

# Single Stage HSI Integrated Furnace Control Kit

# Universal 50M56U-843

### Replaces:

Virtually All White-Rodgers and Competitive Single Stage Carbide and Nitride HSI Systems – Including Carrier HK42FZ004, HK42FZ007, HK42FZ008, HK42FZ009, HK42FZ011 and HK42FZ016.

## Specifications

### Electrical Rating [ @ 77°F (25°C) ]

Input Voltage: 25 VAC 50/60 Hz  
Max. Input Current @ 25 VAC: 0.45 amp  
Relay Load Ratings

Valve Relay: 1.5 amp @ 25 VAC 50/60 Hz 0.6 pf  
Ignitor Relay: 6.0 amp @ 120 VAC 50/60 Hz (resistive)  
Inducer Relay: 2.2 FLA–3.5 LRA @ 120 VAC  
Circulator Relay: 14.5 FLA–25.0 LRA @ 120 VAC

### Flame Current Requirements

Minimum current to insure flame detection: 1 µA DC\*  
Maximum current for non-detection: 0.1 µA DC\*  
Maximum allowable leakage resistance: 100 M ohms  
\*Measured with a DC microammeter in the flame probe lead

### Operating Temperature Range

-40° to 176°F (-40° to 80°C)

### Mounting

Surface mount multipoise

### Timing Specifications ( @ 60 Hz )

	Maximum
Flame Establishing Time:	0.8 sec
Flame Failure Response Time:	2.0 sec

Gases Approved: Natural, Manufactured, Mixed, Liquefied Petroleum, and LP Gas-Air Mixtures are all approved for use.

### Relay Load Rating

Main Valve Relay: 1.5 amp @ 25 VAC 60 Hz

### Hot Surface Ignition

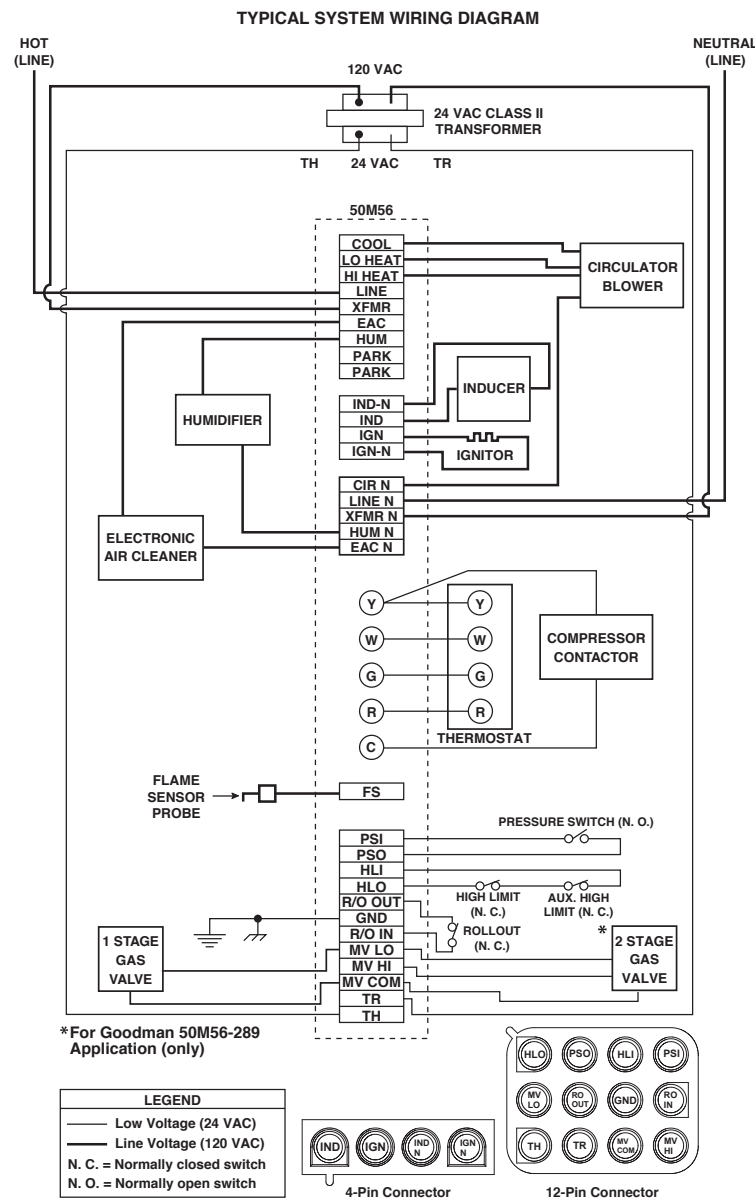
120 VAC

### Dimensions

5.25" W x 7" H x 1.25" D

### For Additional Information

Visit [www.white-rodders.com](http://www.white-rodders.com)



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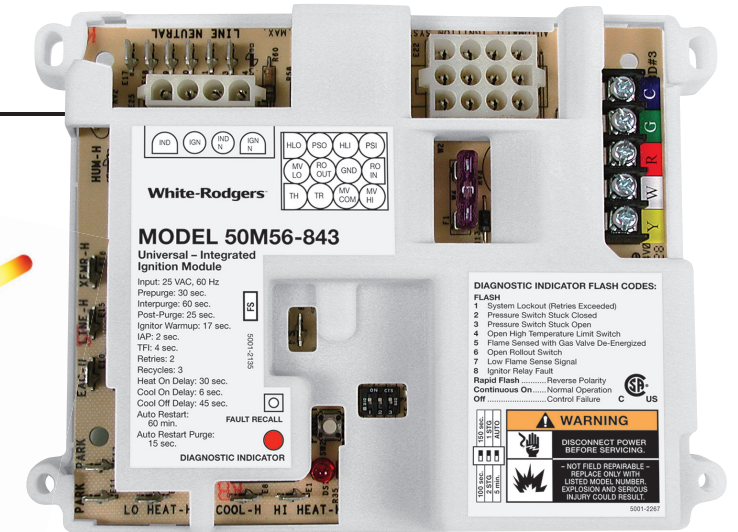
## 50M56U-843

### Replaces:

Virtually All White-Rodgers and Competitive Single Stage Carbide and Nitride HSI Systems – Including Carrier Systems.\*



INCLUDED  
HotRod™ Universal  
Ignitor Kit – 21D64-2



Universal Integrated Furnace Module – 50M56-843



# Simplify Your Inventory

Go with the leader, and stock one kit that replaces them all!

### \*Replaces:

- More OEM Boards Than Competitive Models Because 50M56U-843 Can Be Used on Both 80V and 120V Ignitor Applications
- Carrier HK42FZ004, HK42FZ007, HK42FZ008, HK42FZ009, HK42FZ011 and HK42FZ016

### Fast-Install Kit – includes everything you need for quick and accurate replacement:

- Ignition Control Module – 50M56-843
- 12 Quick-Select/Quick-Connect Wiring Harnesses
- HotRod™ Universal Ignitor Kit – 21D64-2
- Installation Instructions and OEM Cross-Reference

### Features:

- 3 Fan Speeds – Cool, Low Heat & High Heat Speeds (Terminal Connections)
- Color-Coded (Labeled) Thermostat Connection – For Quick Helpful Selection
- System Diagnostics, with Fault Recall (Stored)
- Cover Label – Displays Diagnostic Table
- Red LED Light – Used for Diagnostic Flash Codes
- Low Voltage – Fuse Protection – 3A Replaceable Automotive Type
- Humidifier & Electronic Air Cleaner Connections (Optional)

# 50M56U-843 Kit Cross-Reference and Harness Application Data

**Replaces:** Virtually All White-Rodgers and Competitive Single Stage Carbide and Nitride HSI Systems – Including Carrier HK42FZ004, HK42FZ007, HK42FZ008, HK42FZ009, HK42FZ011 and HK42FZ016.

Module Model #	Harness	Ignitor	Furnace OEM
031-00662	F	Use existing or 21D64-2	Coleman/Evcon/Luxaire/York
031-00662-000	F		
031-00662-700	F		
031-01250-000	F		
031-01250-700	F		
031-01266-000	F		
031-01266-700	F		
031-01284-000	F		
031-09166-000	F		
031-09167-000	F		
100925-02	F	21D64-2	Lennox
100925-03	F		
1010806	E & F	Use existing or 21D64-2	Heil Quaker/ICP/ Thermo Products/Whirlpool
1012-83-9336AHSC1	A & C	21D64-2	United Technologies
1012-83-9337A	A & C		
1012-925A	B & D		
1012-925B	B & D		
1012-925C	B & D		
1012933D	A & C		
1012-933D	A & C		
10207701	F	Use existing or 21D64-2	Amana/Goodman
102077-02	E & F		
102077-03	E & F		
10207704	E & F		
102077-04	E & F		
10207706	E & F		
102077-09	E & F		
10207710	E & F		
10207714	E & F		
10207717	F	21D64-2	
10207718	E & F	Use existing or 21D64-2	
10207719	E & F		
10207720	F	21D64-2	
10207720S	F		
10M93	F		Lennox
10M9301	F		
12L6901	F		
1214201	F	Use existing or 21D64-2	
1380686	F		International Comfort Products
1380698	F		
1380699	F		
265901	F		Coleman/Evcon/Luxaire/York
265902	F		
3101250000	F		
031-01973-000	F		
32M8801	F	21D64-2	Lennox
331-01933-000	F	Use existing or 21D64-2	Coleman/Evcon/Luxaire/York
331-01972-000	F		
331-09167-000	F		
350486	F		Thermo Products
350836	F	21D64-2	
41F-5	A & C		Texas Instruments
50A50-110	F	Use existing or 21D64-2	Heil Quaker/ICP
50A50-111	F		Synder General
50A50-112	F		Heil Quaker/ICP
50A50-113	F		American Standard/Trane
50A50-130	F		Heil Quaker/ICP
50A50-131	F		
50A50-142	F		
50A50-143	F		American Standard/Trane
50A50-205	F		Amana/Goodman
50A50-206	F		
50A50-207	E & F		
50A50-208	F		Coleman/Evcon/Luxaire/York
50A50-209	F		

Module Model #	Harness	Ignitor	Furnace OEM
50A50-210	F	Use existing or 21D64-2	Armstrong/Heil Quaker
50A50-215	F		Clare Brothers-Canada
50A50-216	F		DMO Industries
50A50-229	F		Coleman/Evcon/Luxaire/York
50A50-230	F		
50A50-240	F		
50A50-241	F		
50A50-245	F		White-Rodgers Standard
50A50-285	E & F		
50A50-286	F		
50A50-288	E & F		Amana/Goodman
50A50-295	F		American Standard/Trane
50A50-296	F		
50A50-298	E & F		Amana/Goodman
50A50-405	F		American Standard/Trane
50A50-406	F		
50A50-407	F		White-Rodgers Standard
50A50-408	F		American Standard/Trane
50A50-438	F		White-Rodgers Standard
50A50-471	F		American Standard/Trane
50A50-472	F		
50A50-473	F		
50A50-474	F		
50A50-475	F		
50A55-143	F		Canadian Market
50A55-241	F		American Standard/Trane
50A55-245	F		Thermo Products/Heil Quaker/ ICP/Whirlpool
50A55-250	F		Coleman/Evcon/Luxaire/York
50A55-285	E & F		Canadian Market
50A55-286	F		Fedders
50A55-288	E & F		White-Rodgers Standard
50A55-289	E & F		
50A55-438	F		Amana/Goodman
50A55-474	F		Heil Quaker/ICP/Whirlpool/ White-Rodgers Standard
50A55-476	F		American Standard/Trane
50A55-480	F		
50A55-486	F		
50A55-571	F		Lennox/White-Rodgers Standard
50A55-843	F		Coleman/Evcon/Luxaire/York
50A56-242	F		
50A56-243	F		
50A65-120	F	21D64-2	Lennox
50A65-121	F		
50A65-143	F		Thermo Products
50A65-288	F		Amana/Goodman
50A65-289	F		
50A65-474	F		American Standard/Trane
50A65-475	F		
50A65-476	F		
50A65-843	F		White-Rodgers Standard
50A66-123	F		Lennox
50M56-289	E	Use existing or 21D64-2	Amana/Goodman
50M56-843		50M56U-843 Replacement Kit	
50T35-730	A, C & G	Use existing or 21D64-2	Amana/Goodman
50T35-743	A, C & G		American Standard/Trane/ White-Rodgers Standard
50T55-288	E & F		Amana/Goodman
50T55-289	E & F		
52537074000	F		Coleman/Evcon/Luxaire/York
52537077000	F		
56L84	F	21D64-2	Lennox
56L8401	F		
61F3	F		Texas Instruments

# 50M56U-843 Kit Cross-Reference and Harness Application Data

(continued)

Module Model #	Harness	Ignitor	Furnace OEM
62-22694-xx	B & D	Use existing or 21D64-2	Rheem/RUUD*
62-22732-xx	B & D		
62-24044-xx	B & D		
62-24045-01	B & D		
62-24046-01	B & D		
62-24084-82	B & D		
62-24268-01	B & D		
62-24268-02	B & D		
62-24268-03	B & D		
624557	B, H & I		Nordyne
6245570	B, H & I	21D64-2	
624564	B, H & I		
6245640	B, H & I	Use existing or 21D64-2	
624591	B, H & I	21D64-2	
624591-x	B, H & I	Use existing or 21D64-2	
624628	B, H & I	21D64-2	
624628-0	B, H & I		
6246310	B, H & I		
624631-0	B, H & I		
624631A	B, H & I	Use existing or 21D64-2	
695-200	B & D		Rheem
69M0801	F	21D64-2	Lennox
6DT-1	F		Texas Instruments
6DT-2	F		
710128A	B, H & I		Nordyne
8068142	F	Use existing or 21D64-2	Whirlpool
8068561	F		
8068563	F		
902378	B, H & I		Nordyne
902696	B, H & I	21D64-2	
903106	B, H & I	Use existing or 21D64-2	
99958174	F		Whirlpool
99958175	F		
B18099265	E & F		Amana/Goodman
D330927P01	F		Trane
D330930P01	F		
D330934P01	F		
D340035P01	F		
D340774P01	F		
D341213P01	F	21D64-2	
D341396P01	F		
G951ADB1401	F		Coleman/Evcon/Lennox/ Luxaire/York
G951ADB1401C	F		
G951ADB-1401C	F		
G951ADB1402	F		
G951ADB-1402	F		
G951ADB-1403	F		
G951AEB-1403	F	Use existing or 21D64-2	Coleman/Evcon/Luxaire/York
HK42FZ004, HK42FZ007, HK42FZ008, HK42FZ009, HK42FZ011 or HK42FZ016	K & L	21D64-2	Bryant/Carrier/ Day & Night/Payne†
HK42FZ013‡		No Replacement‡	
ICM280	A & C	21D64-2	ICM
P031-01267-001	F	Use existing or 21D64-2	Coleman/Evcon/Luxaire/York
X4459	F		Lennox
X445901	F		

**Notes:**

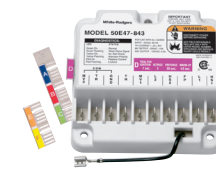
OEM furnace models abbreviated to shorten the length. Reference the control board P/N for proper replacement.  
 \* If existing furnace circuit board has 2 green lights and NO amber light (furnace date code 3294 or earlier), an additional Flame Sensor Kit (Rheem Part 62-24044-71) may be required.  
 † 50M56U-843 will not replace HK42FZ013 or control boards with an 11-pin bar connector.  
 ‡ N/A = Not Available

**Important: 21D64-2 Ignitor Note –**  
 In these applications, the existing 80V ignitor must be replaced by the 120V 21D64-2 ignitor.

## See our other Universal Replacement Ignition Modules:

### Hot Surface Ignition Modules

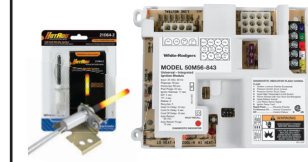
Non-Integrated Module for Silicon Carbide Ignitor 50E47-843



Integrated Module for Nitride Ignitor 50A65-843



Universal Single Stage HSI Integrated Furnace Control Kit 50M56U-843



Universal Two-Stage HSI Integrated 3-Speed (PSC) Circulator Furnace Control Kit 21M51U-843

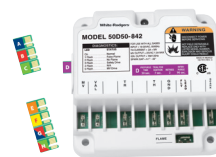


Universal Two-Stage HSI Integrated Variable Speed (ECM) Circulator Furnace Control Kit 21V51U-843



### Spark Ignition Modules

Direct Spark Ignition Module 50D50-842



Intermittent Spark Pilot Module 50D50-843

