## 7. Limited Warranty

Products manufactured by GRUNDFOS PUMPS CORPOR-ATION (GRUNDFOS) are warranted to the original user only to be free of defects in material and workmanship for a period of 18 months from date of installation, but not more than 24 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 which 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 altera-tion or repair, or if the product was not installed in accordance with GRUNDFOS' printed installation and operation instructions.

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 sup-porting installation data. Unless otherwise provided, the distributor or dealer will contact the GRUNDFOS factory or authorized service station for instructions. Any defective product to be returned to the factory or service station must be sent freight prepaid; documentation supporting the warranty claim and/or a Return 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.



L-UP-TL-028 Rev. 12/99 PRINTED IN USA

## REPLACEMENT KIT TERMINAL STRIP AND CAPACITOR

UP SERIES CIRCULATORS

## **Installation Instructions**





### 1. PRE-INSTALLATION CHECK LIST

Before beginning installation procedures, the following checks should be made. They are important for successful installation of the terminal strip and capacitor replacement kit.

Be sure that the proper kit is used. Check that the kit has the same voltage as the existing UP circulator (refer to table 1). If the circulator to be repaired has suffered water damage to the stator it cannot be repaired and must be replaced. If the cartridge assembly (rotor, bearings and impeller assem-

If the cartridge assembly (rotor, bearings and impeller assembly) has been damaged, it must be replaced with the proper replacement kit or entire pump

# Table 1. Terminal Strip Kit

UP15	UP26
595423	525276
UP15-10B5/B7 115v	UP25-64SU/SF 115v
UP15-10BUC5/BUC7 115v	UP26-64F 115v
595424	525277
UP15-18B5/B7 115v	UP26-96F/BF 115v
UP15-18BUC5/BUC7 115v	UP26-99F/BF 115v
UP15-20SPA 115v	UP26-99B7 115v
UP15-18SU/SF 115v	UP43-75F/BF 115v
UP15-42B5/B7 15v	UP50-75F 115V
UP15-42BUC5/BUC7 115V	
UP15-42SU/SF 115v	
595425	525278
UP15-18B5/B7 230v	UP25-64SU/SF 230v
UP15-18SU/SF 230v	UP26-64F 230v
UP15-20SPA 230v	UP26-96F/BF 230v
UP15-42B5/B7 230v	UP26-99F/BF 230v
UP15-42SF/SU 230v	UP26-116F 230v
	UP43-75F/BF 230v
595426	UP50-75F 230v
UP15-42 BRUTE II 115v	
595427	
UP15-42 BRUTE II 230v	

## 2. SHOCK HAZARD



Switch off the electrical power supply to the pump. WARNING: Never make any connections in the pump terminal box unless the electrical supply has been switched off.

### 3. REPLACE PARTS

- 1. Switch off power to the pump.
- 2. Remove terminal box screws and cover.
- 3. Disconnect circulator leads from incoming power leads.
- 4. Remove capacitor from holder.
- 5. Remove green grounding screws.
- 6. Remove metal capacitor holder.
- Remove terminal.
- 8. Reverse steps to reassemble.

#### 4. ELECTRICAL

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.

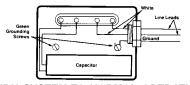
## Warning:

The safe operation of this pump requires that it be grounded in accordance with the National Electrical Code and local governing codes or regulations. The ground wires should be copper conductor of at least the size of the circuit conductor supplying power to the pump. Minimum ground wire size is 14 AWG. Connect the ground wire to the grounding point in the terminal box and then to an acceptable ground. Do not ground to a gas supply line.

The proper operating voltage and other electrical information can be found on the nameplate attached to the top of the motor. Depending on pump model, the motor has either built-in, automatic resetting thermal protection or is impedance protected and in either case does not require additional external protection. The temperature of the windings will never exceed allowable limits, even if the rotor is locked.

Wire sizes should be based on the ampacity (current carrying properties of a conductor) as required by the latest edition of the National Electrical Code or local regulations. Both the power and grounding wires must be suitable for at least 194°F (90°C).

For all 115V and 230V models: Connect the white electrical leads from the circulator to the incoming power leads with wire nuts or other approved connectors. Attach incoming grounding wire to either of the green grounding screws.



#### RETURN SYSTEM TO NORMAL OPERATION

Restore power to the pump and ensure that it operates quietly.