



**21M51U-843 Kit**

Includes:

- Module
- Ignitor Kit



**21M51U-843 KIT REPLACES:**

White-Rodgers 50M51-242 and 50M61-XXX's Two-Stage HSI Systems with 80V or 120V Ignitors.

**FEATURES**

- 120 VAC 3-speed PSC (Permanent Split Capacitor) circulator output, two-speed inducer output, 2-stage gas valve output.
- Pushbutton fault history retrieval.
- Furnace status LED – tri-color (green, red and amber).
- Heat fan off delay (dipswitch selectable), fan on delay for cooling.
- Auto second stage delay (dipswitch selectable).
- 120 VAC humidifier output/120 VAC electronic air cleaner output.

**SPECIFICATIONS**

Electrical Rating:  
 Input Voltage . . . . . 24 VAC, 60 Hz (Class II transformer required)  
 Nom. Input Current @ 24 VAC . . . . . 530 mA + MV  
 Relay Load Ratings:  
 Gas Valve Relays . . . . . 1.5 amps @ 24 VAC, 60 Hz  
 Inducer Relays . . . . . 2.2 FLA – 3.5 LRA @ 120 VAC  
 Circulator Relays . . . . . 14.5 FLA – 25.0 LRA @ 120 VAC  
 Humidifier Load . . . . . 1.0 amp max. @ 120 VAC  
 Electronic Air Cleaner Load . . . . . 1.0 amp max. @ 120 VAC  
 Ignitor Relay . . . . . 4.0 amps max. @ 132 VAC, 60 Hz  
 Flame Current Requirements:  
 Minimum current to insure flame detection . . . . . 0.3 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 175°F (-40 to 80°C)  
 Humidity Range . . . . . 5% to 93% relative humidity (non-condensing)  
 Flame Failure Response Time . . . . . 2.0 sec. max. @ 60Hz

**TECHNICAL HELP**

Wiring Diagram/Operation . . . . . See pages 178-188

Model Number	Pre-Purge	Ignitor Warm-Up	Retries	Heat Delay to Fan ON	Heat Delay to Fan OFF	Cool Delay to Fan ON	Cool Delay to Fan OFF	Automatic Reset Time
21M51U-843	15	17	2	45	90/120/150/180	5	60	60 minutes

21M51U-843 Cross Reference Application Data					
Module Model Number	Furnace Model	Ignitor	Furnace OEM		
18M3401	G60DF(X) or G60UH(X)	21D64-2*	Lennox		
20300001	N/A		Goodman		
20300003	N/A				
46M9901	G61MP		Lennox		
50M51-242	FC9T	Use existing or 21D64-2	Coleman/Evcon/Luxaire/York		
50M51-242	FL9T				
50M51-242	PT9A				
50M51-242	PT9B				
50M51-242	PT9C				
50M51-242	PT9D				
50M51-242	GM9T				
50M51-242	FC8T				
50M51-242	FL8T				
50M51-242	LC8T				
50M51-242	LL8T				
50M51-242	PT8A				
50M61-120	G61MPV			21D64-2*	Lennox
50M61-288	N/A				Amana/Goodman
50M61-289	N/A				
50M61-480	50M61-480	White-Rodgers Standard			
50M61-495	XL80	American Standard/Trane			
50M61-843	N/A	White-Rodgers Standard			
83L9301	N/A	Lennox			
CNT03077	XL80	Trane			
X13650839010	XL80				

**Note:** Installer may have to modify existing ignitor hole to accommodate the new 21D64-2, with ceramic diameter (.394").

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