



Integrated Furnace Control

Robertshaw brings reliability, quality and compatibility together in a cost conscious replacement ignition control board. For use with standard 120 VAC Silicon Carbide hot surface igniter elements, the control board was designed to meet or exceed OEM requirements. Microprocessor monitoring of the thermostat, inducer pressure switch, thermal limits and flame current input is constant. The software verifies program code integrity and general microprocessor health continually to insure the highest level of safety. LEDs display industry-familiar error blink codes to help diagnose field problems.

General Specifications

Input voltage range low18-30 VAC, 50/60 Hz
 Input voltage range high85 to 135 VAC, 50/60 Hz
 Physical size (L x W x H)6.0" x 4.5" x 1.0"
 Operating temperature range-22°F to 149°F
 Humidity range10% to 95% Relative Humidity NC
 Air circulation blower outputFLA 13.8A, LRA 26A @ 120 VAC
 Combustion inducer outputFLA 2.2A, LRA 2.2A @ 120 VAC
 Electronic air cleaner output1.0 A Resistive @ 120 VAC 60 Hz
 Gas valve contact output1.0 A @ 120 VAC, 60 Hz
 HSI contact output5.0 A @ 120 VAC, 60 Hz
 Thermostat terminationsC, R, W, G, Y

Product Benefits

- Field selectable fan delay (90, 120, 160, 180 seconds)
- High and low speed fan relay contacts
- Output terminal for air cleaner, humidifier, or fresh air control (120VAC)
- Inducer pressure switch and thermal hi-limit failure detection
- Captive screw terminals for thermostat connections
- Microprocessor supervised for safe operation and accuracy
- Automatic resetting lockouts ensure safety but eliminate nuisance calls
- Electronic flame rectification sensing for safety and reliability
- Speed-up test mode aids quick and thorough system checkout
- Both sides conformal coated with acrylic for long life
- Compatible with all 24VAC thermostats including power-stealing and battery operated units



Timing Specifications

(ANSI Z21.20)

695-200	Normal Mode	Test Mode
Pressure switch proving	10 sec.	10 sec.
Pre-purge	5 sec.	0 sec.
Igniter warm-up	30 sec.	14 sec.
Ignition activation period	7 sec.	2 sec.
Retries	3 times	3 times
Recycles	4 times	4 times
Heat delay for blower on	20 sec.	1 sec.
Heat delay for blower off	90/120/160/180	10 sec.
Post purge	10 sec.	5 sec.
Cool delay for blower on	2 sec.	0 sec.
Cool delay for blower off	45 sec.	4 sec.

Error Codes

A green LED indicates system faults

- Steady On: System OK
- Steady OFF: Board control fault or no power applied
- 1 Flash: Ignition failure (control in one-hour lockout)
- 2 Flashes: Pressure switch fault, fails open (switch is stuck open)
- 3 Flashes: Limit switch open (main or auxiliary)
- 4 Flashes: Pressure switch fault, fails closed (switch is stuck closed)

A yellow LED indicates flame status

- Steady on: Normal flame is sensed
- Flashes: As flame weakens, frequency of LED flashes increases

Cross-Reference

The 695-200 is an exact replacement for the following Rheem/United Technologies part numbers:

<u>United Technologies</u>	<u>Rheem</u>
1012-925A	62-24268-01
1012-925B	62-24268-02
1012-925C	62-24268-03

May replace HSI control on the following brands:

(verify system requirements)

RUDD
WeatherKing
Heat Controller
Dayton
Union Gas
Zephyr
Corsaire

Invensys

Controls Americas

515 South Promenade Avenue
Corona California 92879-1736 USA
Customer Service Telephone +1 800 951 5526
Customer Service Facsimile +1 630 260 7299
iccacustomerservice@invensys.com

Controls Canada

3505 Laird Road Unit #14
Mississauga Ontario L5L 5Y7 Canada
Customer Service Telephone +1 800 387 7978
Customer Service Facsimile +1 905 828 1265
iccacustomerservice@invensys.com

For Technical Service

Telephone +1 800 445 8299
Facsimile +1 630 260 7243
technicalservice@invensys.com

www.icca.invensys.com

©2004 Invensys Climate Controls Americas - #150-1850