

Key Start 7200 Series Engine and Generator Controls



- Keyswitch operation for enhanced security
- Option for overspeed protection user selectable for magnetic pick-up or AC alternator driven
- Timed preheat
- Auxiliary position on Keyswitch
- Dual 12 & 24 V,DC power supply
- 2 options cover all parameters -
 - Standard model
 - Standard model with overspeed

Description

MANUAL START CONTROLLER WITH AUTOMATIC FAULT PROTECTION SHUTDOWN
The Keystart 7200 range, for the manual starting and stopping of a generator, pump or other engine driven application - with automatic monitoring and shutdown of the engine in the event of a monitored fault

Keyswitch Operation

Control of the keystart and engine is by a 4 position Key switch on the front facia.

- 0 Removes power from the keystart, stopping the engine and resetting any latched fault conditions.
- I Run Position. Energizes the keystart's RUN relay (enabling the engine fuel or ignition). The fault "override" timer begins as soon as the key is turned (or spring returns from crank) to this position. Once the engine is fully running the keystart monitors for faults and shuts down the engine if a fault is detected.
- II Start position. Maintains fuel to the engine, and activates the crank output (used for controlling the starter motor circuit). This position is spring-biased to return to the RUN position when the operator releases the key.
- III Provides a switched +V DC output, used for auxiliary control (remote power and cranking) of the Keystart.

The key is common to all keystarts and is removable only in the off position.

Product Specification

Power Supply:

Operating Voltages	7V,DC - 30V,DC
Brown Out / Cranking Voltage	5V,DC
Current Consumption	<100mA

Input:

Fault Switch Input	Close to -V
+V Input Defined As -	-1V to +1V With respect to -V,DC supply
Speed Sensing Inputs: -	
Magnetics Input	10-60V Peek - Peek 2000 to 6500Hz
Generator V,AC	70-300V,AC @ 50/60Hz








Outputs:

Run Relay	+dc NO contact, rated 1A @ 24V,DC
Start Relay (crank)	16A at 24V,DC
Auxiliary	16A at 24V,DC
Pre-Heat (timed)	+dc NO contact, rated 1A @ 24V,DC
Fault (alarm)	open collector NPN, rated 100mA max.

General:

Operating Temperature	-10 to +55°C
Panel Cut Out Size	68 x 68mm
Overall Dimensions	72 x 72 x 45mm
Weight	0.240Kg
EMC Emission / Immunity	EN 58801-2 / EN50082-2

The Front facia has 6 LED and pictogram indicators for the display of engine status: -

-  Green - Healthy - No faults present and power on
-  Amber - Pre-heat active for set time fuel relay deactivated.
-  Red - Low Oil Pressure
-  Red - High Engine Temperature
-  Red - Overspeed (Plant Fail 1 on non-overspeed versions)
-  Red - Charge Fail
-  Red - Plant Fail (Plant Fail 2 on non overspeed versions)

Control Outputs

The following are provided-

- Switched +v Run relay controlling the fuel circuit.
- Switched +v crank output controlling starter motor circuits.
- Switched +v timed pre-heat relay controlling pre-heat circuits.
- Switched +v auxiliary output controlling remote starting circuits.
- Switched positive transistorized common alarm output for remotely signalling a fault condition.

Fault Protection and Alarm System

After the operator has started the engine and the fault override timer has expired, the keystart monitors for engine and plant faults through remotely connected switch sensors.

Dedicated inputs are provided for Low Oil Pressure and High Engine Temperature switch sensors. On standard (non overspeed version), 2 extra plant fail inputs are included for user designated plant fail faults.

The Keystart Overspeed version, includes both alternator sensing (generator V,AC) and magnetic pickup sensing variants. A jumper on the rear allows the shutdown to be either magnetic pickup or alternator sensing.

NB Overspeed is not overridden by the override timer and monitors for overspeed immediately the engine starts. The automatic fault shutdown system operates on a first-up basis. Subsequent faults are locked out and not indicated. The displayed fault can only be cleared by switching the keystart to the "O", or removing the supply voltage.

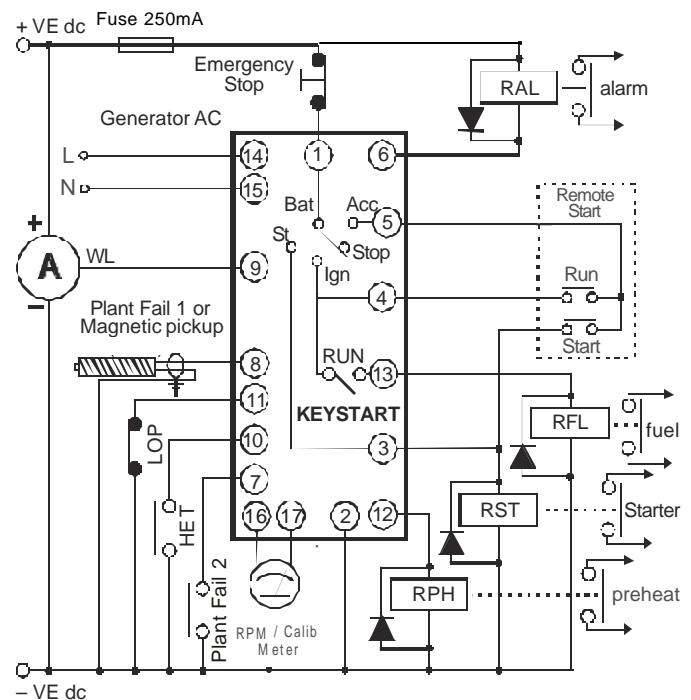
Calibration

Type	Span	Factory Pre-Sets
Magnetic Input	2000-6500Hz	3000Hz
Main Alternator sensing	50-60Hz	60Hz
Overspeeds	0 - 30%	10%
Override timer	0 - 20 Sec.	10 Seconds
Pre-Heat	0 - 20 Sec.	0 Seconds

Note: Overspeed versions are factory set for the Alternator sensing but are user selectable for magnetic pickup. Calibration is easily carried out on the engine using a 0-1mA,DC/75ohm meter. Unit is calibrated when the meter reading is 0.75mA,DC at normal running speed.

If in doubt, contact our technical department.

Electrical connection



How to order

When ordering, please specify -

Model	Description
Key7200	Standard version
Key7201	Overspeed version

North American Distributor - PC & S / Panel Components & Systems, Inc.		
149 Main Street Stanhope New Jersey 07874 Phone (800) 523 9194 Fax (973) 448 1674	213 Jespersen Avenue Spruce Grove Alberta T7X 2J1 Phone (877) 962 0557 Fax (780) 962 0557	8539 Monroe Road (Suite 104) Charlotte North Carolina 28212 Phone (704) 535 3357 Fax (704) 535 6288