Effective: 6/11/18
Kit: 100306341

Instruction Sheet: APCOM Model #RG3

For use with Large Tank and Tankless Systems (With Dedicated Return Line)

APPLICATION

The APCOM Model #RG3 circulators are designed to deliver hot water instantly at all points of use between the hot water tank (tankless) and the return line. Water savings can be as great as 12,000 – 15,000 gallons per year with 4-5 taps in a home. The APCOM Model #RG3 circulator together with the APCOM "On-Call" accessories are designed to be user friendly, reliable and to produce a professional installation.

ELECTRICAL SHOCK RISK

Contact with the electrical parts can result in severe injury or death from electrical shock. To reduce the risk of shock, follow these instructions:

- Turn off power to your water heater at the circuit breaker before installing.
- Turn off power to water heater and recirculation system before servicing.
- Use a non-contact circuit tester to confirm that power is off before working on or near any electrical parts.
- Do not plug in circulation pump until installation is complete and insure that it is plugged into a grounding type receptacle.
- Use only in proper applications and do not install outdoors or in pool or marine areas.
- Observe all applicable electric and plumbing codes.

NOTICE: This circulator has been evaluated for use with water only. The suitability of this circulator for use with liquids other than water is the responsibility of the end user.

SYSTEM REQUIREMENTS

Minimum water pressure 20 psi Maximum water pressure 125 psi
Maximum water temperature 230F (110C)

SCALDING RISK

- Both commercial and residential water heaters can make water hot enough to cause severe burns instantly, resulting in severe injury or death.
- Higher temperatures increase the risk of scalding, but even at 120°F, hot water can scald.
- Always feel water before bathing or showering. Water heaters can generate water hotter than its temperature setting in certain circumstances.
- To reduce the risk of scalding, Thermostatic Mixing Valves (temperature limiting valves) should be installed at each point-of-use. These valves automatically mix hot and cold water to limit the temperature at the tap. Mixing valves are available from your local plumbing supplier. Follow manufacturer's instructions for installation and adjustment of the valves.
- THIS PRODUCT IS NOT AN ANTI-SCALD DEVICE

SHIPMENT INSPECTION

Examine all components carefully to ensure they are all present and they have not been damage in transit to you. Care should be taken to avoid dropping or mishandling the circulator. Damage to the circulator may occur if it is dropped.

KIT CONTENTS

The APCOM Model #RG3" package includes:
(1) Pump, model AMR-S3FVL with pre-wired 10 foot flexible cord.
¾" NPT Female Stainless Flange Kit

REQUIRED TOOLS

2 - Pipe wrenches which open to at least 1 1/2"
2 - Adjustable wrench which opens to at least 1 1/2"
1 – Teflon tape or thread sealant for flange connection

INSTALLATION INSTRUCTIONS

1. Turn off the power to your hot water heater at the circuit breaker.
2. Close the valve on the cold water supply line to the tankless hot water heater or hot water tank*. If you do not have a valve on the cold water supply line, close the main water valve to the house.
3. Attach a hose to the drain valve on your system and run the hose to a drain or into buckets.
4. Open the drain valve and allow the system to drain down. Note: Opening the faucet at a sink may speed the draining process.
5. After the system has drained, close the drain valve.
6. Run a dedicated return line from your hot water heater to the appropriate fixture.
7. Cut the hot water supply line at the fixture.
8. Install a tee fitting into the hot water supply line at the fixture that accepts the correct pipe size and material of the supply line and dedicated return line.
9. Attach the dedicated return line to the tee fitting that was previously installed in the hot water supply line at the fixture.
10. Install a tee fitting into the cold water supply line at the hot water heater that accepts the correct pipe size and material of the cold water supply line.
11. Apply thread sealant or Teflon tape to the male threads of one of the flanges supplied in the kit and install the flange onto the tee fitting previously installed in the cold water supply line at the water heater.
12. Allow a 6.5 inch space for the circulator to be installed. Apply thread sealant or Teflon tape to the male threads of the remaining flange and install the flange onto the dedicated return line at the water heater.
13. Place one of the gaskets supplied in the kit between the circulator discharge and the flange previously mounted on the cold water supply line. Us the bolts and nuts supplied in the kit to attach the flange to the circulator. Note: The discharge end of the circulator is the end the arrow on the stainless casting is pointing at. Place the other gasket between the fitting on the return line and the circulator inlet. Tighten both nuts.
14. Place the other gaskets supplied in the kit between the circulator inlet and the flange mounted previously on the dedicated return line. Us the bolts and nuts supplied in the kit to attach the flange to the circulator.
15. Open the valve in the cold water supply line to the hot water heater. Check for leaks at the fittings. If a leak occurs retighten or refit the joint. Note: To allow trapped air to escape, open a hot water faucet and allow the water to run until it is clear of bubbles.
16. Turn power on for the hot water tank at the circuit breaker.
17. Your kit contains a circulator with a built-in timer and built-in Aquastat. Follow the step by step directions on the timer instruction sheet to program the timer to meet your hot water needs.
    Note: Initially the circulator will run continuously until the hot water tank has re-heated the water unless the timer is set to an off cycle.

*If the dedicated return line is being connecting to a hot water tank, the connection can be made at the cold water supply or the drain on the hot water tank.

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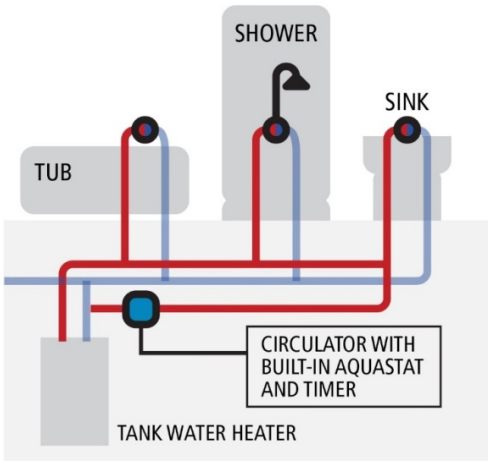
APCOM Model #RG3
(Dedicated Return Line Installation)



APCOM Model #RG3
(Recirculation Kit with Built-In Timer)

Mechanical Timer Operation

The timer will turn the circulator on and off based on the times when hot water is needed. This may only be in the mornings and evenings depending on the schedules of the residence.

Setting Instructions

1. To set the current time, rotate the outer ring until the arrow head lines up with the correct time. This is a 24-hour clock so 1 to 12 on the clock indicates 1AM to noon and 13 to 24 on the clock indicates 1PM to midnight.

2. To set the time that the pump will operate, move all the tabs outward during the time period. Fig. 1.
   Example: To set ON at 7:00AM and OFF at 10:00AM move all of the tabs between 7 and 10 to outward position.

3. By following the instructions in step 2 multiple on-off cycles can be set.

4. The override switch has 3 positions. Fig. 2. The "I" indicates the pump will run continuously (24 hours a day) The position next to the clock symbol indicates the pump will follow the settings of the tabs. The "O" indicates the pump is off (not running).

Fig. 1

Fig. 2