



Evergreen® OM Outdoor Fan Motor Installation Guide

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FORM
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⚠ WARNING

WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injuries.

⚠ WARNING

- Read and follow all instructions carefully.
- Disconnect and lock out the main power from the unit being serviced before installing the Evergreen® OM motor. It is also a good practice to confirm that the power is disconnected with a voltmeter.
- Do not operate equipment without guards in place.
- Improper installation, adjustment, alteration, service, maintenance, or use could cause explosion, fire, electrical shock, or other conditions. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use the supplied or recommended parts when installing or servicing this product.
- After installing the Evergreen® OM motor, it is the responsibility of the installing technician to verify the HVAC system matches the manufacturer's requirements for proper operation, capacity, efficiency and safety.

⚠ CAUTION

- Periodic inspections should be performed. Failure to perform proper maintenance could result in premature product failure.
- Installation and service of this motor should be performed only by trained and qualified service technicians familiar with the Evergreen® OM motor and the HVAC systems into which it will be installed.

This installation guide covers Evergreen® OM models 6301, 6303 and 6303R (Remote Mount).

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Evergreen® OM Models 6301 & 6303

Mechanical Installation

Install the motor using the extended clamp-bolts or belly band mount.

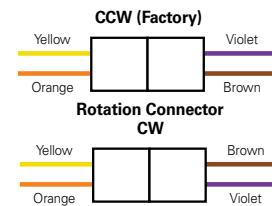
Changing Rotation

From the factory, the motor will be set up for CCW rotation, as viewed from lead end.

The Yellow wire connected thru the 2 pin connector to the Violet wire and the Orange wire connected thru the 2 pin connector to the Brown wire.

To change the rotation from CCW to CW:

- Disconnect the 2 pin connector and rotate it 180° so the Yellow wire is connected to the Brown wire thru the 2 pin connector and the Orange wire is connected to the Violet wire thru the 2 pin connector.



CAUTION: Secure all wires, including the Rotation Connector, out of the path of the fan blade before starting the motor!

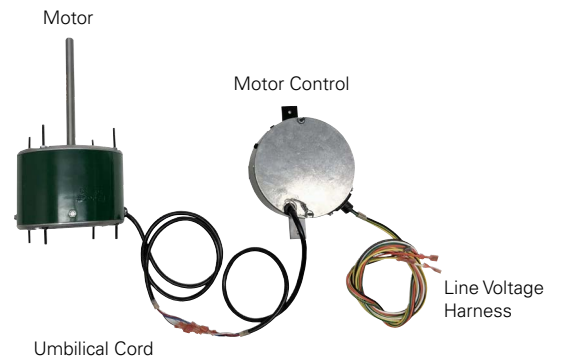
Evergreen® OM Models 6303R (Remote Mount)

Mechanical Installation

The hardware described in the mounting instructions for the motor and the motor control are located in the parts bag, in the box with the motor, with the exception of the four (4) mounting screws in the side of the motor.

There are two components to install, the motor and the motor control.

There is a break point in the umbilical cord between the motor control and the motor comprised of four quick connect terminals. These terminals can be separated to make it easier to install each component and for routing of the umbilical cord through the wiring conduit if applicable.



Evergreen® OM Models 6303R (Remote Mount)

Mechanical Installation (Continued)

This motor is approved for all angle mounting. When the motor is mounted in the vertical shaft down (VSD) or vertical shaft up (VSU) position, remove the drain hole plug on the bottom end shield. When the motor is installed in the horizontal position, rotate the motor so the motor leads exit between the 4 and 8 o'clock position and remove the lead end drain plug.

Mount the motor using one of the following methods that best matches the installation of the motor being replaced.

- Extended clamp bolts using the four (4) serrated nuts provided if needed.
- Four (4) OEM mounting holes in the end shield with four (4) thread forming screws provided.

NOTE: IF THESE SCREWS ARE NOT USED FOR MOUNTING, DO NOT INSTALL THEM.

- Four (4) OEM side mounting holes with screws installed. These screws are shipped installed in the motor.

NOTE: LEAVE THESE SCREWS IN THE MOTOR IF THEY ARE NOT USED.

- Belly band.

Mount the Motor Control

Two (2) thread forming screws are provided for mounting the motor control. Drill 1/8" holes if needed to install.

The motor control can be mounted vertically or horizontally. If mounted vertically (see example installation image to the right), mount with the harnesses facing down between the 4 and 8 o'clock position.

NOTE: The motor control should not be mounted horizontally in the bottom of the HVAC unit.

The motor control should be mounted in the airstream of the fan motor. Do not mount the motor control in a fully enclosed area. Confirm the location is within the lead length of the umbilical cord.

Route the umbilical cord from the motor to the motor control and secure if needed to ensure it does not interfere with the path of the fan blade.

Connect the umbilical cord break point for proper rotation (rotation is viewed from lead end of the motor).

CCW rotation: Red – Red / Blue – Blue / Black – Black (as shipped)

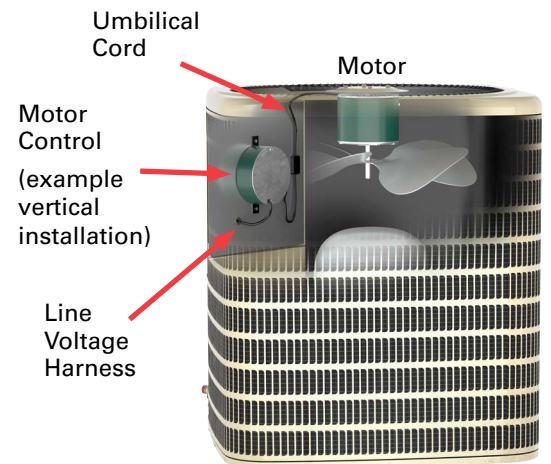
CW rotation: Red – Blue / Blue – Red / Black – Black

NOTE: MAKE SURE THE SILVER GROUND WIRE TERMINALS ARE CONNECTED TOGETHER.

NOTE: If there is adequate space to route the umbilical cord break point connection into the electrical panel, the motor can be easily reversed after the fan shroud and motor are installed. This connection point can be located outside of the electrical panel.

Route the motor control line voltage connection harness to the electrical panel.

Secure the harness if needed to ensure the wires do not interfere with the path of the fan blade.



Example Installation

**CCW Rotation
(as shipped)**
Red-Red
Blue-Blue
Black-Black
Ground-Ground

CW Rotation
Red-Blue
Blue-Red
Black-Black
Ground-Ground



Evergreen® OM Models 6301, 6303 & 6303R (Remote Mount)

Electrical Connections

A/C Applications

High Voltage POWER Connections

Step 1: Connect the Black L1 to Line Voltage L1 on the "LOAD" side of the contactor.

Step 2: Connect the White L2 to Line Voltage L2 on the "LOAD" side of the contactor.

Note: Single Pole Contactors, connect the White wire to the unswitched side.

Step 3: Connect the Green/Yellow stripe ground wire to system ground.

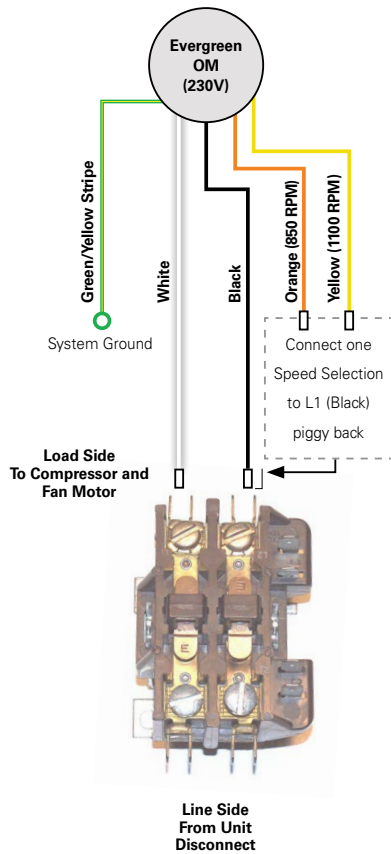
High Voltage SIGNAL Connections

Step 1: Connect required speed wire (Orange or Yellow) to the High Voltage POWER L1 piggy back terminal

A) Orange wire = 8 pole speed (850 RPM)

B) Yellow wire = 6 pole speed (1100 RPM)

Step 2: Cap off unused speed wire with wire nut and/or electrical tape



Heat Pump Applications

High Voltage POWER Connections

Step 1: Connect the Black L1 to Line Voltage L1 on the "LOAD" side of the contactor.

Step 2: Connect the White L2 to Line Voltage L2 on the "LOAD" side of the contactor.

Note: Single Pole Contactors, connect the White wire to the unswitched side.

Step 3: Connect the Green/Yellow stripe ground wire to system ground.

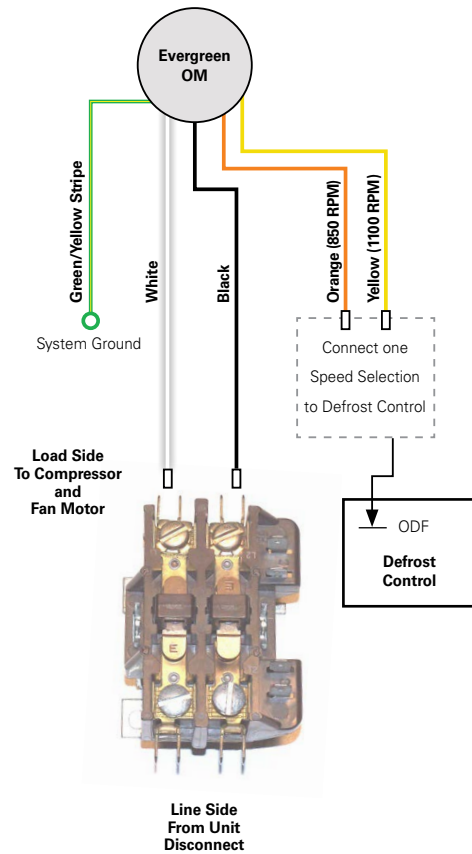
High Voltage SIGNAL Connections

Step 1: Connect required speed wire (Orange or Yellow) to the Defrost Control line voltage fan output terminal

A) Orange wire = 8 pole speed (850 RPM)

B) Yellow wire = 6 pole speed (1100 RPM)

Step 2: Cap off unused speed wire with wire nut and/or electrical tape



Evergreen® OM Models 6301, 6303 & 6303R (Remote Mount)

Specifications:

Voltage: 208-230 (allowable voltage range 196-264) VAC, single-phase input, 50-60 Hz

Horsepower:

- 1/5 HP (replaces 1/10-1/5)
- 1/3 HP (replaces 1/10-1/3)

Speeds: 2 operating speeds (Constant Speed)

- 1100 RPM (6-pole) replaces motors rated 1000-1100 RPM
- 850 RPM (8-pole) replaces motors rated 800-850 RPM

Rotation: CCW or CW by reversing plug or quick connect terminals (factory set to CCW)

- As viewed from lead end

Bearing: Permanently lubricated ball bearing

Ambient Rating: 60° C

Enclosure: Totally Enclosed Air Over (TEAO), NEMA® 48-frame

Shaft:

- 6301 & 6303 - Single, 1/2" diameter, 3" length, 2.5" single flat
- 6303R - Single, 1/2" diameter, 5.5" length, 5" single flat

Mounting:

- 6301 & 6303 - Horizontal or vertical shaft-down (VSD), belly band or extended clamp bolts.
- 6303R - All angle mount with extended clamp bolts, OEM side or rear mounting holes or belly band.

Leads: 54" length with ¼" fast on terminals, ground wire #10 eyelet

UL and CSA recognized component

Application Note:

This product is designed to replace induction motors (shaded pole or PSC) in direct-drive fan propeller applications. Do not use this motor to replace OEM ECM outdoor fan motors or belt drive motors. OEM ECM outdoor fan motors must be replaced with OEM equivalent.

The constant speed programming in this motor is what gives it the ability to replace a range of horsepower ratings with one speed selection. The speed selection provides the motor with an RPM operating point. The motor then uses only the torque (amperage) necessary to achieve this RPM operating point based on the size of the fan blade (load). To accomplish this the motor constantly monitors its operating speed RPM in real time.

Operation Note:

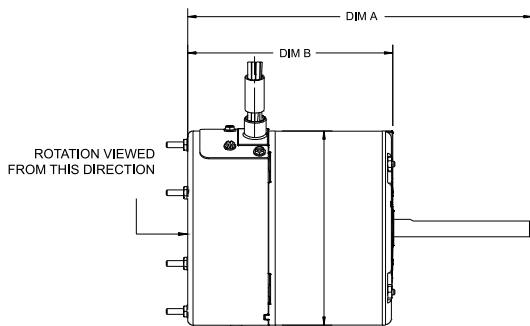
The Evergreen OM motor will delay turning on approximately 5 seconds after L1 or L2 voltage is applied to one of the speed wires, then ramp up to speed. The Orange and Yellow speed wires dictate the on/off command to the motor control.

Technical Support:

If the motor does not operate with proper Line Voltage measured between the White wire and the Black wire, AND between the White wire and the Speed Selection, it has failed and will require replacement. Before replacing the motor, please call the Contractor Hotline (1-866-503-8566) to confirm your diagnostics if possible.

We will only provide support for Evergreen products to trained and qualified service technicians familiar with the Evergreen OM motor and the HVAC systems into which it will be installed. Technical support will only be provided related to the proper operation of the Evergreen OM motor.

The Evergreen OM motor is a single component replacement. The control cannot be replaced separately from the motor. Contact the distributor where the motor was purchased or any authorized Evergreen motor distributor for replacement.



STOCK NO.	HP	VOLTS	MAX CURRENT	RPM	SHAFT	DIM A	DIM B
6301	1/5 - 1/10	208-230	2.8	850/1100	.5" x 3" (2.5" SF)	8.49"	5.45"
6303	1/3 - 1/10	208-230	3.5	850/1100	.5" x 3" (2.5" SF)	8.99"	5.95"
6303R	1/3 - 1/10	208-230	3.5	850/1100	.5" x 5.5" (5" SF)	9.79"	4.23" *

* This dimension represents the motor length from end shield to end shield excluding control.

Terms & Conditions of Sale & Limited Warranty

Sales of the products described in this Installation Manual are subject to the "Regal Beloit Terms and Conditions of Sale" current at the time of sale. They are accessible on RegalBeloit.com – <https://www.regalbeloit.com> (click "Regal Terms and Conditions of Sale").

The full Limited Warranty, including the scope and period, remedies, exclusions and disclaimers, is described in Section 10 "Limited Warranty" of the Regal Terms and Conditions of Sale and applies except as described below:

Section 10(a)(1) is replaced with the following: Seller warrants that the Products shall be delivered free from defects in material, workmanship and title. This warranty shall expire twenty-four (24) months from first use of the Product or thirty (30) months from date of manufacture of the Product, whichever occurs first.

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