

Single-stage/HSI integrated furnace control kit

OEM replacement

*Replace the original
with the original*

50A55-743

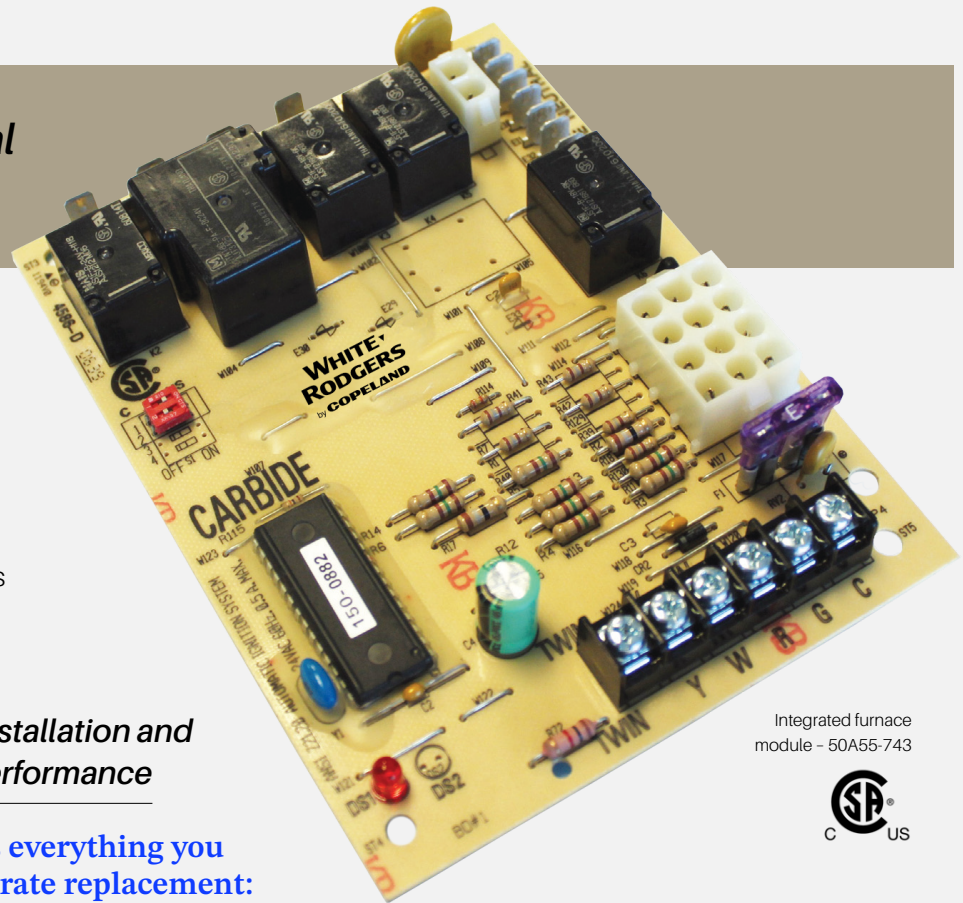
Replaces:

White-Rodgers 50T55-289
and 50A55-289 and virtually
all Goodman single-stage
HSI controls with 120V ignitors

**50A55-743 simplifies installation and
ensures peak system performance**

**Easy-install kit includes everything you
need for quick and accurate replacement:**

- Ignition control module
- Installation instructions
and OEM cross-reference



Integrated furnace
module - 50A55-743



Features:

- 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
- Furnace status LED
- Heat fan OFF delay (dipswitch selectable)
- Y, W, R, G, C, TWIN terminals

50A55-743 cross reference

50A55-743 replaces:

Goodman	Goodman
0130F00005	PCBBF112S
0130F00005S	PCBBF123
B1809926	PCBBF123S
B1809926S	White-Rodgers
PCBBF110	50A55-289
PCBBF110S	50A55-743
PCBBF112	50T55-289

NOTE: Can also use Universal Kit 50M56U-843

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**)

	Maximum
Flame establishing time:	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

- 4.375" W x 5.875" H x 1.25" D

For additional information

Visit copeland.com/white-rodgers

Timing specifications

(All times are in seconds unless noted otherwise)

50A55-743	
Pre-purge	15
Ignitor warm-up (1st 64 attempts)	7
Minimum ignitor warm-up	5
Maximum ignitor warm-up	9
Ignition activation period	2
Trial for ignition period	4
Retries	2 times
Valve sequence period	12
Interpurge	30
Post-purge	15
Lockout time	300
Heat delay to fan ON	30
Heat delay to fan OFF*	90/120/150/180
Cool delay to fan ON	5
Cool delay to fan OFF	45
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.