ICM709
GE 2.3 ECM CONTROLLER

Replaces: EVO/ECM-4Spd
Hoffman 764-ECM Functional Replacement
(see note in wiring diagram)

SPECIFICATIONS

Power Supply: 18-30 VAC
RPM Input: 15 VDC
Thermostat Inputs (SPD1 - SPD4): 18-30 VAC
PWM & ON/OFF Outputs: 14 VDC (PWM 80Hz)

MODE OF OPERATION

The **ICM709** will control the speed of a GE 2.3 Electronically Commutated Motor (ECM). Upon receiving a thermostat call on terminations SPD1 - SPD4 the **ICM709** will output an ON signal and a PWM signal to the motor. The motor's speed will increase by 1% for every 0.5 seconds, and the final speed of the ECM corresponds to the call being made and a percentage of the call's potentiometer setting.

If multiple thermostat calls exist, the input with the higher number shall be acted upon.

If the control has power yet no SPD terminal has a thermostat call, the motor will be supplied with a speed corresponding to SET0.

SETUP and TROUBLESHOOTING

The motor will provide **RPM** feedback, illuminating the **ICM709**'s onboard LED. The rate at which this LED flashes is dependent upon the motor's programming and status.

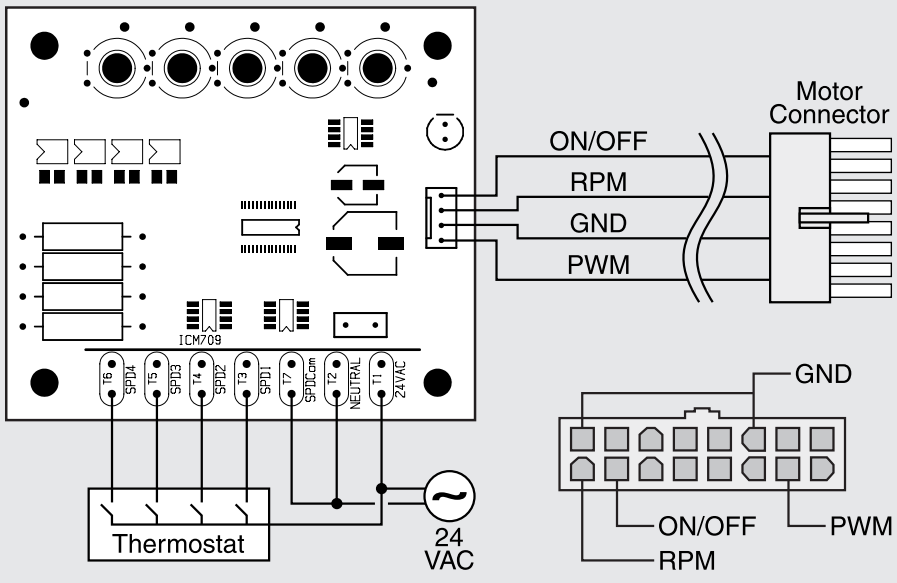
Test points allow for measuring the requested speed for each setting, between **SET#** and **Com** (DC GND).

$$\text{SPEED \%} = 100 \times \frac{\textbf{SET voltage}}{5\text{V}}$$

Setup Example	
Potentiometer Speed Setting	**SET Voltage (VDC)**
SET0 (10%)	0.50
SET1 (25%)	1.25
SET2 (50%)	2.50
SET3 (75%)	3.75
SET4 (100%)	5.00

Thermostat Call Example					ICM709 Output Example	
SPD1	**SPD2**	**SPD3**	**SPD4**		**PWM**	**ON/OFF**
●				→	25% (SET1)	ON
	●			→	50% (SET2)	ON
		●		→	75% (SET3)	ON
			●	→	100% (SET4)	ON
				→	10% (SET0)	ON
	●		●	→	100% (SET4)	ON

WIRING DIAGRAM



⁂ **Note:** For Hoffman 764-ECM 4-speed controller, the following connector changes are required: 3-640441-4 (output) and ¼" quick connect (inputs).