

ALL CONDUIT CONNECTIONS TO THE CONTROLLER ARE RECOMMENDED TO BE INSTALLED ON THE BOTTOM OF THE CONTROLLER. REFER TO THE ASSOCIATED DIMENSIONAL DRAWING FOR REFERENCE.

DRILLING OR INSTALLING CONDUIT ABOVE THE MICROPROCESSOR BOARDS MAY VOID WARRANTY.

All electrical connections shall meet national and local electrical codes and standards. Hubs used at the point of panel entrance must meet or exceed the NEMA rating of the controller per NFPA 70 Article 695

***If top penetration is the only option a minimum NEMA 4 hub shall be used. Please call RT Stearns before top penetrations are made 603-319-4171.**

1. The fire pump controller should be penetrated from the bottom or side
2. NEMA rated hubs shall be used at all entrance points into the fire pump controller. NEMA 2 rating for bottom and side penetrations. Myers is one manufacturer that we have seen used.
3. If there is no over current protective device (OCPD) installed before the fire pump controller on your service entrance conductors then there shall be a neutral wire installed from the power source to the back panel of the fire pump controller. This is the fault current path back to the source. There are multiple lugs provided in the controller.
4. If there is an OCPD installed before the fire pump controller it must be rated for locked rotor, be locked or monitored in the ON position, and be labeled to indicate FIRE PUMP DISCONNECT with 1 inch minimum block letters. *Locked Rotor is equal to 6 X Motor Full Load Amps.*
5. Conductor sizing should be based on 125% of motor full load PLUS the length of run of the wire to accommodate a maximum voltage drop of 15% of controller rated voltage at start and 5% of motor rated voltage when operating at 115%.
6. The fire pump controller cannot be used as a junction box to feed the jockey pump. Ideally the jockey pump should be fed from a building distribution panel. NFPA 70 / 695.5
7. To avoid arcing, Burndy or Polaris style connectors are preferred for the fire pump motor connections. Twist type or piercing type shall not be used per NFPA 70 / 695.6(J)
8. Service conductors shall be 2 hour protected by being buried or encased in 2" of concrete. If MI Cable is used to achieve 2 hour rating it shall not enter the fire pump controller per MI manufacturer and NFPA 70. Terminate MI Cable in a NEMA rated junction box outside of the fire pump controller and enter the FP Controller with normal conductors per MI Manufacturers Installation Guide.
9. Conduit for wiring from the controller to the fire pump motor shall be in rigid metal, intermediate metal, electrical metallic tubing, liquidtight flexible metal, or liquidtight flexible nonmetallic type LFNC-B conduit.
10. In the case of a back-up generator, please make sure the generator is fully operational for the fire pump flow test. Without the generator we will not be able to perform a complete acceptance test of the fire pump.
11. Also pertaining to a back-up generator installation, there shall be separate generator start wires run from the fire pump transfer switch to the generator. These start wires shall be in a separate conduit, independent of all other conductors and shall be 2 hour protected. NFPA70/695.14 (F)

