WEIGHPACK SYSTEMS INC.

SMART CONVEYOR

OPERATOR'S MANUAL

WEIGHPACK SYSTEMS INC.

PREFACE

Thank you for purchasing from WeighPack Systems Inc.

It is strongly recommended that this manual be read before use of the WeighPack machine.

This manual contains detailed descriptions of the structure, function, operation and maintenance of the WeighPack machine. Please note that due to continuous improvements, the contents of this manual may differ slightly from the machine received. In the event this document cannot provide the answers to problems arising from machine operation or other circumstances, please contact the WeighPack service department immediately.

CONTACT US

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Tech Support Email Address	TECHSUPPORT@WEIGHPACK.COM
WeighPack Website	WWW.WEIGHPACK.COM

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SAFETY

IMPORTANT SAFETY INFORMATION
READ ALL INSTRUCTIONS BEFORE OPERATING

Do not operate the machine when tired, ill, or under the influence of alcohol, drugs or medication.

The instructions and data in this manual are vital to the proper installation and operation of the machine. In order to avoid accidents due to faulty installation or operation of the machine, please ensure that these instructions are read by the individuals who will install, operate or maintain the machine. The instructions issued in this manual are not meant to cover all possible conditions and situations that may occur.

INJURY PREVENTION

1. Limbs, hair, loose clothing and accessories should remain clear of moving or heated parts of the machine, as it may get caught and pull the operator into the machine.
2. Do not power on the machine if any of the machine's components have been removed or modified.
3. Do not to leave any objects near any of the machine's moving components, or on top of the machine.
4. Do not perform maintenance or cleaning on machinery while it is in operation or energized.
5. Always lock out / tag out the machine before performing any maintenance work.

FIRE PREVENTION

1. Keep a fire extinguisher near the machine.
2. All electrical components must be kept dry, clean and in good condition.
3. Lockout / Tagout the machine before maintenance.

Electrical fires can occur if any wires are scratched, corroded, color-faded, uninsulated, or have damaged ends. Wires should be changed immediately if presenting any of the above conditions. Any exposed electrical components should never come into contact with the ground-connector or any other electrically conductive objects; such as tools.

ELECTRICAL PRECAUTIONS

1. Only trained professionals should install, examine and maintain the electronics of the machine.
2. Do not store liquids near the machine or near the machine's electrical components. Exposing electrical components to excess moisture or direct contact with liquids risks a short-circuit.
3. Should a liquid spill onto the machine, turn off the power immediately and once having cleaned the liquid, test all the electrical components to ensure they are functioning properly.
4. To avoid short-circuiting, keep all wires and connections clean. Keep limbs, hand-held tools, and any other electrically conductive objects away from exposed electrical components.
5. Ensure the electrical cabinet is always closed, unless needed for maintenance.
6. The machine must be grounded. Ensure that the ground wire is firmly connected with the ground before starting the machine.
7. After installation check all electrical connections and test all electrical circuits before powering on.

Improper connection of the machine's grounding conductor can result in a risk of electrical shock. Check with a qualified electrician or serviceman if there is doubt as to whether or not the machine's outlets are properly grounded.

WARNING LABELS

Warning labels serve to advise the operator of potential danger. Warning labels should be kept clearly visible at all times, and are not to be ignored or removed from the machine. Removal of warning labels from the machine could result in an increase in machine related accidents. Should the machine require a replacement label please contact the company immediately.

Symbol	Description
	**PHYSICAL HARM** Take caution when in the presence of moving parts as they may cut, crush, dismember or otherwise injure body parts in close proximity. Loose clothing or accessories around moving components may get caught and pull the operator into the machine.
	**BURN HAZARD** Many surfaces of the machine will become extremely hot during the course of its operation. Please avoid contacting the indicated hot surfaces to avoid burns. Surfaces will remain hot for an extended period of time after powering down the machine. Ensure the machine is completely cool before contact.
	**HIGH VOLTAGE** While powered, the machine's electrical systems possess sufficient voltage to electrocute any who misuse it. Do not attempt to tamper with the electrical systems of the machine. If damaged wiring or damaged circuits are discovered, please power the machine down and contact the company immediately.

MACHINE SPECIFICATIONS

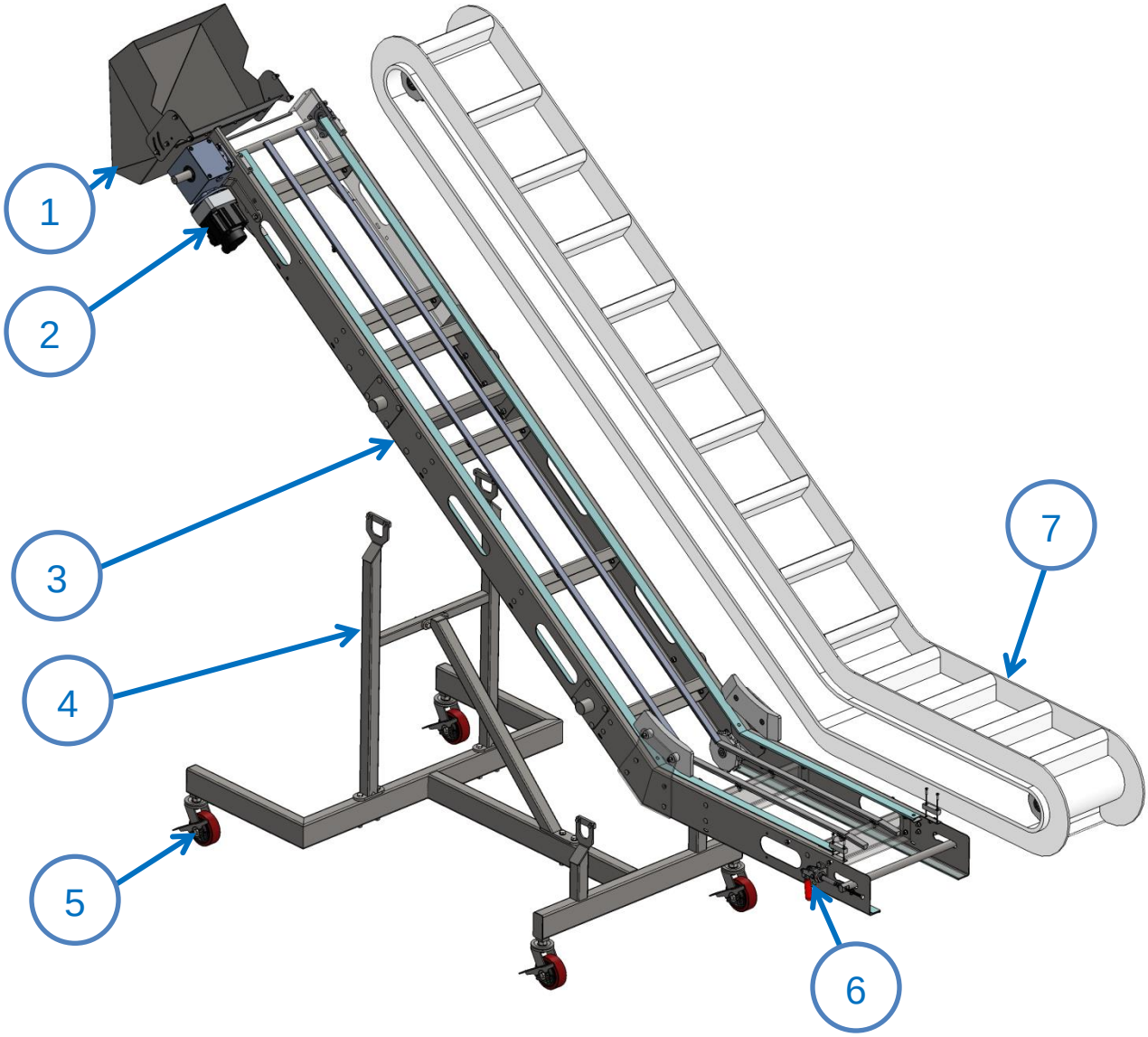
PARAMETER	***SMART CONVEYOR***
POWER SUPPLY	230 V (AC) 60 Hz 15 AMPS 1 PHASE
WEIGHT	1500 LBS (680 KG)
DIMENSIONS*	LENGTH: 161.9 IN (411.2 CM) WIDTH: 52.1 IN (132.4 CM) TOTAL HEIGHT: 87.3 IN (221.7 CM)

***DIMENSIONS CAN CHANGE DEPENDING ON THE CONFIGURATION USED.**

MACHINE OVERVIEW

MECHANICAL ASSEMBLIES

ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	CHUTE	5	CASTERS
2	MOTOR AND GEARBOX	6	BELT TENSIONER
3	CONVEYOR FRAME	7	MODULAR BELT
4	CONVEYOR STAND		



ELECTRICAL INSTALLATION

1. Static electricity can cause problems with electrical equipment and operation, ensure that the equipment is properly grounded during installation.
2. Ground the machine and test its ground resistance, if resistance is less than 5OHM then it is acceptable. Any auxiliary equipment should be grounded as well.

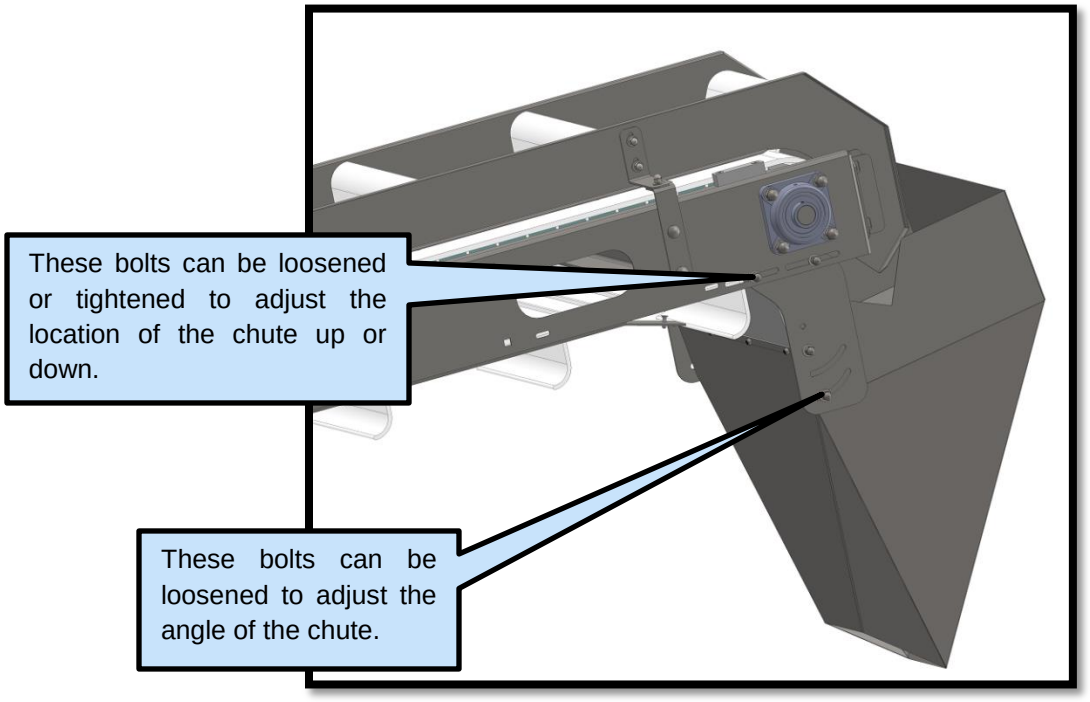
MECHANICAL ASSEMBLIES

WE RECOMMEND THAT THE OPERATOR HAVE THE FOLLOWING TOOLS AVAILABLE WHEN MAKING ADJUSTMENTS OR MAINTAINING THE MACHINE: METRIC ALLEN KEYS, METRIC SOCKET SET, METRIC WRENCHES, VOLTMETER, SCREW DRIVERS, TAPE MEASURE, RULER, CALIPER, ADJUSTABLE WRENCHES AND A GREASE GUN.

ENSURE THE MACHINE HAS BEEN TURNED OFF, LOCKED OUT / TAGGED OUT AND THAT ALL COMPONENTS ARE COOL TO THE TOUCH BEFORE PERFORMING MECHANICAL ADJUSTMENTS.

CHUTE ADJUSTMENT

The position and angle of the Chute can be adjusted as needed. The bolts on the base of the Chute control its elevation while the bolts near the tip of the Chute control its angle; for adjusting the location of the chute up or down, the bolts

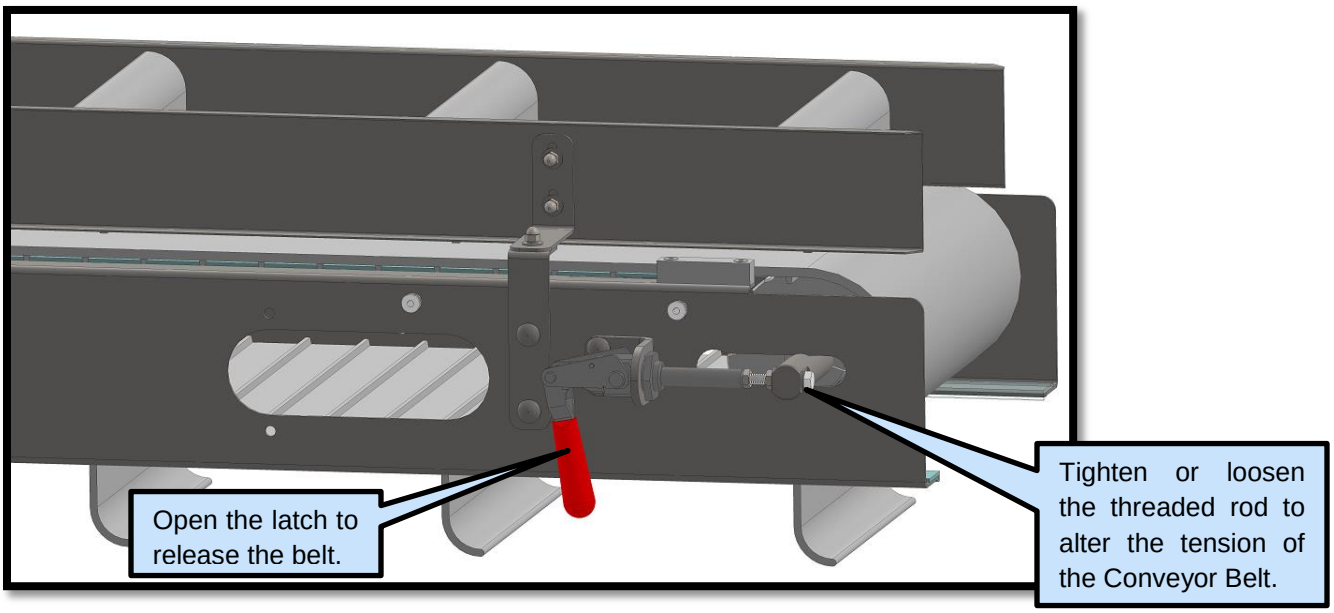


CONVEYOR BELT TENSION

On either side of the Smart Conveyor are the clamps used to adjust the tension of the Conveyor Belt. Tighten or loosen the threaded rod inside the clamp to alter the tension of the Conveyor Belt.

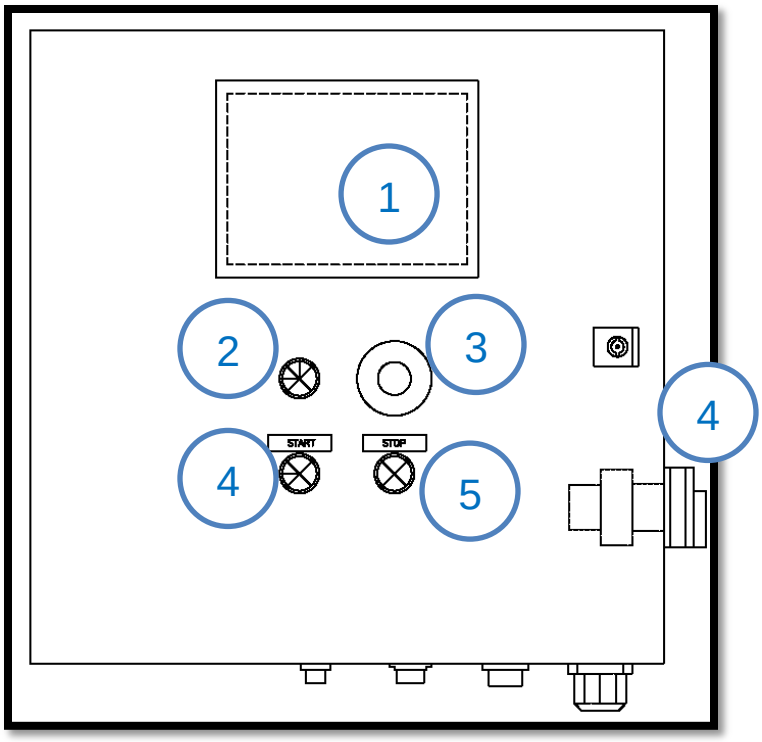
To quickly remove the belt, open the latches located on their side of the Hopper.

Note that the Smart Conveyor can be equipped with either a Modular Plastic Belt or Polyurethane Belt depending on the application intended, the product being used, and the results of in-house testing.



CONTROLS

CONTROL PANEL	
ITEM	*DESCRIPTION*
1	H.M.I SCREEN
2	RESET BUTTON
3	EMERGENCY BUTTON
4	START BUTTON
5	STOP BUTTON
6	POWER SWITCH



ALARMS

In the event of a machine malfunction, such as a jam, an alarm warning will display on the H.M.I. Touch Screen. After an alarm has been triggered, the machine should be inspected and the alarm must be reset. Alarms may be reset on the H.M.I. Touch Screen.

EMERGENCY STOP

In the event of an emergency, pressing the Emergency Stop button will cut power to the machine and halt its moving parts. While the Emergency Stop remains depressed, servo motors will stop.

Immediately following the use of the Emergency Stop button, the operator may also need to halt the functions of any auxiliary machinery.

After having been pressed, the Emergency Stop button must be reset before the machine can be operated. Pull out the Emergency Stop button, it should snap back into its original position.

ELECTRICAL SCHEMATICS

For detailed Electrical Schematics, please see the documents enclosed in the Customer Care Documentation package.

HUMAN-MACHINE INTERFACE (H.M.I.)

HOME

The H.M.I contains all the control and options to the machine; it can be accessed via the touchscreen located on the control panel of the Smart Conveyor.

NAVIGATION BAR

The navigation bar is located at the bottom of the screen and it display four main buttons: Home, Auto, Manual, and System.

These buttons are linked to the menus that they are named after, and they will be always displayed unless entering a submenu.

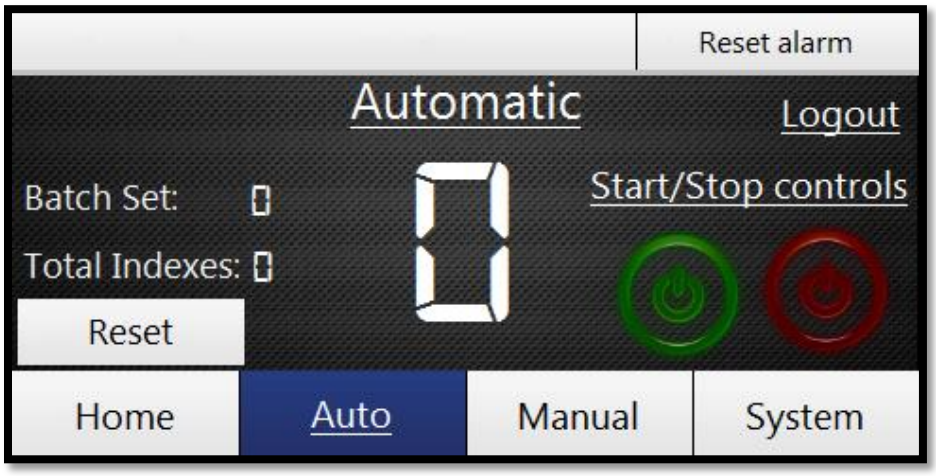
LOGIN

The Home menu contains the Login button in the top right corner. Some system settings are restricted and will require a technician login to change them. Press the Login button to enter login credentials; the login button will change into the Logout button afterward.

Press the logout button to log out of the current operator account and go back to general access

AUTO MODE MENU

The Automatic menu allows the operator to start and stop the Smart Conveyor, view the batch set and total indexes numbers.



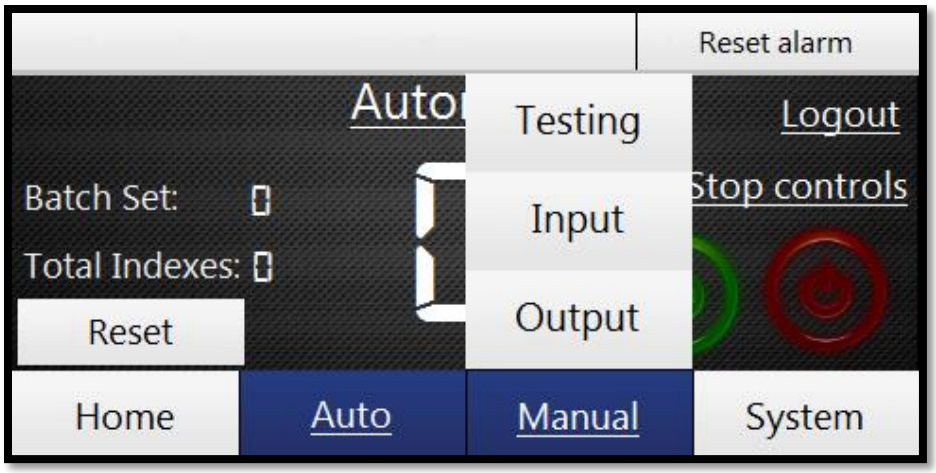
Batch Set: this value indicates how many rotation the Smart Conveyor will do.

Total Indexes: this indicates the total numbers of rotations that the Smart Conveyor has done so far.

Start/Stop controls: These two buttons control the start and stop functions of the Conveyor. The green button is the start control and the red button is the stop control.

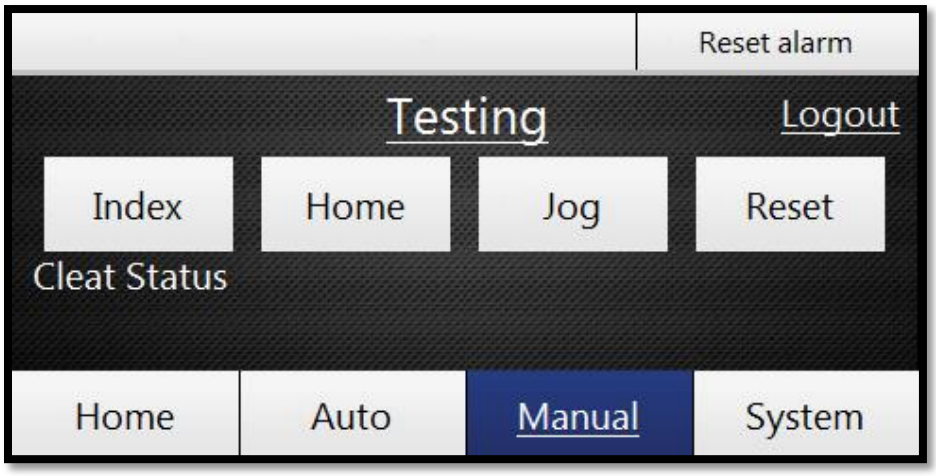
MANUAL BUTTON

Pressing the Manual button in the navigation bar will show a list of three buttons: Testing, Input, and Outputs. These three buttons are linked to the menus that they are named after.



MANUAL TESTING MENU

This menu allows the operator to run the Smart Conveyor's functions individually.

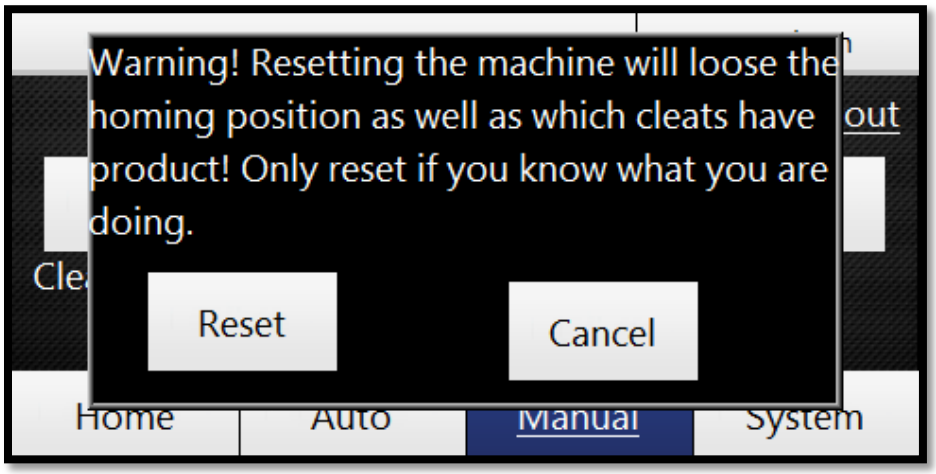


Index: this button will make the conveyor rotate one full rotation.

Home: pressing this button will return the conveyor belt back to its original position.

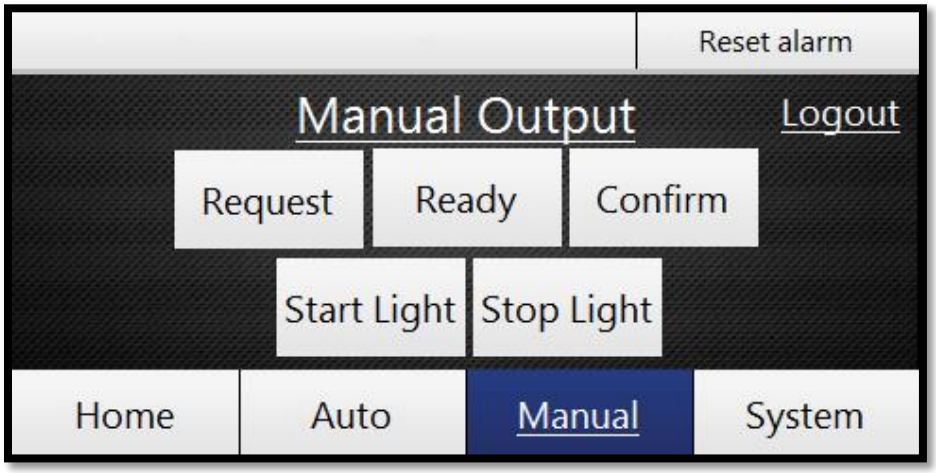
Jog: this button moves the conveyor belt manually.

Reset: pressing the reset button in the Manual Test menu will display the popup alert message shown above; any settings and information concerning the homing position and the cleat.



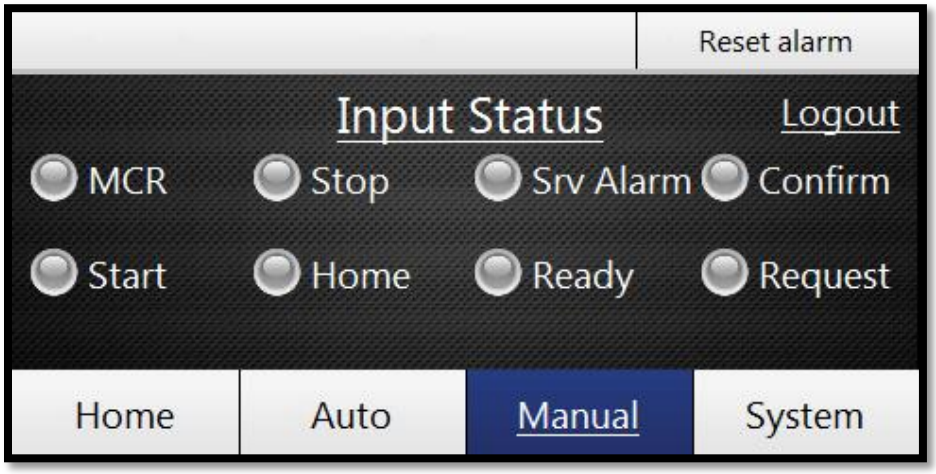
OUTPUT MENU

The manual output menu allows the operator to test the Smart Conveyor's output functions, such Start and Stop lights.



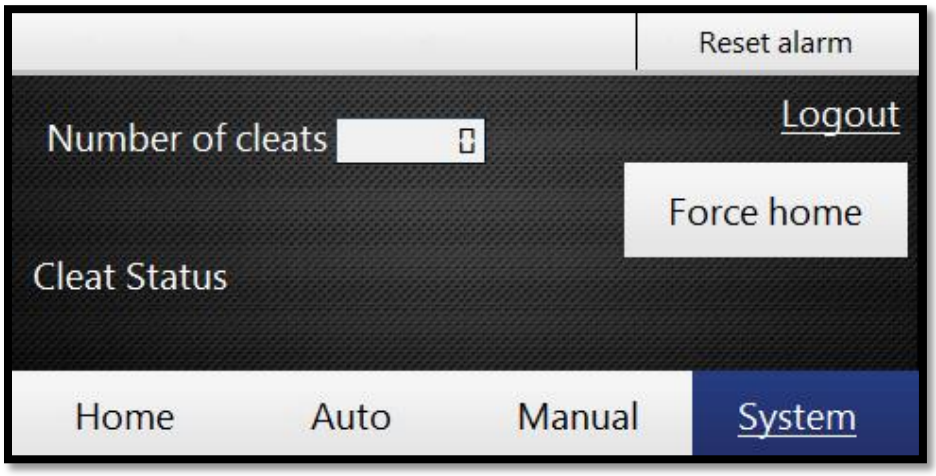
INPUT MENU

The input menu displays the status of the inputs for the Smart Conveyor and if they are connected or not. When an input is not connected, it will show a grey light as shown above.



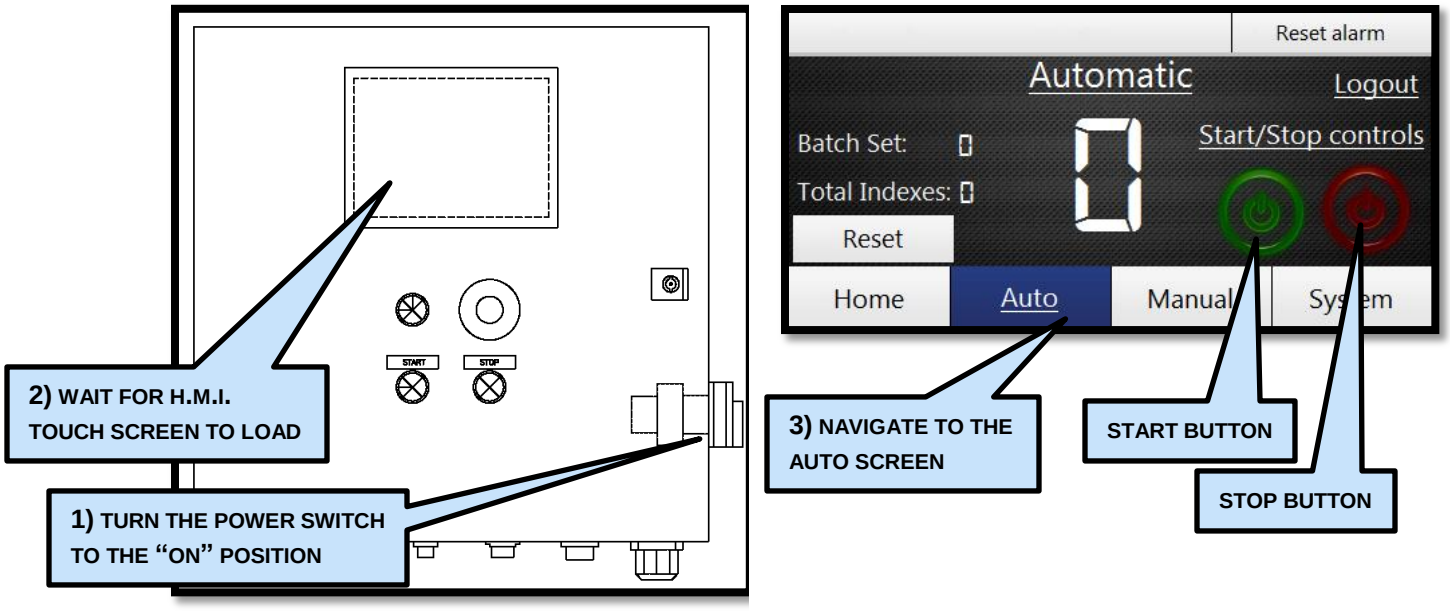
SYSTEM MENU

The System menu allows the operator to change the number of cleats, and the “Force Home” button. This menu will need the operator to login as a technician.



Force Home: this feature will return the belt back to its original position.

MACHINE OPERATION



1. Locate the Power Switch on the Control Box. Turn the Power Switch to the "ON" position.
2. It will take a few seconds for the H.M.I. Touch Screen to boot up.
3. Navigate to the H.M.I.'s Auto Screen.
4. Press the green "Start" button to start moving the belt process. This will repeat until the operator presses the red "Stop" button.
5. For emergency machine shut off, use the Emergency Stop button. Pressing the E-stop will cut power to the machine.

MAINTENANCE INFORMATION

WE RECOMMEND HAVING THE FOLLOWING TOOLS AVAILABLE WHEN PERFORMING MAINTENANCE ON THE MACHINE: METRIC ALLEN KEYS, METRIC SOCKET SET, METRIC WRENCHES, VOLTMETER, SCREW DRIVERS, TAPE MEASURE, RULER, CALIPER, ADJUSTABLE WRENCHES AND A GREASE GUN.

Maintenance depends on the machine's operating conditions. The machine may require more frequent maintenance, depending on the environment in which it operates. All damaged components must be replaced; failure to do so will affect the machine's performance and result in further damage.

LUBRICATION

Use ***3 in 1 Professional White Lithium Grease*** for lubricating gears & shafts mentioned in the checklist.

STORAGE

When storing the machine for a long period of time, disconnect the air, power off and clean the machine thoroughly. After periods of inactivity, it is recommended the machine is tested and adjusted. All the electrical components and connections should be thoroughly checked before powering the machine on.

Do not store the machine in a corrosive environment.

CLEANING

During the course of a normal operation the machine can build-up particles and debris in various components. It is recommended to clean the machine after each operation cycle has ended.

1. Please contact us if there is any doubt as to what cleaning products can and cannot be used on the machine, providing the company with detailed information about the cleaning products in question.
2. Unless otherwise noted the exteriors and interiors of the machine are not to be exposed to water.
3. Always use clean materials when wiping the machine in order to avoid cross contamination.
4. Cleaners with synthetic ingredients, acids, chlorine, bleach and other caustic substances can lead to surface rust and discoloration and eventual failure of the stainless steel. Halogen salts such as fluorine, chlorine, bromine, iodine and astatine are highly corrosive.
5. Remaining residue on the stainless steel from cleaning products can cause corrosion due to any salt or chlorine content. Please keep the machine surface dry and clean between each use. Unlike other materials, it is not possible to wear out stainless steel by excessive cleaning.
6. Be sure to wipe stainless steel in the direction of its grain finish lines for the best cleaning result. The metal's grain is visible.
7. Do not use scouring pads/mesh cloths or metal tools such as scrapers or steel wool, as this can damage and contaminate the stainless steel surface of the machine and cause rust.

Failure to comply with the above criteria may result in voiding the machine's warranty.

CLEANING STEPS

1. **USE OF CLEANING SOLUTIONS:** It is important to be aware of the effects certain cleaning products have on stainless steel and aluminum components.

   Cleaners with excessive chlorine can damage the outer layer of stainless steel and corrode it thus allowing it to rust.

2. **RECOMENDATIONS:** Do not pressure wash or run liquids over the machine. The machine is designed to withstand indirect contact with water and liquids, such as splashing and damp cleaning clothes. Avoid exposing the machine to water. If cleaning other equipment near the machine, ensure that the machine is covered with an industrial water proof cover.

3. **POWER OFF AND UNPLUG:** Begin by turning off the machine. Turn the Main Power Switch located on the Control Box to the off position. Ensure that all components are cool to the touch before continuing.

   When unplugging the machine, ensure that the power plug is carefully covered in order to avoid exposure to moisture.

4. **DISLODGE DEBRIS:** Use compressed air to dislodge debris from components and clean the electrical panel.

5. **REMOVE AND CLEAN FOOD CONTACT COMPONENTS:** Remove food contact components including pans, buckets, chutes, funnel, center cone and the hopper so they may be cleaned individually and away from the body of the machine.

   Do not apply excessive force on components attached to the load cell as this may cause damage to the load cell.

6. **BODY OF THE MACHINE:** Clean the machine with a damp cloth, this machine is not designed to be washed down with a low or high pressure water hose; do not expose the machine to large quantities water such as pouring water on the machine. Clean all metal surfaces thoroughly to remove any contaminants. Use non-corrosive cleaning products.

7. **TOUCH SCREEN:** The machine's Touch Screen is IP-64 rated.

8. **DRY COMPONENTS:** Dry all components with a clean, dry cloth. No water spots should remain on the machine. Leftover cleaning solution can cause damage to stainless steel surfaces.

9. **REINSTALL COMPONENTS:** Once cleaning is completed, reinstall all components.

10. **END:** Reconnect machine's power plug if necessary. The machine is now ready to be powered and run.

MAINTENANCE CHECKLIST

DAILY CHECKLIST

ENSURE THE MACHINE HAS BEEN TURNED OFF, LOCKED OUT / TAGGED OUT AND THAT ALL COMPONENTS ARE COOL TO THE TOUCH BEFORE PERFORMING MAINTENANCE ON PARTS.

	MON.	TUES.	WEDS.	THURS.	FRI.
MOTOR					
Ensure that the motor accelerates and decelerates smoothly.	☐	☐	☐	☐	☐
CASTERS					
Inspect the casters on the bottom of the frame for damage.	☐	☐	☐	☐	☐
ELECTRICAL					
Inspect all electrical connectors for any loose connections or damaged wires.	☐	☐	☐	☐	☐
Unplug the machine before handling wiring.					
CONVEYOR BELT					
Inspect the Conveyor Belt for any obstructions or the accumulation of debris and clean as needed.	☐	☐	☐	☐	☐
Inspect the links of the Conveyor Belt for damage.	☐	☐	☐	☐	☐
GENERAL					
Ensure all nuts and bolts are tight throughout the Infeed Conveyor.	☐	☐	☐	☐	☐

MONTHLY CHECKLIST

ENSURE THE MACHINE HAS BEEN TURNED OFF LOCKED OUT / TAGGED OUT AND THAT ALL COMPONENTS ARE COOL TO THE TOUCH BEFORE PERFORMING MAINTENANCE ON PARTS.

FRAME

Inspect the Infeed Conveyor's stainless steel frame for cracks or discoloration, including weld sites. ☐

GEARS

Apply 3 in 1 Professional White Lithium Grease to gears ☐

LIABILITY DISCLAIMER

All statements, technical information and recommendations contained in this manual or any other information supplied by WeighPack in connection with the use, features and qualifications of the WeighPack machine are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before using the WeighPack machine, the owner should determine the machine's suitability for its intended use based on the owner's knowledge and the characteristics of materials intended to be used with the machine. The Buyer bears all risk in connection with the use of the WeighPack machine.

Since the use of this manual and the conditions or methods of installation, operation, use and maintenance of the WeighPack machine is beyond the control of WeighPack, WeighPack does not assume responsibility and expressly disclaims liability for loss, damage or expense, whether direct, indirect, consequential or incidental, arising out of or anyway connected with such installation, operation, use, or maintenance. Damage caused by neglect, misuse or failure to comply with this manual will invalidate the warranty of the WeighPack equipment.

REVISION TABLE

DATE	REV.	DESCRIPTION
<Month> DD, YYYY	**0.0**	**Initial Release**