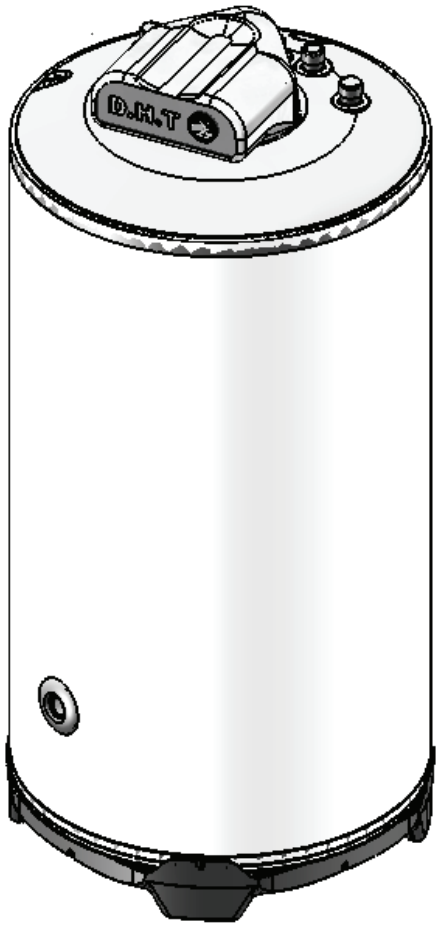
TECHTANIUM™ INDIRECT WATER HEATERS

Installation & Operating Instructions
Models MP 20, MP 32, MP 40 & MP 50



TO THE INSTALLER: This manual is the property of the owner and must be affixed near the water heater for future reference.

TO THE OWNER: This water heater should be inspected annually by a qualified Service Agency.

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified Installer or Service Agency.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. Installation and service must be performed by a qualified Installer or Service Agency.

DIVERSIFIED HEAT TRANSFER, INC.

NEW JERSEY HEADQUARTERS • 439 MAIN ROAD, TOWACO, NJ 07082
PHONE: 800-221-1522 • WEBSITE: WWW.DHTNET. COM
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Contents

I Safety

The warranty on this water heater is in effect only when the water heater is installed and operated in accordance with these instructions. The manufacturer of this water heater will not be liable for any injury or property damage resulting from failure to comply with these instructions.

WARNING! This water heater must be installed strictly in accordance with the instructions enclosed, and local electrical, fuel and building codes. It is possible that connections to the water heater or the water heater itself may develop leaks. IT IS THEREFORE IMPERATIVE that the water heater be installed so that any leakage of the tank or related water piping is directed to an adequate drain in such a way that it cannot damage the building, furniture, carpeting, adjacent areas, lower floors of the structure or other property subject to water damage. This is particularly important if the finished flooring or carpeted surfaces. DHT CANNOT BE HELD LIABLE for damage caused by water from the water heater, pressure relief valve, or related fittings. Closets without drains and carpeted areas are examples of unsuitable locations for any water heater. Select a location as centralized within the piping system as possible. The heater should be located in an area not subject to freezing temperatures in any location selected. It is recommended that a suitable drain pan be installed under the water heater. This pan shall be a minimum of 50mm (2 in.) deep and have a diameter that is a minimum of 50mm (2 in.) greater than the diameter of the water heater. Suitable piping shall connect the drain pan to a properly operating floor drain.

Relief Valve Requirements

Caution: To reduce the risk of excessive pressures and temperatures in this water heater, install temperature and pressure protective equipment required by local codes. It should be no less than a combination temperature and pressure relief valve certified by a nationally recognized testing laboratory that maintains periodic inspection of production of listed equipment or materials, as meeting the latest edition of ANSI Z21.22: Requirements for Relief Valves and Automatic Gas Shut-off Devices for Hot Water Supply Systems. This valve must be marked with a maximum set pressure not to exceed the marked MAXIMUM working pressure of the water heater (150 PSI). Install the valve into an opening provided and marked for this purpose in the water heater, and orient it or provide tubing so that any discharge from the valve will exit only within 6 inches above, or any distance below the structural floor and cannot contact any live electrical part. The discharge opening must not be blocked or reduced in size under any circumstances. The end of the relief pipe opening should terminate near a floor drain or other suitable location not subject to blocking or freezing. DO NOT thread, plug or cap the relief pipe opening.

⚠ DANGER

- Water temperatures over 125ºF can cause severe burns instantly or death from scalds.
- Children, disabled, and elderly are at the highest risk of being scalded.
- See instruction manual before setting temperature at water heater.
- Feel water before bathing or showering.
- Temperature limiting valves are available, see manual.

⚠ NOTICE

The Techtanium Indirect-fired water heater is deemed to be used in a "commercial setting" if at any time the unit is operated at a temperature over 150ºF. Refer to warranty for additional information.

II Product Selection

1. The following guidelines apply to residential systems only. For commercial or institutional installations contact the factory directly for assistance.

2. Determine the quantity of domestic hot water required. Factors to consider:

a. Estimate typical peak hour demand. Determine the general time of day (morning, noon, evening) when the most hot water is used. Use chart below to determine potential maximum usage.

Estimate of Peak Domestic Hot Water Usage

Use	Average Gallons of Hot Water per Usage	Times Used During One Hour		Times Used During One Hour
Shower	20	x_____	=	x_____
Bath	20	x_____	=	x_____
Shaving	2	x_____	=	x_____
Hands and Face Washing	4	x_____	=	x_____
Hair Shampoo	4	x_____	=	x_____
Hand Dish Washing	4	x_____	=	x_____
Automatic Dish Washing	14	x_____	=	x_____
Food Preparation	5	x_____	=	x_____
Wringer Clothes Washer	26	x_____	=	x_____
Automatic Clothes Washer	32	x_____	=	x_____
		Total Peak Hour Demand	=	

b. Estimate unusual peak draw demand. Whirlpool baths, hot tubs, and multiple head showers require large quantities of hot water in a short period of time. Contact fixture manufacturer for quantity of water required. Generally speaking, these circumstances can only be met with larger storage volumes.

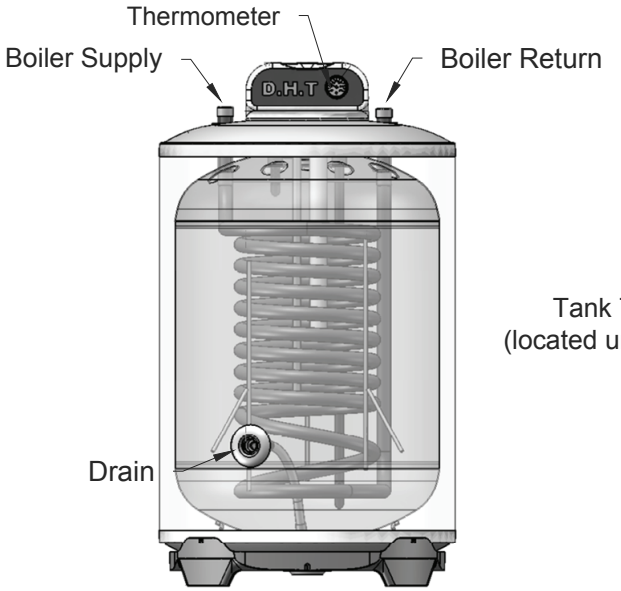
c. Domestic Water Temperature. Most residential usage will be satisfied with 119ºF water, the temperature setting recommended by the Consumer Product Safety Commission. Some applications such as laundry and dishwashers may require a higher temperature.

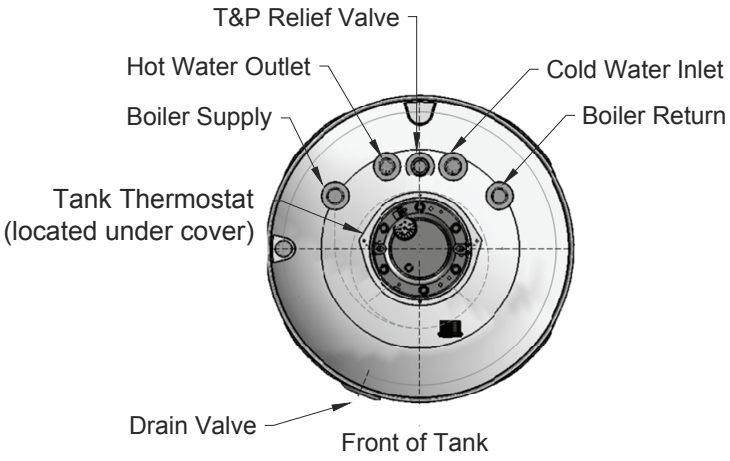
Ratings can be improved by increasing Techtanium thermostat setting and using a mixing valve to temper the hot water to the proper temperature. When temperatures greater than 119ºF are required, use a mixing valve at the outlet of the water heater or anti-scald fittings at point of use.

III Specifications and Performance

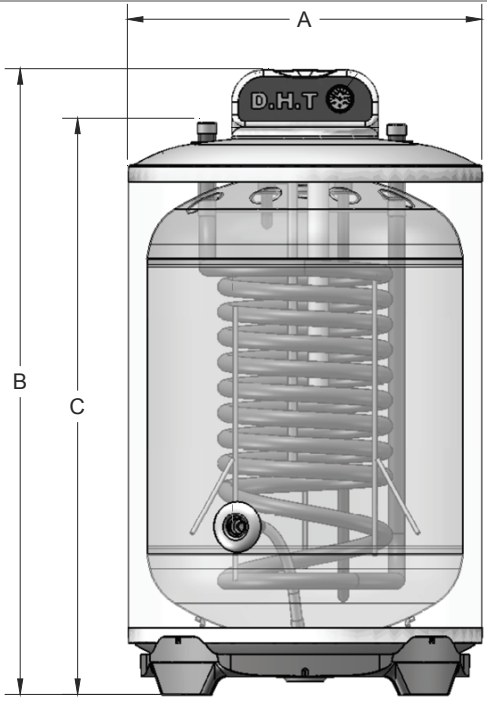
MP Model	Units	20	32	40	50
Tank Capacity	Gallons	21.2	31.7	42.3	52.9
Minimum Recommend Power	Btu/Hr.	75,000	95,000	115,000	140,000
Maximum Working Pressure	P.S.I.	150	150	150	150
Maximum Temperature	Degrees F	194	194	194	194
Weight (empty)	Pounds	74.8	99	112.2	136.4
Weight (full)	Pounds	251.4	363.1	464.6	577

Connection Diagram





Dimensions

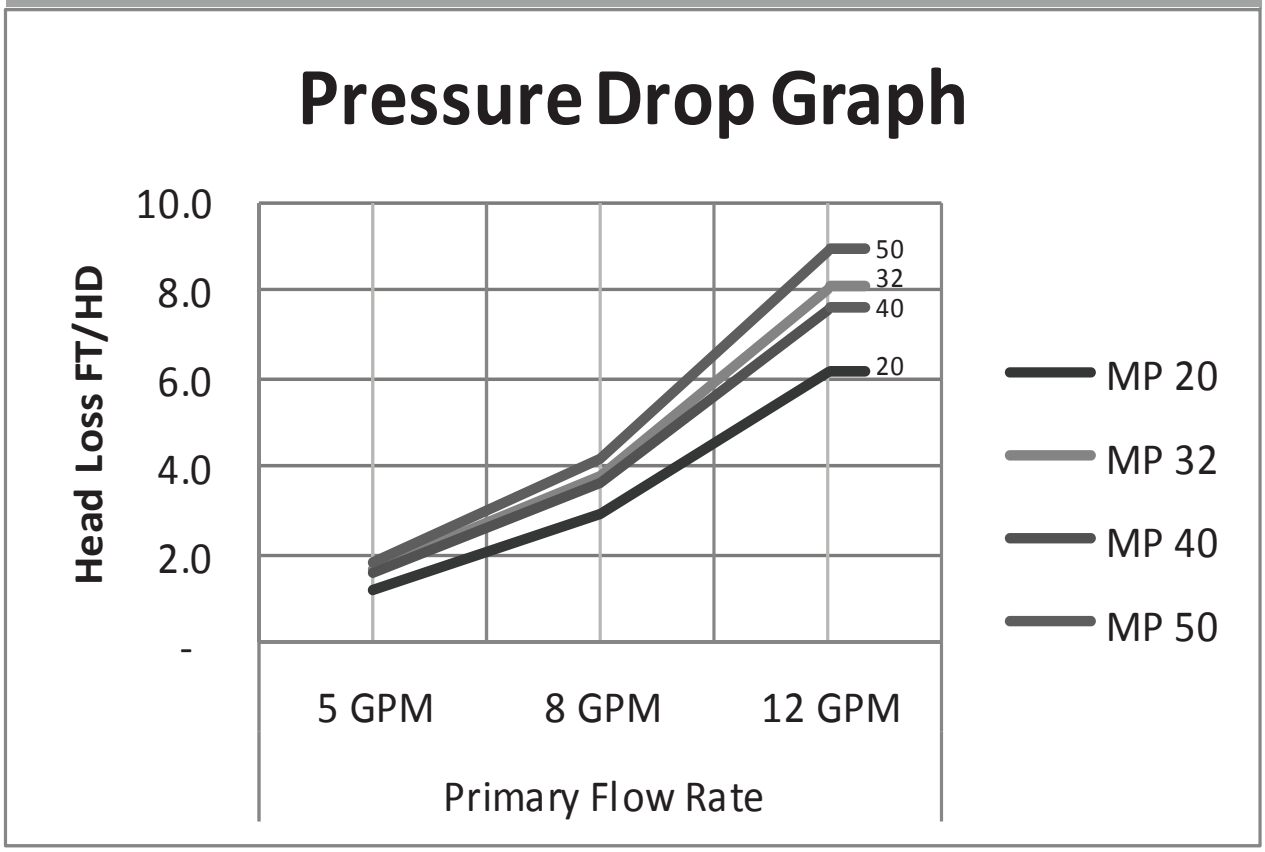


	MP 20	MP 32	MP 40	MP 50
A	22.4"	22.4"	22.4"	22.4”
B	31.1"	39½"	47.9"	56¾"
C	27.6"	36"	44.4"	53.2"

Pressure Drop Table

Model Number	Primary Flow Rate			Unit
	5 GPM	8 GPM	12 GPM	
MP 20	1.2	2.9	6.2	**ft / hd**
MP 32	1.6	3.8	8.0	**ft / hd**
MP 40	1.6	3.6	7.6	**ft / hd**
MP 50	1.8	4.2	8.8	**ft / hd**

Pressure Drop Graph



Performance Data MP 20

Continuous Draw Ratings Based Upon Boiler's Ability to Maintain 180º F							
	Model	**MP 20**					
Circulator Flow GPM		**5**	**5**	**8**	**8**	**12**	**12**
DHW Temperature		120ºF	140ºF	120ºF	140ºF	120ºF	140ºF
Boiler Heating Capacity in Btu/Hr. Output	**45,000**	76	56	76	56		
	60,000	95	69	95	69		
	75,000	116	83	116	83		
	95,000	120	86	134	95	142	101
	115,000	120	86	134	95	156	111
	140,000			134	95	156	111
	165,000					168	119
	195,000						

Ratings based upon domestic cold water entering temperature of 58ºF

Performance Data MP 32

Continuous Draw Ratings Based Upon Boiler's Ability to Maintain 180º F							
	Model	**MP 32**					
Circulator Flow GPM		**5**	**5**	**8**	**8**	**12**	**12**
DHW Temperature		120ºF	140ºF	120ºF	140ºF	120ºF	140ºF
Boiler Heating Capacity in Btu/Hr. Output	**45,000**	106	78	106	78		
	60,000	134	97	134	97		
	75,000	162	116	162	116		
	95,000	168	120	188	134	198	141
	115,000	168	120	188	134	219	155
	140,000			188	134	219	155
	165,000					236	167
	195,000						

Performance Data MP 40

Continuous Draw Ratings Based Upon Boiler's Ability to Maintain 180º F							
	Model	**MP 40**					
Circulator Flow GPM		**5**	**5**	**8**	**8**	**12**	**12**
DHW Temperature		120ºF	140ºF	120ºF	140ºF	120ºF	140ºF
Boiler Heating Capacity in Btu/Hr. Output	**45,000**	110	82	110	82		
	60,000	138	101	138	101		
	75,000	166	120	166	120		
	95,000	172	124	192	138	202	145
	115,000	172	124	192	138	223	159
	140,000			192	138	223	159
	165,000					240	171
	195,000						

Ratings based upon domestic cold water entering temperature of 58ºF

Performance Data MP 50

Continuous Draw Ratings Based Upon Boiler's Ability to Maintain 180º F							
	Model	**MP 50**					
Circulator Flow GPM		**5**	**5**	**8**	**8**	**12**	**12**
DHW Temperature		120ºF	140ºF	120ºF	140ºF	120ºF	140ºF
Boiler Heating Capacity in Btu/Hr. Output	**45,000**	117	91	117	91		
	60,000	142	108	142	108		
	75,000	167	125	167	125		
	95,000	201	148	201	148	201	161
	115,000	201	148	231	169	236	186
	140,000			231	169	252	198
	165,000					252	198
	195,000						

IV Installation & Piping

The Location of the Techtanium heater:

Locate the heater so that there is easy access to the control, piping, valves, drain and heater for future servicing and maintenance. The heater is to be kept in an area where it is not exposed to freezing temperatures.

Also, the heater must be located in an area where a leak (eg. from the piping or fittings, from any temperature and relief valve discharge, or from the tank itself), will not cause personal harm or damage the surrounding area. The tank should be installed in an area with a floor drain or in a pan suitable for water heaters.

Read the Installation and Operating Instructions manual thoroughly. Follow recommended piping and wiring diagrams. Upon completing installation, fill the tank with water. While filling it leave a hot water faucet open until a steady stream of water is flowing. Then, shut the faucet and check for any leaks throughout the entire system.

The Tank should be installed in an area with a floor drain or in a pan suitable for water heaters.
DHT will not be held liable for any damages caused by water leakage. The floor or area where the tank is installed must be capable of supporting the tank when filled with water. (Refer to the Specifications Table on the page 3)

FOR YOUR SAFETY: Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance. Controls on this appliance could ignite vapors causing an explosion.

General:

a. All plumbing must be in accordance with the requirements of the authority having jurisdiction.
b. Use both thread tape and pipe dope on all mechanical connections.
c. Zone valve (if used) and circulator must be sized to provide minimum flow rate specified in the table to the right, Flow Specifications. Use 1 inch nominal copper tubing for flows greater than 7 GPM between the boiler and heat exchanger. See the tables on Friction Loss. Point of emphasis: using a zone valve without a full bore may cause high pressure drop which will adversely affect performance.
Use extreme care when selecting zone valve.
d. All piping must be adequately supported.
e. Allow for thermal expansion.
f. Dielectric Unions (recommended) -used to electrically isolate the Techtanium tank from the connected domestic water piping. This helps to minimize the possibility of corrosion
damage.

Flow Specifications

Model Number	Recommended Flow Rate	Heat Exchanger Pressure Drop (ft. hd.)	Domestic Water Connection Sizes
MP-20	5 GPM	1.2	3/4”
MP-32	8 GPM	3.8	3/4”
MP-40	12 GPM	7.6	3/4”
MP-50	12 GPM	8.8	3/4”

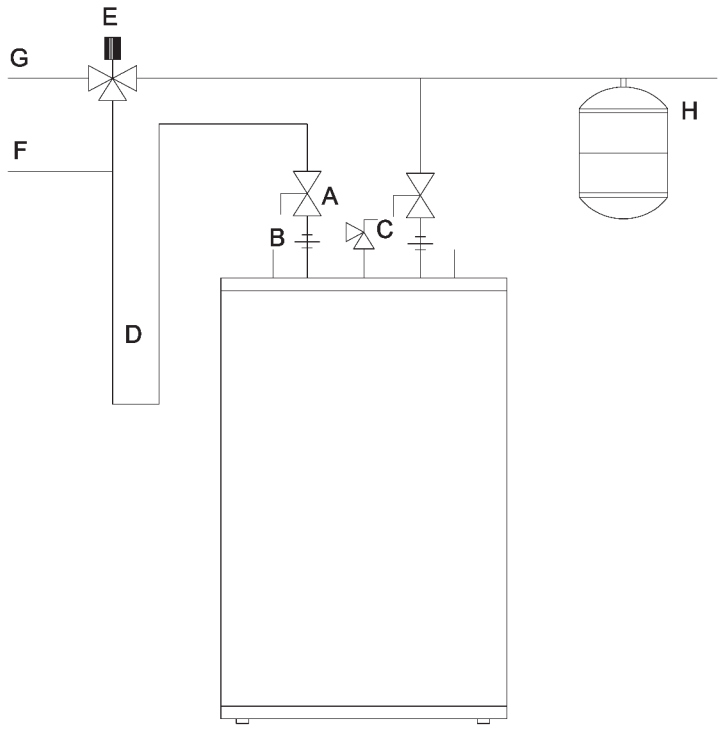
Friction Loss per 100’ of Tubing (psi)

Tubing Type	Flow Rate 10 GPM	Flow Rate 15 GPM
Type K	3.1 psi	6.5 PSI
Type L	2.7 psi	5.7 psi
Type M	2.3 psi	4.7 psi

Friction Loss Allowance for Copper Fittings (ft. of tubing)

Fitting	Wrought	Cast
90º Elbow	1	4
45º Elbow	1	2
Tee—Run	1/2	1/2
Tee-Branch	3	5
Long radius 90º Elbow	2	-
180º Bend	2	-
Gate Valve	-	1

IV Installation/Piping (cont'd)



Legend

A Ball Valve—Typical

B Dielectric Union—Suggested

C Temperature & Pressure Relief Valve

D Heat Trap Loop—Suggested

E Thermostatic Mixing Valve –Suggested

F High Temperature Outlet

G Mixed Temperature Outlet

H Expansion Tank in Cold Water Supply

Note: For drawing clarity, additional isolation valves and other accessories have been omitted. Follow normal piping practices when installing tank.

Domestic Water:

A. Install isolation valve between the water supply and the cold water inlet of the tank for ease of service.

B. Installing a heat trap in the domestic hot water outlet piping will improve energy efficiency and reduce piping heat loss.

C. A Thermostatic Mixing Valve is recommended and may be required by local codes. The valve will blend the tank output water with cold water to achieve a more constant mixed temperature. The risk of scalding is not eliminated by use of a mixing valve. Refer to the installation instructions provide by the mixing valve manufacturer for proper installation.

D. Expansion Tank: When a back-flow device or "no-return" valve is installed in the piping system a Thermal Expansion Tank designed for use in a domestic hot water system will be required. Install the tank in the cold water piping close to the tank between the tank and the back-flow device. (see piping diagram) Refer to Thermal Expansion Tank manufacturer's literature for sizing and installation information.

E. Vacuum Breaker: DHT recommends that a vacuum breaker be installed on the domestic piping to the heater. The vacuum breaker protects the heater in the event that the tank pressure falls below atmospheric pressure.

F. Temperature & Pressure Relief Valve: (T&P) Install a T&P relief valve (long element type) into the separate tapping designated for the T&P valve. Install temperature and pressure protective equipment required by local codes, but no less than a combination temperature and pressure relief valve certified as meeting the requirements for relief Valve and Automatic Shutoff Devices for Hot Water systems, ANSI Z21.22, by a nationally recognized testing laboratory that maintains periodic inspection of listed equipment or materials. The valve must be oriented, provided with tubing or otherwise installed so that discharge can exit only within six (6) inches above, or at any distance below, the structural floor, and cannot contact any electrical part. The valve must be piped to an area where discharge will not cause personal injury or damage the surrounding area.

WARNING
Install a T&P relief valve with a rated capacity equal or greater that the output of the energy source. Removal of the T&P Valve or failure to replace the valve will release the manufacturer from any claim which might result from excessive temperatures and pressures

V Wiring

All wiring must be done in accordance with National, State and local codes. Adhere to the National Electric Code - ANSI/NFPA 70-1990 in the absence of any other codes.

Power must be shut off before installing or servicing the heater. A separate shut off switch should be installed to support future servicing or an emergency shutdown. The entire heating system should have its own designated electrical circuit.

The Techtanium heater operates in much the same way as an additional heating zone, either utilizing the same circulator as household heating or its own circulator. The heater temperature is maintained by the use of an immersion type aquastat. The aquastat is installed into the immersion well on the heater.

The aquastat operates in much the same way as a thermostat. When the temperature falls inside the tank the set of contacts make (close) and when the temperature rises the contacts break (open).

The aquastat should be tied into the boiler system and controls. When the tank calls for heat the aquastat contacts close and signal the boiler controls, allowing the boiler to maintain temperature and proper operation of the tank circulator.

DHT recommends the use of a priority control to help the boiler maintain desired temperature and satisfy the tank's BTU requirements.

The Techtanium heater recovery ratings are based on the boiler's ability to maintain 180 degrees Fahrenheit. It is important that the installer, plumber or heating technician responsible for installing the heater, make certain that the boiler capacity (BTU) is adequate to satisfy the heater's BTU requirements.

DANGER

Water temperature over 125ºF
can cause severe burns instantly or
death from scalds.

Children, disabled and elderly are at
highest risk of being scalded.

See instruction manual before setting
temperature at water heater.

Feel water before
bathing or showering.

Temperature limiting valves are
available, see manual.

Wiring and Thermostat Setting

Wiring: The thermostat is rated for 15 amps. Follow the wiring instructions in section V pages 11 to 16 in this manual. Terminals C & 1 are normally open and close (make) on temperature decrease. Similar to most water heater aquastats or controls. The contacts open (break) on temperature rise – when the tank reaches the set temperature. Connect system wires to wiring block located under cover.

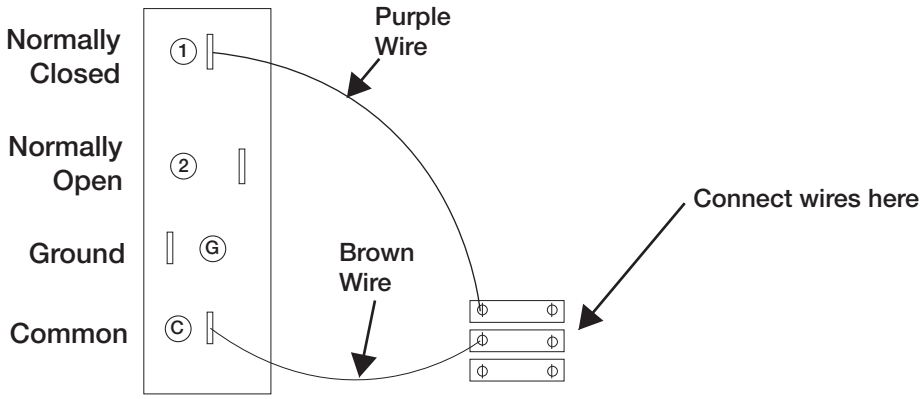
Auxiliary contacts: Terminals C & 2 for solar, heating or other applications are normally closed and open (break) on temperature decrease. This operation is opposite most water heaters and should only be used for auxiliary equipment.

Set the temperature by rotating the screwdriver slot to align with the desired setting. Please refer to the instruction manual for cautionary information regarding water temperature safety.

It is important to check the output temperature of any water heater with a thermometer to insure that the setting is correct.

In accordance with local and national plumbing codes it is highly recommended that a thermostatic mixing valve be used to protect the user from potential hazard due to spikes in temperature.

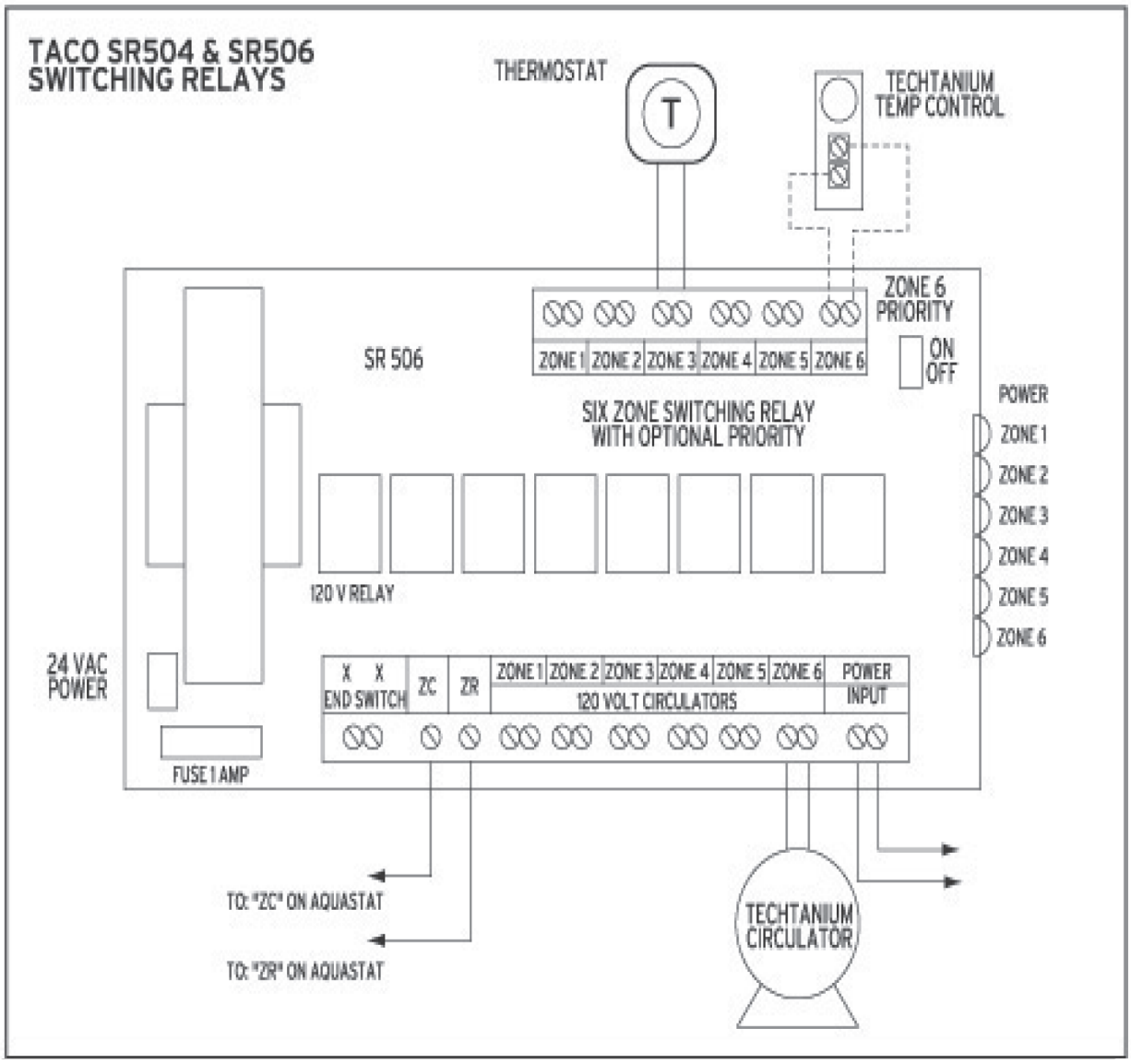
Note:
For use with a tank sensor, remove the tank thermostat capillary (black coated) and insert the sensor recommended by your control or boiler manufacturer (usually 10 K ohms) into the well.



Important Notes

CAUTION: When using the optional wall bracket ***(vertical position only)*** insure that the wall and fasteners are capable of supporting the weight of the tank when filled with water (see page 3, Section III for weights). Refer to the bracket installation instructions included with the optional bracket.

Tankless Coil Boiler Application - Priority Figure 3a.



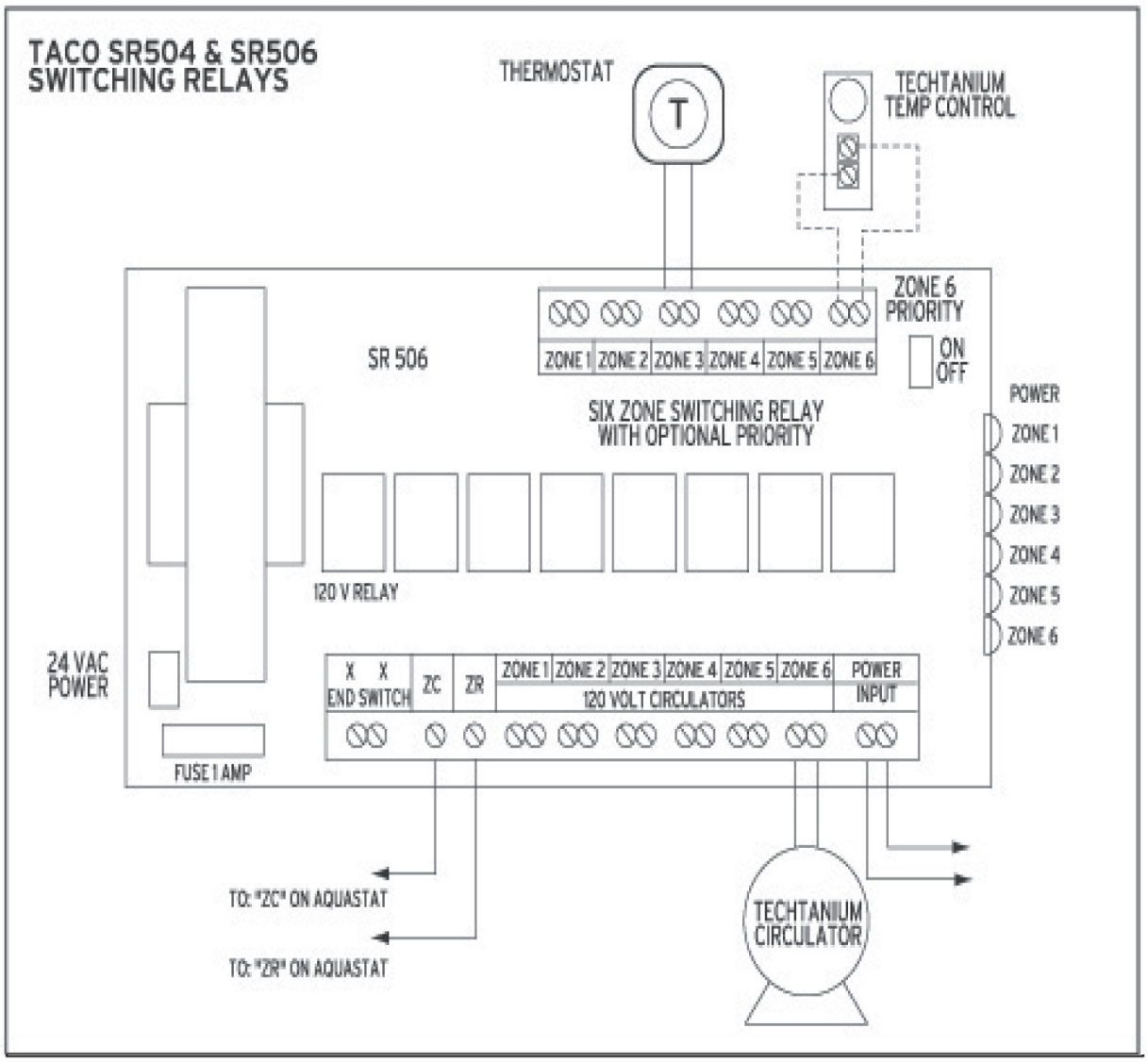
Operation: When any thermostat calls for heat, the boiler is given a signal to start. The appropriate circulator is energized only when the boiler temperature is above the low limit.

Priority Operation: When Zone 6 is switched to the priority setting and is activated, all other zones will stop operation until zone 6 is satisfied. When Zone 6 is not switched to priority, all zones will operate independently.

Jumper Placement: REMOVE the jumper between terminals ZC and ZR. Connect terminal ZC to ZC terminal on the aquastat control. Connect terminal ZR to ZR terminal on the aquastat control. Confirm polarity is consistent between the boiler aquastat and the switching relay.

Power input: Connect 120 volt as power input to terminals N and H. Neutral wire to terminal N. Hot wire to terminal H.

Cold Start Boiler Application - Priority Figure 3b.



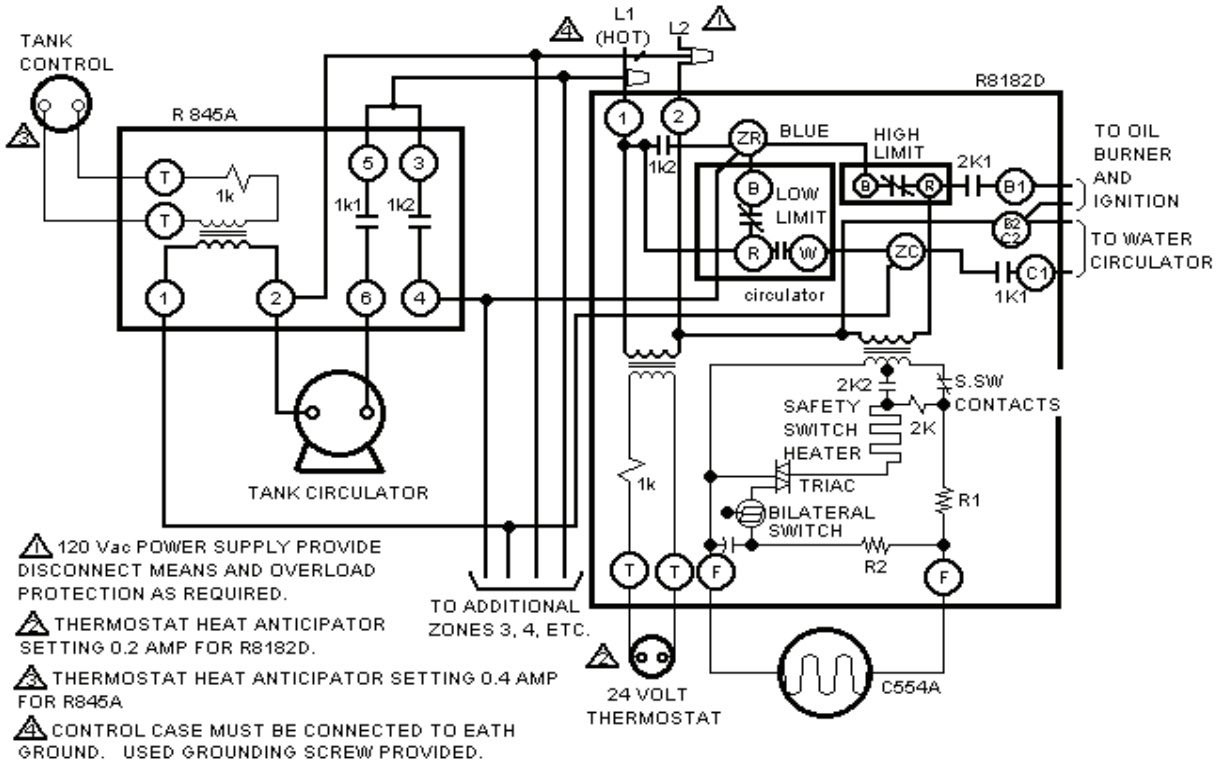
Operation: When any thermostat calls for heat, appropriate circulator is energized and the isolated end switch (X-X) will start the boiler.

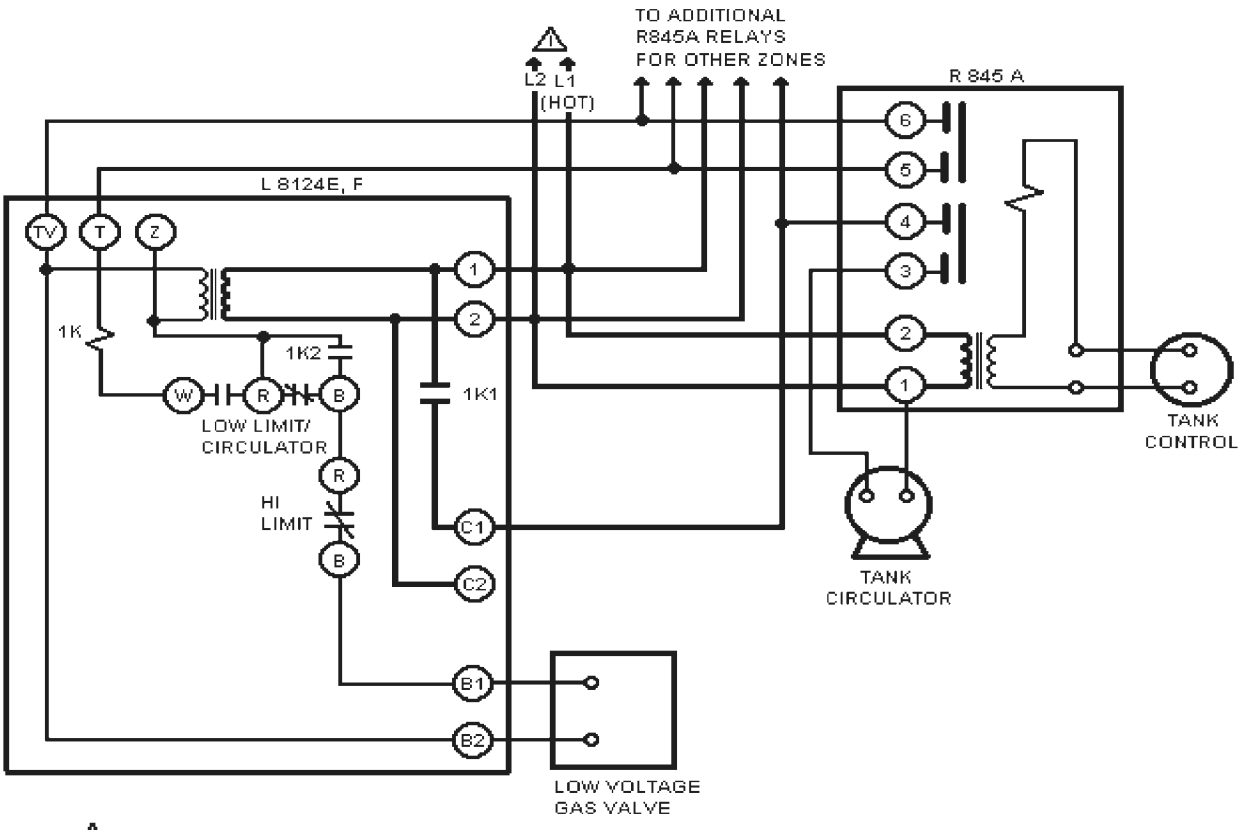
Priority Operation: When Zone 6 is switched to the priority setting and is activated, all other zones will stop operation until zone 6 is satisfied. When Zone 6 is not switched to priority, all zones will operate independently.

Jumper Placement: The jumper should be placed between terminals ZC and ZR. Connect the isolated end switch to the aquastat on the boiler

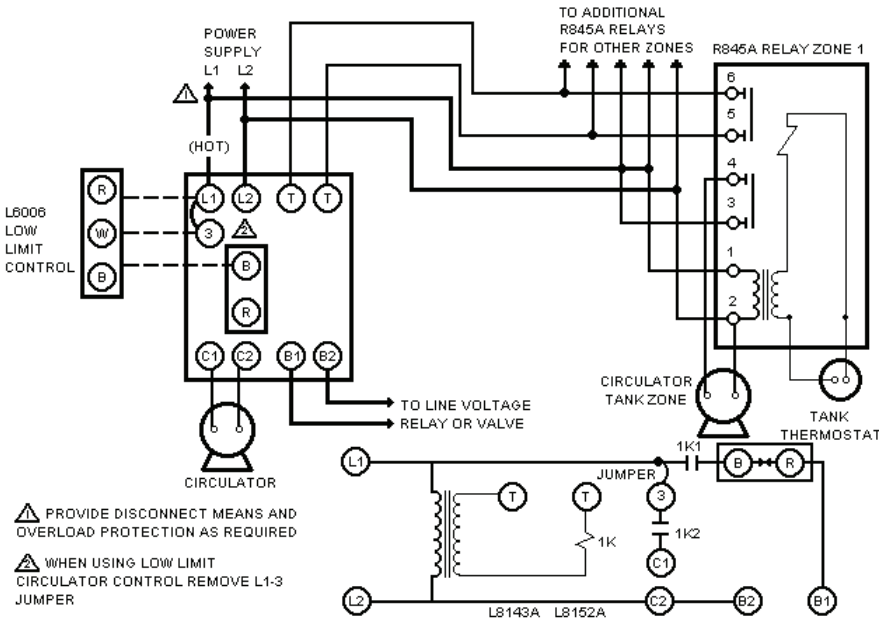
Power input: Connect 120 volt as power input to terminals N and H. Neutral wire to terminal N. Hot wire to terminal H.

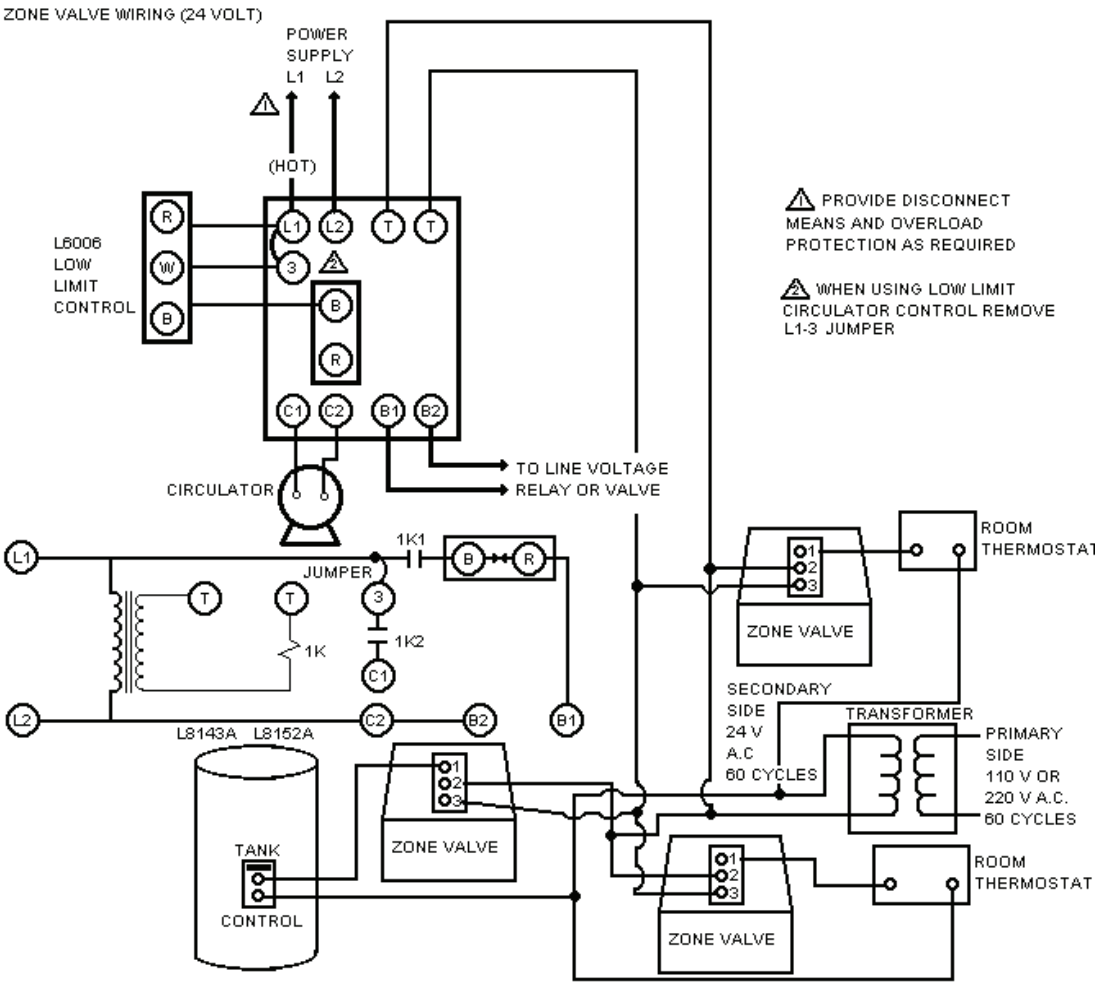
Wiring Diagrams





Wiring Diagrams





VI Maintenance

To ensure efficient and safe operation, DHT recommends the servicing of the heater by a competent service technician.

Lime or Sediment Buildup (Every 6 months)
To reduce the buildup of lime or sediment it is recommended that the tank be flushed every six months.

1. Drain the tank through the drain valve at the bottom of the tank until the water is clear.

2. Inspect the tank for any deposits of lime or sediment.

3. Remove lime, scale or deposits using care not to damage the tank lining.

Temperature & Pressure Relief Valve (Every 12 months)

1. Before manually testing the T & P valve, make sure the valve is piped in a manner that will not cause harm or damage any surrounding area.

2. Manually open the relief valve and allow it to flush out any lime or sediment deposits.

3. Allow the relief valve to snap shut, making sure the seal closes properly.

Magnesium - Anti-Corrosion Anodes (No longer than every 12 months)

Removal of the anodes:

1. Shut off all power to the heater.

2. Close the domestic cold water supply valve.

3. Open the household hot water taps.

4. Attach a hose to the drain valve located at the bottom of the heater and allow the heater to drain.

5. Unscrew the anodes.
EXAMINE THE ANODES AND REPLACE IF THEY SHOW SIGNS OF DETERIORATION.

6. Replacement of the Anodes -- The use or P.T.F.E. tape is recommended to ensure watertight connection of the anodes.

Failure to inspect the anodes may result in premature failure of the heater and could void the warranty.

Owner Information

Model Number: _____

Serial Number: _____

Installation Date: _____

Wholesaler: _____

Original Owner Name: _____

Address: _____

City: _____ **State:** _____

Zip Code: _____ **Additional Information:** _____

_____

_____

TECHTANIUM™
INDIRECT WATER HEATERS

DIVERSIFIED HEAT TRANSFER, INC.

LIMITED WARRANTY FOR DIVERSIFIED HEAT TRANSFER, INC. TECHTANIUM™ INDIRECT-FIRED WATER HEATER

Your Techtanium™ indirect-fired water heater is protected by these warranties. These warranties are applicable to **original residential or commercial purchasers only.**

THE FOLLOWING WARRANTIES ARE EXCLUSIVE AND ARE GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ANY OBLIGATION, LIABILITY, RIGHT, CLAIM OR REMEDY IN CONTRACT OR TORT, WHETHER OR NOT ARISING FROM DIVERSIFIED HEAT TRANSFER'S NEGLIGENCE, ACTUAL OR IMPUTED.

THE REMEDIES OF THE **ORIGINAL PURCHASER** SHALL BE LIMITED TO THOSE PROVIDED HEREIN TO THE EXCLUSION OF ANY OTHER REMEDIES INCLUDING WITHOUT LIMITATION, SPECIAL, INDIRECT, INCIDENTAL AND/OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO PROPERTY DAMAGE, LOST PROFIT, OR DAMAGES ALLEGED TO HAVE BEEN CAUSED BY ANY FAILURE OF DIVERSIFIED HEAT TRANSFER TO MEET ANY OBLIGATION UNDER THIS AGREEMENT INCLUDING THE OBLIGATION TO REPAIR AND REPLACE SET FORTH BELOW.

NO AGREEMENT VARYING OR EXTENDING THE FOREGOING WARRANTIES, REMEDIES, OR THIS LIMITATION WILL BE BINDING UPON DIVERSIFIED HEAT TRANSFER UNLESS IN WRITING AND SIGNED BY A DULY AUTHORIZED OFFICER OF DIVERSIFIED HEAT TRANSFER. DIVERSIFIED HEAT TRANSFER DOES NOT ASSUME OR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECITON WITH THE SALE OF ITS PRODUCTS.

THIS WARRANTY EXTENDS ONLY TO THE FIRST (ORIGINAL) RETAIL PURCHASER OF THE TANK AND ONLY WHILE THE TANK IS OWNED BY THAT PURCHASER AND REMAINS AT ITS ORIGINAL LOCATION. CHANGE IN OWNERSHIP OR RELOCATION OF THE TANK SHALL FOREWITH TERMINATE THIS WARRANTY WITHOUT FURTHER NOTICE.

WARRANTY COVERAGE FOR RESIDENTIAL USAGE - 7 YEARS

The Warranties listed in this section shall apply to Diversified Heat Transfer Techtanium™ indirect-fired water heaters used in a residential setting by **original purchasers only**. A "residential setting" as used herein shall mean usage either (a) in a single family dwelling in which the original consumer purchaser of the indirect-fired water heater resides on a permanent basis or (b) in a multiple family dwelling provided that such Techtanium indirect-fired water heater services only one family unit in a multiple family dwelling; provided that the term "residential setting" shall not include any usage of the Techtanium indirect-fired water heater above 150 degrees Fahrenheit.

During the specified warranty period of the indirect-fired water heater, Diversified Heat Transfer Inc., will repair or replace, at its option, without charge, any indirect-fired water heater having a defect or malfunction that results in a water leak from the outside jacket, inner tank, or heat exchanger as a result of normal use and service. It is expressly agreed between Diversified Heat Transfer and the original residential purchaser that repair or replacement is the exclusive and sole remedy of the original purchaser.

Any claim under this warranty must be verified by an authorized Diversified Heat Transfer (also referred to as DHT) representative: if the claim is found to be valid, DHT will repair or replace the tank as set forth herein, within a reasonable time after verification. If DHT chooses in its discretion to repair any indirect-fired water heater for which there is a valid warranty claim, DHT shall provide parts that are compatible with the subject indirect-fired water heater, which parts need not be identical to the original. If DHT chooses, in its discretion, to replace any indirect-fired water heater for which there is a valid warranty claim, DHT shall replace the subject indirect-fired water heater with the same model or, if such model is not available, with a model which is, in DHT's reasonable judgment, the nearest compatible model available at the time of replacement. Removal of the Techtanium water heater and replacement with a different brand will fully invalidate this warranty coverage.

If Diversified Heat Transfer is unable to repair or replace or otherwise comply with its liability under these warranties, after a reasonable number of attempts, then the original consumer purchaser's sole and exclusive remedy for such breach shall be either a replacement product or a full refund of the purchase price (exclusive of freight, labor and installation), as determined by Diversified Heat Transfer.

If the original purchaser cannot provide proof of purchase than DHT may request proof of residency dating back to the date of manufacture of the tank. In such case the warranty period will begin from the date of manufacture as determined by the tank serial number.

WARRANTY COVERAGE FOR COMMERCIAL USAGE - (THREE YEARS)

VII Warranty

REPLACEMENT TANK - WARRANTY RESIDENTIAL OR COMMERCIAL APPLICATION

For either a residential or commercial application, the following applies to both when a replacement tank is provided for a tank found to be under warranty. The replacement tank warranty assumes the remaining warranty period left from the original tank purchased.

WHAT IS NOT COVERED BY EITHER OF THESE WARRANTIES

These warranties are void and shall not apply under the following circumstances:

1. The Techtanium™ water heater was not installed or repaired by a heating contractor whose principal occupation is the sale, installation and repair of plumbing, heating and/or air conditioning equipment.

2. These warranties cannot be considered as a guarantee of workmanship of an installer connected with the installation of the Techtanium water heater, or as imposing on Diversified Heat Transfer liability of any nature for unsatisfactory performance as result of faulty workmanship in the installation or repair which liability is expressly disclaimed.

3. The failure or malfunction results from improper or negligent operation, abuse, misuse or maintenance or unauthorized alteration.

4. Malfunctions resulting from, or repairs necessitated by, uses of the indirect-fired water heater for purposes other than that for which it was designed, or resulting from flood, fire, wind, lightning, freezing or any other natural disaster or act of God, an act of destruction, theft or accident.

5. The original serial number on the indirect-fired water heater or component thereof cannot be readily determined.

6. Any indirect-fired water heater is installed in a setting containing any type of water softener system that is not installed and maintained in accordance with the manufacturer's specifications.

7. The Techtanium indirect-fired water heater is used for non-potable applications such as pool or process heating.

8. The failure or malfunction results from failure to keep the tank full of potable water, free to circulate at all times and with the tank free of damaging water sediment or scale deposits.

9. Components of an indirect-fired water heater which are not defective, but must be replaced during the warranty period as a result of reasonable wear and tear.

10. Techtanium indirect-fired water heaters which are repaired or altered without prior written approval of Diversified Heat Transfer so as to affect adversely their reliability.

11. Diversified Heat Transfer Techtanium™ indirect-fired water heaters installed outside of the United States and Canada.

12. Service calls not involving any malfunction or defects and maintenance in the ordinary course.

13. Components of an indirect-fired water heater which are not manufactured expressly for Diversified Heat Transfer; such components are subject only to those warranties, if any, given by their manufacturers. Diversified Heat Transfer does not adopt and has no responsibility for those warranties.

14. Any Techtanium tank that does not have installed a new temperature and pressure relief valve bearing the American Society of Mechanical Engineers (A.S.M.E.) listing at the time of installation.

FURTHER LIMITATIONS OF WARRANTIES AND REMEDIES

These warranties give you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

These are the only written warranties applicable to Diversified Heat Transfer Techtanium™ indirect-fired water heaters manufactured for and sold by Diversified Heat Transfer. Diversified Heat Transfer neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with said Techtanium indirect-fired water heaters.

This warranty does not cover expenses or labor for disassembly, removal, shipment reassembly or reinstallation; the original purchaser will be responsible for such costs.

Diversified Heat Transfer's performance under these warranties may be contingent on shipment of components or equipment from suppliers. Diversified Heat Transfer shall not be liable for any failure or delay in delivery due to any cause beyond its control including without limitation, strike, labor stoppage, a natural disaster (such as earthquake, flood, fire or storm), political insurrection or the unavailability of components, equipment or supplies.

MAKING A WARRANTY CLAIM

TO FILE A CLAIM UNDER THESE WARRANTIES CONTACT DIVERSIFIED HEAT TRANSFER INC. AT THIS ADDRESS:
439 MAIN ROAD, TOWACO, NEW JERSEY 07082 OR CALL DIVERSIFIED HEAT TRANSFER AT (800) 221-1522 AND ASK FOR CUSTOMER SERVICE.

At the time a claim is filed, the original purchaser must present a copy of the original sales receipt, installation bill, proof of delivery or equivalent documents evidencing both ownership of the Techtanium™ indirect-fired water heater and installation in the dwelling or commercial property owned by the **original purchaser**

This warranty is to be governed by and construed in accordance with the laws of the State of New York without regard to the principles of conflict of laws.

DIVERSIFIED HEAT TRANSFER RESERVES THE RIGHT TO CHANGE SPECIFICATIONS OR DISCONTINUE MODELS WITHOUT NOTICE.

TECHTANIUM™

INDIRECT WATER HEATERS

Optional Wall Mount Installation Instructions
Models MP 20, MP 32, MP 40, MP 50

WARNING

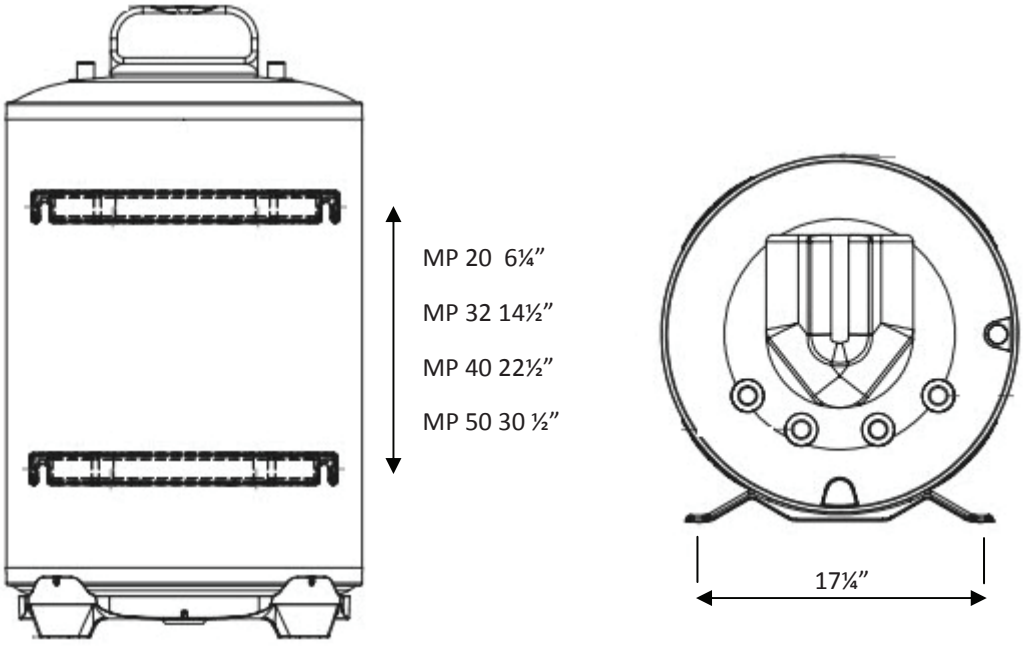
Tank may only be installed in the upright vertical position

Before attempting a wall mounted installation of the MP tank insure that the selected wall will have the ability to withstand the full tank weight as specified below.

Securely fasten the brackets according to the model and dimensions in the diagrams below. When fastening the brackets to the wall make sure to use appropriate fasteners capable of supporting the full tank weight as specified below.

Please note that the tank may only be installed in the upright vertical position.

Follow the piping and wiring instructions found in the installation manual.



MP Model	Units	20	32	40	50
Weight (empty)	Pounds	74.8	99	112.2	136.4
Weight (full)	Pounds	251.4	363.1	464.6	577

DIVERSIFIED HEAT TRANSFER, INC.

NEW JERSEY HEADQUARTERS • 439 MAIN ROAD, TOWACO, NJ 07082
PHONE: 800-221-1522 • WEBSITE: WWW.DHTNET. COM
Manufacturers and Designers Since 1938