



### Sequence of operation

1. 120 vac from main panel to on/off switch. On/off switch closes.
2. 120 vac goes to contacts on 12 vdc relay.
3. With water present in out put side of water heater pipes, a ground is supplied to the coil of the 12 vdc relay and the relay closes.
4. 120 vac then goes through the contacts of the 12 vdc relay contacts to the ECO (electrical cut off)
5. From the ECO to the thermostat.
6. From thermostat to the coil of the 120 vac heater coil.

### 120 vac

1. From the main breaker panel, 120 vac travels to on/off switch with red light.
2. 120 vac connects to contacts on 12 vdc relay.
3. From contacts on 12 vdc relay to ECO.
4. From ECO to thermostat.
5. From thermostat to coil of 120 vac heater.

### 12 vdc

1. +12 vdc ( black wire) to one side of 12 vdc relay coil.
2. Ground (red wire) from 12 vdc relay coil to sensor in elbow of water heater out put pipe.