



**Specification
Diesel Engine Driven
Fire Pump Controller**

The fire pump controller shall meet the requirements of the most recent edition of NFPA20 and shall be listed by Underwriters Laboratories, Inc. and approved by Factory Mutual Research Corporation. The controller shall be (12 or 24 - select one) volts, negative ground and shall be field configured to be compatible with all listed diesel type fire pump engines. Controllers limited to specific models will not be acceptable.

The enclosure shall be NEMA Type 2 (Type 3R, 12, 4P, 4X Optional), lockable with breakable, transparent Mode Switch cover, suitable for floor or wall mounting. The enclosure shall be painted with a UL recognized corrosion resistant red, heat set, powder coat paint.

The following visual indicators and audible alarms will be provided:

AC Power ON	Engine Run	Engine Fail when Running
Automatic ON	Engine Fail to Start	#2 Charger Failure
Low Oil Pressure	Engine Over Speed	#2 Battery Failure
Engine Over Temp.	Controller Trouble	Weekly Test
Safety Shut Down	#1 Charger Failure	Deluge / Remote Start
Pump room Alarm	#1 Battery Failure	

Two sets of SPDT contacts will be provided for remote alarm of the following alarms: Engine Running, Engine Failure, Pump Room Trouble, and Controller Trouble

One set of DPST (one N.O. the other N.C) alarm contacts shall be provided for Switch Not in Auto.

The system will provide two battery chargers of a solid state design, 10 amps current limiting. Chargers shall be programmable for 12 and 24 volt operation and lead acid or NiCad batteries. Chargers will provide LED indication for the following items: Logic Power On, Bulk Rate, Overcharge Rate, Floating Rate, Charger Failure, Battery Failure, and AC Present.

The microprocessor based controller shall include a 14 day pressure recorder which can print out data points or graphical representations as required by the operator.

Internal plumbing and solenoid valve shall be rated for 500 PSI service.

A weekly programmable timer with LCD indication will be provided in the microprocessor to start and test the engine for 30 minutes once a week.

The controller shall include a safety shut down circuit to shut down the engine on “Low Oil Pressure” and “Engine Over Temperature” if the engine is running due to Weekly Test or AC Power Failure. An alarm will sound if this condition occurs.

The controller shall include a microprocessor based logic control panel with proven reliability. All components shall be clearly identified with diagram symbols as well as operational functions on the board. All plug- in relays shall be identical and interchangeable. LED’s for all engine functions will be provided. When the controller provides the appropriate signal to energize the specific engine terminal, the LED will illuminate. All terminals shall be clearly identified with terminal numbers and circuit functions.

The controller shall have an LCD annunciator panel with green backlighting. This display will have 4 lines of 20 Characters. The Top line will show Battery #1 Voltage, Current, and charger status, while the 2nd line will show same for Battery #2. Line 3 will show controller status, alarm conditions, and other information. Default is Date and Time. Line 4 shows pressure data, Cut In, Cut Out, and System Pressure values.

Controller shall have built in, programmable, Auto Shutdown Timer, Sequence Delay Start Timer, Weekly Test Timer, AC Power Fail Start Timer. Remote Start and Deluge Start are standard. Low Fuel Level Alarm is standard, sensor by others. All units utilize a solid state pressure transmitter for sensing line pressure.

Controller shall be a Joslyn Clark B10710 series diesel fire pump controller.