

Warning

Carefully read the instructions before starting the installation of the ThermoDrain® and proceed with the inspection of the unit for signs of damage in transit. Refer to the technical or installation drawing provided by the general contractor for references on installation. The installation must be done by a licensed professional with knowledge in plumbing and construction and applicable codes. The plumbing system must be shut off and guarded against accidental pressurization or drainage events during the entire installation process. No accessories need be installed for typical applications. However, the installer is responsible for any code requirements for things such as valves, access traps, supports, insulation, etc.

Installation

Refer to National and Local Code requirements prior to installation. The ThermoDrain® has been efficiency verified in a vertical position. Any other position will render this device less effective. A maximum deviation of 1/8" (3mm) per linear foot (305mm) from vertical is acceptable. If an expansion joint is installed on the drain stack it should be placed above the ThermoDrain® unit to minimize support requirements where allowed. Do NOT install unit in a location where freezing may occur. Pressure tests the plumbing system upon final assembly.

Drain connection

The ThermoDrain® must be of the same nominal diameter as the host drainpipe. The heat exchanger is symmetrical, and features ABS drain couplings. Follow the plumbing code and standard practices for proper installation using ABS solvent cement.

In new construction, install the ThermoDrain® unit during the rough in phase. Allow at least 3" (76mm) of ABS pipe at the bottom for installation onto the pipe. Next install an ABS pipe at the top of the unit using the same solvent cement process. A straight section of drainpipe of at least 12" (305mm) in length is recommended above the ThermoDrain® to ensure best efficiency when possible but is not mandatory.

In retrofit situation where the existing drainpipe will need to be cut, the installer will allow for 3" (76mm) of ABS pipe at the bottom for installation onto the ABS pipe. Properly support the upper and lower part of the drainpipes BEFORE cutting into the drain stack.

If the upper drain sack can be move up far enough to allow for the installation of the ThermoDrain® while using solvent cement, cut the drain stack to remove a section that is the same length as the nominal length (see model number) of the ThermoDrain® unit. For reference this is 3" (76mm) shorter than the OVERALL length of the ThermoDrain® unit as the drainpipes will insert 1.5" (38mm) inside the ABS couplings on either end.

If the upper drain stack cannot be moved upwards sufficiently then a 3" diameter ABS mechanical coupling will be required (not supplied). Cut the drain stack to remove a section that is the same length as the nominal length (see model number) of the ThermoDrain® unit plus another 4in (100mm). For reference this is 1" (25mm) longer than the OVERALL length of the ThermoDrain® unit. Cut a 4" (100mm) piece of ABS pipe and install it at the top of the ThermoDrain® unit using solvent cement. Remove the stainless-steel band from the mechanical coupling. Slip the mechanical coupling rubber entirely over the upper end of the ABS pipe on the ThermoDrain® unit. Install the ThermoDrain® unit

onto the lower drainpipe using solvent cement. Slip the mechanical coupling rubber up to center it the existing upper drainpipe. Reinstall the stainless-steel band and tighten to the required torque.

Potable water connection

Units are factory equipped with 3/4" PEX fittings compatible with CSA B137.5 and ASTM F1807 (Crimp). The potable water connectors have a swivel feature and are designed to rotate 360 degrees ONLY while the plumbing system is unpressurized.

The cold-water inlet is located at the bottom of the ThermoDrain®. Do not connect otherwise as units are designed as counter flow heat exchangers. The preheated water outlet is located at the top of the ThermoDrain®. Connect this outlet to supply the selected plumbing fixtures or water heater inlet.

Connection to a plumbing device

The preheated outlet of the ThermoDrain® should not supply a branch of the plumbing system located before a water softener or filtration equipment nor to the cold inlet of a central thermostatic mixing valve if one is present (usually located near the water heater).

In configurations #1 & #3, though it may be practical to connect the ThermoDrain® preheated water outlet to the entire bathroom's cold-water supply, be aware that this will have the effect of providing lukewarm water at the cold side of fixtures in the bathroom during shower operation. We recommend connecting the preheated water to the cold side of the shower/bath only instead.

It is not recommended to install this unit in an equal flow configuration when combined with a high flow or multi-head shower fixtures with a flow rate above 4 GPM (15 Lpm). The system should have a minimum supply pressure of 35 psi.

The following configurations are recommended for single dwelling residential use. Contact us for multi dwelling applications.

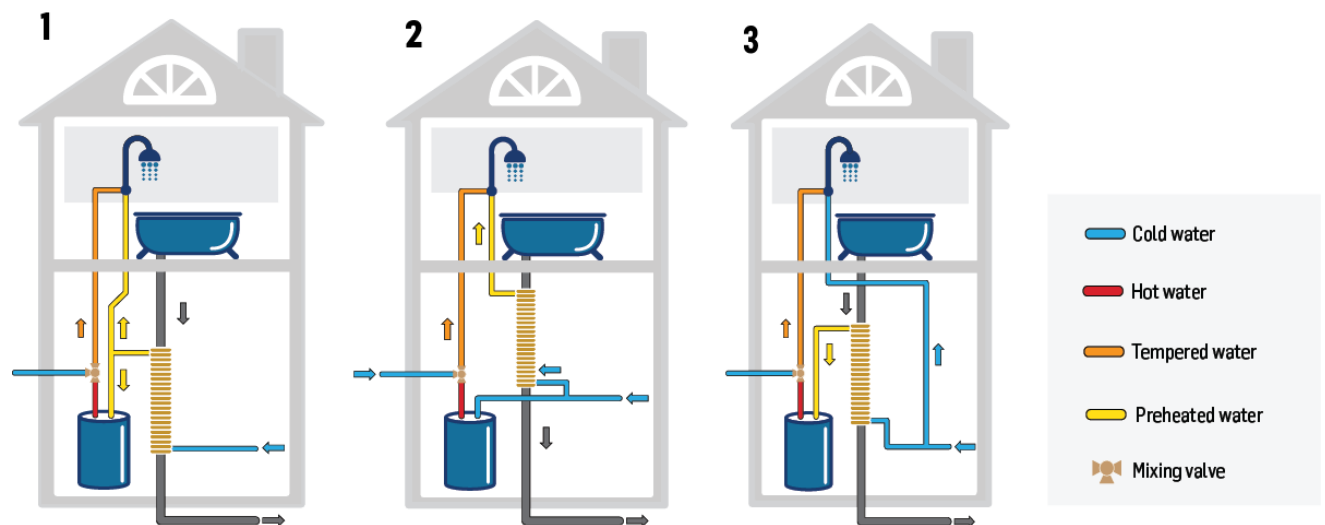
Installation with a single shower:

1. PREHEAT TO THE WATER HEATER AND SHOWER (Equal flow). The preheated water from the unit is fed to both the hot water tank cold inlet and to the cold shower supply. This is the most efficient installation.

Note: This configuration is NOT allowed in the province of Quebec.

2. PREHEAT TO THE WATER HEATER SUPPLY. The preheated water from the unit is fed to the hot water tank cold inlet ONLY. This configuration is useful when access to plumbing is restricted or based on the plumbing system layout. Efficiency will be 20% less than that of configuration #1.

3. PREHEAT TO THE SHOWER COLD WATER SUPPLY. The preheated water from the unit is fed to the cold shower side ONLY. This configuration is useful when access to plumbing is restricted or based on the plumbing system layout. Efficiency will be 20% less than that of configuration #1. Note: This configuration is NOT allowed in the province of Quebec.



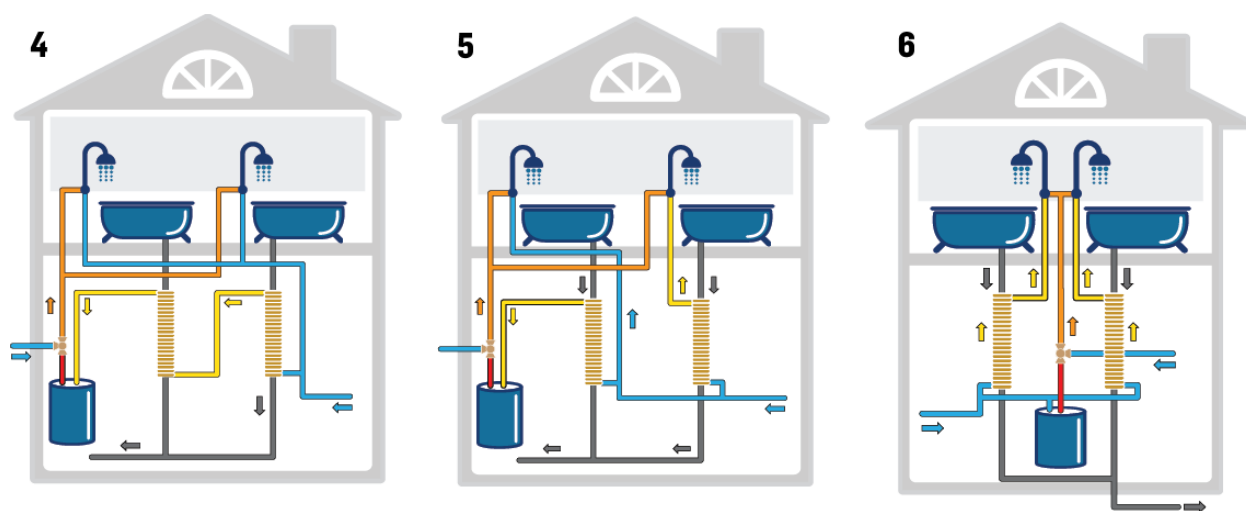
Installation with two (2) showers:

If two showers use a common drain stack apply any of the above configurations #1 to #3.

4. PREHEAT TO THE SHOWER COLD WATER SUPPLY. If two showers on the same or different levels use separate drain stacks the preheated water from the units is fed to each cold-water side ONLY. Note: This configuration is NOT allowed in the province of Quebec.

5. PREHEAT TO THE WATER HEATER SUPPLY. If two showers on the same or different levels use separate drain stacks the preheated water from the units is fed to the hot water tank cold inlet ONLY. This configuration is useful when access to plumbing is restricted or based on the plumbing system layout.

6. HYBRID PREHEAT. This is a hybrid connection between #4 & #5 that allows for easy installation in larger homes. Note: This configuration is NOT allowed in the province of Quebec.



Insulation

Unless insulation is required by the applicable codes or is specified by the technical requirements there is no necessity to insulate the ThermoDrain® as this will only marginally increase the effectiveness. However, insulation will greatly reduce condensation on the ThermoDrain® under certain conditions as it would with any pipe with cold water flow. Refer to local code requirements.

Inspection and maintenance

The ThermoDrain unit should be inspected bi-annually for signs of leakage as this would indicate that the unit has reached the end of usable life. The unit has 8 leak detection holes identified with "INSPECTION" markings on each of the black ABS couplings at both ends. Should any of these holes show signs of leakage or should leakage be apparent at the junction between the ABS coupling and the stainless-steel outer casing, the unit would need to be replaced at the earliest convenience as this is a sign that the unit is compromised. Caution: a leak detected at the above-mentioned locations cannot be repaired nor should any repair or sealing attempt be undertaken. The unit will need to be replaced to ensure safety of the potable water system.

The ThermoDrain® unit does not require any maintenance.

Caution!

Do NOT cut an existing drain stack without ensuring that the upper and lower pipes are properly supported beforehand as this may lead to serious injury or system failure.

NEVER attempt to dismantle a unit or a component of the unit or make a repair to a damaged or leaking unit. Never install a damaged unit.

EcolInnovation Technologies Inc. – Limited Warranty

EcolInnovation Technologies Inc. (« EcolInnovation »), a company incorporated in Québec, Canada, takes great care in the design, manufacturing, and quality control of its products. EcolInnovation warrants, to the original purchaser only, that the ThermoDrain® unit will be free from defects in materials and workmanship under normal use and service for a period of three (3) years from the original date of purchase (the "Warranty Period"). This warranty applies solely to products sold and used in Canada and the United States and is non-transferable.

This limited warranty applies only when the product has been installed and used for its intended purpose and in strict accordance with EcolInnovation's installation instructions. The ThermoDrain® unit must be installed in standard residential plumbing systems operating within normal temperature and pressure ranges and used exclusively with non-caustic, non-corrosive, and non-abrasive drain water that does not contain excessive mineral content.

This warranty does not cover, and EcolInnovation assumes no responsibility for, corrosion of any kind, including corrosion affecting copper, stainless steel, or any other component of the unit, nor does it cover normal wear and tear. The warranty further excludes any damage resulting from improper installation, installation not compliant with applicable local codes or regulations, abuse, misuse, neglect, accident, or improper maintenance. Damage arising from use outside the product's intended design or operating conditions, or from water conditions that are corrosive, abrasive, or high in mineral content, is also excluded. In addition, this warranty does not cover damage occurring during transportation or handling after shipment from EcolInnovation, nor does it apply to products that have been repaired, modified, or altered without EcolInnovation's prior written authorization, or to products for which the original serial number has been removed, altered, or rendered illegible.

Accessories or components manufactured by third parties and supplied with the ThermoDrain® unit are covered solely by the warranties, if any, provided by their respective manufacturers, and EcolInnovation assumes no responsibility for such components. Optional components that were not installed during manufacture are not covered by this warranty.

If a defect covered by this warranty arises during the Warranty Period, EcolInnovation will, at its sole discretion, either repair the defective product or replace the defective product or component. This remedy shall be the exclusive remedy available to the purchaser under this warranty.

To the maximum extent permitted by applicable law, EcolInnovation Technologies Inc. shall not be liable for any direct, indirect, incidental, consequential, or special damages, including, without limitation, loss of use, loss of profits, property damage, or costs of removal or reinstallation, even if such damages were foreseeable or EcolInnovation was advised of the possibility of such damages. Some jurisdictions do not allow limitations on incidental or consequential damages, and therefore the above limitation may not apply to all purchasers.

This warranty is the sole and exclusive warranty provided by EcolInnovation. No other warranties, whether express or implied, including but not limited to implied warranties of merchantability or fitness for a particular

purpose, shall apply, except to the extent such warranties cannot be excluded under applicable law, in which case they are limited in duration to the Warranty Period.

In the event of a warranty claim, the purchaser must contact the authorized reseller or distributor from whom the product was originally purchased and provide proof of purchase.