



Installing the ACT D'MAND KONTROLS® Systems

ALL Model S1-100, SS1-200, S1-100HTT and SS1-200HTT

for

Builder Program (NBP)

Installations shall be in accordance with the manufacturer's instructions per the requirements of the Uniform Plumbing Code (UPC) – Green Listed
Conforms to UL STD 508
Certified To CSA STD C22.2 #14
ETL-Listed

BE CAREFUL

Do not plug the power cord into an electrical receptacle until the System is installed and in place. Operation of the System without being plumbed into water lines may burn out the pump prematurely and void the warranty.

Attention Builders: Installed pumps connected to water will need to be activated and run through a cycle at least once every 30 days, or the pump impeller may seize in position. Contact ACT Inc. at (800) 200-1956 with questions on how to troubleshoot a pump if you suspect this has occurred.

Pre-Installation Checklist

1. Check the package contents. Your D'MAND KONTROLS® System contains:

- A pre-assembled Controller/Circulator Pump Assembly
- One (1) built in controller with power cord and activation wires
- Plastic Bag containing One (1) LED push-button
- Flange Kit including Two (2) Flanges, Four (4) Nuts & Bolts, and Two (2) Rubber Seals
- Check the components for visible damage and contact your supplier immediately if any damage is found.

2. Make sure you have the tools to do the job:

- Pipe wrench or adjustable crescent wrench
- Pliers
- Small Philips head and medium flat head screwdriver
- Wire strippers

3. Pre-Assemble the pump & flanges

1. Pre-assemble the DMAND KONTROLS® pump by laying the unit on its back. Unwrap the flange bolt kit (included) with your System. Each side of the pump should have two (2) $\frac{9}{16}$ " bolts with two (2) $\frac{9}{16}$ " nuts, one (1) DMAND KONTROLS® stainless steel flange, and one rubber seal.
2. Place the rubber seal in the round groove on your DMAND KONTROLS® pump. Once the rubber seal is in place, put one $\frac{9}{16}$ " bolt on top of the flange with the threads facing in.
3. Now, place the stainless steel flange on the bolt and lightly secure with nut. **DO NOT** tighten.
4. Place second bolt with threads pointed out on the bottom of the flange through the stainless steel flange and **LIGHTLY** secure with the $\frac{9}{16}$ " nut. Once the stainless steel flange is secure, **TIGHTEN EVENLY** from both sides.
5. Repeat procedure on the other side of pump.
6. Make sure flanges are parallel to pump when tight.
7. You are now ready for pump placement.
8. The pump is going to be "hard plumbed" in the piping, it is now ready for mounting.

DEDICATED RETURN LINE INSTALLATION

Pump Position:

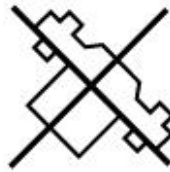
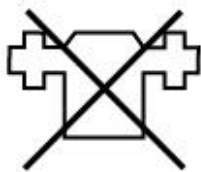
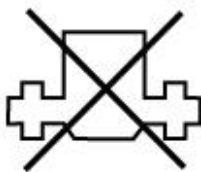
Be sure the arrow of the pump points left to right (hot water to cold water side or house to water heater) prior to connecting the supplied flanges. Having trouble connecting the supplied flanges, please call 1-800-200-1956 for assistance.



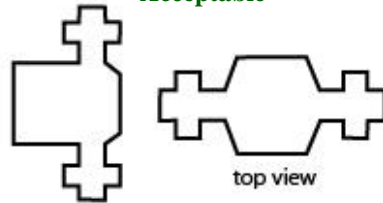
(SS1-100 shown above and below)



Not Acceptable – Will Void Warranty



Acceptable

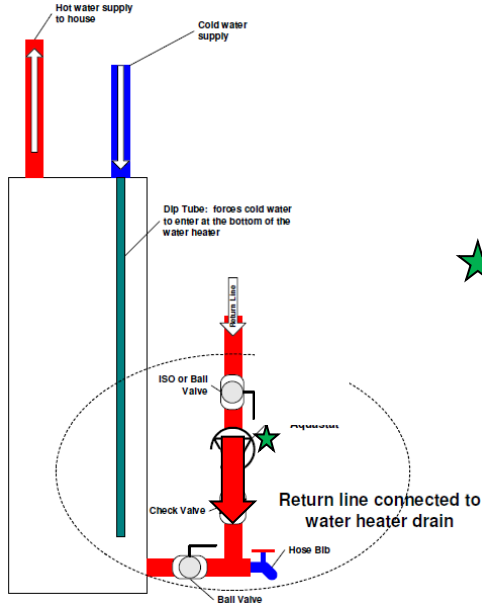


IMPORTANT NOTE: Use of any parts other than the supplied D'MAND KONTROLS® parts, including check valves or flex-lines may restrict and delay the flow of water from the water heater, and possibly void the warranty.

Models S1-100, SS1-200, S1-100HTT & SS1-200HTT

Installing your ACT, Inc. D'MAND KONTROLS® System

When installing the pump be sure to orientate the unit with the flow direction arrow pointed towards the water heater. The motor/cylinder needs to be placed in a horizontal position to ensure the unit is quiet and has the maximum life. When using a return line we need to ensure that the pump is not installed directly above the water heater or within 18". This may cause the unit to detect the heated water in the tank and not function as desired. To purge any air which may become trapped in the pump it is recommended that isolation valves may be installed in front and behind the pump. A drain valve will also make any maintenance quick and simple. (See diagram below).



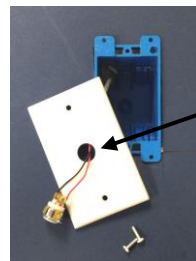
★ ACT D'MAND KONTROLS® System includes built in Internal Flow Check Valve

Once the unit is plumbed into the return line you can then proceed to connecting the controllers.

Attention Builders: Installed pumps connected to water will need to be activated and run through a cycle at least once every 30 days, or the pump impeller may seize in position. Contact ACT Inc. at (800) 200-1956 with questions on how to troubleshoot a pump if you suspect this has occurred.

Connecting the Controllers for Models (S1-100, SS1-200, S1-100HTT & SS1-200HTT):

Connect pump power cord to a 110v female receptacle. Install in the face plate next to the cabinet where the D'MAND KONTROLS® pump is installed. Next, feed the two wire cable through the 5/8" hole; connect the hard-wired button to the two lead cables. (Red and Black) The hard-wired button has two (2) terminals to affix a wire on each side. (See below)



Normal installation in 1 gang box (left)

Hard-Wired LED Button (HWB-CH-LED) installation will physically install the same way, you will need to ensure the red wire corresponds to the "+" symbol on the hard-wired button. (See below)



Both of the hard-wired buttons may also be installed in a White*** cable plate with a 5/8" hole. Model# BP-W (See below)



Installed LED on BP-W Plate (above and below)



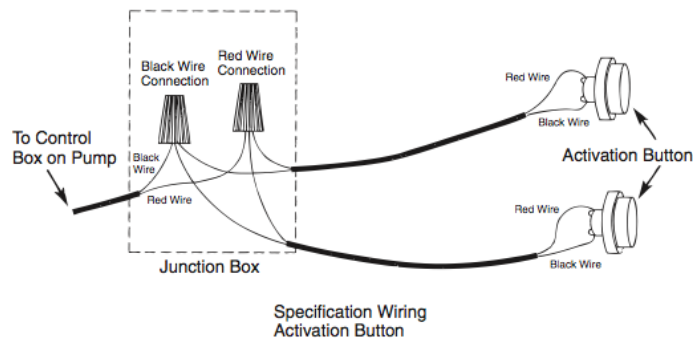
(***Note: Plates are also available in black or Stainless steel)

Once the wires are firmly connected, you can firmly press the round button into the hole until secure. (See below)

Note***This is an Option if wall plate is not used



All wiring for your ACT Inc. D'MAND Kontrols® System must be in parallel (below) or "home-run" back to the pump.



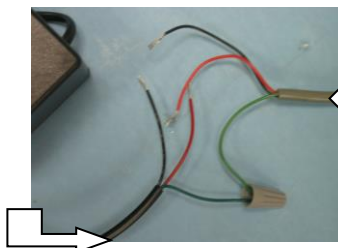
Accessory: If a wireless receiver is being used, then connect the three (3) wire cable with the color-coded wires from the D'MAND KONTROLS® pump to the three wires on the receiver. Example: red to red, green to green, and black to black. Make sure to use the three (3) wire nuts provided to cap the connections.



Or



Cables/Wires from receiver, three (3) leads



Three (3) cables/wires from S1-100

Additional accessories that may be added to the pump include: Wireless Transmitters, Wireless Motion Sensors, and Hard-Wired Motion Sensors. Your dealer will have a complete list of these options. *(Note, if motion sensors are used there may be an adjustment on the pump's electronics. This will be covered in the motion sensor instructions)*

Once all of the wires from the D'MAND KONTROLS® box are connected, then you may plug the pump to the three prong 110v outlet. *(Please note the pump will start and run one (1) cycle if there is not hot water at the pump.)*

Using your D'MAND KONTROLS® System:

Your D'MAND KONTROLS® System will typically run only until hot water is present. Once hot water is at the pump, the system will shut down and remain dormant until:

1. The water cools down and needs to be circulated.
2. The user interfaces with the pump again.

The D'MAND KONTROLS® System will **NOT** run if there is hot water at the pump, or if:

1. **The user does not activate the pump.**
2. **When the user is running hot water there is no need to prime the hot water line.**

TROUBLESHOOTING

Diagnosing Specific Problems

<u>Problem</u>	<u>Possible Cause</u>	<u>Remedy</u>
1. The pump does not run when push button is pressed	<ul style="list-style-type: none"> A. No power at electrical outlet B. You've plugged the controller into an electrical outlet controlled by a wall switch, (such as the outlet under many kitchen sinks that controls the garbage disposal) C. Power cord is not secured to pump and valve D. Wire to push button is not connected to wall E. The temperature setting is already sensing "hot" water so the pump is not being activated 	<ul style="list-style-type: none"> • Plug the controller into a "hot" outlet • Shut off power, then make sure wires have good contact • Call 1-800-200-1956 to reset sensitivity setting
2. The water is not hot enough	<ul style="list-style-type: none"> A. Pump or valve was installed with water flow going in the wrong direction B. There is something in the piping that has blocked the flow of water 	<ul style="list-style-type: none"> • Check the arrows on the housings of the valve and pump to make sure they point in the correct direction (see page 2) • Check the piping for obstruction
3. There is hot water at the cold water tap	<ul style="list-style-type: none"> A. The temperature sensitivity setting now in place is too high, so the pump is not shutting down soon enough 	<ul style="list-style-type: none"> • Call 1-800-200-1956 for reset information
4. Water is not hot enough when pump shuts down	<ul style="list-style-type: none"> A. The temperature sensitivity setting now in place is too low, so the pump is shutting down too soon 	<ul style="list-style-type: none"> • Call 1-800-200-1956
5. There is hot water in the cold water lines only	<ul style="list-style-type: none"> A. The pump is installed backwards 	<ul style="list-style-type: none"> • Reinstall the pump correctly
6. Pump runs approx. 4 minutes & stops with no hot water present	<ul style="list-style-type: none"> A. Air is trapped inside the pump 	<ul style="list-style-type: none"> • Remove both flexlines at the custom tees. Fill both flexlines with water and reconnect
7. Motion sensor not activating pump	<ul style="list-style-type: none"> A. Circuit board not set to 12V inside D'MAND KONTROLS® Pump 	<ul style="list-style-type: none"> • Settings must be changed • Call 1-800-200-1956



WARRANTY

ACT, Inc. D'MAND KONTROLS®

ACT, Inc. will replace without charge (at the Company's option) any D'MAND Kontrols® pump, valve, or component part which is proven defective under normal use. Warranty – (Five Years from date of purchase) Accessories: Hard-Wired Buttons, Wireless Transmitters and Receivers, all Hard-Wired or Wireless Motion Sensors and Receivers; Parts; Flex Lines and Tee's: Warranty – (One Year from date of purchase.) Labor is not included with Limited Warranty.

In order to obtain services under this warranty, it is the responsibility of the purchaser to promptly notify the Company in writing and promptly deliver the item in question, delivery prepaid to the factory. The address for notification and delivery is ACT, Inc. D'MAND Kontrols® Systems, 3176 Pullman Street, Suite 119, Costa Mesa CA 92626. If the product or part in question contains no defects as covered in the warranty, the purchaser will be notified and billed for parts and labor charges in effect at the time of factory examination and repair.

Any product or part not installed or operated in conformity with instructions or which has been subject to misuse, misapplication, the addition of petroleum based fluids or certain chemical additives to the system, or other abuse, will not be covered by this warranty.

Important Notice! In rare cases outdoor lawn sprinklers, Pool fillers/pumps, or hose bibs may cause pressure differences that can allow cross flow in the D'MAND Kontrols® System. Our patented (HSV) safety valve will be necessary to prevent cross-flow from the water heater. Cross-Flow may void our warranty on the D'MAND Kontrols® System.

ACT, Inc. OFFERS THIS WARRANTY IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY WARRANTY IMPLIED BY LAW INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS IS IN EFFECT ONLY FOR THE DURATION OF THE EXPRESS WARRANTY SET FORTH IN THE PARAGRAPH ENTITLED "LIMITED WARRANTY" AS SHOWN ABOVE.

THE ABOVE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR STATUTORY, OR ANY OTHER WARRANTY OBLIGATION ON THE PART OF ACT, INC. D'MAND KONTROLS® SYSTEMS.

ACT, INC. D'MAND KONTROLS® SYSTEMS WILL NOT BE LIABLE FOR ANY SPECIAL INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF ITS PRODUCTS OR ANY INCIDENTAL COSTS OF REMOVING OR REPLACING DEFECTIVE PRODUCTS.

This warranty gives you specific rights, and you 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, so those limitations or exclusions may not apply to you.

Please refer to our website at www.gothotwater.com for warranty and indemnification information.

July 2021