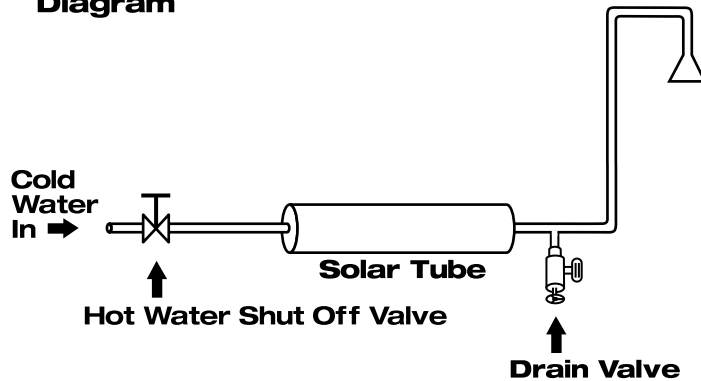
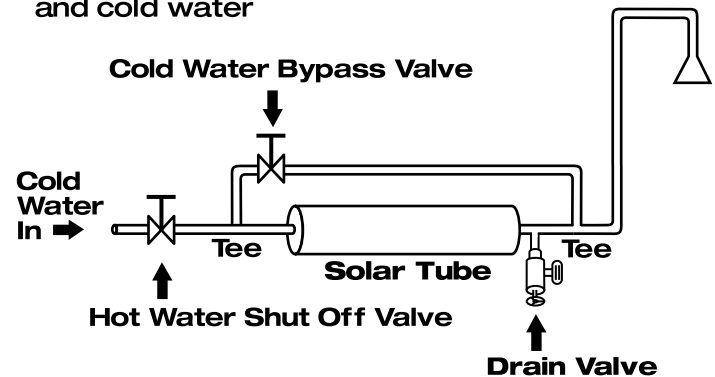


Solar Tube

Typical Stand-Alone Diagram



Stand-Alone Diagram with Cold Water Bypass Valve - Allows for mixing hot and cold water



Instructions for using Solar Hot Water Tube:

• **STEP 1** - Both ends of the solar tube are fitted with 3/4" male nipples. Cold water enters one end and after absorbing solar heat exits through the opposite end. The tube can be connected to a water supply by one two methods.

A - Connect one end of tube to a standard garden hose by attaching a 3/4" female x hose fitting adapter [not included] and then connect hose to a source of cold water. [e.g. hose spigot] **or**

B - Connect one end of tube to a standard copper or PVC 1/2" or 3/4" female adapter [not included] and then connect copper or PVC plumbing to a pressurized source of cold water: municipal supply, well, storage tank, etc.

A non-pressurized tank may be used if elevated above the highest point of the solar tube, plumbing and outlet fixture; allowing water to gravity feed through the system.

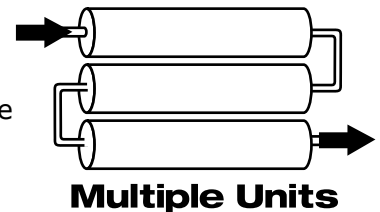
• **STEP 2** - Purge ALL AIR from within the solar tube [or tubes] during the initial water filling process to prevent a dangerous pressure build-up - as air becomes compressed by the basic water pressure and the additional pressure of the heated water expanding.

This protects system from the possibility of pressure rupturing the seal between the end caps and the tube, or the tube itself.

WARNING: This process must be completed properly.

To assure all air has flowed out of each tube, raise tube end several inches above the height of the opposite end and hold until air bubbles no longer

escape from outlet. Then connect plumbing to next unit and repeat process at the opposite end on each tube before attaching plumbing to final outlet, e.g. faucet, shower, etc.



A drain valve should be installed immediately after the solar tube outlet to allow for air purging after the initial install. Any time the tube is drained during extended non-use, the air must be purged.

• **STEP 3** - Heated water from the outlet of the solar tube can be connected to an outlet fixture [e.g. shower head, spray nozzle, etc.] via either of the two plumbing methods above. CPVC is recommended for the plumbing after the Solar Tube instead of PVC, as CPVC can withstand higher operating temperatures.

Use the solar heated water directly without diluting with cold water, or regulate water temperature by adding control valves- as shown in diagram above -to mix hot water with cold water before using.

WARNING: No Shut-off valve can be installed between the outlet of the Solar Tube and the shower head [or fixture]. If connected to a fixture that can be closed manually or automatically [i.e. washing machine, spray nozzle, faucet, shower head with shutoff control, etc.] then the Hot Water Shut-off valve as shown in diagram MUST be closed prior to shutting or closing the fixture to prevent pressure build-up in the Solar Tube. **Failure to follow this warning will void the warranty.**