Advanced Heating & Hot Water System

Residential Gas Tankless Condensing Water Heater

- 10 to 1 turndown ratio
- Durable high grade stainless steel heat exchanger
- Endless hot water, advanced temperature control
- Advanced modulating water heater with up to 0.96 ENERGY FACTOR
- Available in LP and natural gas
- Equipped with highly innovative gas leak detector
- Eco-friendly and Ultra low NOx combustion system

www.americanstandardwaterheaters.com

561 New York Drive, Pomona, California 91768
(800) 900-9063
A CLOSER LOOK

**Air Gas Mixer**
Automatic combustion control system offers a wide range of combustion and efficient condensation.

**Primary Heat Exchanger**
High quality stainless steel
Low pressure drop
High efficiency oval tube & fin.

**Secondary Heat Exchanger**
Premium grade stainless steel.

**Mixing Valve**
The highly advanced modulating system maintains a consistent water and comfortable temperature by 1°F of temperature increment.

**Condensate Trap**

**Air-Ratio Gas Valve**

**BLDC Turbo Fan**
Normal operation even at fluctuating voltage due to low voltage running system.

**Metal-Fiber Burner**
The Eco Pre-mixed burner with high combustion efficiency and low CO & NOx emission.

**Main Control**
Multiple safety functions
Built in dual stage anti-freezing mechanism
Switched-Mode Power Supply (SMPS) design.

**State of the Art built-in Gas Leak Detector for safety function**
If a gas leak is detected the unit will shut off.

**Flow Control Valve**
Through applying flow control valve it enables automatic control of water quantity based on user’s customized temperature and offers the best hot water experience.

**Exhaust**

**Intake**

**Exhaust Intake**
Customized Temperature Control

Advanced user friendly technology of FLOW CONTROL, FLOW SENSOR and heat capacity control makes DHW even more comfortable by maintaining constant temperature during usage.

Multifunction Control Panel

- Display
  - Setting/Current Temp
  - Rupture prevention Current status.

- Hot water temperature Control Button

- Current Status

- Power ON/OFF Button

- Up/Down
  - Volume, Button
  - Control/Setting for space heating, Hot water, Timer, Temperature, Vacant.

- Heating water temperature Control Button
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>TCWH185S-AS</th>
<th>TCWH199S-AS</th>
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</thead>
<tbody>
<tr>
<td><strong>Installation</strong></td>
<td>Indoor, Wall Hung, Fully Condensing</td>
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</tr>
<tr>
<td><strong>Minimum / Maximum Input (Btu/Hr)</strong></td>
<td>18,000 / 180,000</td>
<td>19,900 / 199,000</td>
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<tr>
<td><strong>Flue System</strong></td>
<td>Sealed Combustion Direct Vent</td>
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</tr>
<tr>
<td><strong>Vent Run</strong></td>
<td>2” (50 feet), 3” (100 feet), Schedule 40 PVC, CPVC, PP</td>
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<tr>
<td><strong>Weight (Lbs)</strong></td>
<td>88 Lbs.</td>
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<tr>
<td><strong>Orifice Size</strong></td>
<td>NG: 0.374” (9.5 mm) / LP: 0.275” (7.0 mm)</td>
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</tr>
<tr>
<td><strong>Gas Supply Pressure</strong></td>
<td>NG: 3.5” to 10.5” WC / LP: 8.0” to 13.0” WC</td>
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<tr>
<td><strong>Manifold Pressure</strong></td>
<td>Min Fire (3” VENT): NG: -0.10 to -0.16”WC / LP: -0.06 to -0.10”WC</td>
<td>Max Fire (3” VENT): NG: -0.11 to -0.17”WC / LP: -0.07 to -0.11”WC</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>Main Supply: 120V 60 Hz</td>
<td>Maximum Power Consumption: 135W</td>
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### 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

### 12 Year Residential & 5 Year Commercial Limited Warranty

In accordance with our company policy and dedication to continuous improvement, Water Heating Technologies Corp. reserves the right to make changes without prior notice to the above information.