

# INSTALLATION INSTRUCTION - SUPPLEMENT SHEET

## HEATING WITH THE SOLAR WATER HEATER WITH GAS BACKUP

### POTABLE AND SOLAR HEATING CONNECTIONS

The water heater interior has been designed for potable water, such as in a solar heating system. If replacing an existing water heating appliance, be sure to turn off electrical power and/or gas supply to the existing appliance.

**Warning: All solar plumbing, connections and components must be applicable for potable water installations and rated for 150 psi working and 300 psi test pressure.**

The solar thermal system connections are identified on the solar water heater. The use of shut off valves and unions are recommended for future service convenience. Consult local codes for proper use, sizing and installation of an expansion tank.

Due to the elevated operating temperature that may be obtained with the solar heating system, an ASSE approved thermostatic mixing valve has been provided and must be installed in the potable water piping diagram as shown in Figure 1 and Figure 2. Directions for proper installation and adjustment are provided in the ASSE approved thermostatic mixing valve carton.

**Warning: Failure to properly install and regulate the provided ASSE approved thermostatic mixing valve may increase the danger of scald injury and nullify the warranty.**



**DANGER**

Hotter water increases the risk of scald injury. Scalding may occur within 5 seconds at a setting of 140°F. Water temperature over 125°F can cause severe burns or death from scalds. Children, disabled and the elderly are at the highest risk of being scalded. Please feel the water before bathing or showering.

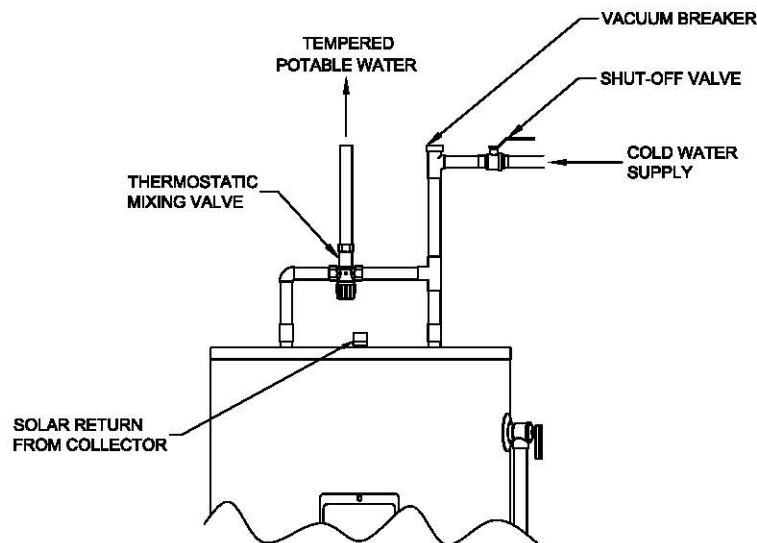


Figure 1 – Thermostatic Mixing Valve Piping Diagram for Tempered Water (Except 100-Gallon)

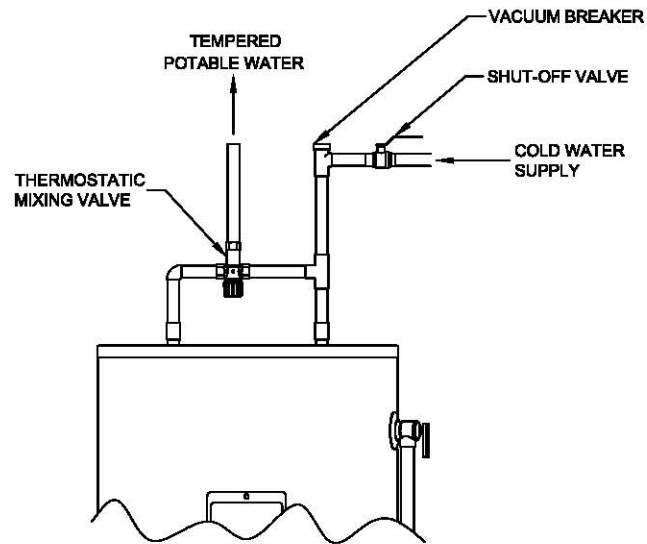


Figure 2 – Thermostatic Mixing Valve Piping Diagram for Tempered Water (100-Gallon)

## SOLAR HEATING WITH AN OPEN LOOP SYSTEM

- 1) Pipe the system as shown in Figure 3.
- 2) The temperature and pressure relief valve should be piped to discharge within 6 inches from the floor.
- 3) The circulator should be installed to pump toward the collector(s).
- 4) Purge all air from the filled, open loop system.

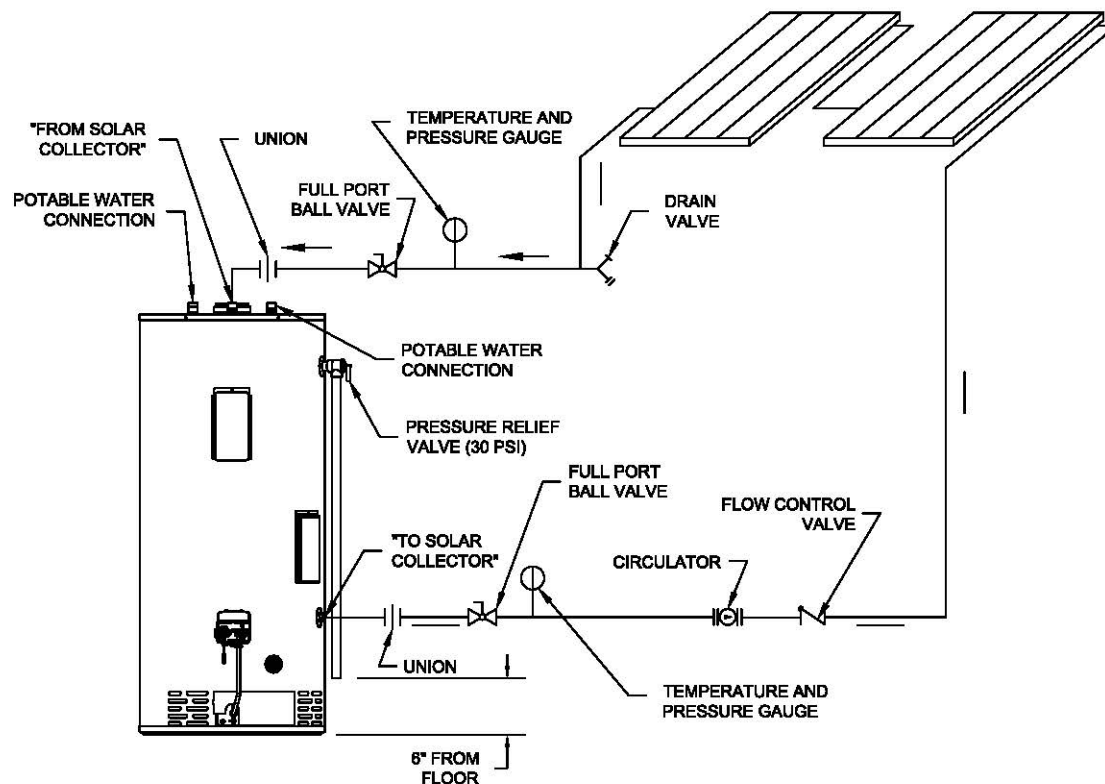


Figure 3 – Solar Heating with an Open Loop System

**SENSOR WIRES FOR SOLAR THERMISTOR CONNECTIONS** – Twisted wires are provided under the lower and upper covers. These wires have been provided as a means for connecting thermistors to a solar controller. **NOTICE: Neither the solar controller nor the thermistors are provided with the solar water heater and must be purchased separately.** The lower thermistor wires connect a thermistor for use in comparison to the solar collector temperature to determine if an appropriate temperature difference for heat transfer is available. A bracket to fix the thermistor against the tank wall is supplied. The upper thermistor wires are an optional second thermistor connection to monitor the upper tank temperature. Some solar controllers provide this option.

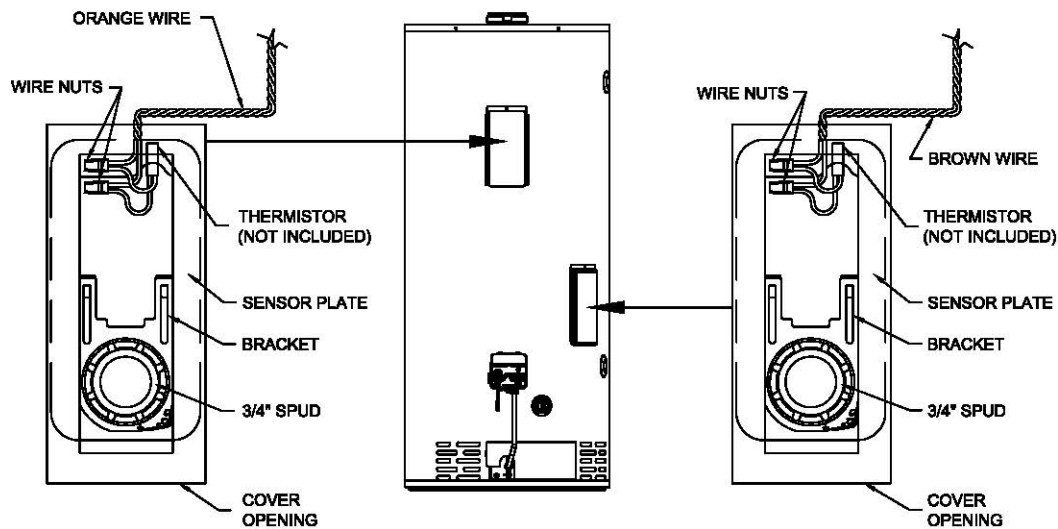
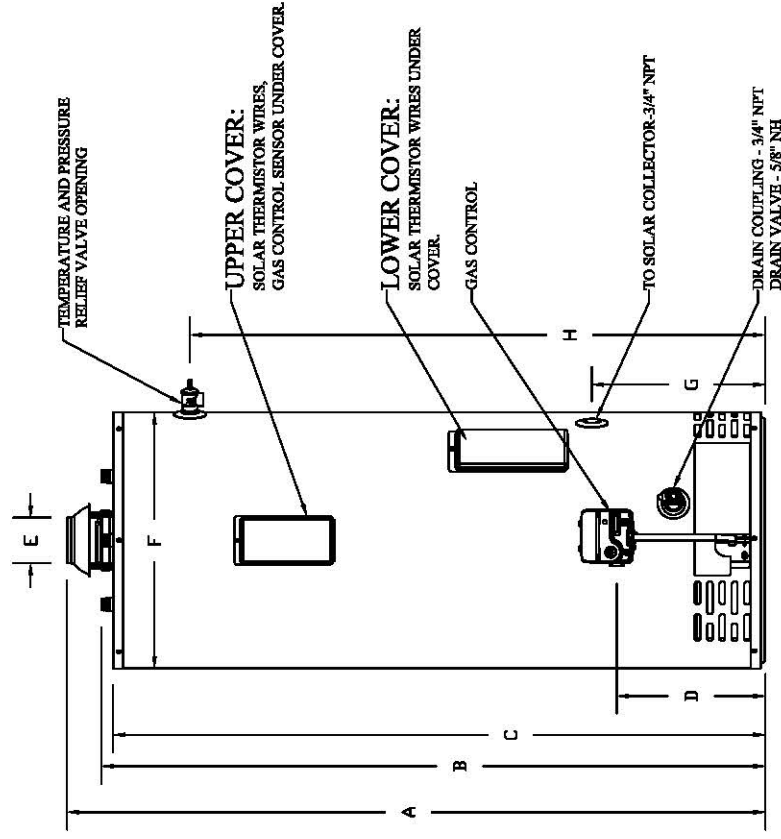
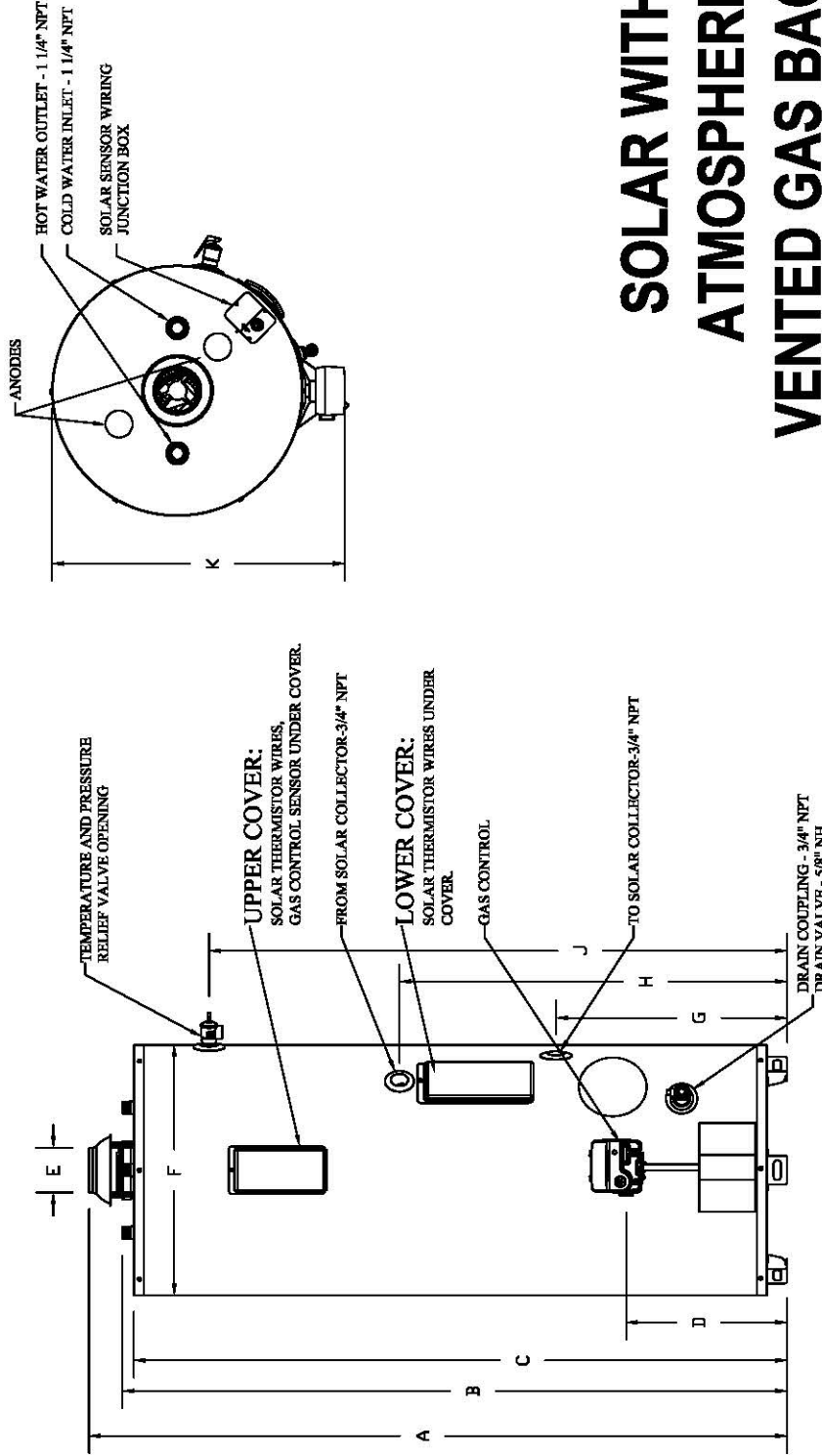


Figure 4 – Wiring and Placement for the Solar Control Temperature Sensor



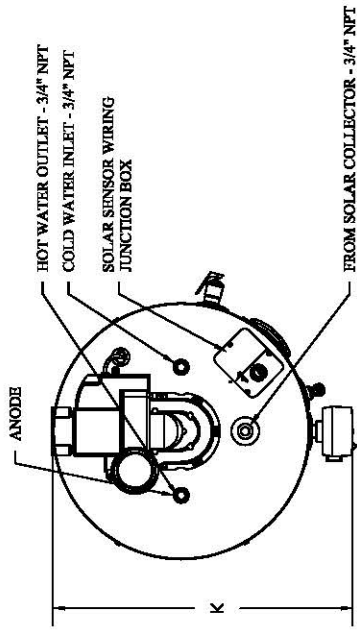
# SOLAR WITH ATMOSPHERIC VENTED GAS BACKUP

		RECOVERY 90°F RISE												
MODEL NUMBER	NAT. BTU/HR INPUT	LP BTU/HR INPUT	NAT. U.S. GPH	LP U.S. GPH	STORAGE CAPACITY	A	B	C	D	E	F	G	H	J
						FLOOR TO VENT CONN.	FLOOR TO WATER CONN.	FLOOR TO HEATER TOP	FLOOR TO GAS CONN.	SIZE VENT	JACKET DIAMETER	FLOOR TO SOLAR OUTLET	FLOOR TO T&P CONN.	DEPTH
S26576F(BN,SX)	65,000	63,000	89	67	60 GAL.	63"	60-1/4"	59-1/2"	11-3/8"	4"	24"	10-1/8"	53-1/2"	28"
S275S6(BN,SX)	76,000	76,000	82	82	70 GAL.	62-3/8"	59-3/4"	59"	14-1/8"	4"	26"	12-1/2"	52"	30-3/8"
S275S6(BN,SX)	76,000	76,000	82	82	70 GAL.	62-3/8"	59-3/4"	59"	14-1/8"	4"	26"	12-1/2"	52"	30-3/8"

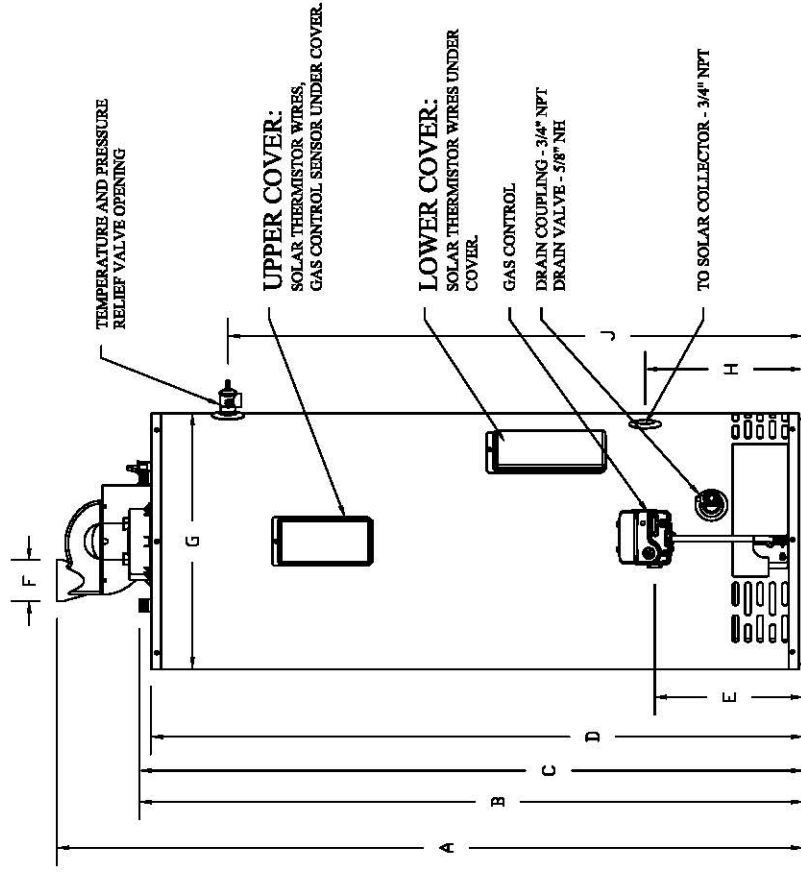


# SOLAR WITH ATMOSPHERIC VENTED GAS BACKUP

			RECOVERY 90°F RISE														
MODEL NUMBER	NAT. BTU/HR INPUT	LP BTU/HR INPUT	NAT. U.S. GPH	LP U.S. GPH	STORAGE CAPACITY												APPROX. SHIPPING WEIGHT (LBS.)
						A	B	C	D	E	F	G	H	J	K		
S2100T6(BN, SX)	85,000	88,000	92	95	95 GAL.	68-11/16"	67-1/2"	65-1/2"	14-1/4"	4"	28-1/4"	17-1/2"	38-3/4"	39-1/4"	32-1/4"	420	



# SOLAR WITH POWER BACKUP VENTED GAS



		RECOVERY 90°F RISE														
MODEL NUMBER	NAT. BTU/HR INPUT	LP BTU/HR INPUT	NAT. U.S. GPH	LP U.S. GPH	STORAGE CAPACITY	A	B	C	D	E	F	G	H	J	K	APPROX. SHIPPING WEIGHT (LBS.)
S2TW65T6F(BN,SX)	70,000	63,000	75	68	60 GAL.	63"	60-1/4"	59-1/2"	32-1/4"	11-3/8"	3"	24"	10-1/8"	53-1/2"	28"	222
S2TW75T6(BN,SX)	76,000	75,500	82	81	70 GAL.	62-3/8"	59-3/4"	59"	34-5/8"	14-1/8"	3"	26"	12-1/2"	52"	30-3/8"	277

## NOTES

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