

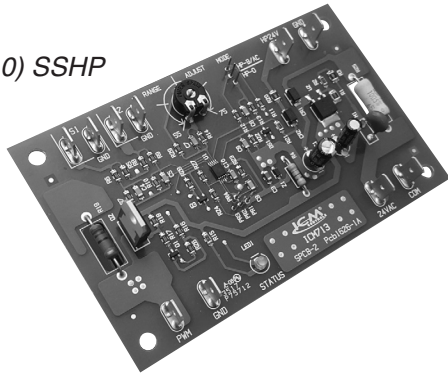


ICM713

ECM Controller

Replaces:

Hoffman: 880-ECM (10) SSHP



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



Caution

The **ICM713** should be installed by trained technicians only. Adhere to all local and national electric codes. Disconnect all power before installing.

Specifications

- **Voltage:** 18-30 VAC
- **Frequency:** 50/60 Hz
- **Output:**
 - 13.5 VDC
 - 10mA max
 - 80 Hz, 0-100%
- **Operating Temperature:** -40°F to 158°F (-40°C to 70°C)
- **Storage Temperature:** -40°F to 185°F (-40°C to 85°C)
- **Temperature Probes:** 10 KOhm (NTC, J-Curve)

Mode of Operation

When probe temperatures are more than 25°F above the range adjust setting, the PWM output is 100% and the fan motor will run full speed. When probe temperatures fall above the range adjust setting but below the range adjust setting plus 25°F, the PWM will have a variable output 4%-100% and the fan motor will be in variable speed, proportional to the temperature probe with the highest reading. When probe temperatures are below the range adjust setting, the PWM output will be 0% and the fan motor will be off.

**** Note 1:** When using 2 temperature probes; the highest temperature will be used to regulate the fan speed.

**** Note 2:** Once the fan is energized; the fan will continue to run until probe temperatures are at least 3°F below the range adjust setting.

Heat Pump Bypass

Heat pump bypass mode runs the fan at full speed when the system is operating in heat mode.

- If the **MODE** jumper is in the HP-B/AC position and 24 VAC is present at the HP24V terminal, the fan motor is brought to full speed.
- If the **MODE** jumper is in the HP-O position and 24 VAC is not present at the HP24 VAC terminal, the fan motor is brought to full speed.

**** Note:** If no jumper is present, the control is in HP-O mode.

ICM Technical Support: 800.365.5525

Output Charts

HP – B/AC Output Chart (1 Temperature Probe)

Range Adjust Set	S1 Temp	24 VAC present at HP24V	Fan Speed
55	50	No	Off
55	65	No	Variable
55	80	No	Full
55	50	Yes	Full
55	65	Yes	Full
55	80	Yes	Full
75	70	No	Off
75	90	No	Variable
75	100	No	Full
75	70	Yes	Full
75	90	Yes	Full
75	100	Yes	Full

HP – O Output Chart (1 Temperature Probe)

Range Adjust Set	S1 Temp	24 VAC present at HP24V	Fan Speed
55	50	No	Full
55	65	No	Full
55	80	No	Full
55	50	Yes	Off
55	65	Yes	Variable
55	80	Yes	Full
75	70	No	Full
75	90	No	Full
75	100	No	Full
75	70	Yes	Off
75	90	Yes	Variable
75	100	Yes	Full

Diagnostics (LED)

The LED provides a visual indication of the motor's current speed.

LED Status	Fan Speed
OFF	OFF
ON	FULL SPEED
FLASHING	VARIABLE SPEED

Wiring Diagram

