

- Certified design according to **ANSI Z21.13b-2012/CSA 4.9b-2012** standards for indoor residential applications
- Gas Input Ranges (Space Heating / DHW)
 - NCB-180** - 80,000 (150,000 for DHW) to 14,000 BTU/h
 - NCB-210** - 100,000 (180,000 for DHW) to 18,000 BTU/h
 - NCB-240** - 120,000 (199,900 for DHW) to 18,000 BTU/h
- Domestic Hot Water Flow Rate Capacity (*based on 77°F temperature rise)
 - NCB-180** - 3.4 GPM
 - NCB-210** - 4.0 GPM
 - NCB-240** - 4.5 GPM
- **Dual Primary and Secondary Stainless Steel Heat Exchangers** for optimum efficiency and durability
- **Stainless Steel Flat Plate Heat Exchanger*** for DHW
(* certified to IAPMO PS 92-2010 standards)
- **Domestic Hot Water Priority**
- Compatible with **2" PVC vent up to 60 ft**** and **3" PVC vent up to 150 ft****
(** with no elbows)
- **Backlit Front Panel** - allows adjustment of hot water temperatures and boiler functions including Outdoor Reset Curve settings, heating setback, Integrated Low Water Safety Control, water fill pressure, and output capacity
- **Cascade Capability** with Navien water heater models - can be linked with up to 15 tankless water heaters for increased DHW output
- **Internal Circulation Pump** - comes included with a primary circulation pump and air vent for added value and convenience
- **Low Voltage Terminal Strip** - contacts for thermostat or zone controller, outdoor reset, 24 VAC device relay, air handler interrupt, and LWCO
- **Temperature Options** - two boiler setpoints: hydronic heating temperature settings range from **77°F up to 194°F** and from **86°F to 140°F** for DHW temperatures
- **Outdoor Reset Sensor** (optional) - when installed with an NCB Series model, the unit controls will sense outdoor ambient temperatures and adjust the boiler operation for maximum comfort and efficiency
- **AFUE Ratings**
 - NCB-180** - 95.0% (NG/LPG)
 - NCB-210** - 95.0% (NG/LPG)
 - NCB-240** - 95.0% (NG/LPG)
- Compatible with **Natural Gas (NG)** and **Propane (LPG)*****
(*** requires installation of included Field Conversion Kit by a qualified gas servicer)
- Certified by **CSA, ASME, NSF/ANSI 372** for Low Lead (**DHW only**), **SCAQMD** (Rule 1146.2 Type 1 - Complies with 14 ng/l or 20 ppm NOx @ 3% O2)
- **10-Year Heat Exchanger and 5-Year Parts Warranty******
(**** see Navien Limited Residential Warranty)
- **Optional accessories** are available (see below)



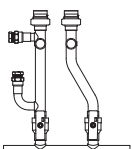
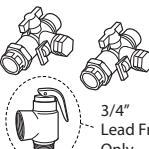
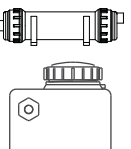
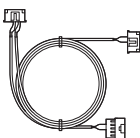


*Sleek Design - Compatible
with 2" PVC Vent*



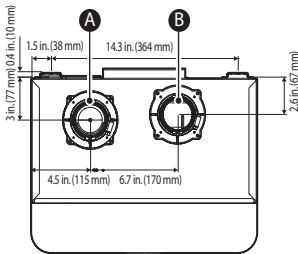
*INCLUDED Illuminated Front Panel with
Advanced Hydronic and DHW Operation*



Certified to
NSF/ANSI 372

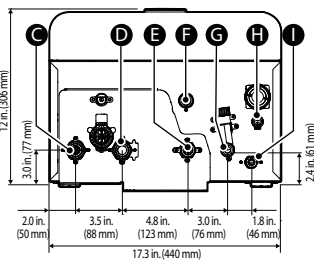
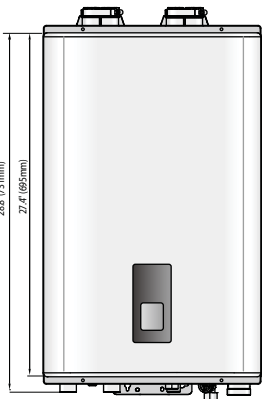
	 <p>3/4" Lead Free Only</p>				
<p>Quik-Install Manifold (GFFM-MCOZUS-001)</p>	<p>Plumb Easy Valve Set (BCSA0563 - 1" Standard) (UA0900002A - 3/4" Lead Free)</p>	<p>Condensate Neutralizer (GXXX001322 - Single Unit) (GXXX001324 - Up to 6 Units) (GXXX001325 - Up to 16 Units)</p>	<p>Ready-Link Communication Cable (BCRA1129)</p>	<p>Outdoor Reset Sensor (NASS9EXOTS01)</p>	<p>Zone Pump Controller (FMZ-20 - For 2 Zones) (FMZ-30 - For 3 Zones) (FMZ-40 - For 4 Zones) (FMZ-60 - For 6 Zones)</p>

Dimensions



Connection Size

- A** Air Intake Φ 2"
- B** Exhaust Gas Vent Φ 2"



Connection Size

- C** Heating Supply Outlet Φ 1"
- D** Heating Return Inlet Φ 1"
- E** DHW Hot Water Outlet Φ 3/4"
- F** Gas Supply Inlet Φ 3/4"
- G** DHW Cold Water Inlet Φ 3/4"
- H** Condensate Outlet Φ 1/2"
- I** Auto Feeder Inlet Φ 1/2"

Navien Combination Boiler Space Heating Ratings



Model Number ¹	Heating Input, MBH		Heating Capacity ² , MBH	Net AHRI Rating, Water ³ , MBH	AFUE ² , %
	Min	Max			
NCB-180	14	80	75	65	95.0
NCB-210	18	100	94	82	95.0
NCB-240	18	120	112	97	95.0

¹ Ratings are the same for Natural Gas models converted to Propane use.

² Based on U.S. Department of Energy (DOE) test procedures.

³ The NET AHRI Water Ratings shown are based on a piping and pickup allowance of 1.15. Consult Navien before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

Specifications

Item	NCB-180	NCB-210	NCB-240	
Gas Input	Space Heating	14,000-80,000 BTU/H	18,000-100,000 BTU/H	18,000-120,000 BTU/H
	Domestic Hot Water	14,000-150,000 BTU/H	18,000-180,000 BTU/H	18,000-199,900 BTU/H
Flow Rate (DHW)	77°F (43°C) Temp Rise	3.4 GPM (12.9 L/m)	4.0 GPM (15.1 L/m)	4.5 GPM (17.0 L/m)
Dimensions	17"(W) x 28"(H) x 12"(D)		17"(W) x 28"(H) x 12"(D)	17"(W) x 28"(H) x 12"(D)
Weight	74 lbs (34kg)		84 lbs (38kg)	84 lbs (38kg)
Installation Type	Indoor Wall-Hung			
Venting Type	Forced Draft Direct Vent			
Ignition	Electronic Ignition			
Water Pressure (Hydronic/DHW)	12-30 PSI / 15-150 PSI			
Natural Gas Supply Pressure (from source)	3.5"-10.5" WC			
Propane Gas Supply Pressure (from source)	8.0"-13.5" WC			
Natural Gas Manifold Pressure (min to max)	-0.07" WC to -0.66" WC	-0.05" WC to -0.36" WC	-0.06" WC to -1.2" WC	
Propane Gas Manifold Pressure (min to max)	-0.06" WC to -0.62" WC	-0.1" WC to -0.66" WC	-0.03" WC to -0.98" WC	
Minimum Flow Rate (DHW)	0.5 GPM (1.9 L/m)			
Connection Sizes	Heating Supply/Return	1" NPT		
	DHW Inlet/Outlet	3/4" NPT		
	Gas Inlet	3/4" NPT		
	Auto Feeder	1/2" NPT		
	Condensate Outlet	1/2" NPT		
Power Supply	Main Supply	120V AC, 60Hz		
	Maximum Power Consumption	200W (up to 2 amperes)		
Materials	Casing	Cold Rolled Carbon Steel		
	Heat Exchangers	Primary/Secondary Heat Exchanger: Stainless Steel DHW Heat Exchanger: Stainless Steel		
Venting	Exhaust	2" or 3" PVC, CPVC, Approved Polypropylene 2" or 3" Special Gas Vent Type BH (Class II, A/B/C)		
	Intake	2" or 3" PVC, CPVC, Polypropylene 2" or 3" Special Gas Vent Type BH (Class II, A/B/C)		
	Vent Clearances	0" to Combustibles		
Safety Devices	Flame Rod, APS, Gas Valve Operation Detector, Ignition Operation Detector, Water Temperature High Limit Switch, Exhaust Temperature High Limit Sensor			

*Navien reserves the right to change specifications at any time without prior notice