

## Greenstar gas-fired condensing boilers

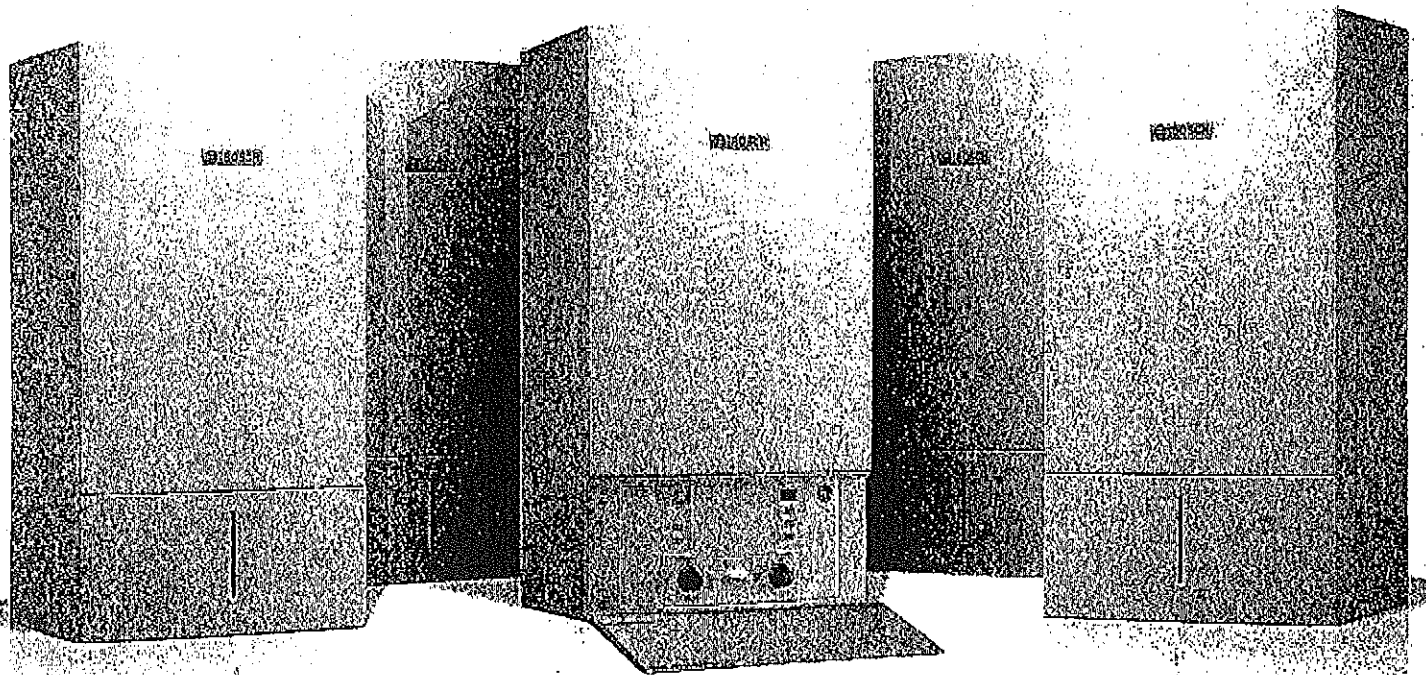
Reduce fuel bills and your carbon footprint

Wall mounted space heating and combi models for space heating and domestic hot water with up to 98.7% efficiency and 57.2 to 151.6 MBH inputs



# BOSCH

Invented for life

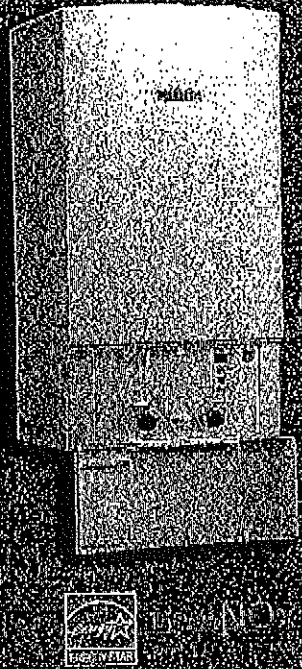


### LOW NOx

NEW DESIGN

# Bosch Greenstar

## High-Efficiency, Gas Condensing Boilers



The Bosch Greenstar series delivers energy efficient space and water heating comfort solutions for residential applications.

These low-operating cost units are available in 6 compact, wall-mounted models from 57.2 to 151.6 MBH. The Bosch Greenstar series is Energy Star® rated and uses ultra-efficient condensing technology to deliver reliable performance with low emissions.

These units are built with a removable front panel, direct access to the heat cell and plug-in diagnostics module for ease of serviceability. Special insulation ensures ultra quiet operation, while a passcode protected temperature control panel offers peace-of-mind.

The new Bosch Greenstar series can also be integrated with other Bosch energy efficient products for a complete and environmentally friendly modern home.

### Efficiency with unsurpassed performance and control

- ▶ Ideal for detached & terraced houses, also suitable for apartments
- ▶ Available as a space heating boiler for connection to a hot water tank
- ▶ Available as a combi unit with integrated water heating
- ▶ Solar compatible with new control options

### Energy-Saving & Environmental Features

- ▶ High efficiency - up to 98.7% with low temperature applications (up to 96.1% AFUE)
- ▶ Low NOx - less than 40 mg / kWh (ppm), meeting 2012 SCAQMD standards
- ▶ Simple & intelligent control options available, optimizing boiler efficiency and fuel consumption
- ▶ Low electrical consumption when the boiler is in standby mode
- ▶ Aluminum-silicon heat exchanger delivers high efficiency and reliability
- ▶ Electronic ignition
- ▶ Anti-cycle & modulation control

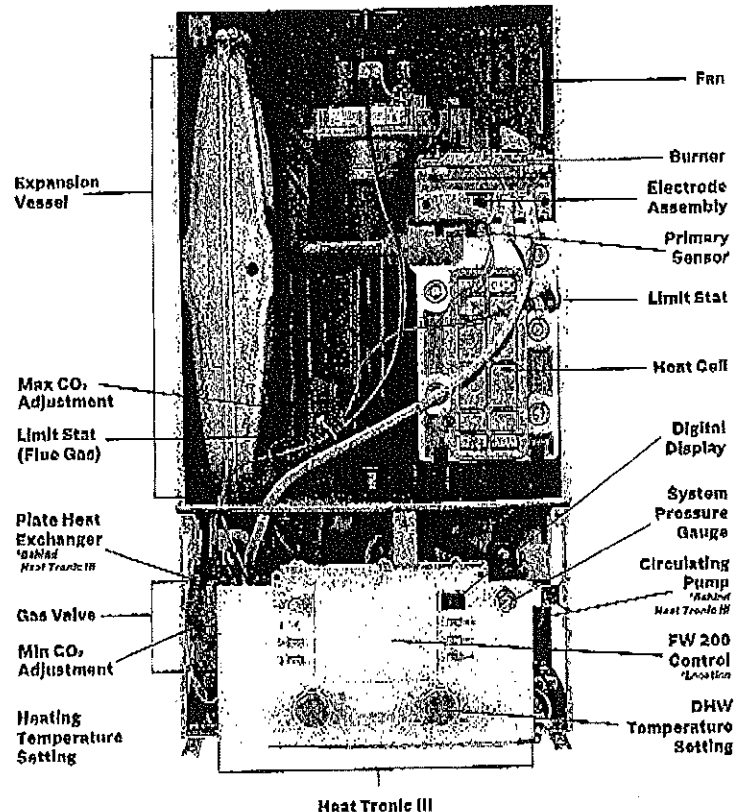
### Time & Labor Saving Installation Features

- ▶ All models available as NG & LP
- ▶ Internal piping manifold allows for BSP / NTP conversion
- ▶ Robust water side PH operating levels of 4.0 - 8.5
- ▶ High altitude flexibility - 7,000 no de-rate
- ▶ Venting length up to 100' each way with 3" PVC pipe, up to 8 elbows
- ▶ Venting combined length up to 81' with 2" PVC (except Bosch Greenstar 151 models)

### End-Use Comfort & Convenience Features

- ▶ Limited lifetime\* heat exchanger warranty
- ▶ Limited 5-year\* parts & labor warranty
- ▶ Bosch renowned quality and reliability
- ▶ Built-in frost protection
- ▶ Compact dimensions
- ▶ ECO mode for energy saving fuel consumption
- ▶ Controls behind flap / Key pad lock - aesthetically pleasing and discourages children altering controls

\*Limited warranty. Copies of original warranties in their entirety are available upon request. Please contact your area representative.



Heat Tronic III

# Technical specifications

MA Board # G1-0111-226



Application	Space Heating + DHW			Space Heating Only		
Models	Greenstar Combi 100	Greenstar Combi 151	Greenstar 57	Greenstar 100	Greenstar 131	Greenstar 151
Description	ZWB28-3	ZWB42-3	ZBR18-3	ZBR28-3	ZBR35-3	ZBR42-3
Part Number	7738100002	7713331041	7712231416	7712231415	7712231414	7712231413
<b>Performance Specifications</b>						
Fuel	NG / LP	NG / LP	NG / LP	NG / LP	NG / LP	NG / LP
Input Maximum (MBH)	100.8	151.6	57.2	100.8	131.9	151.6
Input Minimum (MBH)	34.8	36	12.9	24.6	36	36
DOE Heating Capacity (MBH)	89.4	134.4	50.8	89.4	116.7	134.4
Net I-B-B-R (MBH)	79	117	45	79	103	117
AFUE	96.0%	94.3%	96.1%	96.0%	96.0%	94.3%
Low Temp Application Efficiencies	98.5%	98.8%	98.7%	98.5%	97.5%	96.8%
DHW Flow Max (ΔT at 72°F)	2.65 GPM	4.0 GPM				
Water Volume	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)
<b>Technical Data</b>						
Weight (Without Packaging)	110.2 Lbs. (50 kg)	110.2 Lbs. (50 kg)	103.6 Lbs. (47 kg)	103.6 Lbs. (47 kg)	103.6 Lbs. (47 kg)	103.6 Lbs. (47 kg)
Dimensions W x H x D	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"
Minimum Recommended Pipe Size	1"	1"	1"	1"	1"	1"
Supply Tappings	1"	1"	1"	1"	1"	1"
Return Tappings	1"	1"	1"	1"	1"	1"
Domestic Cold Water Supply	¾"	¾"				
Domestic Hot Water Supply	¾"	¾"				
Gas Connection Size	¾"	¾"	¾"	¾"	¾"	¾"
Vent Size	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
Vent Material	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC
Combustion Air Size	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
High Altitude Capability	No De-Rating up to 7,000'	De-Rated	No De-Rating up to 7,000'	No De-Rating up to 7,000'	No De-Rating up to 7,000'	De-Rated
Gas Pressure Minimum w.c.	NG 3.5" - LP 8"	NG 3.5" - LP 8"	NG 3.5" - LP 8"	NG 3.5" - LP 8"	NG 3.5" - LP 8"	NG 3.5" - LP 8"
<b>Included Package Contents</b>						
Al-Si Heat Exchanger	✓	✓	✓	✓	✓	✓
3 Speed Grundfos Integrated Pump	✓	✓	✓	✓	✓	✓
Integrated Expansion Vessel	3.17 Gal. (12 L)	3.17 Gal. (12 L)				
FW200 Weather Compensation Control	✓	✓	✓	✓	✓	✓
Heatronic III - Control PCB	✓	✓	✓	✓	✓	✓
Hydronics Manifold Bracket with NPT Connection	✓	✓	✓	✓	✓	✓
Twin Pipe Flue Adaptor	✓	✓	✓	✓	✓	✓
Tank Sensor	✓	✓	✓	✓	✓	✓
System Supply Sensor	✓	✓	✓	✓	✓	✓
NG / LP Conversion Kit	✓	✓	✓	✓	✓	✓
Condensate Trap Drain Hose	✓	✓	✓	✓	✓	✓

# Venting Material

## ...❖ UL-1738 & ULC-S636 Listed

- Approved for use in the United States and Canada
- The only single wall polymeric vent system listed to the rigorous UL-1738 safety standard
- Application specific custom parts
- Centrotherm's full expertise and industry support

## ...❖ 10 Year Limited Warranty

- InnoFlue® vent systems are supported by an industry leading 10 year limited manufacturer's warranty

## ...❖ Construction

- Industry leading 2mm wall thickness provides impact protection
- Polypropylene is highly corrosion resistant, making it suitable for both gas and oil fired appliances
- UL-1738 and ULC-S636 certified for sustained flue gases up to 230°F (110°C).
- Zero clearance to combustibles
- PP-UV Black termination components provide enhanced UV protection
- High quality joint connections for a consistently tight fit up

## ...❖ Integrated Gasket System

- No adhesives required
- Allows for post installation adjustments
- Immediate use of appliance upon installation

## ...❖ Rapid Installation

- Light weight allows for ease of handling and installation
- Reduced labor costs up to 75%
- No special tools required

## ...❖ LEED Compliance

- Uses 100% recyclable polypropylene
- No solvent based PVC or CPVC adhesives per IE credit 4.1

## ...❖ APPLICATION

InnoFlue® Single Wall is UL-1738 II, III & IV and ULC-S636 BH Gas Vent System Class II C listed for use with natural gas and propane fired appliances. InnoFlue® Single Wall can also be used with oil fired condensing appliances with a maximum flue gas temperature of 230° (110°C). InnoFlue® Single Wall is installed inside a chase, wall or left exposed on the interior of a structure.

## ...❖ CONFIGURATION

InnoFlue® Single Wall is a highly engineered vent system that can be used in conjunction with our InnoFlue® Flex or Concentric Vent Systems. InnoFlue Single Wall can be installed as a stand alone exhaust or used to common vent multiple appliances through a shared flue. Common vent systems require appliance manufacturer and local code approval. InnoFlue® Single Wall is available in 2" through 12" diameters.

