

# Carrier/ICP Two-Stage HSI Integrated Furnace Control Kits

## 21V51D-751

**D**  
OEM Direct

Direct OEM Replacement is Fast and Easy.  
First of its kind to replace PSC, Variable  
Speed and ECMX applications.



### Two-Stage 21V51D-751

Replaces Carrier/ICP equipment brands  
Blower Motor Types – PSC, Variable Speed and  
ECMx with 120V Ignition



#### Direct OEM Replacement Controls

- Fast drop-in OEM mounting
- Includes all required harnesses
- 120 VAC ignitor output
- Confirms installation with pushbutton self-test routine



#### Reduces stocking SKUs

- One SKU replaces several OEM and competitive models



#### Advance Diagnostics for Servicing

- Tri-color LED shows operational status and fault codes – Simple pushbutton to retrieve fault codes



#### Premium Home Comfort

- Continuous low-speed fan option for better temperature balance and full-time air cleaning - easy dipswitch setup



#### Flame Current Test Pads

- Easy on-board checkout

### DID YOU KNOW?

This kit includes an additional  
harness to replace ICP  
Two-Stage applications  
*See back for cross reference*



1-Year Limited Warranty

WHITE-RODGERS™

  
EMERSON™

## 21V51D-751 Two-Stage

### Cross Reference

Carrier PSC / VS	
325879-751	HK42FZ010
CEPL130455-01	HK42FZ015
HK42FZ005	HK42FZ017
Carrier ECMx	
CEPL130948-01	HK42FZ028
CEPL130948-02	HK42FZ040
ICP PSC Only	
1172551	HK42FZ020
1172809	CEPL130591-01
HK42FZ019	CEPL130591-41
ICP ECMx	
1184408	
CEPL131043-01	
HK42FZ041	
ICM PSC/VS	
ICM2807	
White-Rodgers	
21V51D-751	
50V51-751	

### Specifications

#### Electrical Ratings

Input Voltage: 18 to 30 VAC, 60 Hz  
Current: 0.8 amp @ 25 VAC

-40° to 175°F (-40° to 80°C)

#### Mounting

Plastic tray

#### Flame Current Requirements:

Min current to insure flame detection: 0.25  $\mu$ A DC\*  
Max current for non-detection: 0.1  $\mu$ A DC  
Max allowable leakage resistance: 150 M ohms  
\* Measuring with a DC voltmeter (1VDC = 1  $\mu$ A)

#### Humidity Range:

5 to 95% relative humidity (non-condensing)

#### Gases Approved:

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

#### Operating Temperature Range:

### Timing Specifications

(All times are in seconds unless noted otherwise)

Pre-purge	Ignitor warm-up	Retries	Post-purge	Lockout time	Heat ON delay Low heat/ High heat	Heat OFF delay	Cool ON delay	Cool OFF delay	Auto reset
15	17	3 times	15	240	45/25	90/120*/150/180	3	3/90*	60 mins

\*default

## 50M56U-751 Single Stage



Replaces Carrier 325828-751  
Fixed Speed Furnace Kit

### Cross Reference

Carrier	
325878-751	
HK42FZ004	
HK42FZ007	
HK42FZ008	
HK42FZ009	
HK42FZ011	
HK42FZ013	
HK42FZ016	
HK42FZ034	
ICM	
ICM282A	
White-Rodgers	
50M56-751	

### Specifications

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

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

#### Operating Temperature Range

-40° to 175°F (-40° to 80°C)

#### Mounting

Plastic covers with screws

#### Flame Current Requirements

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

#### Humidity Range:

5 to 95% relative humidity (non-condensing)

#### Gases Approved:

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

### Timing Specifications

(All times are in seconds unless noted otherwise)

Pre-purge	Ignitor warm-up	Retries	Post-purge	Lockout time	Heat ON delay	Heat OFF delay	Cool ON delay	Cool OFF delay	Auto reset
30	17	2 times	25	275	25/60*	90/120*	2	5/90*	60 mins

\*default

### The White-Rodgers Mobile App:

- Cross referencing
- Product information
- Product selection

