

Burner Control Manual

Limit string list provides indication of limits and faults

Click lock icon for logging in when needed. See page 7 for more info

Manual damper control buttons or click the current position display to enter a target setpoint directly

Click burner for parts list. See page 9 for more info

Click for PDF document reader. See Page 14

Click speaker icon to turn sound on/off

Click mouse icon to turn mouse input on/off

The screenshot shows the Honeywell Burner Control interface. At the top, it displays 'Honeywell BURNER CONTROL' and 'STANDBY'. The interface includes several digital displays: 'High Limit 350' with values 316 and 312, 'High Limit 380' with values 330 and 320, and a central '300' display. There are two 'Man () Auto' toggle switches for 'Burner Control' and 'Draft Control'. The 'Draft Control' section shows 'Draft' at 0.22 and 'Exhauster' at 35%. A 'VULCAN BURNERS' burner unit is shown in the center. On the right, there are 'Fuel Select' buttons for 'GAS' and 'HYBRID OFF', a 'Burner Stop' button, a 'Low Fire' button, and a 'Burner Start' button. The 'Burner Start' button is currently disabled. At the bottom, there are throttle control buttons: '-10', '-1', '40', '+1', and '+10'. A 'Set' button is also present. The interface also features a 'LIMIT STRING' list on the left, a 'RESET' button, and several configuration buttons like 'Config', 'LIO Config', 'IO Monitor', 'PID Config', 'AIO Config', and 'Trending'. A 'Low Fire' status indicator is visible at the bottom right.

Blue buttons require Admin or Technician level access

Green buttons are available without logging in

Yellow buttons require Admin, Technician, or Operator level access

Reset to initialize purge sequence and reset faults.

Displays current throttle setpoint

Displays current throttle command

Displays current status and faults

Burner Start button is disabled until burner is ready to start.

Click this icon to add or remove email contacts. See page 6 for more info

Indicates whether automatic burner control will use the material temperature or baghouse inlet temperature from control points. Click the arrow to change which to use.

Burner can be under manual or automatic control

Draft control can be under manual or automatic control

Click here to set high material temperature limit

Click here to change temperature setpoint for automatic control

Click here to set high inlet temperature limit

Displays current burner draft. Click to set high and low draft setpoints used for automatic control

Displays current position of the combustion air control device. Air curve can be accessed by clicking here with at least Operator level log in.

Button for increasing and decreasing burner throttle manually

Displays current position of the fuel control device. Fuel curve can be accessed by clicking here with at least Operator level log in. See page 5 for more info

Button to turn low fire on/off. Low fire turns on when burner is off

Click for System Information window

Displays the access level currently logged in

Displays burner operating hours directly from Honeywell

Honeywell display will display all information normally displayed by the Honeywell Burner Module display

Choose Liquid, Gas, or a Liquid/Gas Hybrid fuel

Burner high fire indicator

Operator High Limit 350 High Limit 380

316 312 330 320

IR TC INLET OUTLET

315

Burner Control

Man Auto

Draft Control

Draft 0.22 0.35 0.15

37 35%

Exhauster

Burner Ready

Fuel Monitor

Config LIO Config IO Monitor PID Config AIO Config Trending

Low Fire Set

Lo

Honeywell BURNER CONTROL

PURGE HOLD START SWITCH

Burner Hrs 2

Fuel Select GAS HYBRID ON

Burner Stop

Low Fire

Burner Start

Air 3% Setpoint 0% Liq 1% Gas 4%

1.12 GPM 4.12 THM

H L

PURGING

PURGE COMPLETE

Burner Ready

Displays when burner is purging

Displays when burner purge is complete

Displays when burner is ready to light

Burner low fire indicator

Burner Purge Status Display

Click to run Hybrid fuel. A combination of both liquid and gas fuels. The fuel selected is considered the primary fuel. The secondary fuel can be configured as a percentage of the primary fuel or run by the fuel curve.

When running Hybrid fuel both the blue and red flame will be shown combined

The screenshot displays the Honeywell Burner Control interface. At the top, it shows 'High Limit 350' and 'High Limit 380'. The main display area features four large digital readouts: '316' (IR), '312' (TC), '330' (INLET), and '320' (OUTLET). A central '315' readout is also present. The interface includes a 'LIMIT STRING' section with various status indicators (green circles with 'U') for Exhaust Fan, Exhaust Air, Combustion Blower, Combustion Air, Fuel Pump, Low Liq Pressure, High Liq Pressure, Low Gas Pressure, High Gas Pressure, and Inlet Temp Limit. There are 'RESET' and 'LIMITS' buttons. The 'Burner Control' section has 'Man' and 'Auto' toggle switches. The 'Draft Control' section shows a 'Draft' of '0.22' and '35%' for the 'Exhauster'. A central image of a 'VULCAN BURNERS' unit shows a combined blue and red flame. The 'Fuel Select' section has 'GAS' and 'HYBRID ON' buttons. The 'Burner Stop' button is prominent. The 'Low Fire' and 'Burner Running' buttons are also visible. The 'Fuel Monitor' section shows 'Air 40%', 'Setpoint 40%', 'Liq 6%', and 'Gas 32%'. The 'Burner Ready' button is green. The bottom of the interface has 'Config', 'LIO Config', 'IO Monitor', 'PID Config', 'AIO Config', and 'Trending' buttons. A 'Burner Hrs' display shows '2'. The 'Flame Signal' is '5.0'. The 'Liq' and 'Gas' positions are highlighted with arrows from the text below.

When running Hybrid fuel both liquid and gas positions will be displayed

Graphical display of the fuel curve. Changes as new values are entered.

Displays current fuel curve values

Enter new fuel curve values here

The screenshot shows a burner control interface with the following elements:

- Operator Information:** Operator, High Limit 350, High Limit 380.
- Pressure Readings:** 316, 312, 330, 32.
- Graphical Fuel Curve:** A line graph showing fuel flow vs. burner position. A red line indicates the current curve.
- Gas Curve Table:**

0	4	4
10	11	11
20	17	17
30	24	24
40	32	32
50	39	39
60	49	49
70	56	56
80	66	66
90	72	72
100	80	80
- Buttons:** CANCEL, SAVE, Fuel Select (GAS), HYBRID OFF, Burner Stop, Low Fire, Burner Start.
- Navigation:** -10, -1, 40, +1, +10.
- Other Controls:** Exhaust Fan, Exhaust Air, Combustion Blower, Combustion Air, Fuel Pump, Low Liq Pressure, High Liq Pressure, Low Gas Pressure, High Gas Pressure, Inlet Temp Limit, RESET, LIMITS, Fuel Monitor, Config, LIO Config, IO Monitor, PID Config, AIO Config, Trending.

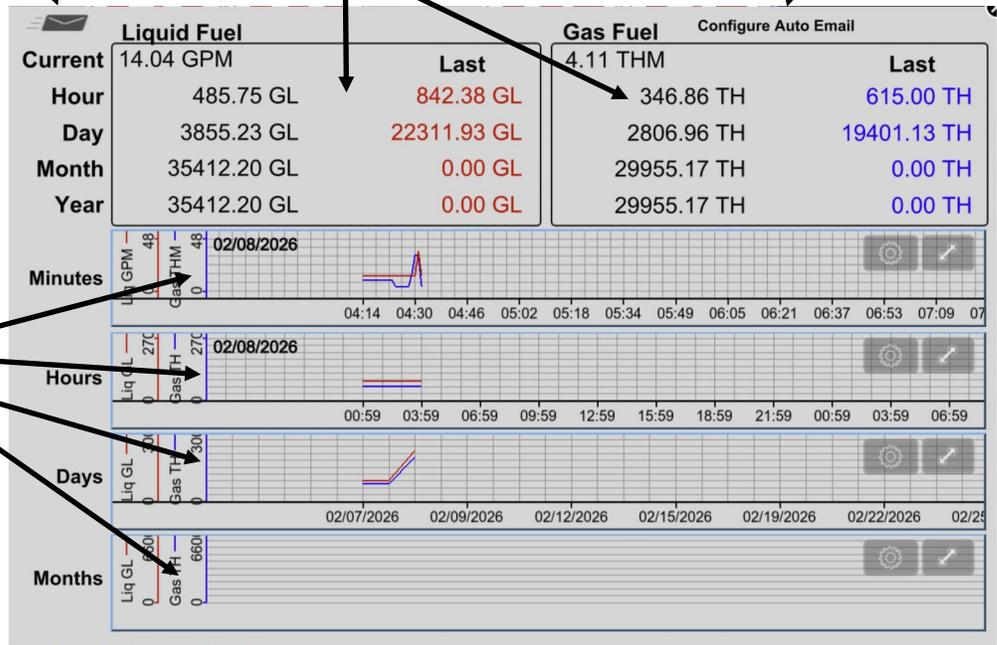
Cancels any proposed changes to fuel curve

Commits and saves all proposed changes to fuel curve

Click to manually send email with a screenshot of the fuel usage screen

Displays current and last period fuel usage. Liquid is displayed in gallons. Gas is displayed in therms

Click to configure automatically sending the screenshot of the fuel usage stats once per month



Configure Auto Send of fuel usage statistics email

Configure Auto Send Fuel Usage Email

Day of Month to Send

Hour of Day to Send

Enable Auto Send

Fuel usage email will be sent once a month per the above configuration

Assign contacts to a group.

Add or remove contacts for emails

Contact list: + -

Contact Name	Mail Address
Mark Stollar	mstollar@stollarservices.com

>> <<

Current group:

Contact Name	Mail Address
Mark Stollar	mstollar@stollarservices.com

Select group: Group A

Select group. Group A is for fuel usage stat emails.

Login / Logout ✕

Login by Index

Index ⌵

Password

Select access level. Choose between Admin, Technician, or Operator.

Each access level has a unique password

Hit Login after entering password

After selecting access level enter the appropriate password and hit enter on the keyboard.

YOU MUST HIT "ENTER" AFTER ENTERING PASSWORD BEFORE HITTING LOGIN OR LOGIN WILL FAIL.

Hit to logout. No password is needed for logout.

System will automatically logout all access levels after 30 minutes of inactivity

Exhaust fan control options

Fault delay options. Seconds before a fault after loss of limit

Displays current air/fuel control devices position

Air/Fuel curve settings

Use Draft Control

Ex Fan VFD

Ex Fan / Damper Purge

Purge Percent 50%

Damper Pulse On Time 2 ms

Damper Pulse Off Time 1000 ms

Exhaust Fan VFD Step % 1%

Deviation Limit 10%

Temp Bias Use HW Comms

Temp Filter 5 Logo

Fault Delay

Exhaust Fan POR 2

Exhaust Fan Air 2

Burner Blower POR 2

Burner Blower Air 2

Low Liquid Fuel Pressure 2

High Liquid Fuel Pressure 2

Liquid Fuel Pump POR 2

Low Gas Fuel Pressure 2

High Gas Fuel Pressure 2

Air/Fuel Tolerance 15

Graph

	Air 1	Air 2	Gas	Liquid
Current	0	3	0	4
Throttle	10	12	0	11
0.0	20	21	0	17
Air 1	30	30	0	24
3.0	40	40	0	32
Air 2	50	50	0	39
0.0	60	60	0	49
Gas Fuel	70	70	0	56
4.0	80	80	0	66
Liq Fuel	90	90	0	72
4.0	100	100	0	80
				62

Enable Analog

	Low Fire	Purge Point	High Fire	Dev Limit	
Air 1 Control	<input checked="" type="checkbox"/>	5	85	80	10%
Air 2 Control	<input type="checkbox"/>	0			10%
Gas Control	<input checked="" type="checkbox"/>	5	0		10%
Liq Control	<input checked="" type="checkbox"/>	5	0		10%

HYBRID Fuel

Enable

Control

Curve Percent

% of Primary Fuel 20%

Monitor Fuel Usage

Maximum Wait Time 1 minutes (enter 0 to disable)

CPU Load 30%

Memory Load 48%

USB Drive Status Free HMI Memory 520456 KB Free USB Memory 15335464 KB

Customer Reliable Asphalt Products Location Shelbyville KY

LIO AIO PID User Log Graphics Parts List System Main Screen

Air/Fuel device control options

Hybrid Fuel Options

Maximum wait time after Burner Ready status before requiring another purge cycle

Displays current CPU and Memory load information

Graphical representation of the complete Air/Fuel Curve

Click the "Graph" button to display the Air/Fuel curve graphics

Graph

	Air 1	Air 2	Gas	Liquid
Current	0	3	0	4
Throttle	10	12	0	11
0.0	20	21	0	17
Air 1	30	30	0	24
3.0	40	40	0	32
Air 2	50	50	0	39
0.0	60	60	0	49
Gas Fuel	70	70	0	56
4.0	80	80	0	66
Liq Fuel	90	90	0	72
4.0	100	100	0	80
				62

Maximum Wait Time 1 minutes (enter 0 to disable)

CPU Load 23%

Memory Load 48%

USB Drive Status Free HMI Memory 520648 KB Free USB Memory 15335464 KB

Customer Reliable Asphalt Products Location Shelbyville KY

LIO AIO PID User Log Graphics Parts List System Main Screen

Enter part of the number or description to filter the list when needed

Parts list

Add, update, or delete items in the parts list

The screenshot shows a user interface for managing parts. At the top, there is a text input field labeled "Enter filter keyword here...". Below it is a table with two columns: "Part Number" and "Part Description". The table contains three rows of data. To the right of the table is a vertical toolbar with three buttons: "Add New" (green), "Update" (yellow), and "Delete" (red). Below the buttons are two toggle switches, both of which are currently turned on. The first toggle is labeled "Enable Main Screen View" and the second is labeled "Enable Drawing View".

Part Number	Part Description
400-CBO-1100	TEST PART 6
600-HWT-1005	Test Part 2
600-TIM-2100	Test Part

Enable parts list view on main screen when burner is clicked

Enable Drawing/PDF Reader

This screenshot shows the same parts list interface as in the first image, but it is presented as a semi-transparent popup window. The background is a blurred view of a burner control interface, which includes a "VULCAN BURNERS" logo, a "Control" section with a "22" display, and various control buttons like "Air 3%" and "Setpoint 0%". The parts list table is clearly visible in the foreground, with the "600-HWT-1005" row highlighted in green.

Parts list displayed when user clicks on the burner on the main screen.
Popup window is semi-transparent to allow monitoring and control of burner while browsing parts list.

Select which logical input from drop down list to assign for limits and control devices

Bypass unused limits. Not available for inlet temp limit. Not available for Operator level access.

Select which logical output from drop down list to assign for control devices

Burner Limits	Logical Input	Limit Unused	Burner Control	Logical Output
Exhaust Fan POR	100	<input checked="" type="checkbox"/>	Burner Start	200
Exhaust Fan Air	102	<input checked="" type="checkbox"/>	Burner Stop/Limits OK	201
Burner Blower POR	101	<input checked="" type="checkbox"/>	Fuel Select	213
Burner Blower Air	103	<input checked="" type="checkbox"/>	Burner Fault	214
Low Liquid Fuel Pressure	105	<input checked="" type="checkbox"/>	Air 1 Open	999
High Liquid Fuel Pressure	100	<input checked="" type="checkbox"/>	Air 1 Close	999
Liquid Fuel Pump POR	101	<input checked="" type="checkbox"/>	Air 2 Open	999
Low Gas Fuel Pressure	102	<input checked="" type="checkbox"/>	Air 2 Close	999
High Gas Fuel Pressure	103	<input checked="" type="checkbox"/>	Gas Fuel Open	999
Inlet Temperature	104	<input checked="" type="checkbox"/>	Gas Fuel Close	999
Burner Control	105		Liquid Fuel Open	999
External Burner Stop	110	at Minimum 109	Liquid Fuel Close	999
Honeywell Fault	111	at Minimum 999	Exhaust Damper Open	999
Pilot Flame On	115	at Minimum 999	Exhaust Damper Close	999
Main Flame On	114	at Minimum 999	Fault Reset	210
Burner Ready	116	all Open Air 112	Low Fire	211
Release Modulate	117	all Close Air 113	High Fire	212

DONE

Select which analog input from drop down lists to assign for control devices

Select which analog output from drop down lists to assign for control devices

Burner Control	Analog Input	Burner Control	Analog Output
Air 1 Feedback	300	Air 1 Setpoint	400
Air 2 Feedback	999	Air 2 Setpoint	999
Gas Fuel Feedback	301	Gas Fuel Setpoint	401
Liquid Fuel Feedback	302	Liquid Fuel Setpoint	402
Draft Pressure Feedback	304	Exhaust Fan VFD Setpoint	403
Gas CFM Transmitter Feedback	999		
Liquid GPM Transmitter Feedback	999		
Exhaust Fan Feedback	303		
Flame Signal	999		

Temperatures	
Material 1 Thermocouple	312
Material 2 Thermocouple	313
Baghouse Inlet Thermocouple	314
Baghouse Outlet Thermocouple	315

DONE

This page is accessible by Admin or Technician level access. Analog inputs and output can be configured as V for 0-10VDC or C for 4-20mA signals. The thermocouple inputs can be set as J type or K type ✕

Analog Inputs	TC Inputs	Analog Outputs
300 <input type="checkbox" value="V"/>	312 <input type="checkbox" value="J"/>	400 <input type="checkbox" value="V"/>
301 <input type="checkbox" value="V"/>	313 <input type="checkbox" value="J"/>	401 <input type="checkbox" value="V"/>
302 <input type="checkbox" value="V"/>	314 <input type="checkbox" value="J"/>	402 <input type="checkbox" value="V"/>
303 <input type="checkbox" value="V"/>	315 <input type="checkbox" value="J"/>	403 <input type="checkbox" value="V"/>
304 <input type="checkbox" value="V"/>	316 <input type="checkbox" value="J"/>	404 <input type="checkbox" value="V"/>
305 <input type="checkbox" value="V"/>	317 <input type="checkbox" value="J"/>	405 <input type="checkbox" value="V"/>
306 <input type="checkbox" value="V"/>	318 <input type="checkbox" value="J"/>	406 <input type="checkbox" value="V"/>
307 <input type="checkbox" value="V"/>	319 <input type="checkbox" value="J"/>	407 <input type="checkbox" value="V"/>
308 <input type="checkbox" value="V"/>		408 <input type="checkbox" value="V"/>
309 <input type="checkbox" value="V"/>		409 <input type="checkbox" value="V"/>
310 <input type="checkbox" value="V"/>		
311 <input type="checkbox" value="V"/>		

Use this page to configure the analog output PI(D) settings

PID Config ✕						
	Air 1	Air 2	Gas	Liquid	Burner Auto	Ex Fan
Gain (P)	<input type="text" value="0.10"/>	<input type="text" value="0.10"/>	<input type="text" value="0.10"/>	<input type="text" value="0.10"/>	<input type="text" value="0.05"/>	<input type="text" value="0.10"/>
Reset (I)	<input type="text" value="0.20"/>	<input type="text" value="0.20"/>	<input type="text" value="0.20"/>	<input type="text" value="0.20"/>	<input type="text" value="8.00"/>	<input type="text" value="1.00"/>
Rate (D)					<input type="text" value="10.00"/>	<input type="text" value="2.00"/>
Sample Time	<input type="text" value="1000"/>	<input type="text" value="1000"/>	<input type="text" value="1000"/>	<input type="text" value="1000"/>	<input type="text" value="5000"/>	<input type="text" value="1000"/>
Deadband	<input type="text" value="0.100"/>	<input type="text" value="0.100"/>	<input type="text" value="0.100"/>	<input type="text" value="0.100"/>	<input type="text" value="1.000"/>	<input type="text" value="0.300"/>
Cycle Time	<input type="text" value="500"/>	<input type="text" value="500"/>	<input type="text" value="500"/>	<input type="text" value="500"/>		<input type="text" value="500"/>

	Raw Signal	Low Signal	High Signal	Low Value	High Value	Value
Air 1 Feedback	981	0	32747	0.0	100.0	3.0
Air 2 Feedback	0	0	0	0.0	0.0	0.0
Gas Fuel Feedback	652	0	32713	0.0	100.0	2.0
Liquid Fuel Feedback	1310	0	32765	0.0	100.0	4.0
Draft Pressure Feedback	2072	0	32762	0.0	3.5	0.2
Gas CFM Transmitter Feedback	0	0	0	0.0	0.0	0.0
Liquid GPM Transmitter Feedback	0	0	0	0.0	0.0	0.0
Exhaust Fan Feedback	16292	0	32767	0.0	100.0	49.7
Flame Signal	0	0	0	0.0	0.0	0.0

Test Mode AIR 1: 3 AIR 2: 0 GAS: 2 OIL: 0 EX FAN: 50

Click test mode then the device control button to set the output level. Test mode is not available when burner is lit. Leaving page will automatically turn "Test Mode" off and reset the device outputs to their default values.

The user log displays information about logins and changes made while logged in.

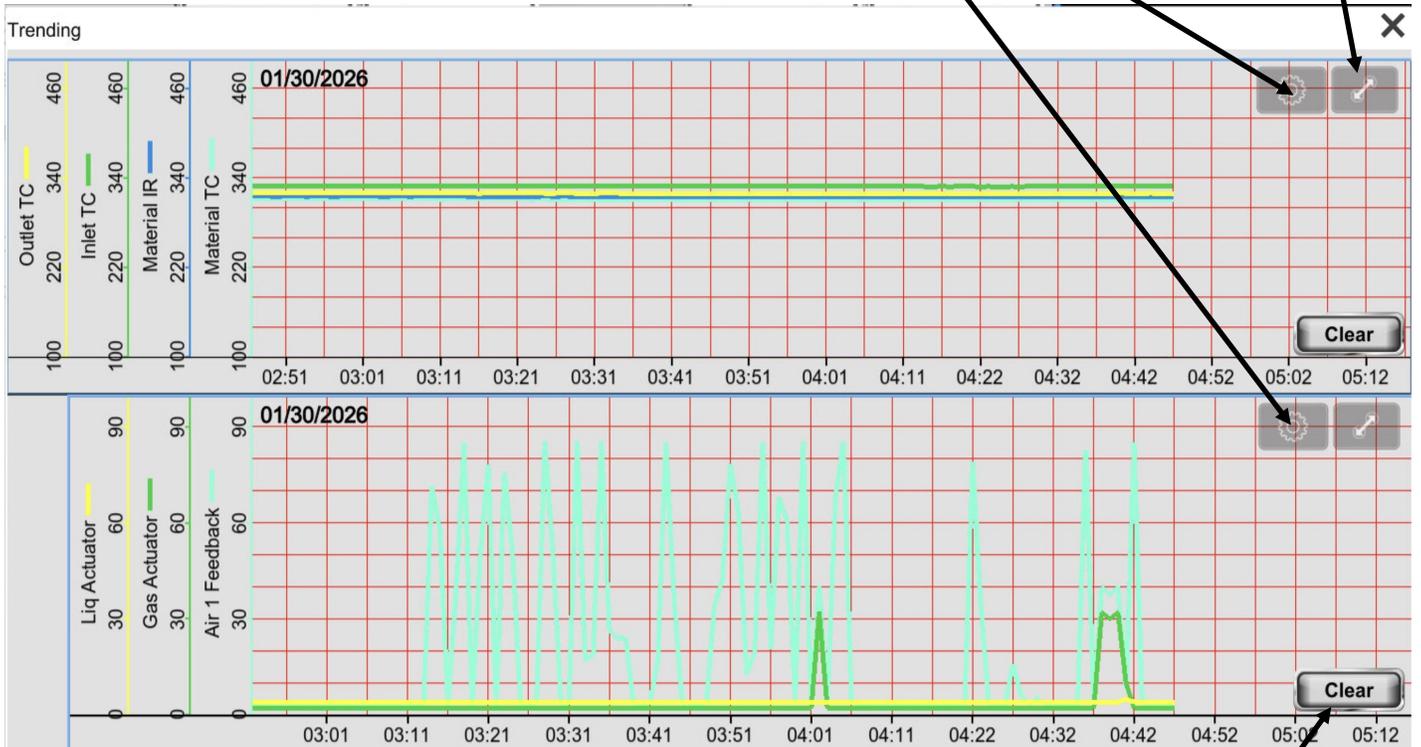
Date	Time	User name	Action	Address	Information
01/26/2026	04:21:49	admin	Log in		admin logged in
01/26/2026	04:21:34	Technician	Log out		Technician logged out
01/26/2026	04:20:57	Technician	Log in		Technician logged in
01/26/2026	03:42:13	admin	Log out		admin logged out
01/26/2026	03:12:12	admin	Set words	NewCurve0 - LW-100 -> Ai	
01/26/2026	03:12:12	admin	Set OFF	AirCurveWindow - LB-23	bit set OFF
01/26/2026	03:12:11	admin	Set word	NewCurve0 - LW-100	write 5->3
01/26/2026	02:57:54	admin	Log in		admin logged in
01/25/2026	23:41:46	admin	Log in		admin logged in
01/25/2026	23:19:45	admin	Log out		admin logged out
01/25/2026	22:19:39	admin	Set words	NewCurve0 - LW-100 -> Ai	
01/25/2026	22:19:39	admin	Set OFF	AirCurveWindow - LB-23	bit set OFF
01/25/2026	22:19:37	admin	Set word	NewCurve0 - LW-100	write 3->5

Clear Log **Start Log** **Stop Log** **Logging**

Requires Admin level access to clear, start, or stop logging. Logging is on by default

Click to select previous dates to view

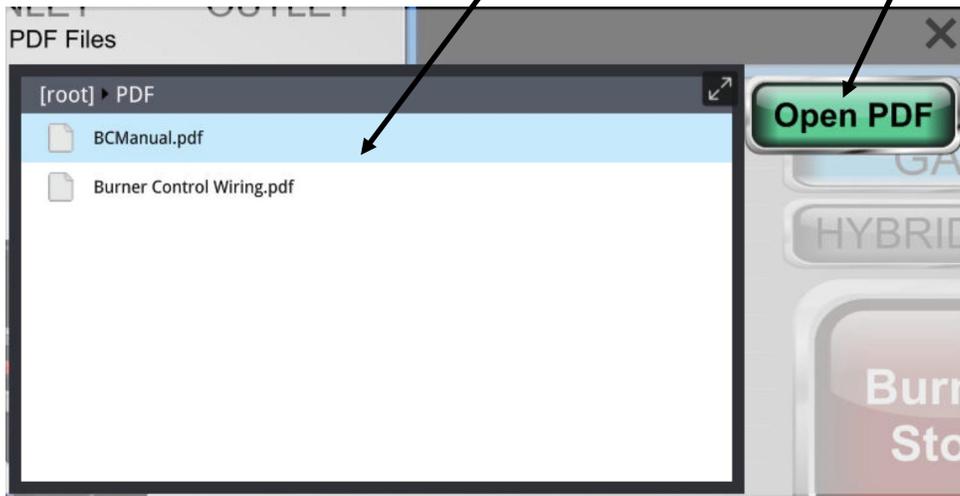
Click to zoom out or zoom in



Clear button only available to admin level access

PDF Files List

Select a file and click Open PDF



The PDF Reader displays the PDF file selected

You can select another file to load while the PDF Reader is open

