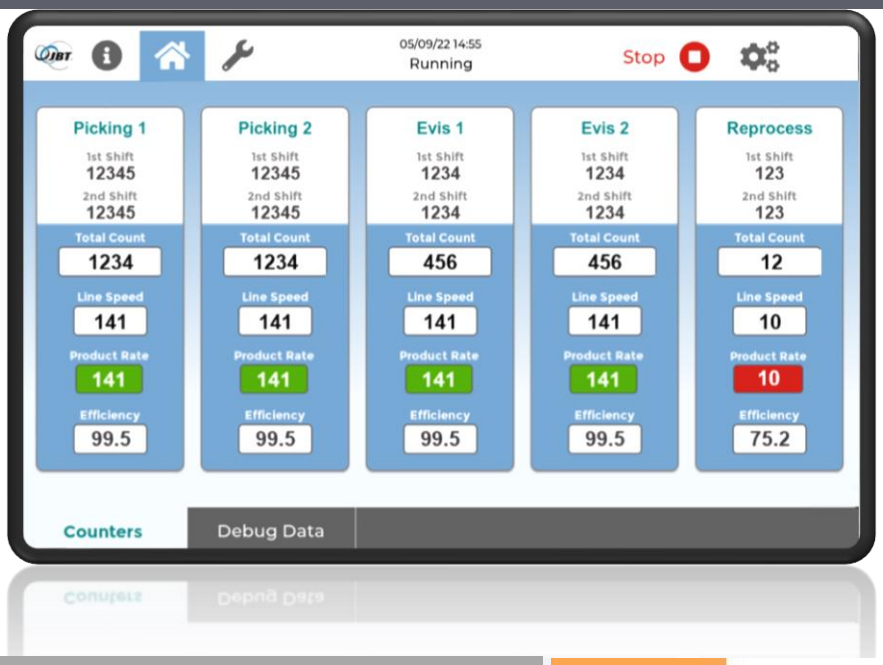
PRIME EQUIPMENT GROUP

JBT 1ST PROCESSING COUNTERS



Customer: Wayne Sanderson Farms
Union Springs, AL, USA

Sales Order #: 203606S

Serial #: SN4391

Safety Instructions & Technical Manual

Prepared by: Lisa Stephens
Engineer Approval: Justen Vrabel
Approved by: Ashley Walter

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Introduction

We at JBT/Prime Equipment Group, welcome you as an owner/user of JBT/Prime Equipment Group machines.

JBT/Prime Equipment Group designs and manufactures machines that can be operated and maintained safely; however, ultimate personal safety when operating and/or servicing a machine is a shared responsibility between the machine purchaser, and all personnel who operate and service the machine. This shared responsibility, along with other critical safety information, is explained in this section of the manual.

Every effort has been made to provide information and documentation that is representative of the purchased machine model. Serious injury, including death can occur if a machine is not operated and/or serviced in a safe manner. Contact our Customer Care Department if you are not sure of the safe way to perform a task or have questions which could affect the safety of you and your co-workers.

Responsibilities

Machine Builder's Responsibility

JBT/Prime Equipment Group's primary goal is to design machines in a manner that eliminates or minimizes potential hazards.

When potential hazards cannot be designed out or safeguarded, it is JBT/Prime Equipment Group's responsibility to alert machine users of the residual risk(s). JBT/Prime Equipment Group does this using safety signs mounted near or within the hazardous area. JBT/Prime Equipment Group also uses Caution, Warning, and Danger statements throughout the Instruction manual(s) to alert machine users of potential hazards and instruct them on measures to take to avoid personal injury.

We are confident that our machines meet OSHA and other worldwide safety codes and standards.

Machine Purchaser's Responsibility

According to the OSHA act of 1970, each employer (machine purchaser) has the general duty to furnish each employee (machine user) employment and places of employment which are free from recognized hazards that could cause death or serious physical harm. The employer is also required to comply with standards, rules, and regulations proclaimed by the Secretary of Labor and to post notices which inform the employees of their rights and duties as outlined by all applicable laws. The employer is expected to take necessary action, including the establishment and enforcement of rules, to ensure compliance. Most countries employ the same or similar rules on their respective employers.

It is the responsibility of the employer (machine purchaser) to:

- Provide a work environment free from recognizable hazards and promote the expectation of safe work practices.
- Develop, implement, and enforce a comprehensive safety program for the protection of the employees.
- Provide a comprehensive lockout/tagout policy for employees to follow when adjusting/servicing the machine. Provide locks and lockout devices and "Do Not Start" tags to be used when disconnecting/dumping electrical, pneumatic, hydraulic, and mechanical power and stored energy sources as required under the lockout/tagout policy.

NOTE: "Do Not Start" tags CAN NOT be used as the only means of lockout, they must be used in conjunction with approved locks and/or other lockout devices.

- Provide training for employees that will be operating and servicing the machine, on the safe way to operate and service the machine.

NOTE: Your company can purchase a custom, comprehensive training program for machine users from JBT/Prime Equipment Group.

- Prohibit machine operation when any one of the safety devices is not functional (guards, interlocks, lifelines, safety signs, etc.).

Extra copies of the manuals and literature can be purchased through JBT/Prime Equipment Group’s Customer Care Department.

Machine User's Responsibility

Machine user (operator and service technician) safety and the safety of all others in the work area are dependent on everyone forming and practicing good safety habits and exercising common sense, good judgment, and reasonable care while operating/servicing the machine.

The machine mounted safety signs and the Danger, Warning, and Caution statements throughout the Instruction manual(s) alert the machine user to potential hazards and instructs her/him on measures to take to avoid personal injury. The signs and statements, along with the guidelines included in this section of the Instruction manual, will help you, the user, understand your role in safe machine operation/servicing.

Before You Operate or Service the Machine for The First Time

- Read the instruction manual or vendor literature relevant to the upcoming task before you operate/adjust/service the machine. If you have questions, get answers before you begin the upcoming task.
- Prior to clearing wraps/jams, mechanically adjusting, or servicing the machine, lockout/tagout the machine following your company's lockout/tagout policy pertaining to that type of task.
- Take a walk around the machine, reading all safety signs on the machine and noting the locations of the Emergency Stop devices.

  NOTE: Prior to machine operation/servicing, know the locations of all Emergency Stop buttons/lifelines and the locations of potential hazards.

- **NEVER** defeat or remove any of the safety devices. Each one performs a specific function and all of them are provided for your protection.
- **NEVER** perform a task that you do not have company authorization to perform. Know which machine-related tasks your company has authorized you to perform. Notify the appropriate person to perform all other tasks.
- **NEVER** enter the machine area when you are under the influence of alcohol, drugs, or medications that can make you less alert or affect your judgment.

At the Beginning of Each Shift

- Remove rings, watches, necktie, etc. Bind long hair, roll up long sleeves that do not fit snugly to your wrists, tuck in loose shirt tails, and make sure all other clothing fits closely to your body.
- Review machine operation, performance, and problems with the previous operator/service technician. Make sure all emergency stop features are functional (interlocks, buttons, lifelines, etc.). NEVER operate a machine if any of the emergency stop features are not functioning properly. Make sure all problems are satisfactorily resolved prior to machine start.
- Make sure the machine is free of jams. Clear jams following the jam clearing information in the Instruction manual. **NEVER** clear a wrap, jam, or debris from the machine when the machine is in motion.
- Make sure the machine and the machine area are free of tools and debris.
- Make sure all machine guards and access panels are installed securely.
- **NEVER** operate a machine when any one of the guards or access panels are open, loose, or removed.
- Make sure the machine is prepared to run in a safe manner by following the machine start information in the Instruction manual.
- Prior to starting the machine, be aware of all personnel in the machine area and make sure everyone is clear.

Safety Precautions for Everyone

The following information should be used as a supplement to your company's comprehensive safety policies and procedures.

Your company's policies and procedures supersede the following information if, at any time, the two contradict one another.

- Familiarize yourself with your company's safety and lockout/tagout policies and follow them. Prior to adjusting or servicing the machine, make sure you know which lockout/tagout procedure and safety guidelines apply. When in doubt, get answers from your supervisor before you begin.

- Never reach into, clean, lubricate, adjust, climb on, or work on a moving machine for any reason, even when the machine is only being manually turned over or running at jog speed. ALWAYS follow your company's lockout/tagout policy prior to doing any of the above.

- Electrical shock or unexpected machine movement can cause serious injury or death. For your safety, follow your company's lockout/tagout policy as required for each task.
- Moving components can crush and dismember. Keep hair, body parts, loose clothing, etc. away from moving components.

- NEVER deface or remove factory installed safety signs. If a safety sign is illegible, missing, or damaged in any way, report it to your supervisor. She/he will go through the appropriate procedure to obtain a replacement safety sign.

- Machine mounted blades and knives can cause serious injury, including amputation: keep clear of blades and knives. When supplied, always install/use supplied blade edge and knife guards/shields as stated in the Instruction manual.

- Hot surfaces/liquids may cause burns. Fluids under pressure can be extremely hot.

- Allow ample time for surfaces and system components/fluids to cool before servicing the system. Use an appropriate temperature measuring device (not your hand) to monitor the temperature.

If left around the machine area, tools, spare or loose machine parts, and debris can cause serious injury. Use Loctite products (or equivalent) to secure components that are not used as frequent adjusting devices. Keep the machine area clean. When tools and spare machine parts are not in use, store them in the appropriate locations.

- Lifting heavy components and/or dropping them can cause back injuries, muscle strains, and broken foot bones. Obtain assistance when necessary and use adequate lifting and moving devices properly.

- Tripping and slipping can cause serious injury. Keep walkways clear. Walking surfaces must be free of liquids (oil, grease, ink, coffee, etc.) and other debris.

- Equipment surfaces that are touched by hand (operator interface touch screens, control buttons, levers, etc.) must be free of liquids.

- Disconnect/dump all power sources and dissipate stored energy prior to removing guards and/or access panels. Install and secure all guards and access panels after completing an adjustment, clearing a wrap/jam, and/or servicing the machine. Check affected safety devices to make sure they function properly.

- The only personnel in the general work area should be those operating/servicing the machine. Restrict all others from the area.

- Wear protective clothing (hardhat, eye/face shield, gloves, etc.) as necessary.

- Always wear steel mesh reinforced gloves and arm guards (or equivalent) supplied by your company and use supplied edge guards/shields when handling or working near sharp objects (blades, slitters, knives, etc.).

- Use the proper tools and equipment for the task being performed. Check the tools routinely to make sure they are in proper working condition.

- Follow the procedures in the Instruction manual when starting, adjusting, and servicing the machine and when clearing wraps/jams.

- Check safety devices routinely and replace them at the first indication of defectiveness or failure.

- Prior to starting the machine at the beginning of your shift, walk around it and make sure all guards and other safety devices are in place. Always check for "Do Not Start" tags before starting. **NEVER** start the machine until you are sure that everyone in the area is clear of the machine and aware that it is going to be started.

Electrical Safety

This machine uses electricity of sufficient voltage to cause serious injury or death if mishandled.

NOTE: Drive settings have been adjusted and set at JBT/Prime Equipment Group. Consult the parts documentation containing the machine assembly drawings for drive settings. Some machines may have the settings in the instruction manual. Contact JBT/Prime Equipment Group prior to changing any settings.

- Permit only trained/qualified electrical technicians to work on electrical components, regardless of whether the components are live or dead.
- Know the location of all electrical disconnects, shutoffs, and similar devices and know what each disable. Refer to the machine assembly drawings for this information.
- Keep electrical areas (and the machine in general) dry. Never work on electrical components while standing on or near wet surfaces.
- Always assume a circuit/component is live until proven dead by proper testing. Always test circuits/components with appropriate test equipment (not your fingers).
- Always be on the lookout for electrical wires and components that are frayed, cut, loose, broken, or exposed. Repair/replace such wires and components before machine power is restored and the machine is operated.
- Prior to machine operation, make sure wires, motor plugs, cables and similar devices are securely connected.
- **Never** remove a lockout device or "Do Not Start" tag unless you were the one who put it there. Notify everyone in the machine area when you remove your lockout/tagout that power is going to be restored to the machine.

Flammable/ Hazardous Materials Safety

Flammable/hazardous materials may be present during the converting process. Improperly handled flammable/hazardous materials can cause serious injuries.

NOTE: Material Safety Data Sheets (MSDS) for all flammable/hazardous materials on your machine, and within systems that your machine is equipped with shall be supplied.

- Familiarize yourself with the potential dangers presented by flammable/hazardous materials on/in your machine. The product label, vendor literature, MSDS sheets, and/or the Instruction manual Caution, Warning, and Danger statements state what precautions should be taken to help prevent injury.

- When handling hazardous materials, wear recommended protective clothing (eye/face shield, gloves, apron, etc.) and carefully follow the directions on the label, in the vendor literature, on the MSDS sheets, and/or in the Instruction manual statements.

- Store cleaning fluids and other spare flammable/hazardous materials in a safe place, away from the machine area. This includes rags and other items that have been contaminated with flammable/hazardous material.

- NEVER store flammable/hazardous materials in containers that are not labeled correctly or in containers that are not approved/appropriate for the material being stored within them.

- Restrict smoking and open flame in areas containing flammable/combustible material.

- Keep fire extinguishers fully charged and in convenient locations throughout the machine area. Have the extinguishers checked routinely and make sure they are rated for the type of flammable/hazardous material being used. NEVER return a used or empty extinguisher to its original location until it has been recharged. Have spare, fully charged extinguishers on hand to replace used extinguishers until they have been recharged.

- Dispose of flammable/hazardous materials in accordance with applicable local, state, and federal regulations.

Hazard Warnings

JBT/Prime Equipment Group uses safety signs mounted near or within potentially hazardous machine areas to warn machine users of residual risks in that area (residual risks are those that could not be completely safeguarded for all instances of use). JBT/Prime Equipment Group also uses Caution, Warning, and Danger statements throughout the Instruction manual to alert machine users of potential hazards and instruct them on measures to take to avoid personal injury.

The safety signs on the machine and the Danger, Warning, and Caution statements throughout the Instruction manual use signal words to identify the seriousness of the potential hazard. These signal words are Danger, Warning, and Caution and are defined on the next page.

Safety Signs

Machine users must be trained to understand the meaning of these signal words (Danger | Warning | Caution) prior to operating and/or servicing the machine.

If a safety sign is illegible, missing, or damaged in any way, report it to your supervisor. She/he will go through the appropriate procedure to obtain a replacement safety sign.

The **DANGER** statement indicates an immediate hazard or unsafe practice that, if ignored, **will** result in **serious injury or death**.

Example:

	**DANGER: Do not remove applied lockout if you are not the person who applied the lockout.** **See Lockout/Tagout procedure for instructions.**

The **WARNING** statement indicates a potential hazard or unsafe condition that, if ignored, **could** result in **serious injury**.

Example:

	**WARNING: Before removing lockout devices, check the area around the equipment to ensure that all tools have been removed, all guards have been reinstalled, and all employees are in the clear.**

The **CAUTION** statement indicates a potential hazard or unsafe condition that, if ignored, **might** result in **minor injury and/or machine damage**.

Example:

	**CAUTION: For continued protection against possible damage to the machine, check the area for debris before starting up the machine.**

Safety During Machine Installation & Disassembly

Machine installation/disassembly presents hazards and unique challenges to those unfamiliar with installation/disassembly techniques. If specified, experienced service technicians will install the machine. If you select an alternative installation company or decide to install the machine yourself, JBT/Prime Equipment Group recommends having our service technician(s) check installation and initially start/adjust the machine.

The following information should be used as a reference guide when installing/disassembling machines. It should not be considered a substitute for experience or assistance.

- Know and comply with applicable federal, state, and local codes regarding machine installation/disassembly.
- Rope/block off the area where the machine is going to be installed/disassembled. Allow only authorized personnel directly related with installation/disassembly within the area.
- Make sure everyone working in the installation/disassembly area is supplied with and wears all necessary protective clothing (hardhats, steel toed footwear, gloves, etc.).
- Review the installation drawing package prior to machine installation. When applicable, the drawings have weights and lift points called out on them.
- If you have questions, get answers before you start to install the machine. Keep the installation drawings at the installation site for quick reference during the installation process.

SAFETY

- Use lifting and moving equipment (overhead cranes, hoists, straps, chains, forklifts, etc.) that meet or exceed each machine section weight. Make sure the lifting and moving equipment is in proper working condition.

- Do not rush. The equipment is only installed once. Doing it safely, thoroughly, and correctly will prevent accidental injury and help ensure satisfactory machine operation.

- Keep the work area clean. Remove debris from the area often. Put away tools that are not being used.

- Install all guards and access panels that may have been removed for shipping purposes.

- **NEVER** defeat or remove any of the safety devices. Each one performs a specific function and all of them are provided for your protection.

- Prior to applying power to the machine, walk around the machine making sure all guards, access panels, interlocks, lifelines, and other safety devices are installed/functional and that all personnel in the area are clear of the machine.

Machine Guarding

JBT/Prime Equipment Group machines are equipped with operator access guards, maintenance access guards, and fixed guards to protect machine users from potential hazards (nips, meshed gears, rotating shafts, spinning blades, etc.).

NOTE: Only authorized personnel should be allowed to open or remove any guard. All guards must be properly closed or reinstalled prior to resuming operation.

Operator Access Guards

Operator access doors and guards are either electronically interlocked (restricts entry to the area until machine components reach zero speed, with or without timer at zero speed) or interlocked (initiates machine shutdown if the machine is in the run mode and a door or guard is opened).

Prior to opening the operator access doors or guards, it is the responsibility of the person that will open the door or guard to place the appropriate lockout/tagout on the machine following your company's lockout/tagout policy.

Both types of interlocks restrict the machine from starting in the run mode if an operator access door or guard is open.

In certain instances, machine jogging is permitted with an operator access door or guard open. This can only be done using the jog control in the immediate vicinity of the opened operator access door or guard. This ensures that machine movement can only be initiated by a person adjacent the open door/guard and that all potential hazards in the immediate area can be seen by her/him.

NOTE: The normal stop control should always be used to trigger all non-emergency machine stops. When the machine is in the run mode, interlocked doors or guards should only be opened to emergency stop the machine when saving life or limb.

Maintenance Access Guards

Maintenance access guards (example: doors to drive components) are typically hinged or removable. They require a tool to open them. Since use of a tool is required, they are not typically interlocked.

Prior to using the tool to open or remove the access panel or guard, it is the responsibility of the person that will open/remove the panel or guard to place the appropriate lockout/tagout on the machine following your company's lockout/tagout policy. Close/replace the access panel or guard prior to removing the lockout/tagout.

Fixed Guards

Fixed guards are used to cover machine areas that are infrequently accessed. These types of guards are not interlocked, hinged; or in any way, designed to allow operator or service technicians easy access to the area.

Fixed guards should only be removed by company authorized personnel (maintenance personnel, service technicians, etc.).

Prior to removing a fixed guard, it is the responsibility of the person that will remove the fixed guard to place the appropriate lockout/tagout on the machine following your company's lockout/tagout policy. Install all removed fixed guards prior to removing the lockout/tagout.

Pressurized System Safety

The machine could be equipped with pneumatic and hydraulic systems to move and control machine components. These systems are typically under pressures high enough to cause serious injury if mishandled.

- Obtain company training/authorization prior to servicing a pressurized system.
- Use the proper tools and equipment for the task being performed. Check the tools routinely to make sure they are in proper condition.
- Fluids under pressure can be extremely hot. Allow ample time for the system fluid/components to cool before servicing the system. Use an appropriate temperature measuring device (not your hand) to monitor the temperature.
- Lockout/tagout the machine and relieve stored energy in the pressurized system following your company's lockout/tagout policy prior to servicing/disassembling any portion of the system.
- Never operate or pressurize a system that has worn/damaged components. Never adjust pressurized systems beyond the recommended setting/range. The Machine Setting section of the Instruction manual provides base pressure settings for all pressurized systems that are not run at line pressure. These base settings could require minimal adjustment to best suit actual running conditions. Do not increase/decrease machine stopping times without consulting JBT/Prime Equipment Group.

WARNING LABELS AND LOCATIONS

SAFETY STICKER MAY COME OFF DUE TO USE OF HIGH-PRESSURE WATER. IF A STICKER IS MISSING IT MUST BE REPLACED IMMEDIATELY.

PART NO.	DESCRIPTION	QTY.	IMAGE
19883	SAFETY STICKER, WARN, VOLTAGE, HORIZONTAL	1	

System Description

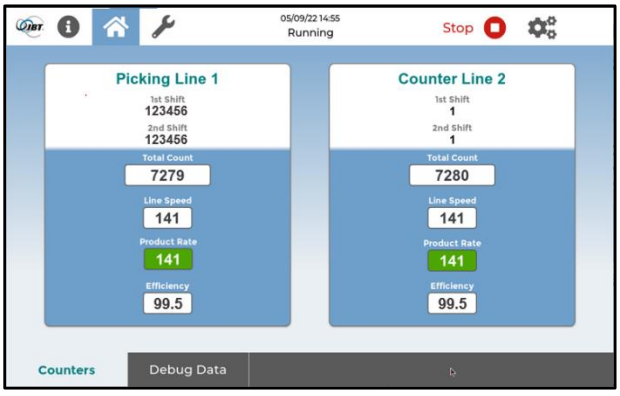
The **JBT First Processing Counter System** supports a maximum of eight counters with a single JBT controller. **JBT Counters** measure the efficiency of an operation by counting product as it comes down a line and then comparing the actual count against a projected count. Counters also provide a line speed and product rate per minute so that personnel can monitor and try to keep the speeds at the desired rate. JBT Counters are utilized in may areas of a poultry processing facility. Examples include counting birds on kill lines, evisceration lines, salvage lines and debone lines as well as counting thighs or leg quarters that are being processed by an automatic deboning machine. JBT Counters also support external lights that can be used to alert personnel when the desired product rate drops to an unacceptable level or when a line is stopped unexpectedly.

The words “photoeye” and “sensor” are used interchangeably in this manual.

Options
1 – 8 Counters (Product & Shaft Sensors)
Optional Redundant Counters
Optional external lights for product rate, no product lights or line down
Optional Lot Change Tracking

JBT Efficiency Management System

Most counter installations also include JBT EMS (Efficiency Management System) software that runs on a Windows computer in a nearby office. The JBT EMS software continuously uploads data during the day and stores it in a Microsoft SQL Server database. The program makes this data available to users via reports, charts, status screens, printing, automatic report emailing, alarms and many other useful features. There is also a client version of the software that allows users to run the program on their own computer in their office.



GENERAL INFORMATION

EQUIPMENT TRAINING RECORD

All Sanitation and Maintenance personnel must be trained in the following areas. Prime Equipment Group recommends you keep a record of personnel training. Prime Equipment Group is willing to assist with training, following a request to do so. Please feel free to call Prime Equipment Group for additional information.

- Installation and product application
- Disassembly and sanitation
- Instruction and parts manual
- Daily periodic maintenance
- Wearing parts
- Assembly and setup for operation
- Safety features and precautions
- Troubleshooting
- Recommended spare parts inventory
- Routine preventative maintenance schedule

LIMITED WARRANTY

Products purchased from Manufacturer are warranted only by the Manufacturer's warranty that the Product provided herein is of their standard quality and operable and that the Product will be free from defects in workmanship and material. The warranty period, for Product sold by Manufacturer and not expressly made subject to a different warranty, is one hundred twenty (120) days from date of receipt by Customer. There is no insurance against or warranty of any type for production loss due to late or damaged Product shipments. The Manufacturer makes no express or implied statutory warranties other than as expressly set forth herein.

Manufacturer shall for a period of one hundred twenty (120) days from the date any Product sold hereunder is received by Customer, repair or replace at its option, free of charge and F.O.B. point of manufacture, any nonconforming or defective parts or Product that upon inspection by Manufacturer, are deemed to be nonconforming or defective. Manufacturer shall, however, only be required to repair or replace such parts or Products if Customer (i) owned the nonconforming or defective parts or Product continuously from the original date of delivery, (ii) stored and maintained such parts and Product in accordance with Manufacturer's recommendations and standard industry practices and (iii) notified Manufacturer in writing of any non-conformance or defective parts or Product within fifteen (15) days following the date the nonconformity or defect became reasonably apparent. Further the obligations of Manufacturer hereunder do not apply to the repair or replacement of Products within the aforementioned warranty period for (a) misuse, negligence or accident, (b) normal maintenance services, (c) normal replacement of service items in connection with such service, (d) normal deterioration due to wear and tear, (e) use of non- manufacturer (OEM) replacement parts. The remedy provided in this Warranty shall be the sole and exclusive remedy of Customer in the event of defective or nonconforming parts or Product, and shall be void if the Product has been altered in any manner or has been moved from its original location without the written approval of the Manufacturer. The repair or replacement of any parts or Products
under the foregoing provision does not extend the warranty beyond the warranty period described above. All electric motors, controls and other electrical services and their component parts, hydraulic motors, controls and other hydraulic services and their component parts, pneumatic controls, pneumatic services and other pneumatic components, bearings, gearboxes etc. are not included within this Warranty; the warranty with respect to these parts being limited to the manufacturer of these parts, a copy of which may be obtained from Manufacturer upon request. Customer will be responsible for the shipping/packaging costs associated with the safe and expedient return of warranted parts. The Warranty can only be claimed if genuine Manufacturer spare parts are used for repairs and maintenance of the Product.

MANUFACTURER'S UNDERTAKINGS AS CONTAINED IN THIS WARRANTY AS SPECIFIED ABOVE SHALL BE IN LIEU OF ANY OTHER GUARANTY OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN ADDITION, IT IS EXPRESSLY AGREED BETWEEN THE PARTIES THAT THE MANUFACTURER HAS NOT MADE ANY REPRESENTATIONS OR WARRANTY AND THERE IS NO AGREEMENT THAT THE PRODUCT PURCHASED HEREUNDER WILL MEET ANY PARTICULAR
STANDARD UNLESS CUSTOMER HAS SUPPLIED MANUFACTURER WITH WRITTEN SPECIFICATIONS OF THE PRODUCT AND THE MANUFACTURER HAS AGREED IN WRITING THAT THE PRODUCT WILL MEET SPECIFIC STANDARDS SPECIFIED BY THE CUSTOMER. CUSTOMER UNDERSTANDS AND ACKNOWLEDGES THAT THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE TERMS HEREOF UNLESS OTHERWISE NOTED IN PURCHASE AGREEMENT.

NO CLAIM OF ANY KIND, INCLUDING, BUT NOT LIMITED TO CLAIMS OF NEGLIGENCE AND BREACH OF CONTRACT, WHETHER AS TO PRODUCT DELIVERED OR SERVICES RENDERED OR FOR NON- DELIVERY OF PRODUCT OR NON-PERFORMANCE OF SERVICES SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT OR SERVICES IN RESPECT OF WHICH THE CLAIM IS MADE. WITHOUT LIMITING THE FOREGOING, MANUFACTURER'S LIABILITY HEREUNDER SHALL, UNDER NO CIRCUMSTANCES, EXCEED THE PURCHASE PRICE SET FORTH IN THIS QUOTATION. MANUFACTURER SHALL, IN NO EVENT, BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT OR SPECIAL DAMAGES, LOSS OF BUSINESS PROFIT, PERSONAL INJURY, BUSINESS INTERRUPTION AND LOSS OF BUSINESS, EVEN IF MANUFACTURER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND ANY CLAIM BY CUSTOMER TO SUCH DAMAGES, WHETHER BASED ON TORT, CONTRACT OR OTHERWISE IS HEREBY EXPRESSLY WAIVED AND EXCLUDED.

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SN4391 Utilities.

Electrical.

- Customer is responsible for providing an electrical drop to the controller and for terminating into it.
    - Dedicated 120VAC, Single Phase, 60HZ, 6 Amps
- Customer is responsible for running the existing wire from each of the hardware components to the new controller and for replacing any worn or damaged wire. JBT Prime recommends shielded 10 conductor 22AWG communication wire. The JBT Prime tech will be responsible for terminating the wire.
    - 24VDC.

Network/Ethernet.

- Customer is responsible for running shielded CAT 6 ethernet cable from the controller to their nearest network switch.
- Customer is responsible for providing a static IP address for the controller. PLEASE NOTE CUSTOMER HAS PROVIDED THE FOLLOWING.
- Static IP Address First Processing Counter Controller
    - IP Address: 10.116.70.152
    - SN: 255.255.255.0
    - GW: 10.116.70.254
    - DNS1: 167.110.87.115
    - DNS2: 167.110.212.4
- Customer is responsible for providing remote VPN access to the controller to JBT Prime Principal Software Engineer Chris Freeman chris.freeman@jbtc.com.

Mounting

- Customer is responsible for all labor and material needed to mount the equipment and for providing and running any needed conduit.

MRS3101-SO203606S Utilities.

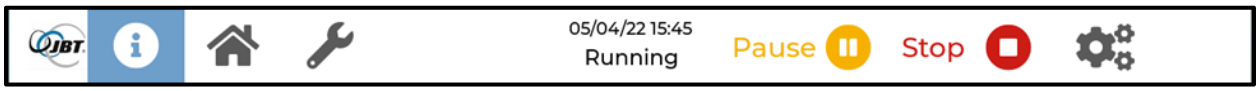
Electrical.

- Customer is responsible for plugging the computer into a standard 120VAC wall outlet. This computer should be placed in a dry climate controlled room like an office.

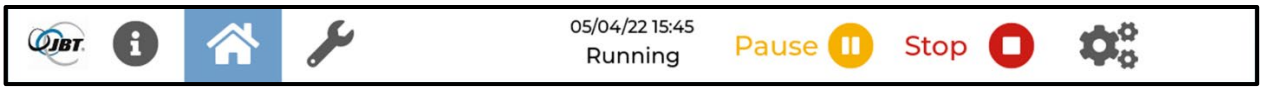
Network/Ethernet.

- Customer is responsible for running shielded CAT 6 ethernet cable from the controller to their nearest network switch.
- Customer is responsible for providing a static IP address for the controller. PLEASE NOTE CUSTOMER HAS PROVIDED THE FOLLOWING.
- Static IP Address MARS EMS Reporting PC
    - IP Address: 10.116.70.150
    - SN: 255.255.255.0
    - GW: 10.116.70.254
    - DNS1: 167.110.87.115
    - DNS2: 167.110.212.4
- Customer is responsible for providing remote VPN access to the controller to JBT Prime Principal Software Engineer Chris Freeman chris.freeman@jbtc.com.

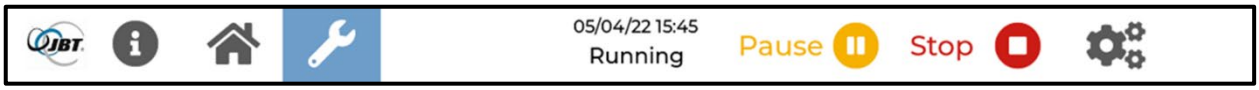
JBT System Navigation Site Map



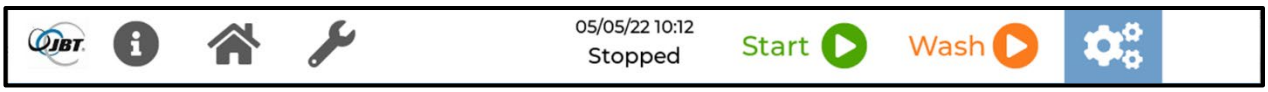
- **Info/About**
  - Company
  - Contact Info
  - Software Version



- **Home**
  - **System Console**
    - Counter
    - Debug
      - Show Block Times, Compare Sensors, Trolley Debug Data

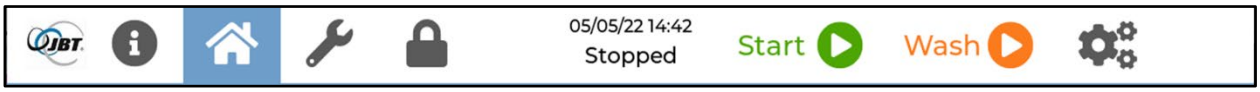


- **Tools**
  - Operator
    - Reset Counters
    - Line Count Data
  - System
    - Counter
    - Line Count
    - Lot Change (Optional)
  - Hardware
    - Hardware Test Screens
    - I/O List



- **Advanced Settings**
  - **Advanced**
    - Controller
    - Security
  - **Admin**
    - General
    - JBT Adv Admin (JBT Technician)
    - Adv Counter Settings (JBT Technician)

Navigation Bar



The Navigation Bar is the 1st layer of navigation. The selected icon is shown in blue.

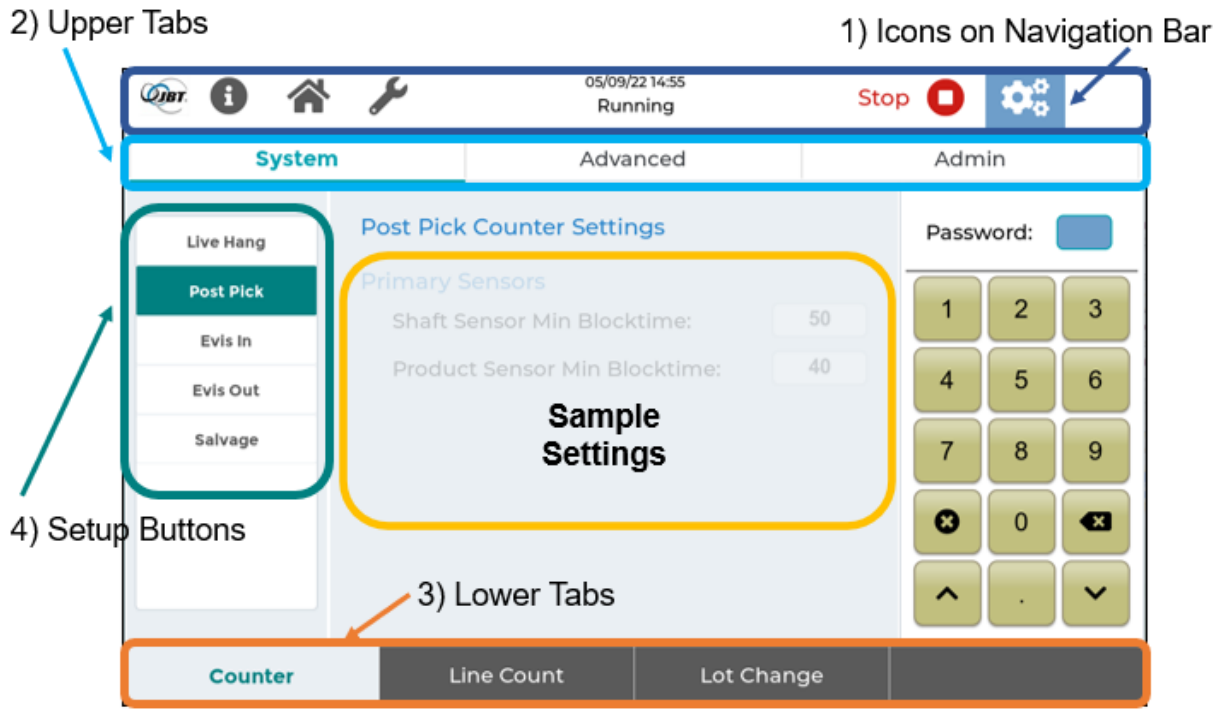
Icon	*Name*	*Description*
	Info (About)	Info about the company, contact info, program name and version.
	Home	The home screen shows the system in action. Startup and time-outs default to this screen.
	Operator System	The Tools section contains tools used by operators and their supervisors.
	Lock Screen	Lock the system (optional icon)
	Logged on Security Leval **Touch to manually logout.**	• Operator (Green): not shown if operator passwords are turned off. • Maintenance (Purple) • Advanced (Orange) • Super User (Red) Used during installation.
05/04/22 15:45 Running	System State	The center of the navigation bar shows the current tme and system state
Start	**Start**	Start the System. There is an option on Controller Setup to Autostart after Power-Up.
Stop	**Stop**	Stop the System. Passcord required to stop the system.
	Advanced Settings	The Settings section contains advanced System Settings, Security Settings, and Admin Settings.

JBT System Navigation

Navigation Overview

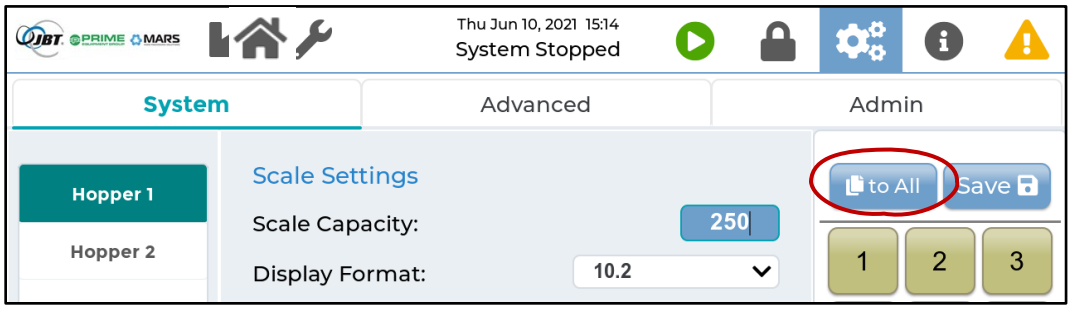
Navigation occurs in the following steps. Some screens may not use each of these steps (for example, the screen may not need setup buttons on the left), however the steps are always in this order.

Sample navigation steps to a setup screen:



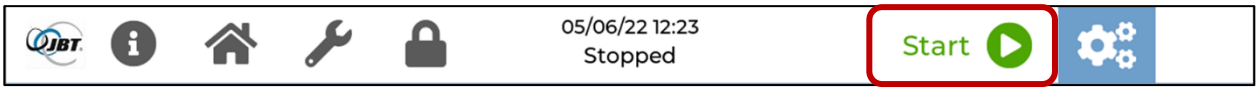
Settings (Cogs) – **System** (Upper Tab) – **Counter** (Lower Tab) – **Post Pick** (Setup Button)

Copy to All button copies the values of the 1st entity to other entities.

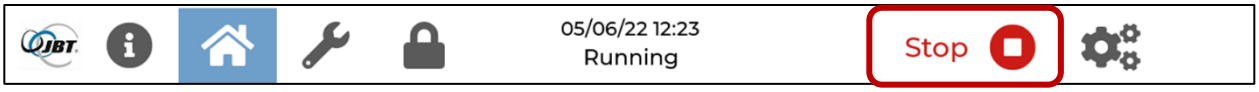


System Console – System Controls

System controls are located on the navigation bar.



Start the system by touching the **Start** button on the **Navigation Bar**. The system is also started automatically if a button isn't touched within 20 seconds after powering up the **JBT Controller**. An option to enable/disable autostart on power-up is on Settings (Cogs) – Advanced (Top Tab) – Controller (Bottom Tab)



Touch the Stop icon to stop the system. A Level 1 Operator or above password is required to stop the system.

Adjusting Settings

Touch the **Tools (Wrench)** icon to access the **Operator Tools** such as Bird Reject Button activation, Hardware Test, or Line Count Setup.

Touch the **Settings (Cogs)** icon for system configuration settings..

It is not necessary to stop the system to adjust the settings.

System Console Screens

Screens associated with the system console/home screen are accessed by the tabs across the bottom of the home screen

System Console – Counter Screen

The **1st Processing System Console** displays the shift count, total count, line speed, product rate and product efficiency for each counter. The System Console can show up to eight counters.

Total Count: The total number of products (birds) counted for the current shift.

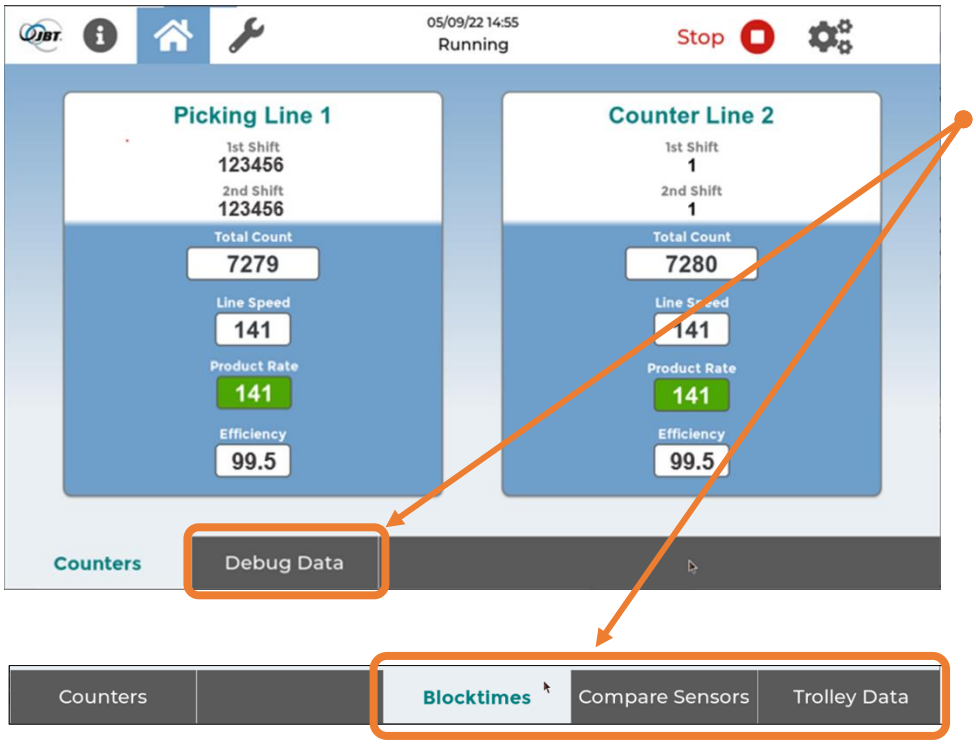
Line Speed: The number of shackles counted for the previous minute.

Product Rate: The number of shackles with product (a bird) on them that were counted for the previous minute. The product rate will be displayed with a green background if the rate is within the acceptable range or with a red background if out of range

Product Efficiency: The percentage of shackles (or cones) that had birds on them for the current shift.

Debug Data

The **Debug Data** tab provides a login to access debug data screens.



Use the Debug Data tab to access the debug options shown below.

Touching the Counters tab or the Home icon cancels the Debug Screens.

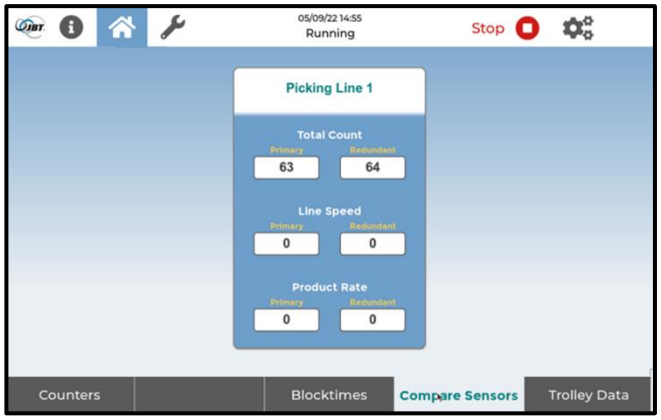
Show Block Times

The block time durations are shown in the yellow section below.

The product block time is the amount of time the product photoeye was blocked **while the corresponding shaft was also blocked**. The block time shows as green (valid) or red (invalid).

Compare Sensors

Compare the counts of the primary and redunant sensors. This feature only applies to counters with redunant sensors.

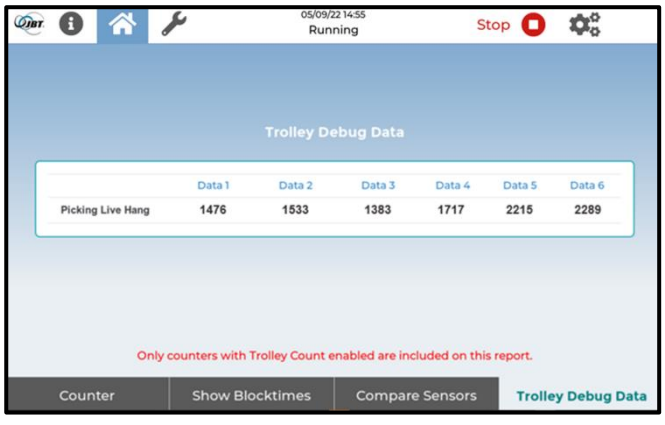


For each counter with redundant sensors, the **Primary Count** is displayed with the **Compare Count** below. The Primary Count is the current product (bird) count for the primary sensors and the Compare Count is the current product count for the redundant sensors.

Typically, the Redundant Count should be within 0.4% of the Primary Count or there is a problem. JBT guarantees that our counters are 99.6%. If the compare totals screen shows counts different by more than 0.4% for a counter, then please contact JBT to assist with fixing the problem.

Trolley Debug Data

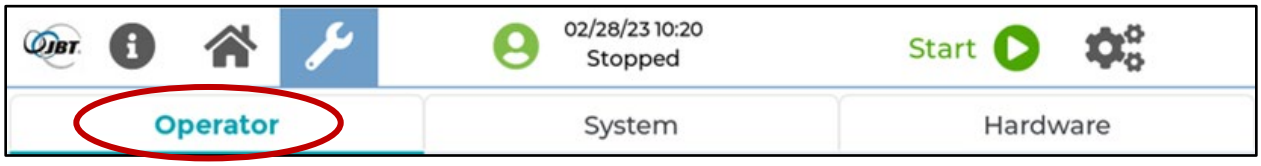
The Trolley Debug Data screen shows the 6 most recent Trolley block times for each counter, that exceeded the value configured for the Trolley Debug Min block time on the Line Count Setup screen.



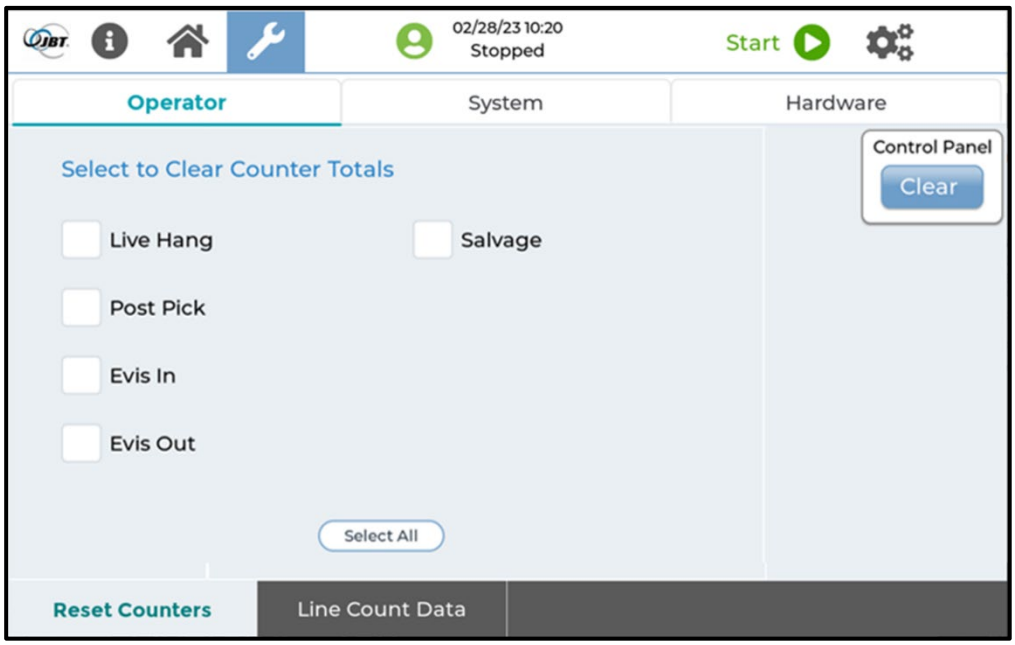
The special Trolley Count trolley that blocks the shaft photoeye longer than the other trolleys only comes around once for each revolution of the chain. A complete revolution may take 10 to 15 minutes. It would be difficult and time-consuming to use the Hardware Test screen to accurately see how long this special trolley blocks the shaft photoeye.

The Trolley Debug Data screen allows you to see the block times spread out over an hour or more. The values shown on this screen can then be used to accurately configure the Trolley Count minimum and maximum block times on the Line Count Setup screen.

Tools (Wrench) – Operator - Reset Counters



Navigation: Tools (Wrench) – Operator (Upper Tab)- Reset Counters (Bottom Tab)
Security Level: Level 1 Operator Password or above.

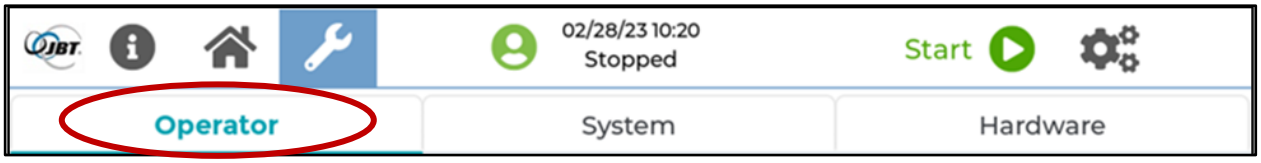


The 'Clear' button appears after logging in. Touch individual counters to clear totals or 'Select All' to select all counters.

Checkbox touch areas include the label. Touching any part of the checkbox/label line is usually sufficient to toggle the checkbox.

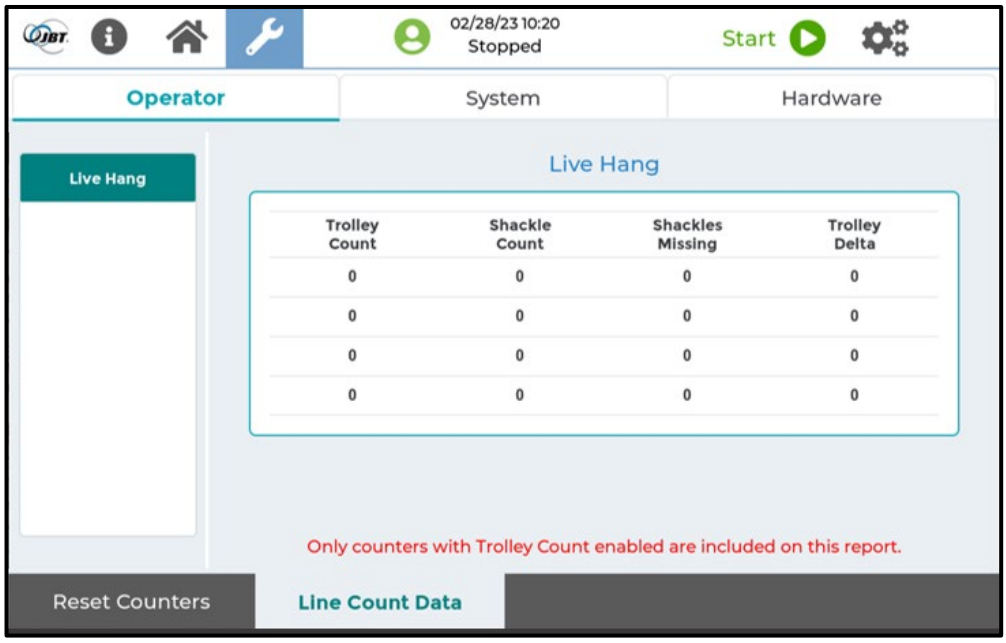
After a Counter is selected, a red border appears around the 'Clear' button to alert the user that a change has been made to the screen, and the user must press the **Clear Button** to complete the process before leaving the screen.

Tools (Wrench) – Operator - Line Count Data



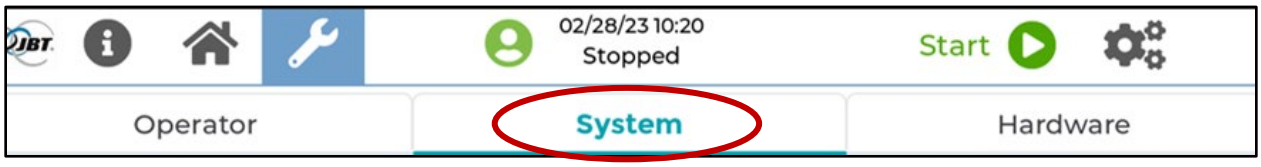
Navigation: Tools (Wrench) – Operator (Upper Tab) - Line Count Data (Bottom Tab)
Security Level: Level 1 Operator Password or above.
Note: This report is only accessible Trolley Count has been configured for the line.

The Line Count Data screen shows the 4 most recent Trolley Counts, Shackle Counts and Trolley Deltas. See Line Count Setup for more information.

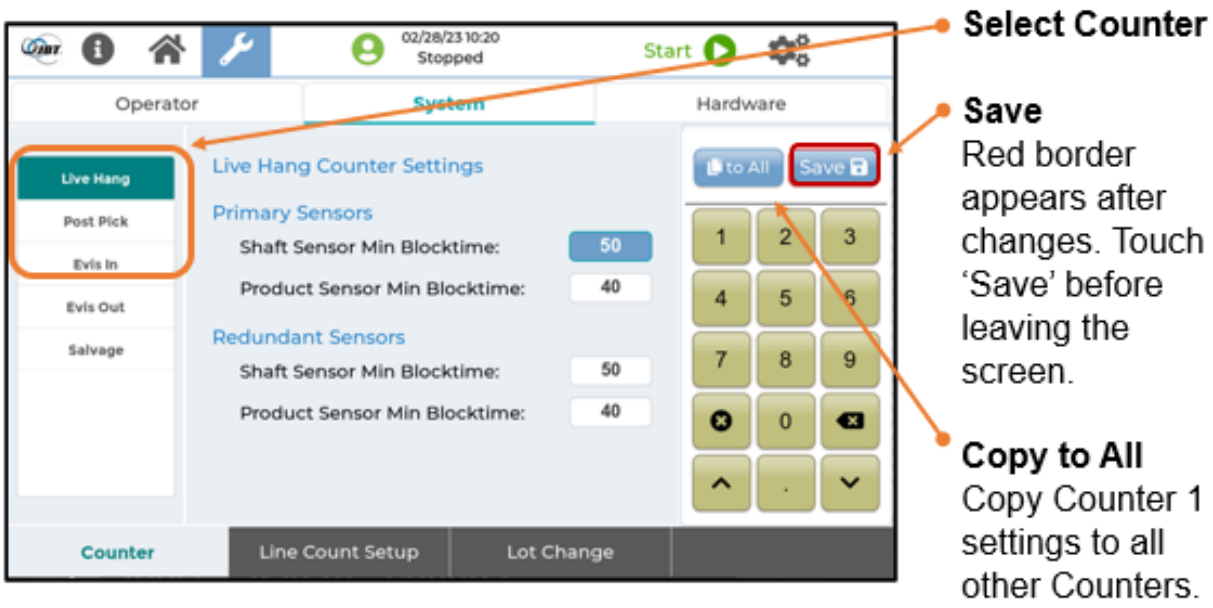


The Shackles Missing column is calculated by subtracting the Shackle Count from the Trolley Count. The Shackle Count is only used with Evisceration Lines and the Shackles Missing value indicates how many trolleys on the Evisceration Line are missing the shackle portion below that holds the bird. The shackle portion is typically made of plastic and can break off from the trolley.

Tools (Wrench) – System – Counter Settings



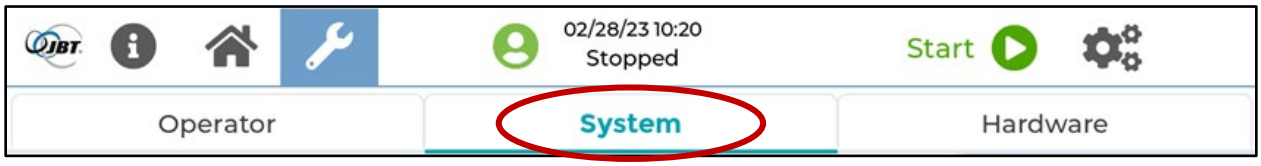
Navigation: Tools (Wrench) – System (Upper Tab) – Counter (Lower Tab)
Security Level: Level 2 System Password or above



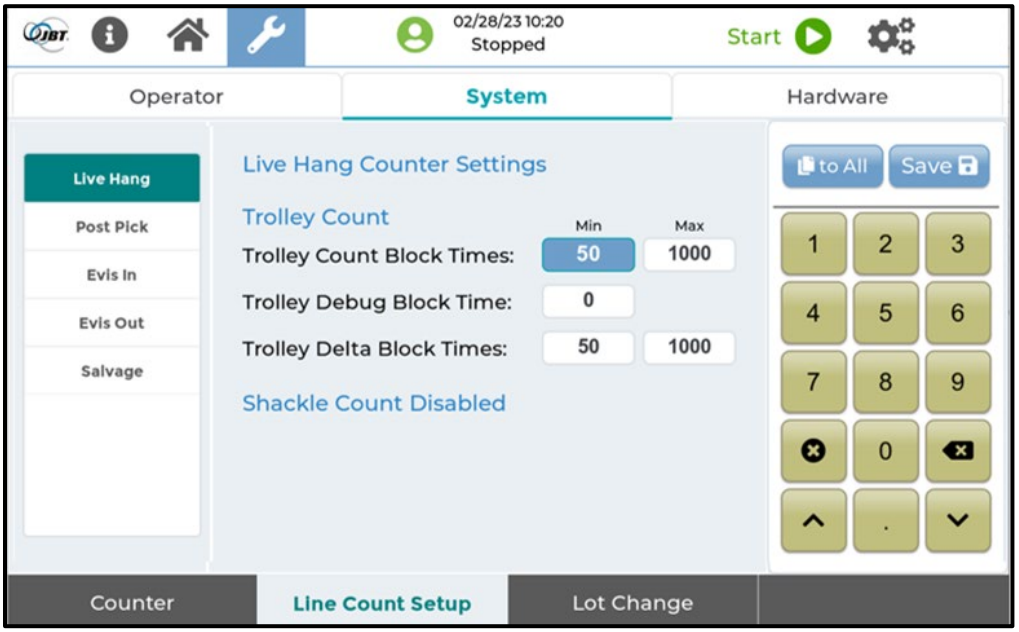
Minimum Photoeye Block Times
The minimum photoeye block time (milliseconds) required for a valid block.

- **Shaft sensors:** Minimum time the shaft photoeye must be blocked for the system to count a shaft (shackle).
- **Product sensors:** Minimum time the product sensor must be blocked, **while the shaft sensor is also blocked,** for the system to count a bird (product) on the shackle.

Tools (Wrench) – System – Line Count Setup



Navigation: Tools (Wrench) – System (Upper Tab) – Line Count (Lower Tab)
Security Level: Level 2 System Password or above.
Note: Only configured options are available for use.



Trolley Count: Minimum and maximum time that the shaft photoeye must be blocked by the special trolley that signals that a complete revolution of the chain has occurred. This special trolley has a piece of metal welded to it so that it blocks the shaft photoeye longer than the other trolleys. The Trolley Debug Min Block Time value below along with the Trolley Debug Data (Advanced Setup Menu) can be used to determine how long the special trolley blocks the shaft photoeye.

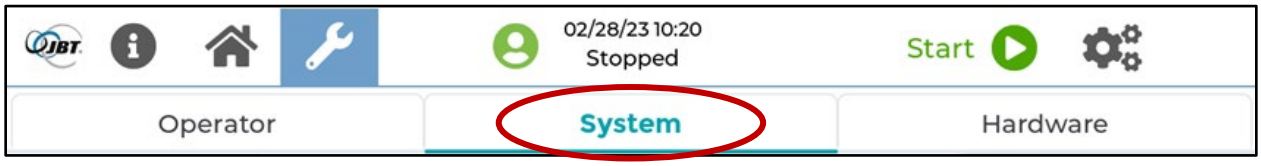
Trolley Delta: Used to Count the number of trolleys from one point on a line to another by reading a second trolley which has been designed to have a longer block time.

Shackle Sensor: Minimum and maximum time that the special shackle photoeye on the Evisceration Line must be blocked to count a valid trolley with a shackle intact below it. The Hardware Test screen can be used while the Evisceration Line is running to observe typical shackle block times.

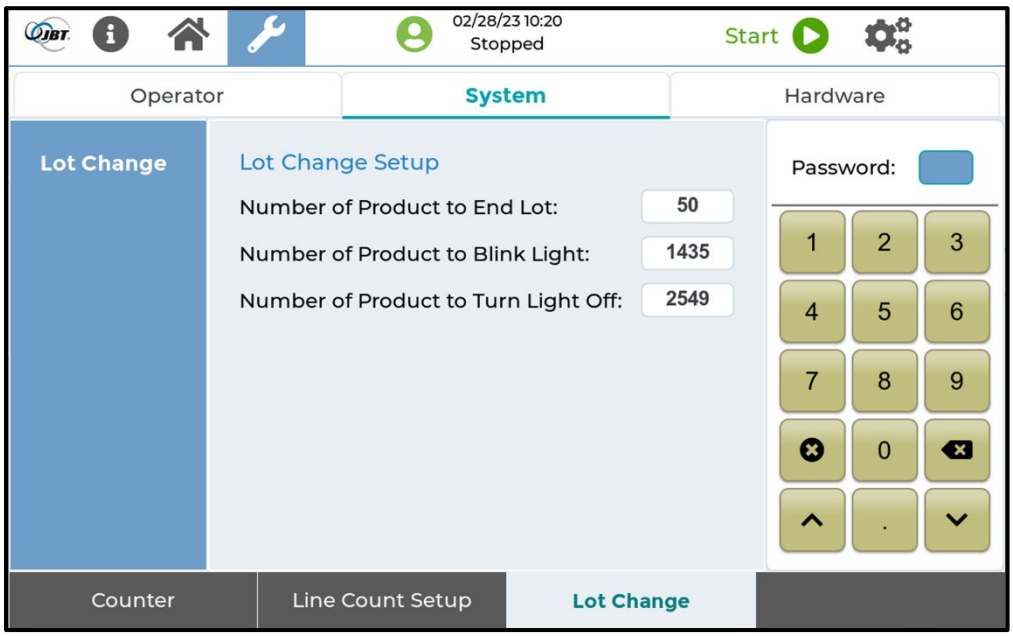
Shackles to Ignore: **T**his value is usually set to 0 to specify that every valid block of the shackle photoeye discussed above will count toward the Shackle Count. Some plants may have chains that cause the shackle photoeye to block a second time when every shackle goes by. In this case this value would be set to 1 specifying that only every other valid block of the shackle photoeye should count toward the Shackle Count.

Trolley Debug Min Blocktime: This value should be set to slightly less than how long the special Trolley Count trolley will block the shaft photoeye. This value should also be set higher than how long a typical trolley would block. The special trolley for the Trolley Count that indicates a whole revolution of the chain has occurred will block longer than a typical trolley because of the extra metal that has been welded to it. The actual block time will be stored in memory for the last 6 trolleys that have gone by where the block time exceeded this setting. The 6 most recent trolley block times that exceeded this setting can then be accessed on the Trolley Debug Data screen from the Advanced Setup menu. The 6 values shown can then be used to set the Trolley Debug Min Block time correctly.

Tools (Wrench) – System – Lot Change Setup



Navigation: Tools (Wrench) – System (Upper Tab) – Lot Change Setup (Lower Tab)
Security Level: Level 2 System Password or above
Note: Lot Change Setup only available of Lot Change is configured for your system.



The **Lot Change** settings are used to configure what happens when a lot change is occuring. Lot Change is used to get a total count of birds from a particular grower so the total count can be compared against the grower's count.

- Press the Lot Change Button for 3 Seconds to mark the End of a Lot.
- Press the Lot Change Button for 30 Seconds to mark the End of Shift.

When all product have been unloaded from a particular grower, press the Lot Change button for 3 seconds. The JBT First Processing Counter System will to close out the current lot and start a new lot. The total bird count for the lot being closed will be saved and uploaded to the JBT Efficiency Management System running on a Windows computer. The Lot Change data will then be available in the Lot Change report under the Counters tab.

Number or Product to End Lot: How many product must be counted after the Lot Change button is pressed for 3 seconds to actually close out the lot, save the total count for the lot and start a new lot count. Set this value to the number of live birds that are typically still on the belt when the Lot Change button is pressed.

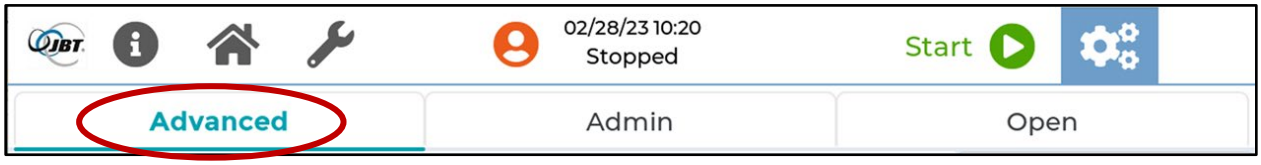
Number of Product Light Blink: How many product must be counted after the Lot Change button is pressed to start blinking a light notifying personnel in the plant that a lot change is in progress. Set this value to the number of shackles from the picking line live hang counters to the rehang transfer point, which should be a few shackles past the picking line post pick counters.

Number of Product Light Off: How many product must be counted before the light will stop blinking indicating that the lot change is complete. Set this value to the number of shackles from the picking line live hang counters to the USDA station on the evisceration line.

Save Button
Red border appears after changes. Touch 'Save' before leaving the screen.

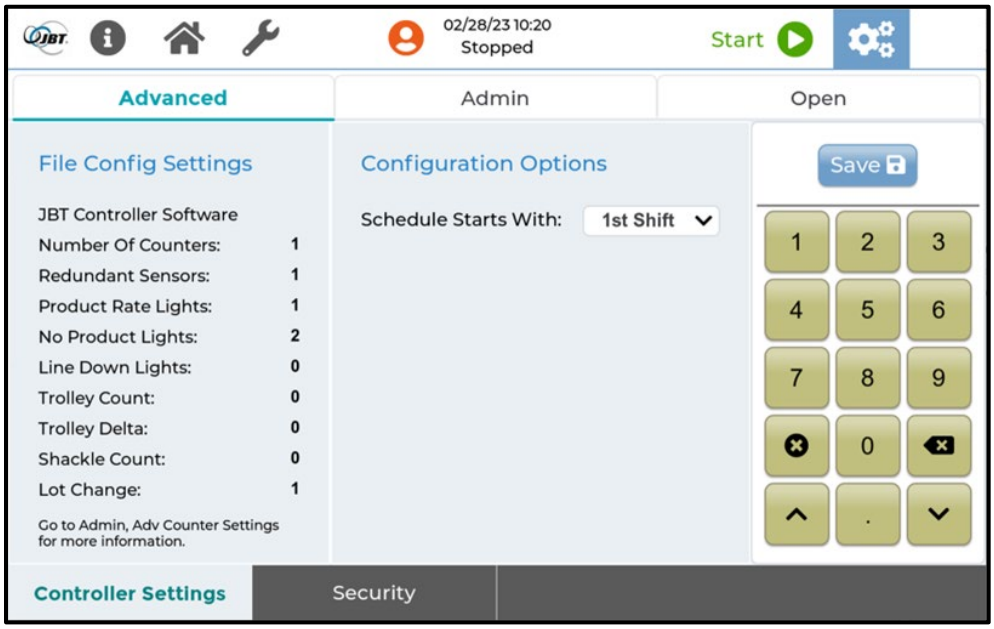
Copy to All Button
Copy Counter 1 settings to all other Counters.

Advanced Settings (Cogs) – Advanced - Controller Settings



Navigation: Settings (Cogs) – Advanced (Upper Tab) – Controller Setup (Lower Tab)
Security Level: Level 3 Advanced Password or above

These values are usually set during the initial installlation.



File Config Settings: Configuration settings that are specified in your plant's configuration file. This section is for reference only and provides information about how your system is configured.

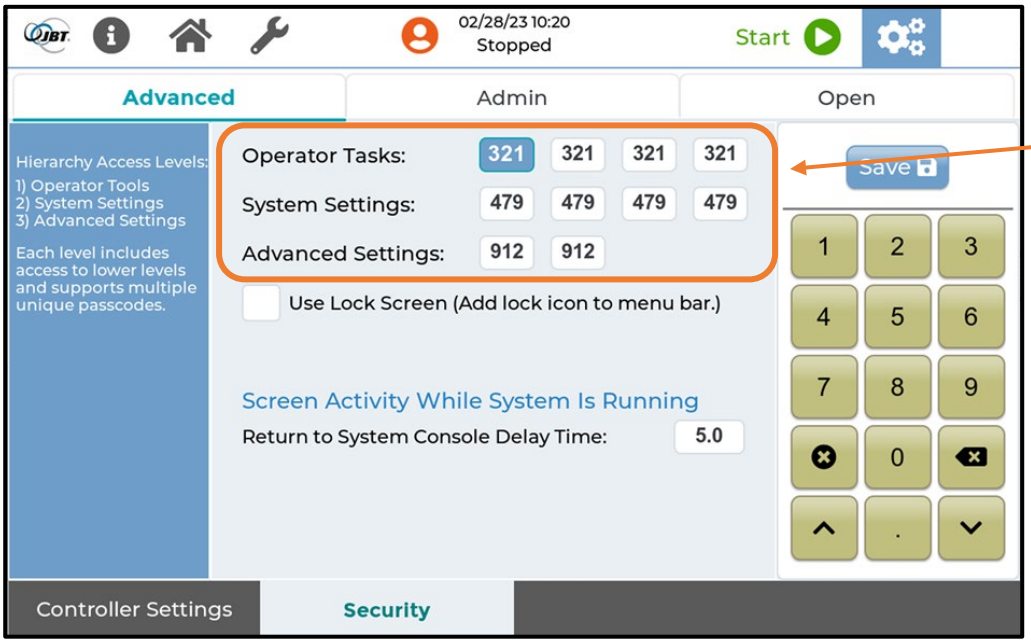
Configuration Options

Schedule Starts With: Specify whether the plant's day begins with first or 3rd shift.

Advanced Settings (Cogs) – Advanced - Security

Navigation: Settings (Cogs) – Advanced (Upper Tab) – Security (Lower Tab)
Security Level: Level 3 Advanced Password

The Gen 2 Security has changed from Gen 1's individual passwords managed externally, to a **hierarchy style managed by the plant.**



Security Hierarchy Level Passwords

Security Hierarchy
Passwords are evaluated by security level, and higher level passwords work on lower level tasks. For example, an Operator password is only valid on Operator tasks, were as System level password works on both Operator and System levels, and Advanced passwords work on Operator, System and Advanced tasks.

Level 1 Operator passwords are required for Operator type activity such as enabling reject buttons

Level 2 System Setting passwords are required for system configuration changes. These passwords should only be given to those who have the knowledge and authority to change system settings. Level 2 passwords also work for Level 1 Tasks.

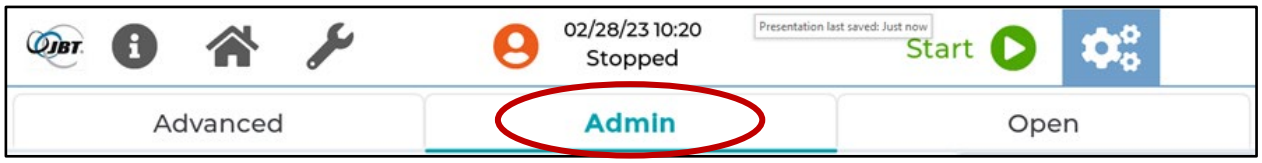
Level 3 Advanced Setting passwords are required for advanced system settings that should only be done by trained individuals. Level 3 passwords also work for Level 1 & Level 2 Tasks.

Return to System Console Delay Time
If the system is running, the home screen/system console is not the active screen, and there has been no user activity, the system will return to the home screen after the configured amount of time has passed.

Plant Managed Passwords
Operator and System levels support up to 4 different passwords, and Advanced Level support 2 passwords.

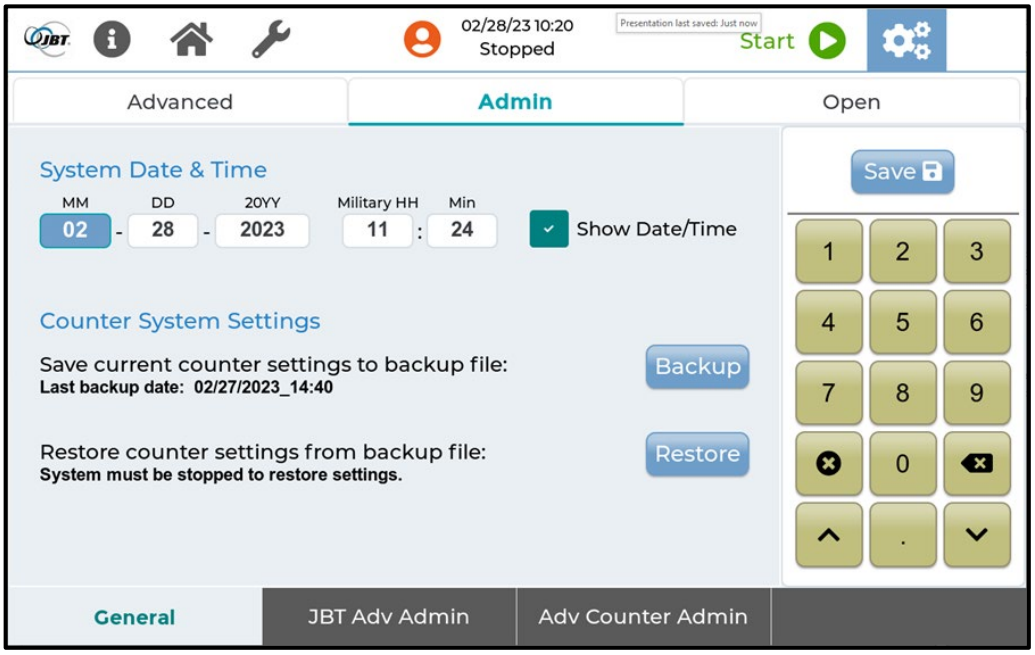
Invalid Passwords
Passwords must be three digits and can not start with 0. An invalid password entry will be changed back to the original value and a red border added to the textarea block to alert the user that the entered password was rejected.

Advanced Settings (Cogs) – Admin - General



Navigation: Advanced Settings (Cogs) – Admin (Upper Tab) – General (Lower Tab)
Security Level: Level 3 Advanced Password or above

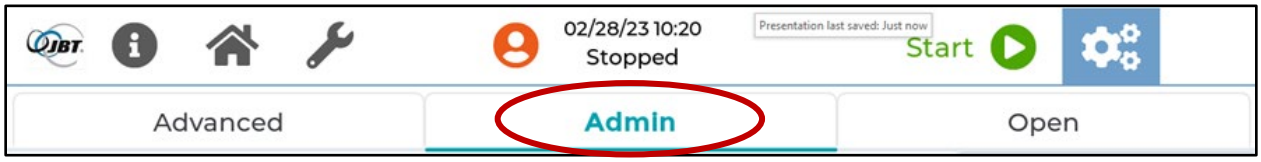
The General Admin screen contains settings and tools that are unrelated to your system's configuration or operation.



System Date & Time: The JBT controller has a battery-backed up clock for maintaining the correct Date and Time when the controller is not connected to the internet. Enter the correct Date and Time after logging in with your password. Then press the Save button.

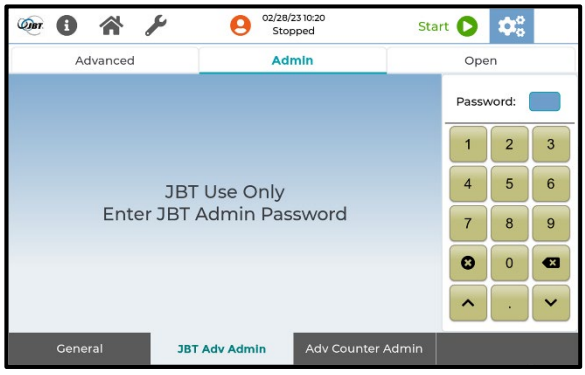
Exit to Operating System: Stop the system and exit the JBT software to the Operating System.

Advanced Settings (Cogs) – Admin – JBT Adv Admin



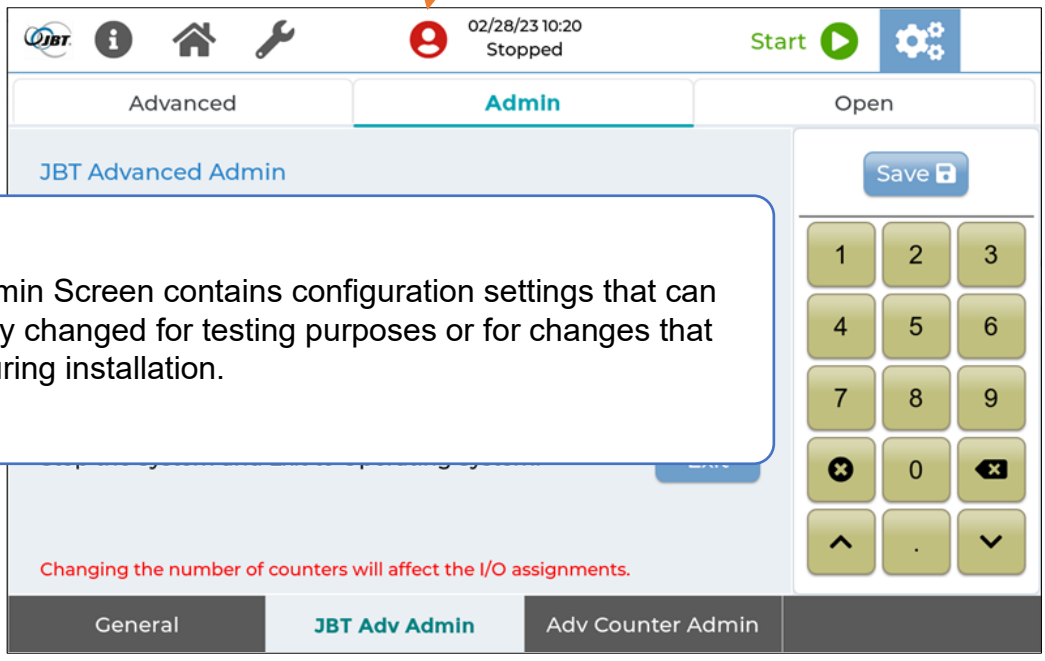
Navigation: Settings (Cogs) – Admin (Upper Tab) – JBT Adv Admin (Lower Tab)
Security Level: Level 3 Advanced Password or above
Security Level: JBT Super User (JBT Use Only)

The JBT Admin screen contains settings and tools that are used exclusively by a JBT Technician during installation.



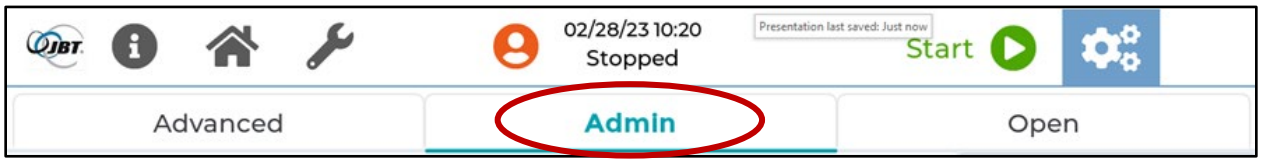
JBT Admin is logged in and passwords are disabled.

Touch icon to logout as JBT Admin.



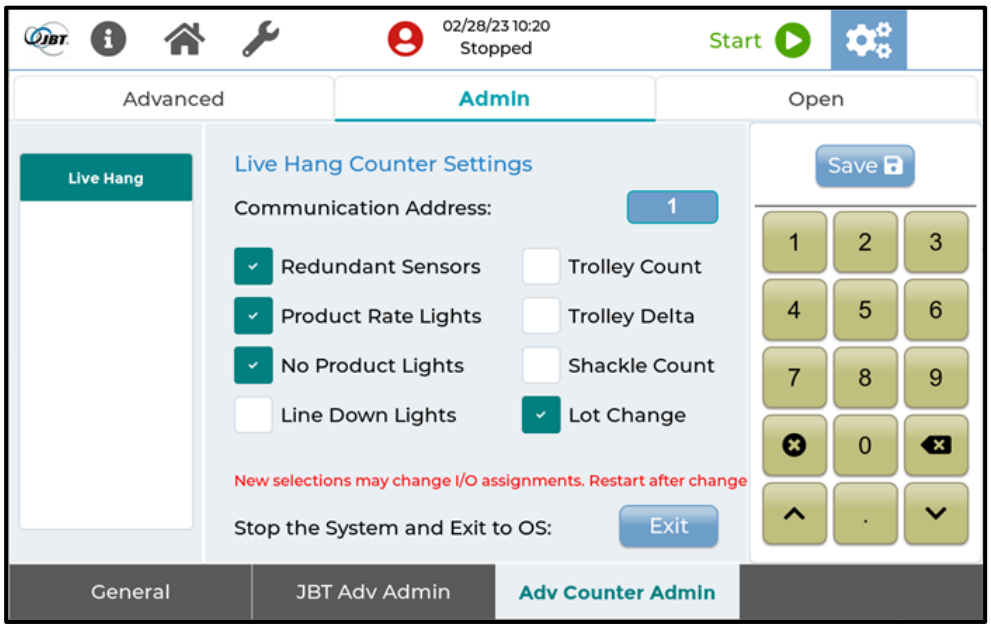
JBT Admin Screen contains configuration settings that can be easily changed for testing purposes or for changes that arise during installation.

Advanced Settings (Cogs) – Admin – Adv Counter Admin



Navigation: Settings (Cogs) – Admin (Upper Tab) – Adv Counter (Lower Tab)
Security Level: JBT Technician

Installation: The Advanced Counter screen is used by a MARSJBT Technician during the installation process to configure the counter options for each line. Most modifications will affect the I/O assignments and the hardware used.



Post-Installation: The Advanced Counter screen is visible as a setup reference. Select the counter names on the left to view settings per counter.

Advanced Counter Settings

Redundant Sensors: If selected, an additional set of photoeye sensors will be used on the selected line, and two separate shackle counts and product counts will be available for comparison.

Product Rate Lights: Green and Red Lights are installed where the operators can see them while working

- **Green Light**: The green light will turn on when the product count for the last minute met the desired target rate.
- **Red Light**: The red light will turn on when the product count for the last minute was less than the desired target rate.

The lights are off during break times and after production has finished for the day.

No Product Light: The No Product Light is used to verify that the counter hardware and software is detecting empty shackles or cones properly. The no product light will come on every time a shackle goes by without product.

Line Down Lights: Green and Red Lights are installed to quickly alert production supervisors and maintenance personnel when a line has stopped.

- **Green Light**: The line is running.
- **Red Light:** The line has stopped.

The Green and Red lights can be installed anywhere; however, they are often installed in the production supervisor's office or in the maintenance shop.

Check the appropriate setting if the system hardware has been configured to support these features:

- **Trolley Count**
- **Trolley Delta**
- **Shackle Count**
- **Lot Change**

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SANITATION

SANITATION PROCEDURES

There are no sanitation procedures for this manual.

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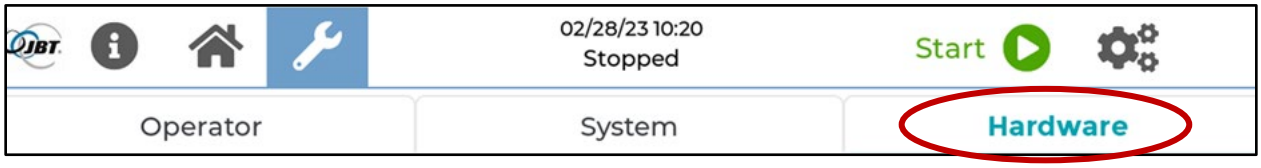
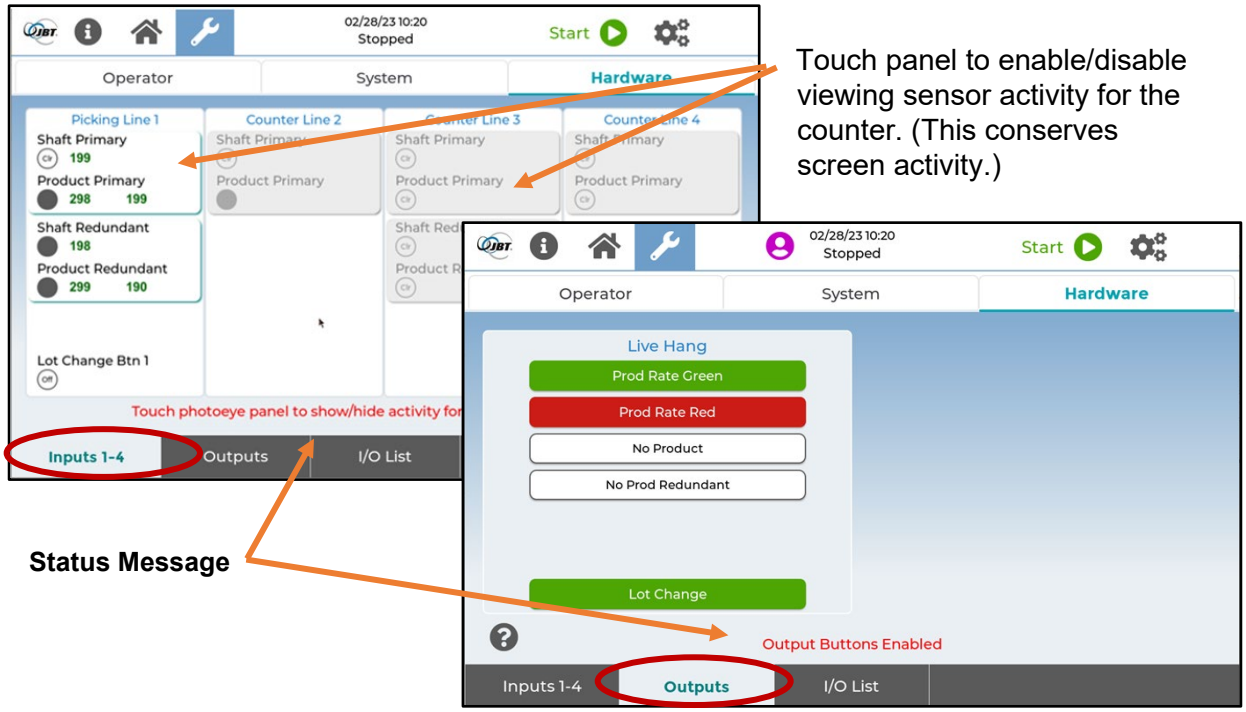
Tools (Wrench) – Hardware Test



Navigation: Tools (Wrench) – Hardware (Upper Tab) – Lower Tabs
Security Level: Level 2 System passcode or above

Your Hardware Test screen will reflect the inputs and outputs for your system.



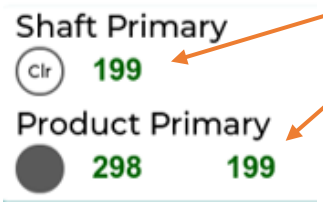
Verify Inputs

The input buttons are show as small circles which reflect the current state of the input.

Pushbutton States: Off

Photoeye Sensors: Clr

Product Photoeye Block Times

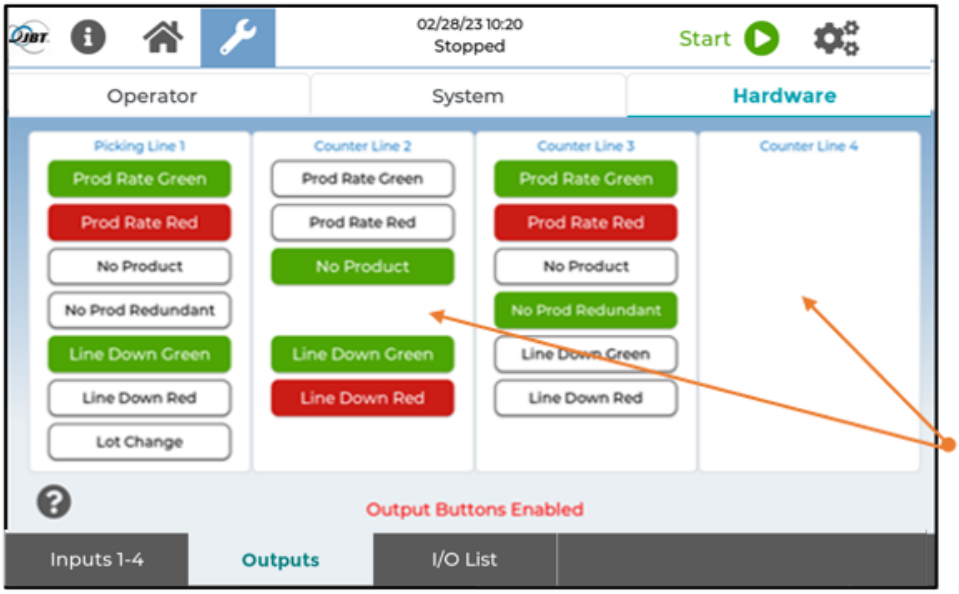


The amount of time the photoeye was blocked by product.

The amount of time the product photoeye was blocked **while the corresponding shaft or cone photoeye was also blocked**.

Test Outputs

Use the output buttons to test the signal used to control hardware such as gates and external lights. The output buttons also reflect the state of the output while the system is running. Touch the appropriate button to verify the correct response.
See Settings (Cogs) – Advanced (Upper Tab)- I/O List (Lower Tab) for I/O assignments.



The 1st Processing Counter system has many output options that vary by plant configuration and counter.

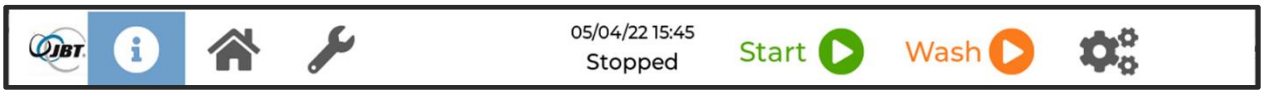
Most configurations will only have a few, if any, output options per counter.

Unused output options are blank on the Outputs screen.

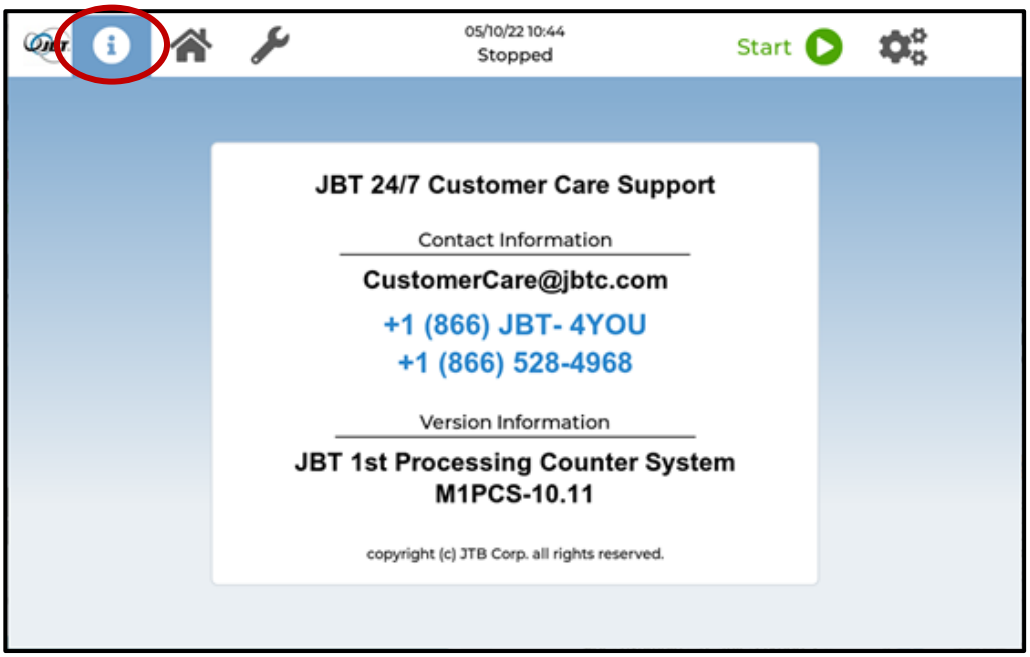
Touch the Output Buttons on the screen to manually test the lights installed for our system.

Output	System Activity
Product Rate Green Light	Turned on when product rate for the last minute is at the desired rate.
Product Rate Red Light	Turned on when product rate for the last minute is slower than desired.
No Product Lights	Turned on and off when a shackle without product passes by the primary/redundant photoeye sensors.
Line Down Green light	Turned on when the line is running.
Line Down Red light	Turned on when the line is stopped.
Lot Change light	Turned on when a lot change is in process. Turned off when the lot change is complete.

Info and About



Company, Contact, and Software Version Information



Contact Info

Phone: 1 - 866 – JBT – 4YOU
1 - 866 – 528 - 4968
Email: CustomerCare@jbtc.com

Contact a JBT Service Technician

If you have a question about your **JBT System** or require service after trying to troubleshoot the issue, please contact us using the contact information provided on your system's Info screen.

Troubleshooting

The **Hardware Test** screen is a good place to start when experiencing problems with the correct operation of your **JBT System**.

If all the external hardware appears to be functioning properly on the **Hardware Test** screen, then diagnosing the problem may require assistance from a JBT service technician.

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ASSEMBLY DRAWINGS

The following pages include the Bill of Materials and Assembly Drawings for SN4391.

JBT - Prime Equipment Group • 2001 Courtright Rd. • Columbus, OH 43232 | P 1 866 528 4968 | F +1 614 253 6966 | **jbtc.com**

Bill of Materials, Single Level

ReportName:50056

JBT Marel Corporation

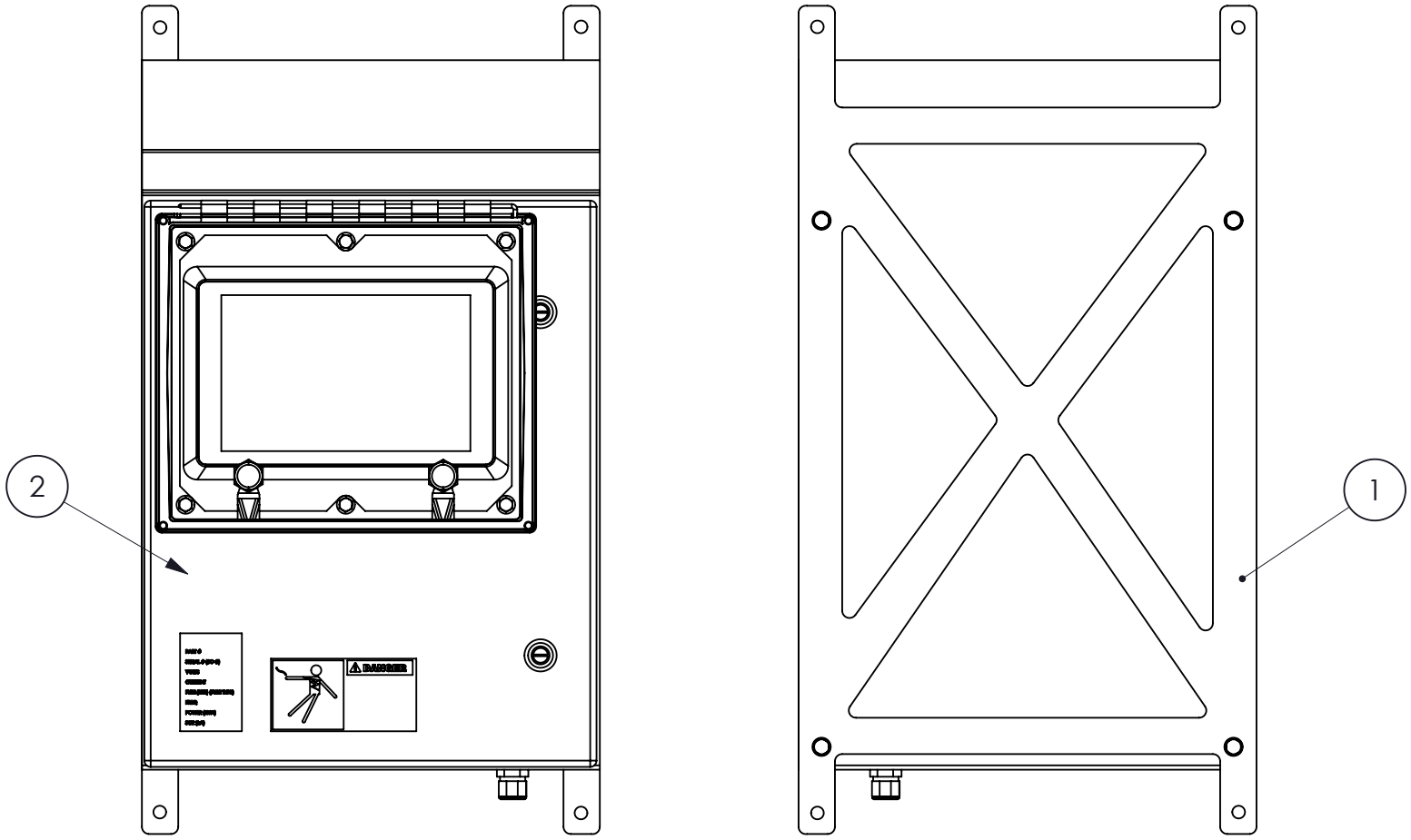
2001 Courtright Rd., Columbus, OH 43232
P: (614) 253-8590 F: (614) 253-6966
www.jbtc.com

March 6, 2025

Item No:
SN4391 **JBT CONTROLLER EFFICIENCY MGMT SYS**

Item No.	Description	Quantity Per	UOM
85083	KIT, BRACKET, JBT CONTROLLER	1	EA
MSCNTR-10001	COUNTER SYSTEM	1	EA

MODEL FILE: SN4391



ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
2	1	MSCNTR-10001	COUNTER SYSTEM
1	1	85083	KIT, BRACKET, JBT CONTROLLER

Revision	ECN #	By	Date	Description of Change
A	-	-	-	NEW SN

Current Revision Information

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
TOLERANCES

X.X ± 0.1 FRACT ±1/16
X.XX ± 0.01 ANGLE ±0.25°
X.XXX ± 0.005

SURFACE FINISH 250 MICROINCH.
BREAK ALL SHARP EDGES 0.015.
CONCENTRICITY 0.01 TIR.
WELD BEAD 1/8" TYP

LOCATIONS
Columbus, OH. USA (614) 253-8590
Gainsville, GA. USA (770) 532-4766
Chapeco SC Brazil 55 (49) 3328-3322

Material:	SEE BOM/DETAILS	
	SEE BOM/DETAILS	
Finish:	SEE BOM/DETAILS	
Heat Treat:	SEE BOM/DETAILS	
Designed By:	martist	02/27/2025
Detailed By:	martist	02/27/2025
Approved By:	mironeg	02/27/2025

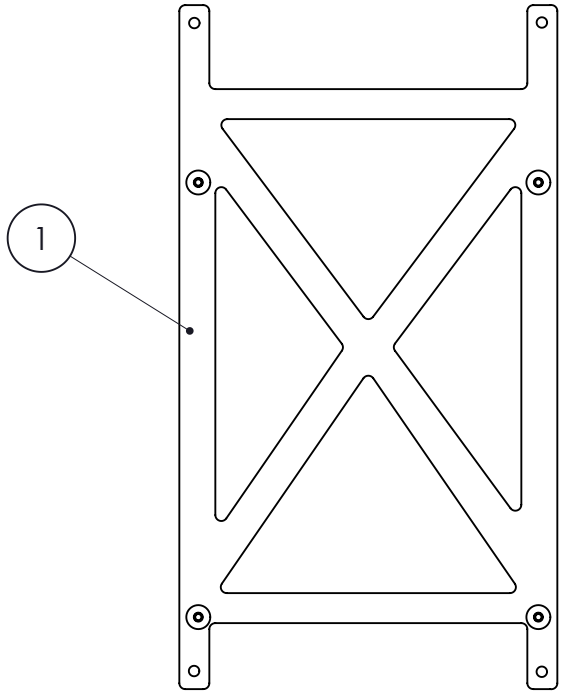
PRIME EQUIPMENT GROUP

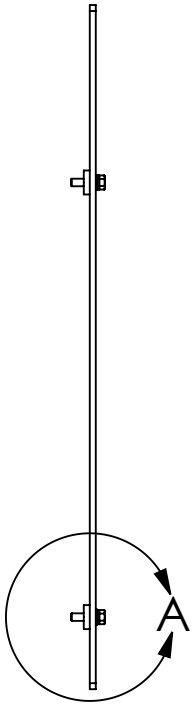
JBT CONTROLLER EFFICIENCY MGMT SYS

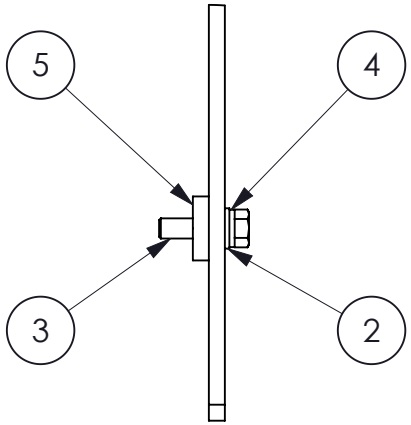
Size	Part Number	Rev.
A	SN4391	A

SHEET 1 OF 1

MODEL FILE: 85083







DETAIL A
SCALE 1 : 3

QTY.	ITEM NO.	PART NUMBER	DESCRIPTION
4	5	SPACER13SRS100555	SPCR,0.25X1.00ODX0.38ID,DLRN
4	4	MLWSS080	LW,M8 A-2,SS
4	3	MHTBS080C030	SCR,TAP,HEXHD,M8-1.25X30,SS
4	2	MFWUS080	FLW,M8,SS
1	1	85082	BRACKET, MTG, JBT CONTROLLER

Revision	ECN #	By	Date	Description of Change
A	-	-	-	NEW

Current Revision Information

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
TOLERANCES

X.X ± 0.1 FRACT ±1/16
X.XX ± 0.01 ANGLE ±0.25°
X.XXX ± 0.005

SURFACE FINISH 250 MICROINCH.
BREAK ALL SHARP EDGES 0.015.
CONCENTRICITY 0.01 TIR.
WELD BEAD 1/8" TYP

LOCATIONS
Columbus, OH. USA (614) 253-8590
Gainsville, GA. USA (770) 532-4766
Chapeco SC Brazil 55 (49) 3328-3322

Material:	SEE BOM/DETAILS
	SEE BOM/DETAILS
Finish:	SEE BOM/DETAILS
Heat Treat:	SEE BOM/DETAILS
Designed By:	martist 02/19/2025
Detailed By:	martist 02/19/2025
Approved By:	mironeg 02/20/2025

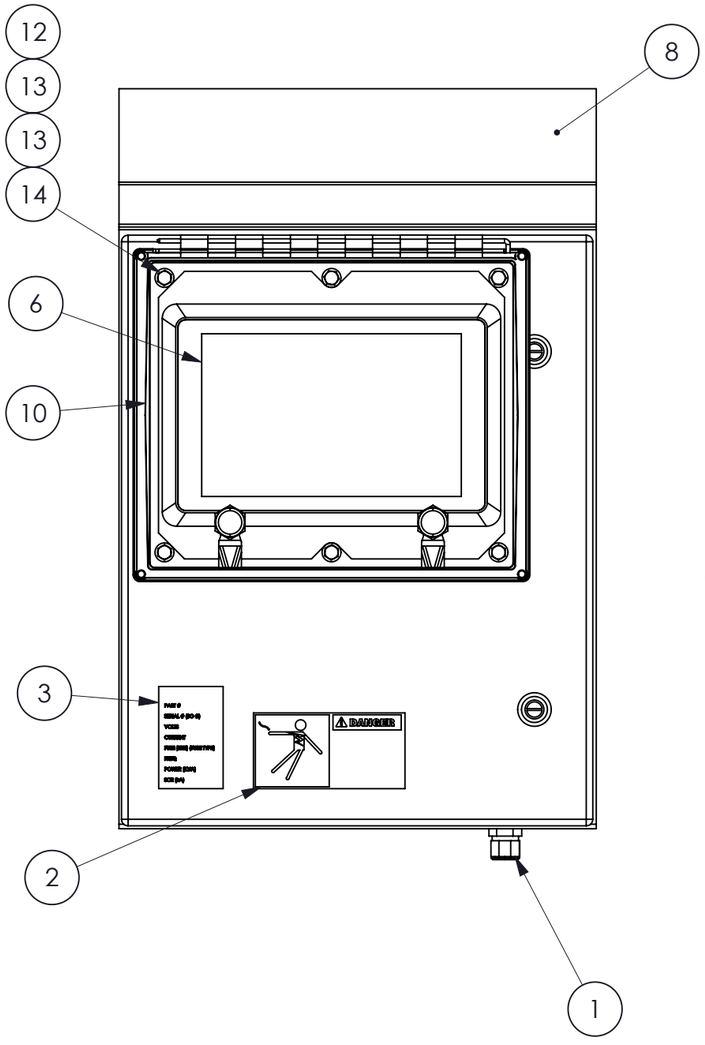
PRIME EQUIPMENT GROUP

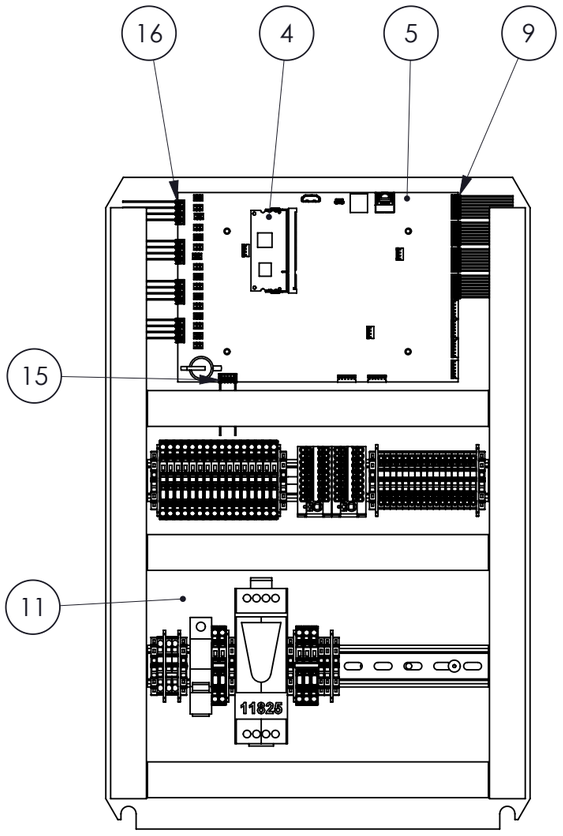
KIT, BRACKET, JBT CONTROLLER

Size	Part Number	Rev.
A	85083	A

SHEET 1 OF 1

MODEL FILE: MSCNTR-10001





NOT SHOWN: 7

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
16	4	MRS1043	CBL, OUTPUT WIRES W/CONNECTOR
15	1	MRS1042	CBL,POWER WIRE w/CONNECTOR
14	6	HCSS025C0100	SCR,CAP,HEXHD,1/4-20X1,SS
13	12	FWUS025	FLW,1/4,SS
12	6	ESNS025C	LKNT,INSR,NYL,1/4-20,SS
11	1	EA120-100001	MARS/JBT CNTRL PANEL ASM, BASIC
10	1	81636	CVR,HMI,12X10,MOD,PLASTIC
9	4	81250	CBL, INPUT WIRE W/CONNECTOR JBT CONTROLLER
8	1	81102	MACH, ENCL, 20X16X08, SLPTOP, JBT SYS (CAT)
7	1	80787	CBL, HDMI, 3FT
6	1	80742	DISPLAY, 10", PNL MT, ALUM BEZEL, IP65
5	1	80001	BOARD, CNTRL, JBT
4	1	79453-16-CP220-1004	RASPBERRY PI COMPUTE MODULE 3+ / 16GB
3	1	28814	PLT,LEGND,PVC,0,5MM THCK,US-EMLP 85,6X54
2	1	19883	SAFETY STICKER,WARN,VOLTAGE,HORIZONTAL
1	1	10526	CORD GRIP, 0.20-0.35, 1/2NPT, 1HOLE, STR

Revision	ECN #	By	Date	Description of Change
B	-	martist	07/18/2024	updated BOM

Current Revision Information

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
TOLERANCES

X.X ± 0.1 FRACT ±1/16
X.XX ± 0.01 ANGLE ±0.25°
X.XXX ± 0.005

SURFACE FINISH 250 MICROINCH.
BREAK ALL SHARP EDGES 0.015.
CONCENTRICITY 0.01 TIR.
WELD BEAD 1/8" TYP

LOCATIONS
Columbus, OH. USA (614) 253-8590
Gainsville, GA. USA (770) 532-4766
Chapeco SC Brazil 55 (49) 3328-3322

Material:	SEE BOM/DETAILS
	SEE BOM/DETAILS
Finish:	SEE BOM/DETAILS
Heat Treat:	SEE BOM/DETAILS
Designed By:	martist 07/01/2024
Detailed By:	martist 07/01/2024
Approved By:	mironeg 07/02/2024

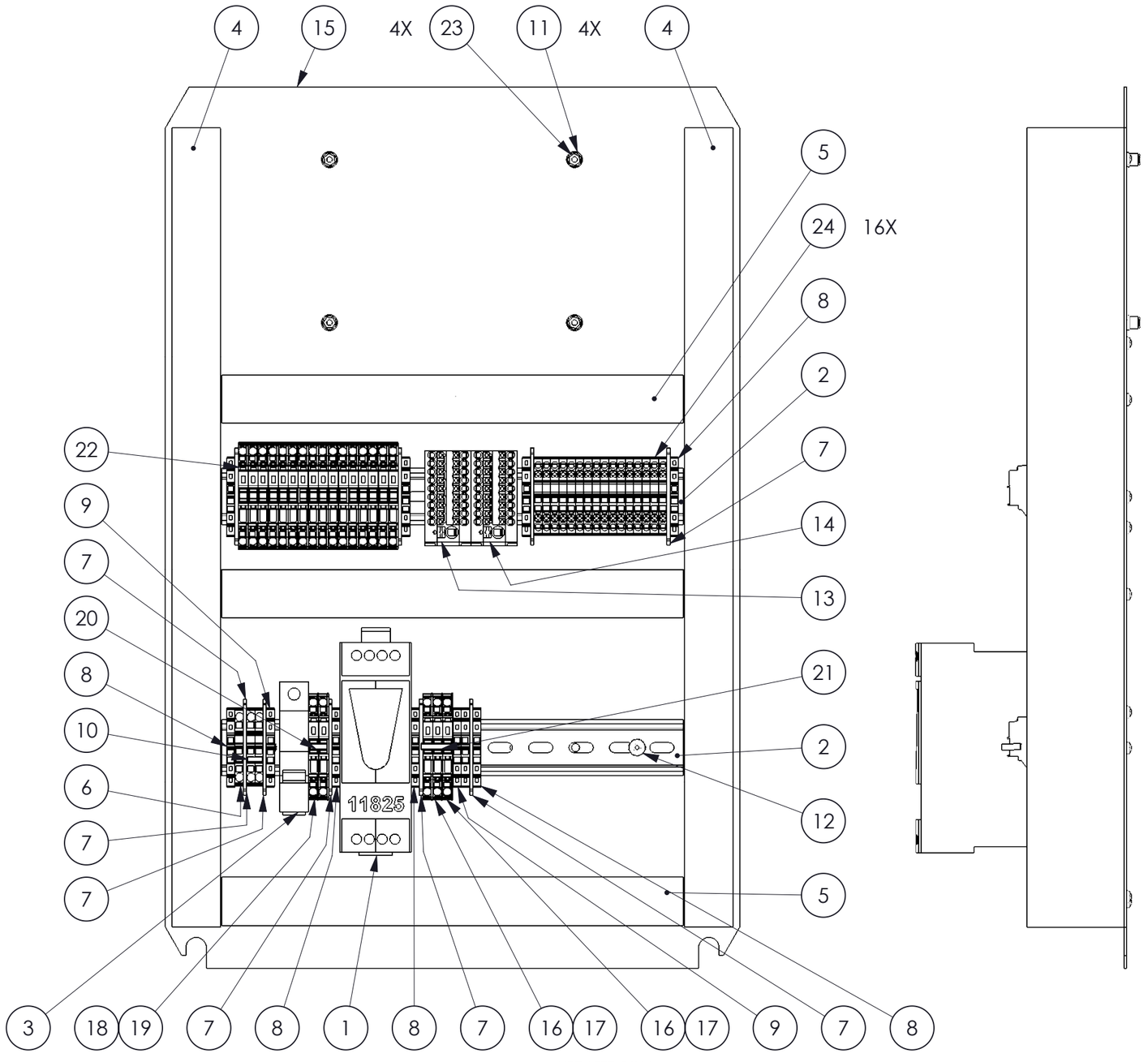
PRIME EQUIPMENT GROUP

COUNTER SYSTEM

Size	Part Number	Rev.
B	MSCNTR-10001	B

SHEET 1 OF 1

MODEL FILE: EA120-100001



ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	LENGTH
24	16	MRS1223	TERMINAL,26-12AWG,YEL,5.2MM	
23	4	MRS1021	Control Panel Long Stand-Offs	
22	16	84016	FUSE, 315mA, MINI	
21	1	82850	JUMPER, 3P, 6.2MM TERM, GRA	
20	1	82849	JUMPER, 2P, GRAY	
19	2	80044	TERM, HLDR, FUSE, MINI, 120V	
18	2	80038	FUSE, 5A, MINI	
17	3	80037	FUSE, 2A, MINI	
16	19	80036	TERM, HLDR, FUSE, MINI, 24V	
15	1	79926	PNL,BACK,16X20,SS,MARS 16 I/O	
14	1	69567	TERMINAL, DISTR, 19PTS, BK	
13	1	69566	TERMINAL, DISTR, 19PTS, RED	
12	25	59210	RIVET, POP, 3/16, AL	
11	4	59209	RIVET, NUT, 8-32, AL	
10	1	27503	JUMPER,BUS,2P,F/5.2MM TERM,RED	
9	3	27501	TERMINAL, GND, 26-12AWG, GRN/YEL, 5.2MM	
8	8	27500	END CLAMP, TERM, GRAY, 5.15MM	
7	9	27499	PART PLT, TERM, 2MM, GREY, F/27498	
6	3	27498	TERMINAL, 26-12AWG, GREY, 5.2MM	
5	3	17413	WIRE DUCT, 30X60MM, NAR SLOT, GRAY	11.25
4	2	17413	WIRE DUCT, 30X60MM, NAR SLOT, GRAY	19.5
3	1	12974	CIRCUIT BREAKER, 1P, 5A	
2	2	11874	DIN RAIL, STEEL, 35MM X 15MM	11.25
1	1	11825	POWER SUPPLY, 24VDC, 3A, 100-500V	

Revision	ECN #	By	Date	Description of Change
I	-	martist	06/24/2024	~~UPDATED BOM~~

Current Revision Information

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
TOLERANCES
X.X ± 0.1 FRACT ±1/16
X.XX ± 0.01 ANGLE ±0.25°
X.XXX ± 0.005

SURFACE FINISH 250 MICROINCH.
BREAK ALL SHARP EDGES 0.015.
CONCENTRICITY 0.01 TIR.
WELD BEAD 1/8" TYP

LOCATIONS
Columbus, OH. USA (614) 253-8590
Gainsville, GA. USA (770) 532-4766
Chapeco SC Brazil 55 (49) 3328-3322

PRIME EQUIPMENT GROUP

MARS/JBT CNTRL PANEL ASM, BASIC

Material:	SEE BOM/DETAILS
Finish:	SEE BOM/DETAILS
Heat Treat:	SEE BOM/DETAILS
Designed By:	willswy Jul 22, 21
Detailed By:	willswy 07/22/2021
Approved By:	heckert 04/11/2022

Size B | Part Number EA120-100001 | Rev. I

SHEET 1 OF 1

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PART NO.	DESCRIPTION
MSCNTR-10001	COUNTER SYSTEM

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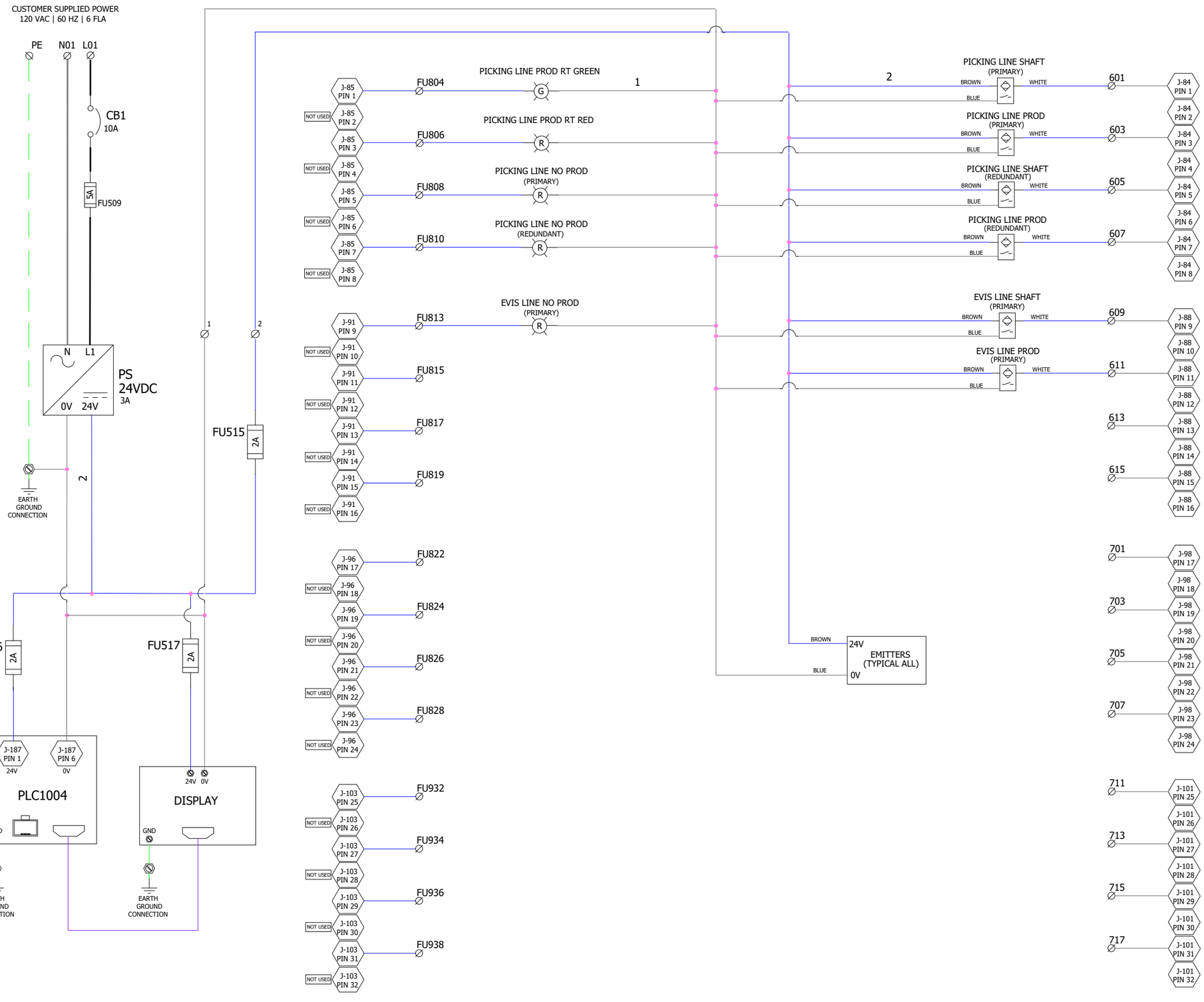
PLC1004



NOTES:
1. THIS DRAWING IS NOT INTENDED TO BE USED FOR MECHANICAL ASSEMBLY.
2. ALL FIELD WIRING TO BE LOCAL CODES. USE COPPER CONDUCTORS ONLY.
3. SEE INSTALLATION AND USER MANUAL(S).
4. ALL WIRING MUST COORDINATE WITH THE LATEST EDITION OF THE NEC AND LOCAL CODES.
5. FOR MOTOR LOADS USE MINIMUM 75°C CONDUCTORS.
6. ALL CABLE FOR ETHERNET DEVICES, RTD'S, AND PROXIMITY SWITCHES SHALL BE SHIELDED.
7. THERMOSTAT CLOSES ON RISING TEMPERATURE.
8. ALL POWER WIRING TO BE 14 AWG WIRE.
9. FOR ALL THE SENSORS CONNECT 24 VDC AND 0 VDC.

NOMENCLATURE

DEVICE	LINE

CONTROL PROGRAM # CP220-1004

WIRING LEGEND

- TERMINAL XX PIN XX — PLUG CONNECTION ON JBT-CAT BOARD
- JBT-CAT BOARD CONNECTION TO 24VDC BUS
- FACTORY SUPPLIED LINE VOLTAGE WIRING
- FIELD SUPPLIED LINE VOLTAGE WIRING
- FACTORY SUPPLIED 24 VOLT WIRING
- FIELD SUPPLIED 24V WIRING

WIRE COLOR CODE

WIRE COLOR	ABBREVIATION	WIRE USE
BLACK	L1, L2, L3	480 VAC 3 PHASE
BLACK	BLK	UNGROUNDED 120 VAC CONDUCTOR
WHITE	WHT	GROUNDED AC CURRENT CARRYING CONDUCTOR
BLUE	BLU	UNGROUNDED DC CONTROL CONDUCTOR
BLUE W/ WHITE STRIPE	BLU/WHT	GROUNDED DC CURRENT CARRYING CONDUCTOR
GREEN	GRN	GROUND

JBT PRIME EQUIPMENT GROUP™
2001 Courtright Road, Columbus, OH 43232

TITLE
ELECTRICAL SCHEMATIC
MAIN POWER AND CUSTOMER CONNECTION
JBT MAIN ENCLOSURE ASM
EFFICIENCY MGMT SYS
120V | 60HZ | 6A FLA

Designed By: ENG. ELTON COSTA 6/29/2023
Checked By:
Approved By:

PART NUMBER SN4391
REV 0
DRAWING: 01

JBT - Prime Equipment Group • 2001 Courtright Rd. • Columbus, OH 43232 | P 1 866 528 4968 | F +1 614 253 6966 | **jbtc.com**

SPARE PARTS LIST

To order spares call 866.528.4968
Email: parts.prime@JBTC.com

Refer to serial number: SN4391
Refer to model number: JBT 1st Processing (Picking Line)

Although many parts may seem similar between 2 machines, due to wear and adjustments they become machine specific. You will cause damage to your machine if you swap parts with other machines.

PART NO.	DESCRIPTION	QTY.
11825	PWRSPLY,100-550VAC,24VDC*	1
12974	CIRCUIT BREAKER, 1P, 5A	1
79453-16-CP220-1004	RASPBERRY PI COMPUTE MODULE 3+ / 16GB	1
80001	BOARD, CNTRL, JBT	1
80036	TERMINAL, HLDR, FUSE, MINI, 24V	5
80037	FUSE, 2A, MINI	10
80038	FUSE, 5A, MINI	5
80742	DISPLAY, 10", PNL MT, ALUM BEZEL, IP65	1
80787	CBL, HDMI, 3FT	1
81250	CBL, INPUT WIRE W/CONNECTOR JBT CONTROLLER	4
81636	CVR, HMI, 12X10, MOD, PLASTIC	1
84016	FUSE, 315mA, MINI	16
MRS1042	CBL, POWER WIRE W/CONNECTOR	1
MRS1043	CBL, OUTPUT WIRES W/CONNECTOR	4

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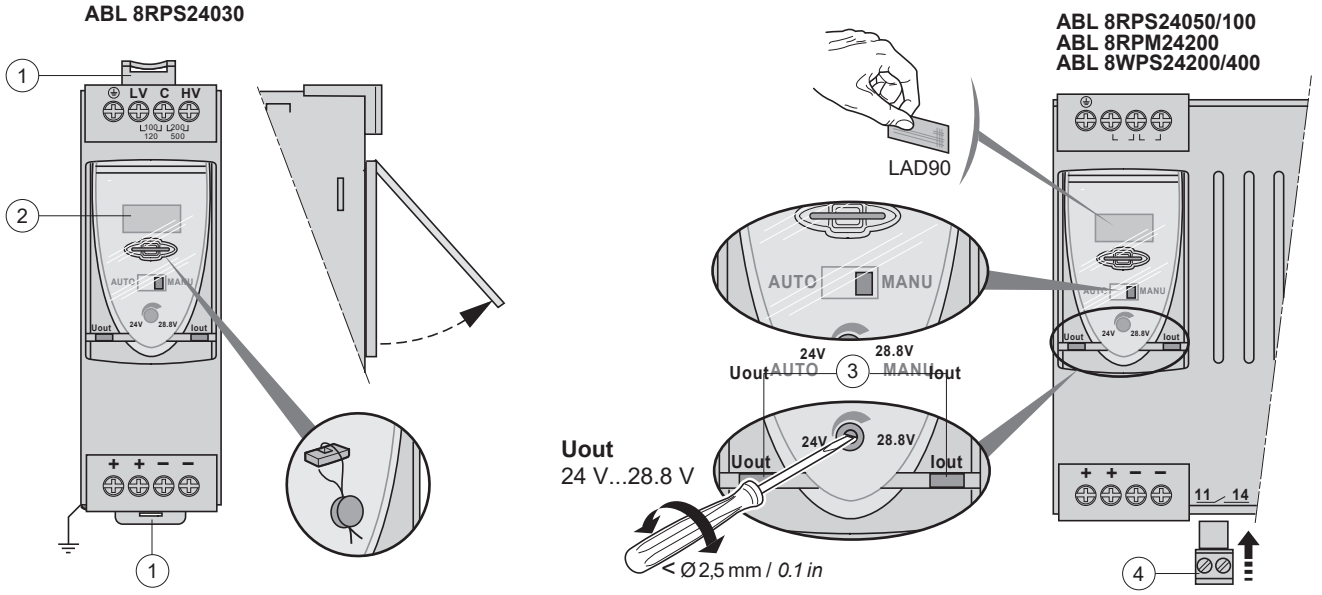
PART NO.	DESCRIPTION
11825	POWER SUPPLY, 24VDC, 3A, 100-500V

JBT - Prime Equipment Group • 2001 Courtright Rd. • Columbus, OH 43232 | P 1 866 528 4968 | F +1 614 253 6966 | **jbtc.com**

Prime Part # 11825

ABL 8RPS24●●0 / 8RPM24200 / 8WPS24●00

www.schneider-electric.com



① - 35 mm DIN rail mounting clip.
② - Snap-on label.
③ - Voltage and output current. status LED **Uout - Iout**.
④ - Diagnostic Output (Normally Open dry contact 11-14)

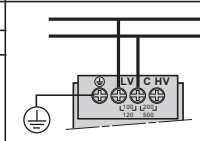
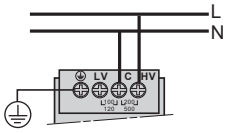
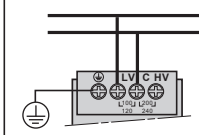
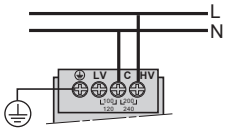
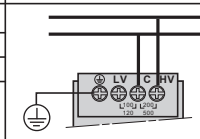
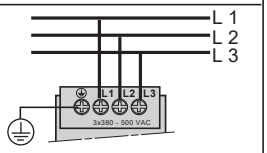
① - Klemmfeder auf 35mm-Schiene.
② - Etikettenhalter.
③ - Status-LED Ausgangsspannung. und -strom **Uout - Iout**.
④ - Diagnoseausgang (Schließer Trockenkontakt 11-14).

① - Molla di aggancio su profilato 35 mm.
② - Contrassegno agganciabile.
③ - LED di stato della tensione e della corrente. di uscita **Uout - Iout**.
④ - Uscita diagnostica (contatto a secco Normalmente Aperto 11-14).

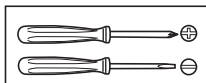
① - Ressort de clipsage sur profilé 35 mm.
② - Repère encliquetable.
③ - LED d'état de la tension et du courant de sortie **Uout - Iout**.
④ - Sortie diagnostic (contact sec Normalement Ouvert 11-14).

① - Resorte de clipsado en perfil de 35 mm.
② - Marcador con enganche.
③ - LED de estado de la tensión y de la corriente. de salida **Uout - Iout**.
④ - Diagnóstico de salida (contacto seco Normalmente Abierto 11-14).

① - Mola de engate no perfilado de 35 mm.
② - Marca de engatar.
③ - LED de estado da tensão e da corrente. de saída **Uout - Iout**.
④ - Resultado de Diagnóstico (contacto seco Normalmente Aberto 11-14).

U In	I out	ABL		U In	I out	ABL	
1 Ph ∼ 100…120 V	3 A	8RPS24030		1 Ph ∼ 200…500 V	3 A	8RPS24030	
	5 A	8RPS24050			5 A	8RPS24050	
	10 A	8RPS24100			10 A	8RPS24100	
1 Ph ∼ 100…120 V	20 A	8RPM24200		1 Ph ∼ 200…240 V	20 A	8RPM24200	
2 Ph ∼ 200…500 V	3 A	8RPS24030		3 Ph ∼ 380…500 V	20 A	8WPS24200	
	5 A	8RPS24050			40 A	8WPS24400	
	10 A	8RPS24100					

mm / in	ABL	8RPS24030	8RPS24050 8RPS24100	8RPM24200 8WPS24200/24400
Ø ≤ 4 mm² Ø ≤ 12 AWG (10 / 0.39) — Ø > 4 mm² Ø > 12 AWG (17 / 0.67)				
⏚ / ∼	mm²/AWG	1…4 / *16…12*		
⎓	mm²/AWG	1…4 / *16…12*		4…10 / *12…6*
⊖ ⏚ Ø	mm/In	4 / *0.16*		
11 14	mm²/AWG	–	0,2…2,5 / *24…14*	



	Ø ≤ 4 mm² Ø ≤ 12 AWG	Ø > 4 mm² Ø > 12 AWG
Nm	0,6	2
lb-in	*5.4*	*17.7*

⚠ DANGER / DANGER / GEFAHR / PELIGRO / PERICOLO / PERIGO

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH
Disconnect all power before servicing equipment.
Failure to follow these instructions will result in death or serious injury.

RISQUE D'ELECTROCUTION, D'EXPLOSION OU D'ARC ELECTRIQUE
Coupez l'alimentation avant de travailler sur cet appareil.
Le non-respect de ces instructions provoquera la mort ou des blessures graves.

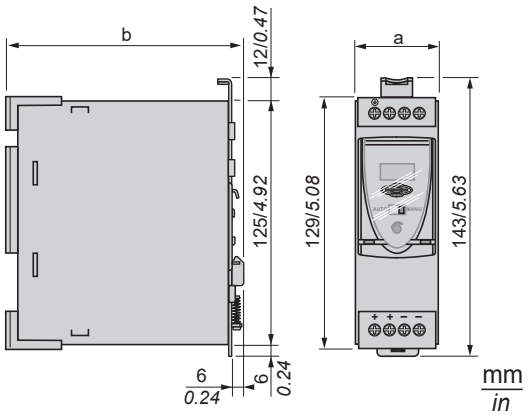
STROMSCHLAG-, EXPLOSIONS- ODER LICHTBOGENGEFAHR
Vor dem Arbeiten an dem Gerät dessen Stromversorgung abschalten.
Die Nichtbeachtung dieser Anweisungen führt zu Tod oder schwerer Körperverletzung.

RIESGO DE ELECTROCUCIÓN, EXPLOSIÓN O ARCO ELÉCTRICO
Desconecte toda alimentaciónantes de realizar el servicio.
Si no se siguen estas instrucciones provocará lesiones graves o incluso la muerte.

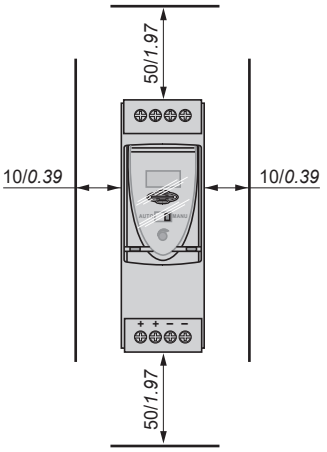
RISCHIO DI SCOSSA ELETTRICA, DI ESPLOSIONE O DI OFTALMIA DA FLASH
Scollegare l'apparecchio dalla presa di corrente prima di qualsiasi intervento.
Il mancato rispetto di queste istruzioni provocherà morte o gravi infortuni.

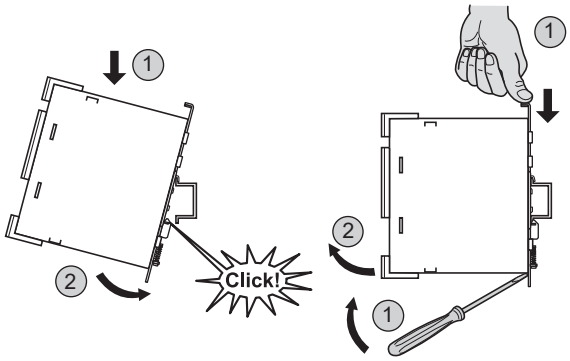
RISCO DE CHOQUE ELÉCTRICO, EXPLOSÃO OU FAÍSCA
Desligue a alimentação antes de trabalhar neste aparelho.
A não observância destas instruções resultará em morte, ou ferimentos graves.

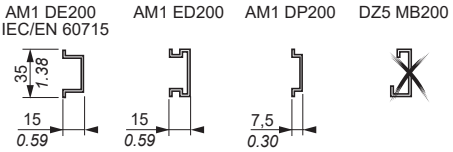
Printed in

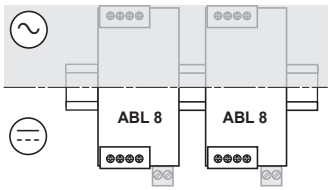


ABL	a (mm/*in*)	b (mm/*in*)
8RPS24030	45/*1.77*	125/*4.92*
8RPS24050	56/*2.24*	125/*4.92*
8RPS24100	86/*3.39*	145/*5.71*
8RPM24200	146/*5.75*	145/*5.71*
8WPS24200	96/*3.78*	160/*6.30*
8WPS24400	166/*6.54*	160/*6.30*









U out		11 14
▭	21,6 V ⩽ Uout	
▭	7 V ⩽ Uout < 21,6 V	
▭	Uout < 7 V	

I out	
▭	Iout ⩽ In
▭	Iout > In
▭	Power deactivated after detection of overcurrent, overvoltage or overtemperature. *(1)* 0 V / 0 A

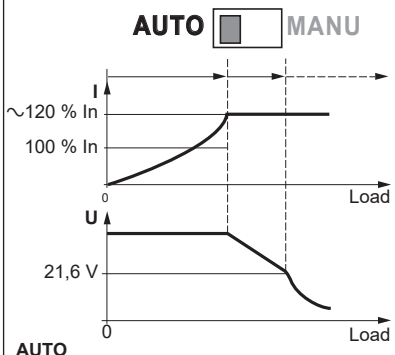
▭ OFF

▭ Green / Vert / Grün / Verde / Verde / Verde

▭ Orange / Orange / Orange / Naranja / Arancione / Laranja

▭ Red / Rouge / Rot / Rojo / Rosso / Vermelho

(1) Alimentation arrêtée suite à une détection de surintensité, de surtension ou de surchauffe.
Nach der Erkennung von Überstrom, Überspannung oder Übertemperatur wurde die Stromversorgung abgeschaltet.
Alimentación desactivada tras detectar sobrecorriente, sobretensión o sobrecalentamiento.
Alimentazione disattivata dopo il rilevamento di condizioni di sovracorrente, sovratensione o di surriscaldamento.
Alimentação desactivada após a detecção de corrente, tensão ou temperatura excessivas.



AUTO
Constant current mode. Return to rated power supply operation once the source of overcurrent has been corrected.

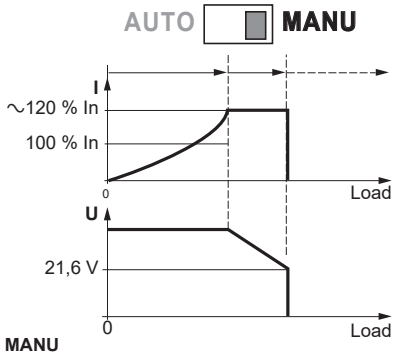
AUTO
Mode courant constant. Retour au fonctionnement normal dès que l'origine de la surintensité a été corrigée.

AUTO
Konstantstrom-Modus. Rückkehr zum Nennbetrieb der Stromversorgung, sobald die Ursache des Überstroms behoben wurde.

AUTO
Modalidad de corriente constante. Vuelva al funcionamiento con fuente de alimentación nominal una vez corregido el origen de la sobrecorriente.

AUTO
Modalità di corrente costante. Ritornare al funzionamento con valori di alimentazione nominali una volta risolto il problema di sovracorrente.

AUTO
Modo de corrente constante. Voltar para o funcionamento com a alimentação de corrente nominal assim que a alimentação de corrente excessiva tiver sido corrigida.



MANU
Error retention. Following deactivation, remove power to the primary circuit and reapply power to the product again.

MANU
Mémorisation de surintensité. A la suite de l'arrêt de l'alimentation, couper l'alimentation au primaire et remettre le produit sous tension.

MANU
Fehlerspeicherung. Nach der Deaktivierung die Stromversorgung am Primärkreis abschalten und dem Produkt erneut Strom zuführen.

MANU
Error retenido. Tras completarse la desactivación, desconecte la alimentación del circuito primario y, a continuación, vuelva a aplicarla al producto.

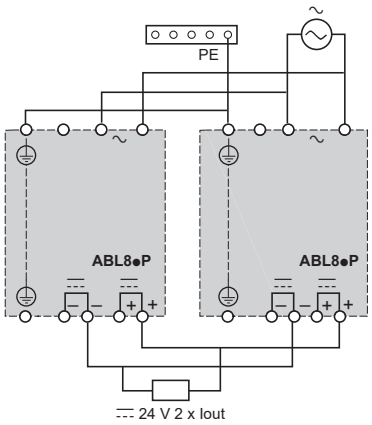
MANU
Ritenzione errore. Dopo la disattivazione, rimuovere l'alimentazione al circuito principale, e rimettere di nuovo sotto tensione il prodotto.

MANU
Retenção de erro. Após a desactivação, remover a corrente para o circuito principal e voltar a aplicar corrente no produto.

⚠ 2 ABL 8●P max output //

SELV / TBTS

Outputs connected in parallel
Raccordement des sorties en parallèles
Anschluss der parallelgeschalteten Ausgänge
Conexión de las salidas en paralelo
Collegamento delle uscite in parallelo
Ligação das saídas em paralelas

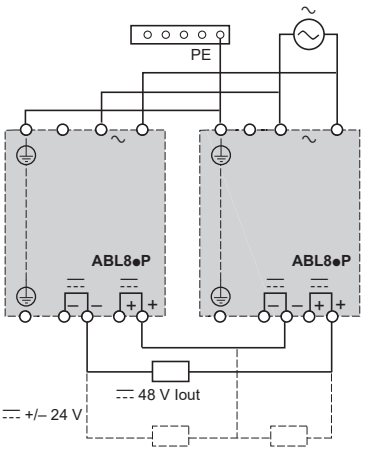


SELV / TBTS :
SELV: Safety Extra Low Voltage
TBTS: Très Basse Tension Sécurisée
Sicherheitskleinspannung
Muy baja tensión asegurada
Tensione di sicurezza molto bassa
Muito baixa tensão segura

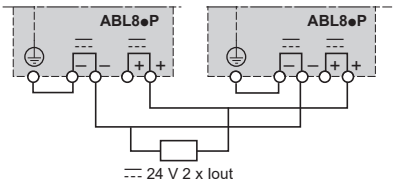
⚠ 2 ABL 8●P max output .....

SELV / TBTS

Series connection of the power supplies
Raccordement des alimentations en "série"
Anschluss der reihengeschalteten Stromversorgungen
conexión de las alimentaciones en "serie"
Collegamento delle alimentazioni in "serie"
Conexão das alimentações em "série"

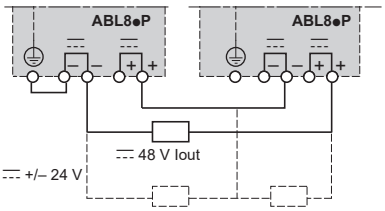


PELV / TBTP



PELV / TBTP :
PELV: Protection Extra Low Voltage
TBTP: Très Basse Tension Protection
Schutzkleinspannung
Muy baja tensión protección
Tensione di protezione molto bassa
Muito baixa tensão protecção

PELV / TBTP



Paralleling:
- Use maximum of 2 power supplies of the same reference.

Mise en parallèle:
- Utilisez 2 alimentations maximum et de même référence.

Parallelschaltung:
- max. 2 Stromversorgungen und nur bei gleichen Modellen.

Puesta en paralelo:
- 2 alimentaciones como máximo, con la misma referencia.

Messa in parallelo:
- 2 alimentazioni al massimo e delle stesse caratteristiche.

Ligação em paralelo:
- 2 alimentações no máximo e da mesma referência.

⚠ WARNING / AVERTISSEMENT / WARNUNG /ADVERTENCIA / AVVERTENZA / AVISO

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE
- Allow the product sufficient time to cool before touching.
- Follow proper mounting instructions including torque values and the crimping lengths on wire terminations.
- Do not allow liquids or foreign objects to enter this product.

Failure to follow this instruction can result in death, serious injury, or equipment damage.

RISQUE DE DOMMAGE MATERIEL ET DE SURCHAUFFE DU BOITIER
- Laisser le produit refroidir avant de le toucher.
- Respecter les consignes de montage, et notamment les couples de serrage et les longueurs de sertissage sur les terminaisons de câble.
- Ne pas laisser pénétrer de liquide ni de corps étrangers à l'intérieur du produit.

Le non-respect de cette directive peut entraîner la mort, des lésions corporelles graves ou des dommages matériels.

GEFAHR VON MATERIALSCHÄDEN UND GEHÄUSEERHITZUNG
- Lassen Sie das Produkt lange genug abkühlen, bevor Sie es berühren.
- Beachten Sie die Montageanweisungen, insbesondere die Anziehdrehmomente und die Crimplängen an den Kabelenden.
- Führen Sie keine Flüssigkeiten oder Fremdkörper in das Produkt ein.

Die Nichtbeachtung dieser Anweisung kann den Tod, Körperverletzung oder Materialschäden zur Folge haben.

RIESGO DE DAÑOS MATERIALES Y DE SOBRECALENTAMIENTO DE LA UNIDAD
- Espere el tiempo necesario hasta que se enfríe el producto antes de tocarlo.
- Respetar las instrucciones de montaje, y en particular los pares de apretado y las longitudes de engaste en las terminaciones de los cables.
- No dejar que penetren líquidos o cuerpos extraños en el producto.

Si no se respetan estas precauciones pueden producirse graves lesiones, daños materiales o incluso la muerte.

RISCHIO DI DANNI MATERIALI E D'INVOLUCRO CALDO
- Attendere il raffreddamento del prodotto prima di toccarlo.
- Seguire le istruzioni di montaggio corrette che comprendono i valori di coppia e le lunghezze di crimpatura sulle terminazioni dei cavi.
- Non far entrare liquidi o oggetti estranei in questo apparecchio.

La mancata osservanza di questa precauzione può causare gravi rischi per l'incolumità personale o danni alle apparecchiature.

RISCO DE DANO MATERIAL E DE AQUECIMENTO
- Dar tempo suficiente para o produto arrefecer antes de lhe tocar.
- Siga devidamente as instruções de montagem, incluindo as forças de aperto e os comprimentos de enrolamento nos terminais de cabos.
- Não permita a entrada de líquidos e de objectos estranhos no produto.

A não observância destas precauções pode provocar a morte, ferimentos graves ou danos materiais.

Environment characteristics
Installation in a pollution degree 2 environment.
Maximum surrounding air temperature 50 °C (*122 °F*).
Minimum temperature rating of the conductor wires connected to the terminals : 75 °C (*167 °F*).

Caractéristiques d'environnement
Installation dans un environnement au niveau de pollution 2.
Température ambiante maximale 50 °C (*122 °F*).
Température nominale minimale des fils conducteurs raccordés aux bornes : 75 °C (*167 °F*).

Umgebungskenndaten
Installation in einer Umgebung mit Verschmutzungsgrad 2.
Maximale Umgebungstemperatur 50 °C (*122 °F*).
Die minimale Temperaturbemessung der Leitungsdrähte, die an die Klemmen angeschlossen sind, beträgt : 75 °C (*167 °F*).

Características ambientales
Instalación en un ambiente de contaminación grado 2.
Temperatura ambiente máxima 50 °C (*122 °F*).
Temperatura nominal mínimal de los hilos conductores conectados a los terminales : 75 °C (*167 °F*).

Caratteristiche ambientali
Installazione in un ambiente con grado d'inquinamento II.
Massima temperatura ambiente circostante consentita 50 °C (*122 °F*).
Temperatura minima di esercizio dei conduttori collegati ai morsetti : 75 °C (*167 °F*).

Características ambientais
Instalação num ambiente de poluição nível 2.
Temperatura ambiental máxima 50 °C (*122 °F*).
Temperatura nominal mínima dos fios condutores conectados aos terminais : 75 °C (*167 °F*).

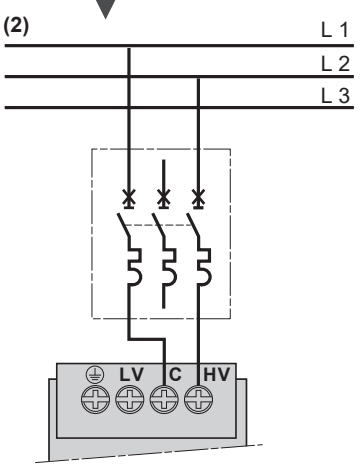
"Power supply modules, ABL8 series, UL certified Schneider Electric (E164867)"
Modules d'alimentation, série ABL8, certification UL Schneider Electric (E164867)
Versorgungsmodule, Baureihe ABL8, UL-zertifiziert, Schneider Electric (E164867)
"Módulos de alimentación, serie ABL8, con certificación UL de Schneider Electric (E164867)"
Moduli di alimentazione, serie ABL8, certificazione UL Schneider Electric (E164867)
Módulos de alimentação, série ABL8, certificação UL da Schneider Electric (E164867)

Selection of the protections on the power supply primary circuit
Choix des protections au primaire des alimentations
Wahl der Schutzart am Primärkreis der Versorgungen
Selección de las protecciones en el circuito primario de las alimentaciones
Scelta delle protezioni al primario delle alimentazioni
Selecção das protecções no circuito primário das alimentações

To be ordered separately / A commander séparément / Separat zu bestellen
Pedir por separado / Da comandare separatamente / Encomendar separadamente

ABL		∼ 115 V				∼ 230 V				∼ 400 V		
		Outside of USA & Canada (IEC)		For USA and Canada (1)		Outside of USA & Canada (IEC)		For USA and Canada (1)		Outside of USA & Canada (IEC)		For USA and Canada (1)
		1 3 5 / 2 4 6	gG/gL	1 3 5 / 2 4 6	Class CC rejection type	1 3 5 / 2 4 6	gG/gL	1 3 5 / 2 4 6	Class CC rejection type	1 3 5 / 2 4 6	gG/gL	Class CC rejection type
8RPS24030	GB2/GV2	GB2 CD07	2 A (8 x 32)	–	2 A (8 x 32)	GB2 CD07	2 A (8 x 32)	–	2 A (8 x 32)	GV2 RT06 **(2)**	2 A (10,3 x 38,1)	2 A (10,3 x 38,1)
	C60N	*2 A C curve*		*24443*		*2 A C curve*		*24443*		–		
8RPS24050	GB2/GV2	GB2 CD08	4 A (8 x 32)	–	4 A (8 x 32)	GB2 CD07	2 A (8 x 32)	–	2 A (8 x 32)	GV2 RT06 **(2)**	2 A (10,3 x 38,1)	2 A (10,3 x 38,1)
	C60N	*3 A C curve*		*24444*		*2 A C curve*		*24443*		–		
8RPS24100	GB2/GV2	GB2 CD12	6 A (8 x 32)	–	6 A (8 x 32)	GB2 CD08	4 A (8 x 32)	–	4 A (8 x 32)	GV2 RT07 **(2)**	4 A (10,3 x 38,1)	4 A (10,3 x 38,1)
	C60N	*6 A C curve*		*24447*		*3 A C curve*		*24444*		–		
8RPM24200	GB2/GV2	GB2 CD16	10 A (8 x 32)	–	10 A (8 x 32)	GB2 CD12	6 A (8 x 32)	–	6 A (8 x 32)			
	C60N	*10 A C curve*		*24449*		*6 A C curve*		*24447*				
8WPS24200	GB2/GV2									GV2 ME06	2 A (10,3 x 38,1)	2 A (10,3 x 38,1)
	C60N									–		
8WPS24400	GB2/GV2									GV2 ME07	4 A (10,3 x 38,1)	4 A (10,3 x 38,1)
	C60N									–		

(1) Conformance with UL508 and CSA 22.2 n°14



PRIME EQUIPMENT GROUP

REVISION PAGE

Revision	Description	Initials	Date