

Columbia Boat Alarms, Inc.

Canvas snap sensor Installation

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FIRST A LITTLE ALARM STRATEGY

Perimeter alarm protection is very desirable because we want to discourage a would-be intruder from boarding the boat.

There are two forms of perimeter protection with the Model 411 boat alarm, the flashing LED and canvas snap sensors. The flashing LED placed in plain view near an alarm sticker will alert an intruder that this boat is protected with an alarm system. The canvas snap sensors should be located where an intruder is most likely to open the canvas to enter the boat. Then as soon as the canvas is opened the alarm siren will go off. It is not possible for an intruder to observe which snaps are protected or even if they are protected.

An intruder most certainly will not reconnect the snap when the siren sounds. He will probably leave the area. For this reason the canvas snap sensors should be connected to alarm zone 1 (The two white wires on the alarm control). Alarm zone 1 will sound the siren only one time and then become inactive. Zones 2 and 3 still provide alarm protection.

Think of the canvas snap sensor as a switch that replaces the existing canvas snap stud. This switch is on when the canvas cover is snapped to the sensor. When the canvas cover is unsnapped the switch turns off causing the alarm control to sound the siren.

BEGIN INSTALLATION

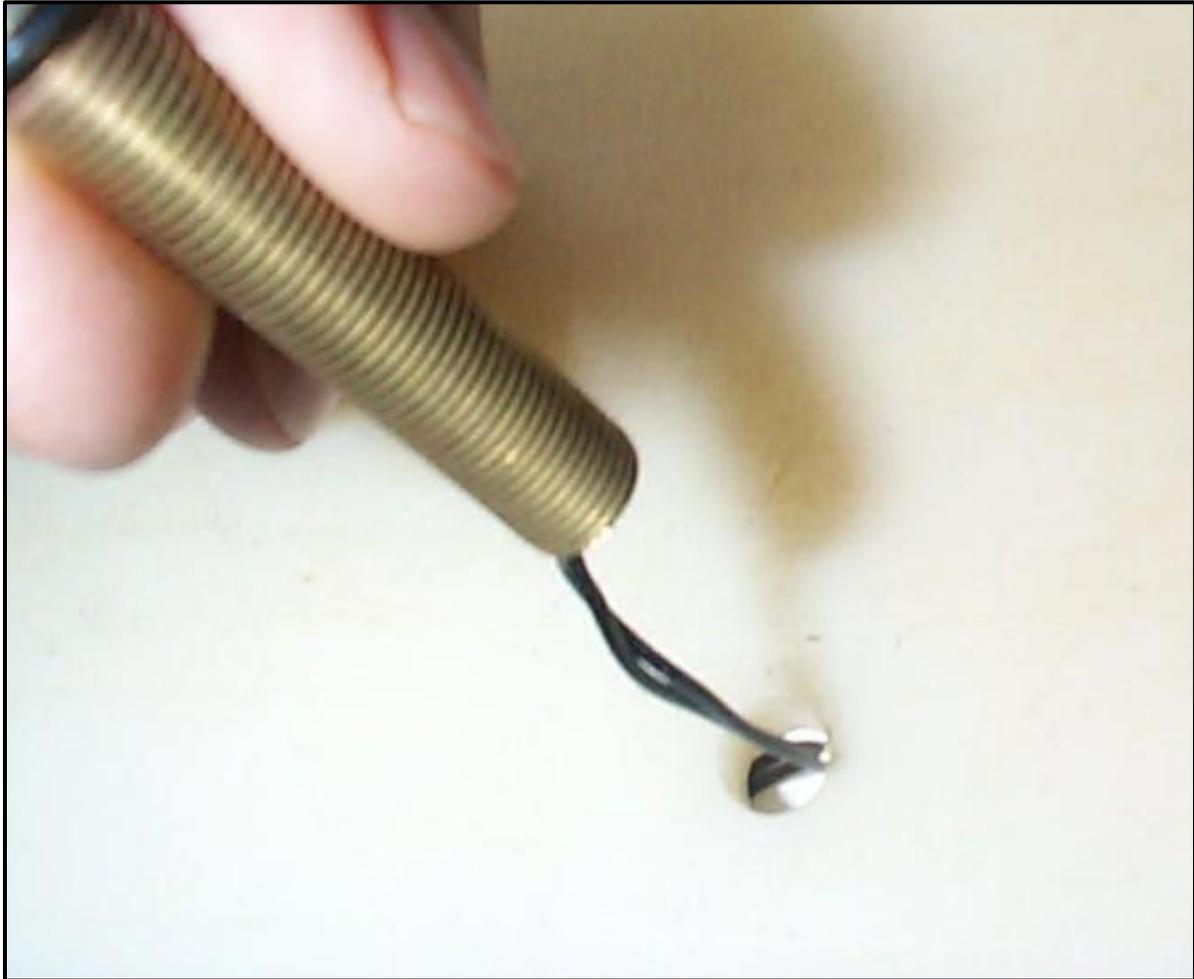
THINGS TO CONSIDER BEFORE STARTING

- 1. Review the **Columbia Boat Alarms, Inc. Recommended Wiring Procedure.****
2. Select the snap locations that an intruder would need to open before boarding the boat.
3. Carefully check to be sure the sensor wires and sensor retaining nut can be accessed.
4. What will be the wire route between the alarm control and the sensor?

Again check inside the boat to be certain of access to the back of the sensor to install the retaining nut and to connect the canvas snap sensor wires.

At the selected locations remove the existing canvas snap stud. The snap stud is frequently fastened with a screw or pop-rivet. The screw or pop rivet holes make excellent pilot holes for drilling the holes for the sensors. Carefully drill a 25/64" hole thru the boat at the location for the sensor. Drill perpendicular to the surface at the sensor location so the sensor will fit square and tight to the boat surface.

Remove the retaining nut from the sensor and insert the sensor through the hole as shown in the following photo. The O-ring remains on the stud.



After inserting the sensor into the hole secure the sensor with the nut on the threaded portion of the sensor stud. Tighten the retaining nut until the O-ring seals between the boat and the sensor stud. The next photo shows the backside of the sensor with the nut installed.



The canvas snap sensor stud is now mounted and should appear as shown in the next photo.



Repeat the above process until all the canvas snap sensor studs are installed. The next step is to place magnets in the canvas caps at the sensor locations. If a magnet is not in a cap when the cover is snapped to the sensor stud the alarm siren will sound one minute after the alarm has been activated. (One of the switches is open.)

A magnet will hold to a flat screw driver which makes it easy to place it inside the cap on the canvas. Note the next picture.



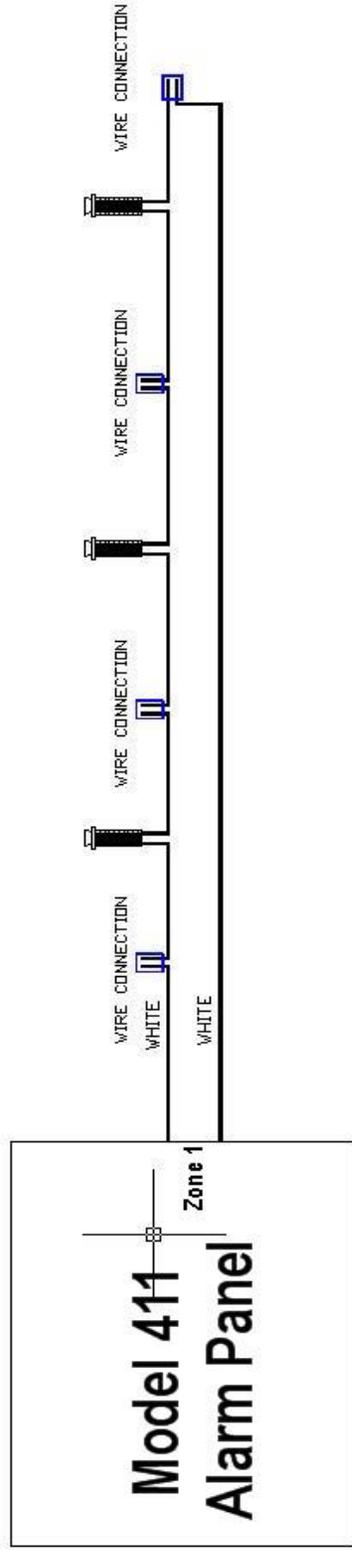
The magnet fits into the riveted cap. If the magnet will not fit into the hole on the inside of the cap, then replace the cap. Be careful not to over rivet the new cap and deform the hole inside of the cap. A 1/8th inch punch often works nicely to form the inside of the cap for the magnet. Use epoxy or super glue to hold the magnet inside the cap. Place a magnet in every cap that snaps onto a canvas snap stud.

The next step is to wire the sensors to the alarm control. The diagram below shows the sensors wired to zone 1 or the two white wires out of the control box. Other sensors such as the cable wrap can also be wired to zone 1. Many sensors can be wired in series to zone 1. The sensors added to zone 1 are wired in series.

A description on how to connect three sensors to zone 1 follows. Sensors on Zone 1 and zone 2 are connected in series.

First connect to one of the white wires. Then connect to the first wire on the first sensor. The second wire on the sensor connects to the first wire on the second sensor. The second wire on the second sensor connects to the first wire of the third sensor. The second wire on the third sensor returns back to the second white wire on the alarm control. Next is a schematic showing three sensors wired to zone 1.

Canvas Snap Sensors -- Wired to Model 411 alarm panels ZONE 1



**Only Zone 1 wires are shown in this diagram
Be Sure to Review the RECOMMENDED WIRING PROCEDURE**

Note: Canvas Snap Sensors can be wired to ZONE 2