YORK HMCG2 ACC STD ECM High-Efficiency Horizontal Discharge Modulating Air Conditioner User Guide

Quick Reference Guide
High-Efficiency Horizontal Discharge Modulating Air Conditioner

Contents

HMCG2 ACC STD ECM High-Efficiency Horizontal Discharge Modulating Air Conditioner

Interfacing the indoor unit with the outdoor unit
Note: A contractor supplied filter/drier must be field-installed at the indoor coil.
Low-voltage wiring

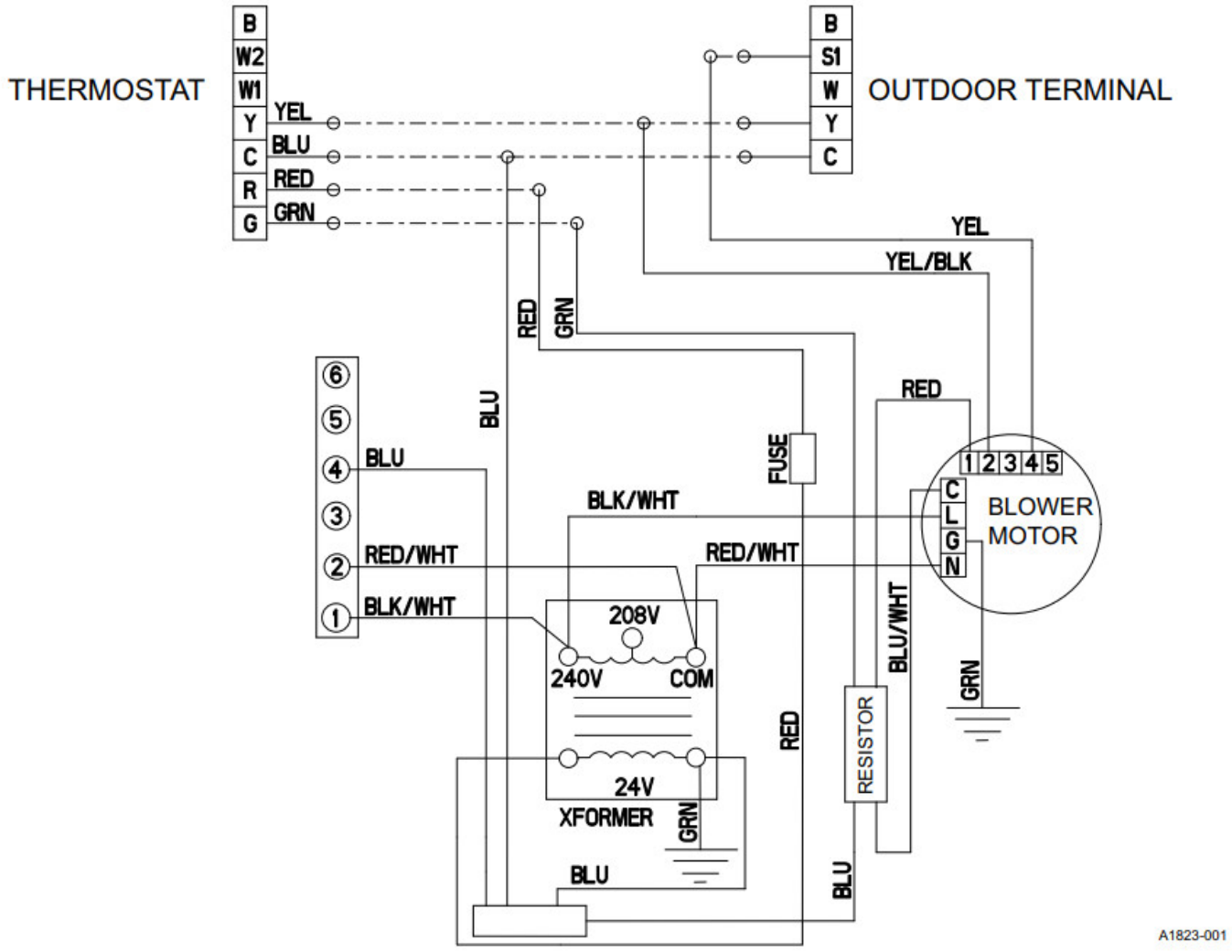

Figure 1: Wiring diagram – HMCG2 ACC STD ECM

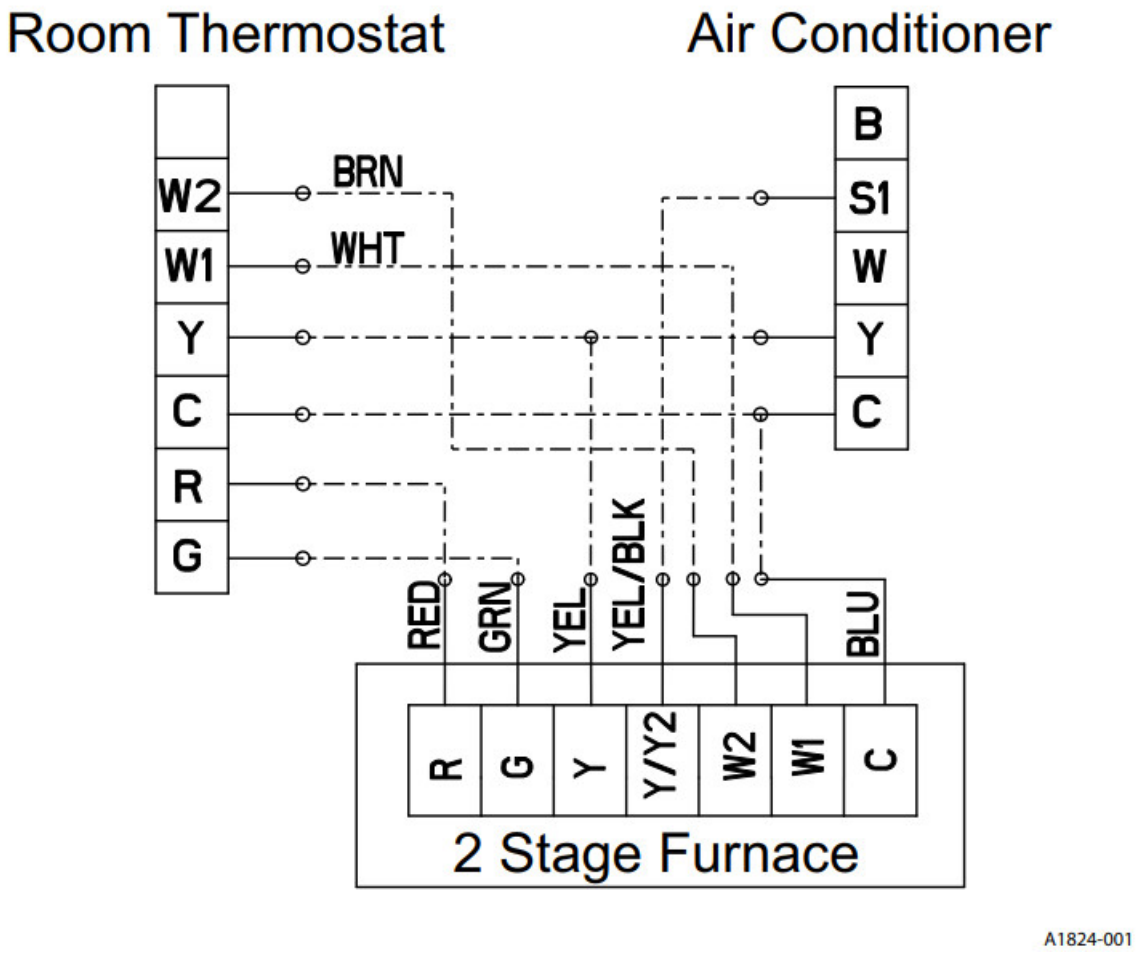

Figure 2: Wiring Diagram – HMCG2 ACC VS ECM

CAUTION

This equipment uses an inverter drive that stores hazardous energy up to 5 min after power is removed. Wait for more than 5 min before performing electrical work after power is removed.

Clearance

During installation, maintain the required clearance from walls and adjacent equipment. See Figure 3. When installing multiple units, be careful to avoid intake of discharged air from adjacent units.

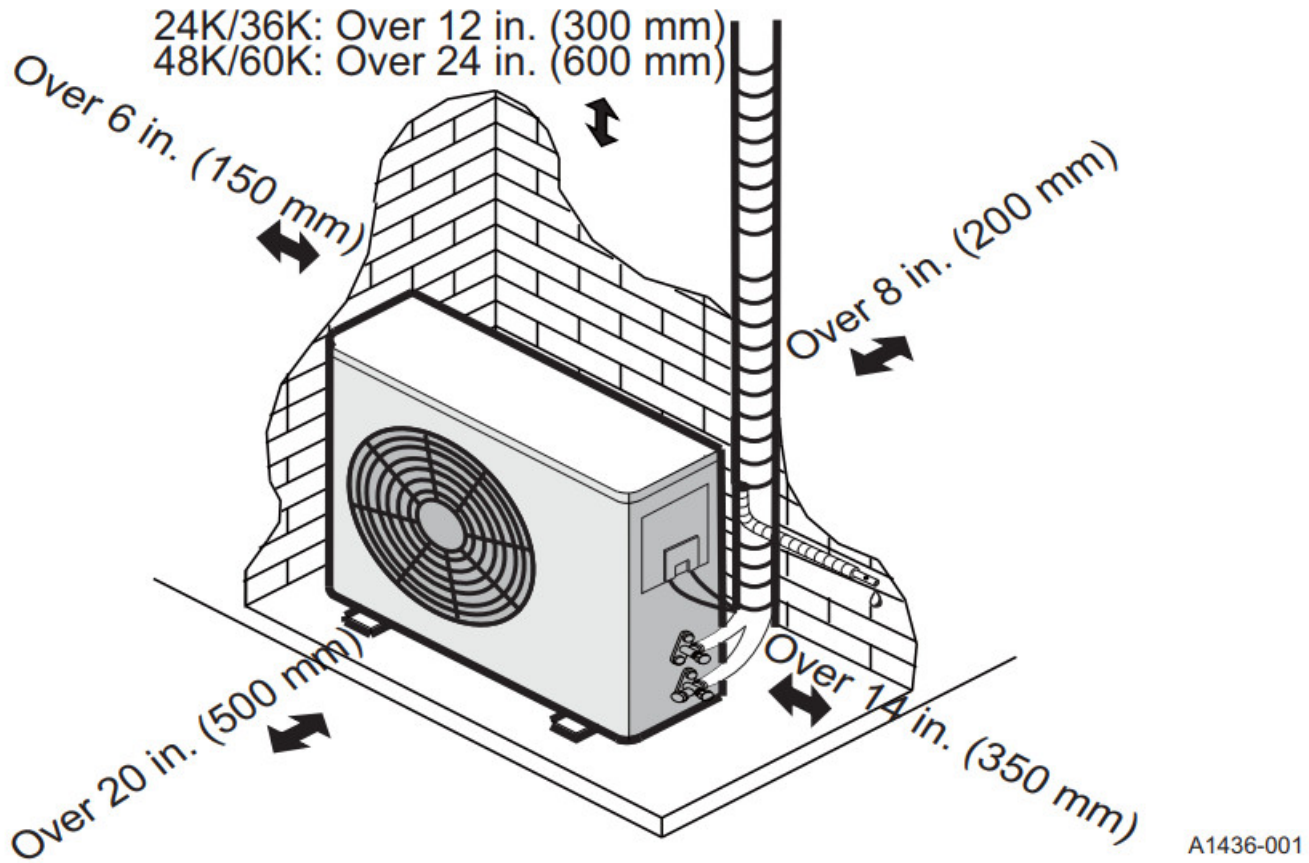

Figure 3: Minimum clearance

NOTICE

It is imperative to fasten this equipment to a sturdy base for protection against vibration, strong breeze, or earthquake. Use anchors and a base adequate to protect the unit against tipping or dislocation.

Connection and access points

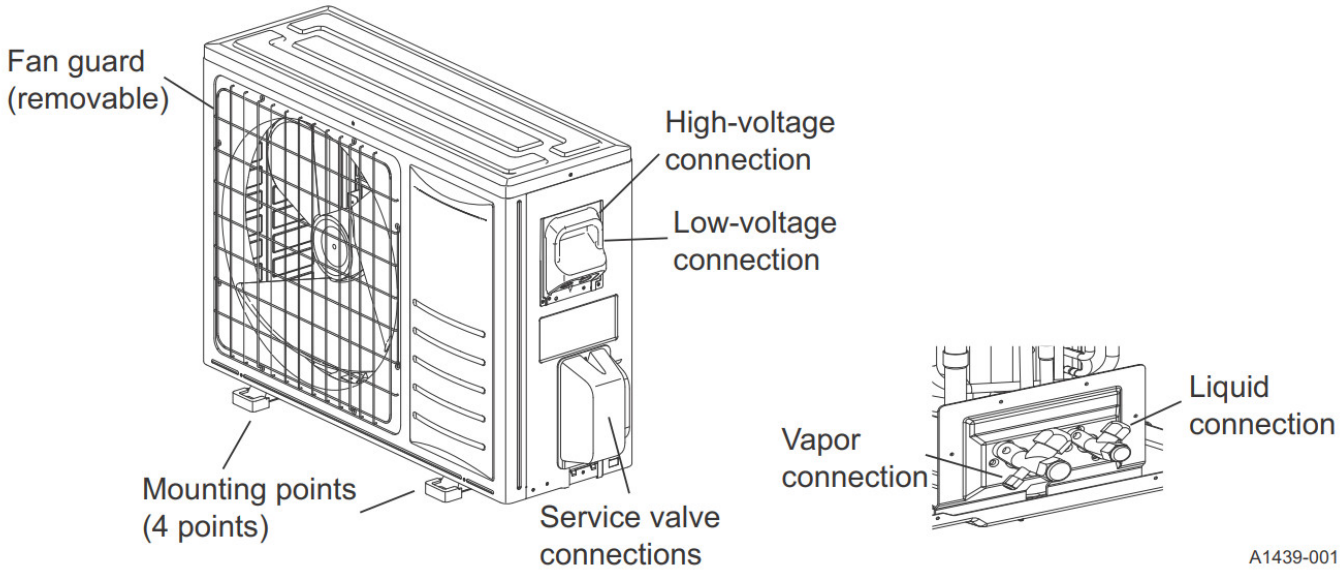

Figure 4: Connection and access points

Note: Refer to the Tabular Data Sheet provided with the unit for detailed unit dimensions.

CAUTION

The indoor coil is under inert gas pressure. Relieve pressure from the coil by depressing the Schrader core at the end of the suction manifold stub out.

Dry nitrogen must always be supplied through the tubing while it is being brazed, because the temperature required is high enough to cause oxidation of the copper unless an inert atmosphere is provided. The flow of dry nitrogen must continue until the joint has cooled. Always use a pressure regulator and safety valve to ensure that only low pressure dry nitrogen is introduced into the tubing. Only a small flow is necessary to displace air and prevent oxidation.

If a refrigerant leak is discovered after the system is charged, the system must be evacuated to repair the leak.

Attempting to braze a line under refrigerant pressure can cause the line to rupture. A rupture can propel hot solder and oil causing injury to the technician attempting to braze the line.

CAUTION

Avoid personal injury and/or equipment damage. Carefully follow the brazing, charging, and other instructions in the Installation Manual provided with the unit.

Operating limit conditions

Table 1: Minimum and maximum operating limit conditions

Air temperature	Outdoor coil °F (°C)	Indoor coil °F (°C)
	DB cool	WB cool
Minimum	50 (10)*	57 (14)
Maximum	122 (50)*	72 (22)

Note: *Refer to the notice in the Reduced capacity conditions section in the Installation Manual.

Standard refrigeration piping

The maximum allowable equivalent line length for this product is 131 ft for 2 ton and 3 ton and 164 ft for 4 ton and 5 ton. The maximum allowable vertical lineset varies depending on the vertical separation between the indoor and outdoor section. See Table 2 for allowable lineset lengths and sizing.
Table 2: Allowable vertical refrigeration piping

Model	Maximum pipe length ft (m)	Maximum height difference ft (m)	Additional refrigerant exceeding 25 ft (7.62 m) oz/ft (g/m)
HMCG22B241S	131 (40)	65.5 (20)	0.38 (11)
HMCG22B361S	131 (40)	65.5 (20)	0.38 (11)
HMCG22B481S	164 (50)	98 (30)	0.38 (11)
HMCG22B601S	164 (50)	98 (30)	0.38 (11)

Refrigeration piping

Keep the connecting pipe as short as possible to ensure optimum performance.
Table 3: Piping requirements

Model	Outdoor diameter of pipe – in. (mm)	
	Gas	Liquid
HMC G22B 241S	5/8 (15.88)	3/8 (9.52)
HMC G22B 361S	5/8 (15.88)	3/8 (9.52)
HMC G22B 481S	7/8 (19.05)	3/8 (9.52)
HMC G22B 601S	7/8 (19.05)	3/8 (9.52)

Electrical connection

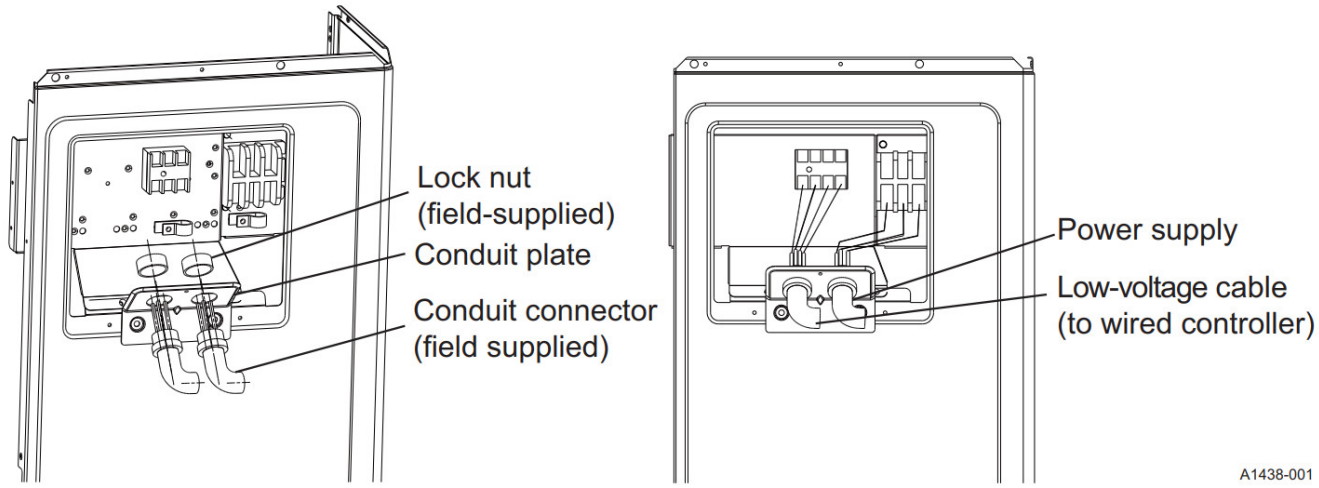

Figure 5: Electrical connection for HMCG22B24 and HMCG22B36 models

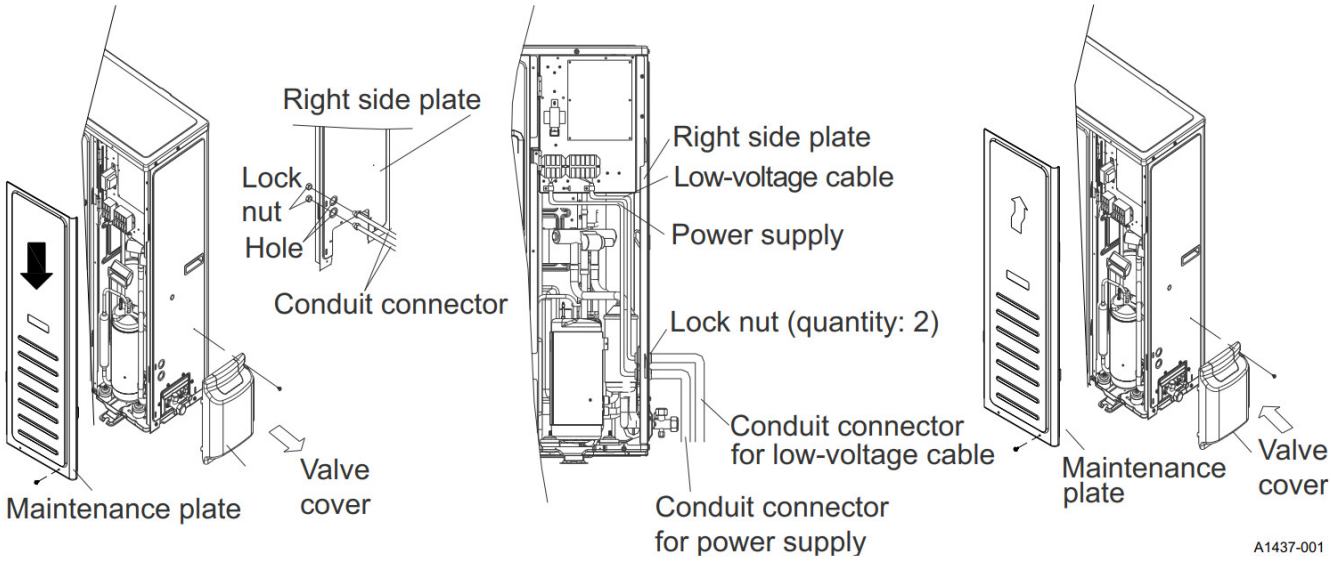

Figure 6: Electrical connection for HMCG22B48 and HMCG22B60 models

Unit charging and startup

It is important to be aware of the following:

- Correct charging of the equipment is essential for correct operation.
- The unit is pre-charged with refrigerant. Add refrigerant as appropriate for the length of the lineset. Refer to the Tabular Data Sheet for more information.
- You cannot use subcool or superheat methods to charge the unit. Recover and weigh in if you have any concerns about the unit charge.
- Perform start-up and verify operation in cooling mode. Refer to the Installation Manual and the Service Data Application Guide for instructions on manual operation.

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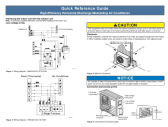
Documents / Resources

	YORK HMCG2 ACC STD ECM High-Efficiency Horizontal Discharge Modulating Air Conditioner [pdf] User Guide HMCG2 ACC STD ECM, HMCG2 ACC VS ECM, HMCG2 ACC STD ECM High-Efficiency Horizontal Discharge Modulating Air Conditioner, High-Efficiency Horizontal Discharge Modulating Air Conditioner, Horizontal Discharge Modulating Air Conditioner, Discharge Modulating Air Conditioner, Modulating Air Conditioner, Air Conditioner, Conditioner