


Specifications & Submittal Sheet

New Construction/Replacement Water Source Heat Pump Console

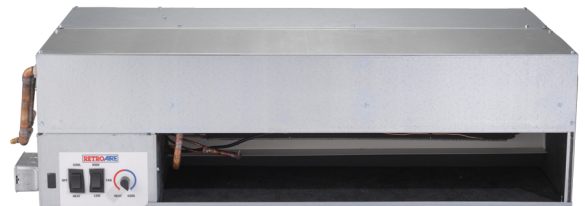
CMHG Equipment Model Decoding:

C	M	H	G							A	0	C																
Model Series: [CM=Friedrich & Climate Master 801 Replacement]		Operation: [H=Heat Pump]	Refrigerant: [G=R-410A]	Cooling Capacity: [08=10,000 Btuh] [12=12,000 Btuh]		Voltage: [A=115V/1ph/60Hz] [D=208-230V/1ph/60Hz (Std)] [E=265-277V/1ph/60Hz]		Electric Heat: [0=None (Std)] [2=2kW@230V] [3=3kW@230V] [4=4kW@230V] [5=5kW@230V]		Piping Options: [L=Left Hand (Std)] [R=Right Hand] [M=Left Hand Monoflow] [N=Right Hand Monoflow]		Compressor: [A=Tecumseh]	Product Revision: [C=C Rev]															
<p>Controls Options:</p> <table border="0"> <tr> <td>[0=Unit Mount MCO]</td> <td>[A=Remote]</td> </tr> <tr> <td>[1=Unit Mount MCO, Boilerless (Elec Ht)]</td> <td>[B=Remote, Primary/Secondary]</td> </tr> <tr> <td>[2=Unit Mount MCO w/ Disconnect]</td> <td>[C=Remote w/ Disconnect]</td> </tr> <tr> <td>[3=Unit Mount MCO, Boilerless (Elec Ht) w/ Disconnect]</td> <td>[D=Remote, Primary/Secondary, w/ Disconnect]</td> </tr> <tr> <td>[4=Unit Mount ACO]</td> <td>[E=Remote, Boilerless (Elec Ht)]</td> </tr> <tr> <td>[5=Unit Mount ACO Boilerless (Elec Ht)]</td> <td>[F=Remote, Primary/Secondary, Boilerless (Elec Ht)]</td> </tr> <tr> <td>[6=Unit Mount ACO w/ Disconnect]</td> <td>[G=Remote, Boilerless (Elec Ht) w/ Disconnect]</td> </tr> <tr> <td>[7=Unit Mount ACO, Boilerless (Elec Ht) w/ Disconnect]</td> <td>[H=Remote, Primary/Secondary, Boilerless (Elec Ht) w/ Disconnect]</td> </tr> </table>													[0=Unit Mount MCO]	[A=Remote]	[1=Unit Mount MCO, Boilerless (Elec Ht)]	[B=Remote, Primary/Secondary]	[2=Unit Mount MCO w/ Disconnect]	[C=Remote w/ Disconnect]	[3=Unit Mount MCO, Boilerless (Elec Ht) w/ Disconnect]	[D=Remote, Primary/Secondary, w/ Disconnect]	[4=Unit Mount ACO]	[E=Remote, Boilerless (Elec Ht)]	[5=Unit Mount ACO Boilerless (Elec Ht)]	[F=Remote, Primary/Secondary, Boilerless (Elec Ht)]	[6=Unit Mount ACO w/ Disconnect]	[G=Remote, Boilerless (Elec Ht) w/ Disconnect]	[7=Unit Mount ACO, Boilerless (Elec Ht) w/ Disconnect]	[H=Remote, Primary/Secondary, Boilerless (Elec Ht) w/ Disconnect]
[0=Unit Mount MCO]	[A=Remote]																											
[1=Unit Mount MCO, Boilerless (Elec Ht)]	[B=Remote, Primary/Secondary]																											
[2=Unit Mount MCO w/ Disconnect]	[C=Remote w/ Disconnect]																											
[3=Unit Mount MCO, Boilerless (Elec Ht) w/ Disconnect]	[D=Remote, Primary/Secondary, w/ Disconnect]																											
[4=Unit Mount ACO]	[E=Remote, Boilerless (Elec Ht)]																											
[5=Unit Mount ACO Boilerless (Elec Ht)]	[F=Remote, Primary/Secondary, Boilerless (Elec Ht)]																											
[6=Unit Mount ACO w/ Disconnect]	[G=Remote, Boilerless (Elec Ht) w/ Disconnect]																											
[7=Unit Mount ACO, Boilerless (Elec Ht) w/ Disconnect]	[H=Remote, Primary/Secondary, Boilerless (Elec Ht) w/ Disconnect]																											
<p>Water Coil Options:</p> <table border="0"> <tr> <td>[0=Sweat (Std)]</td> </tr> <tr> <td>[1=Female Pipe Thread]</td> </tr> <tr> <td>[2=Male Pipe Thread]</td> </tr> <tr> <td>[3=Ball Vlv & Union]</td> </tr> <tr> <td>[4=Sweat w/ CuNi Coil]</td> </tr> <tr> <td>[5=FPT w/ CuNi Coil]</td> </tr> <tr> <td>[6=MPT w/ CuNi Coil]</td> </tr> <tr> <td>[7=BV&U w/ CuNi Coil]</td> </tr> </table>										[0=Sweat (Std)]	[1=Female Pipe Thread]	[2=Male Pipe Thread]	[3=Ball Vlv & Union]	[4=Sweat w/ CuNi Coil]	[5=FPT w/ CuNi Coil]	[6=MPT w/ CuNi Coil]	[7=BV&U w/ CuNi Coil]											
[0=Sweat (Std)]																												
[1=Female Pipe Thread]																												
[2=Male Pipe Thread]																												
[3=Ball Vlv & Union]																												
[4=Sweat w/ CuNi Coil]																												
[5=FPT w/ CuNi Coil]																												
[6=MPT w/ CuNi Coil]																												
[7=BV&U w/ CuNi Coil]																												

Important Selection Notes

Order Qty

- Electric Heat available on the CMHG08, 208/230V & 265V
- Only "2"/"3" Electric Heat available for 265V, see Page 2/IOM
- If selecting electric heat, select a "Boilerless" control option
- 24Vac Remote thermostat sold separately
- Primary/Secondary has replaced Master/Slave



Please indicate the quantity of any field-installed accessory, desired for each unit

Thermostat, Single-Stage, 1-Heat/1-Cool, 24Vac, Programmable, ICM, Manual Changeover (PN 240008208)	Thermostat, T9000, Wireless, Battery, Single Stage, 1-Ht/1-CI, 5/2-Prog, MCO [#240009905 also required] (PN 240009781)
Thermostat, 2-Stage, 2-Heat/2-Cool, 24Vac, Programmable, ICM, Manual Changeover (PN 240008209)	Remote Control Node, T9000, Printed Circuit Board, Wireless, 24Vac, 1/unit req'd [#240009781 also required] (PN 240009905)
Thermostat, Single-Stage, 1-Heat/1-Cool, 24Vac, Programmable, ICM, Auto Changeover (PN 240008210)	Isolation Ball Valve, 1/2", Sweat Connections (PN 107000001)

DOE Performance Data (AHRI/ISO 13256-1)

Model	Cooling Btuh (kW)	Sensible Heat Ratio	EER	Heat Pump Btuh (kW)	COP	Indoor	
						Airflow CFM (L/S)	Sound dB(A)
CMHG08	10,000 (2.9)	0.77	11.2	11,000 (3.2)	4.2	400 (189)	45
CMHG12	12,000 (3.5)	0.85	11.2	13,600 (4.0)	4.2	450 (212)	48



To: _____
 Date: _____
 From: _____
 Contact: _____

Project: _____
 Customer: _____
 Location: _____
 Engineer: _____
 Unit Tag# _____

For Your: ☐ Reference

☐ Approval

☐ Construction

Electrical, Dimensional and Miscellaneous Specifications



















Electrical Data - CMHG08

Power Supply		Compressor		Indoor Fan Motor		Electric Heat				Unit Electrical Ratings					
										TCA	THA	MCA	MOCP	Standard Connection	Optional Plug
Voltage	Min.	RLA	LRA	FLA	Hp	Htr #	Htr V	Htr W	Htr A						
115V/1ph/60Hz	104	8	45.6	1.4	0.09	0	N/A	N/A	N/A	9.4	9.4	11.4	15	Hard-Wired	5-15P
208-230V/1ph/60Hz	197	4	22.2	0.6	0.08	0	N/A	N/A	N/A	4.6	4.6	5.6	15	Hard-Wired	6-15P
						2	208	1636	7.9		8.5	10.6	15	Hard-Wired	6-15P
							230	2000	8.7		9.3	11.6			
						3	208	2454	11.8		12.4	15.5	20	Hard-Wired	6-20P
							230	3000	13.0		13.6	17.1			
						4	208	3271	15.7		16.3	20.4	25	Hard-Wired	6-30P
							230	4000	17.4		18.0	22.5			
						5	208	4089	19.7		20.3	25.3	30	Hard-Wired	6-30P
							230	5000	21.7		22.3	27.9			
265V/1ph/60Hz	240	3.32	18.8	0.67	0.08	0	N/A	N/A	N/A	4.0	4.0	4.8	15	Hard-Wired	7-20P
						2	265	2655	10.0		10.7	13.4	15	Hard-Wired	7-20P
						3	265	3983	15.0		15.7	19.6	20	Hard-Wired	7-20P

Electrical Data - CMHG12

Power Supply		Compressor		Indoor Fan Motor		Electric Heat				Unit Electrical Ratings					
										TCA	THA	MCA	MOCP	Standard Connection	Optional Plug
Voltage	Min.	RLA	LRA	FLA	Hp	Htr #	Htr V	Htr W	Htr A						
115V/1ph/60Hz	104	11.8	63	1.4	0.09	0	N/A	N/A	N/A	13.2	13.2	16.2	25	Hard-Wired	5-20P
208-230V/1ph/60Hz	197	5.6	32.5	0.6	0.08	0	N/A	N/A	N/A	6.2	6.2	7.6	15	Hard-Wired	6-15P
265-277V/1ph/60Hz	240	4.2	31.5	0.67	0.08	0	N/A	N/A	N/A	4.9	4.9	5.9	15	Hard-Wired	7-20P

Optional Electrical Plugs (SER)

VOLTAGE	LINE NO.	15 AMPERE		20 AMPERE		30 AMPERE	
		RECEPTACLE	PLUG	RECEPTACLE	PLUG	RECEPTACLE	PLUG
125V	5						
250V	6						
277V	7						

Miscellaneous Product Data

Return Air Filter	1-Washable Metal Mesh
RA Filter Dims	10 3/4" x 30 3/4" x 3/8"
Shipping Weight	140 lbs (64 kg)
Shipping Dims	49 3/4" x 29" x 14"
Elec Ht (Optional)	EWT ≤ 50°F
Compressor Type	Rotary/R-410A
CMHG08 Ref Chrg	19 Ounces
CMHG12 Ref Chrg	23 Ounces



Made in the USA

Standard Operating Limits

Air Temp Limits	Cooling °F (°C)	Heating °F (°C)
Minimum Ambient Air	50 (10)	50 (10)
Rated Ambient Air	80.7 (27)	68 (20)
Maximum Ambient Air	100 (38)	85 (30)
Minimum EAT DB/WB	67/57 (20/14)	N/A
Rated EAT DB/WB	80.7/66.3 (27/19.1)	68 (20)
Maximum EAT DB/WB	100/83 (38/29)	80 (27)
Water Temp Limits	Cooling °F (°C)	Heating °F (°C)
Minimum EWT	60 (16)	60 (16)
Maximum EWT	95 (35)	90 (33)

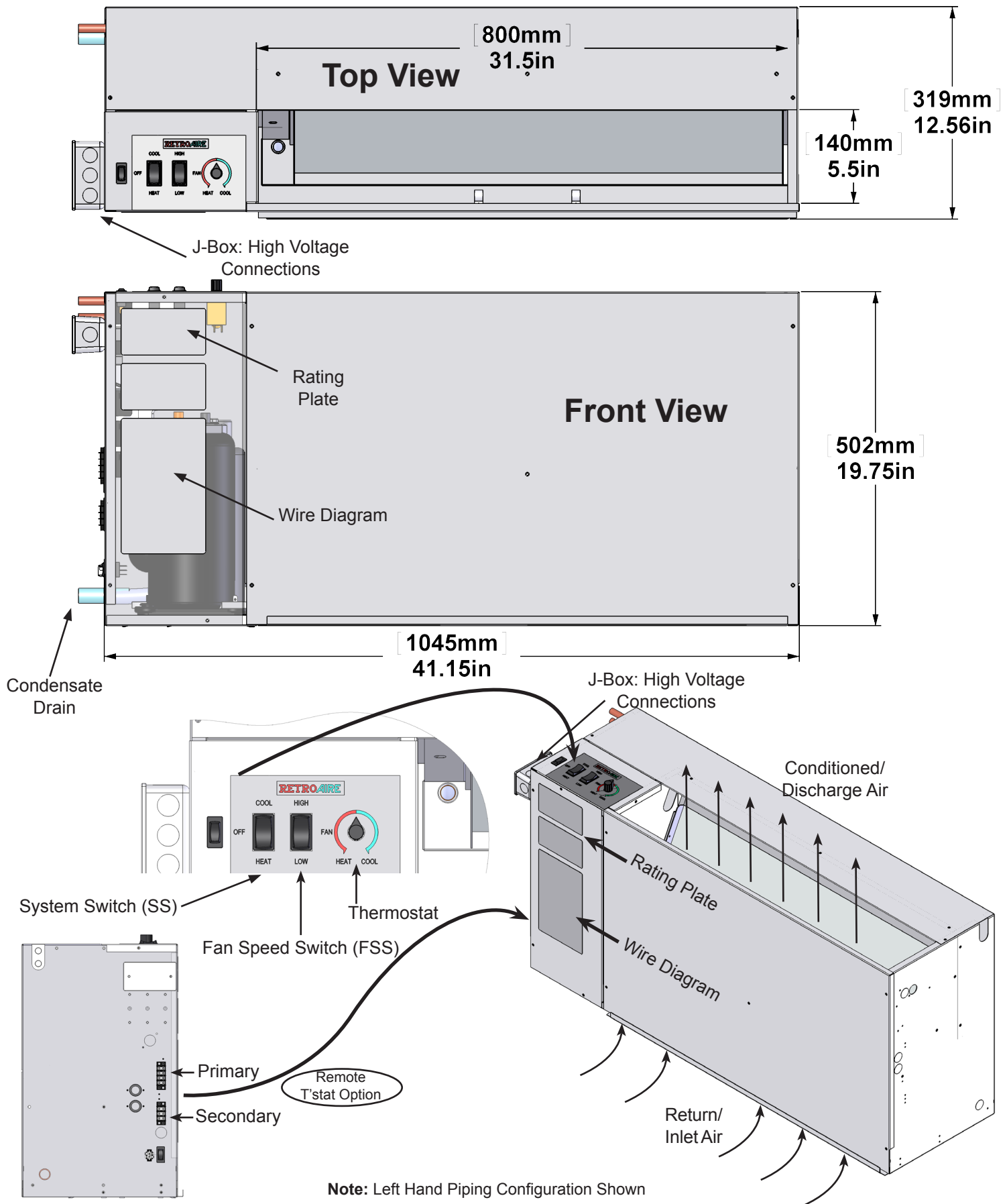
Note: EAT & Ambient Temp surrounding the unit, are the same value

Job-Guide Specifications

- Standard Warranty: 1 Year - Parts & 5 Year - Compressor
- High Pressure Switch with Integral Compressor Lockout Relay (Cycle SS Off/On to Reset)
- Low Water Temperature Cut-out Switch with Integral Compressor Lockout Relay (Cycle SS Off/On to Reset)
- Indoor Coil Freeze Protection
- Single Stage Heating Operation (w/ or w/o Electric Heat)
- DOE Performance Qualified & Listed
- ETL-US & Canada Listed for Safety to UL484 Standard
- Directly replaces Friedrich/Climate Master "801" Series
- Reversing Valve Energized in Cooling
- Meets ASHRAE 90.1-2010 for New Construction efficiency

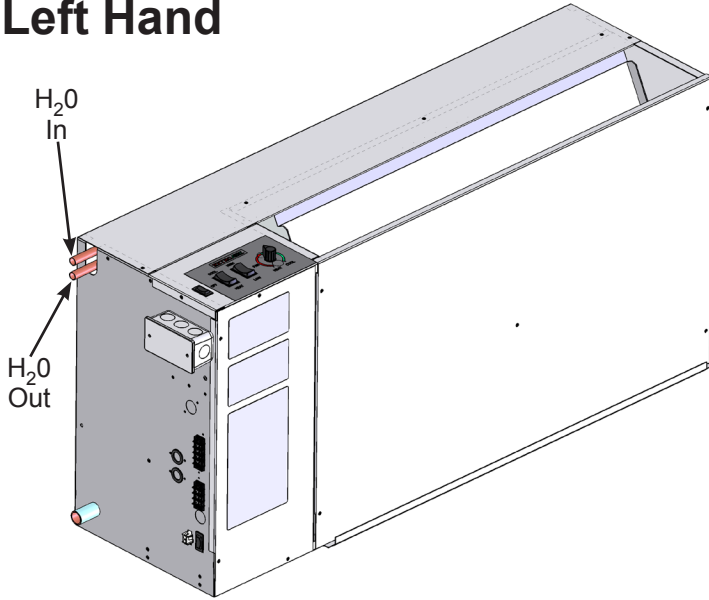
NOTICE: Due to ongoing product development; design, specification and performance data listed within this submittal document are subject to change without notice. For the most current performance data, please refer to ECR International listings of certified products in the AHRI directory, or consult the factory.

Dimensional Specifications

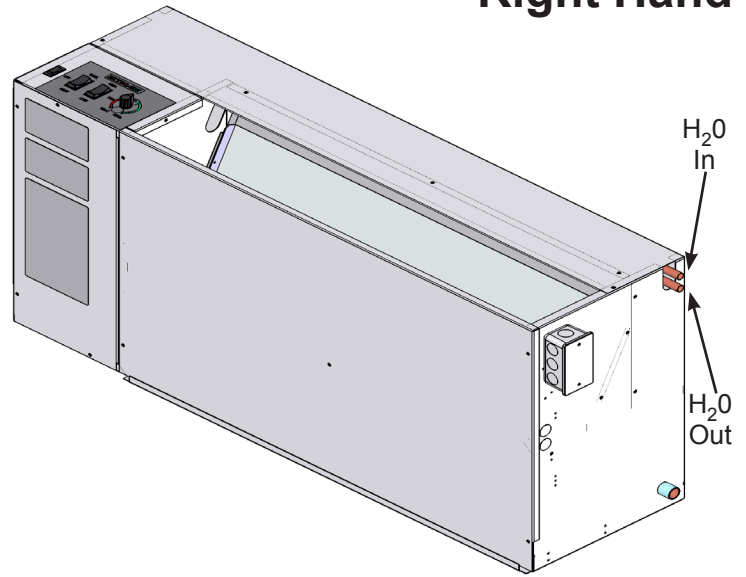


NOTICE: Due to ongoing product development; design, specification and performance data listed within this submittal document are subject to change without notice. For the most current performance data, please refer to ECR International listings of certified products in the AHRI directory, or consult the factory.

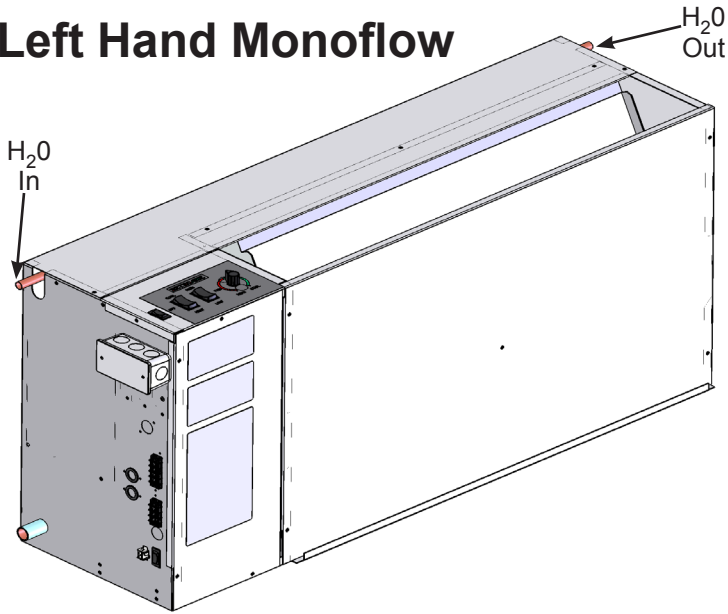
Left Hand



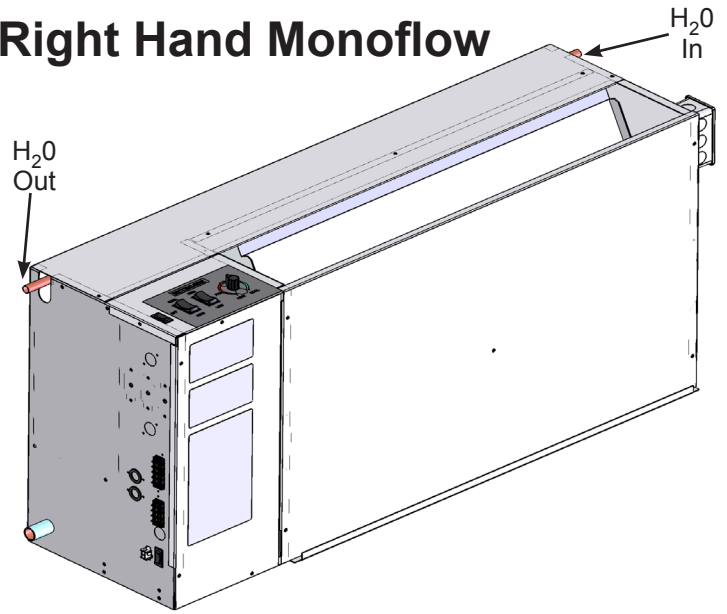
Right Hand



Left Hand Monoflow



Right Hand Monoflow



ECR International, Inc.
2201 Dwyer Avenue • Utica, NY 13501
Phone: 800.325.5279 • Web: RetroAire.com

NOTICE: Due to ongoing product development; design, specification and performance data listed within this submittal document are subject to change without notice. For the most current performance data, please refer to ECR International listings of certified products in the AHRI directory, or consult the factory.