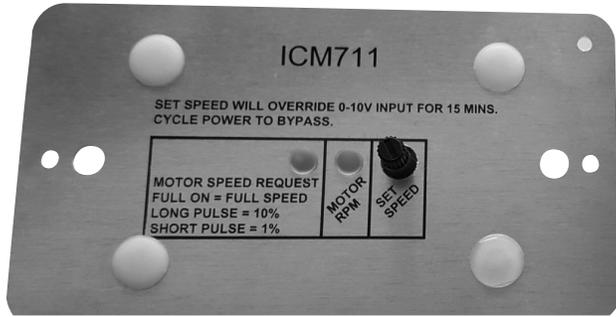




# ICM711

## GE 2.3 ECM Controller



### Installation, Operation & Application Guide

For more information on our complete range of American-made products – plus wiring diagrams, troubleshooting tips and more, visit us at [www.icmcontrols.com](http://www.icmcontrols.com)



### Replaces

EVO™/ECM-ACU+S1

### Caution

The **ICM711** should be installed by trained technicians only. Adhere to all local and national electric codes. Disconnect all power before installing.

### Specifications

#### Input:

**Power supply:** 18-30 VAC, 60 Hz

**SIGNAL & COMMON:** 0-10VDC → 0-100% PWM request

**ECM supplied feedback:** 5VDC (motor at rest or not connected)

#### Output:

**PWM supplied to ECM:** 18VDC (10mA max)

**ON/OFF supplied to ECM:** 18VDC (10mA max)

**RPM & COMMON:** 0-10VDC (5mA max) → 0 to 2000 RPM (10 RPM increments)

### Mode of Operation

The **ICM711** is used to control the speed of an Electronically Commutated Motor (ECM) by automated control systems via a 0-10v input (**SIGNAL & COMMON**), or manually via potentiometer (**SET SPEED**). The ICM711 will also provide motor speed feedback via visual LED indication (**MOTOR RPM**) as well as a 0-10v output (**RPM & COMMON**) to supply an automated control system.

**SET SPEED:** The **SET SPEED** potentiometer manually adjusts the speed of the motor.

**\*\* Note:** *This manual adjustment takes precedence over the Automation Controller **SIGNAL** for 15 minutes. To disable the manual override, cycle the control off/on.*

**SIGNAL:** The **SIGNAL** input accepts a 0-10VDC (or 2-10VDC, with P shunt in place) signal from an automated control system to control the requested speed of the ECM from 0-100%, respectively.

**RPM:** The **RPM** output shall provide 0-10VDC feedback to an automated control system based upon the motor's speed from 0-2000RPM, respectively.

**COMMON:** DC ground for the **RPM** output and **SIGNAL** input.

### User Shunt Selection

**\*\* Note:** Place the shunt in top two positions for storage, when the below options are unused.

**M** Enables **SET SPEED** potentiometer manual override (bypassed when automation **SIGNAL** exceeds 0.2VDC).

**S** Enables **SET SPEED** potentiometer reversal (used when the **set speed** potentiometer is going to be adjusted from the component side of the board).

**P** Enables hysteresis option.

**With P jumper:** Configures the **SIGNAL** input to a 2-10v range, corresponding to 0-100% motor speed request.

**Without P jumper:** Configures the **SIGNAL** input to a 0-10v range; corresponding to 0-100% motor speed request.

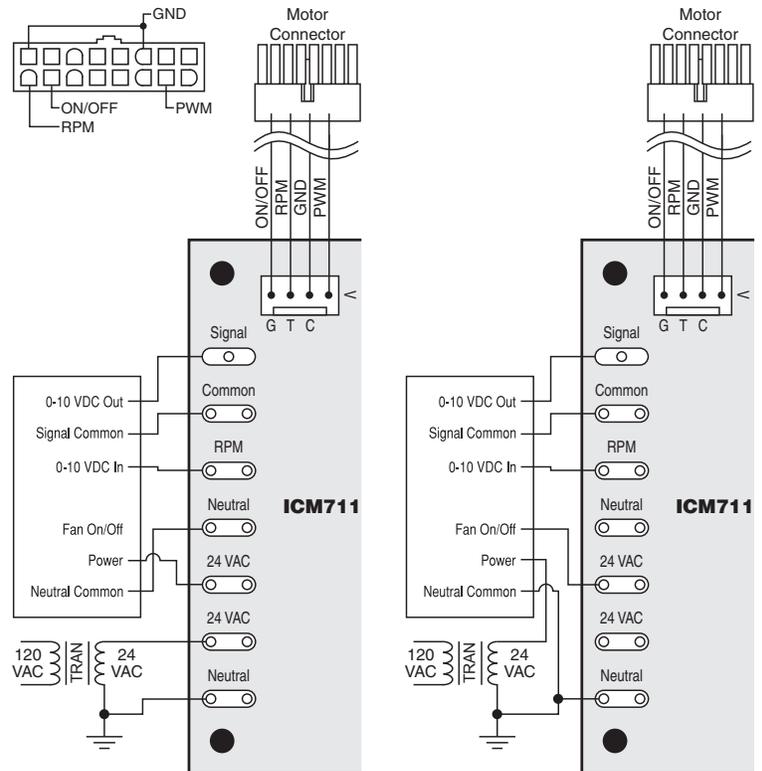
### Diagnostics (LED)

**MOTOR RPM:** Motor driven, indicates that the motor is running when lit.

**MOTOR SPEED REQUEST:** Represents the percentage of the requested motor speed being supplied to the motor. Short and long flashes are used to indicate values from 0 to 100%:

- 0% is displayed as an off LED.
- 1 to 99% are represented by a series of long flashes followed by short flashes, whereas each long flash adds 10% and each short flash adds 1%.
- 100% is displayed as a constantly on LED.

### Wiring Diagrams



Constant Power

Power Supplied by Automated Controller