



# York Single Stage HSI Integrated Furnace Control Kit

# OEM Replacement

## Replaces:

White-Rodgers 50A56-242 and 50A56-243 and  
Virtually All York Single Stage HSI Controls with 120V Ignitors

# 50A56-956

## Features

- Selectable Continuous Fan Speed
- System Diagnostics LED with Fault Recall
- Twin
- Third Fan Speed
- Two-Stage Cooling Y2 Input
- 120 VAC Ignitor Output
- 120 VAC Humidifier Output
- 120 VAC Electronic Air Cleaner Output
- 120 VAC 2-Speed PSC Circulator Output
- Fuse Protection — 5 Amp
- Heat Fan OFF Delay (Dipswitch Selectable)
- Y, Y2, W, R, G, C, TWIN Terminals

## 50A56-956 Cross Reference

50A56-956 Replaces:

York	White-Rodgers
265901	50A56-242
265902	50A56-243
539617	50A56-956
S1-03100662000	
S1-03101250000	
S1-03101266000	<b>ICM</b>
S1-03101267000	ICM2808
S1-03101267001	(PCB Only)
S1-03101284000	
S1-03101933000	
S1-03101972000	
S1-03101973000	
S1-03109167000	
S1-33102956000	
S1-33103010000	

## Specifications

### Electrical Ratings [ @ 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 175°F (-40° to 80°C)

### Humidity Range

5% to 93% relative humidity (non-condensing)

### Mounting

Surface mount multipoise

### Timing Specifications ( @ 60 Hz \*\* )

Flame Establishing Time: Maximum 0.8 sec

Flame Failure Response Time: 2.0 sec

\*\* At 50 Hz, all timing specifications should be increased by 20%

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

### Dimensions

4.825" W x 7" H x 1.25" D

### For Additional Information

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

## Timing Specifications

(All times are in seconds unless noted otherwise)

50A56-956	
Pre-purge	0
Ignitor warm-up	17
Minimum ignitor warm-up	17
Maximum ignitor warm-up	27
Ignition activation period	2
Trial for ignition period	7
Retries	2 times
Valve sequence period	21
Interpurge	15
Post-purge	15
Lockout time	140
Heat delay to fan ON	30
Heat delay to fan OFF*	60/90/120/180
Cool delay to fan ON	0
Cool delay to fan OFF	60
Auto reset	60 minutes
Humidifier	Yes
Electronic air cleaner	Yes

\* These times will vary depending on option  
switch position. See OPERATION section for  
further information.