

Slant/Fin[®]

COMBI CAT TM MODEL CC-1

DOMESTIC HOT WATER PRODUCTION SYSTEM

INSTALLATION AND OPERATING INSTRUCTIONS

Combi-Cat designed for use with Slant/Fin Bobcat and Lynx series and other similar boilers with DHW Priority Control Capabilities.

Contents	Page
Components Included	2
Dimensions & Specifications	3
Wall Mounting Instructions	3
Water Piping	3-4
Electrical Wiring	5
System Settings	5



WARNING - HOT WATER CAN SCALD!
A tempering valve is recommended to be installed on the hot water outlet to all fixtures where direct user contact can be made with the water supplied by the DHW system, to prevent any possible scalding conditions. See Figure 3 for the appropriate installation method of this device (not supplied with the Combi-Cat DHW system).

Heating Contractor

Address

Phone Number

Model Number

Serial Number

Installation Date

Installation and Operation Instructions

Use these instructions in conjunction with the boiler Installation and Operating Instructions (publication BA-40 for Bobcat and LX-40 for Lynx boiler) for utilizing this DHW production system with the boiler.

Components included:

1. See Figure 1 for the identification and location of each component and piping connection provided in the DHW system.
2. The DHW pump is sized for the required flow rate through the plate exchanger to provide adequate hot water production.
3. A flow switch is provided to detect any flow of domestic water, and will energize the DHW pump and give a call for the burner to operate as required for the demand.
4. Combi-Cat pump provided has integral flow check, to prevent water flow in the DHW boiler loop when it is running for space heating demand.

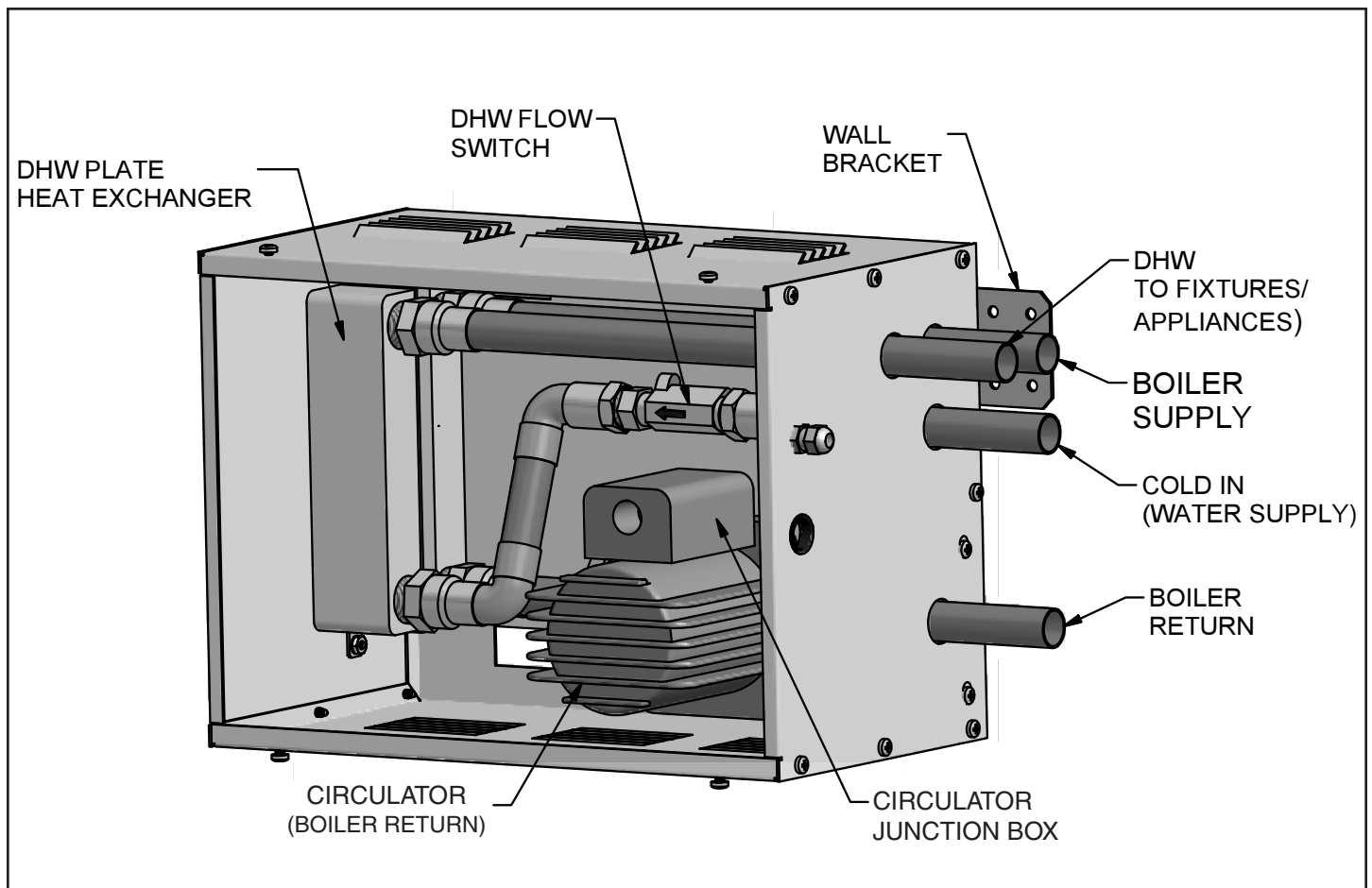


Figure 1. Components and piping of Combi-cat DHW system.

Dimensions:

Width = 15¼" Height = 11⅞" Depth = 8¼"

Specifications:

Weight (empty) = 33 lbs

Water content = 0.2 gallons

Piping connections = ¾" nom. I.D. copper

Min. DHW flow = 0.3 gpm

Max. working pressure = 125 psi

Mounting to a Wall:

1. Combi-Cat must be installed with water pipes at right or left side of the unit (see figure 2).

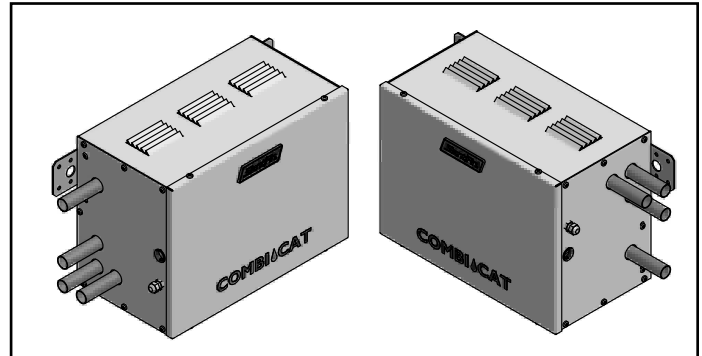


Figure 2.

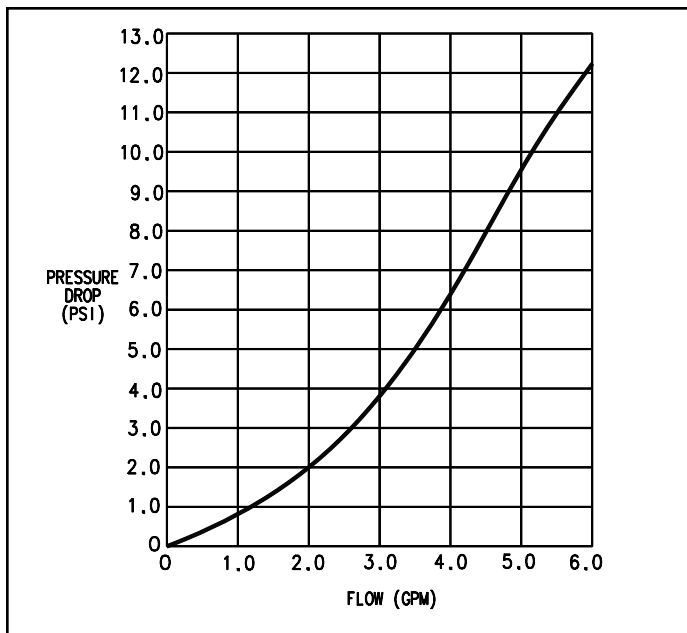


Table 1. DHW pressure drop vs. flow

2. Be sure that the wall is vertically plumb, and capable of carrying the weight of the DHW system and all associated piping, when full of water. See the specifications above.
3. The system may be mounted onto a combustible wall, but the water piping must be kept a minimum of 1" away from any combustible materials.
4. For stud type walls, be sure that there are studs available in the desired location, and the appropriate fasteners are utilized for the wood or metal stud type and weight capacity.
5. For masonry walls, utilize anchors of the appropriate design for the material and weight capacity.
6. Do not attempt to support the system with anchors driven into sheetrock only.

Temp. Rise Δt-°F	DHW Flow rate-GPM		
	LX-85A Boiler	B-120A Boiler	B-200A Boiler
100	1.4	2.0	2.5
80	1.8	2.5	3.75
70	2.1	3.0	4.75
60	2.5	3.5	5.75
55	2.8	4.0	6.5

Table 2. DHW temperature rise vs. water flow*

Water Piping:

1. Make all piping connections to and from the DHW system as shown in Figure 3.
2. Isolation valves and unions are recommended on all piping connections to the DHW system, to facilitate any possible service needs. Use full port valves to insure proper water flow through the system.
3. The piping to and from the boiler should be kept as short as possible, with a minimum number of restrictions, such as elbows. The diameter of the piping must not be reduced from the DHW system's provided connection size.
4. The piping for the domestic water in and out should be adequately sized for the desired flow rates at each fixture. The distance to each fixture should be considered, for the response rate of adequate hot water to each.
5. Refer to the boiler manual "Water Piping" section, for proper installation of the space heating system and all other piping.

CAUTION: A tempering valve is recommended to be installed on the hot water outlet to all fixtures where direct user contact can be made with the water supplied by the DHW system to prevent any possible scalding conditions. See Figure 3 for the appropriate installation method of this device (not supplied with the Combi-cat DHW system).

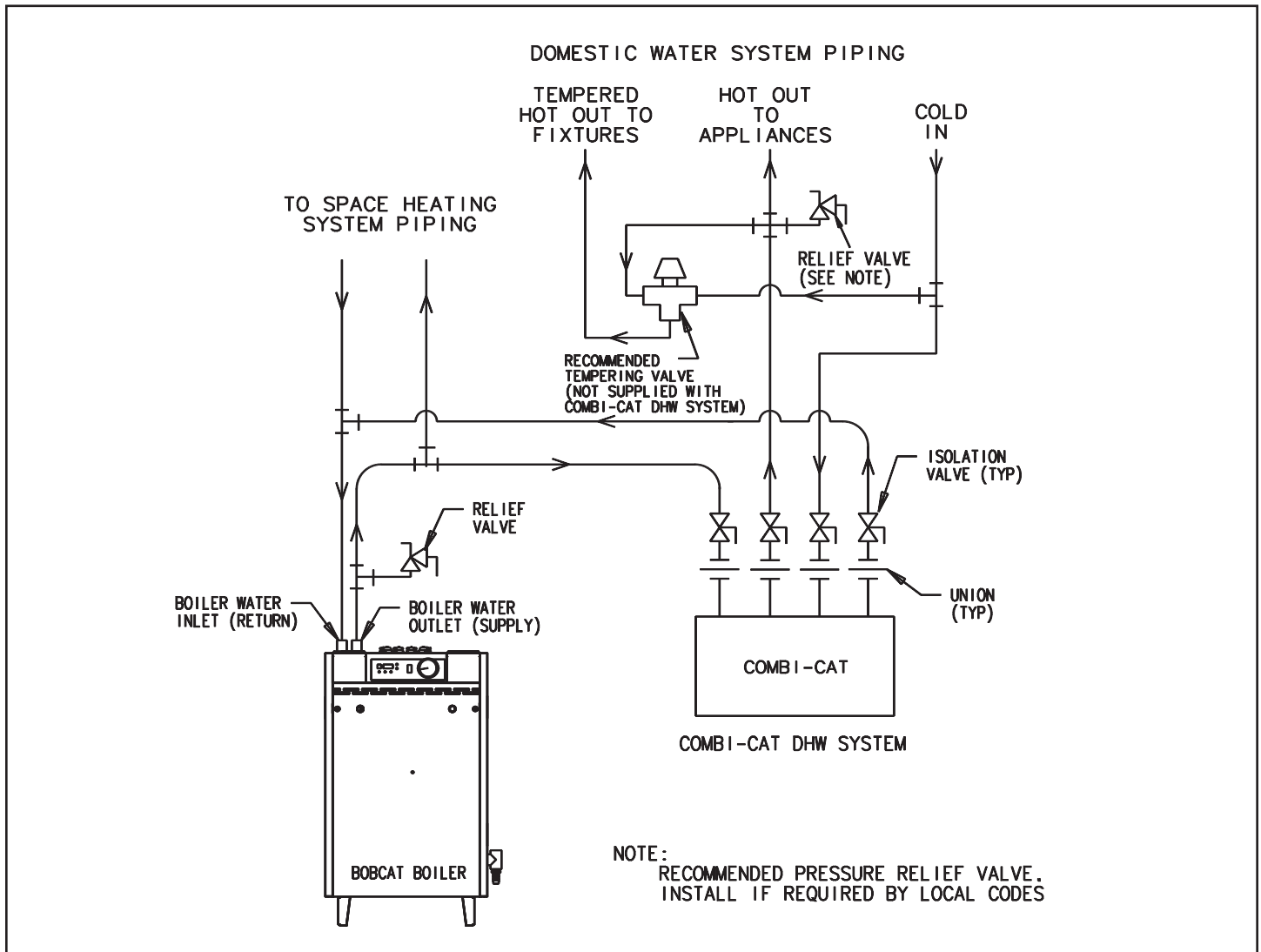


Figure 3. Water piping from boiler to Combi-Cat DHW system (Bobcat B-120 shown)

Electrical Wiring:

1. Make all wiring connections to the DHW system as shown in Figure 4.
2. Wire the DHW system circulator's junction box leads to the boiler's "DHW CIRC" line voltage terminals. Use 14 gage conductors in BX or conduit, secured to the connectors provided (See figure 5).
3. Wire the DHW system water flow switch to the boiler's "DHW T-STAT" low voltage terminals. Pass the wire through the strain relief grommets provided (See figure 5).
4. Refer to the boiler manual's "Electrical Wiring" section, for proper installation of all additional wiring necessary for the space heating system and operation of the boiler.

System Settings:

1. Refer to the boiler manual's "Boiler Control and Display Features", in the "Operating Instructions" section, for setting the boiler display parameters properly to operate with the DHW system.
2. The domestic hot water post pump time (see Table 5) should be set for the minimum value of 1 second, when the alternating letter indication of "P-d" is selected.
3. The domestic hot water mode must be set for # 2 (see Table 5), when the alternating letter indication of "d-t" is selected.
4. The priority mode must be set for 0, DHW priority with no time limit (see Table 5), when the alternating letter indication of "b-t" is selected.
5. Set all other parameters as appropriate for the space heating system and operation of the boiler.

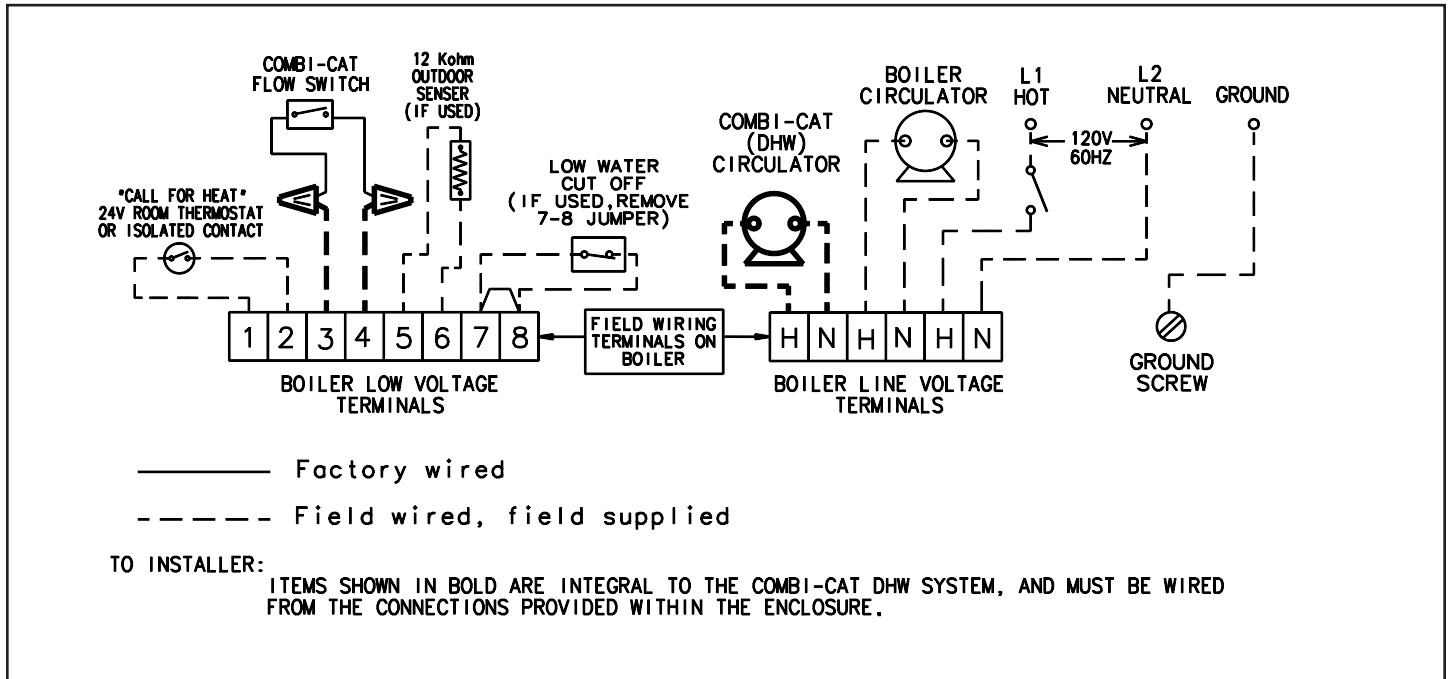


Figure 4. Wiring Combi-Cat DHW system to the Bobcat boiler.

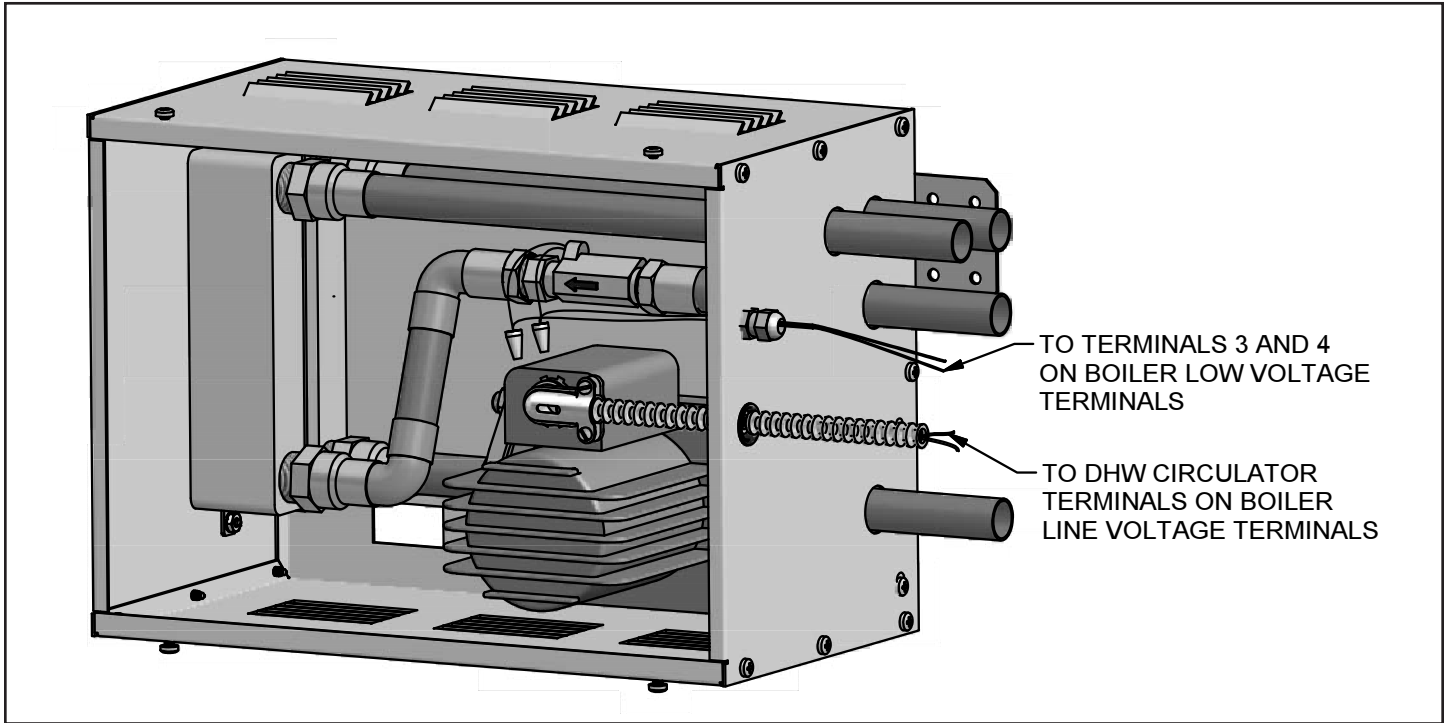


Figure 5. Electrical wiring connections

NOTES

