

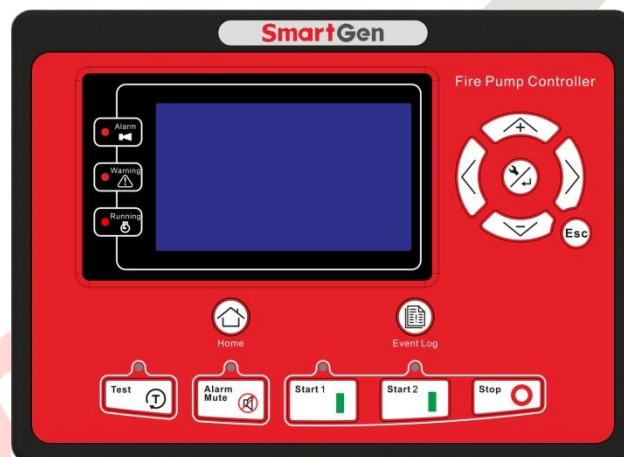


SmartGen
ideas for power

FPC915

DIESEL ENGINE FIRE PUMP CONTROLLER

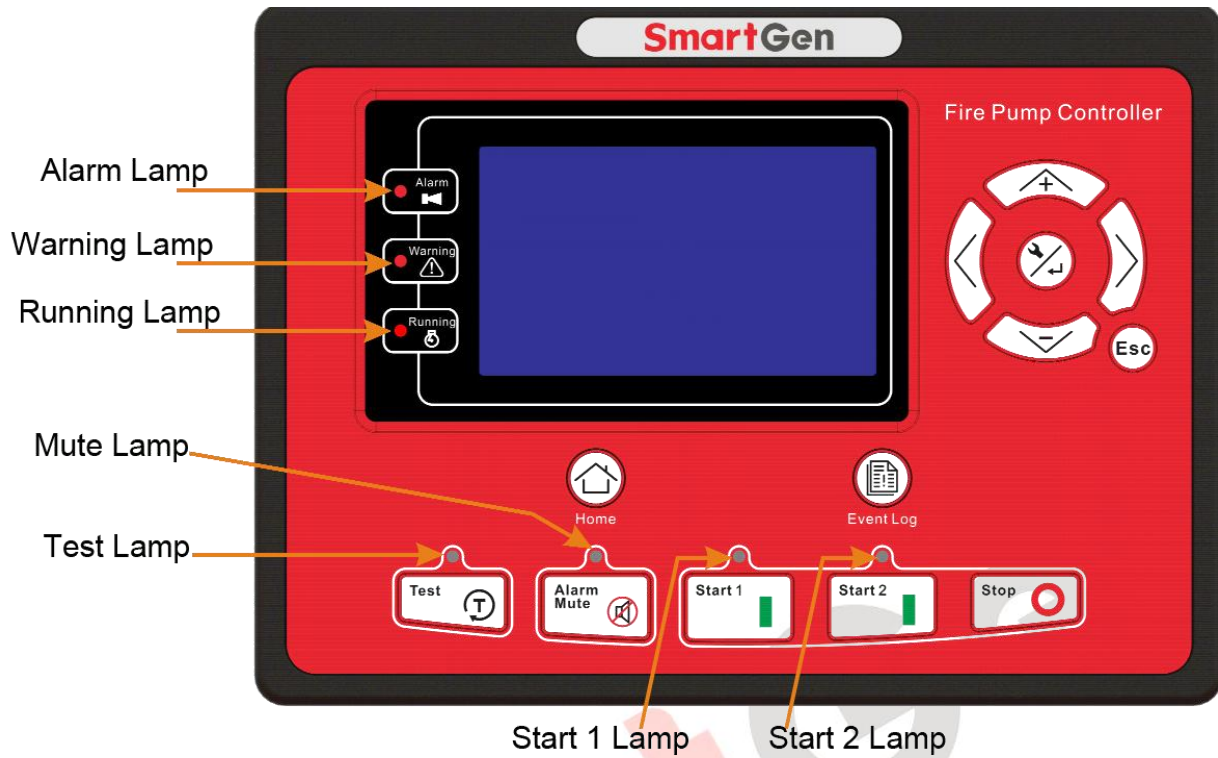
USER MANUAL



ZHENGZHOU SMARTGEN TECHNOLOGY CO.,LTD.

4 OPERATION

4.1 INDICATOR LIGHT



Note: Selected indicators description:

Warning indicator and Alarm indicator:

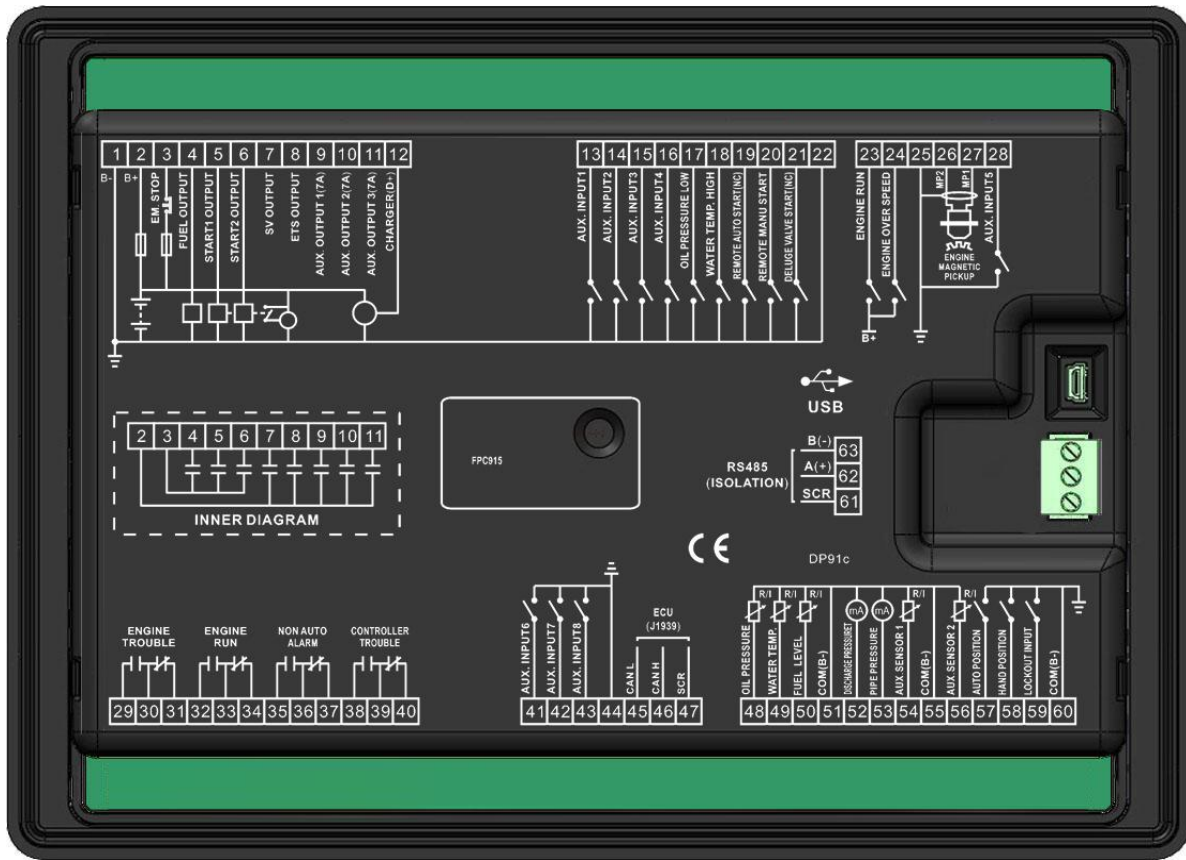
Alarm Type	Warning Indicator	Alarm Indicator
Warning	Slow flashing	Slow flashing
Shutdown Alarm	Off	Fast flashing

Running indicator: illuminated from crank successful to ETS while off during other periods.



6 CONNECTIONS

FPC915 controller back panel is shown below:



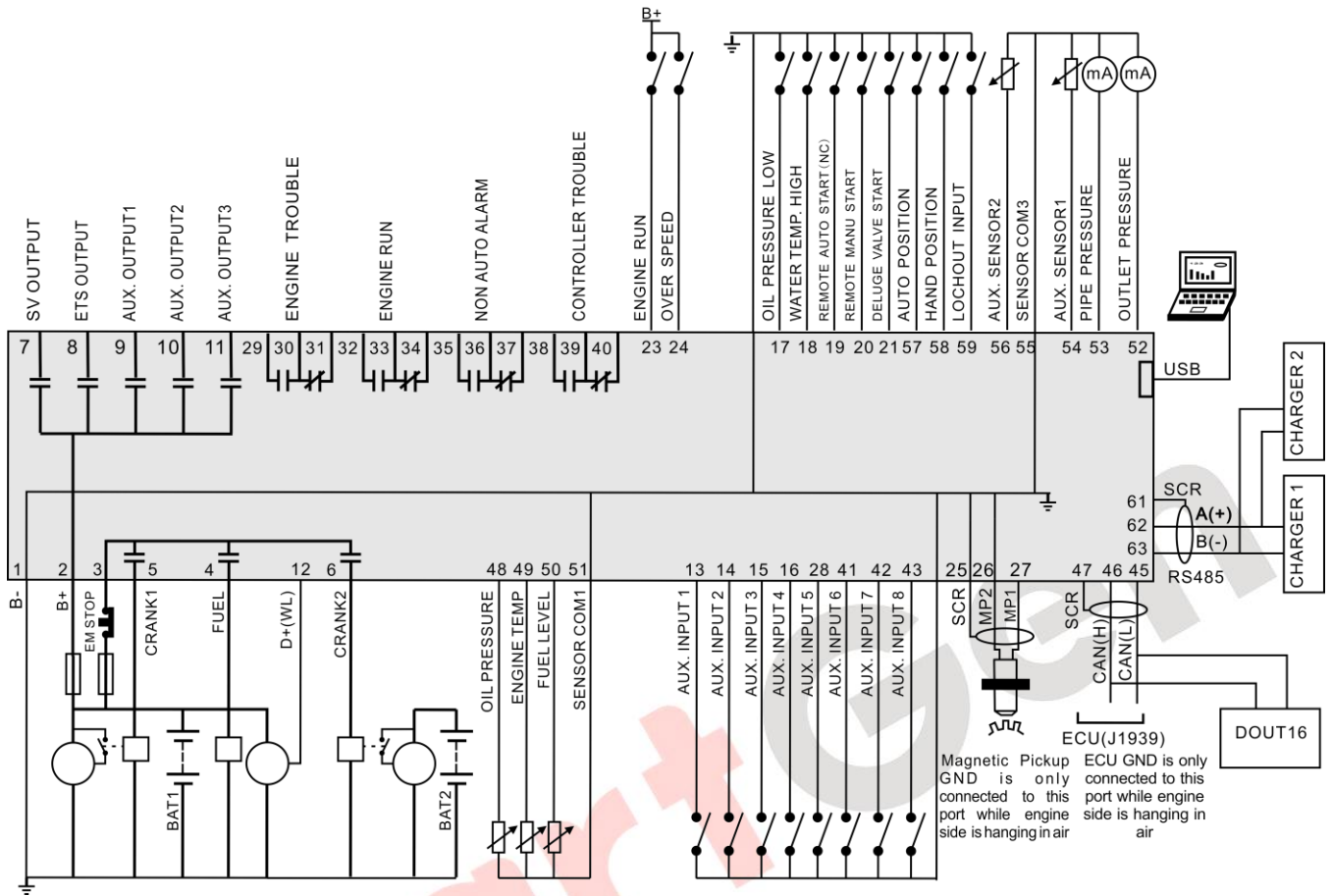
Description of terminal connections:

Pin	Function	Cable Size	Description	
1	B-	2.5mm ²	Connected with negative of starter battery.	
2	B+	2.5mm ²	Connected with positive of starter battery. If wire length is over 30m, better to double wires in parallel. Max. 20A fuse is recommended.	
3	Emergency Stop	2.5mm ²	Connected with B+ power supply via emergency stop button.	
4	Fuel Relay Output	1.5mm ²	B+ power is supplied by terminal 3, rated 16A	
5	Start Relay1 Output	1.5mm ²	B+ power is supplied by terminal 3, rated 16A	Control the starter via battery1.
6	Start Relay2 Output	1.5mm ²	B+ power is supplied by terminal 3, rated 16A	Control the starter via battery1.
7	SV Output	1.5mm ²	B+ power is supplied by terminal 2, rated 7A	
8	ETS Output	1.5mm ²	B+ power is supplied by terminal 2, rated 7A	
9	Aux. Output 1	1.5mm ²	B+ power is supplied by terminal 2, rated 7A	Details see form 2
10	Aux. Output 2	1.5mm ²	B+ power is supplied by terminal 2, rated 7A	

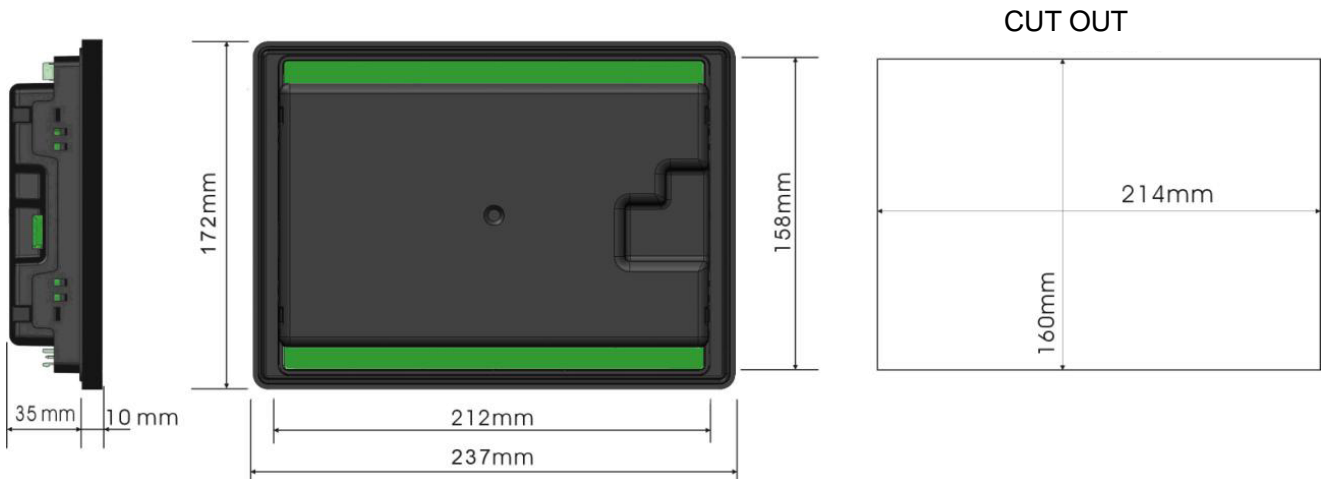


9 TYPICAL APPLICATION

FPC915 TYPICAL APPLIATION



10 INSTALLATION



Controller is panel built-in design; it is fixed by clips when installed.

1) Battery Voltage Input

NOTE: FPC915 controller can suit for widely range of battery voltage DC(8~35)V. Negative of battery must be connected with the engine shell soundly. The diameter of wire which from power supply to battery must be over 2.5mm^2 . If floating charge configured, please firstly connect output wires of charger to battery's positive and negative directly, then, connect wires from battery's positive and negative to controller's corresponding input ports in order to prevent charge disturbing the controller's normal working.

2) Speed Sensor Input

NOTE: Speed sensor is the magnetic equipment which be installed in starter and for detecting flywheel teeth. Its connection wires to controller should apply for 2 cores shielding line. The shielding layer should connect to shielding GND terminal in controller while another side is hanging in air. The else two signal wires are connected to MP1 and MP2 terminals, moreover, MP2 has already connected to B- innerly. The output voltage of speed sensor should be within AC(1~24)V (effective value) during the full speed. AC12V is recommended (in rated speed). When install the speed sensor, let the sensor is spun to contacting flywheel first, then, port out 1/3 lap, and lock the nuts of sensor at last.

3) Output And Expansion Relay

NOTE: All outputs of controller are relay contact output type. If need to expand the relays, please add freewheel diode to both ends of expand relay's coils (when coils of relay has DC current) or, add resistance-capacitance return circuit (when coils of relay has AC current), in order to prevent disturbance to controller or others equipment.