

American Standard®

WATER HEATERS

Residential Line

Residential Tankless Condensing Water Heaters

— FEATURES —

- **Capacity & Output –**
TCWH180S-AS - 18,000 to 180,000 BTUs
Flow rates up to 10.0 GPM
TCWH199S-AS - 19,900 to 199,000 BTUs
Flow rates up to 11.0 GPM
- **Superior Thermal Efficiency** - With Energy Conservation in mind, these units maintain an impressive 96% Efficiency Rating.
- **Efficient Design** – ANSI Z21.10.3/CSA 4.3 certified design for indoor wall-mounting.
- **Durable High-End** – Steel casing with Polyester coating & stainless steel heat exchanger.
- **Eco-Friendly** – Ultra Low NOx combustion system operates efficiently utilizing LP or Natural gas.
- **Highly Innovative** – Fully equipped with safety gas leak detectors.
- **Compact Design** – Efficient wall-mount compact design saves significantly more space than a traditional storage tank heater.
- **Precision Thermostat** – Precisely control temperature with digital thermostat that reaches outputs from 95°F to 140°F, in optional °C or °F displays.

– Additional Features –

- **Each Unit Includes** – 6' Power Cord, Easy Installation, High Temperature Exhaust Sensor, Flame Sensor, Gas Leak Detector Sensor, Water Temperature Sensors & Overheating Cut-off System.
- **Energy Star & ETL Certified** – Uses 14% to 55% less energy than equipment that meets minimum federal standard.
- **12-Year Limited Heat Exchanger Warranty** – 5-Year Limited Parts Warranty.*

* 12 years limited warranty applies when used in a single family dwelling in accordance with the installation Manual. Refer to American Standard Water Heaters Limited Warranty for our complete coverage details.

The American Standard Tankless Condensing Residential Water Heaters deploy the utmost in cutting edge technology. This indoor, wall mounted unit produces up to 11 gallons of hot water per minute. Designed for superior thermal transfer, increased resistance to scale formation and low installation costs. Built with efficiency in mind, this Tankless Condensing Water Heater boasts an impressive Energy Factor of .96 drastically reducing energy costs when compared to conventional storage tank water heaters. With instantaneous hot water and no storage tank, leaky water heaters are a thing of the past.



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3515 Lakeshore Drive, Saint Joseph, MI 49085
(800) 900-9063 * (909) 392-0230 * FAX (909) 392-7302

SPECIFICATIONS AND APPLICATION DATA

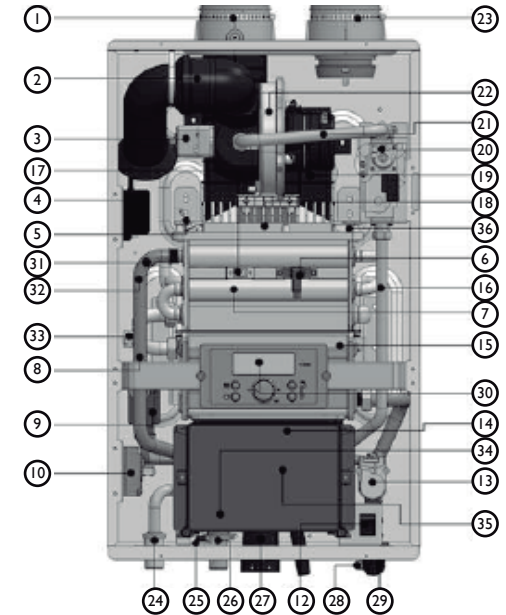
MODEL		TCWH180S-AS	TCWH199S-AS
Installation		Indoor, Wall Hung, Fully Condensing	Indoor, Wall Hung, Fully Condensing
Minimum / Maximum Input (Btu/Hr)		18,000 / 180,000	19,900 / 199,000
Hot Water Capacity (GPM)	35°F Rise	10.0 Gal	11.0 Gal
	45°F Rise	7.8 Gal	8.6 Gal
	77°F Rise	4.4 Gal	5.0 Gal
Flue System		Sealed Combustion Direct Vent	
Vent Run		2" (50 feet), 3" (100 feet), Schedule 40 PVC, CPVC, PP	
Weight (Lbs)		88 Lbs.	
Orifice Size	NG	0.374" (9.5 mm)	
	LP	0.275" (7.0 mm)	
Gas Supply Pressure	NG	3.5" to 10.5" WC	
	LP	8.0" to 13.0" WC	
Manifold Pressure	Min Fire (3" VENT)	NG: -0.10 to -0.16"WC : LP: -0.06 to -0.10" WC	
	Max Fire (3" VENT)	NG: -0.11 to -0.17"WC : LP: -0.07 to -0.11 WC	
Power Supply	Main Supply	120V 60 Hz	
	Maximum Power Consumption	135W	
General Operating Conditions		Temperature · Ambient Temperature Range: 33 – 104°F (0.6 – 40°C) · Operating Relative Humidity: Up to 90% at 140°F (40°C) · Shipping and Storage Temperature Range: -4 – 176°F (-20 – 80°C)	
Ignition System		Direct Electronic Ignition / Automatic Flame Sensing	
Burner System		Single Orifice Premixed Fuel Modulation Metal Fiber Infrared	
Gas Valve System		Air Ratio Valve	
Minimum Flow Rate		0.5 GPM	
Internal Pipe Material		Stainless Steel	
Dimensions		W 17.3" – H 27.6" – D 14.8"	
Sub Heat Exchanger Water Capacity (DHW)		Under 2 Gallons	
Main Controller / Control Panel		P-920C / GTH-9500C	
Water Pressure		Min 15 – Max 150 PSI	
DHW Setpoint Temperature Range		95°F – 140°F (35°C – 60°C)	
Connection Sizes	Cold Water Inlet / Hot Water Outlet	3/4" NPT	
	Gas Inlet	3/4" NPT	
Materials	Cabinet	Cold Rolled Carbon Steel	
	Heat Exchanger	Primary Heat Exchanger: Stainless Steel Secondary Heat Exchanger: Stainless Steel	

Safety Devices _____ Flame Rod, Burner Overheat Cut Off Device, Gas Leak Detector, Flue High Limit Switch, Water Temperature High Limit Switch, Freeze Protection Ceramic Heater.

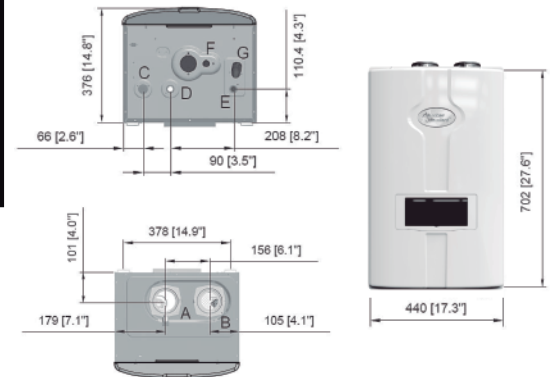
#	Name of Component
1	Exhaust Vent Adapter
2	Air Inlet Piper
3	AGM (Air Gas Mixer)
4	Ignition Transformer
5	Igniter
6	Flame Detection Sensor
7	Primary Heat Exchanger Assembly
8	Hot Water Outlet
9	Mixing Valve
10	Air Pressure Switch
11	N/A
12	Manual Power Switch
13	Water Adjustment Valve
14	Main Controller
15	Secondary Heat Exchanger Assembly
16	Gas Inlet Pipe 1
17	Flame Sight Glass
18	Burner Case
19	Exhaust Duct
20	Gas Valve
21	Gas Inlet Pipe 2
22	BLDC Fan
23	Air Intake Pipe Adapter
24	Gas Inlet Adapter
25	Freeze Protector
26	DHW Outlet Adapter
27	Condensate Trap
28	Cold Water Inlet Adapter
29	Cold Water Inlet Filter
30	Control Panel
31	Operating Temperature Sensor
32	High Limit Overheat Switch
33	Ceramic Heater
34	DHW Sensor
35	Condensate Trap Hose
36	Burner Overheat Switch

Description	Size
A	Exhaust Outlet Pipe 3"
B	Air Intake 3"
C	Gas Inlet 3/4"
D	DHW Outlet Adapter 3/4"
E	DCW Inlet Adapter 3/4"
F	Condensate Adapter 1/2"
G	DCW Inlet Filter N/A

Temperature Rise Chart	180K BTU GPM	199K BTU GPM
35°F Temp Rise (70°F to 105°F for example)	10.0	11.1
45°F Temp Rise (60°F to 105°F for example)	7.8	8.6
55°F Temp Rise (65°F to 120°F for example)	6.3	7.0
65°F Temp Rise (55°F to 120°F for example)	5.4	6.0
75°F Temp Rise (45°F to 120°F for example)	4.7	5.2
85°F Temp Rise (40°F to 120°F for example)	4.1	4.6



Dimensions & Connections



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