GeniSys™ · 7505

Advanced Burner Control

Beckett PARTS & ACCESSORIES

Product Description

The Beckett GeniSys™ Advanced Burner Control is a 120 Vac primary safety control for residential and light commercial oil burners used in boiler, furnace, and water heater applications. The GeniSys is used with a suitable cad cell flame sensor to control the oil burner motor, igniter, and optional solenoid valve. It has 24 Vac thermostat terminals (if applicable) compatible with both mechanical and many power stealing thermostats. It can provide interrupted or intermittent duty ignition, and it has a 15-second lockout time.

Features & Benefits

- **Thermostat and boiler control compatible**
- **Customizable pre-time and post-time**
- **Three status lights for system monitoring and diagnostics**
- **Welded relay protection with redundant motor relays**
- **Limited reset and limited recycle**
- **Sleek, modern design**
- **Cad cell resistance indicator**
- **Technician Pump Prime mode**
- **5-Year Warranty**
- **Two communication ports for adding alarm contacts, programming display, and/or future wireless communications**

Add a GeniSys Display and GeniSys Lockout Alarm
to fully utilize the features of the GeniSys advanced burner control.

The GeniSys Display *(Pt. No. 52067)* allows a technician to monitor and program the primary control variables. The display shows current burner status, control timings, and burner cycle history. The display's programming mode allows a technician to customize both the pre-time and post-time settings and a lockout service message.

- **32 character backlit alphanumeric display**
- **Sealed pushbutton keypad**
- **Low voltage operation**
- **Continuous real-time cycle monitoring**
- **Continuous cad cell resistance reading**
- **Continuous AC line voltage read-out**
- **Real-time error notification**
- **Customizable pre-time (valve-on delay) & post-time (motor off delay)**
- **15 cycle history monitoring**
- **Five Year Warranty**
- **Customizable lockout service message**

The GeniSys Lockout Alarm *(Pt. No. 52040)* functions as the interface between the primary control and an existing alarm panel or any alarm mechanism requiring contact closure in the event of a soft or hard lockout of the GeniSys Control.

To learn more, see www.beckettcorp.com or ask for literature pt. nos. 61669 & 61687

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Cross-Reference Chart

Beckett GeniSys Control Part No.	Lockout Time	Valve-on delay time[2]	Motor-off delay time[2]	Replaces Honeywell:	Replaces Carlin:
7505A 0000	15 sec	-	-	R7184A, R8184G	48245, 40200 42230, 50200[1]
7505B 1500	15 sec	15 sec	-	R7184B	-
7505P 1515	15 sec	15 sec	15 sec	R7184P, R7184U[1]	60200[1]
7505P 1530	15 sec	15 sec	30 sec	R7184P, R7184U[1]	60200[1]
7505P 152M	15 sec	15 sec	2 min	R7184P, R7184U[1]	60200[1]

1) Beckett snap-in alarm module required for direct replacement of the control. 2) Valve-on delay and motor-off delay timings on all models are programmable with Beckett snap-in programming display. Other factory set timings are available. Contact Beckett for alternate timings.

Electrical Ratings

Inputs

Voltage: 102 to 132 Vac
Current: 150 mA plus burner motor, igniter, and valve loads
Frequency: 60 Hz

Outputs

Motor: 120 Vac, 10 full load amps (FLA*), 60 locked rotor amps (LRA)
Note – Reduce motor FLA rating by igniter current

Igniter: 120 Vac, 3 A @ 0.7 PF min
Solenoid Valve: 120 Vac, 1 A @ 0.7 PF min
Thermostat Anticipator Current: 0.1 A (If applicable)
Thermostat Voltage: 24 Vac (If applicable)

Application Ratings

Oil Burner Input: < 20gph
Control Programming: UL372 Group 2

Environmental Ratings

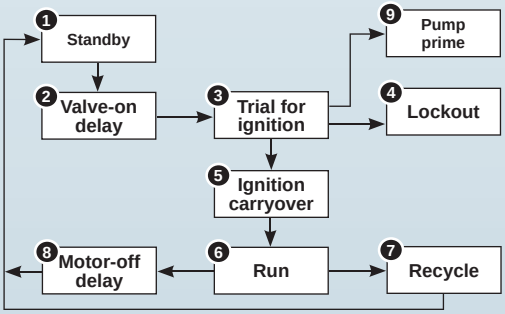
Storage & Operating Ambient Temp.: -40°F to +150°F (-40°C to +65°C)
Moisture: 5 to 95% RH, non-condensing and non-crystallizing

Approvals

Underwriters Laboratory Recognition per UL372 and UL1998, and CSA C22.2 No. 199

Operation

Sequence of Operation



Priming The Pump

1. Initiate a call for heat.
2. When the burner starts, press and hold the reset button for 15 seconds until the yellow light turns on.
3. Release the button. The yellow light will turn off and the burner will start again.
4. At burner start up, click the reset button while the igniter is still on to enter Pump Prime mode. The yellow light will turn on.
5. Bleed the pump until all froth and bubbles are purged.
6. If necessary, repeat steps 4 and 5 until the pump is fully primed and the oil is free of bubbles.
7. When finished, hold the reset button or remove the call for heat to exit Pump Prime mode and return to Standby.

Resetting From Restricted Lockout

If the control locks out three times without a satisfied call for heat or fails the motor relay check, the Lockout becomes restricted in order to prevent repetitious resetting by the homeowner. To reset, hold the button down for 15 seconds until the red light turns off and the yellow LED turns on.

Disable Function

Any time the burner is running, press and hold the reset button to disable the burner. The burner will remain off as long as the button is held.

Cad Cell Resistance Indicator

During the burner Run state, click the reset button to check the cad cell flame resistance range. The yellow light will flash 1 to 4 times depending on the amount of light detected by the cad cell. See the table below:

Yellow LED Flashes	Cad Cell Resistance
1	Normal (0 - 400 ohms)
2	Normal (400 - 800 ohms)
3	Normal (800 - 1600 ohms)
4	Limited (1600 ohms - Lockout)

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