



Using Your Needle/Vacuum Pump

To Add Air to a Touchpad

If your touchpad always sends a signal to the electronic swim timer, it is "shorted" and may need to have air added (vented) to it. Please consult the "Trouble Shooting Guide" in your Touchpad Manual, or call a Colorado Time Systems Customer Service technician (extension 256) at (970) 667-1000 or toll-free at 800-287-0653. If venting is recommended, follow these steps:

1) Air must be added to a touchpad while it is out of the water. **IMPORTANT:** Make sure the cable end of the touchpad is not splashed or doused with water while the adjustment is being made.

NOTE: DO NOT add air to the touchpad while the touchpad is in the water! If air is added to the touchpad while in the water, water may get inside the touchpad. This will ruin the touchpad.

2) Insert the touchpad plug into the test meter included with your system (see Figure 1).

3) Ensure that the orange rubber plug on the connector block is completely dry (see Figure 2).

4) Remove the needle from its receptacle on top of the touchpad meter. Ensure the needle is free of all burrs. A burr is a rough edge that can be removed by drawing the needle across a stone or concrete surface, rotating the needle as you move it.

5) Insert the needle into the center of the orange plug as far as it will go. **BE CAREFUL NOT TO PUSH THE NEEDLE TOO HARD.** Leave the needle in the orange plug until the red meter lights are off. Wait three seconds and remove the needle (see Figure 3).

6) If adding air to the touchpad does not result in the above meter reading, refer to the "Care and Maintenance" chapter of your Touchpad Manual.

NOTE: Never handle your touchpads by the cable. This includes when adding air to or releasing air from the pads.

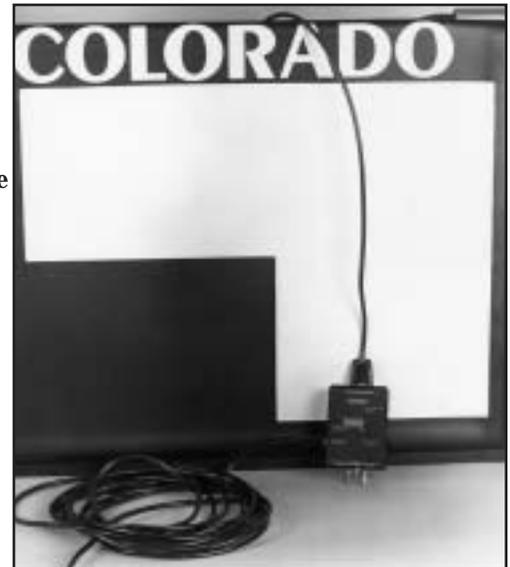


Figure 1: Touchpad Test



Figure 2: Connector Block

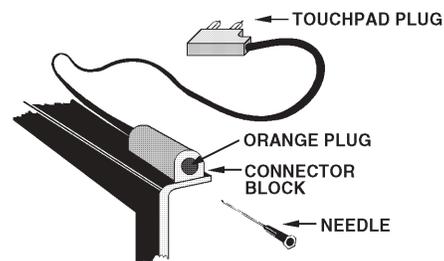


Figure 3: Touchpad venting instructions

To Release Air from a Touchpad

If your touchpad will not send a signal to the electronic swim timer while fingertip touched, it is "open" and may need to have air released (evacuated) from it. Please consult the "Trouble Shooting Guide" in your Touchpad Manual or call a CTS Customer Service Technician (extension 256) at (970) 667-1000 or at (800) 287-0653 for assistance. If evacuating is recommended, follow these steps:

- 1) Remove the touchpad from the water.
- 2) Insert the touchpad plug into the test meter included with your system (see Figure 1).
- 3) Ensure that the orange rubber plug on the connector block is completely dry (see Figure 2).
- 4) Identify the vacuum side of your pump. Looking at the bottom of the pump, the hose connected to the port at the bottom side of the molded arrow is the vacuum hose (see figures 3 and 4).

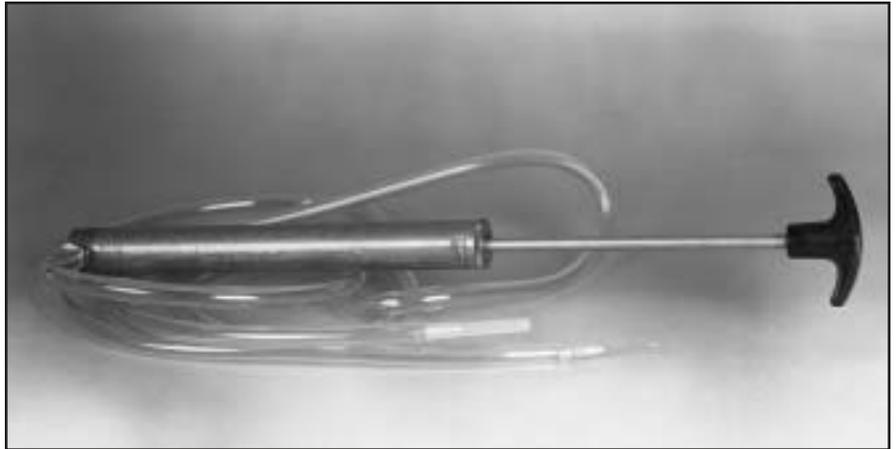


Figure 3: Vacuum Pump

- 5) Remove the needle from its receptacle on top of the touchpad meter. Ensure the needle is free of all burrs. A burr is a rough edge on the needle that can be removed by drawing the needle across a stone or concrete surface, rotating the needle as you move it.

- 6) Attach the needle to the clear plastic hose on the vacuum side of the pump.

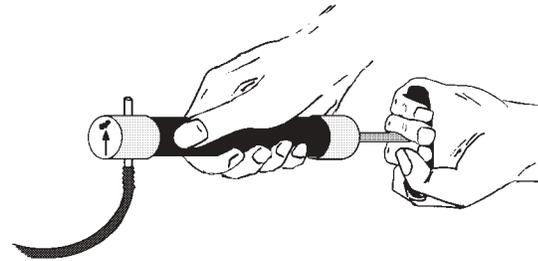


Figure 4: Vacuum Pump

- 7) Insert the needle into the center of the orange plug as far as it will go. **BE CAREFUL NOT TO PUSH THE NEEDLE TOO HARD.**

- 8) Hold the hand pump with arrow up. Using full even strokes, pump until the test meter lights up red completely from right to left. At this point, the touchpad switch mechanism is fully closed. Stop pumping and wait until the meter lights begin to go off from right to left. Wait five seconds and remove the needle from the orange plug.

NOTE: Place two or three drops of oil into the oil hole at the top of the pump to keep action smooth.

- 9) Replace the needle in its receptacle on top of the touchpad meter.

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