Universal Single Stage Furnace Control for PSC Blower Motors

50M56U-843

Replaces over 400 single stage HSI controls with 80V or 120V ignitors

Universal Replacement Kit
Ignition control 50M56-843
Quick-connect wiring harnesses
HotRod™ Universal Ignitor Kit 21D64-2
Installation instructions and OEM cross reference

Easy Installation
Mounting design fits all OEM models
Simple Rollout jumper
75% of all applications install without adapter harnesses
24V or 120V humidifier

Advanced Diagnostics
Simple pushbutton fault recall
Tri-Color LED & status codes
Flame current test pins
Fault code label on control

Included
HotRod™ Universal Ignitor Kit 21D64-2

For ECMx blower motors use 50X57-843
Universal Single Stage Furnace Control for PSC Blower Motors

50M56U-843 Replaces over 400 single stage HSI controls with 80V or 120V ignitors

**COMPETITIVE COMPARISON**

Choose White-Rodgers for maximum cross reference and ease of installation

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>WHITE-RODGERS</th>
<th>BRAND X</th>
</tr>
</thead>
<tbody>
<tr>
<td>For single stage &amp; psc blower</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cross references</td>
<td>400</td>
<td>200</td>
</tr>
<tr>
<td>Ignitor voltage serviced</td>
<td>80V &amp; 120V</td>
<td>120V</td>
</tr>
<tr>
<td>Blower delay dipswitches</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Tri-color LED displays</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rollout accessory</td>
<td>Easy jumper</td>
<td>Wire</td>
</tr>
<tr>
<td>Flame test pins/pads</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Full cover</td>
<td>✓</td>
<td>Tray</td>
</tr>
<tr>
<td>Fault code label</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Fault recall &amp; clearing</td>
<td>Simple pushbutton</td>
<td>Jumper R &amp; D terminals</td>
</tr>
<tr>
<td>Electronic air cleaner output</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Humidifier output</td>
<td>24V or 120V</td>
<td>120V</td>
</tr>
<tr>
<td>Fuse, twinning, test mode</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

**SPECIFICATIONS:**

**Electrical Rating [@ 77°F (25°C)]**

Input Voltage: 25 VAC 50/60 Hz
Max Input Current: 0.45 amp @ 25 VAC

**Flame Current Requirements**

Minimum current to insure flame detection: .25 μa DC*
Maximum current for non-detection: 0.1 μa DC*
Maximum allowable leakage resistance: 100 M ohms

* Measuring with a DC voltmeter (1 VDC = 1µa)

**Operating Temperature Range**

-40° to 176° F (-40° to 80° C)

**Timing Specifications**

(All times are in seconds unless noted otherwise)

<table>
<thead>
<tr>
<th>Pre-purge</th>
<th>Ignitor warm-up (adaptive)</th>
<th>Retries</th>
<th>Post-purge</th>
<th>Lockout time</th>
<th>Heat ON delay</th>
<th>Heat OFF delay</th>
<th>Cool ON delay</th>
<th>Cool OFF delay</th>
<th>Auto reset</th>
<th>Flame establishment</th>
<th>Flame failure response</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>17-19</td>
<td>4 times</td>
<td>5</td>
<td>5 mins</td>
<td>30°/45</td>
<td>60/90/120°/180°</td>
<td>2</td>
<td>2/60°</td>
<td>60 mins</td>
<td>0.8</td>
<td>2.0</td>
</tr>
</tbody>
</table>

* Denotes factory default

**Humidity Range**

5 - 95% relative humidity (non-condensing)

**Gases Approved**

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

**Dimensions**

5.625° W x 8.25° L x 1.50° D (with tabs)
5.25° W x 7.0° L x 1.50° D (tabs removed)

**Agency Approvals**

CSA - USA/Canada

**1 Year Limited Warranty**

Download the app for product information
Universal Single Stage Furnace Control for ECMx Blower Motors

50X57-843

The industry's only universal control for ECMx blower motors

Universal Replacement
Services Carrier, Lennox, Trane and York models
Reduce inventory and save time by eliminating extra trips

Easy Installation
Mounting design fits all OEM models
Simple Rollout jumper
Factory wiring plugs directly into the control
24V or 120V humidifier

Advanced Diagnostics
Simple pushbutton fault recall
Tri-Color LED & status codes
Flame current test pins
Fault code label on control
Universal Single Stage Furnace Control for ECMx Blower Motors

50X57-843 The industry's only universal control for ECMx blower motors

SPECIFICATIONS:

Electrical Rating [@ 77°F (25°C)]
Input Voltage: 25 VAC 50/60 Hz
Max Input Current: 0.8 amp @ 25 VAC

Flame Current Requirements
Minimum current to insure flame detection: 0.31 µa DC
Maximum current for non-detection: 0.1 µa DC
Maximum allowable leakage resistance: 100 M ohms
* Measuring with a DC voltmeter (1 VDC = 1 µa)

Operating Temperature Range
-40° to 176° F (-40° to 80° C)

Timing Specifications
(All times are in seconds unless noted otherwise)

<table>
<thead>
<tr>
<th>Pre-purge</th>
<th>Ignitor warm-up (adaptive, starts at 7)</th>
<th>Retries</th>
<th>Post-purge</th>
<th>Lockout time</th>
<th>Heat ON delay</th>
<th>Heat OFF delay</th>
<th>Cool ON delay</th>
<th>Cool OFF delay</th>
<th>Auto reset</th>
<th>Flame establishment</th>
<th>Flame failure response</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>250 (seconds)</td>
<td>3</td>
<td>15</td>
<td>25</td>
<td>60/90/120°/180</td>
<td>3</td>
<td>3/90°</td>
<td>60 mins</td>
<td>0.8</td>
<td>2.5</td>
<td></td>
</tr>
</tbody>
</table>

* Denotes factory default

50X57-843 CROSS REFERENCE REPLACEMENT:

Carrier / ICP Brands
1183386
1184412
CEPL130934-01
CEPL130934-02
CEPL131011-01
CEPL131011-02
HK42FZ027
HK42FZ033
HK42FZ039
HK42FZ047

Grainger
115236
115239
116J02

Johnstone
L45-086

Lennox Brands
103217-01
103217-02

Trane / American Standard Brands
607436-01
607436-02
79W84
85W79

White-Rodgers
D342359P01
D342359P02
D342359P03
D342359P04

York / JCI Brands
542760
S1 03102951001

80V application which requires 120V ignitor upgrade*
* Suggested upgrade is our HotRod™ Ignitor

The White-Rodgers Mobile App:

- Cross referencing
- Product information
- Product selection

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