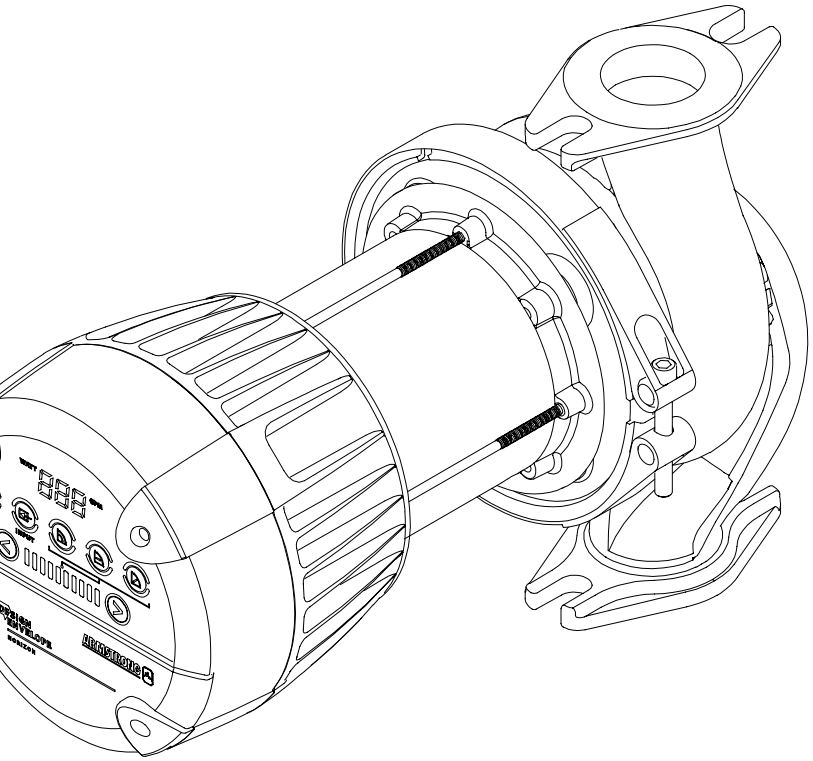
ARMSTRONG



Compass R

High-Efficiency Dry-Rotor Circulators

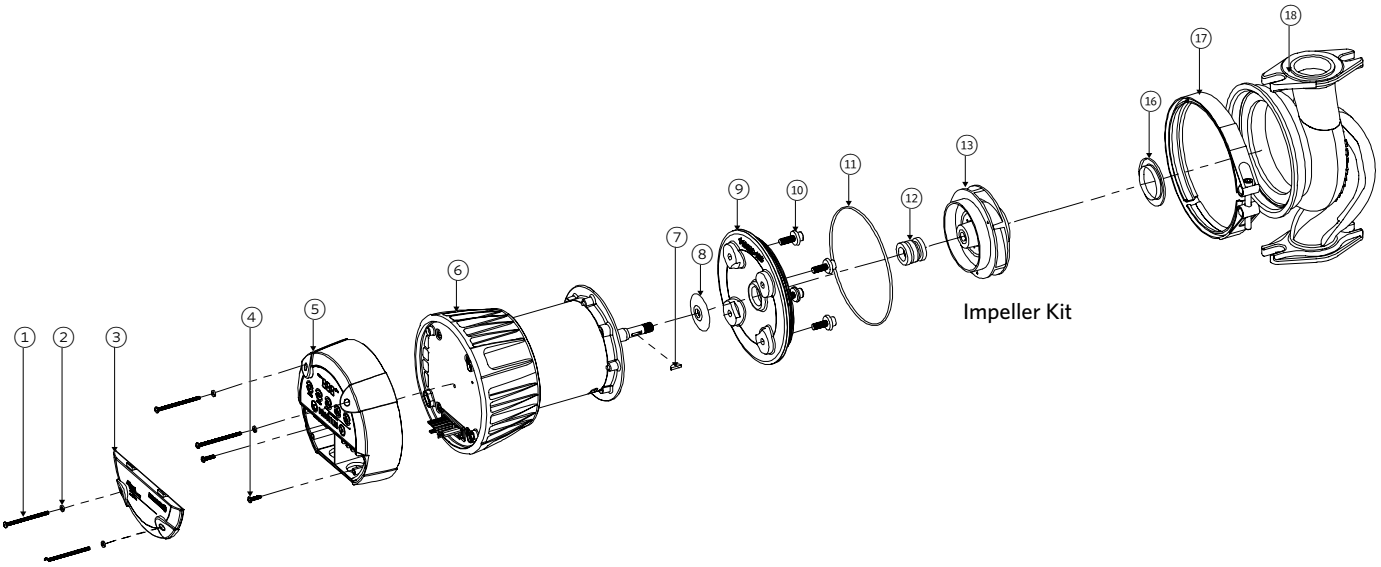
Impeller Assembly

Installation and operating instructions

File No: 10.8975
Date: APRIL 22, 2019
Supersedes: NEW
Date: NEW

CONTENTS

1.0 EXPLODED ASSEMBLY VIEW



INDEX	DESCRIPTION
1	Screw for controller housing M3×0.5×50
2	Screw gasket
3	Controller plate cover
4	Screw from controller housing to driver housing M3×0.5×12
5	Controller
6	ECM motor
7	Shaft key
8	Water slinger
9	Motor plate
10	Plate bolts / washers
11	O-ring
12	Mechanical seal
13	Impeller
	Impeller washer
	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	819120–130	Impeller Assembly 20-75 and R25-140, R40-190

The Compass R impeller kit includes a impeller and an o-ring

2.0 REPLACEMENT OF IMPELLER

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 plumbing system, 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
10 Remove Impeller
11 Reinstall the new impeller and retaining nut
12 Replace original O-Ring with new O-Ring, apply O-Ring lubricant
13 Reinstall the casing and the V-camp

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.

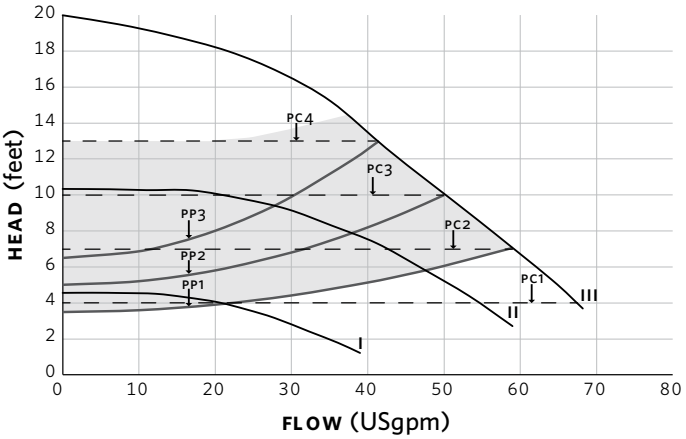
CAUTION

The pump must not run dry.

4.0 PUMP SETTINGS AND PUMP PERFORMANCE

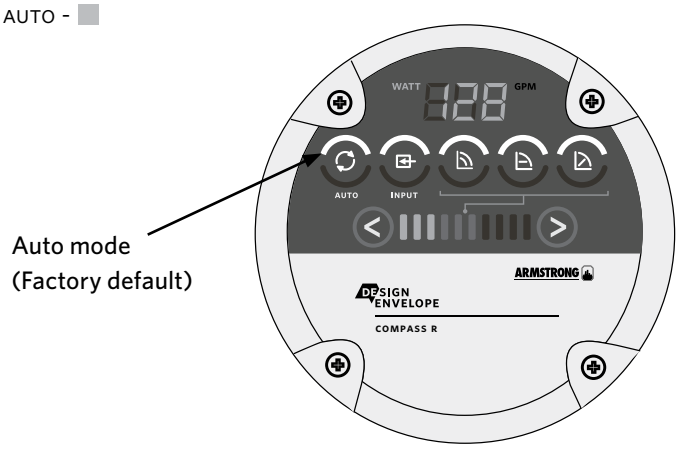
4.1 PUMP PERFORMANCE CURVES

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 -



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