PRO Series

Oil Boilers

CHANGE FOR THE BETTER WITH ENERGY STAR

As an ENERGY STAR® Partner, PB Heat, LLC has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Installation, Operation & Maintenance Manual

PeerlessBoilers.com

TABLE OF CONTENTS

USING THIS MANUAL

A. INSTALLATION CLEARANCE

Follow the installation instructions provided in this manual in the order shown. The order of these instructions has been set in order to provide the installer with a logical sequence of steps that will minimize potential interferences and maximize safety during boiler installation.

B. SPECIAL ATTENTION BOXES

Throughout this manual you will see special attention boxes intended to supplement the instructions and make special notice of potential hazards. These categories mean, in the judgment of PB Heat, LLC.

DANGER **Indicates a condition or hazard which will cause severe personal injury, death or major property damage.**

WARNING **Indicates a condition or hazard which may cause severe personal injury, death or major property damage.**

CAUTION **Indicates a condition or hazard which will cause minor personal injury or property damage.**

NOTICE **Indicates special attention is needed, but not directly related to potential injury or property damage.**

1. PREINSTALLATION

Read carefully, study these instructions before beginning work. It will save time. Study the included drawings. Save these instructions for reference.

This boiler must be installed by a qualified contractor.

The boiler warranty can be voided if the boiler is not installed, maintained and serviced correctly.

NOTICE **The equipment shall be installed in accordance with those installation regulations in force in the local area where the installation is to be made, including the current edition of *NFPA-31, Standard for the Installation of Oil-Burning Equipment*, and in Canada, *CSA B139, Installation Code for Oil Burner Equipment*. These shall be carefully followed in all cases. Authorities having jurisdiction shall be consulted before installations are made.**

CAUTION **Never burn garbage or paper in the unit, and never leave combustible material around it.**

CAUTION **Do not tamper with boiler controls.**

A. CLEARANCES

Table 1.1: Clearances from Jacket and Vent System

Required from Jacket to Combustible Construction		Recommended From Jacket for Accessibility and Mounting Controls
Top	2"*	12" to access Aquastat sensor.
Front	16.5"*	16.5" from jacket due to burner.
Left	2"*	12" due to burner swing radius.
Right	2"*	18" to access limit control and read boiler labels.
Rear	2"*	9" for mounting relief valve, boiler piping and vent pipe.
Vent Pipe (Single Wall) - 9" to Combustible Construction. VENT PIPE CLEARANCE MAY BE REDUCED USING METHODS IN NFPA 31. **Vent Pipe (Double Wall)** - See Manufacturer's Instructions.		

* Consider also vent pipe clearance, including distance from edge of boiler flue outlet to combustible construction (as applicable).

Unit may be installed on combustible flooring, provided the boiler is not set on carpet and a metal drip pan is placed under the appliance.

Unit may be installed in a closet with the above clearances. See also Section B, Air for Combustion and Ventilation.

B. AIR FOR COMBUSTION AND VENTILATION

1. Be certain adequate facilities are available to provide air for satisfactory combustion and ventilation.

2. Appliances Located in Unconfined Spaces.
   a. For installation in unconfined spaces with conventional construction and larger areas such as basements, the supply of air for combustion and ventilation can usually be considered adequate.

3. Appliances Located in Confined Spaces.
   a. All air from inside the building: Provide two permanent openings communicating directly with an additional room. If all air for combustion and ventilation is to come from within the building: two openings, one near the ceiling and one near the floor of the boiler room shall be provided with the minimum free area of each opening equal to 140 sq. in. per gallon of oil burned.

   b. If all air for combustion and ventilation is to come from outside the building: two openings, one near the ceiling and one near the floor of the boiler room shall be provided with the minimum free area of each opening equal to 35 sq. in. per gallon of oil burned.

      If ducts are used to convey the air, areas of 35 sq. in. per gallon of oil burned for vertical ducts or 70 sq. in. per gallon of oil burned for horizontal ducts are to be provided. Ducts shall have the same area as the free area of the openings to which they are connected.

C. CHIMNEY / VENT AND DRAFT CONTROL

CAUTION **An oil-fired unit shall be connected to a flue having sufficient draft at all times, to assure safe proper operation of the unit.**

1. Draft Requirement – Minimum draft required at the vent collar is -.01" W.C. Typical draft over fire is +.03" to +.06" W.C. depending on boiler model.

2. A barometric draft control is recommended to provide adequate control of draft. Follow manufacturer's instructions to locate and adjust the control.

3. Inspect the existing chimney or vent system. Make sure it is in good condition. Inspect chimney liner and repair or replace if necessary.

4. The vent system and installation must be in accordance with the current edition of the American National Standard ANSI/NFPA 211, "Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances," or applicable provisions of the local building codes. Typical minimum chimney size is 8" x 8", 15 feet high, unless otherwise allowed by code. If the vent system is not sized properly, the burner may not operate properly. This can cause poor combustion, sooting and odors to occur.

D. INSTALLATION SURVEY

For new and existing installations, a Water Installation Survey is available from P.B. Heat, LLC. The surveys will provide information on how the boiler works with your specific system and will provide an overview of boiler system operation in general.

You can also use this survey to locate system problems which will have to be corrected. To obtain a copy of this Survey, contact your PB Heat representative or download it from PeerlessBoilers.com.

E. PLANNING THE LAYOUT

Prepare sketches and notes of the layout of the installation. Include boiler location, venting system, existing piping and wiring. Show existing equipment that may interfere with installation of new equipment.

2. BOILER PLACEMENT AND ASSEMBLY

A. SETTING THE BOILER

1. Provide a level foundation, located as close as possible to the center of the heating system.
2. Refer to Figures 2.2 for exploded view of boiler while checking and/or assembling parts of the boiler.
3. Verify ceramic fiber blanket base liner (item 7) is lying flat on bottom of combustion chamber. Remove jacket front door by lifting and then pulling out bottom of door. Open burner swing door by removing (2) 12mm Hex Bolts (items 10A). Reposition base liner if necessary and reinstall swing door and jacket panel.
4. See clearance information in Section I, "Preinstallation."

B. ATTACH THE BURNER

Attach burner using 8 mm studs/nuts/washers provided.

If installing the optional burner cover, install per instructions provided with the cover. Remove right side knockout to allow for burner harness. See Figure 2.1.

C. CONNECT THE FLUE OUTLET

Connect vent pipe to the flue outlet collar by drilling holes in the flue outlet collar and attaching with sheet metal screws.

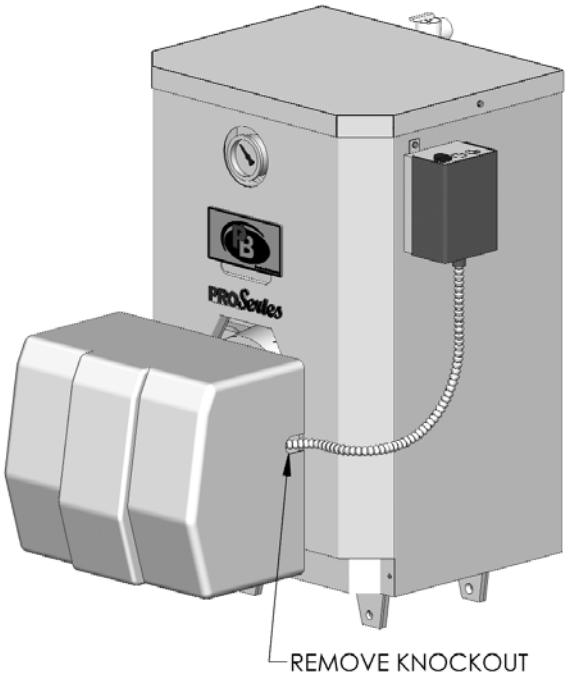


Figure 2.1: Optional Burner Cover

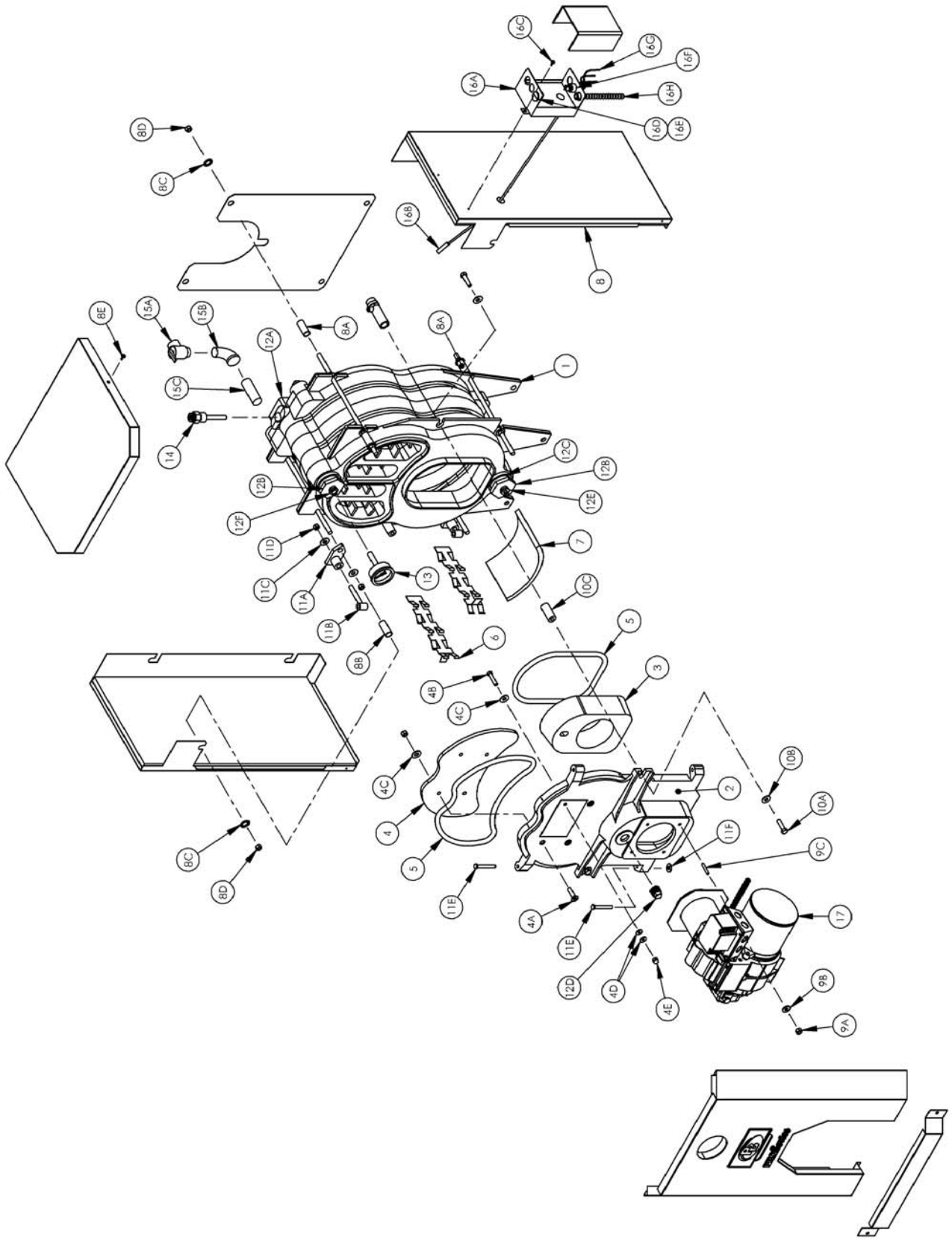


Figure 2.2: Boiler Exploded View

(See Table 8.1 on page 17 for parts identification).

3. PIPING AND CONTROLS

A. BOILER PIPING

1. Refer to the Water Installation Survey and Hydronics Institute Residential Hydronic Heating Installation/Design Guide for guidance.
2. The supply and return connections should be sized to suit the system. A 1-1/2" to 1-1/4" reducing coupling may be used where the system piping is 1-1/2".
3. The supply should be out the top of the back section and return to the bottom of the back section as shown in Figure 3.2.

CAUTION **Pipe the discharge of the safety valve or relief valve to prevent injury in the event of pressure relief. Pipe the discharge to a drain. Provide piping that is the same size as the relief valve.**

4. Mount the relief valve to the back section using the nipple and street elbow provided. See Figure 3.2.
5. Mount the drain to the 3/4" NPT tapping near the bottom of the back section. See Figure 3.2.
6. When the return temperature from the system will be below 150°F on oil boilers for extended periods (heat pump systems, outdoor reset, snow melt, etc.), provide piping and controls to protect the boiler from condensation. Condensation will damage the boiler and will lead to shortened boiler life and maintenance problems.
7. If using a Partner indirect fired water heater or other, see Figure 3.1 for typical piping. Also refer to additional instructions supplied with the Partner.
8. If the boiler is to be used in conjunction with a refrigeration system, the chilled medium shall be piped in parallel with boiler and proper valves applied to prevent the chilled medium from entering the boiler. Refer to Figure 3.3.
9. If the boiler is connected to heating coils located in air handling units, the boiler piping system must be equipped with flow control valves or other automatic devices to prevent gravity circulation of the boiler water during the cooling cycle.

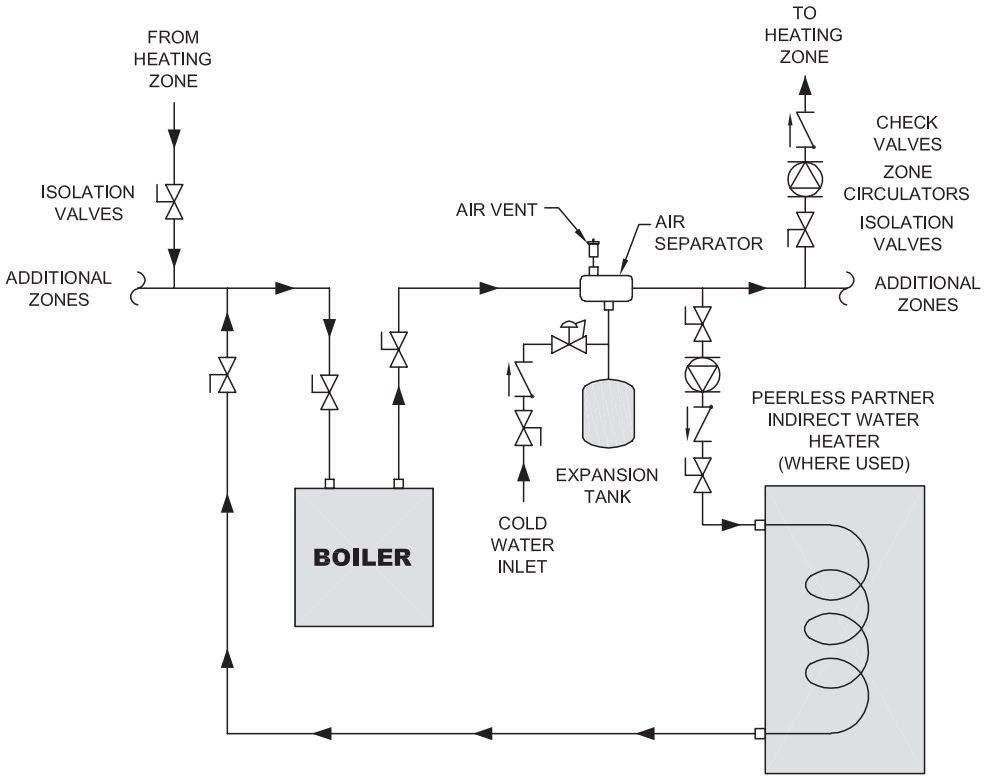


Figure 3.1: Typical Boiler Piping

B. CONTROLS

The PRO Series boiler is equipped with a Honeywell L7248 Electronic Aquastat. For complete information on servicing and adjustment of the control, refer to the attached control specification sheet.

For installations subject to UL726, a second operating control that senses water temperature is also required (not provided). Use an L4080B or equivalent. Install in the supply piping near the boiler.

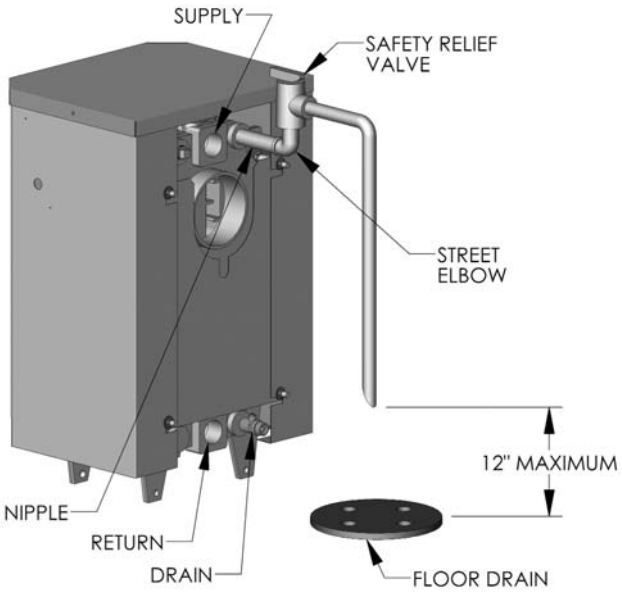


Figure 3.2: Safety Relief Valve

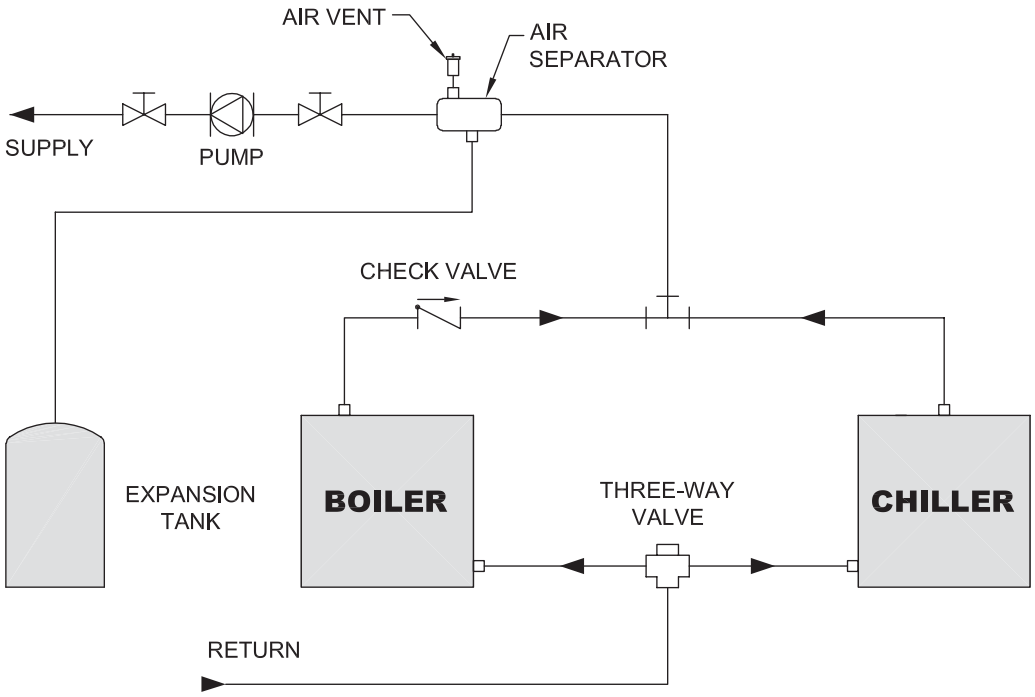


Figure 3.3: Piping to Isolate Boiler from Chilled Medium on Chiller Systems

4. ELECTRICAL

A. GENERAL

All electrical wiring shall be done in accordance with the National Electrical Code and Local Requirements. Single pole switches including those of safety controls or protective devices shall not be wired in a grounded line.

B. BURNER WIRING

WARNING **Use of an improper burner harness can allow burner to energize with burner mounting plate open, creating a severe burn hazard to boiler maintenance personnel.**

Burner harness is prewired to burner. Connect harness to Molex connector on bottom of L7248 aquastat control. Verify harness will not allow burner door to swing open unless Molex connector is disconnected.

C. L7248 AQUASTAT CONTROL

WARNING **For proper operation of boiler service switch, do not connect incoming power (hot) to aquastat. See wiring diagrams.**

For complete information on servicing and adjustment of the aquastat, refer to the attached control specification sheet.

D. WIRING DIAGRAMS

Figure 4.1 – Boiler Wiring
Figure 4.2 – Peerless® Partner® Wiring
Figure 4.3 – Zones using Circulators
Figure 4.4 – Zones using Zone Valves

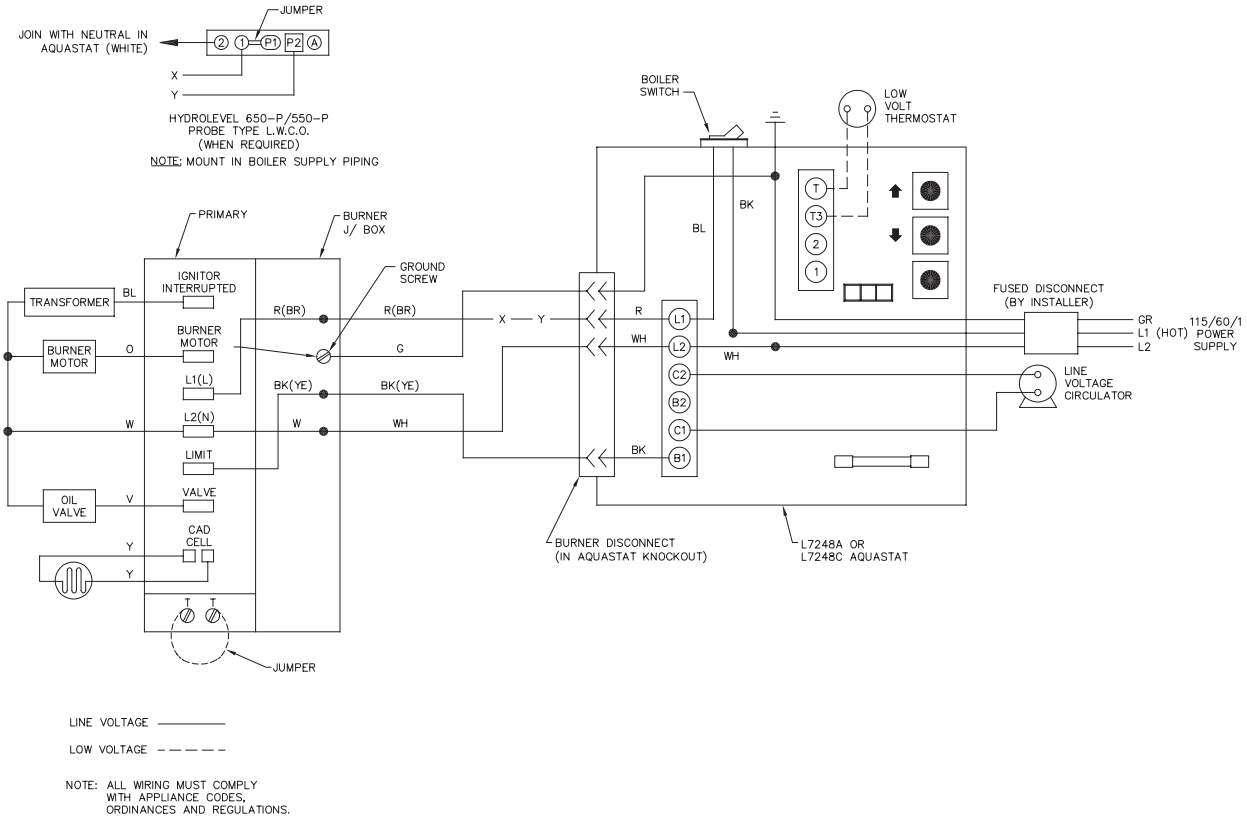


Figure 4.1: Boiler Wiring

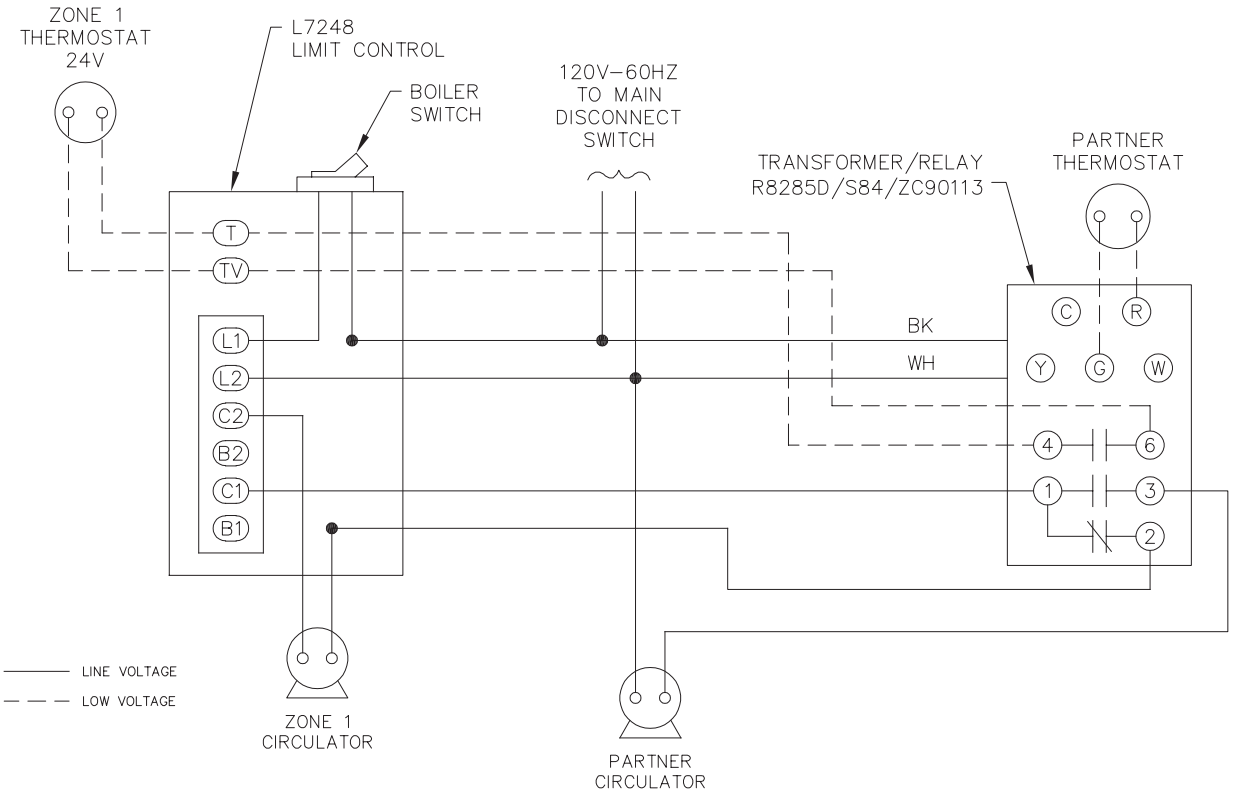


Figure 4.2: Peerless® Partner® Wiring

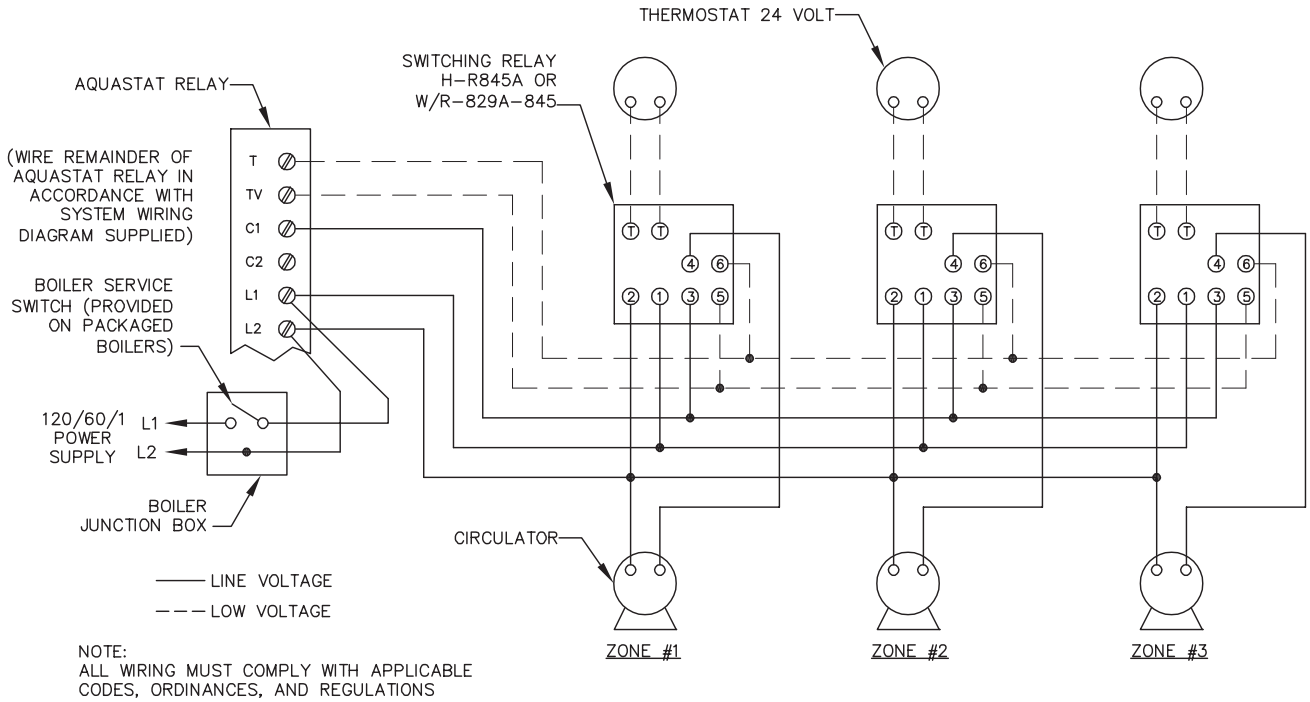
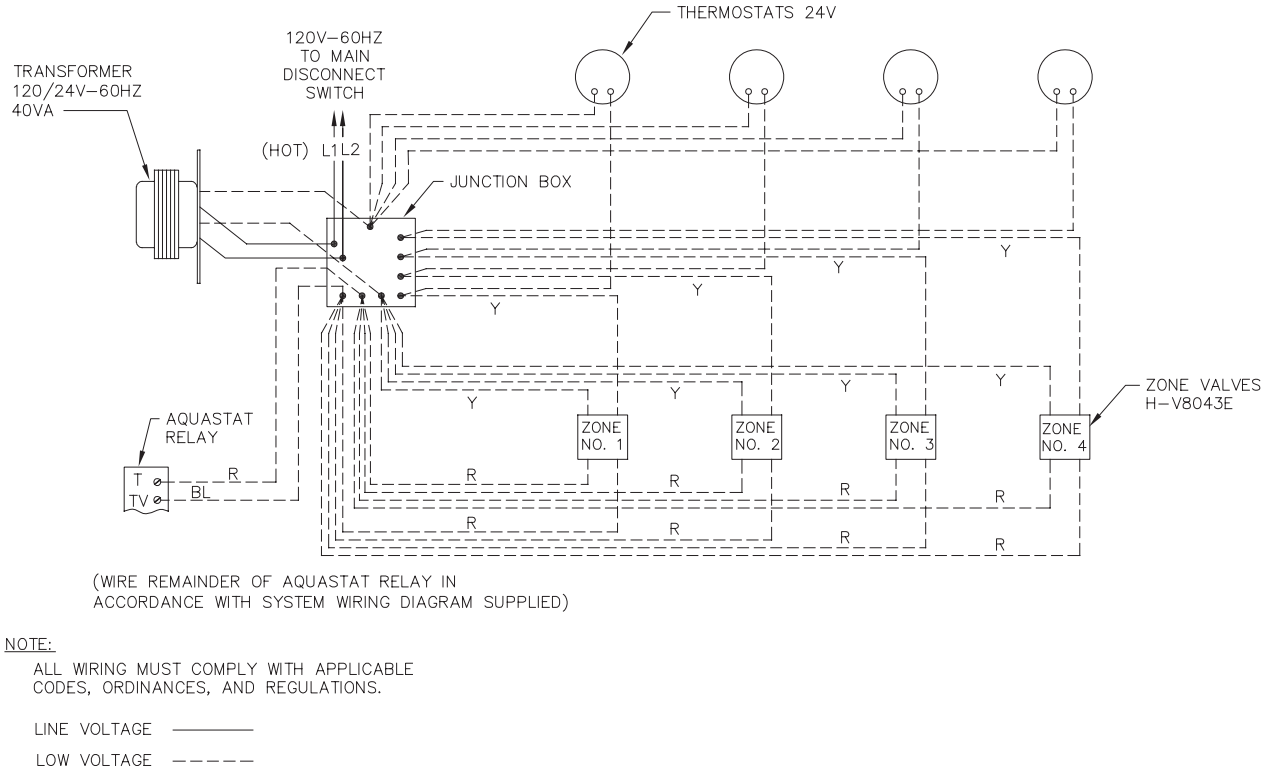


Figure 4.3: Zoning with Circulators



NOTE:

ALL WIRING MUST COMPLY WITH APPLICABLE CODES, ORDINANCES, AND REGULATIONS.

LINE VOLTAGE ————

LOW VOLTAGE – – – – –

Figure 4.4: Zoning with Zone Valves

5. BURNER SETUP & BOILER OPERATION

WARNING **Burn only #2 Fuel Oil in this appliance. Do not use gasoline, crankcase drainings or any oil containing gasoline.**

A. BURNER INSTALLATION

1. The oil burner is supplied with a mounting flange fixed in position.
2. Mount the burner (item 17) to the burner mounting plate with four (4) 8 mm studs and nuts provided.

NOTICE **Be sure hi temp gasket is between the burner mounting flange and the burner mounting plate.**

3. Care must be taken when routing the oil lines so not to interfere with the opening and closing of the burner mounting plate. Flexible oil lines or flared copper disconnects with valves (when copper lines are used) may be installed to assure full opening of the burner mounting plate when servicing.
4. Oil burner specifications:
   For information pertinent to the oil burner such as nozzle sizing, fuel supply piping, adjusting or servicing, refer to the charts in this section and the burner installation manual.

B. BURNER START-UP AND ADJUSTMENT

CAUTION **Do not start the burner unless all cleanout doors are in place.**

1. Burner should start automatically when thermostat is turned up and main boiler service switch is turned on. If burner does not start, check to be sure there is oil in the tank and push red reset button on burner control.
   If burner still does not start, contact serviceman.

CAUTION **Do not attempt to start the burner when excess oil has accumulated, when the unit is full of vapor, or when the combustion chamber is very hot.**

2. Adjust burner and barometric draft control for highest CO_2 (Maximum 13%) while maintaining a 0 Smoke and -.01 to -.02" W.C. draft in the breeching. Typical draft over fire is +.03" to +.06" W.C. depending on boiler model. All adjustments must be made using suitable instruments such as found in a Bacharach Combustion Test Kit.
3. Burner and boiler can be shut down by turning down the thermostat and moving the main boiler service switch to the "off" position.
4. See burner manufacturer's manual for further information regarding the burner.

C. CHECK BOILER CONTROLS

1. Limit and Operating Controls:
   a. Lower the set point of each control until the burner shuts down. Note that the system pressure (or temperature) corresponds to the desired set point.
   b. Return the controls to the desired set point.
2. Low Water Cut-off (if used) - consult the manufacturer's instructions for the low water cut-off operational check procedure.

D. PURGE AIR FROM THE SYSTEM

1. Purge the system using purge valves, isolating zones in the process or use system vents. Do not operate the pump(s) while purging. Pumps will hold air in the eye of the impeller.
2. Allow the system to reach 180°F and use manual vents, if installed, to remove any remaining air. Watch the pressure gauge as the system approaches 180°F. If the pressure exceeds the design operating pressure, check:
   a. Fill valve pressure.
   b. Expansion or compression tank operation and sizing.

Table 5.1: Beckett Burner Specifications

Boiler Model Number	Burner Model Number	Burner Head	Static Plate	Nozzle Size	Pump Pressure	Start-up Settings	
						Air Shutter	Air Band
PRO-03-060	AFG-L2	L2	3-3/8"	**0.50 60° AS Del**	140	4	0
PRO-04-080	AFG-L1	L1	2-3/4"	**0.65 60° A Del**	140	8	0
PRO-04-100	AFG-L1	L1	2-3/4"	0.85 60° A Del[1]	140	10	4
PRO-05-100	AFG-L1	L1	N/A	**0.75 45° B Del**	190	7	1
PRO-05-125	AFG-L1	L1	N/A	0.90 60° B Del[1]	190	10	3.5

Factory Installed Nozzles are indicated in **Boldface.**

1 – Shipped Loose with Burner Carton

6. MAINTENANCE

WARNING

Product Safety Information
Refractory Ceramic Fiber Product

This appliance contains materials made from refractory ceramic fibers (RCF). Airborne RCF, when inhaled, have been classified by the International Agency for Research on Cancer (IARC), as a possible carcinogen to humans. After the RCF materials have been exposed to temperatures above 1800°F, they can change into crystalline silica, which has been classified by the IARC as carcinogenic to humans. If particles become airborne during service or repair, inhalation of these particles may be hazardous to your health.

Avoid Breathing Fiber Particulates and Dust

Suppliers of RCF recommend the following precautions be taken when handling these materials:

<u>Precautionary Measures:</u>
Provide adequate ventilation.
Wear a NIOSH/MSHA approved respirator.
Wear long sleeved, loose fitting clothing and gloves to prevent skin contact.
Wear eye goggles.
Minimize airborne dust prior to handling and removal by water misting the material and avoiding unnecessary disturbance of materials.
Wash work clothes separately from others. Rinse washer thoroughly after use.
Discard RCF materials by sealing in an airtight plastic bag.

<u>First Aid Procedures:</u>
Inhalation: If breathing difficulty or irritation occurs, move to a location with fresh clean air. Seek immediate medical attention if symptoms persist.
Skin Contact: Wash affected area gently with a mild soap and warm water. Seek immediate medical attention if irritation persists.
Eye Contact: Flush eyes with water for 15 minutes while holding eyelids apart. Do not rub eyes. Seek immediate medical attention if irritation persists.
Ingestion: Drink 1 to 2 glasses of water. Do not induce vomiting. Seek immediate medical attention.

A. GENERAL

1. Check pipes adjacent to cold walls or in unheated spaces. Insulate and tape them if necessary to be sure they can't freeze up. Keeping the water moving at all times will reduce the likelihood of freezing.

2. If there is considerable foreign matter in the boiler water, the boiler should be shut down and allowed to cool, then drained and thoroughly flushed out. Drain the boiler at the drain cock. Pipe the drain cock to a suitable drain or containment device (if antifreeze is used). Flush the system to remove remaining matter. If there is evidence that hard scale has formed on the internal surfaces, the boiler should be cleaned by chemical means as prescribed by a qualified water treatment specialist.

3. There must be no signs of continuous wetness at the chimney. If signs of continuous wetness are observed, a qualified service agency must be consulted to modify the vent configuration to prevent the formation of condensate, which may damage the vent pipe.

WARNING **Do not use this appliance if any part has been under water. Improper or dangerous operation may result. Immediately call a qualified service technician to inspect the boiler and to replace any part of the control system and any control which has been under water.**

B. DAILY MAINTENANCE (WITH BOILER OPERATING)

Daily boiler observation can be performed by the owner. If any potential problems are found, a qualified installer or service technician/agency must be notified.

1. Remove any combustible materials, gasoline and other flammable liquids and substances that generate flammable vapors from the area where the boiler is contained. Make certain that the boiler area has ample air for combustion and ventilation and that there are no obstructions to the free flow of air to and from the boiler.

2. Observe general boiler conditions (unusual noises, vibrations, etc.)

3. Observe operating temperature and/or pressure gauge on the boiler. Boiler pressure should never be higher than 5 psi below the rating shown on the safety relief valve. The valve rating can be found on the top of the safety relief valve. Boiler temperature should never be higher than 250°F.

4. Check for water leaks in boiler and system piping.

C. MAINTENANCE OF SAFETY RELIEF VALVE

1. Check function and maintain safety relief valve as specified by manufacturer, typically every other month or every month, per the instructions on the tag on the safety relief valve.

D. MONTHLY MAINTENANCE (WITH BOILER OPERATING)

1. Check boiler room floor drains for proper functioning.

2. Test probe type low-water cut-off (if used) by using the Push-to-Test Button.

CAUTION **Line voltage present. Use caution when adjusting limit control.**

3. Test limit by lowering the limit set point until the burner shuts down. When proper operation is confirmed, return the set point to original setting.

4. Follow additional instructions in the Burner Manual for proving the burner component operation.

E. MAINTENANCE – ANNUAL

NOTICE **Entire heating system, including boiler, burner and venting system, must be inspected at least once a year by a qualified heating professional. Boiler is to be cleaned at least once a year.**

WARNING **Disconnect all power to the burner before accessing combustion chamber.**

TO CLEAN:

1. Remove top jacket front door by lifting and then pulling out bottom of door. Open burner swing door.

2. Remove and clean baffles.

3. Brush and vacuum the combustion chamber and flue passages.

4. Reinstall baffles, burner swing door and jacket panel. Replace or repair any damaged gaskets.

5. Inspect venting system.

NOTICE **All cover plates, enclosures, and guards must be maintained in place at all times, except during maintenance and servicing.**

F. IF A LONG SHUTDOWN IS REQUIRED

1. To take boiler out of service if the boiler and system are not to be used when temperatures are below freezing:
   a. Drain the boiler and system completely and shut off make-up water supply.

   b. Open main line power disconnect switch to boiler. Remove the fuses or secure the switch so that the power cannot be turned on accidentally.

2. Be certain that the boiler and system are refilled before returning to service.

CAUTION **Always keep the manual fuel supply valve shut off if the burner is shut down for an extended period of time.**

7. BOILER DIMENSIONS & RATINGS

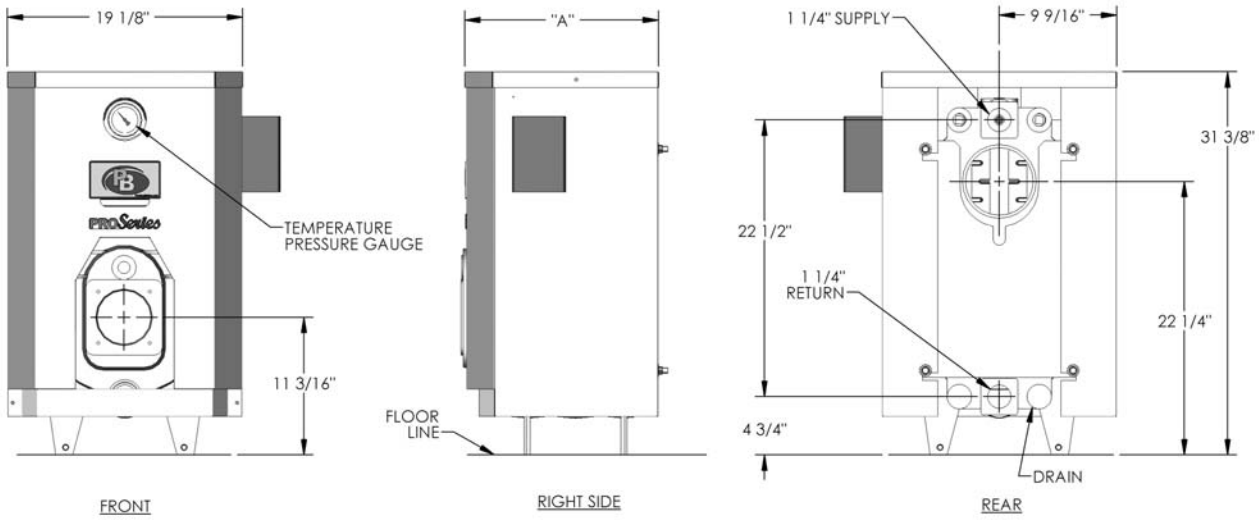


Figure 7.1

Boiler Model Number	Jacket Depth "A"	Flue Size
PRO-03-060	15-3/4"	6"
PRO-04-080/100	19-3/4"	6"
PRO-05-100/125	23-3/4"	6"

Table 7.1: Boiler Ratings

Boiler Model Number	Heating Capacity[1]	Net I=B=R Rating[2]	I=B=R Firing Rate G.P.H.[3]	Water Content	Chimney		Minimum Draft Required In Stack
					Size Inches	Height Feet	
	BTU/Hr.	BTU/Hr.	G.P.H.	Gallon			W.C.
PRO-03-060	73	63	0.60	3.5	8 x 8	15	-.01"
PRO-04-080	98	85	0.80	4.7	8 x 8	15	-.01"
PRO-04-100	121	105	1.00	4.7	8 x 8	15	-.01"
PRO-05-100	123	107	1.00	5.7	8 x 8	15	-.01"
PRO-05-125	151	131	1.25	5.7	8 x 8	15	-.01"

1 Heating Capacity ratings are based on U.S. Government standard tests, with 13.0% CO_2.

2 Ratings are based on a piping pick-up allowance of 1.15. Consult factory before selecting a boiler for gravity hot water installations and installations having unusual piping and pick-up requirements, such as intermittent system operation, extensive piping systems, etc.

3 Firing rate is based on a fuel oil with a heating value of 140,000 BTU per gallon. Burner input based on maximum altitude of 2,000 ft. - for other altitudes consult factory.

8. REPAIR PARTS

Repair parts are available from your installer or by contacting PB Heat, LLC, 131 S. Church St., Bally, PA 19503.

Note: Remember to include boiler model number and serial number when ordering parts.

Table 8.1

Item No.	Stock Code	Description
1	91013	PRO-03 Block Assembly with swing door & baffles – order blanket insulation separately
	91014	PRO-04 Block Assembly with swing door & baffles – order blanket insulation separately
	91015	PRO-05 Block Assembly with swing door & baffles – order blanket insulation separately
2	91016	Burner Mounting Plate / Swing Door (insulated)
3	J01540	Swing Door Insulation Block, Lower
4	J0153	Swing Door Insulation Block, Upper
4A 4B 4C 4D 4E	(3) 530 531 (4) 527 (2) 86 6648	Bolt, 8 mm x 30 mm Countersunk S/S Bolt, 8 mm x 30 mm Hex Head S/S Washer, 8 mm x 17 mm S/S Flat Washer, 5/16" USS Acorn Nut, 8 mm
5	(7 ft.) 51210	Rope Gasket (7 ft. req'd total)
6	(2) Q0318	PRO-03 Flue Baffle
	(4) Q0319	PRO-04 Flue Baffle
	(4) Q0320	PRO-05 Flue Baffle
7	6009	PRO-03 Blanket Insulation, Combustion Chamber, 9-1/2" x 5-1/2"
	6010	PRO-04 Blanket Insulation, Combustion Chamber, 9-1/2" x 9-1/2"
	6004	PRO-05 Blanket Insulation, Combustion Chamber, 9-1/2" x 13-1/2"
8	91017	PRO-03 Jacket Assembly
	91018	PRO-04 Jacket Assembly
	91019	PRO-05 Jacket Assembly
8A 8B 8C 8D 8E	(4) 7218 (2) 99213 (6) 798 (6) 517 (4) 99992	Nipple, 1/2 x 1-1/2 Nipple, 1/2 x 2 Flat Washer, 1/2" USS Hex Nut, 12 mm Screw, #10 x 1/2" Hex Washer Head
9A 9B 9C	(4) 6647 (4) 86 (4) 528	Hex Nut, 8 mm Flat Washer, 5/16" USS Stud, 8 mm x 30 mm
10A 10B 10C	(4) 532 (4) 798 (2) Q00002	Bolt, 12 mm x 30 mm Hex Head Flat Washer, 1/2" USS Hinge Door Coupling
11A 11B 11C 11D 11E 11F	(2) HL00011 (2) Q00003 (2) 798 (2) 533 (2) Q00004 (2) Q00007	Hinge Mounting Flange Hinge Socket/Bolt Flat Washer, 1/2" USS Nut Nylon Insert 12 mm Hinge Pin Spacer Hinge Pin
12A 12B 12C 12D 12E 12F	(2) Q0352 (2) Q0315 (4) J48623 6709 7242 6703	Adapter 1-1/4" Supply/Return Adapter 1/2" Front Top/Bottom Adapter Gasket Hex Plug, 3/4" Plug, 1/2" Countersunk Hex Bushing, 1/2" x 1/4"
13	51327	Temperature-Pressure Gauge
14	50629	Well, 3/4"
15A 15B 15C	50501 69 99217	Safety Relief Valve, 30 PSI Street Elbow, 3/4 Nipple, 3/4 x 3
16A 16B 16C 16D 16E 16F 16G 16H	50683 50682 (2) 99992 6049 PRO7002 7957 PRO7000, PRO7003 X7083	Aquastat, Honeywell L7248C1030 Sensor, Honeywell 50001464, 36" or 48" Screw, #10 x 1/2" Hex Washer Head Rocker Switch, Round 120 VAC Switch Backing Washer, Plastic Bushing, Plastic Aquastat Harnesses Circulator Harness
17A 17B 17C	91010 91011 91012	PRO-03 Beckett AFG Burner with Harness PRO-04 Beckett AFG Burner with Harness PRO-05 Beckett AFG Burner with Harness

* See Figure 2.2 on page 5 for boiler exploded view.

NOTES

PRO Series

Oil Boilers

Installation, Operation & Maintenance Manual

TO THE INSTALLER:

This manual is the property of the owner and must be affixed near the boiler for future reference.

TO THE OWNER:

This boiler should be inspected annually by a Qualified Service Agency.

PeerlessBoilers.com

PB HEAT, LLC

131 S. CHURCH STREET • BALLY, PA 19503

Service Information

Name: _____

Address: _____

_____

Phone: _____

member

ASME

Mixed Sources
Product group from well-managed forests, controlled sources and recycled wood or fibre
www.fsc.org Cert no. SCS-COC-001363
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