AZURE®

Digi-Motor® 10868 / 10869

Instructions Azure® Variable Speed Replacement
MARS Motor No. 10865 / 10866 with QwikSwap® Azure® MARS No. 08506

MARS Technical Help Line: **800-678-9888**

M-F 8 am - 5 pm EST.

⚠️ **WARNING!**

To prevent electric shock, personal injury, or death, turn off the electric power at the disconnect or main service panel prior to making any electrical connections.

READ BEFORE INSTALLING

Description & Compatibility

This kit allows for the replacement of OEM variable speed motors (including communicating motors) Genteq 1.0, 2.0, 2.3, 3.0, US Motors / Nidec/ Emerson. The QwikSwap® Azure® board is for use with Azure® ECM technology that incorporates standard PSC control logic for simplicity.

The OEM motor must have a 16 pin or 4 pin control harness with a separate 5 pin power harness. If the harness in your piece of equipment DOES NOT fit the QwikSwap® Azure® board, DO NOT use the board and do not cut any wires. You most likely have an X13 / constant torque ECM motor which can be directly replaced with Azure® MARS No.10858 / 10859. The QwikSwap® Azure® board is not needed for X13 / constant torque applications.

Overview of Operation

Once the QwikSwap® Azure® board is installed in the equipment, the equipment will communicate with the board. If the QwikSwap® board does not communicate with the HVAC system OEM board, it is possible the HVAC system OEM board is damaged. The board, in turn, will communicate with the Azure® motor directing it to run at high, medium, or low speed depending on the need of the system. The thermistor from the board attaches to the evaporator coil and will detect potential freeze-up and increase the Azure® motor speed.

Instructions

Follow the QwikSwap® Azure® instruction pages that pertain to your application (16 pin / 4 pin connectors).

Follow the Azure® motor 10865 / 10866 instruction (on the backside of this page) for selecting motor speeds based on the horsepower of the application. Because the QwikSwap® Azure® board uses PSC motor control logic, selecting speeds and connecting the Azure® motor to the QwikSwap® board is very similar to selecting speeds and connecting a standard multi-speed PSC motor to a standard HVAC system control board.

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Motor Connections:

Red Jumper:	Voltage
White Jumper:	Rotation
Brown / White Plug:	For Optional Hand Held Tuner (MARS No. 08502)
White:	Neutral / L2
Green/Yellow:	Ground
Multi Color:	(5) 115V Speed / Torque Taps (Connected to QwikSwap® Azure® board)

Connection Notes:

The Azure® motor has 5 speed / torque taps. The table above offers suggested tap selections. Due to a variety of variables, these selections may need to be altered either higher or lower. Use MARS No. 08502 hand held tuner to manually adjust any of the speed / torque taps for optimum CFM flexibility. Insulate and tie off any unused taps. Do not allow taps to contact ground.

Suggested Speed Tap Connections

Motor to QwikSwap® Azure® Board

Note: Speed taps below are suggested starting points; adjust speed tap selections accordingly. For maximum adjustability and optimal performance, use the optional Azure® motor hand held programmer MARS No. 08502. This allows manual speed adjustment of each tap in fine 1% increments.

Azure® Motor MARS No. 10865 for 1/3HP Applications

Motor Speed Tap	QwikSwap® Connection
#4 Med High	High
#3 Med	Medium
#2 Med Low	Low

Azure® Motor MARS No. 10866 for 1/2HP Applications

Motor Speed Tap	QwikSwap® Connection
#5 High	High
#4 Med High	Medium
#3 Med	Low

Azure® Motor MARS No. 10866 for 3/4HP Applications

Motor Speed Tap	QwikSwap® Connection
#4 Med High	High
#3 Med	Medium
#2 Med Low	Low

Azure® Motor MARS No. 10866 for 1HP Applications

Motor Speed Tap	QwikSwap® Connection
#5 High	High
#4 Med High	Medium
#3 Med	Low

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