Ultra™ Series 3 CT

Condensing Gas Boiler

Ratings - 6 sizes
80 MBH
105 MBH
155 MBH
230 MBH
299 MBH
399 MBH

CONDENSING TECHNOLOGY

ENERGY STAR

WEIL-McLAIN®

Since its unveiling in 2002, the Ultra condensing boiler has set the industry standard for innovation, design, ease of installation, reliability and efficiency. Now, Weil-McLain is taking the industry standard to a new level with the introduction of the Ultra Series 3. The Ultra Series 3 delivers peace of mind, unmatched comfort, and immediate payback in energy savings for homeowners.

High Efficiency and Environmentally Friendly

As fuel costs soar, home heating efficiency is on the mind of virtually every homeowner.

All Ultra boilers feature a high AFUE efficiency level. This is one of the highest efficiency levels in the industry, and when the Ultra is used in low-temperature applications such as radiant heating, it can achieve even higher efficiencies.

The Ultra boiler is designed to be environmentally friendly and exceeds the highest North American environmental air-quality standards. In fact, it provides cleaner combustion for low NOx applications allowing for a reduction in green house gases.

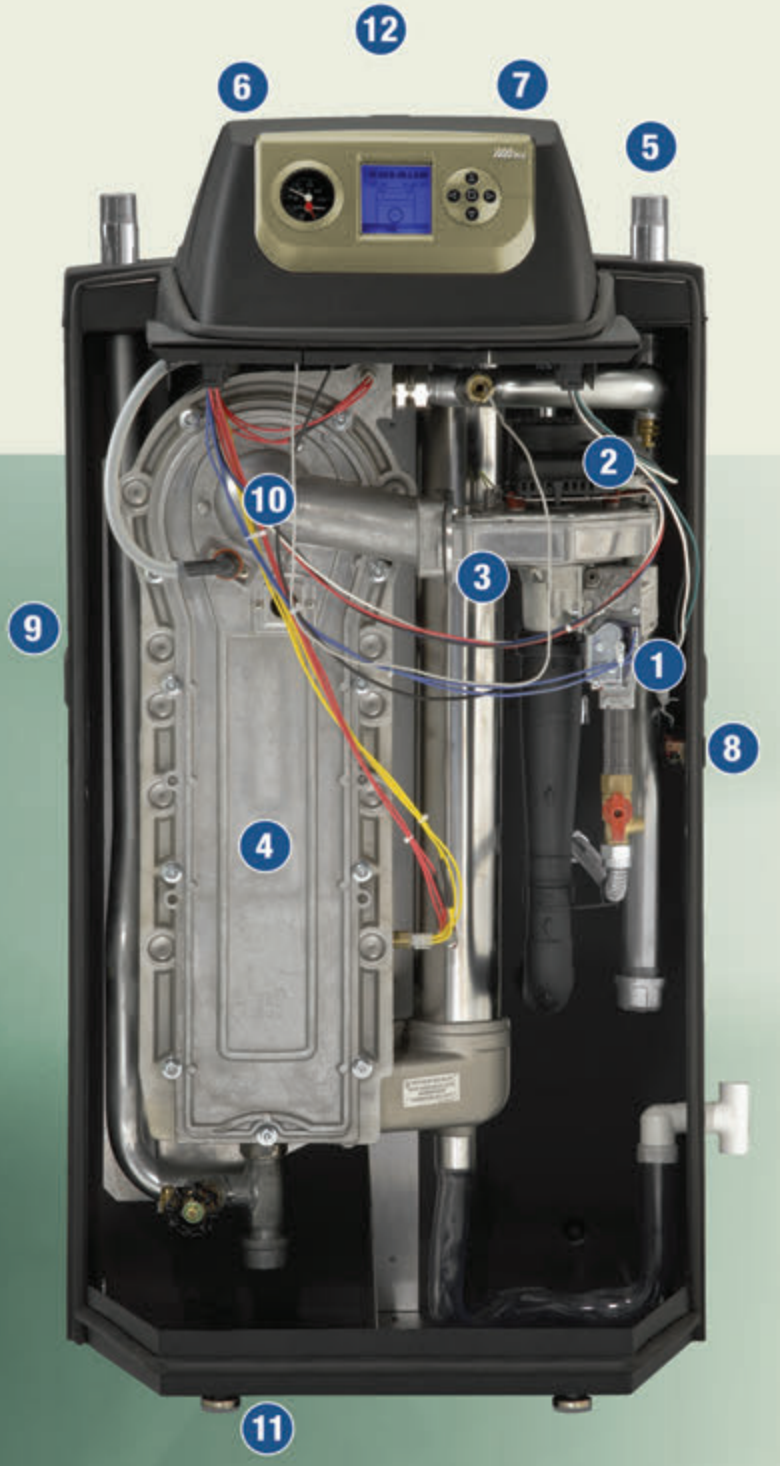
While fuel efficiency and the environment are highly important factors, here's another-the Ultra system comes from Weil-McLain, America's acknowledged leader in boiler quality and reliability.

For well over a century, Weil-McLain has been single-minded in its pursuit of continual breakthrough innovation, backed by a solid commitment to provide the best customer service and support.

The new Weil-McLain Ultra, coupled with the industry's greatest reputation for quality, provides today's most comforting combination. By far.

Ultra Gas Series 3 components

Designed to optimize operation resulting in significant fuel savings.



1. A negative regulated gas valve that precisely delivers gas to the boiler for optimal performance.
2. A variable speed motor that constantly matches combustion output to your heating needs.
3. A venturi mixing body that precisely mixes air and gas providing higher efficiency.
4. A cast aluminum mono block heats faster – aluminum provides **10 times better** heat transfer than stainless steel.
5. Water and gas piping placement are designed for quick and easy connection at the top or bottom of the boiler.
6. Conveniently located for simple installation and servicing, the electrical components have been pre-wired and are connected to the U-Control Module with color-coded terminal block plugs.
7. Simplified venting with PVC or CPVC for both exhaust and combustion air. Slide the pipe into the top outlet flue pipe adaptors and tighten the restraining ring, without messy sealants. Achieve vent runs up to 100 feet.
8. Side mounted service receptacle on a separate circuit for use with a condensate pump, service equipment or service light.
9. Side jacket handles for easy handling.
10. High grade stainless steel burner with woven steel fiber mesh that uses pre-mixed air and gas providing for a 20% to 100% modulating firing rate. The burner is designed for long life and whisper quiet operation.
11. Four adjustable boiler feet for easy placement and leveling.
12. The Ultra is lightweight compared to conventional boiler, requires minimal clearance and floor space, and can be used in floor standing or wall hung applications.

Ultra Series 3™

Featuring Ucontrol™ Flexibility

How high heating costs fall to Ultra technology.

For gas-fired applications, Ultra boilers employ an advanced mono-block aluminum heat exchanger that transfers heat faster than conventional materials.

Ultra's unique electronic sensor and control system allows key functions like the modulation of firing rates up or down, as conditions both inside and outside the home fluctuate.

Unlike most other systems that merely turn off or on at a single preset indoor temperature, Ultra senses precisely how much heat needs to be produced at any given instant and adjusts itself accordingly.

The result? Far greater fuel efficiency and far less wear and tear on critical internal parts.

User friendly display screens.

The back-lit LCD display and simple programming buttons make entering and receiving information easy. It allows homeowners the ability to view current boiler status, check water and outdoor temperatures, review boiler maintenance schedule and view installing contractor contact information.

AQUA Plus
Models Available: 35, 45, 55, 85, 105

Endless hot water.

When matched with a Weil-McLain indirect-fired water heater, you will experience virtually limitless hot water for bathing, laundry, dishwashing and cooking at a lower operating cost compared to most other alternatives. Our indirect-fired water heaters provide twice the peak flow of a tankless coil, 50% more than a comparable sized direct-fired gas water heater, and three times as much as an electric unit.

Heating perfection – and long-term protection.

- Every Ultra boiler is hydrostatically tested to ASME standards and test fired
- Backed by Weil-McLain quality and a warranty that provides peace of mind
- Unrivaled technical and field sales support
- From North America's leading boiler manufacturer with over a 130 year proud history

WEIL-McLAIN

Featuring Ucontrol™ Flexibility

The Exclusive U-Control Module Makes Boiler Set Up and Operation Easy

- SET UP OPTIONS
  -Simple or as elaborate as you want
- ZONE TYPES
  -Choose predetermined settings or customize
- SYSTEM SENSING
  -Sense boiler, system and outdoor temperatures
- TEMPERATURE MANAGEMENT
  -From 1 to 3 different setpoints for single or multiple zone type management
- MULTIPLE BOILERS
  -Capable of controlling additional boilers or heating appliances
- SERVICE ALERTS
  -Use the standard screen message or customize with contractor information

Standard Equipment

Boiler

- Cast Aluminum Block
- 30 PSI ASME Relief Valve
- Drain Valve
- Stainless Steel Burner (80, 105) with woven steel fiber mesh (155, 230, 299 & 399)
- Direct Spark Ignition
- Variable Speed Blower Assembly
- Venturi mixing system with Air Silencer
- Negative Pressure Regulated Gas Valve
- 50 VA Transformer
- Dual Scale Temp. & Pressure Gauge
- Outlet Water Temp. Sensor
- Inlet Water Temp. Sensor
- Flue Gas Temp. Sensor
- Outdoor Temp. Sensor
- System Water Temp. Sensors

Boiler Circulators

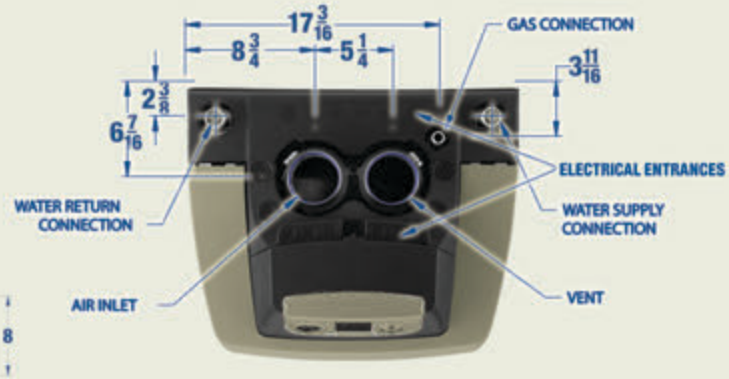
1" Flanges (80 & 105) Taco 007
1" & 1-1/4" Flanges (155 & 230) Taco 0014
1-1/4" & 1-1/2" Flanges (299) Taco 0014
1-1/4" & 1-1/2" Flanges (399) Taco 0013

Complete Jacket Assembly with

- Fully Removable Jacket Front
- Adjustable Boiler Legs
- Sidewall Vent/Air Termination Kit
- On/Off Power Switch
- Line Voltage Service Receptacle
- Condensate Trap with Drain Tee Assembly
- Propane Conversion Orifice (All except Model 80)

Ucontrol™ Module

- 3.5" LCD Display
- Three boiler priorities with multiple preset system configurations
- Color-coded removable terminal blocks
- Multiple boiler functionality
- Alarm control functionality
- Ignition Control
- High Limit & Modulating Temp. Control
- Low Water Protection
- Outdoor Reset
- Ability to control any combination of 3 circulators



Condensing Gas Boiler

Models	Ultra 80 CT	Ultra 105 CT	Ultra 155 CT	Ultra 230 CT	Ultra 299 CT	Ultra 399 CT
Packaged Boiler	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
Natural Gas	383-500-720	383-500-722	383-500-723	383-500-724	383-500-725	383-500-726
Propane Gas	383-500-721	383-500-722*	383-500-723*	383-500-724*	383-500-725*	383-500-726*
Taco Pump	007	007	0014	0014	0014	0013

*Natural Gas field convertible to LP as standard equipment except for the Ultra 80

Optional Equipment

Wall Mounting Kit	389-900-180	389-900-180	389-900-180	389-900-180	389-900-180	389-900-180
LWCO (w/harness & test button)	511-100-005	511-100-005	511-100-005	511-100-005	511-100-005	511-100-005
Concentric Vent Kit (3")	383-500-350	383-500-350	383-500-350	383-500-350	383-500-350	-
Indirect-Fired Water Heaters	Matching Aqua Plus 35, 45, 55, 85 and 105 Water Heaters are available					

Ratings

CSA Input (Maximum)	80 MBH	105 MBH	155 MBH	230 MBH	299 MBH	399 MBH
CSA Input (Minimum)	16 MBH	21 MBH	31 MBH	46 MBH	62 MBH	80 MBH
DOE Heating Cap.	71 MBH	94 MBH	139 MBH	207 MBH	270 MBH	*365 MBH
Net I=B=R	62 MBH	81 MBH	123 MBH	183 MBH	234 MBH	317 MBH
DOE AFUE	**93.5%**	**94.0%**	**94.0%**	**94.1%**	**92.5%**	***91.7%**

*Combustion Efficiency

Data

Vent Size	2" or 3"	2" or 3"	3"	3" or 4"	4"	4"
Vent Material	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC
Combustion Air Size	2" or 3"	2" or 3"	3"	3" or 4"	4"	4"
Water Volume	.69 Gal.	.82 Gal.	1.17 Gal.	1.57 Gal.	2.1 Gal.	2.1 Gal.
Approx. Ship. Weight	199 lbs.	207 lbs.	234 lbs.	246 lbs.	297 lbs.	297 lbs.

Dimensions

Min. Recommended Pipe Size	1"	1"	1-1/4"	1-1/4"	1-1/2"	1-1/2"
Supply Tappings	1"	1"	1"	1"	1-1/4"	1-1/4"
Return Tappings	1"	1"	1"	1"	1-1/4"	1-1/4"
Gas Connection Size	1/2"	1/2"	1/2"	1/2"	3/4"	3/4"

WEIL-McLAIN®

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