

USER GUIDE UGC007-0613

Basic 32 Loader Control

B32 Model



Please record your equipment's model and serial number(s) and the date you received it in the spaces provided. Conair recommends recording the model and serial number(s) of your equipment and the date you received it in the User Guide. Our service department uses this information, along with the manual number, to provide help for the specific equipment you installed.

Please keep this User Guide and all manuals, engineering prints and parts lists together for documentation of your equipment.

Date:

Manual Number: UGC007-0613
Serial Number(s):
Model Number(s):
Software Version(s):
Operator Interface
Firmware Version Number:
Application File Name:
Programmable Logic Controller:
Firmware Version Number:
Application File Name:

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INTRODUCTION1-1
Purpose of the User Guide1-2
How the Guide is Organized1-2
Your Responsibility as a User 1-2
ATTENTION: Read this so no one gets hurt1-3
DESCRIPTION2-1
What is the B32?
Typical Applications2-2
How it Works
Specifications
INSTALLATION
Unpacking the Boxes
Preparing for Installation
Installing the B32
Wiring Considerations
Mounting the Control
Wiring Loaders to the B32 3-7
Wiring Pumps to the B32
Wiring Purge Valves to the B32
Connecting Main Power to the B32
Initial Setup
Setting Loader Parameters
Enabling Loaders
Selecting a Password
OPERATION
B32 Control Features
Viewing Loader Status
Enabling and Disabling Pumps 4-5
Configuring Loaders
Assigning Pumps and Loaders
Assigning a Backup Pump4-8
Configuring the Alarm
Debug Screen Description4-10
MAINTENANCE
Preventive maintenance checklist

TABLE OF CONTENTS

TABLE OF	TROUBLESHOOTING	6-1
C	Before Beginning	
CONTENTS	A Few Words of Caution	
	Identifying the Cause of a Problem	
	Clearing Interface Alarms	
	Clearing CPU and I/O alarms	
	Conveying System Alarms	
	Operator Interface Problems	
	Processor and power problems	
	CPU faults	
	I/O errors	6-9
	Appendix	
	Customer service information	Δ_1

Customer service informationA	-1
Warranty informationA	-2
Restoring the ProgramB	-1

Parts/Diagrams

Wiring Diagrams Recommended Spare Parts

INTRODUCTION

- Purpose of the User Guide1-2
- How the guide is organized1-2
- Your responsibilities as a user...1-2
- ATTENTION: Read this so no one gets hurt1-3

Purpose of The User Guide	This User Guide describes the Conair Basic 32 Loader Control and explains step-by-step how to install, operate, maintain and repair this equipment.Before installing this product, please take a few moments to read the User Guide and review the diagrams and safety infor mation in the instruction packet. You also should review man uals covering associated equipment in your system. This review won't take long, and it could save you valuable instal- lation and operating time later.		
How The Guide is Organized	 Symbols have been used to help organize the User Guide and call your attention to important information regarding safe installation and operation. Symbols within triangles warn of conditions that could be hazardous to users or could damage equipment. Read and take precautions before proceeding. Numbers within shaded squares indicate tasks or steps to be performed by the user. A diamond indicates the equipment's response to an action performed by the user. An open box marks items in a checklist. A shaded circle marks items in a list. 		
Your Responsibility As a User	 You must be familiar with all safety procedures concerning installation, operation and maintenance of this equipment. Responsible safety procedures include: Thorough review of this User Guide, paying particular attention to hazard warnings, appendices and related diagrams. Thorough review of the equipment itself, with careful attention to voltage sources, intended use and warning labels. Thorough review of instruction manuals for associated equipment. Step-by-step adherence to instructions outlined in this User Guide. 		

We design equipment with the user's safety in mind. You can avoid the potential hazards identified on this machine by following the procedures outlined below and elsewhere in the User Guide.

WARNING: Improper installation, operation or servicing may result in equipment damage or personal injury.

This equipment should be installed, adjusted, and serviced by qualified technical personnel who are familiar with the construction, operation and potential hazards of this type of equipment.

All wiring, disconnects and fuses should be installed by qualified electrical technicians in accordance with electrical codes in your region. Always maintain a safe ground. Do not operate the equipment at power levels other than what is specified on the the equipment serial tag and data plate.



WARNING: Electrical shock hazard

This equipment is powered by electrical voltage as specified on the machine serial tag and data plate.

A properly sized conductive ground wire from the incoming power supply must be connected to the chassis ground terminal inside the Input/Output enclosure. Improper grounding can result in personal injury and erratic machine operation.

Always disconnect and lock out the incoming main power source before opening the electrical enclosure or performing non-standard operating procedures such as troubleshooting or routine maintenance. Only qualified personnel should perform troubleshooting procedures requiring access to the electrical enclosure while power is on.

ATTENTION: READ THIS SO NO ONE GETS HURT

DESCRIPTION

• What is the B32?	.2-2
• Typical Applications	.2-2
• How it Works	.2-3
• Specifications	.2-4

WHAT IS THE B32?

The control is mounted on the front of the I/O station. Inside is a processor with base, containing up to 8 input/output modules. The number of input and output modules will vary with the number of vacuum receivers and conveying options.



The controller and control automatically turn on when power is applied to the I/O station. After a bootup sequence the home screen displays. From the home screen the operator can scroll to all monitoring and control functions.

TYPICAL APPLICATIONS

The Basic 32 has been designed for basic conveying applications.

Loader-pump assignments are completely flexible. Individual vacuum receivers can be assigned to any one of the eight loading systems. Each receiver can be configured for one of the following:

- Single-material loading.
- Ratio loading, with or without automatic material layering.
- Positive (air-operated) receiver discharge.
- Material line purging.
- Loader fill alarm to work with an optional fill sensor mounted in the receiver body or direct feed chamber.
- Hopper fill alarm to work with an optional demand sensor mounted in a drying hopper or other material vessel.
- No alarm.

The B32 communicates with each pump, vacuum receiver and material valve wired to Input/Output modules within the control enclosure. The B32 controls conveying operation based on settings the operator enters on the HMI.

How IT WORKS

When receivers in a pump system demand material, the B32 turns on the vacuum pump and dust collector in the appropriate pump system. It then opens the correct vacuum and material valves to convey material to satisfy the demand.



The overview screen lets the operator monitor the status of all vacuum receivers at a glance. Icons indicate the real-time status of each receiver.

Other screens allow you to change system settings or to view pump systems, loader details, alarm histories.

B-32 Loader Control	CORAIR
MAIN SCREEN	
LOADER SETTINGS	
LOADER CONFIG	
SYSTEM CONFIG	
LOGIN LOGOUT SILENCE	
Main Scroll Up Scrol Down	Enter

SPECIFICATIONS



MODEL	B32			
Performance characteristics				
Maximum number of vacuum receivers	32			
Maximum number of vacuum pumps	8 (plus back-up)			
Programmable logic controller	Allen Bradley Micrologix 1500			
Touchscreen operator interface	Allen Bradley PanelView C400			
Communications with master control	DH485			
Screen size, inches {mm}	3.74 x 2.13 {95 x 54}			
User interface method	Touch screen			
Output voltage to receivers/valves	24 VDC			
Sensor voltage to receivers	24 VDC			
Output voltage to pumps	24 VDC			
Dimensions inches {mm}	•			
Master control cabinet				
A - Height	31.4 {998}			
B - Width	23.8 {606}			
C - Depth	12.5 {318}			
Weight Ib {kg}	• • •			
Installed	70 {32}			
Shipping	85 {39}			
Voltages Total amps				
115V/1 phase/60Hz (master control)	10			
115V/1 phase/60Hz (master control)	10			

SPECIFICATION NOTES:

B32 loader control cable: 18 gauge shielded, 8-conductor may be used for standard vacuum receivers with up to one optional output and input, otherwise 10-conductor cable is required.

Specifications can change without notice. Check with your Conair representative for the most current information.

APPLICATION NOTES:

Conair vacuum receivers come equipped with a quick-disconnect connector set that includes 10 feet of cable. Junction boxes must be provided to connect the system cable and each vacuum receiver's connector set.

CALCULATING CABLE LENGTH:

Total the distances from the Input/output Station(s) location to each vacuum receiver on the system. Be sure to account for reasonable slack at each loading station for connections, cable routing, etc.

INSTALLATION

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UNPACKING THE BOXES

The B32 central loading control comes in one box. The box should include:

- **1** Carefully remove the B32 components from their shipping containers, and set upright.
- - **2** Remove all packing material, protective paper, tape and plastic.
- **3** Carefully inspect all components to make sure no damage occurred during shipping. Notify the shipper immediately if damage is found.

4 Take a moment to record serial numbers,

the software version number and electrical power specifications in the blanks provided on the back of the the User Guide's title page. The information will be helpful if you ever need service or parts.



5 You are now ready to begin installation. Follow the preparation steps on the next page, paying particular attention to all wiring consideration and recommendations.

You should plan the location of the B32 control to ensure easy access and minimal wiring.

PREPARING FOR INSTALLATION

1 Select a mounting location for the control.

The interface and Input/Output enclosure can be mounted on a wall or other stable vertical surface.

Select a location that:

□ Is central to loaders that the B32 will control. Keep the B32 Input/Output station as close as possible to the loading stations to minimize the amount of wire needed to connect the vacuum receivers to the control.

D Provides adequate clearance for safe operation and maintenance. The control should be mounted at a height that allows the operator to easily see and touch the screen. Maintain at least 3 feet (1m) clearance in front of the control for safe access to the Input/Output enclosure.

D Provides a clean, dry, vibration-free environment. Exposure to wide temperature variations, high ambient temperature, power line fluctuations, caustic fumes or excessive amounts of dust, dirt, vibration, shock and moisture could harm performance and reduce the life of this equipment.

D Provides a grounded source of 115 VAC power. The three-prong power cord supplied with the B32 control requires a grounded 115 VAC outlet rated for at least 15 amp service.

2 Plan the power/communication cable routes.

Review all wiring guidelines and diagrams provided in the manuals and electrical diagrams supplied with the B32 control and your conveying equipment before beginning installation. See WIRING CONSIDERATIONS.

G Keep communication wires away from sources of static electricity. Static electricity can damage the controls.Communication cables should *not* be run near the material lines and hoses, which produce large amounts of static electricity when material is conveyed. You should use shielded cable unless you run wires through metal conduit.

Avoid running communication cables across power feed lines. If you must run the cable across power feed lines, run the cable at right angles to the lines.

Installing the B32	 Installation of the B32 control consists of: Mounting the enclosure. Wiring loaders to the control. Wiring pumps to the control. Wiring material valves to the control. Connecting the control to a main power source
	☐ Initial setup of the system control.

WIRING CONSIDERATIONS

WARNING: Improper installation may result in equipment damage or personal injury.

- Disconnect and lock out the main power supply to equipment in the conveying system before wiring power and communication cables between the B32 control, vacuum receivers, pumps, dust collectors and material valves.
- Install all wiring, disconnects and fuses in accordance with electrical codes in your region. All electrical installations should be done only by qualified electrical technicians.
- Always refer to the wiring diagrams supplied with your control before making electrical connections. The diagrams show the most accurate electrical component information.
- Protect communication cables from sources of static electricity and electrical noise.
- Use shielded cable or run wire through a contiguous metal conduit or wireway. Failure to use a metal shield can expose the controls to static electricity, which can damage electronic components.
- Do not run communication cables near material lines and hoses, which produce large amounts of static electricity when conveying material.
- Keep communication cables at least 5 ft. (1.5 m) from electric motors, transformers, rectifiers, arc welders, generators, induction furnaces and sources microwave radiation.
- Avoid running communication cable across power feed lines. If you must run cable across power lines, run the cable at right angles to the line. Keep the cable at least 6 inches (0.15 m) from AC power lines of less than 20 A; 1 foot (0.30 m) from lines of 20A to 100 kVA; and 2 feet (0.60 m) from lines of 100 kVA or more.

WARNING: Improper installation may result in equipment damage or personal injury.

- Always maintain a safe ground. Follow the safe grounding procedures in the wiring diagram package. Ground the shielded cable inside the Input/Output enclosure only.
- Do not operate the equipment at power levels other than those specified on the the equipment data plate.

The B32 Input/Output enclosure should be mounted on a wall, or other secure vertical surface, at a height providing easy access and a clear view of the touchscreen panel.



MOUNTING THE CONTROL

1

Bolt the control to the

mounting surface. Use the mounting brackets on the I/O enclosure.

2 Ground the control enclosure.

Connect a ground wire to the control. Follow procedures outlined by your regional electrical codes and the wiring diagrams included with this manual.

CONNECTING TO THE B32

WARNING: Improper installation may result in equipment damage or personal injury.

Always refer to the wiring diagrams that came with your controls before making electrical connections. The diagrams show the most accurate electrical component information. Use shielded cable unless you run wires in metal conduit. Failure to use a metal shield will expose the controls to static electricity, which can damage electronic components. When using shielded cable, make sure the shield is grounded inside the I/O stations only. It is also important to keep the communication wires away from conveying lines, which can produce large amounts of static electricity.

Input/Output modules

Each vacuum receiver, pump and material valve in the system must be wired to power or common/ground terminals and Input/Output modules inside the B32 control enclosure.

Each loader requires at least six wire connections to the Input/Output enclosure.

One additional wire is required for

each option or for a three-wire sensor used for either demand or loader full inputs. Connect the loader cable wires to the I/O station according to the color codes:



The loader wires connect to power terminals or terminals on the I/O modules inside the control enclosure. The number of loaders and options in the conveying system will determine the number of connections that are required.

Refer to the electrical prints included with this manual for all electrical connections to the loader control. All loader outputs are 24 VDC and all demand and fill sensor inputs are 24 VDC.

A general list of loader electrical connections is included in the appendix.

WIRING LOADERS TO THE B32

IMPORTANT: Always refer to the wiring diagrams that came with your controls before making electrical connections. The diagrams show the most accurate electrical component information.

The B32 can run eight vacuum pumps and one backup pump. Refer to the electrical prints included with this manual for all electrical connections to the loader control. All pump outputs are 24 VDC and all overload inputs are 24 VDC.

WIRING PUMPS TO THE B32

The B32 can operate up to 32 purge valves, which are used to remove material from the lines at the end of a loading cycle. Since purge valves are located at the material source instead of at the loader, separate wiring connections to the B32 are required.

WIRING PURGE VALVES TO THE B32

(OPTIONAL)

CONNECTING MAIN POWER **TO THE B32**

The B32 Input/Output enclosure is equipped with a threeprong plug and power cord. Each optional remote touchscreen panel also has its own plug and power cord.

1 Plug the power cord(s) into a grounded 115 VAC outlet rated for at least 15 Amp service.

2 Make sure the control enclosure is grounded.

WARNING: Electrical shock hazard

Failure to provide proper grounding can cause control malfunctions and could result in personal injury from electrical shock.

The control must be connected to a grounded power source. A properly sized conductive ground wire must be connected to the chassis ground terminal inside the Input/Output enclosure.

Before you can begin conveying, you must configure and identify the loaders and conveying features you want to use.

INITIAL SETUP

Procedures on the following pages will explain how to:

- □ Set loader parameters
- □ Enable pumps and loaders
- □ Select security password

To begin Initial Setup:

1 Turn on power to the B32.

The Power ON/OFF switch is on the left side of the control enclosure.

2 Wait for the control to boot.

Do not touch the control until it completes the bootup and initialization process. Process takes a few seconds. When the control has initialized, the Main Screen displays.



SETTING LOADER PARAMETERS

CAUTION: Incorrect configurations will cause the B32 control to stop.

Before enabling loaders and loading functions, make sure the loader, valve or option has been installed in the system. Each loader and feature must be wired to a correctly installed and enabled input or output module. The B32 will fault and the loading control will stop if the required I/O module has not been installed for the feature you enabled.

The loader must be correctly installed and wired before setting parameters.

To set loader parameters from the main screen:



1 Use the Up/Down arrows to scroll to Loader Settings.



2 Press the Enter arrow.

The Loader Settings screen displays. Use the up/down arrows to scroll to Settings.



3 Press the Enter arrow.

loader

The Settings screen displays. Touch the screen to select the Loader field. Use the up/down arrows to select loader.



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parameters: loader number, virgin time in seconds, dump time in seconds and pump number.

4 Use the Scroll Down/Up buttons to set the



Selecting a Password



The B32 provides password security to prevent unauthorized changes to loader or system settings.

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System Config. Entering the System Configuration screen requires a Supervisor 2 password.

2 Enter the password.

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To enter the password use the up/down arrows to scroll through the alphanumeric list. When the correct letter/number is highlighted use the right Select arrow to move to the next digit. Continue until the whole password is selected. The initial passwords are set at the factory:

• Supervisor 1: 7373

• Supervisor 2: 54647

Change these passwords and record the new passwords in a safe place.

3 Press the Enter arrow.

The Factory Configuration screen displays. Use the scroll up/down buttons to scroll to the New field. Use the up/down arrows to scroll through the alphanumeric list. When the correct letter/number is highlighted use the right Select arrow to move to the next digit. Continue until the whole password is selected.

4 Press the Enter arrow.

The Password Administration screen displays. Use the up/down arrows to scroll through the alphanumeric list. When the correct letter/number is highlighted use the right Select arrow to move to the next digit. Continue until the whole password is selected.

5 Press the Enter arrow to accept the password.

6 Press the Main button to return to the main screen.

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OPERATION

B32 Control Features

The B32 operator interface allows you to view the status of the vacuum receivers and pumps in your conveying system at a glance. It also provides access to screens to enter settings for each loading station, view alarms and change system parameters.



Basic 32 Loader Control



4 Use the Scroll Down/Up buttons to view the remaining loaders and pumps.

18 19 20 21 22 2 E E D L E

25 26 27 28 29 30 31 3 E E ■ L E D ■ L P5 P6 P7 P8 scroll up R E E Londers 1-10

ENABLING AND DISABLING LOADERS



WARNING: Develop and follow procedures for safe operation of the system to avoid possible injury or equipment damage.

The B32 allows operators and maintenance personnel to disable and enable conveying system components from remote locations. Unexpected energization of these components could result in equipment damage or injury.

Safe operating procedures should include:

- Disconnect any loader, pump or material valve from main power and/or compressed air sources before servicing. Ensure that all energy sources for the device are locked out and tagged.
- Before removing lockout devices or enabling pumps, loaders or material valves, make sure that all personnel are clear of the machine, tools have been removed and any safety guards have been reinstalled.

To enable the loaders from the main screen:

Use the Up/Down arrows to scroll to Loader Settings.



2 Press the Enter arrow.

The Loader Settings screen displays. Use the up/down arrows to scroll to Loader Enable.



<u>^</u>

3 Press the Enter arrow.

The Loader Enable screen displays. Use the up/down arrows to increase and decrease the loader number. Use the Scroll Down/Up buttons to enable/disable the loader.

- **4** Press the Enter arrow to save the change.
- **5** Press the Previous button to return to the last screen you were viewing, or the Main button to return to the Main screen.



CONFIGURING LOADERS



You may need to change loader settings whenever you change materials or to obtain the best conveying performance.

To configure loaders from the main screen:



1 Use the Up/Down arrows to scroll to Loader Config.



2 Press the Enter arrow.

The Loader Configuration screen displays. Use the up/down arrows to scroll to Option Config.



3 Press the Enter arrow.

The Option Configuration screen displays. Use the up/down arrows to increase and decrease the loader Δ number. Use the scroll down/up buttons to select option:

- Discharge
- Ratio
- Ratio with Calc
- Purge
- Material valve
- No option



4 Press the Enter arrow to save the change.



5 Press the Previous button to return to the last screen you were viewing, or the Main

button to return to the Main screen.

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You may need to change loader and pump assignments match the conveying system vacuum and XXXX	to ASSIGNING
To assign loaders and pumps from the main screen:	
1 Use the Up/Down arrows to scroll to Loader Config.	
2 Press the Enter arrow. The Loader Configuration screen displays. Use the up/down arrows to scroll to Pump Assign.	
3 Press the Enter arrow. The Pump Assignment screen displays. Use the up/down arrows to choose the loader number. Use the scroll down/up buttons to choose the pump number.	COPTION CONFIG I CONFIG
4 Press the Enter arrow to save the change.	· ~
5 Press the Previous button to return to the last screen you were viewing, or the Main button to return to the Main screen.	

Assigning a Backup Pump



A backup pump can be assigned to replace any of the eight pump systems during operation.

To assign a backup pump:



Te loader can be configured for demand alarm, fill alarm or no alarm.	
To configure the alarm from the main screen:	
1 Use the Up/Down arrows to scroll to Loader Config.	MAIN SCREEN LOADER SETTINGS DUCIDES CONFIC SYSTEM CONFIC
2 Press the Enter arrow. The Loader Configuration screen displays. Use the up/down arrows to scroll to Alarms.	
 Press the Enter arrow. The Alarm Configuration screen displays. Use the scroll down/up buttons to choose the alarm configuration you want: No alarm Demand alarm Fill alarm 	LOADER
4 Press the Enter arrow to save the change.	
5 Press the Previous button to return to the last screen you were viewing, or the Main button to return to the Main screen.	

DEBUG SCREEN DESCIPTION

Navigate to the Debug screen through the Main Menu. The Debug screen allows you to check communications status, view the node address and to view the current login and security level.





PREVENTIVE MAINTENANCE CHECKLIST

You should develop a preventive maintenance schedule for all components in the conveying system to ensure optimum operation and performance.

The B32 may require the following maintenance checks:

• Whenever you change materials

□ Verify the loader settings for pump systems or loaders effected by the material change. Pay particular attention to load times and dump times. See CHANGING LOADER SETTINGS in the Operation section.

Quarterly

Check power and cable connections and wires.

Over time, the power and cable connections between the B32 and conveying system components may become loose or wires may become worn. Tighten any loose connections and replace any wire or cable that has become worn or damaged.

TROUBLESHOOTING

Before you begin troubleshooting: BEFORE □ Find the manuals and wiring diagrams that BEGINNING were shipped with your equipment. These materials contain details you will need to diagnose and repair problems in specific components, including custom wiring, features or I/O options not covered in this User Guide. **A Few Words** WARNING: Improper installation, operation or servicing may result in equip-OF CAUTION ment damage or personal injury. The B32 should be installed, adjusted, and serviced only by qualified technical personnel who are trained in the operation and troubleshooting of this type of equipment. **DANGER:** Electrical shock hazard Diagnosing the cause of electrical system and CPU problems in this equipment may require the use of precision electronic measuring equipment, as well as access to the electrical enclosure while power is on. Only qualified electrical technicians, trained in the use of this equipment and in avoiding exposure to voltage hazards, should perform procedures that require access to the enclosure while power is on. WARNING: Develop and follow procedures for safe operation and maintenance of the system. The B32 allows operators and maintenance personnel to disable and enable conveying system components from remote locations. Unexpected energization of these components could result in equipment damage or injury. Safe maintenance procedures should include: Disconnect any loader, pump or material valve from main power and/or compressed air sources before servicing. Ensure that all energy sources for the device are locked out and tagged. Before removing lockout devices and enabling system components, verify that all personnel are clear of the machine, tools have been removed, and any safety guards have been reinstalled.

The TROUBLESHOOTING section explains how to clear an alarm, and provides diagnostic tables to help you determine the cause of the alarm.

Diagnostic tables have been divided into:

Conveying System Alarms.

These tables focus on the "No Material" and "Pump Overload" alarms that the B32 displays on the Alarm Summary screen. The B32 continues to control the system and the alarming loading station will load.

D Power and Processor Problems.

These tables focus on power supply and processor problems indicated by Micrologix 1500 LEDs located inside the I/0 enclosure. These problems cause the B32 control to stop.

CPU Faults.

These tables focus on Hex error codes that apply to the Micrologix 1500 and are displayed as faults on the Rack & Slot screen. These problems cause the B32 control to stop.

IDENTIFYING THE CAUSE OF A PROBLEM

IMPORTANT: Refer to the manuals supplied by the manufacturers of loaders, pumps and material valves in your system for additional diagnostic and repair information.

CLEARING **NTERFACE** ALARMS



When a conveying problem occurs, the screen displays the alarm message and the audible alarm sounds.

To silence the alarm and fix the problem:

1 Press the Enter button.

This acknowledges the alarm. The alarm text is removed from the screen. The screen returns to the Main screen. NOTE: pressing the Enter button only acknowledges the alarm; it does not fix the problem.

2 View Alarm list.

From the Main screen use the Up/Down arrows to scroll to Loader Settings. Press Enter. The Loader Settings screen displays.



3 Use the Up/Down arrows to scroll to

Alarm List. Press Enter to display alarms. The alarm list displays up to 25 alarms, starting with the most current. All acknowledged alarms have a check mark

next to the text. All alarms show the hour, minute and second the alarm occurred. Alarms are automatically removed from the list when the condition is corrected.

4 Fix the problem.

Refer to the diagnostic tables in this section and any manuals supplied with this device to determine the cause of the problem and to repair the problem.

5 Press Main button to return to main screen

or the Previous button to return to the last screen viewed.



CPU and Iinput/Output errors will stop the B32 control.

These errors may be caused by problems with the power supply, processor or Input/Output modules. The error is indicated by error codes on the PLC Error screen or by LEDs on the B32 MicroLogix1500 CPU and power supply modules.

To clear and fix a CPU or I/O error from the Main screen:

1

Use the Up/Down arrows to scroll to Loader Config.

2 Press the Enter arrow.

The Loader Configuration screen displays. Use the up/down arrows to scroll to PLC Errors.

3 Press the Enter arrow.

The Errors screen displays. The alphanumeric error code is listed. The error code is reported in hexidecimal format, with the first two digits identifying a specific I/O module slot. If the digits are 1F, an exact slot cannot be determined. Refer to the Fault Messages and Error Code in the appendix of this manual for a complete listing and follow the recommended action for correcting the error.

4 Clear the error code from the Major

Error field by entering four zeros (0000).

5 Press the Scroll Down button

to move to the Reset field. There are three choice available in the Reset field: Fault, Error and OK. Continue to press the Scroll down button until you reach OK.

6 Press the Enter button to save the reset.

Press the Home button to return to the home screen.

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CLEARING CPU AND I/O ALARMS



Conveying System Alarms		 The No Material Alarm can be triggered in two ways: The Alarm Check signals an alarm after the operator-set number of consecutive loading attempts fails to satisfy the receiver's demand for material. The optional fill sensor in the receiver or hopper is not satisfied after one loading cycle. 		
	Alarm	Possible cause	Solution	
	No Material Alarm	There is no material at the source.	 Verify that there is enough material at the source, including regrind sources if a ratio valve is used. Verify that the material line is connected to the correct source of material. 	
		Loader Settings are incorrect.	 If the parameters set on the Loader Settings screen are incorrect, material demand may not be satisfied. Verify that the Load Time, or Load Time plus Purge Time, is sufficient to fill the receiver. Adjust as needed. Verify that the Alarm Check allows a sufficient number of loading cycles to fill the receiver. Adjust as needed. Verify that the loader is assigned to the correct pump system. 	
		There is a leak in the vacuum system.	If there are leaks in the system, the pump cannot pull a good vacuum and the receiver may have no or little material flow- ing into it. Check the vacuum pump gauge. If the reading is low, check all hoses, gaskets, receiver lids, and valves for signs of damage or wear. Replace as needed.	

CONVEYING SYSTEM ALARMS

Alarm	Possible cause	Solution
No Material Alarm (continued)	Vacuum pump is not working correctly.	Verify that the vacuum pump is on, connected to the B32 and working correctly. Refer to the pump manual.
	The fill/demand sensor or demand switch is not working properly.	 Verify that sensors and switches are connected correctly at the loader or hopper and at the control. Verify that fill and demand sensors are set at the correct height and adjusted properly. Refer to manuals supplied with the fill or demand signaling device.
	Compressed air lines are not connected correctly.	If a compressed air line is not connected to vacuum or mater- ial valves, the valves cannot open to allow the pump to draw material into the receiver. Verify that compressed air lines supplying the correct pressure have been connected to the vacuum sequencing valve, ratio valve, pocket con- veying or purge valve.
Pump Overload	The vacuum pump overload has tripped.	This alarm will prevent the pump from being energized until the overload is corrected. Refer to the pump manual to correct the problem.

OPERATOR INTERFACE PROBLEMS		WARNING: Electrical shock hazard Diagnosing electrical and processor problems require access to the electrical enclosure while power is on. Only qualified electrical technicians, who are trained in how to avoid voltage hazards, should perform troubleshooting procedures that require access to the B32 Input/Output enclo- sure while power is on.		
	Fault	Possible cause	Solution	
	Terminal does not power up.	Improper connection to power source	Verify wiring and connections to power source.	
		Incorrect input voltage level.	Verify correct voltage is present at power terminals.	
		DC power wires reversed (DC terminals only).	Make sure DC power posi- tive and negative are con- nected to the proper termi- nals.	
		Power terminal block not fully seated (PV300 ter- minals only).	Verify power terminal block is snapped onto base of PanelView C400.	

PROCESSOR AND POWER PROBLEMS

WARNING: Electrical shock hazard

Diagnosing electrical and processor problems require access to the electrical enclosure while power is on. Only qualified electrical technicians, who are trained in how to avoid voltage hazards, should perform troubleshooting procedures that require access to the B32 Input/Output enclosure while power is on.

Fault Possible cause Solution

See **APPENDIX C "TROUBLESHOOTING YOUR SYSTEM"** for a complete listing of process and power faults, causes and solutions.



WARNING: Electrical shock hazard

Diagnosing electrical and processor problems require access to the electrical enclosure while power is on. Only qualified electrical technicians, who are trained in how to avoid voltage hazards, should perform troubleshooting procedures that require access to the B32 Input/Output enclosure while power is on.

Error/Alarm Possible cause Solution

See **APPENDIX D: "FAULT MESSAGES AND ERROR CODES"** for a complete listing of CPU faults, causes and solutions.



WARNING: Electrical shock hazard

Diagnosing electrical and processor problems require access to the electrical enclosure while power is on. Only qualified electrical technicians, who are trained in how to avoid voltage hazards, should perform troubleshooting procedures that require access to the B32 Input/Output enclosure while power is on. I/O ERRORS

CPU FAULTS

Error

Possible cause Solution

See **APPENDIX D: "FAULT MESSAGES AND ERROR CODES"** for a complete listing of input/output errors, causes and solutions.

We're Here to Help

Conair has made the largest investment in customer support in the plastics industry. Our service experts are available to help with any problem you might have installing and operating your equipment. Your Conair sales representative also can help analyze the nature of your problem, assuring that it did not result from misapplication or improper use.

How to Contact Customer Service

To contact Customer Service personnel, call:



NOTE: Normal operating hours are 8:00 am - 5:00 pm (EST). After hours emergency service is available at the same phone number.

You can commission Conair service personnel to provide on-site service by contacting the Customer Service Department.

Before You Call...

If you do have a problem, please complete the following checklist before calling Conair:

- Make sure you have all model, control type and serial numbers from the serial tag, and parts list numbers for your particular equipment. Service personnel will need this information to assist you.
- □ Make sure power is supplied to the equipment.
- ☐ Make sure that all connectors and wires within and between control systems and related components have been installed correctly.
- ☐ Check the troubleshooting guide of this manual for a solution.
- Thoroughly examine the instruction manual(s) for associated equipment, especially controls. Each manual may have its own troubleshooting guide to help you.
- ☐ Check that the equipment has been operated as described in this manual.
- Check accompanying schematic drawings for information on special considerations.

Additional manuals and prints for your Conair equipment may be ordered through the Customer Service or Parts Department for a nominal fee. Most manuals can be downloaded free of charge from the product section of the Conair website. www.conairgroup.com

Equipment Guarantee

Conair guarantees the machinery and equipment on this order, for a period as defined in the quotation from date of shipment, against defects in material and workmanship under the normal use and service for which it was recommended (except for parts that are typically replaced after normal usage, such as filters, liner plates, etc.). Conair's guarantee is limited to replacing, at our option, the part or parts determined by us to be defective after examination. The customer assumes the cost of transportation of the part or parts to and from the factory.

Performance Warranty

Conair warrants that this equipment will perform at or above the ratings stated in specific quotations covering the equipment or as detailed in engineering specifications, provided the equipment is applied, installed, operated and maintained in the recommended manner as outlined in our quotation or specifications.

Should performance not meet warranted levels, Conair at its discretion will exercise one of the following options:

- Inspect the equipment and perform alterations or adjustments to satisfy performance claims. (Charges for such inspections and corrections will be waived unless failure to meet warranty is due to misapplication, improper installation, poor maintenance practices or improper operation.)
- Replace the original equipment with other Conair equipment that will meet original performance claims at no extra cost to the customer.
- Refund the invoiced cost to the customer. Credit is subject to prior notice by the customer at which time a Return Goods Authorization Number (RGA) will be issued by Conair's Service Department. Returned equipment must be well crated and in proper operating condition, including all parts. Returns must be prepaid.

Purchaser must notify Conair in writing of any claim and provide a customer receipt and other evidence that a claim is being made.

Warranty Limitations

Except for the Equipment Guarantee and Performance Warranty stated above, Conair disclaims all other warranties with respect to the equipment, express or implied, arising by operation of law, course of dealing, usage of trade or otherwise, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.

The program can be restored to the plant configuration if a some reason the program has been interrupted.	for RESTORING THE PROGRAM
to restore the program.	
1 Use the Up/Down arrows to scroll to Loader Config.	MAIN SCREEN
2 Press the Enter arrow. The Loader Configuration screen displays. Use the up/down arrows to scroll to Save Config	
3 Press the Enter arrow. The Save Configuration screen displays. Use the scroll up/down buttons to select Program Mode.	C OPTION CONFIG PUMP ASSIGN ALARMS VP BACK-UP SELECT VP BACK-UP SELECT PLC ERRORS
4 Press the Enter arrow to save the change.	CHARTER CONFIGURATION
5 Press the Previous button to return to the last screen you were viewing, or the Main button to return to the Main screen.	