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# UPS Protection Module

Installation and operating instructions



# English (US) Installation and operating instructions

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## 1. Limited Warranty

Products manufactured by Grundfos Pumps Corporation (Grundfos) are warranted to the original user only to be free of defects in material and workmanship for a period of 24 months from date of installation, but not more than 30 months from date of manufacture. Grundfos' liability under this warranty shall be limited to repairing or replacing at Grundfos' option, without charge, F.O.B. Grundfos' factory or authorized service station, any product of Grundfos manufacture. Grundfos will not be liable for any costs of removal, installation, transportation, or any other charges that may arise in connection with a warranty claim.

Products which are sold, but not manufactured by Grundfos, are subject to the warranty provided by the manufacturer of said products and not by Grundfos' warranty.

Grundfos will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair, or if the product was not installed in accordance with Grundfos' printed installation and operating instructions and accepted codes of good practice. The warranty does not cover normal wear and tear.

To obtain service under this warranty, the defective product must be returned to the distributor or dealer of Grundfos' products from which it was purchased together with proof of purchase and installation date, failure date and supporting installation data. Unless otherwise provided, the distributor or dealer will contact Grundfos or an authorized service station for instructions. Any defective product to be returned to Grundfos or a service station must be sent freight prepaid; documentation supporting the warranty claim and/or a Return Material Authorization must be included if so instructed.

Grundfos will not be liable for any incidental or consequential damages, losses, or expenses arising from installation, use, or any other causes. There are no express or implied warranties, including merchantability or fitness for a

particular purpose, which extend beyond those warranties described or referred to above. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages and some jurisdictions do not allow limitations on how long implied warranties may last. Therefore, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from jurisdiction to jurisdiction.

Products which are repaired or replaced by Grundfos or authorized service center under the provisions of these limited warranty terms will continue to be covered by Grundfos warranty only through the remainder of the original warranty period set forth by the original purchase date.

## 2. Safety Warning

### 2.1 Read this booklet

This booklet is designed to help a certified installer install, begin operation of and troubleshoot the Grundfos UP Series 200 pumps. The booklet should be left with the owner of the pump for future reference and information regarding its operation. Should the owner experience any problems with the pump, a certified professional should be contacted.

### 2.2 Electrical work

All electrical work should be performed by a qualified electrician in accordance with the latest edition of the National Electrical Code, local codes and regulations.

## 3. Symbols used in this document

### WARNING!



**Before removing the terminal box cover, make sure that the electrical supply has been switched off and that it cannot be accidentally switched on.**

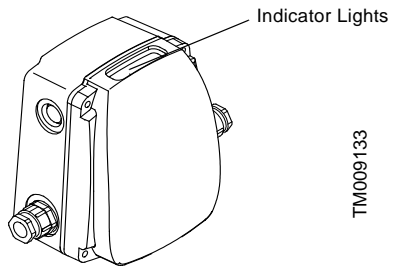
## 4. Fitting Instructions

When fitted with a protection Relay Module, the pump can be connected directly to a starter switch as it will be protected by the built-in overload protection at all three speeds. The protection module incorporates two indicator lights, see fig. 1

1. Switch off the electrical supply to the pump by means of the external power switch. The green indicator light on the terminal box must be off.
2. Remove the terminal box cover.
3. Remove all wires from the terminal block.

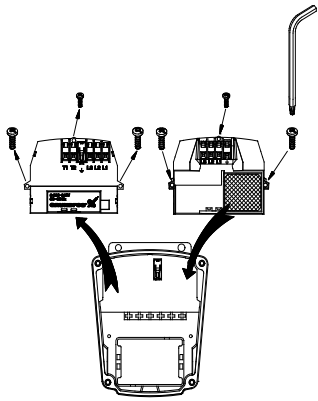
4. Replace the existing module in the terminal box by the new one, see fig. 2.
5. Replace the wiring diagram in the terminal box cover by the diagram supplied with the module, see fig. 3 (bottom of page 2).
6. Connect the supply wires as shown in fig. A (bottom of page 2).
7. Fit the terminal box cover.
8. Switch on the electrical supply. Check correct connection by means of the indicator lights, see the table below.

Indicator Lights		Description
Green	Red	
Off	Off	The pump has been stopped. The electricity supply has been switched off.
On	Off	The pump is operating.
On	On	Three-phase pumps only: The pump is operating, but the direction of rotation is wrong.
Off	On	The pump has been cut out by the thermal overload switch.



TM009133

Fig. 1 Terminal Box & Cover



TM014440

Fig. 2 Terminal Box/Module Replacement

## 5. Fault Finding Chart

Fault	Cause	Remedy
The pump does not run. None of the indicator lights are on.	One fuse in the installation is blown.	Replace the fuse
	External power supply is off.	Switch on the power supply. Check feeder panel for tripped circuit.
The pump does not run. The green indicator light is on.	Rotor blocked, but the pump has not been cut out by the thermal overload switch.	Switch off the electrical supply and clean/repair the pump.
The pump does not run. The red indicator light is on. The green indicator light is off.	The pump has been cut out by the thermal overload switch due to high liquid temperature or blocked rotor.	Check that the liquid temperature falls within the specified range. The pump will restart automatically when it has cooled to normal temperature.
The pump is running. The red indicator light is on. The green indicator light is on. (Three-phase only)	The pump is running with wrong direction of rotation (only three-phase pumps).	Switch off the electrical supply by means of the external switch and interchange two phases (leads) in the terminal box.
	Air in the system.	Vent the system.
Noise in the system. The green indicator light is on.	The pump flow is too high.	Reduce the pump performance (change to lower speed).
	The pressure is too high.	Reduce the pump performance (change to lower speed).
Noise in the pump. The green indicator light is on.	Air in the pump.	Vent the pump.
	The inlet pressure is too low.	Increase the inlet pressure and/or check the air volume in the expansion tank (if installed).
Insufficient heat in some places in the heating system.	The pump performance is too low.	Increase the pump performance (change to higher speed) if possible, or replace the pump with a pump of a higher flow.

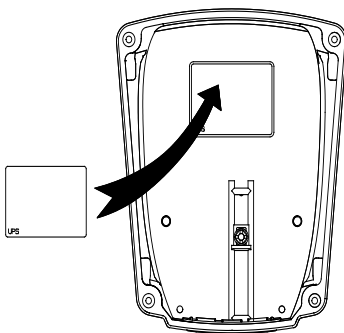


Fig. 3 Terminal Box Cover

TM010156

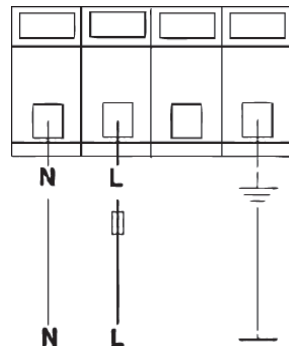


Fig. 4 Wire Terminals

TM051597

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<b>L-UP-TL-003</b> 08.11	<b>US</b>
Repl. L-UP-TL-003 09.99	

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