

U.S. PATENT No: 8,083,500 B1 • 8,303,184 B1 • 10,612,793 B1 • 11,193,605 • 11,853,086 B1

Thank you for choosing the **AMH2K-7/AMH-2K-7N Hot Water Recirculation Kit** — a patented hot water delivery system designed for installation on a dedicated return line in domestic hot water tank systems.

The circulator includes a build-in Aquastat, a water temperature sensor that automatically controls pump operation. The Aquastat activates the circulator when the water temperature drops to approximately 86°F [30°C] and keeps it running until the temperature rises to about 104°F [40°C]. Aquastat operation may be influenced by ambient (room or cabinet) temperatures of 86°F [30°C] and above.

The **AMH2K-7** kit include a separate 24-hour plug-in mechanical timer, rather than a built-in version. This design offers easier operation and greater convenience for the end user.

The **AMH2K-7N** Kit does not include a timer. Optional control accessories are available for “N” models, including On-Demand™ Kits. Visit www.AquaMotionHVAC.com for more information.

KIT INCLUDES

- (1) AM7-SUV1AL Stainless Circulator with pre-wired built-in aquastat and 6-1/2 Ft. line cord
- (2) 3/4" NPT Male Union Tail Pieces
- (2) G1" Union Nuts and Gaskets
- (1) AMK-T15 Plug-in Mechanical Timer
- (1) Installation & Warranty Sheet

REQUIRED TOOLS

- (2) Pipe Wrenches (1-1/2" Opening)
- (1) Adjustable Wrench (1-1/2" Opening)

SPECIFICATIONS

Electrical: See Pump Nameplate (Round Label)
 Max. Water Temperature: 230°F [110°C]
 Max. Operating Pressure: 125 PSI [8.6 bar]
 Min. Operating Pressure: 20 PSI [1.4 bar]
 Max. Ambient Temperature: 86°F [30°C]

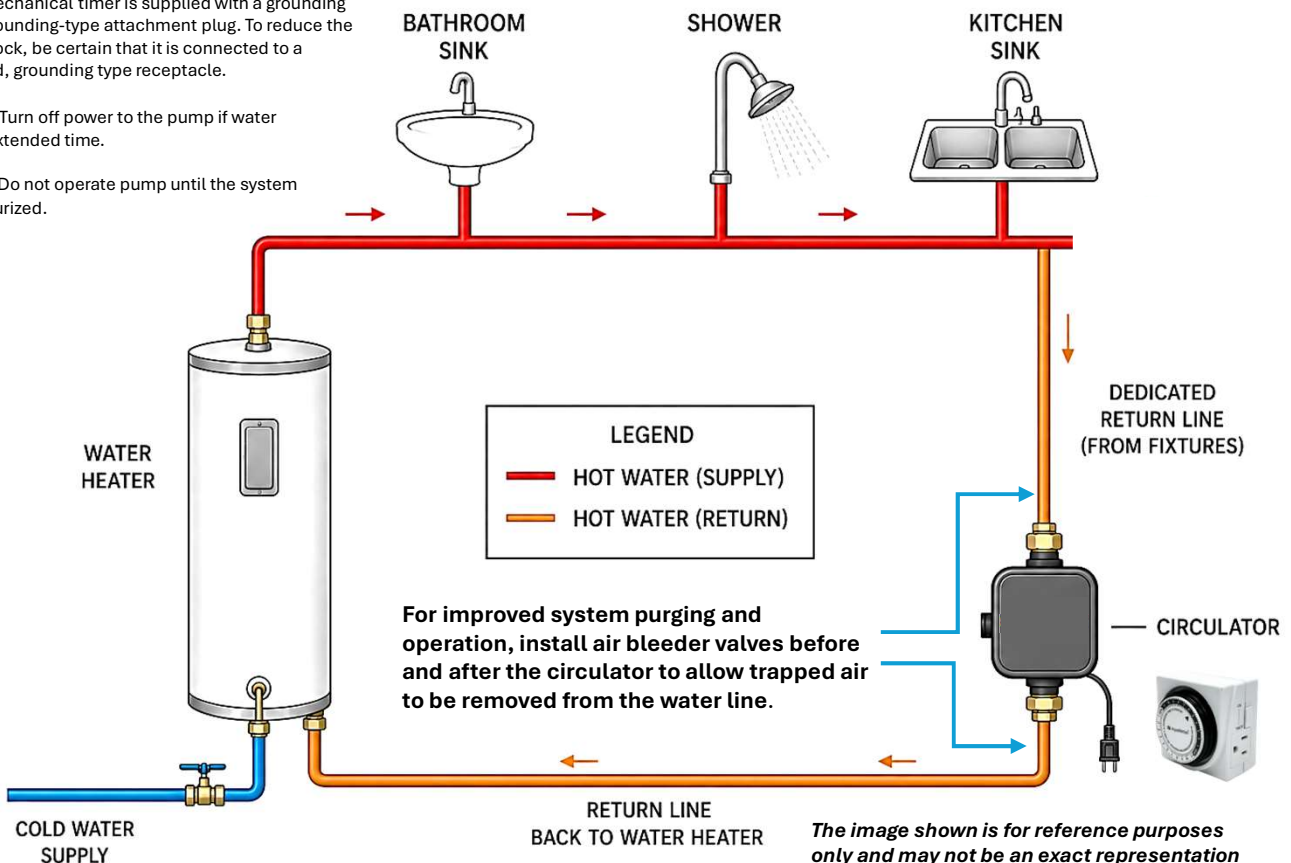
PUMP INSTALLATION – Please read and follow all instructions and safety precautions

⚠ WARNING: RISK OF ELECTRIC SHOCK.

This pump and mechanical timer is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, be certain that it is connected to a properly grounded, grounding type receptacle.

⚠ **WARNING:** Turn off power to the pump if water will be off for an extended time.

⚠ **WARNING:** Do not operate pump until the system is filled and pressurized.



CIRCULATOR INSTALLATION – Please read and follow all instructions and safety precautions

1. Turn off power to the water heater at the circuit breaker.
2. Close the valve on the cold water supply line to the water heater. If no shutoff valve is installed on the cold water supply line, close the main water supply valve to the home.
3. Attach a hose to the water heater drain valve and route the hose to a suitable drain or bucket.
4. Open the drain valve and allow the water heater and piping to drain. **Note: Opening a hot water faucet may help accelerate the draining process.**
5. Disconnect the piping at the location where the circulator will be installed. **Note: The circulator must be installed a minimum of 3 feet from the cold water inlet connection to help prevent heat migration from the tank.**
6. The tail pieces supplied with the kit have $\frac{3}{4}$ " male NPT threads. Adapters compatible with $\frac{3}{4}$ " male NPT threads must be installed on the separated pipe ends. These adapters are dependent on the pipe size and material used in your plumbing system and are not included with the kit. Install the adapters so there is sufficient space for the tail pieces and circulator assembly (approximately 7 $\frac{3}{4}$ ").
7. Slide a union nut over one of the supplied tail pieces and apply an approved thread sealant (pipe dope or Teflon tape) to the male NPT threads. Thread the tail piece into the adapter and tighten using the wrench flats provided on the tail piece. Repeat this procedure for the second tail piece.
8. Place one of the supplied gaskets between the circulator discharge connection and the corresponding tail piece. Thread the union nut onto the circulator and tighten securely. Repeat on the inlet side using the second gasket and tail piece. Tighten both union nuts.
Note: The discharge side of the circulator is identified by the flow arrows cast into the stainless-steel housing.
9. Ensure the circulator is adequately supported by the piping system or by properly installed pipe hangers located near the tail piece connections.
10. Open the cold water supply valve to the water heater and inspect all connections for leaks. If leakage is observed, tighten or remake the affected connection as necessary. **Note: To purge trapped air from the system, open a hot water faucet and allow water to flow until all air bubbles have been eliminated. For improved system purging and operation, install air bleeder valves at the circulator to allow trapped air to be removed from the water line.**
11. Restore power to the water heater at the circuit breaker.
12. **For AMH2K-7N Models:** Plug the circulator into a properly grounded GFCI-protected receptacle.
13. **For AMH2K-7 Models (Plug-in Timer):** Connect the mechanical timer into a properly grounded 120V outlet. Follow the instructions provided with the timer for setup. Connect the circulator to an outlet on the mechanical timer.

⚠ WARNING: HIGH PRESSURE HAZARD

Do not operate this pump with inlet pressure exceeding **80 psi**. Install a **pressure relief valve** rated for at least **125 psi** or as required by **local codes**.

⚠ WARNING: RISK OF ELECTRIC SHOCK.

This pump and mechanical timer is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, be certain that it is connected to a properly grounded, grounding type receptacle.

⚠ WARNING: HOT SURFACE

Do not touch the pump while it's running — it can be **very hot**. Wait at least **20 minutes** after shutdown before **servicing or handling** the pump.

⚠ WARNING: Follow all **local building, electrical, and plumbing codes** during installation and use.

⚠ WARNING: Disconnect power before servicing.

⚠ WARNING: FIRE OR EXPLOSION HAZARD

Do not pump flammable liquids or chemicals. Keep the pump **away from gas pilot lights and areas with gas fumes**.

⚠ WARNING: Do not operate pump until the system is filled and pressurized.

⚠ WARNING: For indoor use only

AVERTISSEMENT: Pour l'intérieur uniquement

⚠ WARNING: This is not an anti-scald device

⚠ WARNING: This pump has not been evaluated for use in swimming pools, jacuzzies, or other marine areas.

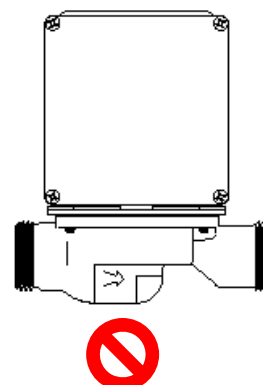
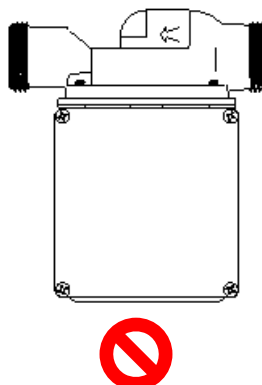
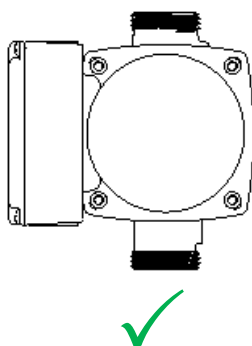
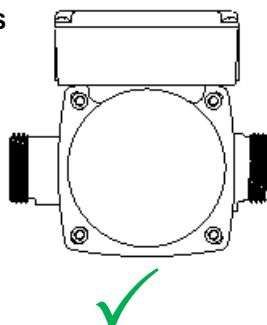
⚠ WARNING: Turn off power to the pump if water will be off for an extended time.

⚠ WARNING: Do not make sharp bends in the hoses.

⚠ WARNING: This pump is for water only. Using chemicals or petroleum products voids the warranty.

MOUNTING POSITIONS – Please follow these guidelines for efficient pump operation

**NOTE:
FOR ALL
MODELS**



APPROVALS & CERTIFICATIONS



DRINKING WATER SYSTEM COMPONENTS
ANSI/NSF 61 & ANSI/NSF 372
MH60565



WATER CIRCULATING PUMPS
E243560



TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	REMEDY
No instant hot water at faucet	- Heater Malfunction - Outlet Wiring Malfunction - Pump Timer Malfunction - Pump Internal Malfunction	- Heater Malfunction - Open the HOT water faucet. - Is there hot water at the faucet? - NO, there is a malfunction with the heater. Consult your heater's manufacturer. - YES, shut off faucet and proceed to next cause. - Outlet Wiring Malfunction - Disconnect the pump and connect a corded device (i.e. Lamp) to the same outlet. - Does this device turn ON ? - NO, check the circuit breaker or wiring for that outlet. - YES, disconnect the lamp, reconnect the pump and proceed to next cause. - Pump Timer Malfunction - Switch the Timer to the ON position. - Wait 5 minutes DO NOT USE HOT WATER WHILE WAITING. - Is there hot water after 5 minutes at the faucet? - NO, proceed to the next cause. - YES, there is an internal malfunctions with the timer. Contact Customer Support. - Pump Internal Malfunction: - Is the pump warm? - NO, there is an internal wiring malfunction . Contact Customer Support. - YES, proceed to the next cause. - Is the pump making a noise or hum? - NO, proceed to next cause. - YES, see "Noisy pump" symptom.
Noisy pump Discolored Water at Faucet	Cartridge malfunction	- Replace Cartridge - Contact Customer Support for warranty replacements. - Purchase replacement for warranty expired products. Part No. CT07 NOTE: AquaMotion does not sell directly to consumers.

LIMITED WARRANTY STATEMENT

AquaMotion Inc. warrants its product to the original user against defects in material and workmanship for a period of one (1) year from date of original shipment. Complete pump warranty is three (3) years from date of shipment. Valves, timers, On Demand devices and receivers carry a one (1) year warranty from date of shipment. Aqua-Max Pressure Booster warranty is one (1) year from date of shipment. In the event of a defect within the warranty period, AquaMotion Inc. will, at its option, replace or recondition the product without charge, FOB AquaMotion factory. This shall constitute the exclusive remedy for breach of warranty, and AquaMotion Inc. shall not be responsible for any cost of removal, installation, transportation or any charges which arise in connection with the warranty claims and shall not be responsible for any incidental or consequential damages, including without limitation, damages or other cost resulting from labor charges, delays, or vandalism, negligence, fouling caused by foreign materials, damage from adverse water conditions, freezing, chemicals, certain additives, petroleum-based fluids, or any other circumstances over which AquaMotion Inc. has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation or maintenance of the product. AquaMotion Inc. makes no other warranties express or implied except as provided in this limited warranty. Consult the product instruction sheets for proper use and installation. Contact the factory with any questions. To obtain service under this warranty, the defective product must be returned to the distributor or dealer of AquaMotion products from which it was purchased together with proof of purchase, installation date, and supporting installation data. Unless otherwise provided, the distributor or dealer will contact AquaMotion Inc. or an authorized service station for instructions. Any defective product to be returned to AquaMotion Inc. or an authorized service station shall be sent freight prepaid; documentation supporting the warranty claim and/or Return Material Authorization must be included, if so instructed.

AQUAMOTION INC. WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES, OR EXPENSES ARISING FROM INSTALLATION, USE, OR ANY OTHER CASES. THERE ARE NOT EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH EXTEND BEYOND THOSE WARRANTIES DESCRIBED OR REFERRED TO ABOVE.

PRODUCT CHANGE STATEMENT

AquaMotion Inc. reserves the right to change or modify product design or construction without prior notice and without incurring any obligations to make such changes and modifications on products previously or subsequently sold. AquaMotion Inc. shall have no responsibility whatsoever with respect to changes made by the manufacturer in products or their packaging sold but not manufactured by AquaMotion Inc. This warranty gives the purchaser specific rights, and the purchaser may have other rights which vary from State to State. Some states do not allow limitations on how long an implied warranty lasts or on the exclusion of incidental or consequential damages, therefore, these limitations or exclusions may not apply.

CUSTOMER SUPPORT INFORMATION

AquaMotion, Inc. 88C Jefferson Blvd. Warwick, RI 02888

(401) 785-3000

info@AquaMotionHVAC.com

www.AquaMotionHVAC.com

When contacting customer support, please provide:

- Photo(s) of the installation(s)
- Copy of sales receipt (must include date of purchase)

 **WARNING: Cancer and Reproductive Harm -**
www.P65Warnings.ca.gov