

# Keystart 7201

## Engine and Generator Controller

ys6364  
revision B, 29<sup>th</sup> July 2005  
catalogue section 75



### Description

The Keystart 7201 provides manual start/stop and automatic fault protection for generators, pumps and other engine-driven applications.

Operator control is via a 4 position keyswitch on the front facia - see overleaf for operation details. The key is common to all Keystarts and is removable only in the Stop/Reset (O) position. Outputs are provided for the control of engine fuel (energised to run), starter motor and preheat. The Keystart also has an alarm output for fault warnings and a keyswitch-operated auxiliary output.

The front facia also features six LED and pictograms for indication of engine status and faults - details overleaf. Fault shutdown switch inputs (closed to negative on fault) are provided for engine low oil pressure, high engine temperature and auxiliary/plant fail. A fully adjustable engine overspeed shutdown, driven by magnetic pickup or generator AC, is also provided as standard. An 'alarm' (shutdown fault) output, charge alternator excitation and charge fail warning LED are fitted as standard.

Electrical connection is via ¼" blade terminals at the keyswitch rear and a removable, two-part type screw terminal block on the circuit board. The Keystart operates over a wide 7 to 30VDC power supply range, allowing use with 12 or 24VDC engine batteries. Engine cranking brown-out protection is fitted as standard.

The Keystart 7200 has an open-backed construction, designed for front-of-panel mounting in a DIN 68 x 68 mm cut-out.

### Warranty

A one year limited warranty on materials and workmanship is given with this product. Full details are available at [www.fwmurphy.co.uk/warranty](http://www.fwmurphy.co.uk/warranty)

- **Manual start/stop**
- **Keyswitch operation**
- **Timed preheat**
- **Automatic fault shutdowns**
- **Overspeed shutdown, magnetic pickup or generator AC**
- **72mm square DIN**

### Product specifications

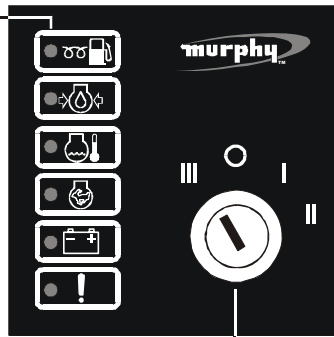
<b>power supply:</b>	
operating voltage:	7 – 30 VDC
steady state	5 VDC
brown out / cranking	< 100mA
current consumption	
<b>inputs:</b>	
fault switch inputs:	close to negative DC during fault
–ve input defined as:	–1V to +1V w.r.t. – ve DC supply
speed sensing inputs:-	
mag pickup/transducer	10 – 60 VAC peak, < 2000 to > 6500 Hz. default setting: 3000Hz
generator AC	70 – 270 VAC rms, < 50 to > 60 Hz., default setting: 50Hz
<b>outputs:</b>	
<i>(all ratings non-reactive)</i>	
run, preheat	positive DC, switched NO relay contact, 1 A max. @ 24V DC
start (crank), auxiliary	positive DC via keyswitch contacts, 16 A max. @ 24V DC
alarm (fault)	negative DC (open collector NPN transistor), 100mA max.
calibration/tacho	to suit 0 – 1 mA, 75 Ohm meter output = 0.75mA at rated engine speed
<b>adjustable settings:</b>	
preheat timer	0 to 20 secs, default setting 0 secs
fault override timer	2 to 20 secs, default setting 10 secs
overspeed trip level	100 to 130 % of calibrated speed, default setting 110%
<b>general:</b>	
overall dimensions (w x h x d)	72 x 72 x 45mm
panel cut-out size	DIN 68 x 68 mm
weight	240 g
operating ambient temperature	–10°C to +55°C
EMC emission/immunity	EN50081-2 / EN50082-2

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## Front facia and operation

### LED indication:-

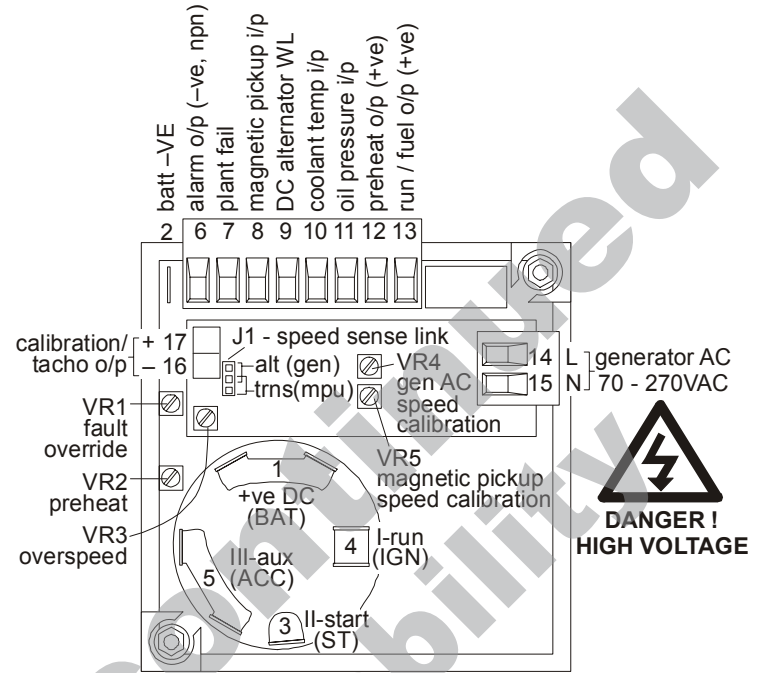
preheat on - amber	run (fuel on) - green
low oil pressure fault shutdown - red	high engine temperature fault shutdown - red
overspeed fault shutdown - red	charge fail warning - red
plant fail shutdown - red	



### 4 position keyswitch:

- Off/Reset.** Removes power, stopping the engine and resetting any latched shutdown fault.
- Run.** Activates the timed Preheat output (if enabled), followed by activation of the Run relay (turning on the engine fuel or ignition). The fault 'override' timer begins as soon as the Run relay activates. Once the engine is fully running, Keystart monitors for faults and shuts down the engine if a fault is detected.
- Start/crank.** Maintains the RUN output, and activates the START output. Shutdown fault inputs are disabled and the fault override timer is reset. This position spring-returns to I (run) on release.
- Aux.** Provides a switched positive DC output (pin 5), which allows use of auxiliary equipment or (with pin 4) remote control of the Keystart (see typical connection).

## Rear facia, connection and settings



## How to order

Stock code	Model / description
76.70.0339	KEY7201, 72mm Keystart with overspeed

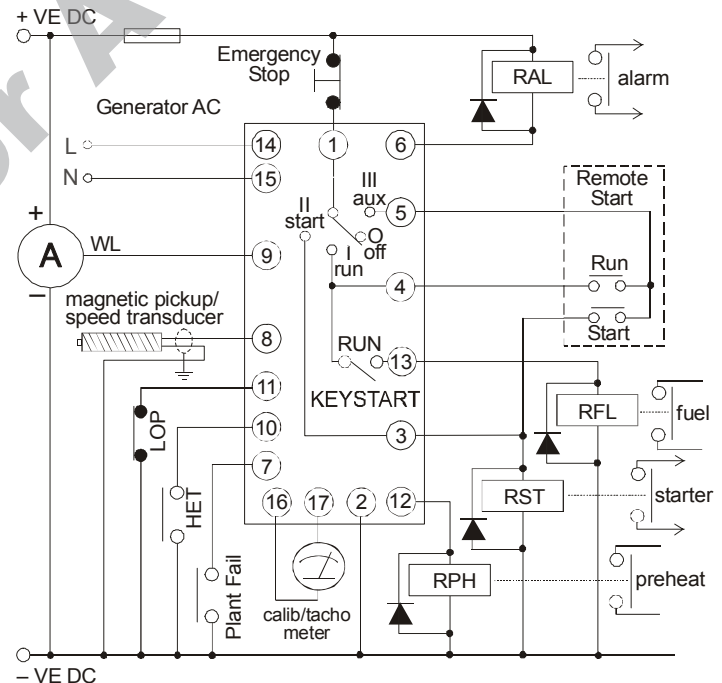
### Accessories:-

Magnetic pickup speed sensors – see bulletin ys6336

## Further information

Document	Description
yi6365	Keystart 7201 installation instructions

## Typical connection



**FRANK W MURPHY LTD.**  
 Church Road, Laverstock, Salisbury, SP1 1QZ, United Kingdom  
 tel: +44 (0)1722 410055 fax: +44 (0)1722 410088  
 email: sales@fwmurphy.co.uk web: www.fwmurphy.co.uk



USA - ISO9001:2000 FM 28221  
 UK - ISO9001:2000 FM 29422

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