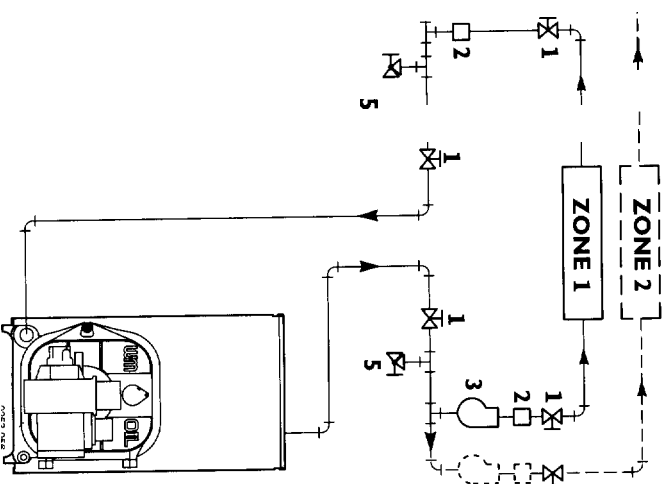


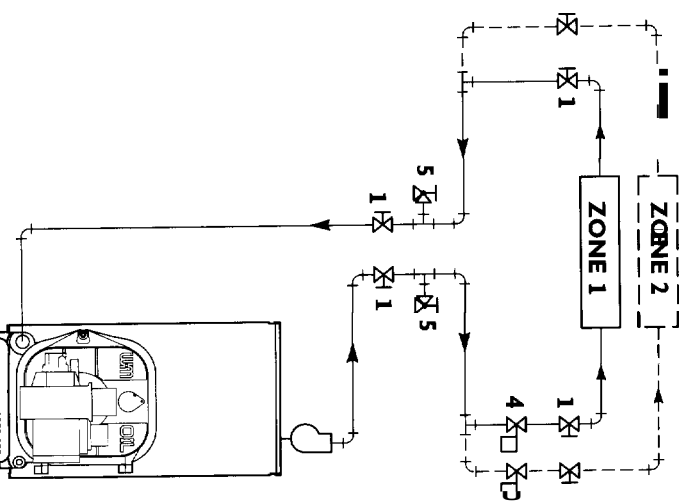
- Piping MULTIPLE ZONES:**
- Follow instructions on page 14 and 15 to install piping near boiler.
 - See FIGURE 10 or 11 to complete installation
 - Zoning with circulators:**
 - Size each circulator to individual circuit requirements.
 - Remove circulator (when furnished as standard equipment).
 - Install balancing valves to adjust flow to distribute heat to all zones.
 - Separate relay is required for each circulator.
 - Zoning with zone valves:**
 - Install balancing valves to adjust flow to distribute heat to all zones.
 - Separate transformer is required to power zone valves. Refer to "Weil-Mclain Zone Valve Wiring Guide" for details.

Legend:

- 1 Isolation valve
- 2 Flow control valve
- 3 Circulator
- 4 Zone valve
- 5 Drain valve



Multiple Zoning with CIRCULATORS
FIGURE 10

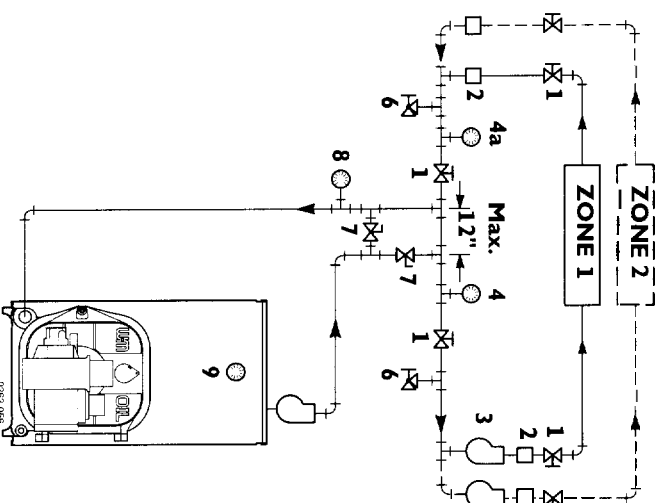


Multiple Zoning with ZONE VALVES
FIGURE 11

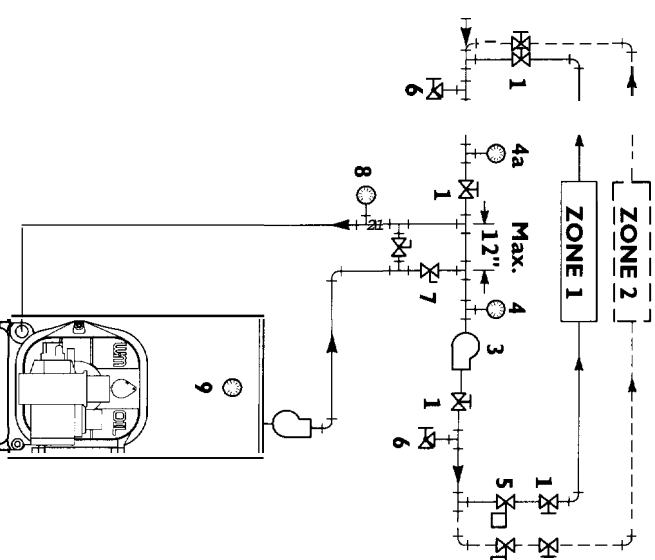
- Piping for systems requiring temperatures below 140°F:**
- In most systems, this type of piping is not required. If system water temperature requirements are less than 140°F, such as radiant panels or converted gravity systems, use piping as shown in FIGURE 12 or 13. If system piping is plastic without an oxygen barrier, a heat exchanger must be used.

Legend:

- 1 Isolation valve
- 2 Flow control valve
- 3 Circulator
- 4 System supply temperature gauge
- 4a System return temperature gauge
- 5 Zone valve
- 6 Drain valve
- 7 System temperature valves
Adjust these valves so that:
- the temperature at gauge 8 is at least 140°F
- the temperature at gauge 9 is at least 160°F
- 8 Blend temperature gauge
- 9 Boiler temperature gauge



Piping with CIRCULATORS
FIGURE 12



Piping with ZONE VALVES
FIGURE 13

General piping information:

- If installation is to comply with ASME or Canadian requirements, an additional high temperature limit is needed. Install control in supply piping between boiler and isolation valve. Set control to a minimum of 20°F above set point of combination control. Maximum allowable set point is 220°F. Wire control as shown on wiring diagram.
- Use a low water cutoff device when:
 - Boiler is installed above radiation level.
 - Required by certain state or local codes or insurance companies.
- Use low water cutoff designed for water installations. Probe-type is recommended. Purchase and install in tee in supply line above boiler.
- Use backflow check valve in cold water supply as required by local codes.

Install piping:

- See FIGURE 8 or 9 on page 15 and Water Piping Size Table at right for near-boiler piping and single-zone piping. See page 16 to complete multiple-zone piping or page 17 to complete piping for systems operating below 140°F.

For multiple-boiler piping, refer to Weil-McLain's "Primary/Secondary Piping Guide" and "M-WGO Multiple Boiler Manual."

- Install relief valve vertically in "R1" tapping on front of boiler. See FIGURE 8 or 9 and also refer to tag attached to relief valve for manufacturer's instructions.

WARNING

Pipe relief valve discharge line near floor close to floor drain to eliminate potential of severe burns. Do not pipe to any area where freezing could occur. Do not plug, valve or place any obstruction in discharge line.

General wiring requirements:

WARNING Electric shock hazard. Can cause severe personal injury or death if power source, including service switch on boiler, is not disconnected before installing or servicing.

- Installations must follow these codes:
 - National Electrical Code, ANSI/NFPA 70, latest edition and any additional national, state or local codes.
 - In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.
- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.

Thermostat wiring:

- Install thermostat on inside wall away from influences of drafts, hot or cold water pipes, lighting fixtures, television, sun rays or fireplaces. Follow instructions with thermostat. If it has a heat anticipator, set heat anticipator in thermostat to match power requirements of equipment connected to it. Boiler wiring diagrams give setting for standard equipment.

Junction box (urnished):

- Junction box houses electrical connections for all boiler components.
- "P" boilers have harnesses furnished.
- "A" and "B" boilers are furnished with burner and limit harnesses.
- All field-provided high voltage wiring must be sheathed in flexible metal conduit.
- Connect incoming line voltage "HOT" wire to service switch, and neutral wire to white wire. Field-install equipment ground wire to green wire with wire nut.
- Service switch (15 amp) is provided with boiler.
- A/B boilers — install switch as shown.
- Some local codes may require an emergency shut-off switch installed at a location away from boiler. Follow local codes.

Burner wiring:

- Burner harness incorporates a disconnect plug, providing a convenient way to disconnect wiring when burner mounting door is opened.
- All "P" and "B" boilers have a power disconnect plug installed on burner.
- On "A" boilers, mount the plug (provided in water trim carton) on the burner housing as shown in FIGURE 15. For Carlin burners, screw burner plug into threaded conduit coupling, then mount this assembly to the burner housing using the chase nipple. Route wires through housing and make connections in burner junction box as shown in boiler wiring diagram.

- **DIAPHRAGM expansion tank (FIGURE 8):**
 - Make sure expansion tank size will handle boiler and system water volume and temperature. Tank must be located near boiler before inlet to circulator. See tank manufacturer's instructions for details.

CAUTION

Undersized expansion tanks cause system water to be lost from relief valve and makeup water added through fill valve. Eventual section failure can result.

- Install automatic air vent in "N" tapping as shown in FIGURE 8.

CLOSED expansion tank (FIGURE 9):

- Ensure expansion tank size will handle boiler and system water volume and temperature.

CAUTION

Undersized expansion tanks cause system water to be lost from relief valve and makeup water added through fill valve. Eventual section failure can result.

- Connect tank from "N" tapping shown in FIGURE 9 to expansion tank. Use ½" N.P.T. piping. Pitch any horizontal piping up towards tank 1 inch per 5 feet of piping.

WATER PIPING SIZE TABLE *

BOILER MODEL NUMBER	TO SYSTEM	FROM SYSTEM
WGO-2	1"	1"
WGO-3	1½"	1½"
WGO-4	1½"	1½"
WGO-5	1½"	1½"
WGO-6	1½"	1½"
WGO-7	1½"	1½"
WGO-8	2"	2"
WGO-9	2"	2"

* All piping sizes based on 20°F temperature rise through boiler.

Ge

gas leakage and carbon monoxide emissions, which will lead to severe

- Use vent material approved by local codes for oil-fired burners. In their absence, refer to:
 - NFPA 31, Installation of Oil-Burning Equipment.
 - NFPA 211, Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances.
 - In Canada, refer to CSA B139, Installation Code for Oil-Burning Equipment.
- NFPA 211 requires chimney to be lined before connected to boiler.

DANGER Inspect existing chimney before installing new boiler. Failure to do any of the following will result in severe personal injury or death:

- Clean chimney, including removal of blockage.
- Repair or replace damaged pipe or liner.
- Repair mortar and joints.

To prevent downdrafts, extend chimney at least 3 feet above highest point where it passes through roof and 2 feet higher than any portion of building within 10 feet. Increase chimney cross-sectional area and height at least 4% per 1,000 feet above sea level.

- Minimum clearances from vent pipe to combustible material:
 - 6 inches — Type "L" doublewall vent
 - 18 inches — Singlewall vent
- Minimum chimney sizes should be used.

NOTICE Oversized chimneys, outside masonry chimneys and/or derated inputs can result in condensation in chimney.

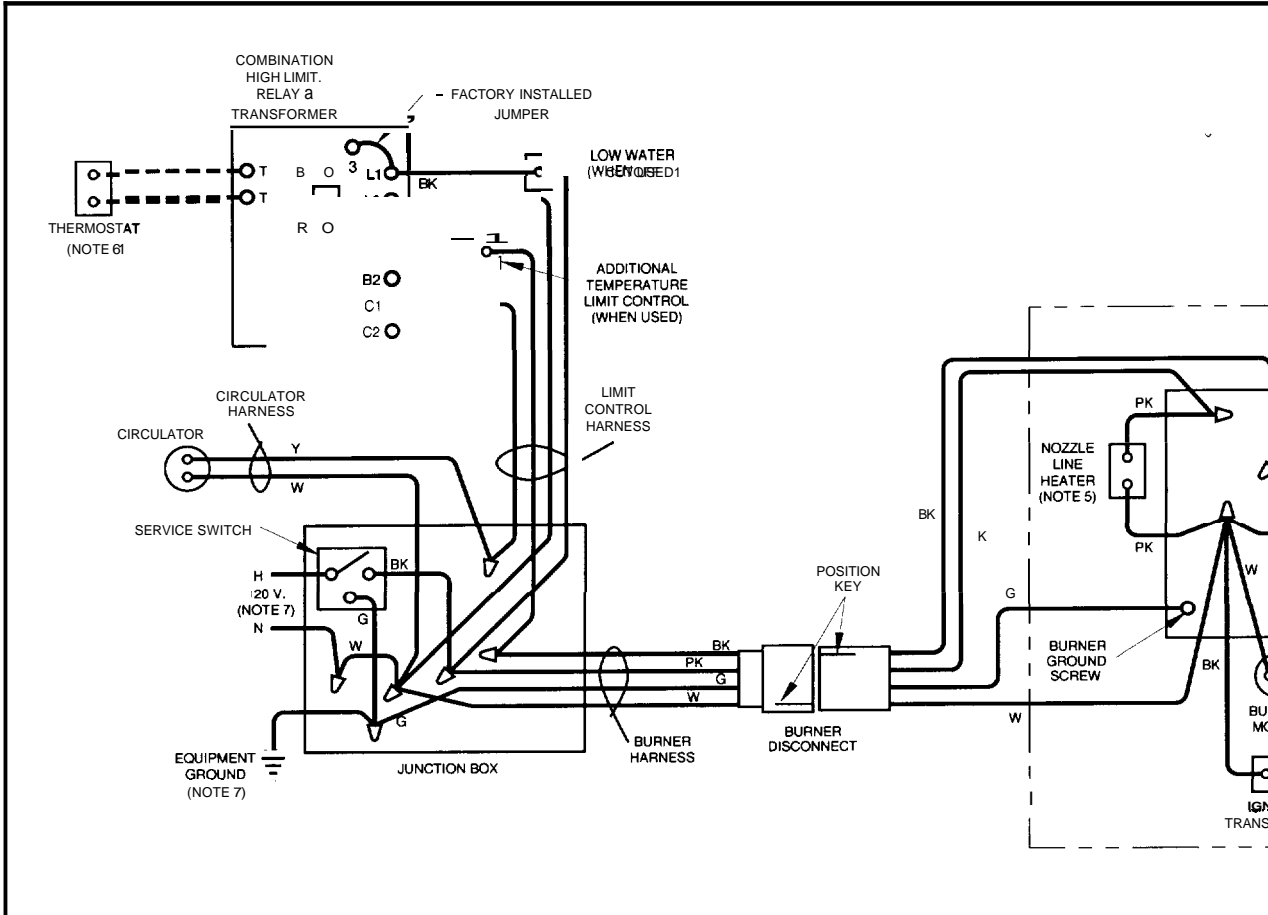
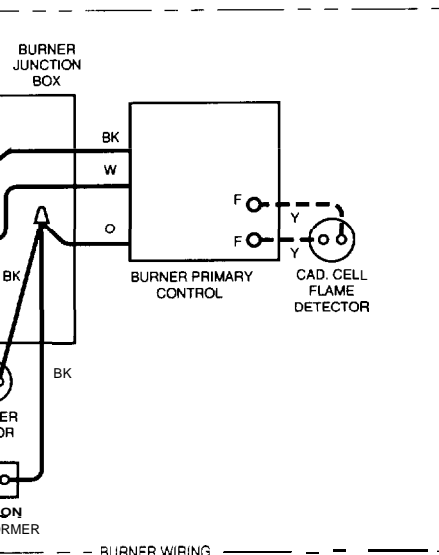
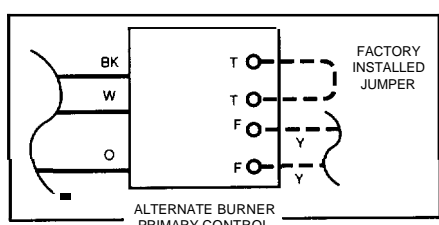
MINIMUM CHIMNEY SIZE TABLE				
BOILER MODEL NUMBER	MINIMUM BREACHING DIAMETER	MINIMUM I-B-R CHIMNEY SIZE		MINIMUM CHIMNEY HEIGHT
		RECT.	ROUND	
2	5"	8" x 8"	6"	15'
3	5"	*	*	15'
WGO-4	6"	8" x 8"	7"	15'
WGO-6	7"	8" x 8"	7"	15'
WGO-7	7"	8" x 12"	7"	20'

* 6 1/2" x 6 1/2" inside liner
 * 6 1/2" x 10 1/2" inside liner
 ** Flue collar on boiler is 7" diameter

Connect breaching:

WARNING Long horizontal breachings, excessive number of tees and elbows or other obstructions restricting combustion gas flow can result in possibility of condensation, flue gas leakage and carbon monoxide emissions, which can lead to severe personal injury or death.

- Install 2 flue pipe brackets.
 - Connect full-sized breaching when possible. See Minimum Chimney Size Table.
 - Back outlet — see FIGURE 6.
 - Top outlet — see FIGURE 7.
 - Connection must be made above bottom of chimney to avoid blockage. Breaching must not enter chimney far enough to cause obstruction. Use thimble or slip joint where breaching enters chimney to allow removal for cleaning.
 - When burner and boiler are properly installed, draft overfire will be approximately -0.01" to -0.02" W.C. Install barometric control in breaching, per control manufacturer's instructions, when excess draft needs to be relieved or to comply with applicable codes and regulations. Use draft gauge to adjust proper opening.
 - An induced draft fan for the chimney may be necessary if:
 - Excessive resistance to flow of combustion gases can be expected.
 - Cross-sectional area of chimney is smaller than minimum recommended.
 - Chimney height is less than recommended.
- Seal all vent joints. Interlock burner with fan operation.



- NOTES:**
- ALL WIRING MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE AND ANY ADDITIONAL NATIONAL, STATE OR LOCAL CODE REQUIREMENTS. FOR CANADIAN INSTALLATIONS, ALL WIRING MUST COMPLY WITH THE CANADIAN ELECTRICAL CODE.
 - ALL WIRING MUST BE N.E.C. CLASS 1.
 - REFER TO CONTROL COMPONENTS INSTRUCTION SHEETS PACKED WITH THE BOILER FOR APPLICATION INFORMATION.
 - USE 105°C THERMOPLASTIC WIRE, OR EQUIVALENT, IF ANY OF THE ORIGINAL WIRE MUST BE REPLACED.
 - NOZZLE LINE HEATER IS STANDARD ON CARLIN E2 BURNERS. LEAVE WIRE CAPPED AND UNATTACHED IF NOT USED.
 - THERMOSTAT HEAT ANTICIPATOR SETTING, 0.20 AMPS.
 - CONNECT INCOMING LINE VOLTAGE "HOT" WIRE TO SERVICE SWITCH AND NEUTRAL WIRE TO WHITE WIRE. FIELD INSTALL EQUIPMENT GROUND WIRE TO GREEN WIRE WITH WIRE NUT.

WARNING ELECTRICAL SHOCK HAZARD. CAN CAUSE SEVERE INJURY OR DEATH. DISCONNECT POWER BEFORE INSTALLING ANWOR SERVICING.

LOWVOLTAGE HIGH VOLTAGE

WGO Oil-Fired Boiler Wiring Diagram

WEIL-McLAIN
 A United Dominion Company

• Water Without Tankless Heater

Well-McLain • 500 Blaine St. • Michigan City, IN 46360-2388
 PART NUMBER 550-224-108/0795WM

Perform hydrostatic pressure test:

- See FIGURE 4 and Control Tapping Table below to install:
 - Boiler drain.
 - Water pressure gauge (test only). Be sure gauge can handle test pressure.
 - Air vent in upper "N" tapping.
 - Plugs in remaining tapings.
- Fill boiler. Vent all air. Pressure test boiler at 1½ times working pressure. For boilers split and reassembled, test between 75 and 85 psig.

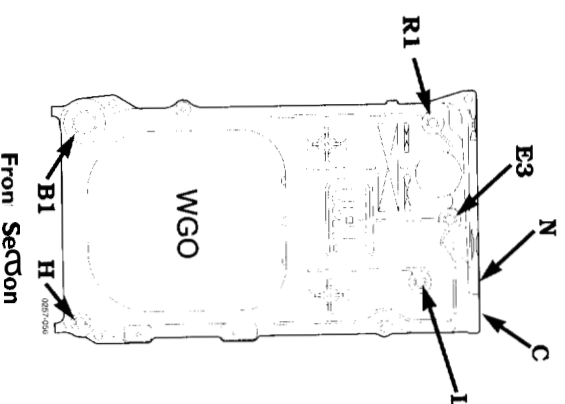
WARNING

Do not leave boiler unattended. Cold water fill could expand and damage cast iron, resulting in severe personal injury, death or substantial property damage.

- Check for maintained gauge pressure for more than 10 minutes. Visually check for leaks if gauge pressure drops.
- Drain boiler. Repair leaks if found.

CAUTION

Do not use petroleum-based compounds to repair leaks. Damage to system components can result, causing property damage.



From Section

- Visually check:
 - Sealing rope placement.
 - Metal-to-metal contact around port openings.
 - Flue collector hood seal.
 - Burner mounting door seal.

WARNING

Obtain gas-tight seal to prevent possible flue gas leakage and carbon monoxide emissions, which can lead to severe personal injury or death.

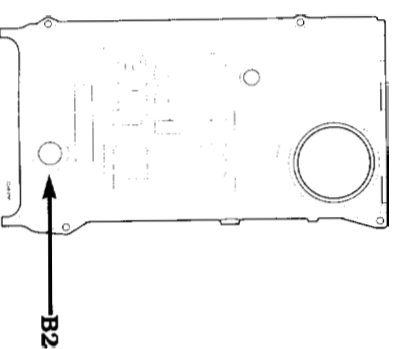
Install jacket (sizes 7 through 9 only):

Before installing jacket, remove burner mounting door. See jacket instructions for details.

Install boiler controls:

- See Control Tapping Table and FIGURES 4 and 5 to install controls.
- Install limit control. If not furnished, use high limit with maximum 220°F setting.
 - Affix CP number label(s) on jacket front panel

CONTROL TAPPING TABLE		
LOCATION	SIZE	FUNCTION
B1	1½"	Return Piping
B2	1½"	Alternate Return Piping for A/B/WGO
C	1½"	Supply Piping
E3	¾"	Pressure-Temperature Gauge
H	¾"	Drain Valve
L	¾"	High Limit Control
N	½"	Air Vent or Expansion Tank Piping
R1	¾"	Relief Valve



Back Section

Control Tapping Location
FIGURE 4**DANGER**

Follow information below to prevent severe personal injury, death or substantial property damage:

- Do not use gasoline crankcase drainings or any oil containing gasoline. See burner manual for proper fuel oil.
- Do not attempt to start burner when excess oil has accumulated, when unit is full of vapor or when combustion chamber is very hot.
- Do not start burner unless collector hood, flue cap, jacket cap, breeching and burner mounting door are secured in place.
- Never burn garbage or paper in the boiler.
- Never leave combustible material around it.

Fill the system:

- Close manual and automatic air vents and boiler drain cock.
- Fill to correct system pressure. Correct pressure will vary with each installation. Normal cold water fill pressure for residential systems is 12 psig. Boiler water pH 7.0 to 8.5 is recommended.

NOTICE

Failure to maintain recommended pH level can cause **section** failure and leaks.

- Open automatic air vent one turn.
- Open other vents.
 - Starting on the lowest floor, open air vents one at a time until water squirts out. Close vent.
 - Repeat with remaining vents.
- Refill to correct pressure.

Tips for water systems:

- Check boiler and system piping for leaks. Continual makeup water will reduce boiler life. Minerals can build up in sections, reducing heat transfer and causing cast iron to overheat, resulting in section failure.

CAUTION

Failure to maintain recommended pH and repair leaks can cause section iron corrosion, leading to section failure and leaks. Do not use petroleum-based sealing or stop-leak compounds in boiler systems. Damage to system components can result.

- For pH conditions outside 7.0 to 8.5 range or unusually hard water areas (above 7 grains hardness), consult local water treatment company.

- For additional information refer to instructions packed with boiler or burner:
- Burner Manual
- Maintenance and Service Guide for GOLD Oil Water Burners

- When using antifreeze:

WARNING

Do not use automotive, ethylene glycol, undiluted or petroleum-based antifreeze. Severe personal injury, death or substantial property damage can result.

- Use antifreeze specifically made for hydronic systems. Inhibited propylene glycol is recommended.
 - 50% solution provides protection to about -30°F. Do not exceed 50% mixture.
 - Local codes may require back-flow preventer or actual disconnect from city water supply.
 - Determine quantity according to system water content. Boiler water content is listed on back cover of manual. Percent of solution will affect sizing of heat distribution units, circulator and expansion tank.
- Follow antifreeze manufacturer's instructions.

To place in operation:

- Verify boiler is filled with water.
- Open burner mounting door and verify rear target wall, floor and burner door insulations are in proper position.
- Verify burner mounting door is closed tightly and burner wiring harness is connected to junction box.
- Factory burner adjustment and settings may not be suitable for specific job conditions. For "P" and "B" boilers, refer to burner manual for burner start-up, adjustment and check-out procedures. For "A" boilers, see Appendix, page 25.

WARNING

Make final burner adjustments using combustion test equipment to assure proper operation. Do not fire boiler without water. Sections will overheat, damaging boiler and resulting in substantial property damage.

- Vent air from system. Repeat steps 4 and 5 under "Fill the system." Air in system can interfere with water circulation and cause improper heat distribution.
- Check boiler and system piping for leaks. See "Tips for water systems."
- Inspect breeching and venting for proper operation.

Fiberglass wool and ceramic fiber materials:**WARNING**

- POSSIBLE CANCER HAZARD BY INHALATION
- CAN CAUSE RESPIRATORY, SKIN AND EYE IRRITATION

This product contains fiberglass wool and ceramic fiber materials. Airborne fibers from these materials have been listed by the State of California as a possible cause of cancer through inhalation. Apply special care when handling ceramic fiber (chamber lining and base insulation) materials. Ceramic fibers can be converted to chrysotilalites, a substance listed as a probable cause of cancer.

Suppliers of fiberglass wool products recommend the following precautions be taken when handling these materials:

Precautionary measures:

- Avoid breathing fiberglass dust and contact with skin and eyes.
 - Use NIOSH approved dust/mist respirator.
 - Wear long-sleeved, loose fitting clothing, gloves and eye protection.
 - Wash work clothes separately from other clothing. Rinse washer thoroughly.
 - Operations such as sawing, blowing, tearout and spraying may generate airborne fiber concentration requiring additional protection.
- First aid measures:**
- Eye contact — Flush eyes with water to remove dust. If symptoms persist, seek medical attention.
 - Skin contact — Wash affected areas gently with soap and warm water after handling.

Place boiler:

1. **B&A-WGO-2 through 6** — position on site.

CAUTION

Smaller sized boilers may be top heavy. Use caution when handling to avoid minor personal injury or property damage.

- a Boiler is shipped for back flue outlet. To change to top flue outlet (see FIGURE 3):
 - 1) **Loosen** two screws holding flue cap strap to collector hood. Remove strap and flue cap from opening.
 - 2) **Re-tighten** screws.

(Read **WARNING** under Step #3 on page 9.)

Burner adjustments for "A" boilers:**WARNING**

Final burner adjustments must be made using combustion test equipment to assure proper operation. Do not fire boiler without water or sections will overheat.

1. Refer to burner manual for start-up.
2. Allow boiler to heat to design condition.
3. Using combustion test equipment, adjust burner for:
 - a. CO₂ between 11% and 12% and 0 smoke.
 - b. -0.01" to -0.02" W.C. draft in combustion chamber.

To connect WGO boilers to Weil-McLain PLUS indirect-fired water heaters:
Install and wire per water heater manual provided with water heater.

- 3) Loosen two screws on back flue outlet. Set flue cap on outlet. Install strap by engaging slots in screws. Tighten screws. Make sure cap is securely installed.

B&A-WGO-7, 8 & 9 — split the assembled block for easier handling (see FIGURE 3):

- a. Open burner mounting door and, using utility knife, slit floor insulation at joint to be separated.
- b. Remove 5½" draw rod and the longest draw rod from each side. Pull block apart. Save draw rods, nuts, washers and sealing rings for reassembly.
- c. Move divided block to location.
- d. Clean port openings with clean rag.

CAUTION

Do not use petroleum-based compounds to clean openings. Damage to system components can result, causing property damage.

- e. Place rings in port openings. If ring slips out of groove, stretch ring gently for several seconds, then place in groove.
- f. Position sections so aligning lugs fit into sockets of next section. Make sure sealing rope is in good condition and in position.
- g. Oil threads on draw rods. Install washer and nut on end to be tightened. Use nut only on other end.
- h. With wrench at washer/nut end, uniformly tighten nuts starting with 5½" rod at large port, 5½" rod at small port, bottom long rod and finally top long rod.
- i. Torque on both 5½" rods and bottom long rod should be 50-60 ft. lbs.; long top rod should be 20-25 ft. lbs. Do not back-off nuts.
- j. **Metal-to-metal contact should be made around port openings.** If gap does exist, it should be less than .020". Check with feeler gauge.
- k. If gap around port openings exceeds .020", check for dirt on port openings, sockets or misaligned lugs. If corrections are made and gap still exists, contact your Weil-McLain distributor or sales office before continuing installation.



Install Packaged Boiler

Appendix

CONTINUED



- Place boiler:**
1. Remove circulator strapped to pallet.

NOTICE Circulator will be damaged if not removed before boiler is lifted from pallet.

2. Remove boiler from pallet.

NOTICE Do not drop boiler or bump jacket or burner on floor or pallet. Damage to boiler or burner can result.

CAUTION Smaller sized boilers may be heavy. Use caution when handling to avoid minor personal injury or property damage.

3. Boiler is shipped for back flue outlet. To change to top flue outlet (see FIGURE 2):
 - a. Remove jacket cap on top of boiler.
 - b. **Loosen** two screws holding flue cap strap to collector hood. Remove strap and flue cap from opening. **Retighten** screws.
 - c. Check rope placement inside flue cap.

(Read **WARNING** under step #6 below).

- a. Loosen two screws on back flue outlet. Set flue cap on outlet. Install strap by engaging slots in screws. Tighten screws. Make sure cap is securely installed.
- b. Snap jacket cap in back outlet opening.

NOTICE Jacket cap must be in place on boiler to avoid requiring an 18" minimum clearance from back or top of boiler to combustible material.

4. Check level. Shim legs, if needed.
5. Check for secure placement of insulation on target wall, chamber floor and burner door.
6. Visually check:
 - a. Flue collector hood seal.
 - b. Burner mounting door seal.

WARNING Obtain gas-tight seal to prevent possible flue gas leakage and carbon monoxide emissions, which can lead to severe personal injury or death.

Perform hydrostatic pressure test:

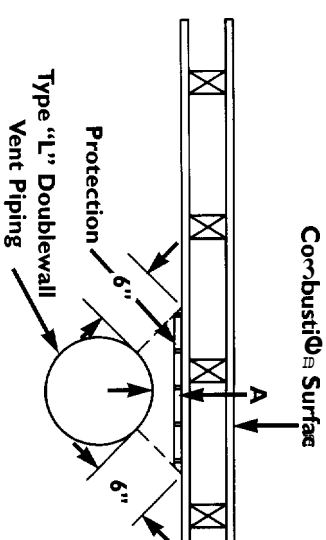
1. Remove relief valve installed in boiler.
2. Install air vent in "N" tapping on top boiler.
3. Plug supply and return tapplings.
4. Drain valve is already factory-installed.
5. Fill boiler. Vent all air. Pressure test boiler at 1½ times working pressure.

WARNING Do not leave boiler unattended. Cold water fill can expand and damage cast iron, resulting in severe personal injury, death or substantial property damage.

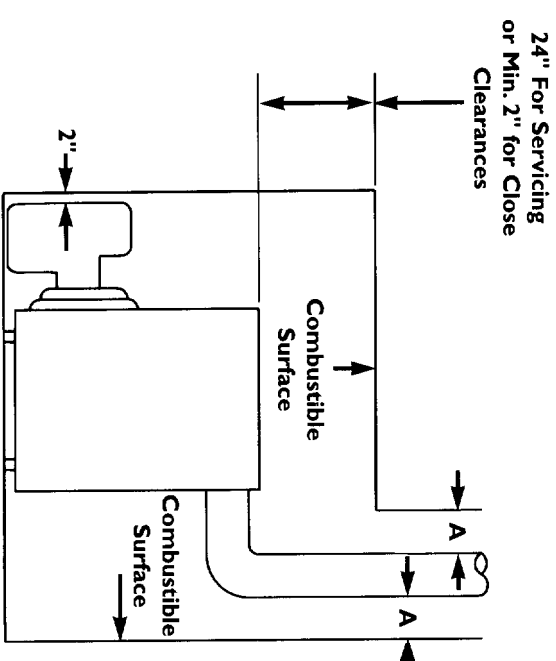
- a. Check for maintained gauge pressure for more than 10 minutes. Visually check for leaks if gauge pressure drops.
7. Drain boiler. Repair leaks if found.

CAUTION Do not use petroleum-based sealing compounds to repair leaks. Damage to system components can result, causing property damage.

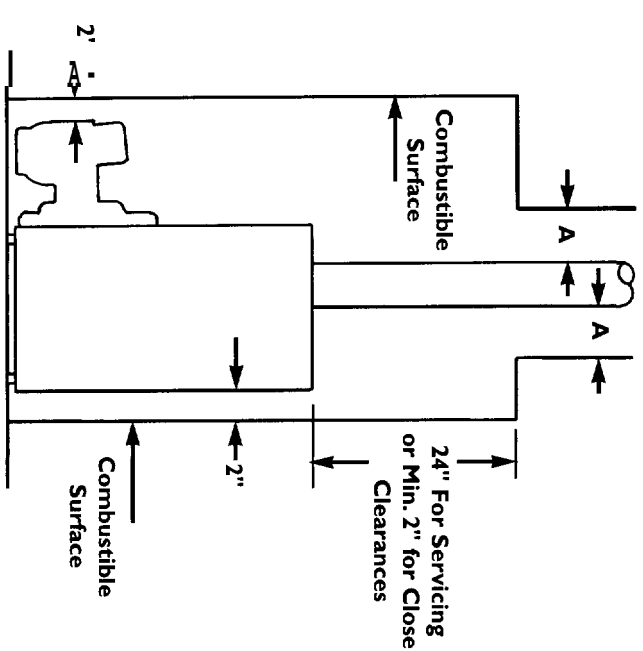
8. Retest boiler after repairing leaks.
9. Remove air vent and plugs. Reinstall relief valve.



Flue Pipe Clearances
FIGURE 19



Back Vent Clearances
FIGURE 20



Top Vent Clearances
FIGURE 21

PROTECTION REQUIRED FOR CLEARANCES LESS THAN 6 INCHES FROM DOUBLEWALL VENT PIPE*	
DIMENSION A	Use the following protection**:
When desired minimum clearance from type "L" doublewall vent pipe to combustible surface is:	
3"	½" thick insulation board *** over one-inch glass fiber or mineral wool bats+
2"	24 gage sheet metal with one-inch ventilated air space
3"	½" thick insulation board *** with one-inch ventilated air space

* All clearances measured from outer surface of equipment to combustible surface, not to the protection used.
 ** Apply to combustible surface unless otherwise noted. Cover all surfaces as specified in Table and FIGURE 19. Thicknesses are minimum.
 *** Factory-fabricated board made of non-combustible materials, normally fibers, having thermal conductivity in range of one (Btu-inch)/(hr./sq. ft./°F) or less.
 + Mineral wool bats (blanket or board), having min. density of 8 lb/ft³ and a min. melting point of 1500 F.

OTHER DIMENSIONS AVAILABLE. REFER TO NFPA-31.

Go to page 12 to connect breaching and venting

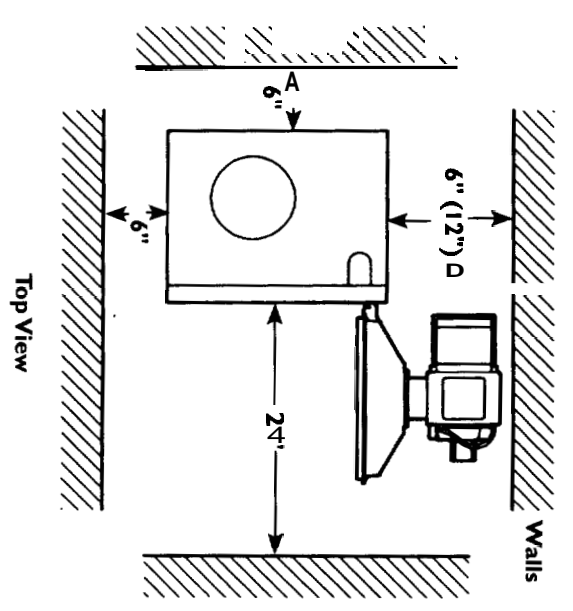
- U.S.
 - State and local plumbing, heating and electrical codes.
 - National codes where applicable.
- Canada
 - Canadian Standards Association, CSA B139, Installation Code for Oil-Burning Equipment.
 - CSA C22.1 Canadian Electrical Code Part One
 - Applicable local or provincial codes.

Before selecting boiler location:

- Check for nearby connections to:
 - System water piping.
 - Chimney. See pages 12-13. Boiler can be or back vented.
 - Combustion and ventilation air supply. See page 5.
 - Oil supply. See page 22 for oil line routing.
 - Electrical power.
- Check area around boiler. Remove any combustible materials, gasoline and other flammable liquids.

WARNING

Failure to keep boiler area clear and free of combustible materials, gasoline and other flammable liquids and vapors can result in severe personal injury, death or substantial property damage.



(see FIGURE 1):

NOTICE

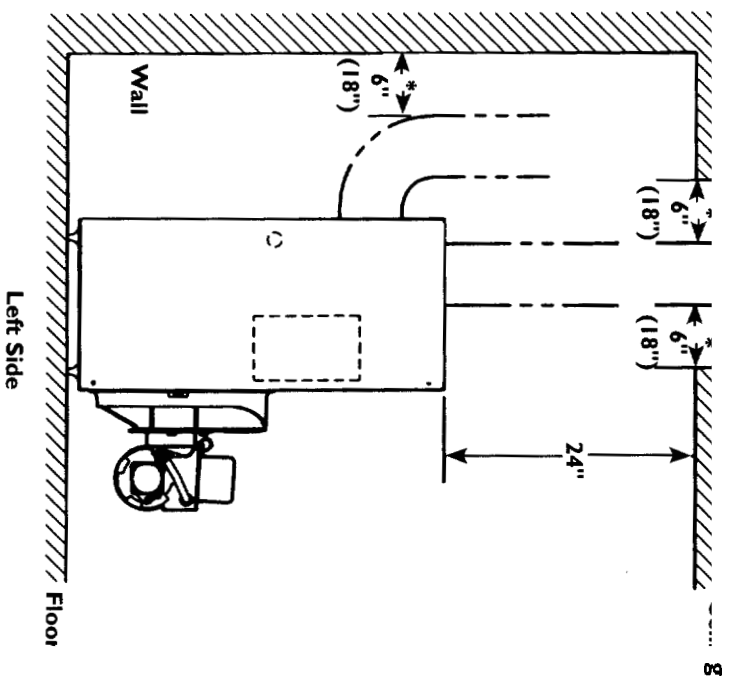
Jacket cap must be in place on boiler to avoid requiring an 18" minimum clearance from back or top of boiler to combustible material.

- **Minimum** clearances from vent pipe to combustible material:
 - 6 inches – Type "L" doublewall vent*
 - 18 inches – Singlewall vent*

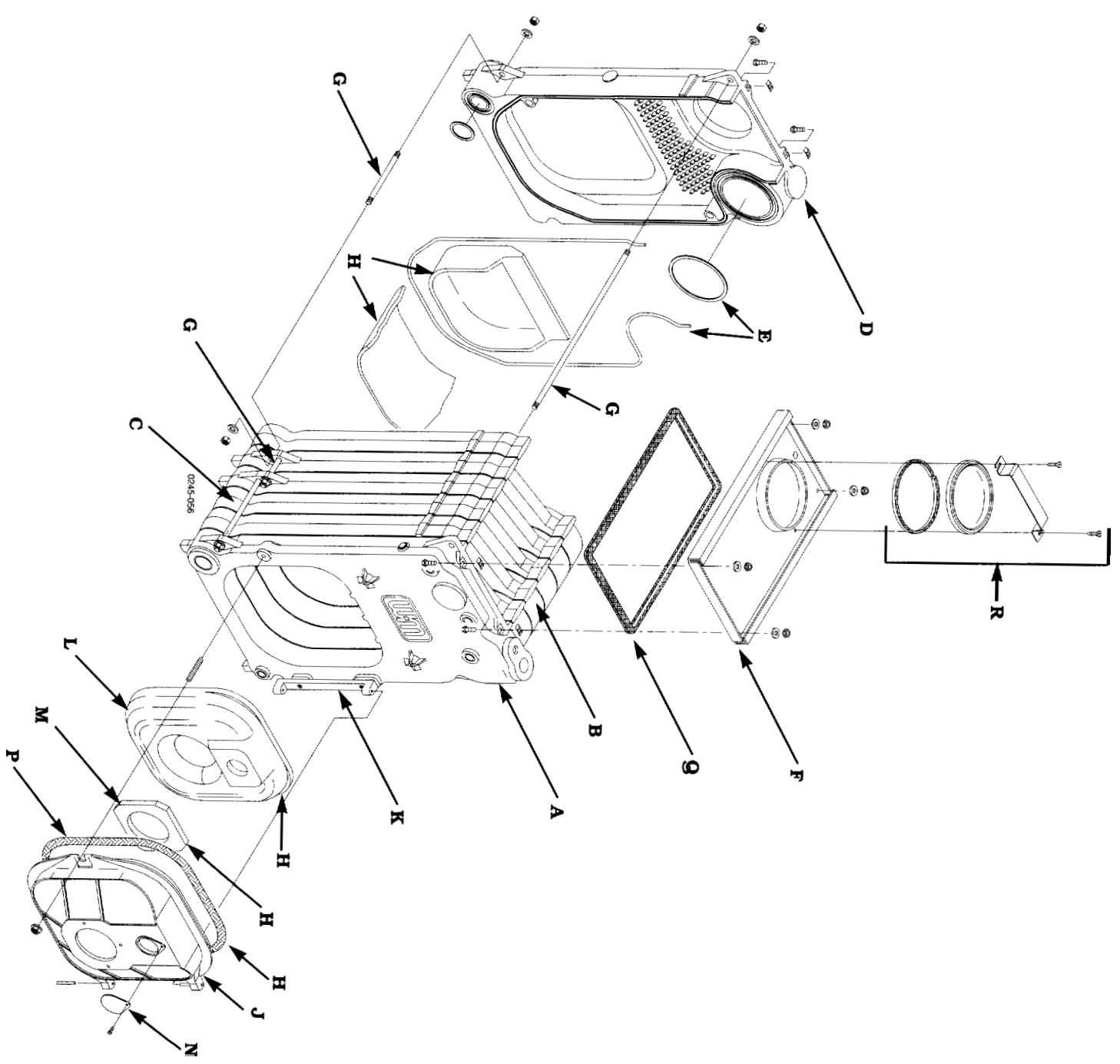
NOTICE

Flue pipe clearances must take precedence over jacket clearances:

- Recommended **service** clearances:
 - 24 inches – Front and top
 - 6 inches – Left side, back and right side **A**
 - 12 inches – Right side for burner door, swing radius **A**
- Special **close** clearances (alcove, closet, under counters, etc.) – see Appendix, pages 25-27.



Recommended Service Clearances
FIGURE 1



Hazard Definitions

The following terms are used to bring attention to the presence of hazards of various risk levels or to important information concerning product life.

DANGER Indicates presence of hazards that will cause severe personal injury, death or substantial property damage if ignored.

WARNING Indicates presence of hazards that will cause severe personal injury, death or substantial property damage if ignored.

CAUTION Indicates presence of hazards that will or may cause minor personal injury or property damage if ignored.

NOTE Indicates special instructions on installation, operation or maintenance that are important but not related to personal injury hazards.

Symbol Definitions

The following symbols are used to indicate sequence of installation for:

P Factory-assembled packaged boiler - block, burner, jacket and controls. Sizes 2 through 6 only.

B Factory-assembled block. Sizes 2 through 6 with jacket installed; burner and water trim controls shipped separately. Sizes 7 through 9 with jacket, burner and water trim controls shipped separately.

A Factory-assembled block, no burner. Sizes 2 through 6 with jacket installed; water trim controls shipped separately. Sizes 7 through 9 with jacket and water trim controls shipped separately.

When Calling or Writing About the Boiler

Please have boiler model number and series from boiler rating label and CP number(s) from boiler jacket, burner and controls. On page 24 of this manual is space to list CP number(s).

