

Compass R

High-Efficiency Dry-Rotor Circulators

Replacement Motor Kit

Installation and operating instructions

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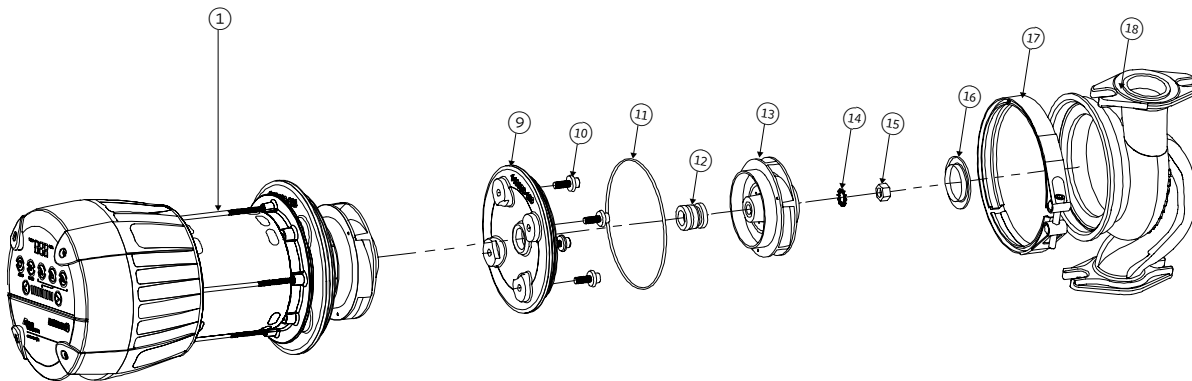
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1.0 EXPLODED ASSEMBLY VIEW



| INDEX | DESCRIPTION |
|-------|---|
| 1 | Screw for controller housing M3×0.5×50 |
| | Screw gasket |
| | Controller plate cover |
| | Screw from controller housing to driver housing M3×0.5×12 |
| | Controller |
| | ECM motor |
| | Shaft key |
| | Water slinger |
| 9 | Motor plate |
| 10 | Plate bolts / washers |
| 11 | O-ring |
| 12 | Mechanical seal |
| 13 | Impeller |
| 14 | Impeller washer |
| 15 | Impeller nut |
| 16 | Casing insert |
| 17 | Motor casing clasp |
| 18 | Casing |

NOTE:

Repair part numbers can be found in the Circulator Parts List, **File# 6010.201** (not all parts shown here are available for sale, this is to show an entire breakdown of the Compass R)

Compass R Replacement Motor

| SR. NO | PART NUMBER | DESCRIPTION |
|--------|-------------|------------------------------------|
| 1 | 819031-200 | Motor/Driver/Controller 20-75 115V |
| 2 | 819032-200 | Motor/Driver/Controller 20-75 230V |

The Compass R motor includes a motor, o-ring and bolts/ washers

2.0 REPLACEMENT OF MOTOR KIT

- 1 Turn off the pump leaving it installed in the line
- 2 Ensure electrical power is disconnected and locked out
- 3 Close the water supply at the points closest to the pump's inlet and outlet
- 4 For safety, allow water to cool to 100°F (40°C) before draining the system. It is best to leave the drain valve open while working on the system
- 5 Place a pan under the pump to collect the drain water
- 6 Bleed the water pressure from the pump
- 7 While holding the the pump/motor, loosen the V-Clamp
- 8 Remove the motor assembly straight out from the volute being careful of the attached impeller from the plumbing system
- 9 Remove Impeller retaining nut and star washer
- 10 Remove Impeller
- 11 Remove seal using a flat head screw driver
- 12 Remove adapter plate retaining bolts (discard bolts and washers)
- 13 Remove adapter plate from Motor
- 14 Check the order of the assembly - Seal & Woodruff Key
- 15 Reverse the steps to reassemble
- 16 Use new bolts & seal washers to mount adapter plate to Motor
- 17 Replace original O-Ring with new O-Ring, apply O-Ring lubricant
- 18 Reinstall motor assembly into volute and tighten the V-Clamp

3.0 START-UP

3.1 BEFORE START- UP

Fill the system with liquid and properly vent the system before starting the pump. The required minimum inlet pressure in relation to liquid temperature must be available at the pump inlet.

3.2 VENTING THE PUMP

Even with system vented, air may be still be present in the pump. The air in the pump may cause noise but the noise should cease after a few minutes running.

The venting process can be shortened by setting the pump to run at max speed for a short period of time (60 seconds).

Once the pump is vented (the noise has ceased), set the pump mode according to the recommendations.

CAUTION

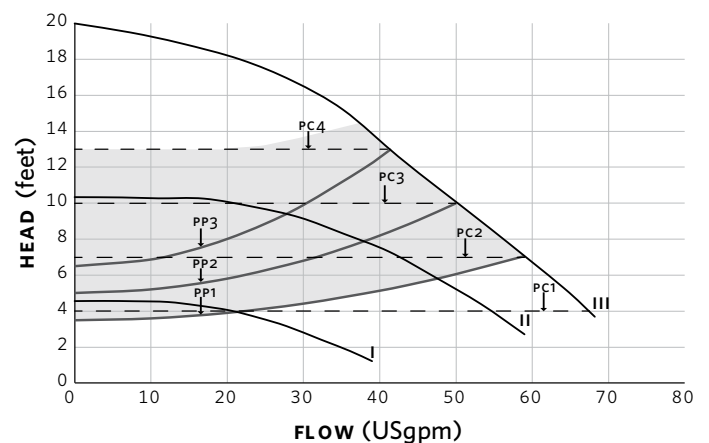


The pump must not run dry.

4.0 PUMP SETTINGS AND PUMP PERFORMANCE

4.1 PUMP PERFORMANCE CURVES

Compass R 20-75 performance curves—Auto, Fixed Head, Fixed Speed and Proportional Pressure Curves



Manual control options

Fixed head curve - I, II, III

Fixed speed curve - PC1, PC2, PC3, PC4

Proportional pressure curve - PP1, PP2, PP3

AUTO - ■

Auto mode
(Factory default)



TORONTO

23 BERTRAND AVENUE
TORONTO, ONTARIO
CANADA
M1L 2P3
+1 416 755 2291

BUFFALO

93 EAST AVENUE
NORTH TONAWANDA, NEW YORK
U.S.A.
14120-6594
+1 716 693 8813

BIRMINGHAM

HEYWOOD WHARF, MUCKLOW HILL
HALESOWEN, WEST MIDLANDS
UNITED KINGDOM
B62 8DJ
+44 (0) 8444 145 145

MANCHESTER

WOLVERTON STREET
MANCHESTER
UNITED KINGDOM
M11 2ET
+44 (0) 8444 145 145

BANGALORE

#59, FIRST FLOOR, 3RD MAIN
MARGOSA ROAD, MALLESWARAM
BANGALORE, INDIA
560 003
+91 (0) 80 4906 3555

SHANGHAI

UNIT 903, 888 NORTH SICHUAN RD
HONGKOU DISTRICT
SHANGHAI, CHINA
200085
+86 (0)21 5237 0909

SÃO PAULO

RUA JOSÉ SEMIÃO RODRIGUES AGOSTINHO,
1370 GALPÃO 6
EMBU DAS ARTES
SAO PAULO, BRAZIL
+55 11 4785 1330

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