

# NOBLE<sup>®</sup>

FIRE TUBE

HIGH EFFICIENCY CONDENSING  
COMBINATION BOILERS

**MORE  
HOT WATER,  
FASTER**



**95% AFUE Efficiency**

Lochinvar  
**SMART CONTROL<sup>™</sup>**

**10 Year Warranty**



DESIGNED ★ ENGINEERED ★ ASSEMBLED

# USA



# LOCHINVAR IS AN INDUSTRY LEADER IN COMMERCIAL WATER HEATING AND HAS TRANSFERRED THAT EXPERTISE TO ITS RESIDENTIAL OFFERING

The Noble® combi boiler provides an economical alternative without sacrificing performance and delivers one of the industry-best DHW of up to 4.8GPM. Its sleek, minimalistic design is the space-saving choice for consumers, lowering installation costs by reducing the mechanical equipment needed to provide rapid, reliable hot water supply and efficient space heating. It also gives plumbing and heating professionals a money-saving alternative for single-family homes.

## WHY LOCHINVAR'S NOBLE COMBI BOILER DESIGN

**DELIVERS MORE HOT WATER** - It's sized large enough to quickly meet domestic hot water (DHW) load. Provides DHW from 2.6 (110) up to 4.8 gpm (199) at a 77°F temperature rise.

**FASTER DHW RESPONSE TIME** - With many combi boilers when you turn on a hot water faucet, you initially get hot water and then a brief burst of cold water before the hot water resumes. Thanks to its patent-pending control technology, this combi boiler eliminates this cold water "sandwich".

**PREVENTS COOL AIR CIRCULATION** - Air handler interlock prevents cool air circulation in Hydro-Air installations when the appliance is making domestic hot water.

**QUIET OPERATION** - Homeowners will appreciate Noble's ultra quiet operation.

**EASIER TO INSTALL AND PROGRAM** - With our Set-Up Wizard, you can quickly program the boiler in less than 5 minutes. The user-friendly interface uses plain English—not confusing codes—to guide the installer in setting up vital system parameters.

**10:1 TURNDOWN RATIO** - Operates as low as 10% of the maximum firing rate, preventing on/off short cycling at the lowest DHW demands or small heating demands, saving fuel and extending the life of the components.

**BETTER TECHNICAL SUPPORT AND TRAINING** - Answers are accessible whether online or on-campus. LochinvarU.com is always on, 24/7 for technical support. Lochinvar University is an industry leading training center.

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**USA**

## ADVANCED ELECTRONIC CONTROL



The backlit, user-friendly LCD display provides diagnostic information and system status in **plain English, not codes**. The Set-Up Wizard makes it simple to set system parameters in just minutes, including:

- SPACE HEAT RATE LIMITS
- COMBI PREHEAT
- OUTDOOR AIR RESET
- DOMESTIC HOT WATER SET POINT
- TIME/DATE SETTING
- AUTO RESET HIGH LIMIT

# RAISING THE BAR IN COMBI BOILER DESIGN

Removing the front panel provides easy access to the combustion system, control panel and key components. This simple-to-install-and-service combi boiler is top of its class. The unique fire tube heat exchanger design is what enables Noble to produce the results users deserve and have come to expect from Lochinvar.

## 1 ADAPTER-FREE FLUE CONNECTION

Multi-material connector allows either PVC, CPVC, polypropylene or stainless steel connection directly to the appliance without adapters. Noble also has a built-in combustion analyzer port.

## 2 DIRECT VENTING UP TO 100 FEET

Offers five venting options for tremendous installation flexibility. It permits direct-vent air intake and exhaust runs up to 100 equivalent feet using either PVC, CPVC, polypropylene or AL29-4C stainless steel vent pipe.

## 3 ADVANCED NEGATIVE REGULATION TECHNOLOGY

Safely and reliably operates with supply gas pressure as low as 4 inches water column. Its negative regulation (neg/reg) technology eliminates mechanical dampers as it automatically adjusts fan speed to ensure the correct volume and mix of fuel and air throughout the firing range.

## 4 INNOVATIVE FIRE-TUBE HEAT EXCHANGER

The fire tube design can produce a higher heat transfer coefficient than traditional condensing boilers.

## 5 BRAZED PLATE HEAT EXCHANGER

Stainless steel heat exchanger that quickly transfers heat from the boiler system to the domestic water satisfying DHW load.

## 6 WATER CONNECTIONS FOR EASY INSTALLATION

Top connections on the floor model and NPT on the wall model make for simplified installation no matter the application.

## 7 DESIGNED FOR SERVICEABILITY

Annual service is easy and cost effective with Noble's accessible design.



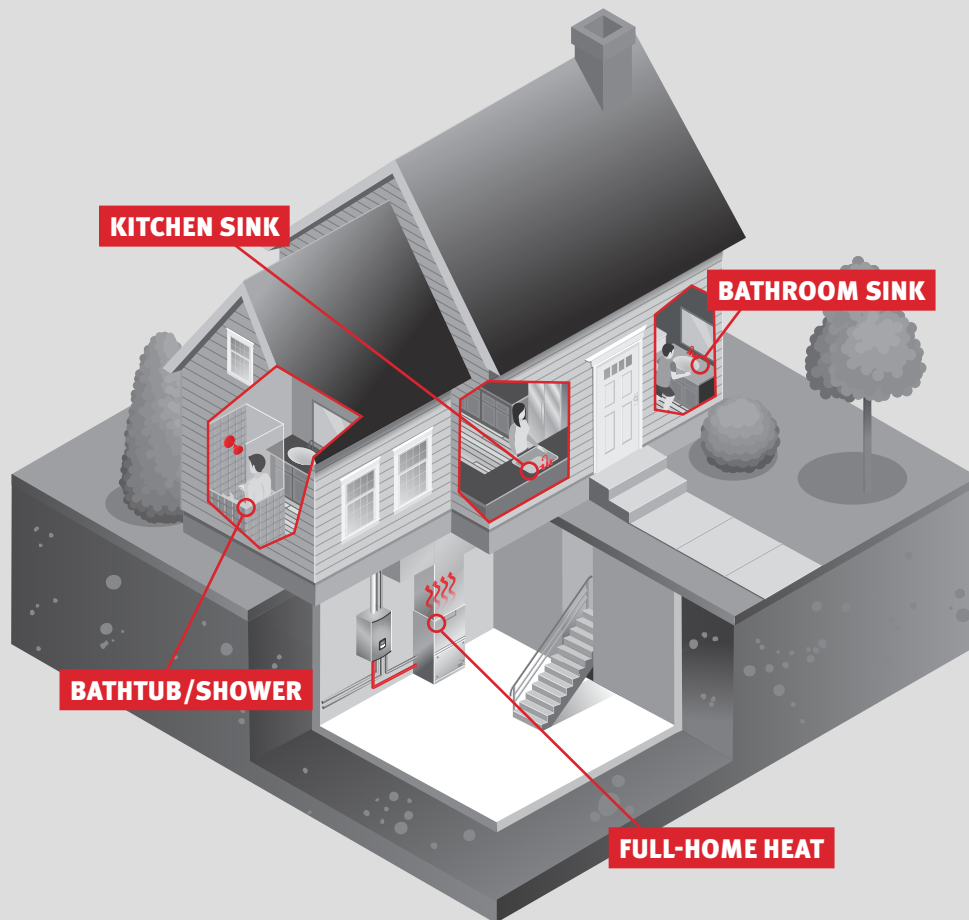
Noble Combi floor mount



Noble Combi wall mount

The product images shown are for illustration purposes only and may not be an exact representation of the product.

# A TRUE **ALL IN ONE SOLUTION**



## HEAT AND HOT WATER EVERYWHERE YOU NEED IT.

The Noble fire tube combi boiler is a money-saving solution that delivers both immediate hot water and comfortable home heating.



### Lower Your Energy Bills

The ENERGY STAR® qualified Noble combi boiler delivers 95% efficiency, which means 95 cents out of every energy dollar gets converted into dependable hot water and comfortable space heating.



### Save Space

With its compact design the Noble combi boiler is small enough to fit in a closet or small room.



### Endless Hot Water

The Noble combi boiler delivers up to 4.8 gallons of hot water per minute\*—one of the highest capacity in the combi market—so users can run multiple fixtures at the same time.



### Quicker Hot Water

With the patented control technology of the Noble combi boiler, Noble can make immediate hot water for showers, cooking and more.



### Rugged Reliability

Noble's simple design is easy to service and its commercial grade construction ensures long lasting reliability.

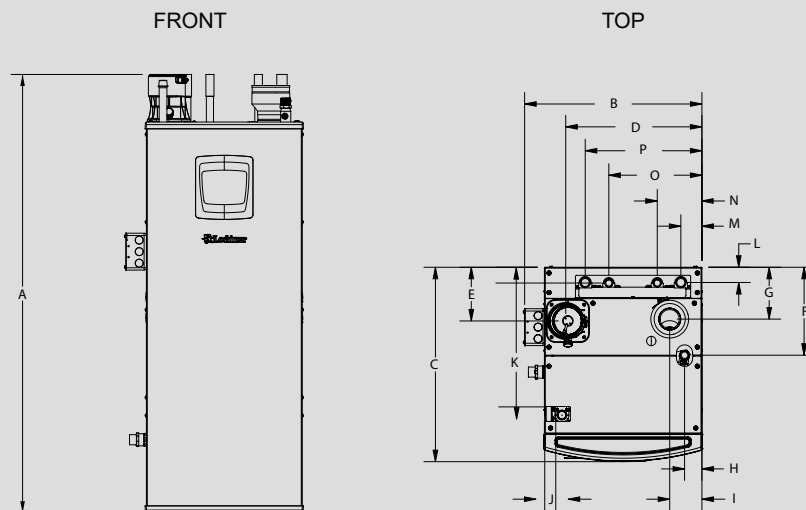


### Outstanding Warranty

You get 10 worry-free years of protection on the boiler heat exchanger, plus five years of coverage on all other parts.

\*The Net AHRI Water Ratings shown are based on a piping and pickup allowance of 1.15.

# NOBLE COMBI BOILER FLOOR MOUNT DIMENSIONS AND SPECIFICATIONS



NOBLE COMBI BOILER						DIMENSIONS AND SPECIFICATIONS						
Model Number	Input (MBH) Max.	Min.	AFUE%	Heating Capacity MBH	Net AHRI Rating MBH	A	B	C	D	E	F	G
NCF110N	110	11	95	102	89	47-1/2"	19-1/4"	21"	14-3/4"	6"	9-1/2"	5-3/4"
NCF150N	150	15	95	139	121	47-3/4"	21"	21-1/4"	5-3/4"	5-3/4"	9-3/4"	14-3/4"
NCF199N	199	19.9	95	185	161	47-3/4"	21"	21-1/4"	5-3/4"	6"	10"	14-1/2"

DIMENSIONS AND SPECIFICATIONS														
H	I	J	K	L	M	N	O	P	Gas Conn.	Boiler Water Conn.	DHW Water Conn.	Air Inlet	Vent Size	Ship Wt.
2	3-1/2"	2"	14-1/4"	1-3/4"	2-1/4"	4-3/4"	10"	12-3/4"	1/2"	1"	3/4"	3"	3"	184
2.75	5-3/4"	2"	14-1/4"	1-3/4"	3-1/4"	5-3/4"	11"	13-1/2"	1/2"	1"	3/4"	3"	3"	201
2.25	5-3/4"	2"	14-1/4"	1-3/4"	2-1/2"	5-3/4"	10-1/2"	13"	1/2"	1"	3/4"	3"	3"	215

Notes: Indoor installation only. All information subject to change. Change "N" to "L" for LP gas models.

## DHW Delivery (GPM)

Model	77° Temp. Rise	70° Temp. Rise
110	2.6	2.9
150	3.6	3.9
199	4.8	5.2

## SMART CONTROL™ FEATURES

- › **SMART CONTROL Digital Operating Control**  
LCD Display with words not codes
- › **Outdoor Reset Control with Outdoor Air Sensor**
- › **Programmable System Efficiency Optimizers**  
DHW Response Time  
DHW Pre Heat  
Outdoor Air Reset Curve
- › **Two Pump Control**  
System Pump  
Boiler Pump
- › **High-Voltage Junction Box**  
120 VAC / 60 Hertz / 1 Phase Power Supply
- › **DHW Recirculation Capability**

## › Low Voltage Terminal Strip

- Air Handler Interlock
- Flow Switch Contacts
- Low-Water Cutoff Connection
- System Sensor Contacts
- Outdoor Air Sensor Contacts
- Cascade Contacts

## › Time Clock for Data Logging

- Last 10 Lockouts

## › Low-Water Flow Safety Control & Indication

## › Password Security

## › Built-in Cascading Sequencer for up to 8 units

## STANDARD FEATURES

- › **ENERGY STAR®**
- › **95% DOE AFUE Efficiency**
- › **Modulating Burner with 10:1 Turndown**  
Direct-Spark Ignition  
Low-NOx Operation
- › **ASME Stainless Steel Heat Exchanger**  
50 psi Working Pressure w/ASME Relief Valve
- › **Vertical & Horizontal Direct-Vent**  
PVC, CPVC, Polypropylene or SS Venting  
up to 100 feet
- › **Condensate Trap**

## › Other Features

- Automatic Reset High Limit
- Adjustable High Limit w/Manual Reset
- Built-in Circulating Pump
- Zero Clearances to Combustible Materials
- 10-Year Warranty (See Warranty for Details)
- 5-Year Parts Warranty

## OPTIONAL EQUIPMENT

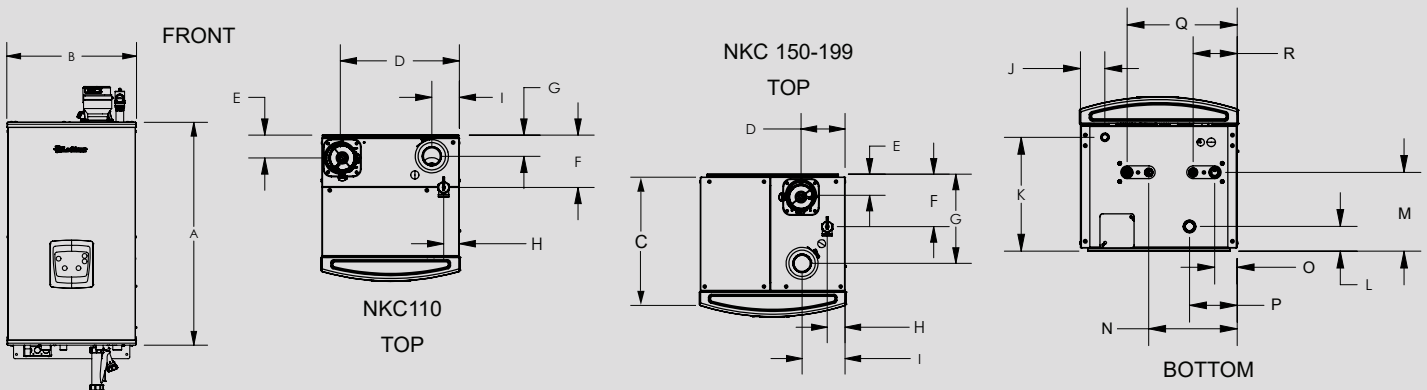
- Low-Water Cutoff w/Manual Reset & Test
- Concentric Vent Kit
- Condensate Neutralization Kit
- Sidewall Vent Termination
- Wireless Outdoor Sensor
- Nat to LP Gas Conversion Kit
- Isolation/Flush Valves
- DHW Piping Kit (3/4" adapter kit required)
- Primary Secondary Piping Kit (1" adapter kit required)

## FIRING CODES

- › M9 Standard Construction/California Code



# NOBLE COMBI BOILER WALL MOUNT DIMENSIONS AND SPECIFICATIONS



## NOBLE COMBI BOILER



## DIMENSIONS AND SPECIFICATIONS

Model Number	Input (MBH) Max.	Input (MBH) Min.	AFUE%	Heating Capacity MBH	Net AHRI Rating MBH	A	B	C	D	E	F	G
NKC110N	110	11	95.0	102	89	32-1/2"	17-1/4"	18"	14-3/4"	2-3/4"	6-1/2"	2-3/4"
NKC150N	150	15	95.0	139	121	32-1/2"	18-3/4"	18"	6-3/4"	2-3/4"	6-3/4"	11-3/4"
NKC199N	199	19.9	95.0	185	161	32-1/2"	18-3/4"	18"	5-1/2"	2-3/4"	6-3/4"	11-1/2"

## DIMENSIONS AND SPECIFICATIONS

H	I	J	K	L	M	N	O	P	Q	R	Gas Conn.	Water Conn.	Air Inlet	Vent Size	Ship Wt.
2"	3-1/2"	8-3/4"	13-1/2"	2-3/4"	9"	10-1/2"	5"	14-1/2"	12-3/4"	5"	1/2"	1"	3"	3"	139
2-1/2"	6-1/4"	2-3/4"	13-1/2"	3"	9"	11-1/2"	5"	6-1/4"	13-3/4"	6"	1/2"	1"	3"	3"	142
2-1/4"	5-1/2"	2-3/4"	13-1/2"	2-3/4"	9-1/2"	10-1/2"	2-3/4"	5-1/2"	13"	5-1/4"	1/2"	1"	3"	3"	159

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## ▶ Low Voltage Terminal Strip

- Air Handler Interlock
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## ▶ Time Clock for Data Logging

- Last 10 Lockouts

## ▶ Low-Water Flow Safety Control & Indication

## ▶ Password Security

## ▶ Built-in Cascading Sequencer for up to 8 units

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### ▶ ENERGY STAR®

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### ▶ Modulating Burner with 10:1 Turndown

- Direct-Spark Ignition
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### ▶ ASME Stainless Steel Heat Exchanger

- 50 psi Working Pressure w/ASME Relief Valve

### ▶ Vertical & Horizontal Direct-Vent

- PVC, CPVC, Polypropylene or SS Venting up to 100 feet

### ▶ Condensate Trap

## ▶ Other Features

- Automatic Reset High Limit
- Adjustable High Limit w/Manual Reset
- Built-in Circulating Pump
- Wall-Mount Bracket
- Zero Clearances to Combustible Materials
- 10-Year Warranty
- (See Warranty for Details)
- 5-Year Parts Warranty

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- Isolation/Flush Valves
- DHW Piping Kit
- Primary Secondary Piping Kit

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For technical information call 800-722-2101. Lochinvar, LLC reserves the right to make product changes or improvements without prior notice.



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