



It's time to get comfortable.

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DATE: December 15, 2010

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TO: All York Branch Service Managers
All York Distribution Service Managers
All Regional Managers

SUBJECT: AO Smith ECM Motor Implementation

AO Smith ECM motors are included in select model families of furnaces and air handlers. These are a direct replacement for current Regal Beloit ECM motors. Regal Beloit ECM motors are still being used in all other furnace and air handlers. See below for detail information on which models contain the AO Smith motors.

The AO Smith ECM motors are available in three different styles.

Premium Comfort – Fully Variable, Constant CFM ECM

Primarily used in variable speed models TM8V & TMLV (2 stage variable speed) starting in Oct. 2010, and in the MV modular air handler as of August 2010.

Motor performance is equivalent to the Regal Beloit 2.3 ECM. A 16 pin to 4 pin adapter is used for legacy thermostat operation. The adapter is not needed for PWM applications.



Figure 1. 16 Pin to 4 Pin Adapter

Comfort Plus PWM Controlled ECM

Used in modulating furnaces and other models with communications. Will be used in YPLC modulating ECM 80% before year end 2010.

This motor offers all the benefits of a fully variable ECM motor without the additional logic and hardware required for operation with a legacy thermostat mode.

Comfort Select 5 Speed ECM

Used in the single stage 80% gas furnaces, TM8X & TMLX,- as of November 2010..

This is a constant torque motor, and is comparable to current Regal Beloit X13 ECM motor.

Style Letter Designation Change

The style letter designation in the model numbers indicates which units contain the AO Smith motors. For MV air handlers, the style letter will be added to the model number and will show as an "A" style letter. For gas furnaces, the style letter will change from "A" to "B".

i.e. MV12BN21CA; YPLC080C16MP11B; TM8X100C16MP11B; TMLX080C16MP11B

Training material for these new motors will be included in the product specific training modules.

AO Smith has requested that any motors that fail within two years of use are returned for analysis. We are offering a two year labor allowance for AO Smith motors, controls and harness. If a motor, control or harness experiences a failure, all three components are to be replaced and returned for our inspection. A one hour labor allowance will be provided for replacement of the parts.

Please feel free to contact either of us should you have any questions.

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