



**Patent #**  
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6.823.887 US  
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2.371.001 CA  
**Approval #**  
P3-0412-519 MA

**INSTALLATION , OPERATION & MAINTENANCE INSTRUCTIONS**

Authorized Distributor:

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[www.dulacdpi.com](http://www.dulacdpi.com)

**WHID INSTALLATION INSTRUCTIONS:**

All State and Local plumbing codes MUST be followed:

For Electric water heaters: **Turn OFF power supply**  
For Gas water heaters: **Turn off gas supply**

- Close the cold water supply shut-off valve to the water heater.
- Open the HOT water (only) on the highest faucet that is supplied by the water heater (this relieves the system pressure). Leave the faucet open.
- Drain all the water so that the HOT and COLD water lines can be cut to install the WHID. This can be accomplished in two ways:
  - 1) By opening the water heater drain valve. (it is not necessary to drain the entire water heater) or
  - 2) By opening the T&P valve. Place a bucket under the drain line attached to the T&P valve. (If a drain line is not installed, one must be installed to prevent scalding by hot water)
- Observe the installation diagrams on the back page and select installation.
- Attach unions to the check valve and the WHID to determine the length of pipe that needs to be removed from existing piping.

When tightening union on WHID be careful not to wrench against the PUSHFIT FITTING for the sensing line. This will crack the WHID housing and void the warranty.



- Once enough water has drained, cut COLD water line to attach the WHID diaphragm valve. Cut the HOT water line to attach the check valve. Ensure that the arrow on the WHID & the arrow on the check valve is in the direction of the water flow. Install unions and adapters on pipe ends. (Solder before installing the WHID or the check valve because internal parts of the WHID and the check valve will be damaged and void the warranty)

**WHID INSTALLATION INSTRUCTIONS CONTINUED:**

- Insert one end of the sensing line securely (until it stops) into the PUSHFIT FITTING on the WHID & the opposite end into the PUSHFIT FITTING on the Check Valve.
- Close the water heater drain valve on the water heater and ensure the T&P valve lever is in the closed position.
- Open the COLD water supply shut-off valve to the water heater and check for leaks as the systems fills.
- Return to the hot water faucet left open earlier and close it once all air has been purged out.
- Open all hot water faucets and purge out trapped air. Close all faucets.

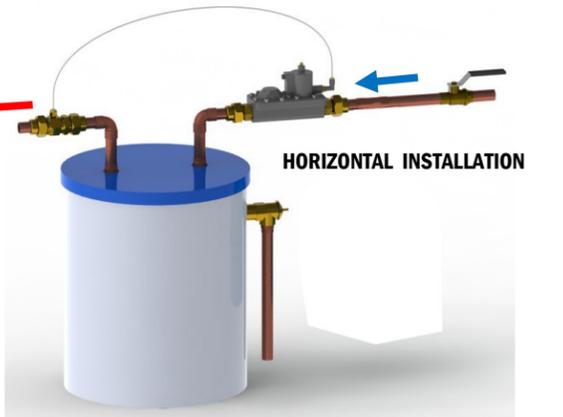
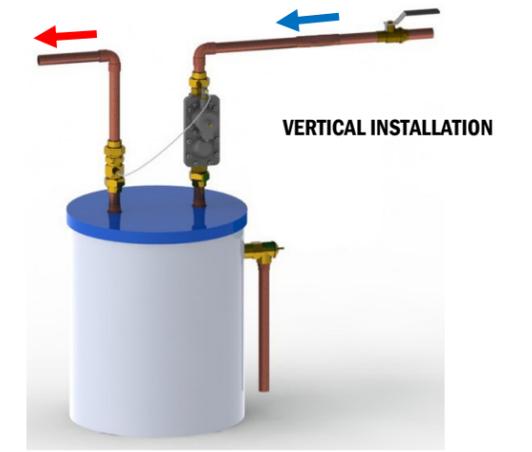
*Note: If air is introduced into the water heater the WHID will TRIP. To remedy the issue, reset WHID and run hot water until air is purged out.*

- Re-inspect the installation for leaks and fix if necessary.
- Follow directions for "Testing the WHID".
- Once testing is complete the WHID is active and protecting against a water heater leak.

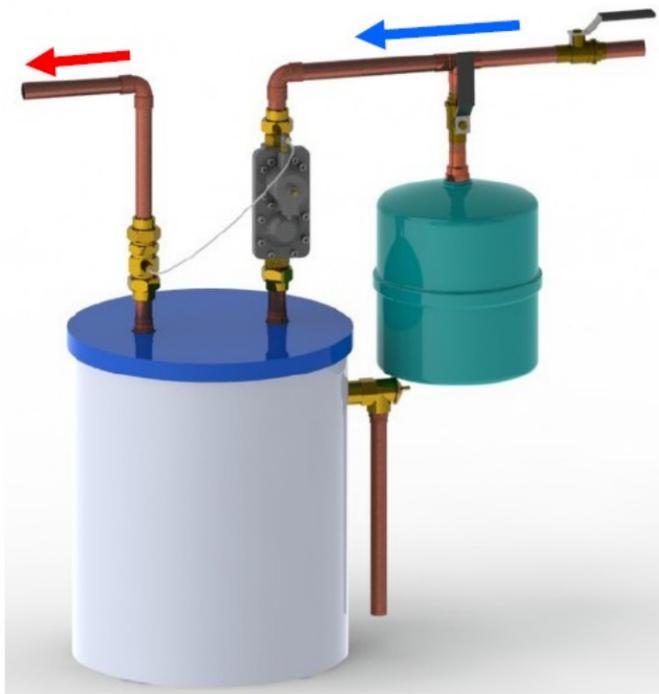
**Maintenance Tag:**

- Save these instructions for future reference in the bag provided. Adhere bag to the water heater using peel-n-stick on the back of the bag.
- Fill out maintenance tag and affix to water heater. (Peel-n-stick)
  - Record installation date
  - Installed by
  - Test date

**BASIC INSTALLATION WITHOUT EXPANSION TANK:**

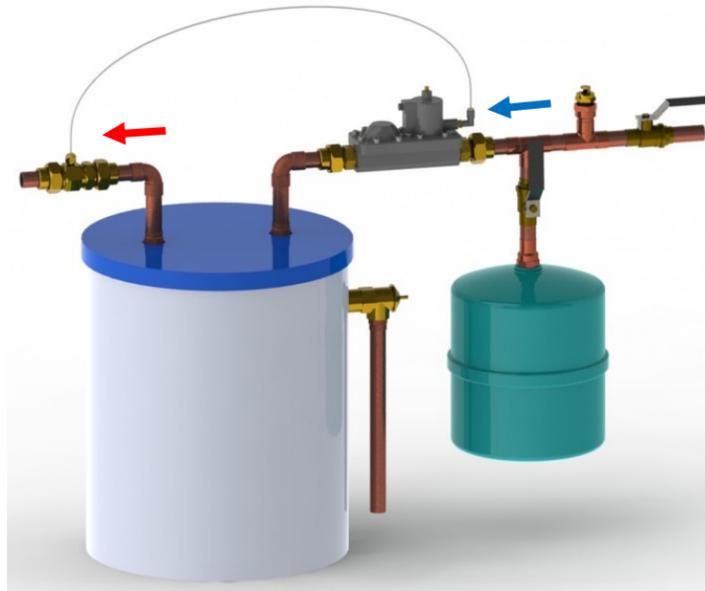


**INSTALLATION WITH AN EXPANSION TANK:**



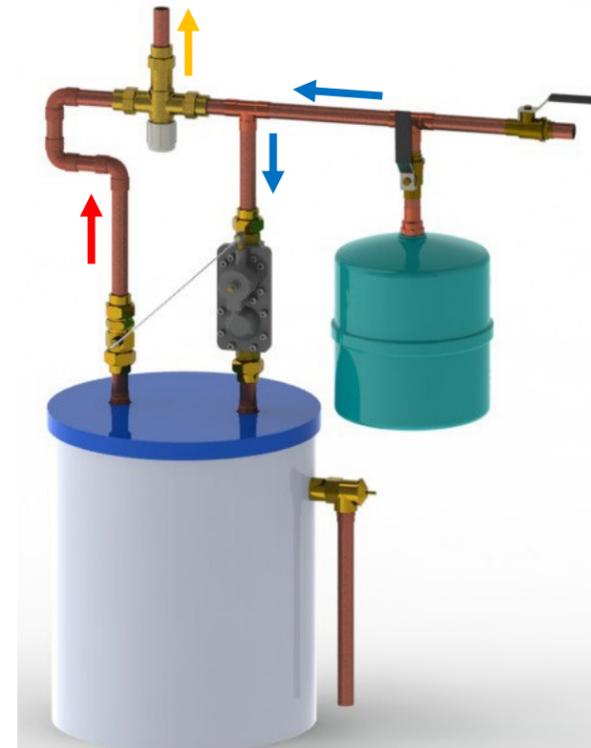
- Expansion tank is installed upstream of WHID
- A shut-off valve is installed on the expansion tank

**INSTALLATION WITH VACUUM BREAKER:**



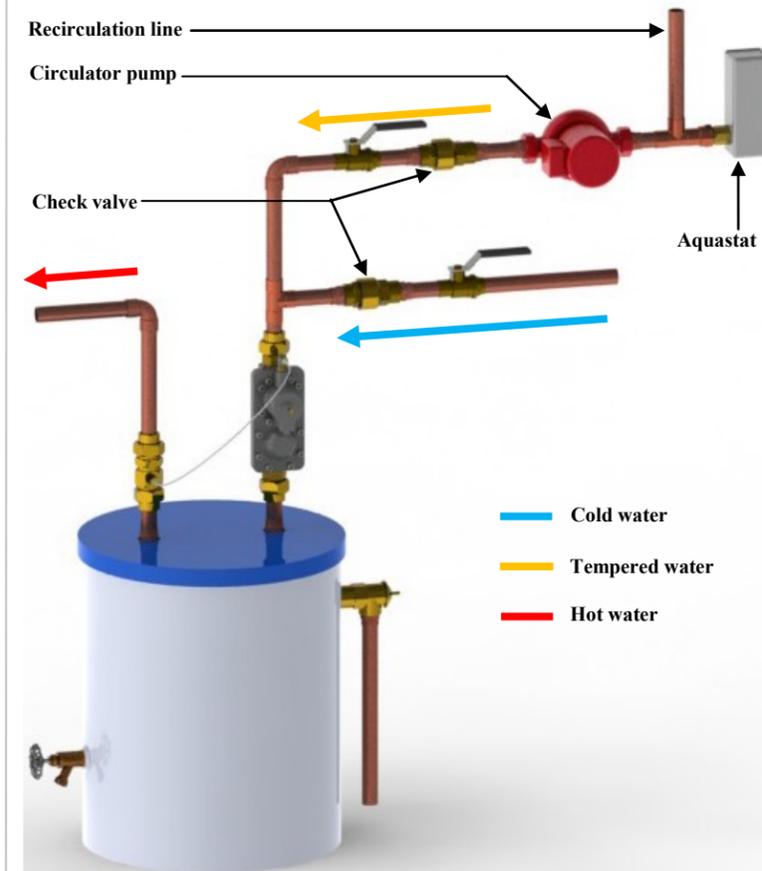
- Expansion tank is installed upstream of WHID
- A shut-off valve is installed on the expansion tank
- Vacuum breaker is installed upstream of the WHID before or after the expansion tank

**INSTALLATION WITH EXPANSION TANK & MIXING VALVE:**



- Mixing valve is installed as shown between hot and cold water lines
- A shut-off valve is installed on the expansion tank

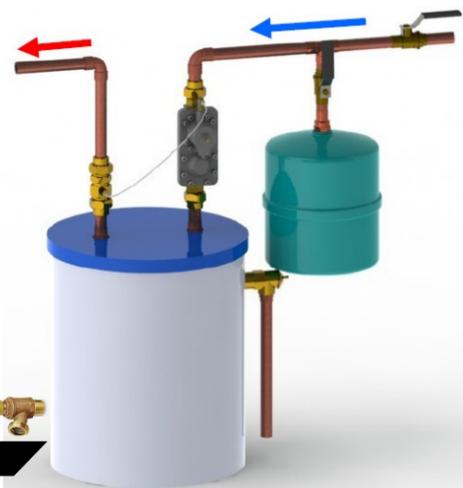
**INSTALLATION WITH RECIRCULATION LINE:**



— Cold water  
— Tempered water  
— Hot water

### TESTING THE WHID: ( Test at least once after installation)

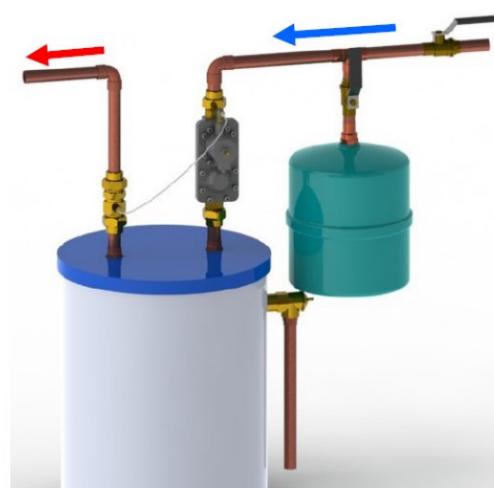
1. Ensure hot water is not being used.
2. Place pan under drain valve at the bottom of tank to catch water.
3. Simulate water leak: Open drain valve. After 1/2-1 cup of water drains, WHID will activate to stop water flow
4. The brass pin on WHID will pop-up showing red stripe. The red stripe indicates that the WHID has tripped
5. RESET WHID



**THE WHID MUST BE TESTED ONCE A YEAR!**

### RESET THE WHID:

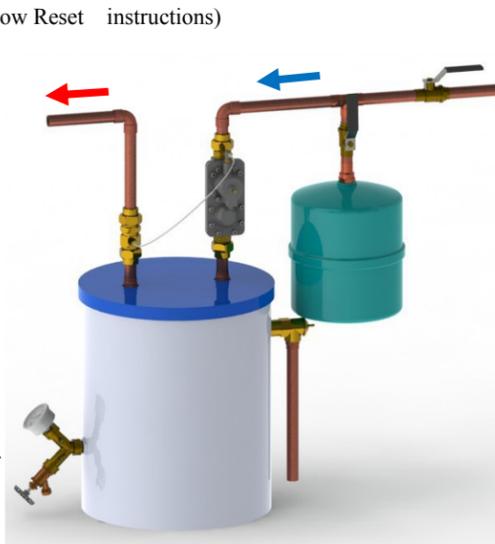
1. Make sure drain valve at the bottom of the tank is closed. Close cold water supply valve to water heater.
2. Close expansion tank shut-off valve if applicable. Open any hot water faucet
3. Open any hot water faucet to relieve pressure. (Note: If there is no shut off valve then you may have to wait 5-10 mins to reset WHID)
4. With your finger, push the WHID's BRASS RESET PIN in so the red stripe disappears.
5. **DO NOT USE HAMMER!** The pin will depress easily with your finger when all pressure is released.



- 6) Open cold water shut-off valve
- 7) Open expansion tank shut-off valve if applicable.
- 8) Return to the faucet. Normal flow should now be coming out. Turn off faucet. WHID is now operational.

### VERIFY WATER HEATER IS LEAKING:

1. RESET WHID (Follow Reset instructions)
2. Install pressure gauge and Y Fitting on the water heater drain valve as shown.
3. Drop only 5-10 lbs of pressure from the tank by cracking open the drain valve on Y fitting. Now close drain valve.
4. Once the drain valve is closed the pressure will increase to the same pressure before the 5-10 psi was lost. If pressure decreases there may be an internal leak in the water heater and it needs to be replaced.
5. If WHID continues to trip and issue cannot be determined. CALL THE FACTORY AT 1-800-807-9827



### TEMPORARY BYPASS:

In the event of an emergency and a water heater cannot be replaced in a timely fashion then the WHID reset pin can be locked for a short period of time. A clamp or cable tie can then be used to lock the brass pin in place to prevent the WHID from tripping to allow use of the hot water temporarily.

- 1) Follow RESET WHID instructions (Step 1 to 7)
- 2) Lock the pin (See pictures below)
- 3) Finish RESET WHID (Step 8)



Lock brass pin using cable tie



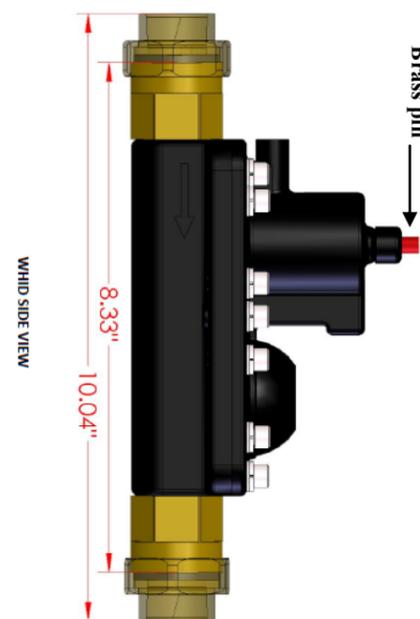
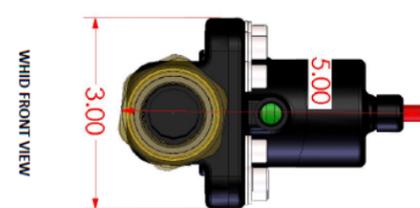
Lock brass pin using clamp

### TROUBLESHOOTING:

*Note: If air is introduced into the water heater the WHID will TRIP. To remedy the issue, reset WHID and run hot water until air is purged out.*

Problem	Check	Solution
When tested the WHID won't trip	WHID installed incorrectly.	Verify that the WHID and Check Valve arrows follow the water flow.
Water on Floor around water heater	T&P Valve leaking or fittings are not tight	1) Follow T&P manufacturer's instructions 2) Expansion tank may be defective or not sized correctly. This leads to uncontrolled thermal expansion. Replace expansion tank.
Water on floor around water heater	Water heater has a leak. (external or internal)	If WHID is working properly then water heater needs to be replaced
WHID trips continuously	WHID installed correctly.	Review Installation Instructions. Review Verify Water Heater is Leaking.

### WHID DIMENSIONS:



#### List of Components:

- [WHID]
- Check valve
- Sensing line
- Unions

#### Repair Kit:

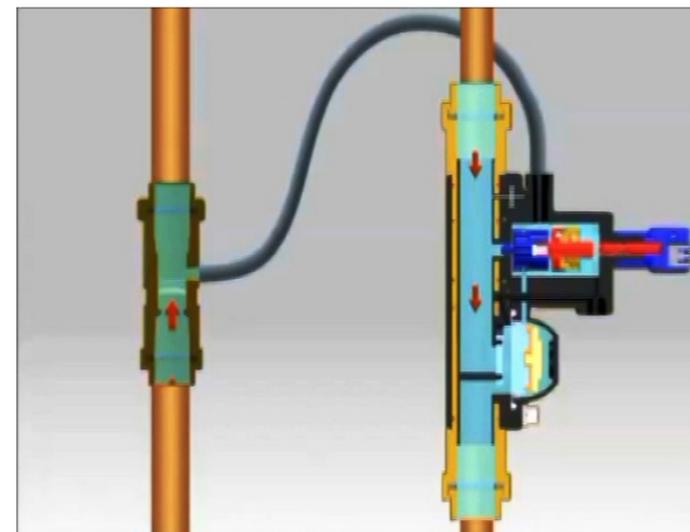
- Piston
- Diaphragm

#### Documents:

- Installation instructions
- Maintenance sticker

### WHID OPERATION:

- The WHID is a normally closed valve which opens every time hot water is drawn from a fixture.
- When hot water is drawn, it relieves the pressure on the diaphragm valve through the sensing line between the WHID and the check valve and allows cold water to enter the tank and hot water to flow through the check valve to the fixture.
- When a leak occurs between the water heater tank and the WHID and the tank pressure drops approximately 20 PSI or higher, than the water service pressure, the WHID will trip by internally supplying water service pressure directly to the diaphragm, locking it closed and preventing any further water supply to the tank.
- The brass reset pin will display a red ring giving a visual indication that the WHID has activated (tripped).



### LIMITED WARRANTY:

Dulac Plumbing Innovations Corp., "DPI", warrants each "WHID" to be free from defects in material and workmanship under normal usage for one (1) year on internal parts and five (5) years on the body of the device. "DPI" will repair or replace without charge (at the company's option) any product or part which is proven defective under normal use. DPI is not responsible for any labor for install or removal fee.

In order to obtain service under this warranty, it is the responsibility of the purchaser to promptly notify the local DPI stocking distributor in writing and promptly deliver the subject product or part with proof of purchase, delivery prepaid, to the stocking distributor. If, after factory examination, subject product or part is found to be defective, credit will be issued. If subject product contains no defect as covered in this warranty, the purchaser will be billed for parts and labor charged in effect at time of factory examination and repair.

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

Dulac Plumbing Innovations Corp. reserves the right to make changes in details of design, construction, or arrangement of materials of its products without notification.

DPI offers this warranty in lieu of all other express warranties. Any warranty implied by laws including warranties of merchantability or fitness is in effect only for the duration of the express warranty set forth in the first paragraph above.

**Dulac Plumbing Innovations Corp. 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 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, so these limitations or exclusions may not apply to you.**

November 7, 2012