



DATE: February 6, 2006
PRODUCT: SW Series
FROM: Technical Service Department
TITLE: Vent Proving Pressure Switch

MODELS AFFECTED

| | | |
|-----------|-----------|-----------|
| SW3, SW3T | SW4, SW4T | SW5, SW5T |
|-----------|-----------|-----------|

SITUATION

The Vacuum Relief Valve of the SW Series Utica Boilers (see photo 2) will be eliminated and replaced with an air proving pressure switch (see photo 1). This change creates a sealed combustion system that eliminates the need for indoor combustion air.

SOLUTION

To detect a blocked vent condition on the SW series of boilers, a pressure switch has been incorporated into the boiler design to monitor the differential pressure between the intake air pipe and the flue exhaust (see photo 1). In the event the flow of air through or out of the boiler is reduced to unacceptable levels, the reduced air -flow will be detected by the pressure switch and render the boiler inoperable.

A Reduced air-flow through the boiler can be the result of:

1. A blocked vent
2. A restricted air inlet pipe, or
3. Restricted flue way passages, i.e. soot in the boiler.

NOTE: Due to the addition of the pressure switch and its ability to detect air-flow, the vacuum relief valve (see photo 2) is no longer necessary and will be eliminated from the boiler design. The SW boiler will now utilize an intake collar with pressure switch tap (see photo 3)

SEQUENCE OF OPERATION

The new pressure switch will be installed in series with the oil primary terminal marked "valve". On a call for heat the primary control sends voltage through the pressure switch to the valve. If the switch is closed, the oil flows through the valve to fire the burner. If at any time the switch opens, the oil flow through the valve stops and the burner shuts off.

EFFECTIVE DATE

Effective immediately, all SW boilers being built will incorporate the blocked vent pressure switch.

(MORE)

Vent Pressure Switch



Photo 1

Vacuum Relief Valve Is Eliminated



Photo 2

Intake Collar With Pressure Tap (Used in place of the Vacuum Relief Valve)



Photo 3

If you have any questions regarding the information contained in this bulletin, please feel free to contact our Technical Service Department at 1-800-325-5479.

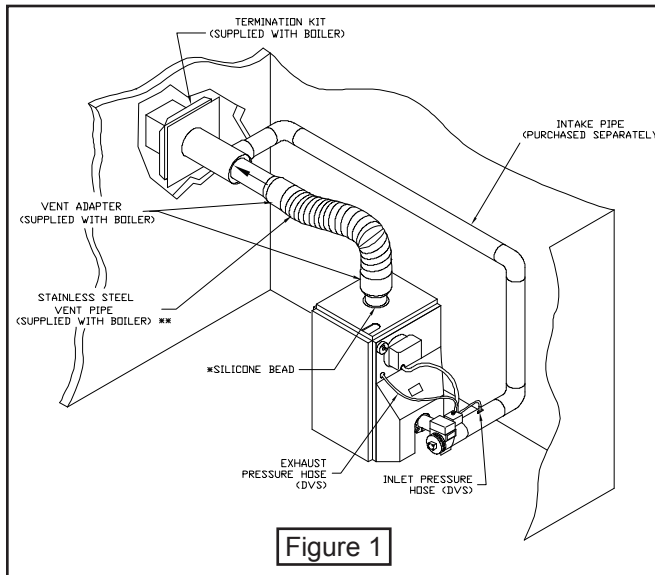
DIRECT VENT SAFETY ADDENDUM FOR SIDEWALL-VENTED OIL BOILERS

The following pages contain changes to both the Installation Manual and Operating Instructions as well as the Venting Addendum included with the boiler. The direct vent safety system was incorporated in compliance with CSA standard B140.03.

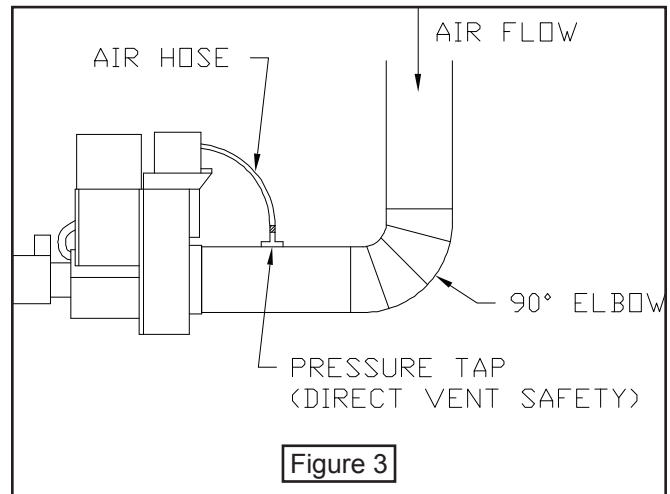
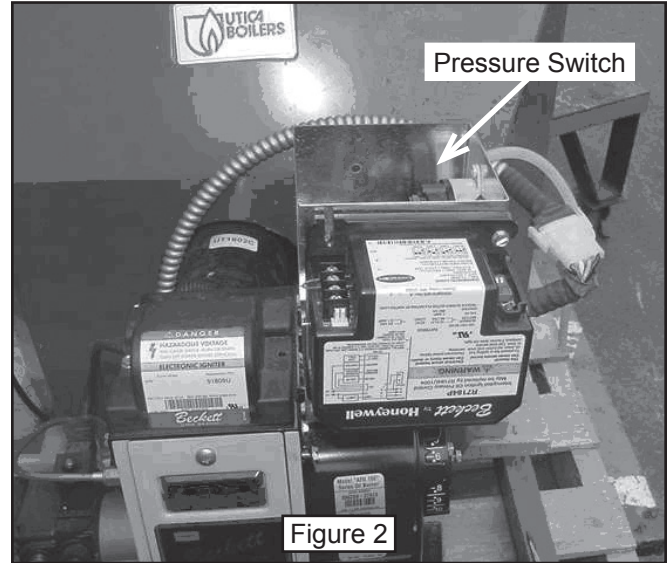
For installation of vent piping, please refer to the Venting Addendum included in the literature package.

Instructions pertaining to the installation of the inlet air piping (Step 9 in the Venting Addendum) has changed to the following:

9. Install the inlet air piping from the termination piece to the burner air inlet using 4", 26 or 30 gauge vent pipe (Do not use plastic or metal flex dryer vent as it may collapse due to the thinness of the wall.) Do not install a vacuum relief valve in the inlet air vent piping. Secure the pipe using sheet metal screws. Install vent pipe with crimps running in the direction of the air flow. (Figure 1)



The direct vent safety system consists of a pressure switch that is mounted in a junction box on top of the oil burner. The pressure switch monitors the differential pressure between the exhaust gases measured at the flue adapter and the inlet air measured at the air inlet of the burner. (Figures 2 & 3)



In the event that the differential pressure drops below .5" w.c., the pressure switch will open and the burner solenoid will lose power and stop the flow of oil to the nozzle assembly. (Figures 4 & 5 on next page.)

The burner motor will continue to run in the post purge mode for approximately 2 minutes before turning off. The burner will attempt to relight three times, if there is not adequate differential pressure at the pressure switch, the burner will go into lock-out mode.

NOTE: If the burner does not light after three failed attempts, please contact a service professional.

**Oil-Fired Boiler
Less Tankless Heater**

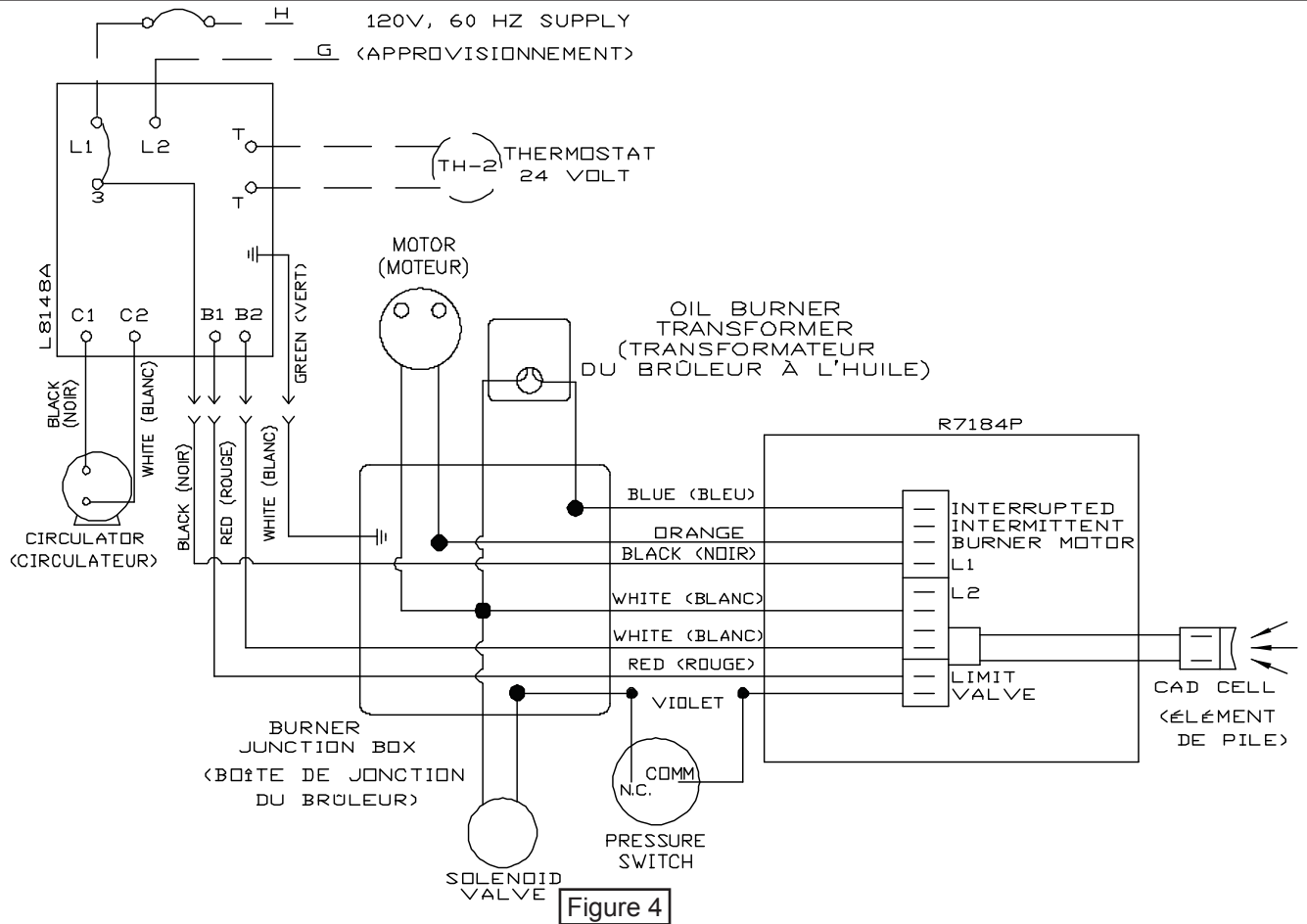


Figure 4

**Oil-Fired Boiler With Circulator Zoned System
and Tankless Heater**

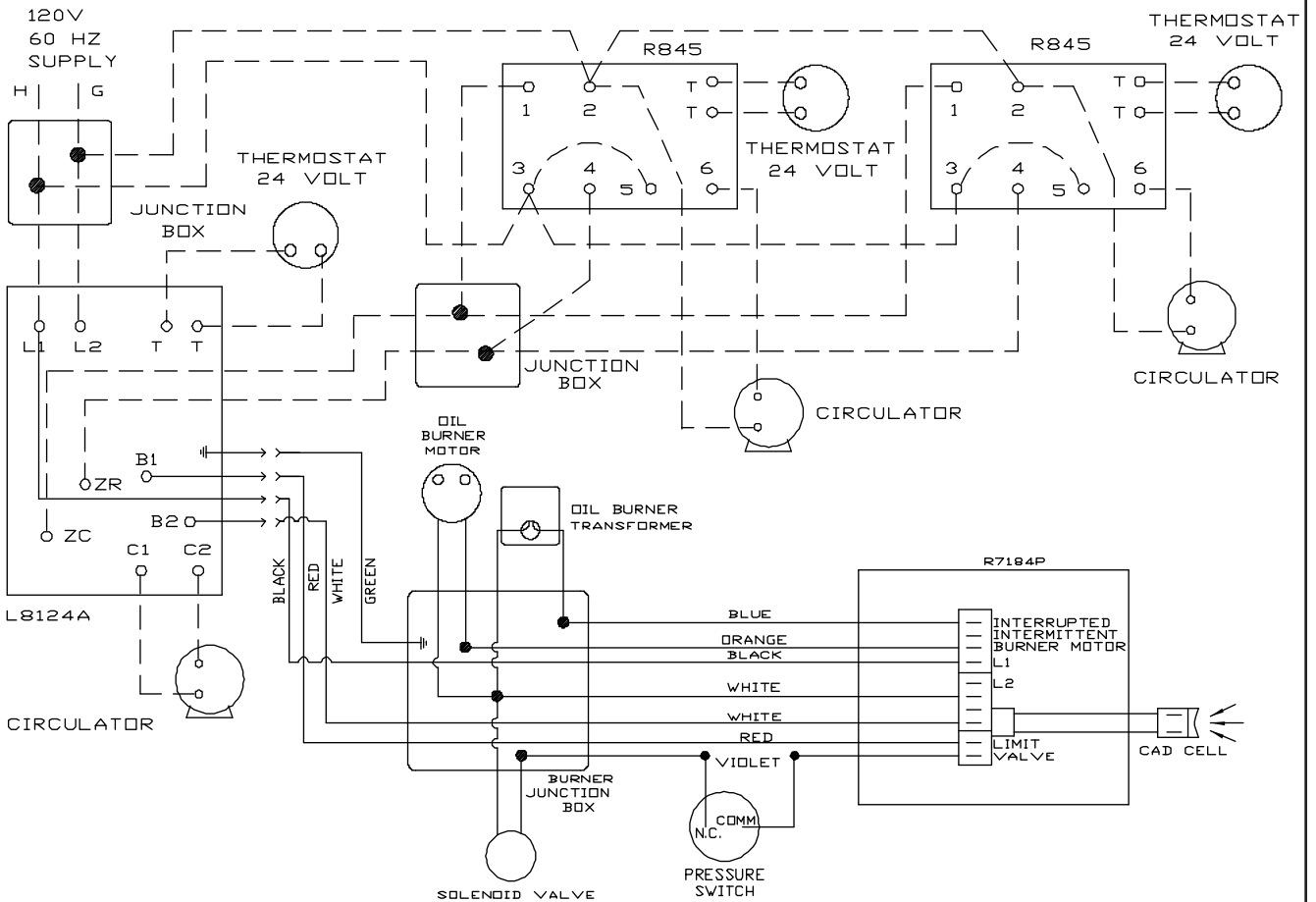


Figure 5

