507099-01
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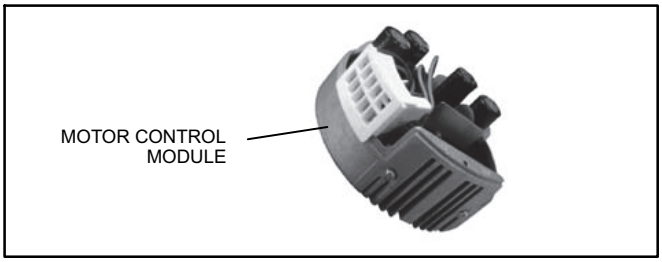
X13 BLOWER MOTOR CONTROL MODULE REPLACEMENT KIT

INSTALLATION INSTRUCTION FOR INDOOR X13 BLOWER MOTOR CONTROL MODULE REPLACEMENT KIT



⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause personal injury, loss of life, or damage to property.

Installation and service must be performed by a licensed professional installer (or equivalent) or a service agency.

⚠WARNING

Electric Shock Hazard.

Can cause injury or death.

Foil-faced insulation has conductive characteristics similar to metal. Be sure there are no electrical connections within a ½" of the insulation. If the foil-faced insulation comes in contact with electrical voltage, the foil could provide a path for current to pass through to the outer metal cabinet. While the current produced may not be enough to trip existing electrical safety devices (e.g. fuses or circuit breakers), the current can be enough to cause an electric shock hazard that could cause personal injury or death.

⚠ CAUTION

Physical contact with metal edges and corners while applying excessive force or rapid motion can result in personal injury. Be aware of, and use caution when working near these areas during installation or while servicing this equipment.

Shipping and Packing List

Package 1 of 1 contains:

1 - Replacement control module

Application

Table 1 lists the applicable catalog numbers based on motor size.

Table 1. Catalog Numbers

Motor Control Module Kit	Motor HP	Voltage	Application
10B05	1/2	120VAC	ML180UH045E36A and ML180DF045E36A
10B11	1/2		EL195UH045EX36B, EL195DF045XC36B and EL195UH070XE36B
10B16	1/2		ML180UH070E36B and ML180DF070E36B
10B18	3/4		EL195DF070EX48B
10B21	3/4		ML180UH080E48B and ML180DF090E48B
10D11	3/4		EL195UH090XE48XC and EL195DF090XE48C
10D12	1		ML180UH135E60D
10D13	1		EL195UH135E60D
10D14	1		ML180UH110E60C and ML180DF110E60C
10D15	1		ML180UH090E60C
10D16	1		EL195UH110XE60C and EL195DF110EX60C
10B31	1/2	208/230VAC	CBX27UH-018
10B32	1/2		CBX27UH-024
10B33	1/2		CBX27UH-030
10B34	1/2		CBX27UH-036
10B35	1		CBX27UH-042
10B36	1		CBX27UH-048
10B37	1		CBX27UH-060

⚠ WARNING

Wait five minutes before continuing service procedures to avoid electrical shock. This will allow internal capacitors to fully discharge

Motor Control Module Removal

1. Disconnect electrical power to unit.
2. Remove unit access panel.
3. Unplug the **two** harnesses from the motor control module.

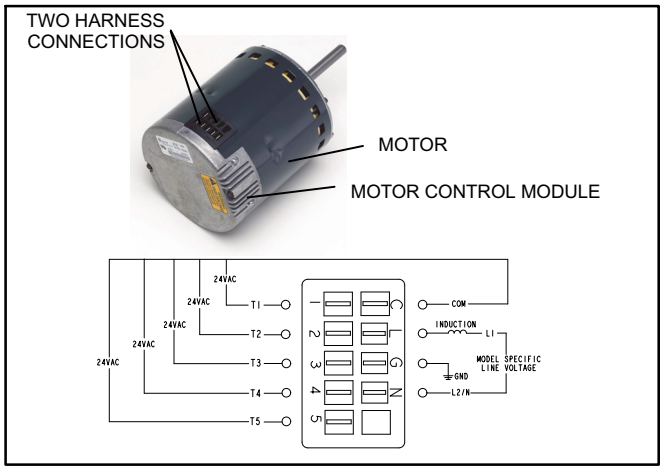


Figure 1. Indoor Blower Motor (B3) Assembly

4. Remove the two hex head bolts securing the motor control module to the motor (see figure 2).

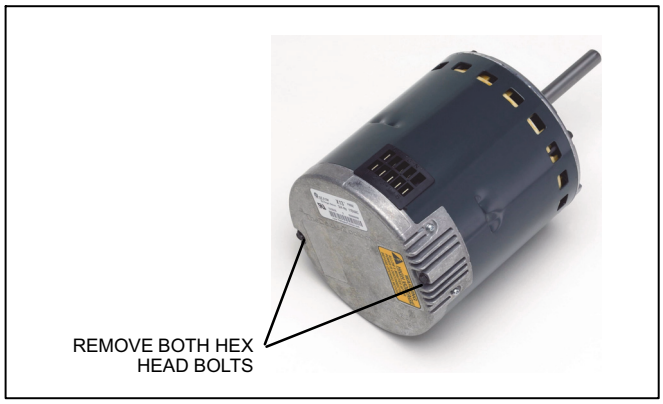


Figure 2. Motor Control Module (Rear View)

5. Slide the motor control module away from the motor to access and disconnect the internal three wire connector. It is not necessary to remove blower motor itself. Set both hex head bolts aside.

Testing Motor

If any motor fails the below tests, do not install the new control module. The motor is defective and it also must be replaced. The new control can fail if placed on a defective motor.

1. Using an ohmmeter check the resistance from any one of the motor connector pins to the aluminum end plate of the motor. This resistance should be greater than 100k ohms.
2. Check the resistances between each of the three motor connector pins. These should all read approximately the same resistance within an ohm.
3. Check to see if the blower wheel spins freely.

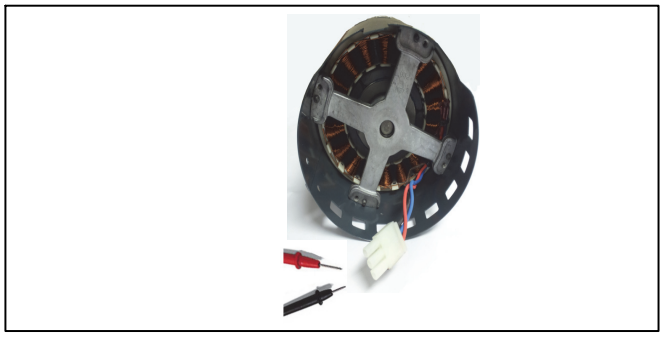


Figure 3. Motor Test

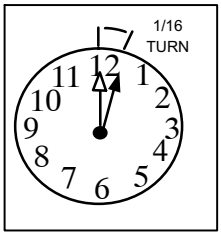
Table 2. Ohm Scale

Scale	Measurement range in words	ohms
2 M	two megohm-two million ohms	0 - 2,000,000
200 K	two hundred kilo-ohm-two hundred thousand ohms	0 - 200,000
20 K	twenty kilo-ohm-twenty thousand ohms	0 - 20,000
2 K	two kilo-ohm two-thousand ohms	0 - 2,000
200	two hundred ohms	0 - 200

Motor Control Module Installation

All replacement motor control modules look similar; however, each module is designed for a specific motor size (see table 1). It is very important to make sure that you are using the correct replacement motor control module. **USE OF THE WRONG MOTOR CONTROL MODULE MAY RESULT IN UNEXPECTED UNIT OPERATION.**

1. Verify electrical power to unit is disconnected.
2. Connect three-wire harness from motor to control module.
3. Mount new motor control module to motor using two hex head bolts removed in figure 2. Torque bolts to 22 inch pounds or 1/16th clock turn as exampled to the right.



4. Reconnect the **two** harnesses to the motor control module.
5. The electrical connectors of the motor should be facing down to form a drip loop. This will directs moisture away from the motor and its electric connections on the motor.

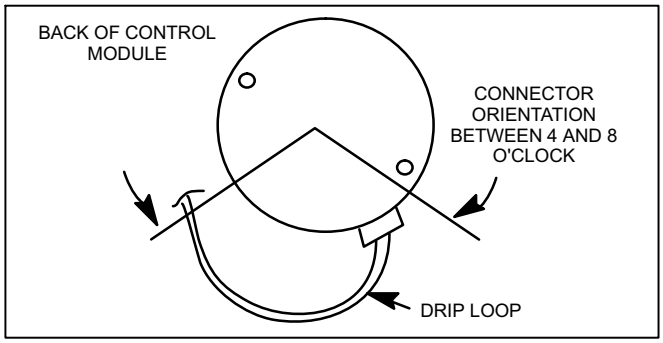


Figure 4. Drip Loop