

# “Quick Start” Guide



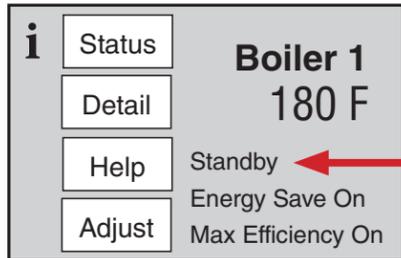
Models K2WT-080B to K2WT-180B; 10:1 turndown

**IMPORTANT:** Follow all pre-start checks, inspections, and boiler fill instructions prescribed in the K2WT 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 LP-fueled boilers without proper LP conversion and adjustments. If installation is above 2,000 ft., see I,O&S Instructions Appendix A.

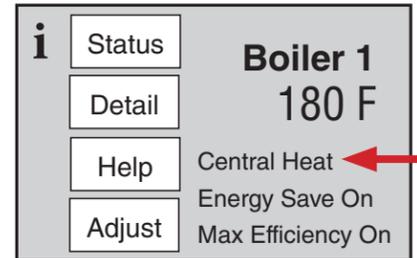
**1.**

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.

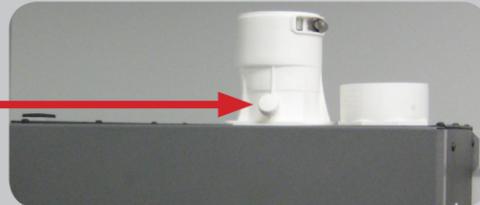
### GAS PRESSURE REQUIREMENTS (0-2,000 ft only)

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**  
**10:1 models only: K2WT-080B to K2WT-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.

# Installation Tips



Models K2WT-080B to K2WT-180B; 10:1 turndown

**✓ 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 cause property damage; 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:**

Install first CPVC or Polypropylene elbow within 11" of vent adapter. Use additional elbows as needed.

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

Within 11" From Vent Adapter

**3.**

FastPipe pre-made primary/secondary piping with 5 connections

106259-01 (sizes 80, 100, 120)  
106259-02 (sizes 150, 180)

Boiler includes a Safety Relief Valve. Do not install any other valves inside boiler or on the outlet of the relief valve

**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. 26" Min.  
56" Min.

**Level boiler (within 5 degrees front-to-back)**

**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.**

**Easy, fused wiring connections to separate high voltage (left), low voltage (right) PCBs**

Service panel access to pre-installed boiler loop circulator.

Alliance indirect water heater

**Increase supply and return pipe sizing** between boiler and indirect water heater from 3/4" to 1" (27 gal. to 70 gal.) to improve tank recovery

Indirect Supply  
Indirect Return

**DHW TIPS**

1. **Assemble** combi parts
2. **Measure/set** mixing valve with thermometer to 120° F max to prevent scalding
3. **Orient** flow switch with arrow pointing away from mixing valve
4. **Wire** flow switch to "DHW T'stat" on boiler low voltage PCB

DHW flow rate guidelines:  
150MBH: 3.7 gpm @ 70°F TR; 3.5 gpm @ 77°F TR  
180MBH: 4.4 gpm @ 70°F TR; 4.1 gpm @ 77°F TR

TR = Temperature Rise between domestic inlet and outlet

K2 System Combi kit 106341-01

3/4" DHW In  
3/4" DHW Out  
1-1/4" Return  
1-1/4" Supply  
Mix  
H  
C  
Safety Valve

**⚠ 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.**