



**21V51U-843 UNIVERSAL INTEGRATED
HSI FURNACE CONTROL KIT**

Replaces White-Rodgers 50V51-XXX's and 50V61-XXX's
Two-Stage HSI Systems with 80V or 120V Ignitors

FEATURES

- 16-pin variable speed circulator output for ECM (Electronically Commutated Motor), dipswitch selectable for OEM applications two-speed inducer output, two-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 595 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
 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

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- Includes:
- Module
 - HotRod Ignitor Kit
 - Wiring Harness



TECHNICAL HELP

Wiring Diagram/Operation See pages 181–182

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
21V51U-843	15	17	2	45	90/120/150/180	5	60	60 minutes

CROSS REFERENCE

21V51U-843 Replaces:

18M9901	21V51U-843	50V51-507	21V51U-843	CNT 04018	21V51U-843
20300002	21V51U-843	50V61-120	21V51U-843	CNT 04352	21V51U-843
20300004	21V51U-843	50V61-143	21V51U-843	CNT03078	21V51U-843
20300006	21V51U-843	50V61-288	21V51U-843	D156245P01	21V51U-843
20300006S	21V51U-843	50V61-289	21V51U-843	D34142P01	21V51U-843
21V51U-843	21V51U-843	50V61-480	21V51U-843	PCB00106	21V51U-843
49M5901	21V51U-843	50V61-486	21V51U-843	PCB00106S	21V51U-843
50V51-243	21V51U-843	50V61-507	21V51U-843	PCBBF106	21V51U-843
50V51-288	21V51U-843	B1809925	21V51U-843	PCBBF106S	21V51U-843
50V51-289	21V51U-843	B1809927	21V51U-843	PCBBF107S	21V51U-843
50V51-290	21V51U-843	B1809927S	21V51U-843	X13650840010	21V51U-843