

City of Portland, Maine - Building or Use Permit Application
 389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

PERMIT ISSUED

Permit No: 02-0958 Issue Date: 10/2002 CBL: 036 F007001

Location of Construction: 16 Sherman St	Owner Name: <i>Randall Scott</i> Fogg Mary Ellen	Owner Address: Rr1 Box 352	Phone:
Business Name: n/a	Contractor Name: Snyder Plumbing & Heating	Contractor Address: 340 Maine Street Sotuh Portland	Phone: 2077670879
Lessee/Buyer's Name n/a	Phone: n/a	Permit Type: HVAC	Zone: <i>R-6</i>

Past Use: Multi Family / 4 Unit	Proposed Use: Multi Family / Install Natural Gas Direct Vent Heating System	Permit Fee: \$30.00	Cost of Work: \$0.00	CEO District: 2
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Proposed Project Description: Install Heating System	FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: <i>R3</i> Type: <i>SB</i> <i>9/6/02</i>
	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)
 Action: Approved Approved w/Conditions Denied
 Signature: _____ Date: _____

Permit Taken By: gg	Date Applied For: 08/26/2002	Zoning Approval	
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1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building permits do not include plumbing, septic or electrical work. 3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input checked="" type="checkbox"/> MM <input type="checkbox"/> Date: <i>0/27/02</i>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	Historic Preservation <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied <i>Any exterior work requires a sep. Review</i> Date: _____
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CERTIFICATION

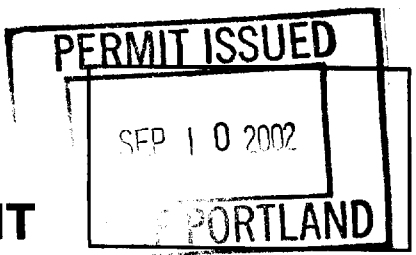
I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

 SIGNATURE OF APPLICANT ADDRESS DATE PHONE

 RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHONE



FILL IN AND SIGN WITH INK



APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT

036 Food

To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location 16-18 Sherman St. Use of Building Residential Date 8/23/02
 Name and address of owner of appliance Randall Scott
18 Sherman St, Portland, Maine 0410
 Installer's name and address Snyclers Plumbing & Heating
340 Main St. South Portland, Me 04106 Telephone 203-763-0879

Location of appliance:
 Basement Floor
 Attic Roof

Type of Fuel:
 Gas Oil Solid

Appliance Name: Weil Mchann
 U.L. Approved Yes No

Will appliance be installed in accordance with the manufacture's installation instructions? Yes No

IF NO Explain: _____

The Type of License of Installer:
 Master Plumber # PNT 440
 Solid Fuel # _____
 Oil # _____
 Gas # PNT 440
 Other _____

Type of Chimney:
 Masonry Lined
 Factory built _____
 Metal
 Factory Built U.L. Listing # _____
 Direct Vent
 Type Natural UL# _____

Type of Fuel Tank
 Oil
 Gas

Size of Tank _____

Number of Tanks _____

Distance from Tank to Center of Flame _____ feet.
30.00

Approved

Approved with Conditions

See attached letter or requirement

Fire: [Signature]
 Ele.: _____
 Bldg.: [Signature]

Signature of Installer [Signature]

2-0958

Building

Approved with Conditions

Mike Nugent

08/29/2002



08/29/2002



Mike Nugent

08/29/2002

Must Comply With State Gas Regs/NFPA regs

08/27/2002

gg

08/29/2002

mjh

**Northern Utilities
Piping & Appliance Checklist**

Customer's Address: 16-18 Sherman St / Portland
 Customer's Last Name: Randall Scott

A. Gas Piping:

- | | |
|---|--------------------|
| 1. Has gas piping been sized in accordance with Section 2 of the NFPA 54? Pipe Size <u>1"</u> on Main | Int.
<u>PLS</u> |
| 2. Is the gas piping installed, of an approved material in accordance with NFPA 54? | <u>PLS</u> |
| 3. If 2 lb system is installed, have all lbs to inches regulators been installed? System must be tagged in accordance with MFPA 54. | <u>-</u> |
| 4. Has all gas piping been pressure tested at 5 lbs for 1 hour? | <u>PLS</u> |
| 5. If converting from propane to natural gas, has pressure been set according to manufacturers' instructions? | <u>-</u> |

B. Venting:

- | | |
|---|------------|
| 1. Has vent pipe been sized and installed of an approved material in accordance with NFPA 54? | <u>PLS</u> |
| 2. Has the chimney been checked for proper draft? | <u>-</u> |
| 3. Has the chimney been checked for any obstructions and cleaned if necessary? | <u>-</u> |
| 4. Is chimney lined? | <u>-</u> |

C. Wiring:

- | | |
|---|------------|
| 1. Has all wiring that is necessary been completed? | <u>PLS</u> |
| 2. Have all safeties been checked for proper operation? | <u>PLS</u> |

D. Cleaning:

- | | |
|--|----------|
| 1. Has boiler/furnace been properly cleaned? | <u>-</u> |
| 2. If applicable, has furnace cement been installed on all openings and around all boiler doors? | <u>-</u> |

List Appl. & Total BTU Load

1) Weil-McLain 100,000 2) _____ 3) _____

Contractor: Snyder's Plumbing & Heating Inc

Installer: Phil Snyder Jr

License #: PNT 440

Date: 08-20-02

Any questions, contact Curtis Burrill at Northern Utilities. 1-207-797-8002 Ext 6230

WEIL-McLAIN

an ISO 9001 Certified Company

GOLD

CGi

Series 2

**GAS BOILER
for
Direct
Exhaust
(Induced Draft)**

Water Net Ratings:
37,000 to
169,000
Btu/Hr.

Applications:

- Residential
- Multiple Boilers
- Schools and Other Institutions
- Indirect-fired Water Heating
- Radiant Heating
- ... And Much More



- Easy to Install and Service
- Unique Control Technology
- Made with Weil-McLain Quality



LISTED

Gas Vent Type BH
Class I/Class II
245 Degrees C Max

Install And Use Only In Accordance With Heat-Fab, Inc. Installation And Maintenance Instructions. Packed With Elbow, Tee, And Terminations. Seal All Joints With General Electric RTV-106 Or Dow Corning 732 High Temperature Adhesive Sealant.
HEAT-FAB, INC.
TURNERS FALLS, MA 01376
U.S. Patent No. 4,874,191
Canadian Patent No. 1,322,017

SAFE-T VENT®
TIGHT-RADIUS ELBOW
7314GCTR



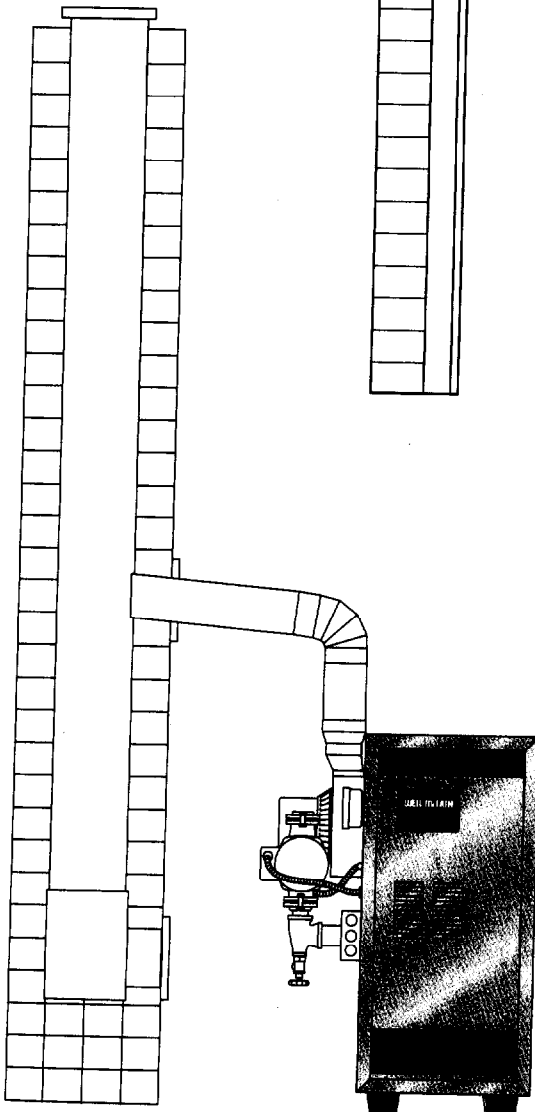
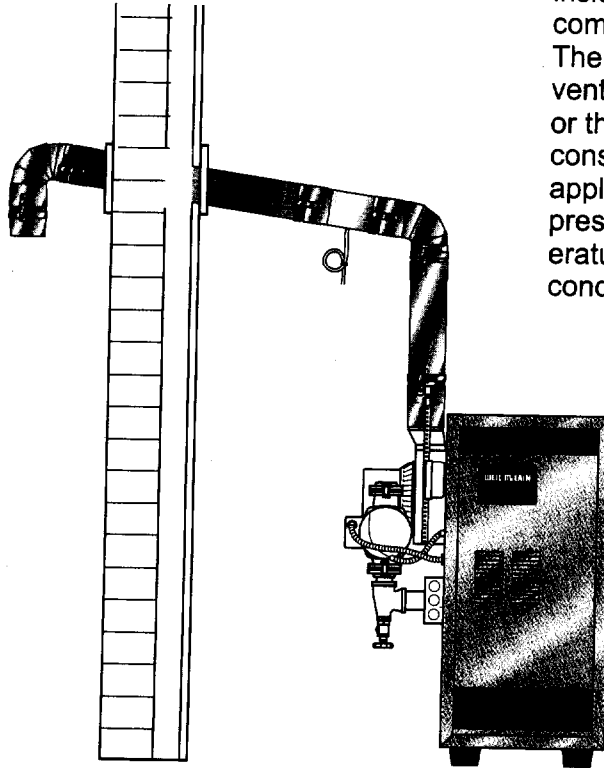
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Venting Flexibility

The CGi boiler has the flexibility to be vented one of two ways ...

Direct Exhaust Venting

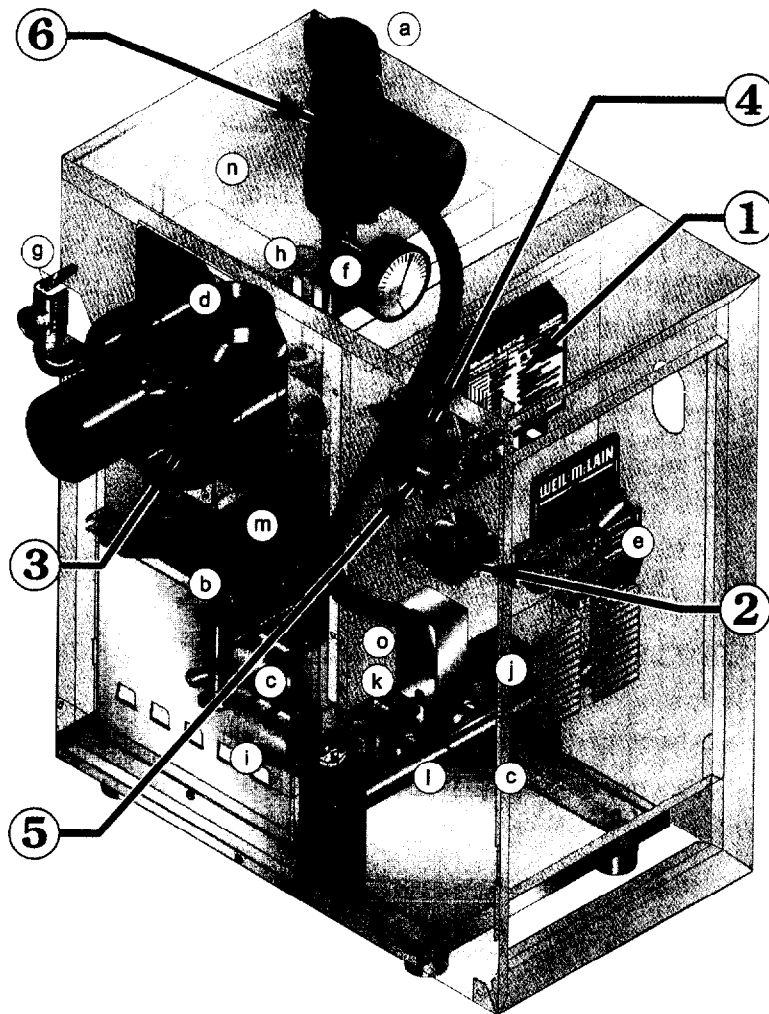
Direct exhaust venting (also known as "induced draft"): uses inside combustion air with no combustion air connector piping. The CGi boiler can be non-direct vented either through a side wall or through the roof. This is considered a Category III appliance: positive vent static pressure and vent gas temperature that avoids excessive condensate in vent.



Natural Draft Venting

Natural draft venting (also known as "chimney draft venting"): uses the natural draft provided by a vertical vent or chimney. This is considered a Category I appliance: non-positive vent static pressure and vent gas temperature that avoids excessive condensate in vent.

Sequence of Operation



- | | | |
|-----------------------|------------------------------|--------------------------------------|
| ① Control Module | ① Supply to system | ① Flame rollout thermal fuse element |
| ② Transformer | ② Return from system | ② Burner shield |
| ③ Inducer | ③ Stainless steel burners | ③ Pilot burner and bracket |
| ④ Air pressure switch | ④ Flue outlet | ④ Gas manifold |
| ⑤ Limit switch | ④ Gas valve | ④ Cast iron boiler sections |
| ⑥ Boiler circulator | ⑤ Pressure/temperature gauge | ⑤ Flue collector |
| | ⑤ Relief valve | ⑤ Junction box |
| | ⑥ Air vent connection | |

How the boiler works ...

When a room thermostat calls for heat, the control module starts the system circulator and inducer. The control module runs the inducer long enough to purge the boiler flue passages, then opens the pilot valve and activates the pilot ignition spark.

The control module allows up to 15 seconds to establish pilot flame. If flame is not sensed within 15 seconds, the control module will turn off the gas valve, flash the Flame light, and then enter a 15-second postpurge. The control module will then start a new cycle. This will continue indefinitely until pilot flame is established or power is interrupted. Once pilot flame is proven, the control module opens the gas valve to allow main burner flame.

When the room thermostat is satisfied, the control module turns off the gas valve and pilot valve, operates the inducer for a 15-second postpurge and waits for the next call for heat.

The control module indicator lights show normal sequence when the lights are on steady. When a problem occurs, the control module flashes a combination of lights to indicate the most likely reason for the problem.



Features ... Advantages ... Benefits

- **Weil-McLain Control Module and Ignition Control.** Designed for Weil-McLain ... mistake-proof wiring ... diagnostic indicator lights.
- **Compact design.** Saves valuable living space. Boiler is only 28 inches high, 23 inches deep. Power venting eliminates the need for a draft hood.
- **High-grade stainless steel burners.** European-designed, high-grade stainless steel burners for quiet ignition, longer life, and improved combustion.
- **Wiring harness.** Plug-in connectors that attach only one way to assure mistake-proof wiring for installation and component replacement.
- **Easy power hook-up.** J-box located on outside of boiler with pre-stripped wires.
- **Convenient servicing.** Accessible controls ... control module with diagnostic indicator lights ... simplified wiring ... vertical flueways ... top cleaning.
- **Factory-tested.** Every boiler is tested at the factory to assure reliable operation.
- **Improved parts kits.** Parts furnished in convenient kits.
- **Limited lifetime warranty.** Covers cast iron sections.
- **Multiple boiler systems.** Use two or more high-efficiency CGi boilers in place of one large-capacity boiler to meet the space-heating requirements of larger buildings.
- **Homeowner Protection Plan.** Covers labor and all Weil-McLain supplied parts for 5 or 10 full years. Available through participating installers.

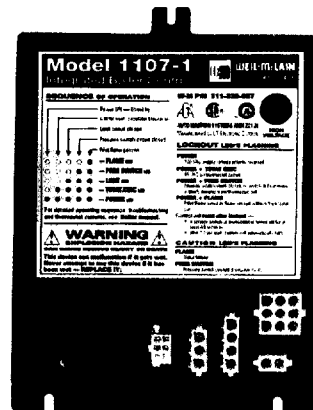
Weil-McLain Control Module and Ignition Control

The control module has:

- five indicator lights — power, thermostat & circulator, limit, pressure switch, flame — that show proper operation and make troubleshooting easy.
- plug-in connectors that attach only one way to assure mistake-proof wiring if components ever need to be replaced.

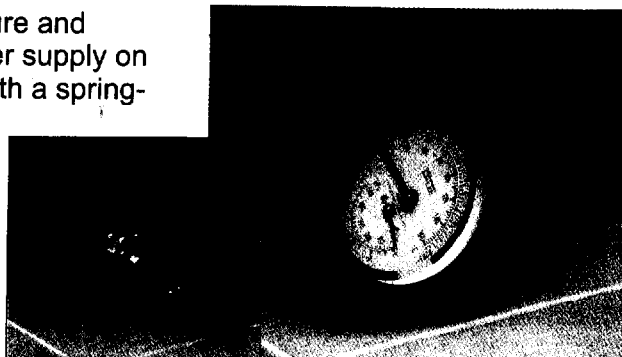
The control module responds to signals from the room thermostat, air pressure switch, and boiler limit control to operate the boiler circulator, pilot burner, gas valve, and inducer. The module controls all ignition, operating and safety-related functions. In addition, its microprocessor continually checks itself 60 times each second. If a situation such as electrical “noise” or low voltage is encountered, the control module restarts and retries, eliminating nuisance lockouts.

And regardless of future control improvements, the Weil-McLain control module assures newer controls will always fit.



Temperature & Pressure Gauge

All CGi boilers come with a large-faced temperature and pressure gauge, which installs in a tee in the boiler supply on the top of the boiler. Every T & P gauge comes with a spring-loaded immersion well that provides for easy installation and replacement without draining any water from the boiler or system. By installing the gauge in the system supply flow, a more accurate reading is provided. Also, the location of the gauge and the larger face provide for easy monitoring of boiler temperature and pressure.



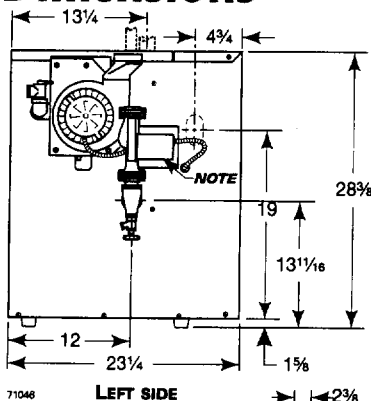
Ratings



Boiler Model (1)	Input MBH (2)	DOE Heating Capacity MBH (2)	Net I=B=R Water Ratings MBH (3)	DOE Seasonal Efficiency Percent (AFUE)	Approx. Shipping Weight (Lbs)	Boiler Water Content (Gal)	Minimum Vent Connector Diameter (4)
CGi-25	50	42	37	84.0	200	1.5	4" I.D
CGi-3	67	57	50	84.3	200	1.5	4" I.D
CGi-4	100	85	74	84.0	240	2.1	5" I.D
CGi-5	133	112	97	83.7	280	2.7	5" I.D
CGi-6	167	140	122	83.3	325	3.3	5" I.D
CGi-7	200	167	145	83.0	370	3.8	5" I.D
CGi-8	233	194	169	82.7	425	4.4	5" I.D

Notes: (1) Add "PIN" for natural gas, "PIL" for propane.
 (2) Based on standard test procedures prescribed by the United States Department of Energy.
 (3) Net I=B=R ratings are based on net installed radiation of sufficient quantity for the requirements of the building and nothing need be added for normal piping and pick-up. Ratings are based on a piping and pick-up allowance of 1.15. An additional allowance should be made for unusual piping and pick-up loads.
 (4) Refer to National Fuel Gas Code, ANSI Z223.1-latest edition for chimney sizing and vent connector lengths.
 CGI boilers are C.S.A. design certified for installation on combustible flooring. Tested for 50 psi working pressure.

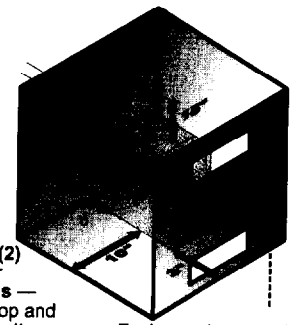
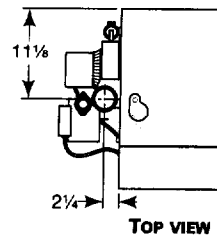
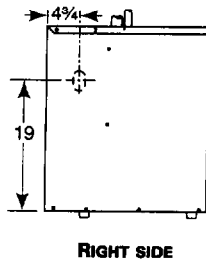
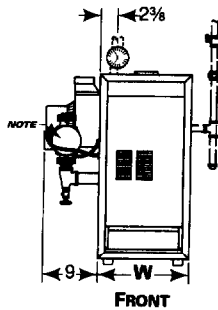
Dimensions



Boiler Model	Dimension Inches W	Supply Piping In. (1)	Return Piping In. (1)	Nat or LP Gas Connection Size Inches	Crate Dimensions (Outside Measurements - In.)		
					Length	Width	Height
CGi-25	10	3/4	3/4	1/2	27	27 1/2	31 1/2
CGi-3	10	1	1	1/2	27	27 1/2	31 1/2
CGi-4	13	1	1	1/2	27	27 1/2	31 1/2
CGi-5	16	1	1	1/2	30	27 1/2	31 1/2
CGi-6	19	1 1/4	1 1/4	1/2	33	27 1/2	31 1/2
CGi-7	22	1 1/4	1 1/4	3/4	36	27 1/2	31 1/2
CGi-8	25	1 1/2	1 1/2	3/4	42	27 1/2	31 1/2

Notes: (1) Circulator flange supplied with boiler is same size as recommended pipe size. For supply and return boiler tapping size, see installation manual.

NOTE: Boiler circulator is shipped loose. Circulator may be mounted on either boiler supply or return piping. See dimension chart for pipe size of circulator flange provided.



Provide (2) fresh air openings — 6" from top and 6" from bottom located on wall next to boiler front. Each opening must have free area of 1 square inch per 1,000 Btuh of CGI boiler input.

Standard and Additional Equipment

Standard Equipment:

- Factory Tested
- Two-Piece Top Jacket Panel
- Insulated Extended Steel Jacket
- Cast Iron Sections with Built-in Air Separator
- Radiation Plates
- Steel Base
- Integrated Boiler Control Module with Intermittent Electronic Ignition System & Indicator / Diagnostic Lights
- Inducer Assembly
- Flue Gas Collector / Transition Assembly
- Combination Gas Valve for 24 Volt
- Wiring Harness

- Air Pressure Switch
- Non-Linting Pilot Burner
- High-Grade Stainless Steel Burners
- 40VA Transformer
- Electrical Junction Box
- Rollout Thermal Fuse Element
- High-Limit Temperature Control
- Circulator (when ordered)
- 30 PSI ASME Relief Valve (boiler sections tested for 50 PSI working pressure)
- Combination Pressure-Temperature Gauge
- Drain Valve

Additional Equipment:

- CGi AL29-4C® Starter (same as CGs Starter)
- Taco 110 Circulator
- B&G 100 Circulator
- Expansion Tank Package (expansion tank, fill & check valve, auto air vent and fittings) #109 - sizes 3 thru 5; #110 - sizes 6 thru 8. Shipped in separate carton.
- High Altitude Kits
- W-M 5 & 10 Year Homeowner Protection Plan
- W-M Indirect-fired Water Heaters
- W-M Maxiflo® Pool Heaters
- W-M AlumiPex® Radiant Heating Products
- W-M Baseboard Units

In the interest of continual improvements in product and performance, Weil-McLain reserves the right to change specifications without notice.



Locate our Sales Offices by visiting our website: www.weil-mclain.com

Weil-McLain
 500 Blaine Street
 Michigan City, IN 46360-2388