

## Tankless Condensing Water Heaters

Model Available in 10 & 11 Gallons per minute

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 Uniform Energy Factor of .92 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.

### 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 92% Uniform Energy Factor.
- **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.

*American Standard*<sup>®</sup>

WATER HEATERS

[www.americanstandardwaterheaters.com](http://www.americanstandardwaterheaters.com)



Intertek



# SPECIFICATIONS AND APPLICATION DATA

# American Standard®

## WATER HEATERS

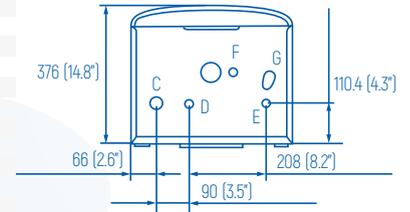
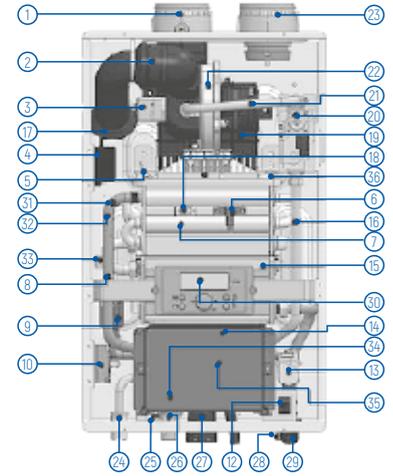
www.americanstandardwaterheaters.com

MODEL		TCWH180S-AS	TCWH199S-AS
INSTALLATION			
INDOOR, WALL HUNG, FULLY CONDENSING			
MINIMUM / MAXIMUM INPUT (BTU/HR)		18,000 / 180,000	19,000 / 199,000
HOT WATER CAPACITY (GPM)		10.0 GAL	11.0 GAL
35 F RISE		7.8 GAL	8.6 GAL
45 F RISE		5.27 GAL	5.62 GAL
67 F RISE			
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		0.374" (9.5 MM)	
NG		0.275" (7.0 MM)	
LP			
GAS SUPPLY PRESSURE		3.5" TO 10.5" WC	
NG		8.0" TO 13.0" WC	
LP			
MANIFOLD PRESSURE		NG: -0.10 TO -0.16" WC	LP: -0.06 TO -0.10" WC
MIN FIRE (3" VENT)		NG: -0.11 TO -0.17" WC	LP: -0.07 TO -0.11" WC
MAX FIRE (3" VENT)			
MAIN SUPPLY			
POWER SUPPLY		120V 60 HZ	
MAX 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		3/4" NPT	
COLD WATER INLET / HOT WATER OUTLET		3/4" NPT	
GAS INLET			
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.

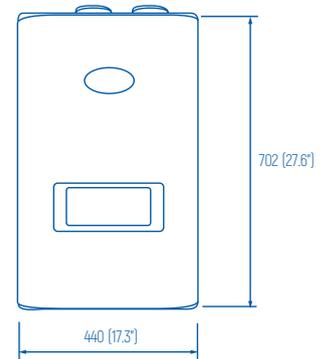
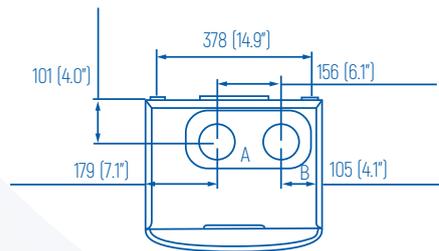
### COMPONENTS

#	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



### DIMENSIONS AND CONNECTIONS

DESCRIPTION	SIZE	
A	EXHAUST OUTLET PIPE (A)	3"
B	AIR INTAKE (B)	3"
C	GAS INLET (C)	3/4"
D	DHW OUTLET ADAPTER (D)	3/4"
E	DCW INLET ADAPTER (E)	3/4"
F	CONDENSATE ADAPTER (F)	1/2"
G	DCW INLET FILTER (G)	N/A



### TEMPERATURE RISE CHART

	180K BTU GPM	180K 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