

# 1 **KOOLANCE** CTR-SPD1224M Installation Guide v 1.0



**CAUTION:** Improperly connecting the speed controller can damage it, the pump, or the power supply. Ensure that total device load does not exceed the maximum rating of the controller (36W@12VDC, 50W@24VDC). Ensure that the connected device will safely accept the voltage being supplied (12V or 24V depending on the jumper setting).

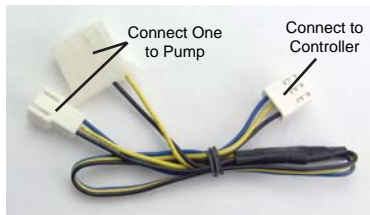
The Koolance CTR-SPD1224M uses voltage control to throttle speeds for 12VDC pumps or fans. With a jumper setting, it will also step-up and throttle voltage for 24VDC devices. CTR-SPD1224M requires a 12VDC input.

Do not operate components at voltages which exceed their specifications. Running a 12V-max pump at 24V from the speed controller can damage the pump.

To avoid damaging the speed controller, do not connect devices which exceed the controller's maximum power rating (36W@12V, 50W@24V).

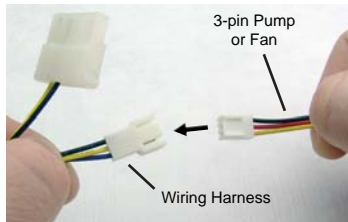


Power In (12VDC)      Power Out (Pump, Fan, etc.)



Wiring Harness

Use the wiring harness included with your speed controller. This will accept the pump or fan connection.



For 3-pin pumps or fans, connect this to the available plug on the wiring harness.

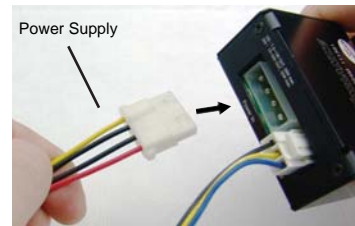
## 2

For pumps with larger Molex connectors, use the larger (2-wire, 4 position) connector on the wiring harness.



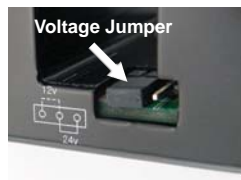
Connect the 3-pin plug from the wiring harness to the controller.

Finally, connect the power supply to the controller.



*Pumps with built-in control should be left on maximum speed*

Pump tachometer signals are not used by the speed controller. If your pump has an integrated speed knob, it should be left on the maximum setting when adjusting speed via the Koolance controller.



Voltage Jumper

CTR-SPD1224M has a jumper to select from 12V (max) or 24V (max) speed control.



**CAUTION:** Do not power 12V pumps or other devices with the 24V setting! This can permanently damage the attached device.