Fulton TECHNICAL DATA SHEET

Auxiliary (2nd) Low Water Cut Off Kit:
Low Water Cut Off Relay and Probe

FOR USE WITH:
Hydronic Boilers

OVERVIEW

The auxiliary (2nd) low water cut off (LWCO) kit is used in condensing hydronic boiler applications where the local authority having jurisdiction (AHJ) requires the use of a 2nd LWCO limit control. This kit includes a conductivity probe and UL 353 low water safety relay (LWSR).

KIT PART NUMBERS

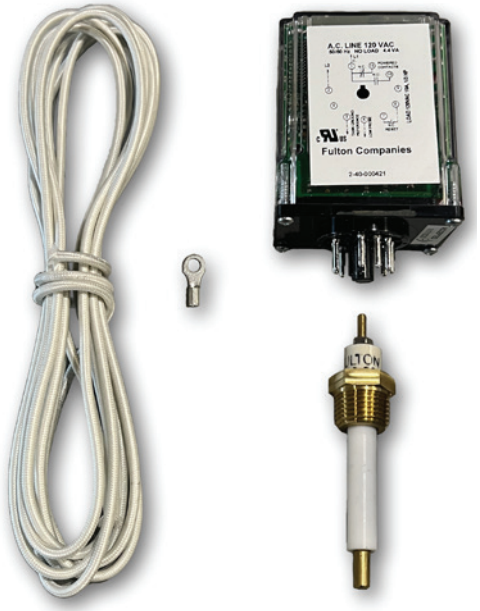
• EXE 399-750		4-30-420330
• EXE-1000-6000		4-30-421030
• EDR-750-2000		4-30-000330
• EDR+2500-6000		4-30-000430
• EDR+8000-12000	(2)	4-30-000330
• EZE-120-600		4-30-000530
• VTG-2000-6000		4-30-000330

SPECIFICATIONS

- Probe Thread: 1/2 inch NPT
- Probe Length: 3 inch (76 mm)
- Connection: Terminal Nut
- Wire: 16 AWG

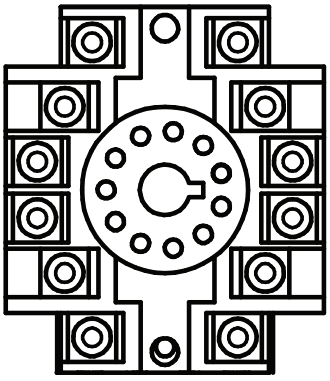
PROBE INSTALLATION

1. Ensure electrical and gas services to the boiler are disabled and allow the boiler to cool. Isolate the boiler water by closing the manual shut off valves and relieve the fill pressure using the safety valve.
2. Remove the plug from the auxiliary LWCO connection on the boiler. Refer to the 7-91 type product data submittal drawing specific to your equipment as this location will vary by type and model. Some models may not have an auxiliary LWCO connection and will require the use of a tee and reducing bushing prior to the shut off valve.
3. Apply thread sealant to the brass threads and install the conductivity probe in the open connection.
4. Connect one end of the wire to the probe using the ring terminal connector and run the wire to the boiler control.



RELAY INSTALLATION (DIN TYPE)

1. Connect the other end of the wire to terminal 6 or the associated terminal block of the LWSR2 base located in the boiler controls. Refer to the 7-53 type electrical schematic drawing for additional wiring instruction.
2. Remove the jumper wire from the LWSR2 base, refer to the 7-53 type electrical schematic drawing as this jumper location will vary by type and model.
3. Install the provided relay into the DIN rail base.
4. Test LWCO functionality per the instructions in the boiler Installation, Operation and Maintenance Manual.

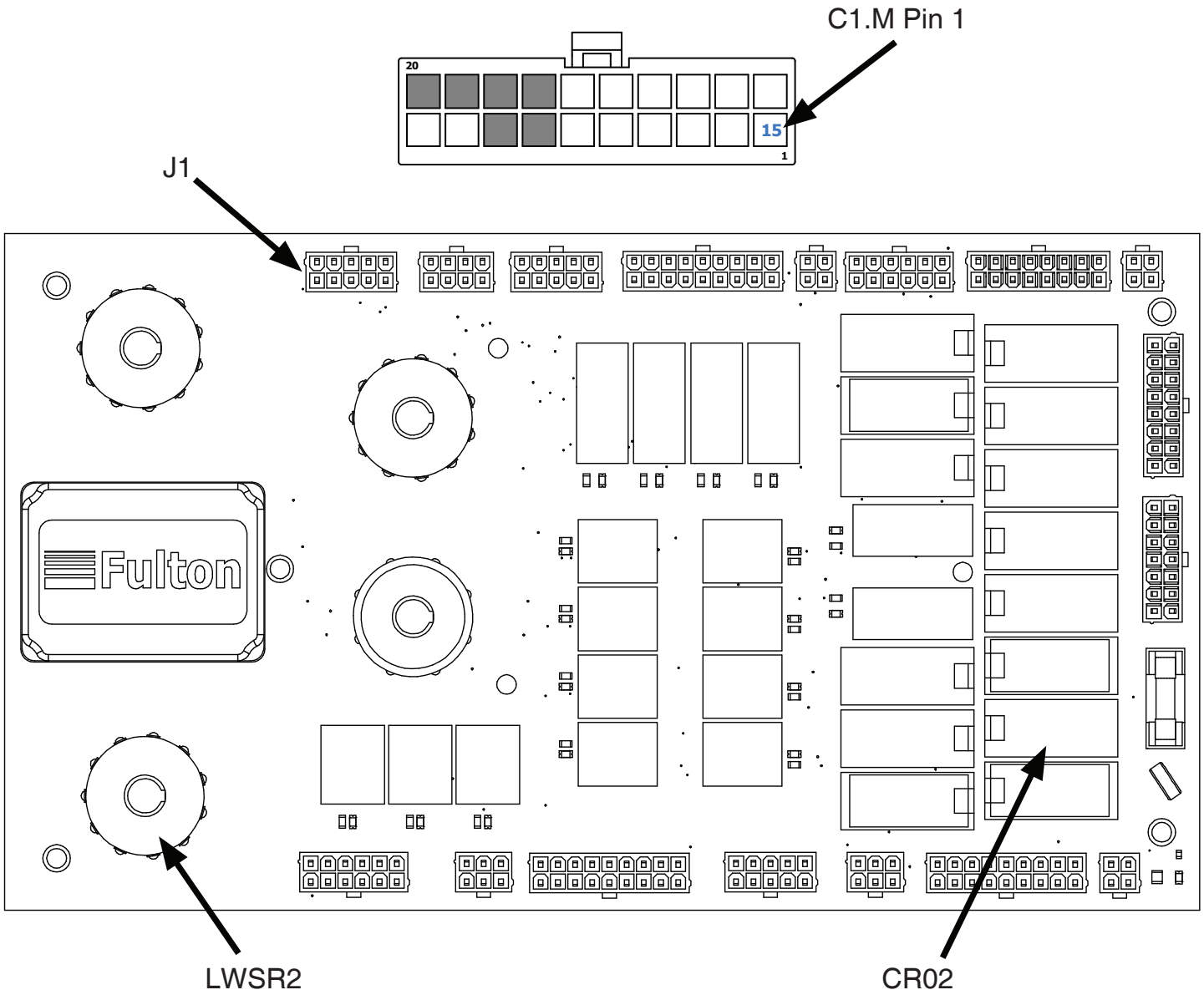


LWSR2 Base (DIN Rail Mounted Type, Location Varies)

Fulton practices continuous product improvement and reserves the right to change specifications and/or dimensions without notice. Always refer to the current documentation available for download on Fulton.com

RELAY INSTALLATION (SIB TYPE)

1. Connect the other end of the wire to Pin 1 of the C1.M molex plug located at the rear of the boiler controls enclosure. Refer to the 7-53 type electrical schematic drawing for additional wiring instruction.
2. Remove the factory J1 jumper plug from the SIB and replace with the provided J1 jumper plug.
3. Install the provided LWSR2 relay into the SIB.
4. Install the provided CR02 relay into the SIB.
5. Test LWCO functionality per the instructions in the boiler Installation, Operation and Maintenance Manual.



Signal Interface Board (Type, Orientation, Location Varies)