

# Columbia Boat Alarms, Inc.

## Canvas snap sensor Installation Model 411 Alarm

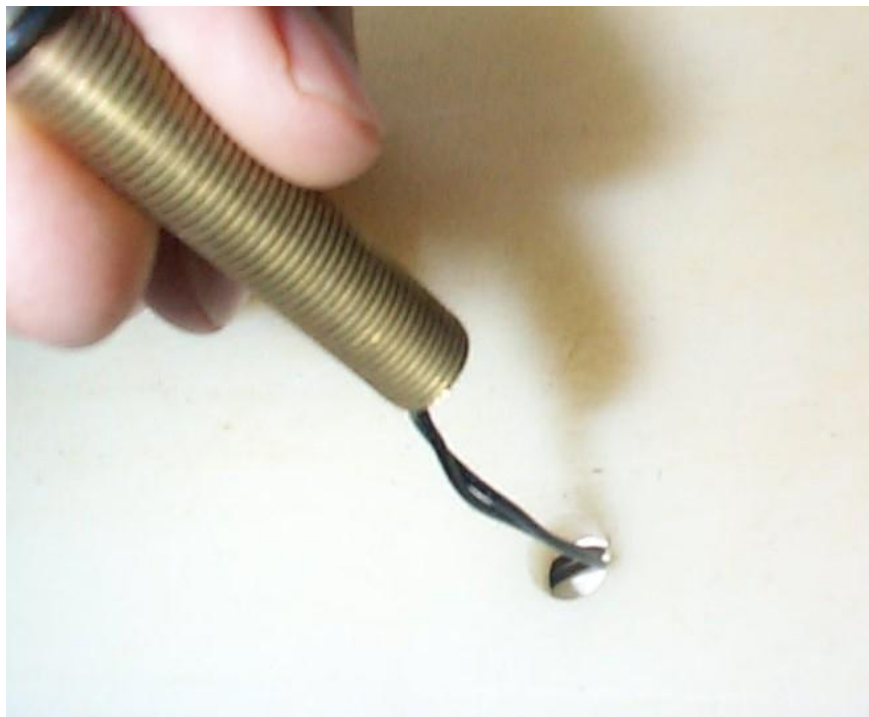
<http://www.columbiaboatalarms.com>

sales@columbiaboatalarms.com



## **Installation of the canvas snap sensor**

Canvas snap sensors are placed at locations where a burglar is most likely to unsnap the canvas and enter the boat. Two sensors are included in the alarm package. Additional sensors are available. Check inside the boat at the preferred locations to be certain of access to the back of the sensor to install the retaining nut and connect the wires on the canvas snap sensor. After selecting the final locations for the sensors remove the existing canvas snap stud. The snap stud is usually fastened with a screw or pop-rivet. The screw or pop rivet holes make excellent pilot holes for drilling new holes for the sensors. Carefully drill a 25/64" hole thru the boat at the location for the sensor. Remove the retaining nut from the sensor and insert the sensor through the hole as shown in the following photo.



**After inserting the sensor into the hole secure the nut on the backside of the sensor. Draw the sensor down until the O-ring is flattened under the stud. The nut mounts as shown in the next photo.**



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

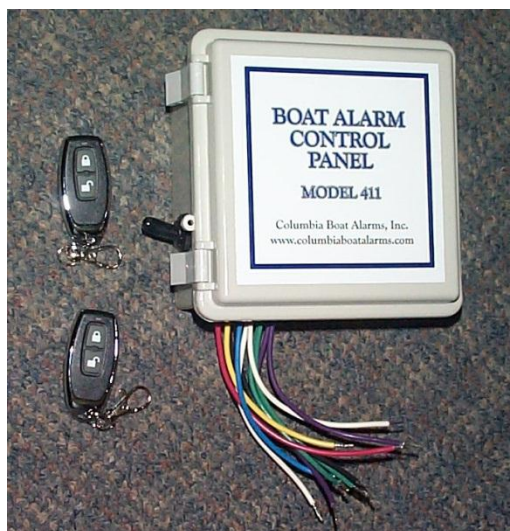


Repeat the above process for all the canvas snap sensors. A canvas snap sensor will alarm unless a magnet located in the snap cap is in place. The next step is to place a magnet in the canvas snap cap. With each sensor a small magnet is supplied which will fit inside the post hole left when the cap post is riveted to the snap socket. If the post was excessively deformed when riveting, it may be necessary to replace the snap cap and socket in the canvas cover. In the photo below please note how the magnet is inserted inside the riveted post hole. With the magnet on a screwdriver blade press the magnet inside the post hole and then slide the screwdriver away. The magnet is then glued in place with super glue. Note that the magnet will easily break if tightly gripped with pliers or hit with a hammer. The magnet is ceramic.



# Wiring The Model 411 Control to the Canvas Snap Sensors

A photo of the Model 411 alarm control



[Review the Recommended Wiring Procedure for this alarm before wiring canvas snap sensors to the Alarm Panel. Click to follow link.](#)

- The two white wires are alarm zone 1 which is a normally-closed alarm circuit.

After completing the Recommended Wiring Procedure for the Model 411 and testing the alarm zones, it is time to wire the canvas snap sensors.

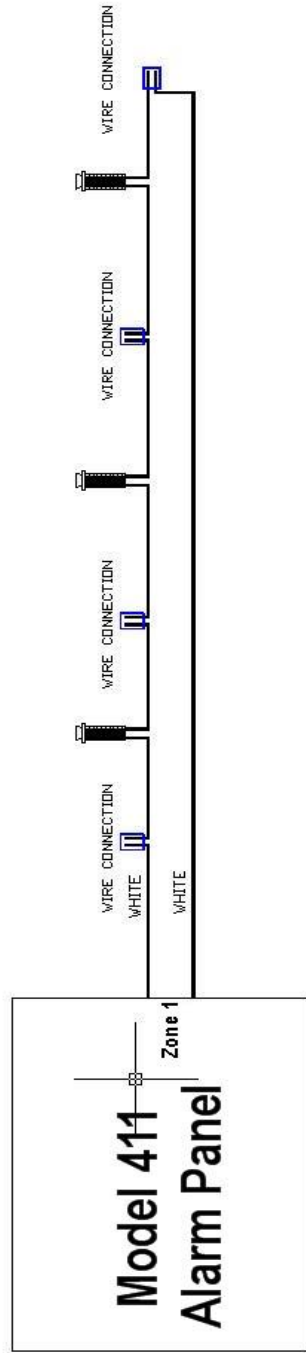
## **CONNECTIONS TO ZONE 1**

**Zone 1 is designed for use with the canvas snap sensors. Wind can cause canvas to unsnap and set off the alarm. But more important, an intruder will most likely run after he has unsnapped the canvas cover and the siren has howled. He probably will not re-snap the canvas. Zone 1 will not continually trigger the siren. The canvas snap sensor has done its job if the intruder has left without boarding the boat.**

**Also to avoid continual false alarms, zone 1 will trigger the siren only one time. The siren will sound for two minutes and then zone 1 becomes inactive. Resetting the alarm either with the key switch or the key fob will again set zone 1 active.**

**Zone 1 is a normally closed circuit. Snapping the canvas with the magnet in the cap to the canvas snap sensor closes the circuit. A wiring diagram for the zone 1 connections to the canvas snap sensors is shown below.**

## 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**

**The canvas snap sensors are wired to the two white Zone 1 wires. After completing the connection of the canvas snap sensors to zone 1 as shown in the diagram, temporarily connect the green wires of zone 2 together. Then lay a canvas snap sensor magnet on every canvas snap sensor that is wired to zone 1. Activate the alarm and wait one minute. The LED should be flashing and the siren silent. Remove a magnet from one of the canvas snap sensors. The siren should howl. The siren will run for two minutes, allow a couple more minutes to pass before de-activating the alarm. Zone 1 should now be inactive.**

**Zone 2 is a normally closed circuit. Door/ hatch sensors cable wrap sensors and any other normally closed sensor can be connected in series to zone 2. Connections to zone 2 are discussed in the cable wrap sensor and door/hatch sensor installation manual.**