

Connecting a Misting Pump to the Ez400 I/O Output

You can drive your Misting system using the Ez400 I/O Output relay contacts. This supports timed misting, as well as Humidity regulated misting control. This allows all 4 of your AC lines to be available for use with lighting and heating devices. So, it is like getting a 5th output line!

The general procedure to connect a mister to the I/O output is to open up the “+” wire in the Power Supply DC output, and run it thru the Ez400 I/O Output relay Normally Open and Common contacts. One wire end connects to the “COMM”, the other wire end connects to the Normally Open “N.O.” contact.

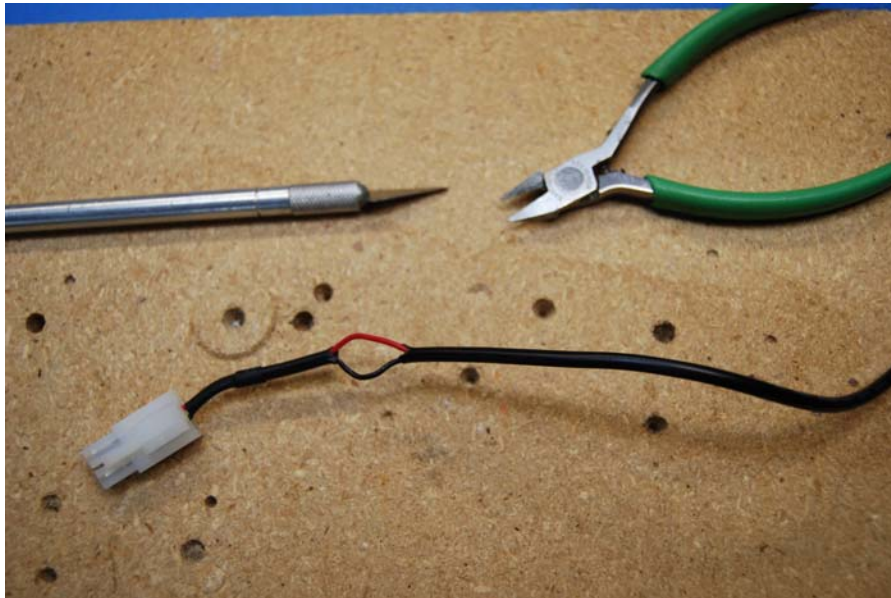
A complete Mister setup is shown below. Note the AC-DC power supply at the bottom, the Mister pump in the upper right, and the (optional) no-drip output solenoid in the upper left side.



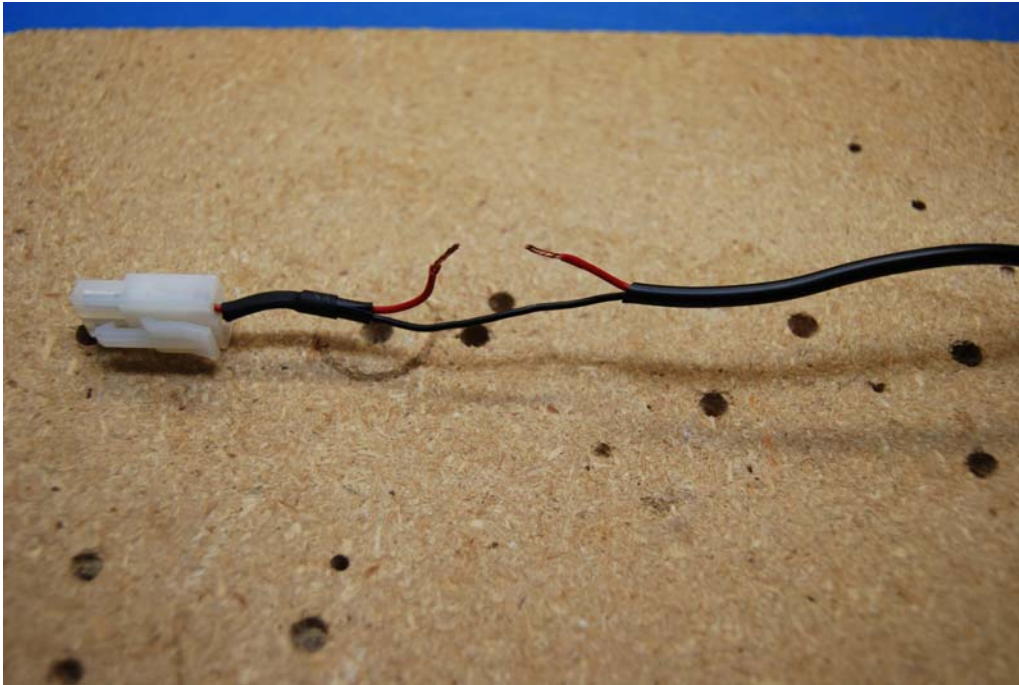
First, identify the DC output wire from the AC-Dc power supply. This is the end that connects to the mister pump, NOT the end that connects to the AC wall! The “+” output is usually color-coded either Red or White/Stripe. The “-” end is usually color coded black.



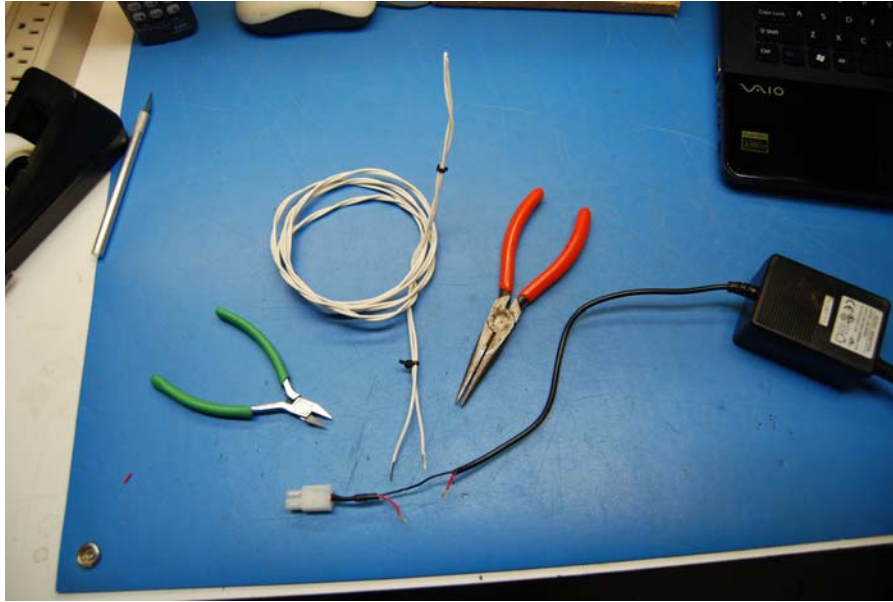
You may need to cut back the outer insulation to expose the positive wire. Do this carefully with a razor blade, try not to nick the underlying wire!



Next, break/cut the positive wire, and strip about $\frac{1}{4}$ " of insulation from each cut end. We will be attaching additional wire to these ends to extend the length and this is the break that will be switched open/closed by the Ez400 I/O output connector.



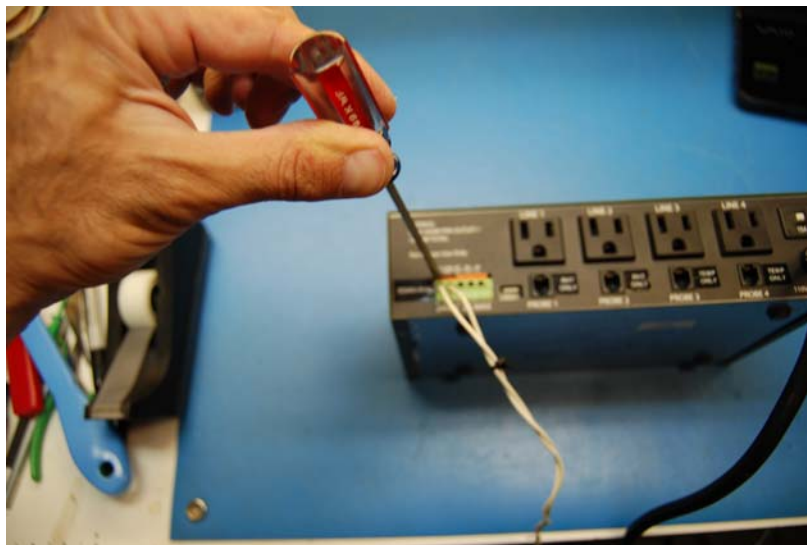
Obtain a length of wire approximately 10', cut into two equal 5' lengths. The actual length depends on how far the Ez400 is from your mister pump, but 5' is usually sufficient. You can go longer if needed. This wire will be used to extend the cut end of the AC/Dc power supply "+" output to the Ez400. Bundle the two lengths together for easier handling, as shown. Strip about 0.5" of insulation from each end of the wire. One end of the wire pair will be connected to the red wire DC power supply output. The other end will connect to the Ez400 I/O output relay contact.



Use wire nuts, or other connection method, to connect one end of the wire pairs to the free wires on the AC-Dc power supply output. See the grey wire nut connections below.



Now, you are ready to connect the other end of the wire pair to the Ez400! Make sure the wire ends are clean and if it is stranded wire, twist the end to keep the strands together. These wire ends will connect to the Ez400 I/O Output terminals “NO” and COMM”. Use a small flat screwdriver to push back the orange tab on the Ez400 I/O connector so that the wire ends can be inserted. Once the wire end is inserted, release the orange tab. Give the wire a “tug” and make sure it is secure.



After the connections are made, plug the AC end of the Mister power supply into any free outlet (not into the Ez400). The Ez400 will switch the mister AC/Dc power output only when misting is needed.

You can now set the Ez400 for any type of mister/humidity control – Timed Mister, Auto Mister, or Humidity control Mode. The I/O output will turn the mister on as programmed based on time and desired Relative Humidity settings in the Ez400. Plus, best of all, you will still have all 4 AC outlets free for use with other devices!