do not overtighten!**

### To reduce prop vibration.

If the Cowl is too close to the propeller, an annoying vibration occurs at cruising speeds.

Raise the motor up, loosten the Band Clamps slightly, and move the Cowl Bracket up away from the prop (clearance should be 1 inch or more).

Recheck Alignment. Then re-tighten the Band Clamps carefully, **do not overtighten!**

The motor depth may have to be adjusted after this step.

## Happy Cruising -

**The Cowl will likely outlive the motor!**

To move the Cowl to another motor, order the eCanoe SC-01 **Remounting Kit SC-01-RK** Contains two band clamps, supplies, and instructions. See the eCanoe Store at www.ecanoe.net.