



**WEIL-McLAIN**

For CGt boilers starting with CP#5952944 and higher

# **CGt Series 1**

## **Gas-Fired Water Boiler**

---

### **Addendum Boiler Manual**

**This Addendum needs to be used in conjunction with the CGt Boiler Manual P/N 550-110-290/0107.**

**▲ WARNING**

This instruction must only be used by a qualified installer/service technician. Read these instructions completely before beginning the installation. Failure to follow these instructions can cause severe personal injury, death or substantial property damage.

**▲ CAUTION**

If the revisions provided in this addenda are not followed the boiler will not provide heat to the system.

### **Revised three-way valve installation and related documentation.**

The original configuration of the 3-way valve on the CGt boiler could allow gravity flow of boiler water while in the off cycle. The revisions made to the CGt wiring and valve installation correct this issue.

**NOTICE**

For page 3, the illustration has been changed to show the correct orientation of the 3-way valve and the addition of the relay on the interior panel.

For page 35, the wiring diagram has been changed to show the addition of the relay.

For page 47, the first paragraph under “3-way valve” has been updated.

For page 48, the illustration has been changed to show the addition of the relay and thermostat.

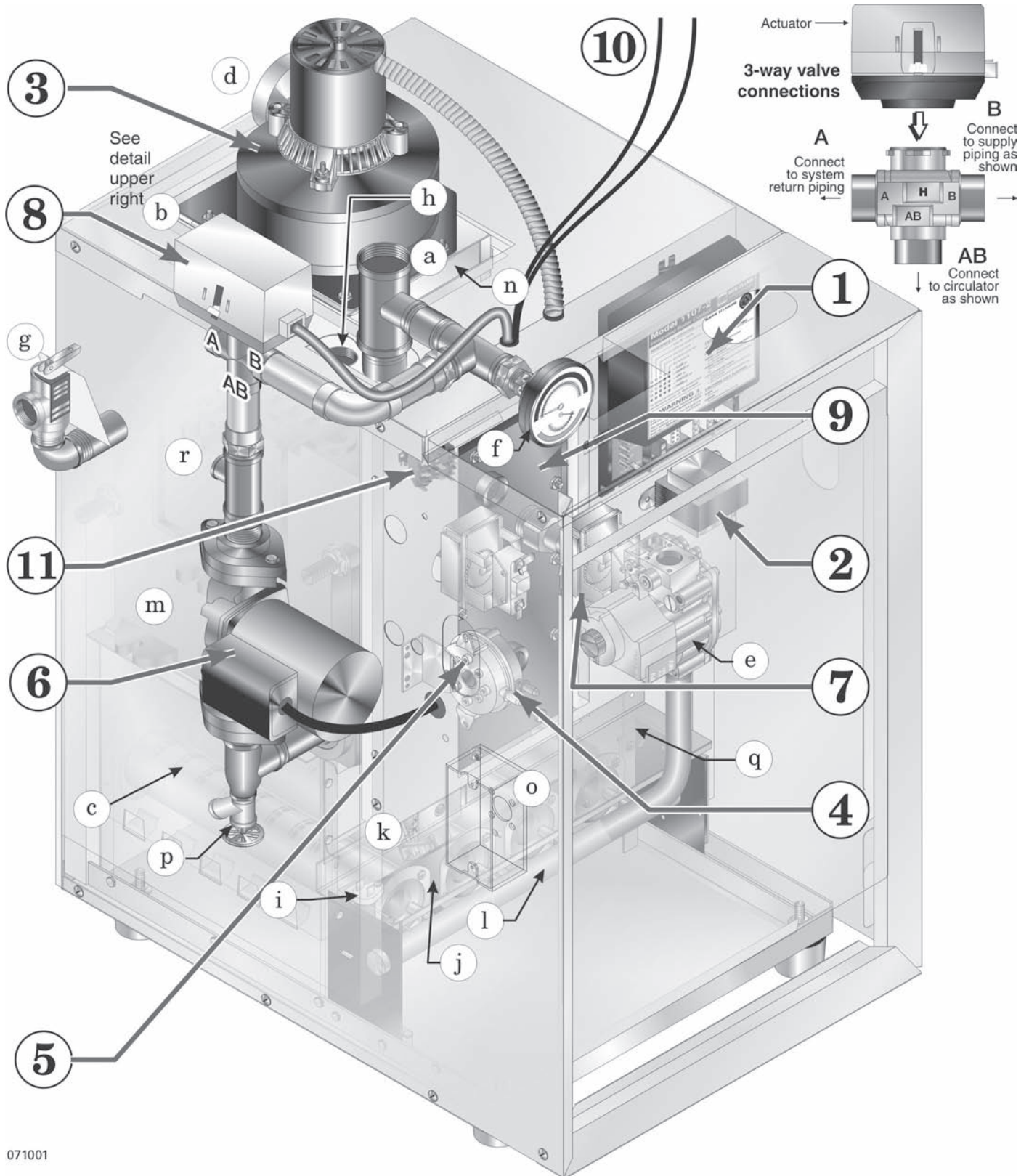
For page 63, Jacket replacement part numbers have been updated.

For pages 64 and 65, the illustration has been changed to show the correct orientation of the three-way and the addition of the relay part number to the replacement parts.

# Installation

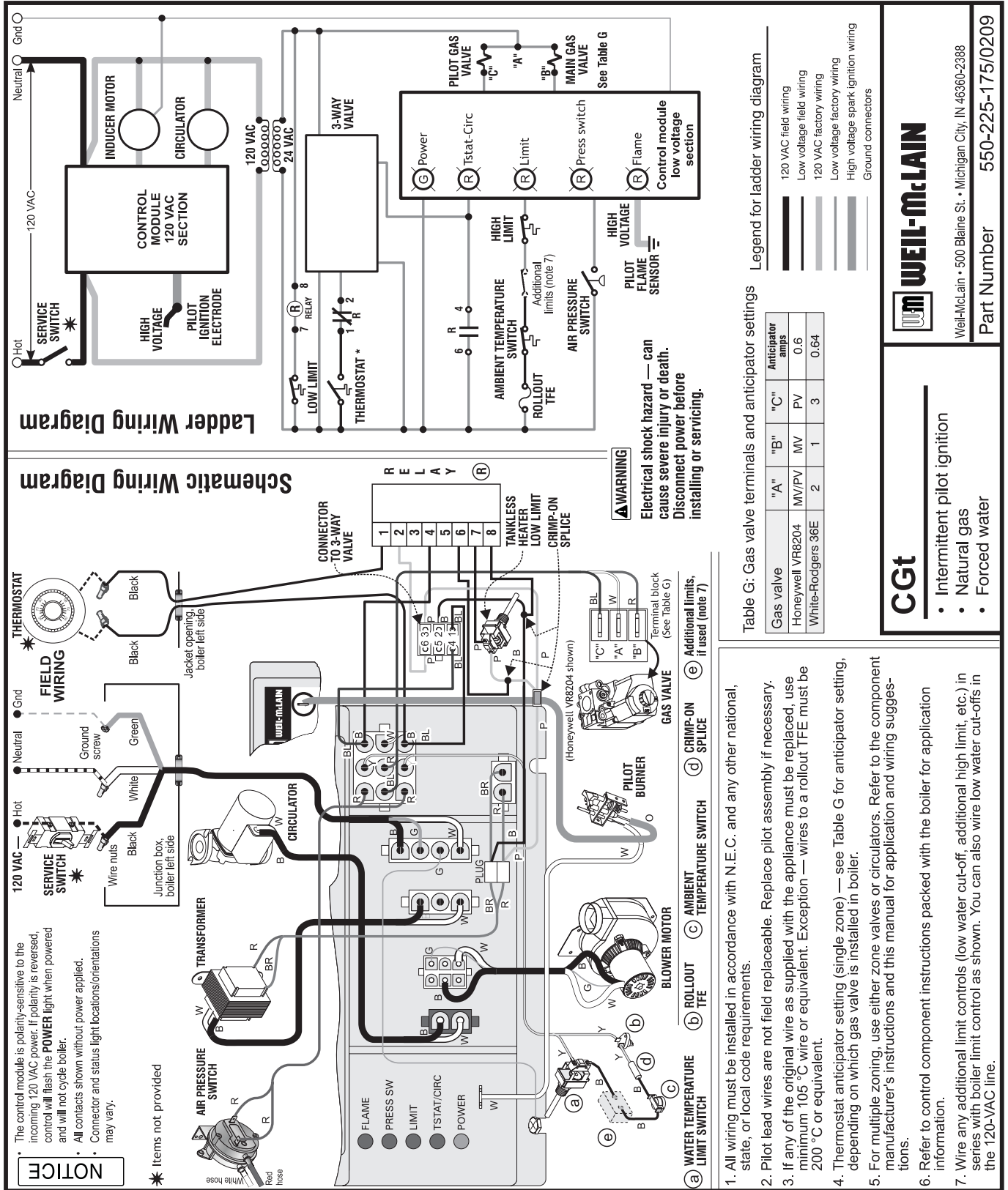
The following picture replaces the one shown on page 3 of the boiler manual.

1. The change is the reversing of the orientation of the 3-way valve body (A - connects to system piping and B - connects to supply piping as shown).
2. The addition of the relay Item 11, mounted on the interior panel.



# Wiring Diagram

The wiring diagram shown below supersedes the diagram on page 35 of the boiler manual.



# Troubleshooting

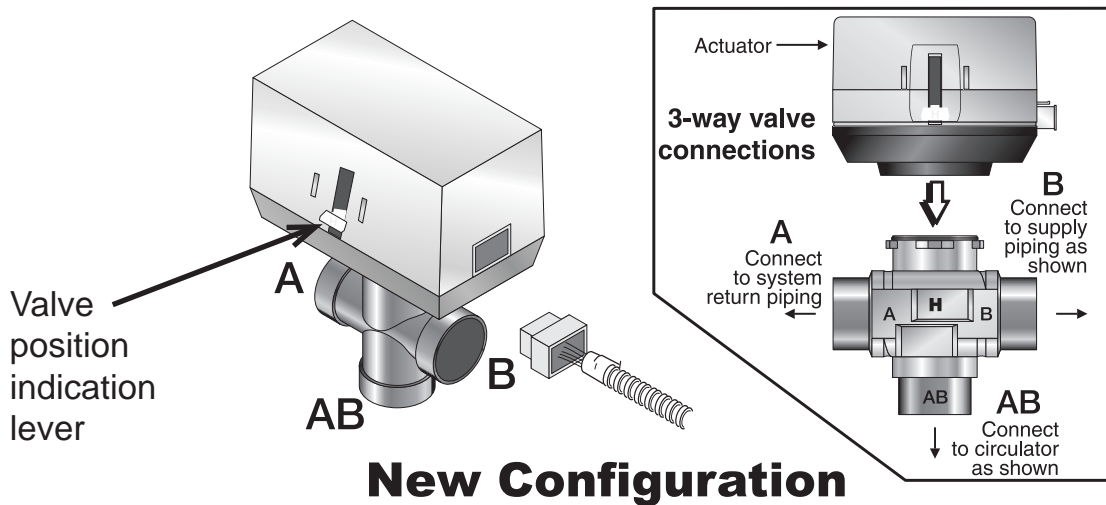
The following information replaces the first paragraph under “3-Way valve” on page 47 of the boiler manual.

## 3-Way valve

The 3-way valve redirects water flow in the circuit. Normally the valve allows water to flow through the bypass to maintain the heat in the boiler for the tankless heater. The 3-way valve lever is up in the normal position. When the heating thermostat calls for heat, the 3-way valve actuator lever drops which allows water to flow to the space heating system. Check for proper 3-way valve operation as follows:

Tankless operating limit calls for heat, boiler turns on when temperature drops approximately 10 degrees below tankless limit setting (differential). Boiler shuts off when temperature reaches tankless limit setting. The 3-way valve lever stays up all during domestic heating cycle.

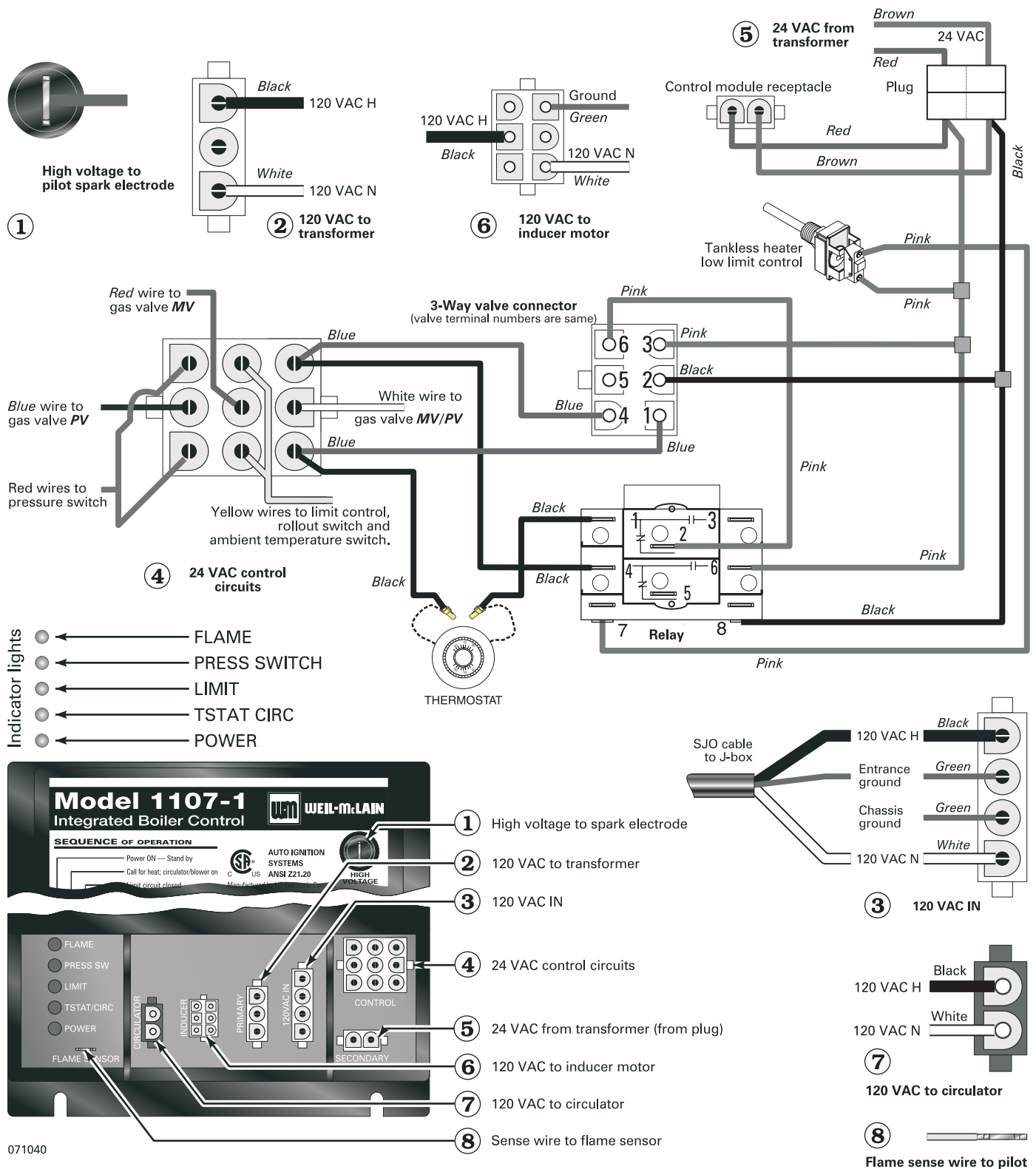
Space heating thermostat calls for heat. 3-way valve lever drops and boiler fires providing space heat.  
NOTE : If the boiler temperature drops below tankless limit setting minus 10 degree differential, the 3-way valve lever will raise to reheat boiler to tankless limit setting. Then the 3-way valve lever will drop and boiler will resume providing space heating until thermostat is satisfied, boiler limit setting is reached, or temperature in boiler drops below tankless limit setting minus 10 degree differential.





# Troubleshooting

The following picture replaces the one shown on page 48 of the boiler manual.



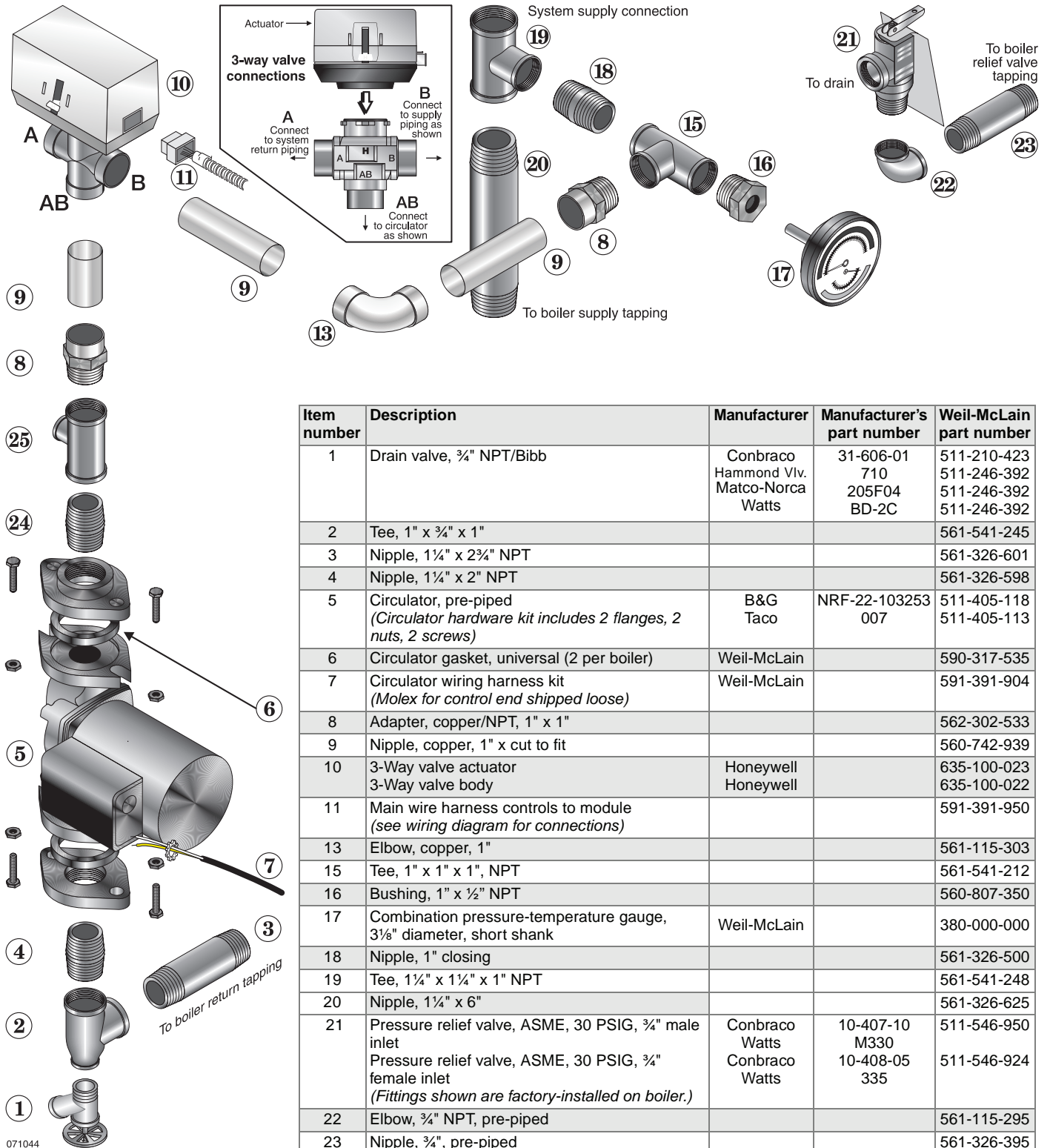
## Replacement Parts -

Replace the table found on page 63 of the boiler manual with the following table. The new information shows the new Jacket part numbers.

Item number	Description	Weil-McLain part number
1	Junction box, 2 x 4 x 1.5	Available locally
2	Jacket panel, left side, with insulation	381-355-741
3	Jacket panel, right side, with insulation	381-355-793
4	Jacket panel, top front, with insulation	381-355-420
5	Jacket panel, top rear, with insulation	381-355-742
6	Jacket panel, door	381-355-744
7	Jacket cross tie, bottom front	431-223-327
8	Jacket panel, rear, with insulation	381-355-559
9	Jacket panel, interior, with insulation	381-355-743
NS	Gold touch-up paint, spray can	592-000-000

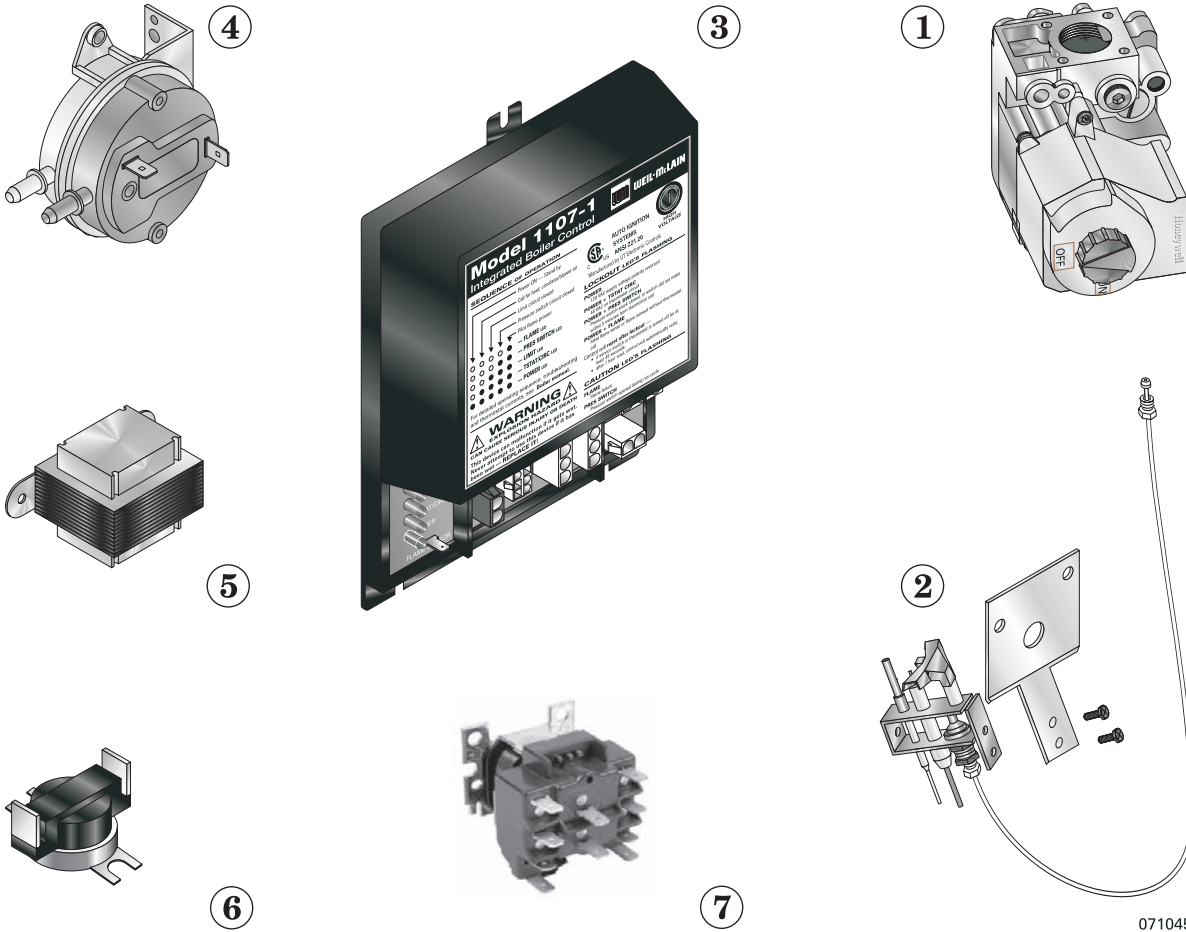
# Replacement Parts -

Replace the drawings and tables found on pages 64 and 65 of the boiler manual with the following figures. The new information shows the new valve orientation and includes part information for relay used to control the valve.



Item number	Description	Manufacturer	Manufacturer's part number	Weil-McLain part number
1	Drain valve, 3/4" NPT/Bibb	Conbraco Hammond Vlv. Matco-Norca Watts	31-606-01 710 205F04 BD-2C	511-210-423 511-246-392 511-246-392 511-246-392
2	Tee, 1" x 3/4" x 1"			561-541-245
3	Nipple, 1 1/4" x 2 3/4" NPT			561-326-601
4	Nipple, 1 1/4" x 2" NPT			561-326-598
5	Circulator, pre-piped (Circulator hardware kit includes 2 flanges, 2 nuts, 2 screws)	B&G Taco	NRF-22-103253 007	511-405-118 511-405-113
6	Circulator gasket, universal (2 per boiler)	Weil-McLain		590-317-535
7	Circulator wiring harness kit (Molex for control end shipped loose)	Weil-McLain		591-391-904
8	Adapter, copper/NPT, 1" x 1"			562-302-533
9	Nipple, copper, 1" x cut to fit			560-742-939
10	3-Way valve actuator 3-Way valve body	Honeywell Honeywell		635-100-023 635-100-022
11	Main wire harness controls to module (see wiring diagram for connections)			591-391-950
13	Elbow, copper, 1"			561-115-303
15	Tee, 1" x 1" x 1", NPT			561-541-212
16	Bushing, 1" x 1/2" NPT			560-807-350
17	Combination pressure-temperature gauge, 3 1/8" diameter, short shank	Weil-McLain		380-000-000
18	Nipple, 1" closing			561-326-500
19	Tee, 1 1/4" x 1 1/4" x 1" NPT			561-541-248
20	Nipple, 1 1/4" x 6"			561-326-625
21	Pressure relief valve, ASME, 30 PSIG, 3/4" male inlet Pressure relief valve, ASME, 30 PSIG, 3/4" female inlet (Fittings shown are factory-installed on boiler.)	Conbraco Watts Conbraco Watts	10-407-10 M330 10-408-05 335	511-546-950 511-546-924
22	Elbow, 3/4" NPT, pre-piped			561-115-295
23	Nipple, 3/4", pre-piped			561-326-395
24	Nipple, 1" x close NPT			561-326-500
25	Tee, 1" x 1" x 1/2" NPT			561-541-216
not shown	Thermostatic Mixing Valve 3/4	Honeywell	AM 101 C-US-1	511-210-458

## Replacement Parts -



071045

Item number	Description	Manufacturer	Manufacturer's part number	Weil-McLain part number
1	Gas valve, ½" x ½"	Honeywell White-Rodgers	VR8204A2001 36E36-266	511-044-381 511-044-381
2	Pilot kit w/orifice & aluminum pilot gas tubing	Weil-McLain		511-330-080
3	Control module	United Technologies	1107-1	511-330-090
4	Air pressure switch, 1.53" w.c.	Tri-Delta		511-624-542
5	Control transformer	Honeywell	AT140B1297	511-842-370
6	Ambient temperature switch (bracket not shown); 135°F; automatic reset	Therm-O-Disc	60T21 314367	540-130-401
7	Control relay DPDT 24 V	Honeywell	R8222D1014	510-311-019
not shown	Tubing, air pressure switch, 0.12 I.D. silicone red, to collector hood white, to transition	Lydall		590-317-650 590-317-651



Weil-McLain  
500 Blaine Street  
Michigan City, IN 46360-2388  
<http://www.weil-mclain.com>