

# “Quick Start” Guide

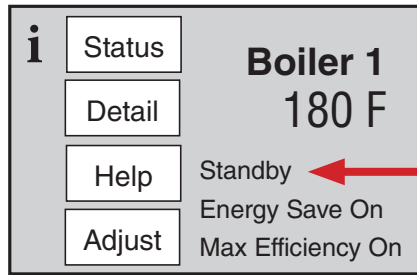


**10:1 Models**  
K2WTC-135B  
K2WTC-150B  
K2WTC-180B

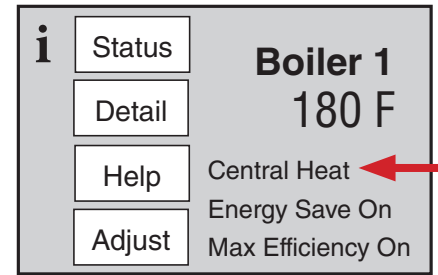
**IMPORTANT:** Follow all pre-start checks, inspections, and boiler fill instructions prescribed in the K2WTC Boiler Installation, Operating and Service (I,O&S) instructions. Check and correct any gas line leaks. Purge all air pockets. Follow instructions to bleed air from heat exchanger with 1/4” tubing. A separate conversion kit and instructions are required to convert to L.P. gas (propane); Do not operate boiler without proper L.P. conversion and adjustments. If installation is above 2,000 ft., see I,O&S Instructions Appendix A.

**1.** Start boiler following instructions inside boiler front panel. Boiler display should look like illustrations (at right).

*NOTE: Boiler will attempt to fire 30 seconds after a call for heat. Consult I,O&S Instructions if the boiler enters a soft lockout after six ignition tries.*

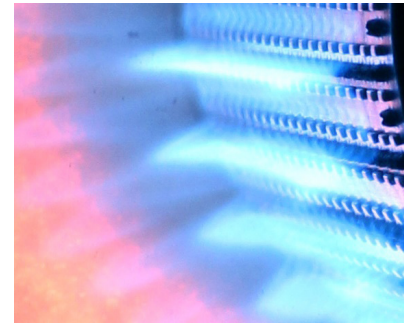


Without a call for heat



With a call for heat

**2.** Inspect flame through window. A high fire flame should be stable and blue without yellow tipping. Intermittent yellow and orange flecks are OK.

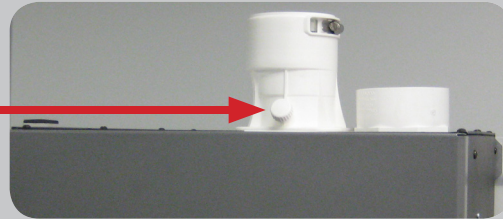


**3.** Verify inlet gas pressure. It should be within the proper range when all gas appliances are on and off.

**GAS PRESSURE REQUIREMENTS (0-2,000 ft. only)**

Max: 14.0 in.wc  
Min: 2.5 in.wc (natural gas), 11.0 in.wc (L.P. gas)

**4.** Connect combustion analyzer – Insert probe into test port in the boiler vent adapter.



**5.** Use commands at right to check CO<sub>2</sub> (or O<sub>2</sub>) and CO at both HIGH FIRE and LOW FIRE.

**HIGH FIRE / LOW FIRE Test Command Sequence**  
(starting from boiler display HOME screen)

- Press “ADJUST” twice
- Press “LOGIN”
- Press “00000”
- Type “86”
- Press RETURN ARROW
- Press “SAVE”
- Press “ADJUST”
- Press “MANUAL CONTROL”
- Press “HIGH”
- Complete full combustion test (Step 6)
- Press “LOW”
- Complete full combustion test (Step 6)
- After combustion test, press “AUTO FIRE”

**6.** **PERFORM COMBUSTION TESTS.** Check and adjust combustion readings per below. Final readings must be taken with all boiler doors and covers in place.

- Check at high fire and low fire.

• **Replace cap on the boiler vent adapter immediately upon removal of probe!**

NOTE: If throttle screw is far out of adjustment, boiler will not start or pass combustion. If so:

- Shut down boiler.
- Fully close throttle screw.
- Re-open screw to number of turns in I,O&S Instructions.

**ACCEPTABLE COMBUSTION READINGS**  
K2WTC-135B, K2WTC-150B, K2WTC-180B  
0-2,000 ft. Otherwise see I,O&S Instructions  
Max. CO Air free: 200ppm

Natural Gas

CO<sub>2</sub>\*: 8.7% to 9.2% O<sub>2</sub>\*\* : 5.6% to 4.7%

\*Low fire CO<sub>2</sub> must be less than or equal to high fire CO<sub>2</sub>

\*\*Low fire O<sub>2</sub> must be greater than or equal to high fire O<sub>2</sub>

LP Gas

See separate instructions for conversion kit and acceptable readings

**7.** Check ignition safety shut-off on firing boiler.

- Carefully unplug orange flame rod wire at the flame rod using insulated pliers.
- The burner should shut off immediately.
- Reconnect flame rod wire.

**8.** Adjust installer-supplied ASSE-listed mixing valve in accordance with valve manufacturer’s instructions.

# Installation Tips

# K2

**COMBI**

10:1 Models  
K2WTC-135B  
K2WTC-150B  
K2WTC-180B

**VENTING**

Horizontal 2-pipe  
Horizontal 2-pipe low profile  
Horizontal 2-pipe concentric  
Vertical 2-pipe  
Vertical 2-pipe concentric  
Vertical exhaust/sealed B-vent for combustion air  
Hybrid

Illustrations are for representation only. Improperly located vent can damage property; for complete venting information, please see I,O&S Instructions.

**ELBOWS**

“Short bend” and “long sweep” elbows.  
(see chart in I,O&S Instructions)

**HIGH SNORKEL OPTION**

Up to 7' risers for CPVC/PVC systems only

12" TO 36"  
12" min\*  
Exhaust  
Intake  
\*May reduce to 0" if needed

**Before cementing external vent terminations, complete all preparation and run start up tests per I,O&S Instructions.**

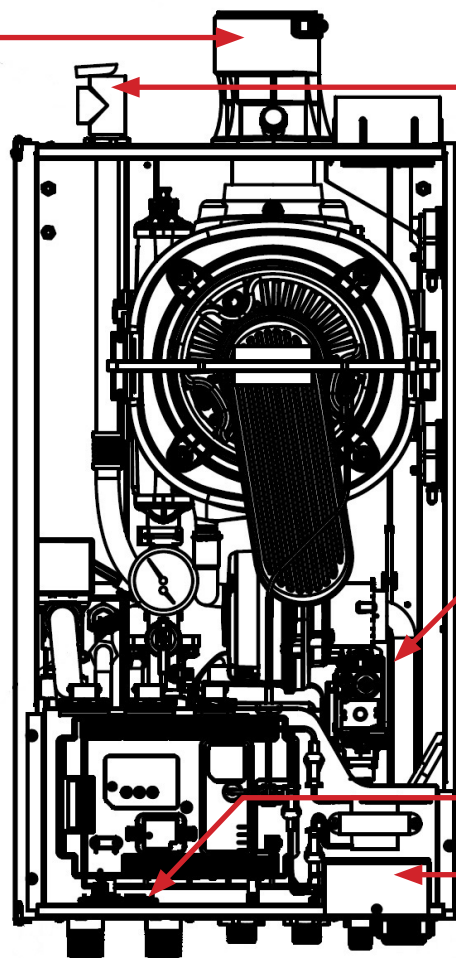
**1. Noise Prevention Tip for K2WTC-180:**  
Install first CPVC or Polypropylene elbow within 11" of vent adapter. Use additional elbows as needed.

Within 11" From Vent Adapter

**Universal vent connection** attaches to CPVC starter venting, polypropylene venting, or listed stainless steel flex venting.

**2. Quick Drilling Guide:**  
Allow these clearances from 5/16" wall mount bracket holes or consult boiler I,O&S Instructions if tighter spacing is needed.

26" Min.  
26" Min.  
56" Min.  
26" Min.



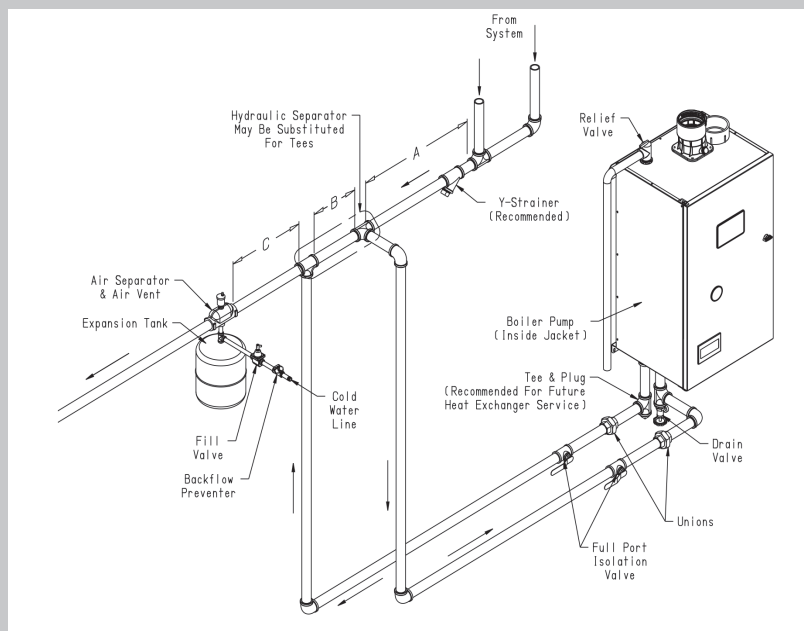
**3. Safety Relief Valve location.** Do not install any other valves inside boiler or on the outlet of the relief valve.

**4. Gas Valve Vent Screw Commissioning**

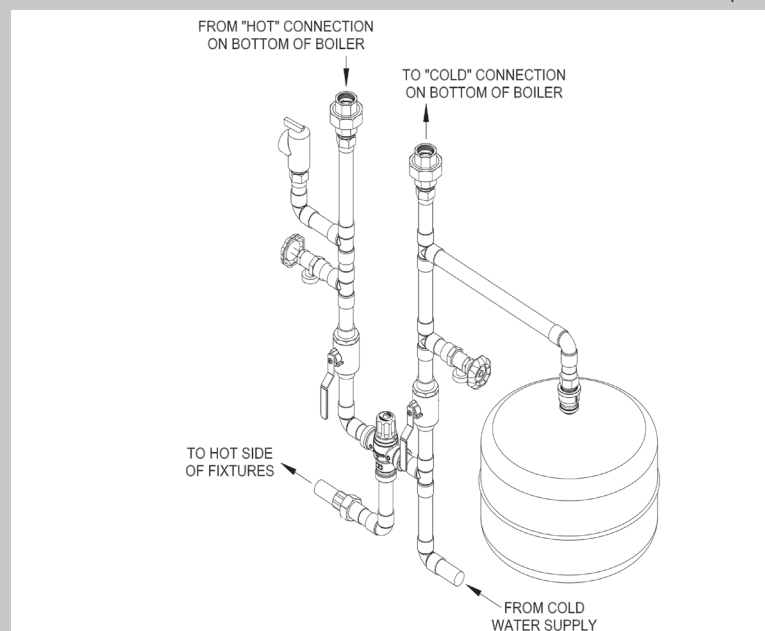
1. Disconnect black hose from gas valve
2. Turn inside slotted screw counter-clockwise until loose (up to five turns)
3. Re-connect black hose

**5. Low voltage** (terminals on PCB)  
**Line voltage** (wire leads in J box)

**RECOMMENDED HEAT PIPING** (Field supplied)



**RECOMMENDED DHW PIPING** (Field supplied)



**WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury, or loss of life. For assistance or additional information, consult a qualified installer, service agency, or the gas supplier. This boiler requires a special venting system. Read Installation, Operating and Service Instructions carefully before installing.