

NRCP982 / NRCP1112
Res. Condensing w/ Pump



NORITZ

The Simple Comforts of Life

NEW FEATURES FOR NORITZ

Internal recirculation pump

Negative pressure gas valve design with pre-mix burner

Inverted burner, stainless steel heat exchangers

Programming “learns” water usage habits

Completely different remote

2” Venting

Common venting option up to 2 Units

NRCPS SERIES SPECS

Items	Specifications
Weight	~ 85 lbs
Dimensions (Height) x (Width) x (Depth)	27.6" x 17.3" x 14.8"
Temperature settings	100-140 °F (5° F intervals)
Max loop length	200 ft (½") / 500 ft (¾")
Energy factor	> 0.95 (TBD)
Warranty	12 years heat exchanger, 5 years parts, 1 year labor
Minimum flow	0.5 gpm
Vent line	2" PVC – up to 50 ft / 3" PVC – up to 100 ft
Venting	DV / SV convertible (conversion kit required)
Inlet gas pressure	4(*3.5) – 10.5" WC (NG) / 8 – 14" WC (LP)
Pressure drop	15 psi @ 6 gpm
Multi system	Quick connect (up to 2 units)
Common venting	Capable (up to 2 units)
Buffer tank	Not needed
Gas Leak Detector	Yes (internal)
Water leakage cut-off	Yes

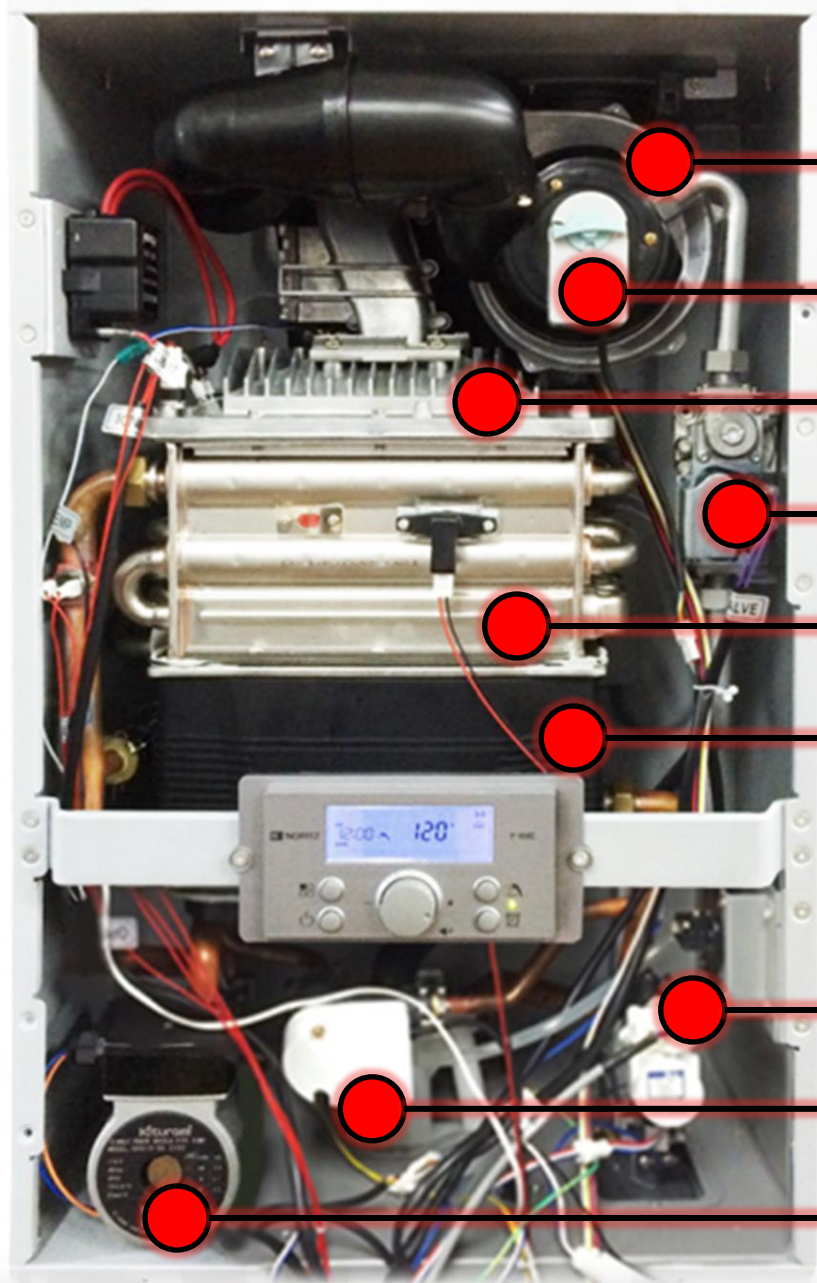
NRCP SERIES SPECS

Spec	NRCP982-DV	NRCP1112-DV
Gas input	Max: 180 kBTU/hr Min: 18 kBTU/hr	Max: 199.9 kBTU/hr Min: 18 kBTU/hr
Max flow rate	9.8 gpm	11.1 gpm
Flow rate at $\Delta T = 35\text{ }^{\circ}\text{F}$	9.8 gpm	11.0 gpm
Flow rate at $\Delta T = 45\text{ }^{\circ}\text{F}$	7.6 gpm	8.7 gpm
Flow rate at $\Delta T = 80\text{ }^{\circ}\text{F}$	4.3 gpm	5.0 gpm

Product

INTERNAL LAYOUT





Fan

AGM

Pre-Mix Burner

Gas Valve

Primary Heat Exchanger

Secondary Heat Exchanger

Flow Meter, Inlet Water Valve

Recirculation Loop Valve

Recirculation Pump

CONTROL PANEL

Front Cover Control Panel

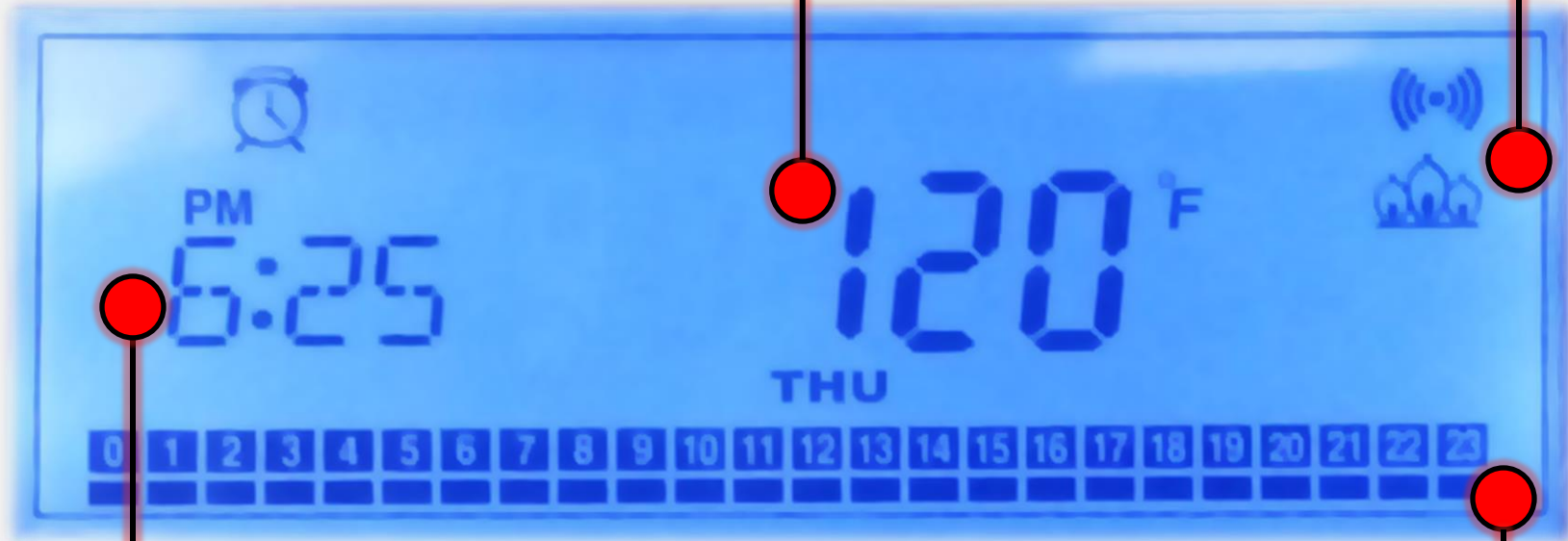


Translucent, Dark Plastic Cover with
Light Blue Display Lighting

CONTROL PANEL

Temperature

Burner Light



Clock

Hourly Recirculation Schedule

CONTROL PANEL



Recirculation Settings

Recirculation Settings



CONTROL PANEL



Press Button

Error History

Product

COMBUSTION PERFORMANCE



PRE-MIX COMBUSTION

Mechanically controls AFR

If airflow is blocked, BTU input drops to keep AFR consistent, which results in no increase of CO / NOx

Unit can be vented with 2" PVC

Operates on a wider inlet gas pressure range (especially lower pressure, down to 3.5" WC)

No need for dipswitches to accommodate different vent runs

There is an elevation dipswitch, but high elevation will not produce combustion issues (noise, vibration, exhaust composition levels, etc.)

No error 90

(Generally) no manifold pressure adjustment necessary

Product

STAINLESS STEEL HEAT EXCHANGERS



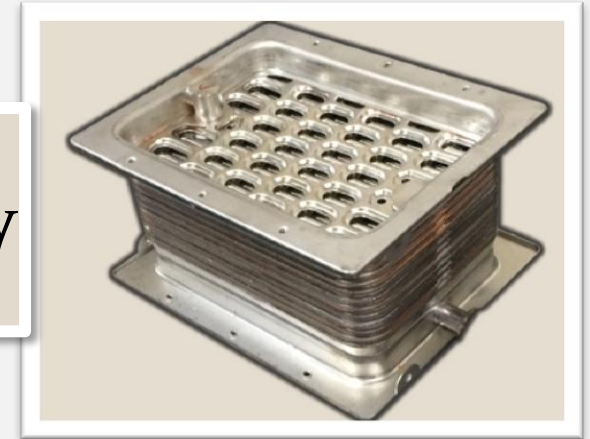
HEAT EXCHANGERS



Primary



Secondary



STAINLESS STEEL HEAT EXCHANGERS

Heat exchangers are made of stainless steel 304 (austenite) vs. competitor that uses ferrite stainless steel which is cheaper, easier to manufacture, and has less corrosion resistance

Higher efficiency due to heat exchanger design

More physically robust and resilient to thermal expansion than copper, allowing for more rigorous usage

Corrosion resistance

Scale does not accumulate in a stainless steel heat exchanger

Scale testing currently being conducted

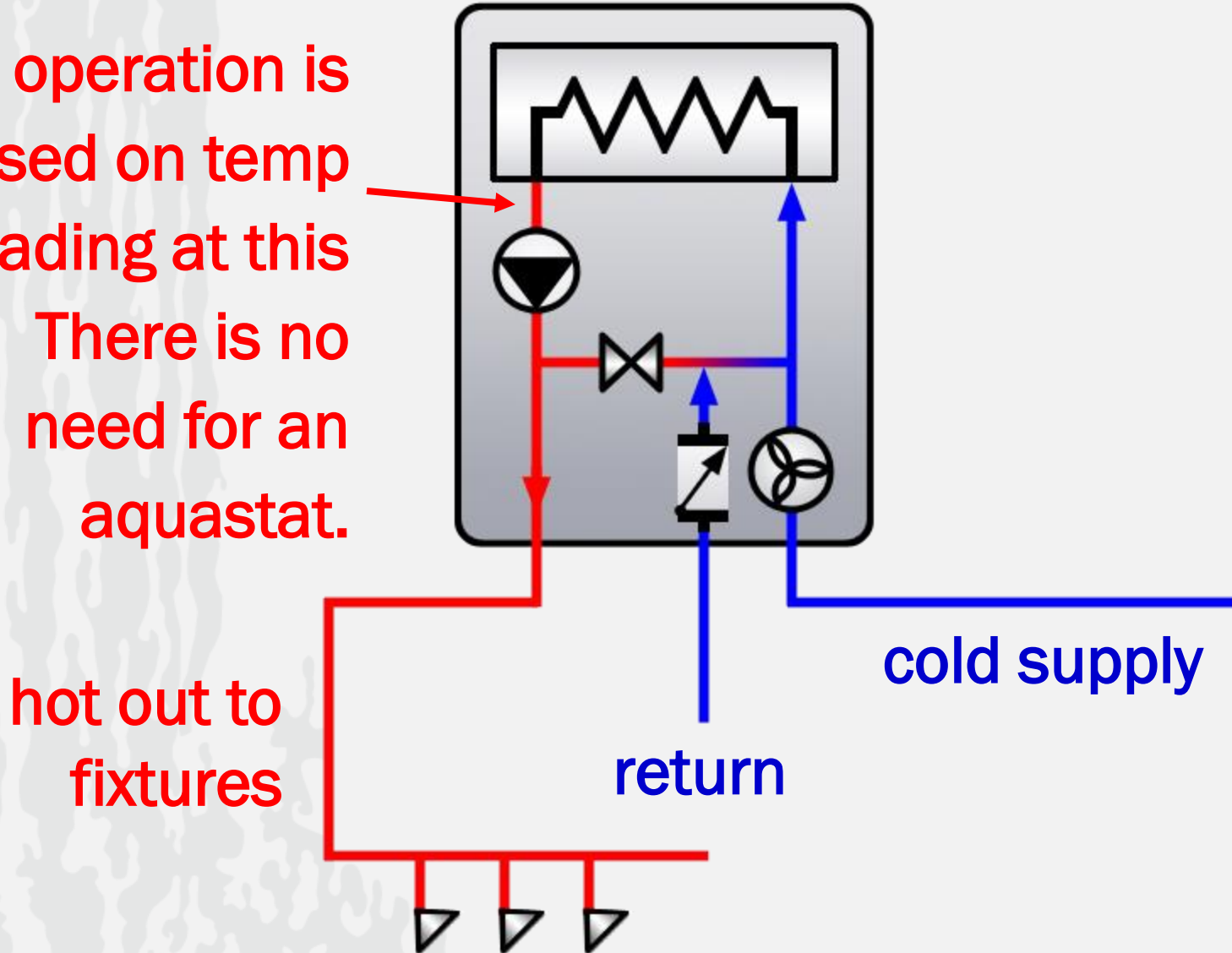
Product

RECIRCULATION OPERATION



NRCP SERIES INTERNAL RECIRCULATION

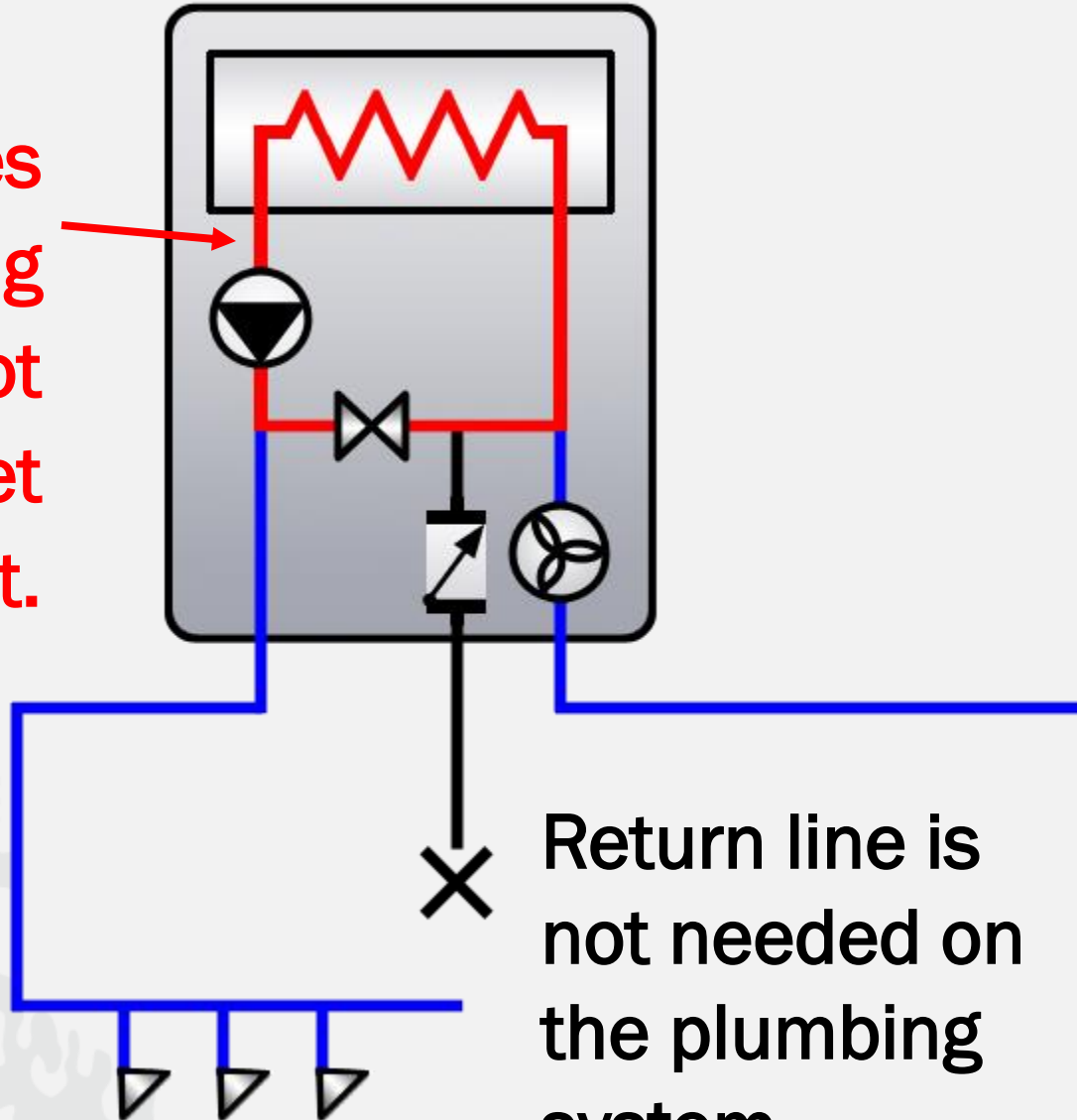
Recirc operation is based on temp reading at this point. There is no need for an aquastat.



NRCP SERIES INTERNAL RECIRCULATION

Water recirculates internally allowing for immediate hot water at the outlet of the unit.

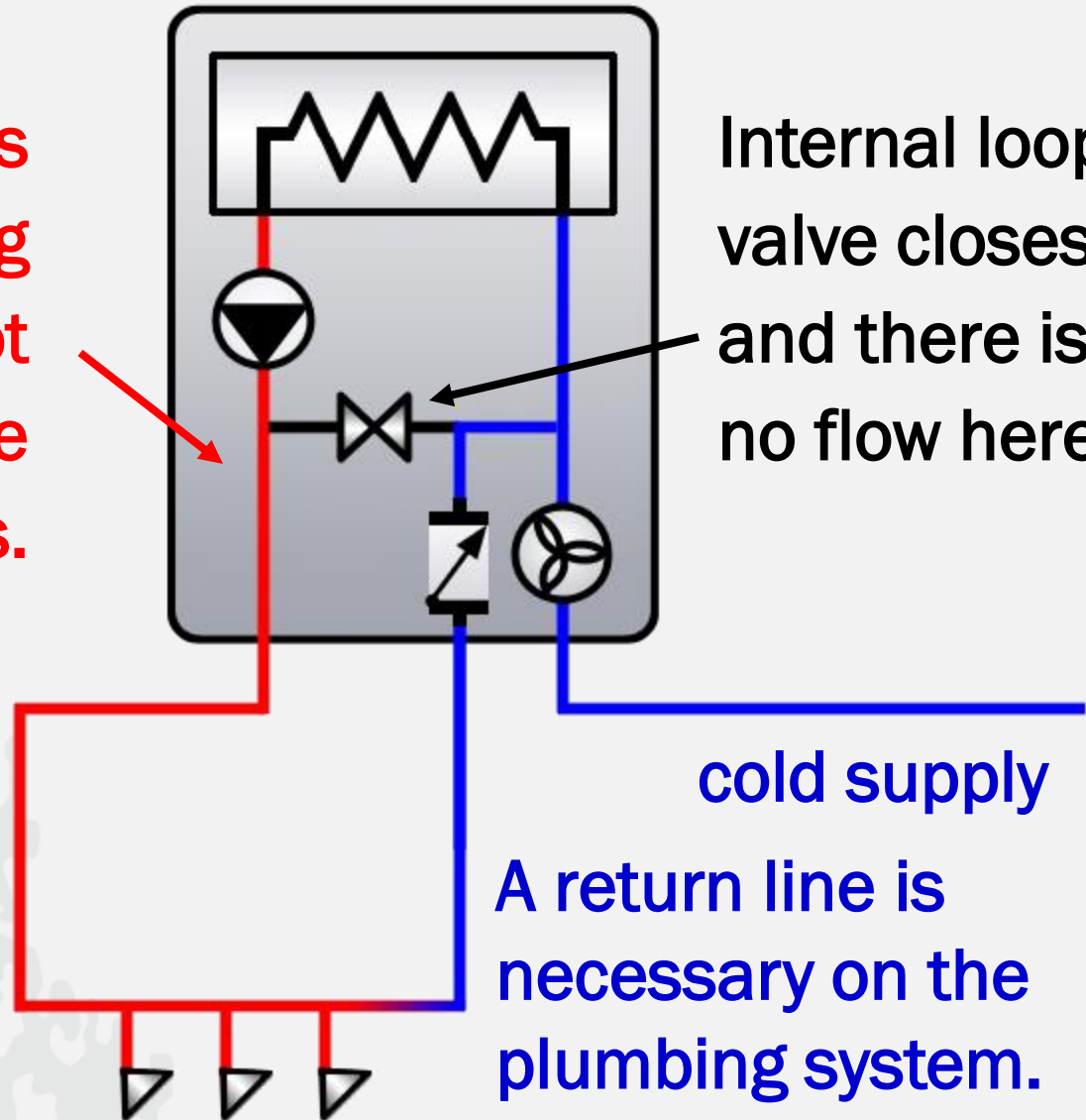
The DHW line has cold water that still needs to be cleared before hot water is delivered.



Return line is not needed on the plumbing system.

NRCP SERIES EXTERNAL RECIRCULATION

Water recirculates externally allowing for immediate hot water at the fixtures.



Recirculation loop max length:
200 ft (1/2")
500 ft (3/4")

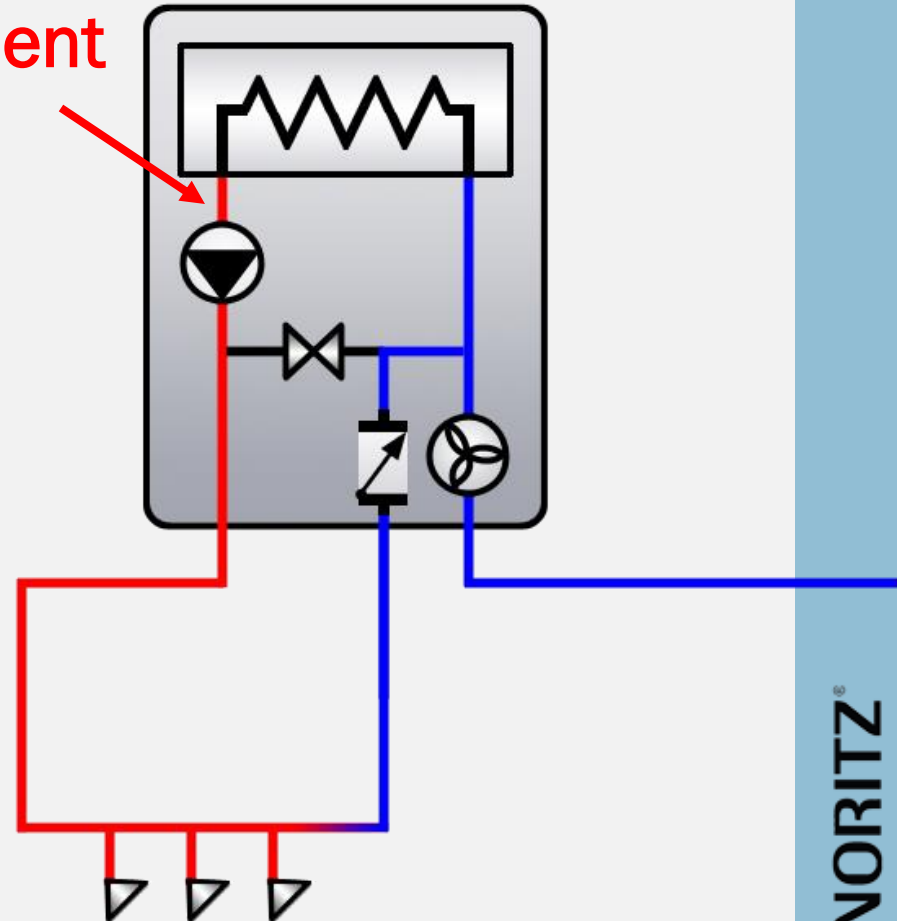
RECIRCULATION TEMPERATURE SETTINGS

Recirc temp
measurement

3 possible settings for
recirculation

A	-9°F
B	-18°F
C	-27°F

Cutoff temperatures are based
off set temperature



Key Features

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- Programming “learns” water usage habits
- 2” Venting
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