# Field service handbook

Model R-20 circulation pump. Sample document: the table of contents and one cross-reference below were saved before the last round of edits.

## Contents

1 Before you start ..... 1

1.1 Safety ..... 1

1.2 Tools ..... 1

2 Setup ..... 2

2.1 Mounting ..... 2

3 Maintenance ..... 3

# 1 Before you start

## 1.1 Safety

Switch off the supply at the isolator and lock it before you open the case. Wait five minutes for the capacitors to discharge.

## 1.2 Tools

You need a 10 mm socket, a torque wrench set to 12 N m, a multimeter and the service key supplied with the unit.

# 2 Installing the unit

## 2.1 Mounting

Fix the bracket to a solid wall with four M8 anchors, 300 mm above the floor. Hang the unit on the bracket and tighten the two locking bolts.

## 2.2 Connecting

Connect the supply cable to terminals L, N and earth. Before you switch on, read the codes under Error codes on page 4: the unit shows one of them if the supply is wired the wrong way round.

# 3 Maintenance

## 3.1 Every month

Clean the inlet filter and check the drain for blockages.

## 3.2 Every year

Replace the inlet filter, check the terminal torque and run the self-test from the service menu.

# 4 Fault codes

## 4.1 Supply faults

E1: supply reversed. E2: supply voltage below 200 V. E3: earth not detected.

## 4.2 Pump faults

E7: pump blocked. E8: dry running. E9: temperature sensor open circuit.

# 5 Contacts

## 5.1 Service desk

Call the service desk with the unit's serial number, which is on the label inside the case door.