

# OVERCRANK PROTECTION CONTROLLER



**OVERCRANK PROTECTION  
CONTROLLER – 12 VOLT**

12726



**OVERCRANK PROTECTION  
CONTROLLER**

11966



**OVERCRANK PROTECTION  
CONTROLLER – 24 VOLT**

12725

## Purpose & Benefits

The Muirhead® Overcrank Protection controller is designed to be installed into machines to protect the starter motor from overcranking.

The Overcrank Protection will stop the engine starter motor from being cranked for an excessive amount of time and provides a cooling down period between long cranking.

If a machine's engine is cranked (turned or wound over) and fails to start the continued cranking of the engine results in excessive heat and load on the starting circuit, resulting in damage or premature failure of batteries, starter motors and cabling. This decreases the life of machine starting circuits which in turn reduces machine availability and productivity.

The Muirhead® Overcrank Protection kit preserves the starting system by limiting the amount of time the engine may be cranked and locking out the start circuit to allow for system components to cool down. This in turn reduces flattening of batteries, and abuse of an engine's starting components which help to extend the life of the starting system as a whole.

The Muirhead® Overcrank Protection kit will provide a visual indication to the operator alerting them when a starting circuit is isolated. An override switch may be incorporated to allow maintenance staff to carry out servicing tasks without the start circuit being inhibited. Basic on machine configuration of both the crank time and start interlock periods, or advanced programming are available through a PC using the Muirhead® Programmable Controller Utility software package (PCU).

## Equipment Type

- ▶ All mobile equipment fitted with a starter motor.

## Target Customer

All operators of mobile equipment concerned with excessive reactive maintenance and unplanned operational expenses for battery, starter circuit/motor replacement. This includes equipment such as light vehicles, haul trucks, graders, dozers, fuel trucks and water trucks.

## Functionality

The Overcrank Protection controller will allow the operator to crank the vehicle for a maximum of 30 seconds (adjustable) after which the output is turned off. If the crank time exceeds 10 seconds (adjustable), there is a lockout period of 60 seconds (adjustable), before it can be cranked again. An LED (usually mounted in the instrument panel) will illuminate during the time to indicate that the start circuit is in lockout.

The bypass switch functionality has been designed so that maintenance staff can perform tasks without being inhibited by the overcrank protection controller. When the bypass switch is on, the controller will allow the operator to crank the vehicle for as long as necessary.

The timings mentioned above are the default time settings. The product manual's Calibrations section will provide instructions on how to change these timings

APN	HEAVY DUTY	IP65 CONTROLLER	KEY BASED OVERRIDE & LABEL	LED BLUE WARNING LIGHT & LABEL
12725	Y	Y	Y	Y
12726	Y	Y	Y	Y

### ADDITIONAL DOCUMENTS

PRODUCT  
ONLINE

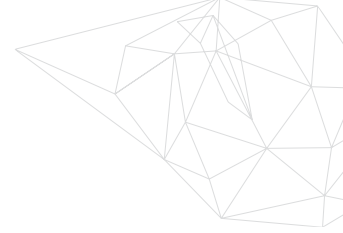


CUSTOMER  
DATASHEET



MANUAL





# PRODUCT OUTLINE SHEET

## OVERCRANK PROTECTION CONTROLLER

### Variations

Overcrank Protection controller can be sold by itself or as a kit.

- ▶ 12 volt kit for light vehicles, forklifts, etc.
- ▶ 24 volt kit for heavy equipment such as haul trucks, graders, excavators, shovel.

### Key Features

- ▶ Visual warning if in protection mode
- ▶ 12 or 24 V DC kits (reverse polarity protected)
- ▶ Environmentally sealed – IP65
- ▶ Ruggedised components for long life
- ▶ Simple on machine customisable time period adjustments
- ▶ Override switch for maintenance purposes
- ▶ Advance configuration via the Muirhead® Programmable Controller utility (PDU)
- ▶ Enforces safe operating practices
- ▶ User friendly
- ▶ Maximum 10 A continuous current output
- ▶ Analogue/ Digital inputs
- ▶ Digital output
- ▶ The controller can monitor input 1 to sense if the machine is running. This input will look for a frequency input above a pre-set threshold
- ▶ The controller will now entirely prevent cranking from occurring if it senses that the machine is already running

### Parts List

PARTS LIST – QUANTITY SUPPLIED

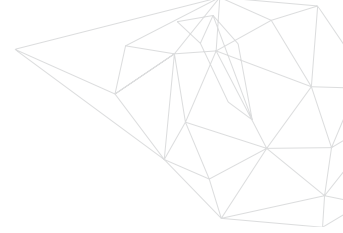
PART #	DESCRIPTION	12725	12726
11966	CONTROLLER OVERCRANK	1	1
1523	RELAY 12VDC 30AMP	-	1
2401	RELAY 24VDC 20AMP	1	-
12738	LOOM / HARNESS	1	1
12048	LABEL OVERCRANK WARNING	1	1
12049	LABEL OVERCRANK BYPASS	1	1
11981	RESISTOR 1WATT 1.2K OHM	1	1
11112	LED BLUE 12/24VDC	1	1
3543	KEY SWITCH HEAD STAY PUT L/H	1	1
9476	SWITCH BODY WITH 1 X NO	1	1

### Quoting & Pricing

Overcrank Protection kit pricing in Price List will include all of the components listed above in the Parts List. Spare or replacement parts can be ordered via the part numbers in the Parts List.

### Additional Documents

Item	Description	Document Number/Title
1	Datasheet	<a href="#">RCT-SBMH050717-Over-Crank-Protection-Kits</a>
2	Product Manual	<a href="#">M0879</a>



# PRODUCT OUTLINE SHEET

## OVERCRANK PROTECTION CONTROLLER

### Related Images

