



50M56-743

**DIRECT OEM REPLACEMENT INTEGRATED  
FURNACE CONTROLS**

*Direct drop-in replacements for Carrier, Goodman, Lennox, Trane and York.*

**Features**

- Direct OEM replacements designed for high-volume major brand controls
- Models include PSC, Var. speed and ECMx motor control
- Diagnostic LED indicators streamline installation and system troubleshooting
- 120V air cleaner output and 120V humidifier output up to 1 Amp max
- Factory standard safety timings and adjustable fan delay options
- Replaceable, automotive-style fuse

**Specifications**

Low-Voltage Circuit.....	24 VAC, 50 / 60 Hz
Line-Voltage Circuit.....	120 VAC, 50 / 60 Hz
Circulator Relay: PSC .....	14.5 FLA - 25.0 LRA @ 120 VAC; 25A LRA @ 120 VAC
Circulator Relay: ECMx .....	4.0 mA RMS @ 18 VAC; 12.0 mA RMS @ 30 VAC
Operating Temperature Range .....	-40° to 175°F (-40° to 79°C)
Humidity Range .....	5% to 93% relative humidity (non-condensing)

**Direct OEM Replacement Integrated Furnace Controls**

FAMILY BRANDS OF EQUIPMENT	STAGES	IGNITION TYPE	IGNITOR VOLTAGE	INDUCER MOTOR / BLOWER MOTOR	BLOWER MOTOR SPEED TAPS	THERMOSTAT INPUTS	INCLUDES IGNITOR OR ELECTRODE	TWINNING	INCLUDES WIRING ACCESSORIES	COMM SYSTEM	CONTROL MOUNTING	MODEL NUMBER	ITEM NUMBER
Carrier	Single Stage	HSI	120 VAC	PSC/PSC	Heat, Cool, Fan	R, C, W, Y/Y2, Y1, G, DEHUM	—	√	√	—	Cover	50M56U-751	50M56U-751
Carrier	Single Stage	HSI	120 VAC	PSC/PSC	Heat, Cool, Fan	R, C, W, Y, G, DEHUM	—	√	√	—	Flush Mount	50M56D-751	50M56D-751
Carrier	Two-Stage	HSI	120 VAC	PSC/PSC, Var. speed/ECMx	Lo Heat, Hi Heat, Cool	R, COM 24 VAC, W/W1, W2, Y1, Y/Y2, G, DHUM	—	√	√	—	Tray	21V51D-751	21V51D-751
Goodman	Single Stage	HSI	120 VAC	PSC/PSC	Heat, Cool	R, C, W, Y, G	—	√	—	—	Standoff	50A55-743	50A55-743
Goodman	Single Stage	HSI	120 VAC	PSC/PSC	Heat, Cool	R, G, W	—	√	√	—	Standoff	50T35-743	50T35-743
Goodman	Single/Two Stage	HSI	120 VAC	PSC/PSC	Lo Heat, Hi Heat, Cool	R, C, W, Y, G	—	—	√	—	Standoff	50M56-743	50M56-743
Goodman	Single Stage	HSI	120 VAC	PSC/PSC	Heat, Cool	R, C, W, Y, G	—	√	—	—	Standoff	50M56-707	50M56-707
Goodman	Two-Stage	HSI	120 VAC	Var. speed/Var. speed	4-wire Interface	1, 2, R, C, W1, W2, Y1, Y2, G, O DHUM	—	√	—	√	Standoff	50C51-707	50C51-707
Goodman	Two-Stage	HSI	120 VAC	ECMx	6-wire Interface	R, C, W1, W2, YLO, Y, G	—	√	√	—	Standoff	50M58-707	50M58-707
Lennox*	Single Stage	HSI	80 VAC only	PSC/PSC	Heat, Cool, Fan	R, C, W, Y, G	—	—	√	—	Standoff/steel mounting BRKT (INCL)	21D83M-843	21D83M-843
Lennox	Single Stage	HSI	120 VAC	PSC/PSC	Heat, Cool, Fan	R, C, W, Y, G	—	—	√	—	Standoff	50M56U-801	50M56U-801
Lennox*	Single Stage	HSI	80 VAC only	PSC/PSC	Heat, Cool, Fan	R, C, W, Y, G	—	—	—	—	Standoff	50A66-743	50A66-743
Trane*	Single Stage	HSI	120 VAC	PSC/PSC	Heat, Cool	R, C, W, Y, G	—	—	—	—	Standoff	50A55-3797	50A55-3797
Trane*	Single Stage	HSI	80 VAC only	PSC/PSC	Heat, Cool	R, C, W, Y, G	—	√	—	—	Standoff	50A65-5165	50A65-5165
Trane	Two-Stage	HSI	120 VAC**	Var. speed/Var. speed	16-pin Interface	R, B/C W1, W2, Y, YLO, G, O, BK	√	√	√	—	Standoff	50V54-820	50V54-820
York	Single Stage	HSI	120 VAC	PSC/PSC	Heat, Lo Cool, Hi Cool	R, C, W, Y1, Y/Y2, G	—	√	—	—	Standoff/steel mounting BRKT (INCL)	50A56-956	50A56-956
York	Two-Stage	HSI	120 VAC	ECMx	Lo Heat, Hi Heat, Lo Cool, Hi Cool	R, C, WW1, W2, Y1, Y/Y2, G	—	√	√	—	Standoff	50M58-956	50M58-956

\* Replaces White-Rodgers OEM Models.

\*\* On 80 VAC applications use supplied 21D64-2 Universal Ignitor.