R080620-1	PO NUMBER:	HP-14	MODEL:
ALPHA	AFI CONTACT:	Future Pak	CUSTOMER:
00281-2	SERIAL NUMBER:	Ross Winslow	ATTENTION:
HPW7006	WIRING DIAGRAM:	December 2020	DATE:



DOCUMENTATION PACKAGE

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IMPORTANT SAFETY INFORMATION

READ THIS BEFORE INSTALLING OR OPERATING EQUIPMENT

Because of the variety of conditions and environments that this equipment can be used, the user and those responsible for this equipment must satisfy as to the safety and acceptability of each application and operating conditions of this equipment.

IN NO EVENT will the manufacturer be responsible or liable for indirect or consequential damages from the use or application of this equipment.

Areas of this manual identifying areas of concern appear as:

!!!IMPORTANT!!!

Alerts the reader where equipment can be damaged or economic loss can occur if procedures are not followed properly.

!!!WARNING!!!

Alerts the reader where people may be hurt if procedures are not followed properly.



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ELECTRONIC DOCUMENTATION PACKAGE

To see information about installing your equipment	Click SECTION I
For information about connecting electrical and pneumatic power (when required)	Click SECTION II
For instructions and procedures for the controls	Click SECTION III
Bill of Materials, parts list, and part information	Click SECTION IV
Additional factory support	Click SECTION V



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AFI Publication 01370406A Issue: 2 – Model HP-14 Checkweigher Installation and Maintenance Manual

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AFI Publication 1760890 Issue: 5 - Service Information

- SECTION II HPW7006 Wiring Diagram B4721Z - Air Schematic
- **SECTION III** AFI Publication 2150318 Issue: 1 Model HP-14 Checkweigher Touch Screen Control Panel Users Manual

AFI Publication 2150318R Issue: 1 – Model HP-14 Checkweigher Touch Screen Control Panel Quick Reference

SECTION IV Bill of Materials - 00281~FUTP Electrical Component List - ELC_CW700_HP14-10D C3539AW - Air Blast Reject Assembly CS935CZ - Automatic In-Line Checkweighing Kit D5225BR - Reject Bin Assembly (ST STL) D6529AR - HP-14 Checkweigher D6897AH - HP-14 Conveyor Assembly D7438M - Photoeye-Reflector Mounting Assembly D7438N - Photoeye-Reflector Mounting Assembly

SECTION V Manufacturers Information

CUSTOMER: Future Pak MODEL: HP-14 JOB NUMBER: 00281

MODEL HP-14 CHECKWEIGHER UNPACKING & UNLOCKING INSTRUCTIONS

The ALL-FILL Model HP-14 Checkweigher shipped to your facility is a precision weighing instrument that may be damaged or fail to function properly if uncrated, unpacked, or installed incorrectly. Be sure to read and understand these instructions before proceeding with any uncrating, unpacking, or installation.

Uncrating the HP-14

It is recommended that the HP-14 checkweigher be uncrated at the site of installation (where used). If this is not possible or impractical, carefully uncrate and read the following unpacking instructions before moving the equipment to the site of final use.

Initially inspect the shipping crating upon receipt of checkweigher for any damage that may have occurred in transit. If damage is apparent, notify the transport carrier in writing immediately describing the damage.

If checkweigher or any accessories seemed damaged in shipping, consult ALL-FILL Service Dept. before unpacking to prevent any additional damage.

Carefully remove all shipping materials to uncrate the HP-14 Checkweigher and/or any and accessories. A Packing List is included with your shipment that details each item you are to receive. Make sure you save the Packing List after unpacking and installation. The Packing List is necessary if you need to order replacement parts or if you receive an incomplete shipment.

Installation

Correct and careful installation of the Model HP-14 checkweigher will result in proper, accurate production, lower maintenance, and reduced risk of machine down time due to equipment failure. The following provide the installation information and procedures to perform each of these activities.

Positioning the Checkweigher

Extreme care must be taken when selecting the site for installation and positioning of your ALL-FILL Checkweigher.

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!!! IMPORTANT !!!

Improper selection of location may result in continual inaccuracies upon startup or in the future. Use the following recommendations when selecting a site for installing the checkweigher.

Take the following considerations into account for locating a site for best use of the checkweigher.

Stability	The location selected for the checkweigher should be as sta- ble and level as possible with minimal vibration from adja- cent equipment. After positioning, level the machine until the weighing platform, trans- port, and conveyors are parallel with the floor.
Filling Equipment	If the checkweigher includes feedback to filling equipment, it should be located as close to the filler as possible to avoid an excess of rejected, "ignored packs" occurring travel- ing from the filler to checkweigher after the feedback signal.
Temperature Changes	The area selected for the checkweigher should be relative- ly free from wide ranging temperature changes to maintain accuracy.
Conveying Equipment	Infeed and Discharge conveying equipment should pro- vide smooth, level transition of packages at entry and exit of the transport of the checkweigher. If a level transition is impossible or impractical, then a small step-down transition from the infeed to the checkweigher and checkweigher to discharge is rec- ommended.



Electrical Connections

When the checkweigher is properly positioned and secured, the site electrical service can be connected and the machine initially operated to check for correct operation. All electrical installation should be performed by qualified personnel and done in accordance with all local codes and requirements. Electrical connections are listed on a custom wiring diagram that is supplied with the machine. Electrical connection should be made through flexible conduit (where used) to the checkweigher to avoid vibration being transmitted to the machine.

Pneumatic Connections

Pneumatic operated equipment (reject devices) of the checkweigher must be connected to a suitable source of compressed air at the site during installation. The machine includes a filtered input connection for compressed air. Regulators, manifolds, and/or gauges are supplied with the machine and are mounted in the machine during manufacture. Operating pressures of compressed air varies according to the type of equipment used at the machine. Connect a filtered, dried source of compressed air to the machine.

Loadcell Unlocking

After installation, but before actual use, the loadcell of the Model HP-14 must be unlocked for proper weighing operation. The loadcell is locked against excessive movement that may cause damage. It must be unlocked prior to use. Use the following procedure to unlock the Model HP-14 loadcell.

- 1. Remove weighing conveyor from frame by unfastening the latches at each side.
- 2. Disconnect motor wiring from below weighing conveyor.
- 3. Lift weighing conveyor up and away from frame. Set aside.
- 4. Locate the locking handles of the loadcell.



- 5. Loosen locking handles to unlock.
- 6. Replace the weighing conveyor back onto the frame. Reconnect motor connection. Fasten latches securing conveyor to frame.

If the Model HP-14 is moved after initial installation, it is recommended that the loadcell be locked before moving. Once moved, unlock the loadcell for weighing.

Initial Adjustments

Generally, your ALL-FILL Checkweigher has been tested and initially adjusted at the factory before shipping. The following items, however, should be checked after completing installation for reliable, accurate checkweighing operation.

- Motor Operation
- Alignment
- Deadload Setting
- Weight Calibration
- Control Setup and Operation

Additional information, including step-by-step procedures to perform these items are provided in the Installation & Maintenance and the User's Manuals that are supplied with your equipment. A.F.I. Publication: 01370406A Issue: 2 Revised: July 2009

Model HP-14 Checkweigher Installation & Maintenance Manual



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No liability is as tion has been ta or omissions no cation. This pub	sumed with respect to the use of any information contained in this publication. While ken in the preparation of this publication, Alpha Checkweighers assumes no respons r is any liability assumed for damages resulting from the use of information contained lication, as well as operational details described herein, are subject to change without	every precau- ibility for errors I in this publi- it notice.

INTRODUCTION	This section presents some general introductory material about your Model HP-14 Checkweigher and should be read before proceeding with any actual installation or opera- tion. Included in this section are:	
	Components and Equipment	Describing the major parts of your Checkweigher
	Tools & Materials	Listing the equipment and supplies required to install, operate, and service the machine.
	Additional Information	Identifying other sources of information and instruc- tions concerning your Model HP-14 Checkweigher.
	Warranty Information	Explaining the general warranty terms protecting your equipment
	Safety Considerations	Important guidelines and recommendations to avoid damage and personal injury when installing, operat- ing, or servicing the machine.
	Subsequent sections of this manual pro maintaining your checkweigher.	ovide information about installing, setting up, and
About This Issue	This Issue has been revised to include available for the Model HP-14 Checkwe	information about additional options and accessories
	Screen Control Panel, and motor diagnories of this material.	ostics information. It replaces any and all previous

Components and Equipment

The HP-14 Checkweigher is an accurate, reliable method of monitoring and controlling package weight in filling/feeding production lines. The combination of the high speed digital loadcell and field-proven Touch Screen controls and software provide an extremely adaptable, powerful means of controlling over/under weight packages and increasing overall productivity. The following describes the major components of the HP-14 Checkweigher. A typical HP-14 is shown in Figure 1. Major components and locations are shown in Figure 2.

Actual components and equipment on your specific model, however will depend on the options and accessories ordered with your checkweigher.

Figure 1 Typical HP-14 Checkweigher







Each conveyor has its own drive motor and belt tracking adjustment. They can be easily removed for cleaning.

External Reject

Various types of reject devices can be used with the checkweigher to remove unacceptable (i.e., over/under weight) packages from production. These devices include:

Air Blast	Removes packages by a controlled burst of com- pressed air.
Lift/Drop Flaps	Creates a gap in the conveyor line to allow rejected packages to fall below.
Sweep Arm/Diverter Flaps	Redirects rejected packages from the acceptable line to another area.
Bopper/Pusher	Mechanical devices used to force packages off the line. A Bopper operates at a short stroke at relative- ly fast action; a Pusher operates in a longer stroke at a slower rate.

Rejection is an option available upon initial ordering of the HP-14 Checkweigher.

Feedback

The HP-14 Checkweigher has the ability to send (feedback) weight information to a filling machine. The filling machine will then automatically adjust operation to attain a defined target weight - based on prior filling weights.

Feedback capability is an option available upon initial ordering of the Model HP-14 Checkweigher.

Side Transports

Side transports assist transferring difficult containers such as tall, thin bottles across the gap between two conveyors. A pair of driven belts picks up each item at or near its center of gravity and conveys the item by its side panels.

Timing Screws

Certain applications may include a timing screw to transport containers to (infeed) and away (discharge) from the checkweigher. A specially-profiled timing screw is supplied to match the size and shape of containers. This Timing Screw includes a separate mounting and drive components.

Tools and Materials	The following tools and materials are used to install and maintain the Machine and should be on hand prior to starting any installation work.
	 Screwdriver (medium) Adjustable Wrench Allen Wrenches (assorted sizes) Hoisting Equipment
	Additional tools may be required for electrical and/or pneumatic connections, depending on your checkweigher. The hoisting equipment is used to position the checkweigher. Consult shipping weight records for appropriate tonnage equipment.
Additional Information	In addition to the information contained in this publication, the following other sources of information can be consulted for your HP-14 Checkweigher: Touch Screen Control Panel User's Manual Custom, Site-Specific Information for your particular order
	Supplementary Material This information is included with your order.
Warranty Information	Alpha Checkweighers warrants each item of its manufacture to be free from defects for a period of 90 days from start up. Equipment within this warranty will be repaired free of charge and returned to the point of original sale provided that:
	Prior approval is obtained from Alpha Checkweighers
	The defective equipment is returned freight pre-paid.
	 The equipment has not been damaged by misuse, neglect, improper operation, accident, or alteration; as determined by the seller.
	Except for warranties and agreements expressly set forth in writing, Alpha Checkweighers shall not be liable for any representation or warranty of any kind whatsoever, either expressed or implied. Alpha Checkweighers assumes no responsibility or liability for any incidental or consequential damages caused by failure of any of its products or accessories.
	For additional information concerning your warranty rights and obligations, refer to the Alpha Checkweighers, Inc. Standard Terms and Conditions supplied with the shipping documents.

Safety Considerations	Use the following general guidelines and instructions with your Alpha Checkweigher HP-14 to lessen the chance of accidents, personal injury, and damage to the machine and equip- ment.
	The Occupational Safety and Health Act (OSHA) places the burden of compliance of safe operation of equipment on the user of the equipment and the Act is generalized to the extent that determination of compliance is a judgment of the local inspector. Alpha Checkweighers is not responsible for meeting the full requirements of OSHA in respect to the equipment supplied, or for any penalty assessed for failure to meet the requirements of the Occupational Safety and Health Act, as interpreted by an authorized inspector. Alpha Checkweighers will use its best efforts to remedy any such violations at a reasonable cost to the buyer.
	Installation
	 Use proper lifting equipment to position the machine. Refer to shipping records for machine weight and select equipment accordingly.
	 Position machine on stable, sound surface that will support the total weight plus any operators and additional equipment.
	 Position the machine in relatively clean, dry areas with proper lighting and air cir- culation.
	 Electrical connections should comply with accepted industry practices, local reg- ulations, and established electrical codes.
	 All Installation work is to be performed with electric power DISCONNECTED at the Safety Disconnect Switch. Power can be reconnected after the work is com- pleted for testing.
	Operation
	 Consider the use of safety glasses, hard hat, hearing protection, and other pro- tective clothing for machine operators according to the environment, product, and general operating conditions.
	 All safety guards are to be in place and in position during operation.
	 Moving parts of the machine, such as conveyors, reject mechanisms, etc., may present a safety hazard when in use. Do not attempt adjustment when electrical power is connected to the machine.
	 Never put hands or foreign objects into the checkweigher during operation, even if the machine is not currently in operation.
	 Alert surrounding personnel when machine is in operation.
	 Do Not reach into machine to clear product or container jams.
	 Disconnect Electrical Power at the Safety Disconnect Switch when installing, removing, or adjusting accessories.
	 Disconnect Electrical Power prior to performing any maintenance on the machine.

Emergency Stop

Pressing the Emergency Stop switch halts the checkweigher immediately. All power to the output devices are shut down.

!!! IMPORTANT !!!

Only use the Emergency Stop switch in the event of a personal hazard or damage to equipment. Use the "stop" selection on the main screen to stop the system under normal circumstances.

Note: To start the machine, the emergency stop switch must be pulled out.

Hazard Warning Labels

Your Checkweigher is provided with Hazard Warning Labels which specify certain precautions that are recommended to minimize the risk of damage and/or injury to personnel and/or machinery. Locations and depictions of these labels are illustrated in Figure 4.



Hazard Warning Labels &

AFI Publication 01370406A • Issue: 2 • Revised: July 2009

Note: If labels become mutilated or are missing, contact factory immediately for replacements.

Machine Modifications

Do not modify the checkweigher, or any related components - without authorization from Alpha Checkweighers, Inc.

In no event shall the manufacturer be liable for any consequential or incidental damages that result from modification of the operation of this machine.

INSTALLATION	Upon receipt of your Alpha HP-14 Checkweigher, you should initially inspect the shipping container(s) for any damage that may have occurred in transit. If damage is apparent, notify the transport carrier in writing immediately describing the damage. Alpha Checkweighers should also be notified about any damage that may have occurred in shipping. ICC Regulations stipulate that a claim for damage must be submitted within 7 days of receipt. If the shipping container(s) does not appear damaged, you can begin to unpack the checkweigher and accessories.
Uncrating the Checkweigher	It is recommended that the checkweigher be uncrated at the site of installation (where used). If this is not possible or impractical, carefully uncrate and read the following unpack- ing instructions before moving the equipment to the site of final use.
	If the checkweigher or any accessoories seemed damaged in shipping, consult the Alpha Checkweighers Service Department before unpacking to prevent any additional damage.
	Carefully remove all shipping materials to uncrate the checkweigher and/or any accessories. A Packing List is included with your shipment that details each item you are to receive. Make sure you save the Packing List after unpacking and installation. The Packing List is necessary if you need to order replacement parts or if you receive an incomplete shipment. Refer to the "Return and Repair Procedures" section in the <i>"Maintenance and Servicing"</i> section of this manual concerning replacement of missing, damaged, or spare parts.
	!!!IMPORTANT !!!
	Make sure you save the packing list after unpacking and installation.
Weigh Table	There are instances that the weigh table conveyor section (middle section) is removed for
Weigh Table Unpacking	There are instances that the weigh table conveyor section (middle section) is removed for shipping, and placed on top of either the infeed or discharge section. The two "stacked" conveyors are then shrink-wrapped. Proper unpacking of the conveyor sections is critical to system performance. Use the procedure below to properly unpack the conveyors.
Weigh Table Unpacking	 There are instances that the weigh table conveyor section (middle section) is removed for shipping, and placed on top of either the infeed or discharge section. The two "stacked" conveyors are then shrink-wrapped. Proper unpacking of the conveyor sections is critical to system performance. Use the procedure below to properly unpack the conveyors. 1. Gently remove the shrink wrap. Be very careful not to cut or damage any associated wires or components.
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Site Requirements	Prior to installing and operating the checkweigher, an area should be selected that fulfills the needed environmental, electric, and pneumatic requirements of the specific machine. The following lists the general site requirements recommended for Alpha Checkweighers.
	Temperature and Humidity Requirements
	The HP-14 Checkweigher has been designed to operate in a variety of industrial environ- ments without special equipment or additional maintenance. The general operating environ- ment recommended for most applications is:
	<i>Temperature:</i> 32° to 122° (0° to 50° C) <i>Humidity:</i> 5% to 90% relative humidity, noncondensing
	Other environmental conditions may be present (e.g., dust, hazardous fumes) that may affect operation and use of the machine. Contact Alpha Checkweighers concerning recommendations about locating a checkweigher in a non-standard environment.
	Base Flooring
	The floor or base that the checkweigher is being placed on must be solid. Vibration from other machinery, passing fork-lift trucks, etc., can be transmitted to the scale by a flexible floor. Such vibration causes random weighing errors.
	Air Flow
	Even though the HP-14 Checkweigher includes a draft cover, there must be minimal (little to none) - detectable air currents in the checkweigher area. A scale in a drafty area may "drift" and weight readings may change gradually, even if the same item is weighed over and over. Air currents alter the forces on the scale platform and/or items being weighed in unpredictable ways.
	Machinery Contact
	The checkweigher must not touch any other machinery. Leave a small air gap (at least 1/4") between the checkweigher and any other equipment in your line, such as an infeed or discharge conveyor. Any contact, no matter how slight, can transmit vibration to the checkweigher's scale; this vibration causes random weighing errors. If other equipment touches the checkweigher's scale assembly, this binds the scale and makes accurate weighing impossible.
	Electrical Requirements
	The installation site should be prewired for proper electrical power to the machine prior installation.
	Typically, voltage, phase, & frequency are customer specified upon purchase of the machine. These electrical requirements are listed on the wiring diagrams supplied with the machine. Consult this information to determine the electrical requirements at your site.

A dedicated power line, free from other equipment is recommended for the HP-14 Checkweigher. Other machinery and equipment can generate transients and electrical noise which can effect operation of the controls. Selecting a site with dedicated electrical input power can avoid potential problems.

A lockable Safety Disconnect Switch is recommended for installation where the checkweigher is to be connected to the power input mains at the site. This equipment should be purchased and installed (when possible) at the site of the checkweigher prior to actual installation. Alpha Checkweighers can supply appropriate disconnect equipment, as an option, upon purchase of the checkweigher.

Pneumatic Requirements

If the checkweigher includes a pneumatic-operated reject device, the installation site should include an adequate source of clean, dry, compressed air for connection to regulator equipment that is included in the machine.

Compressed air pressure and capacity ranges depend on the type of reject device used, as well as the type, configuration, and size of the checkweighed package. As a minimum, the following is recommended as a source of pneumatic power:

Pressure: 80 PSI *Capacity:* 6 SCFM

Operating pressure is adjusted from the regulator equipment included on the HP-14 Checkweigher.

Installation Procedures	Correct and careful installation of the HP-14 Checkweigher will result in proper, accurate production, lower maintenance, and reduced risk of machine down time due to equipment failure. Installation is performed in the following, general sequence:		
	 Moving and Positioning the Checkweigher Connecting Electrical Power Connecting Compressed Air for Pneumatic Equipment Initial Adjustments 		
	The following provides the installation information and procedures to perform each of these activities.		
	Moving and Positioning the Checkweigher		
	Extreme care must be taken when selecting the site for the installation and positioning of the HP-14. The proper moving of the checkweigher to the desired location is also critical to system performance.		
	III IMPORTANT III		
	Do not use a forklift to position the machine. It is recommended that four people be used to move and position the machine. Grasp the frame to lift the machine. Do not grasp the conveyors or load cell area.		
	In addition to selecting an area with the proper electrical and pneumatic power, the following considerations should be taken into account for best use of the checkweigher.		
	!!! IMPORTANT !!!		
	Improper selection of location may result in continual inaccuracies upon startup or in the future.		
	Use the following recommendations when selecting a site for installing the checkweigher.		
	Electrical Connections		
	When the checkweigher is properly positioned and secured, the site electrical service can be connected and the machine initially operated to check for correct operation. All electrical installation should be performed by qualified personnel and done in accordance with all local codes and requirements.		
	Electrical connections are listed on a custom wiring diagram that is supplied with the machine. Use this diagram to connect electrical service. Electrical connection should be made through flexible conduit (where used) to the checkweigher to avoid vibration being transmitted to the machine.		
	When electrical installation and connection is complete, power should be turned on to verify proper motor operation and conveyor direction.		

Pneumatic Connections

Pneumatic operated equipment (reject devices) of the checkweigher must be connected to a suitable source of compressed air at the site during installation. The machine includes a filtered input connection for compressed air. Regulators, manifolds, and/or gauges are supplied with the machine and are mounted on the machine during manufacture.

An air schematic is supplied with the machine detailing pneumatic connection and distribution. Use this diagram to connect pneumatic input to the checkweigher.

Operating pressures of compressed air varies according to the type of equipment used at the machine. The Site Requirements section of this manual lists the general, maximum pneumatic pressure input. Connect a filtered, dried source of compressed air to the machine.

Initial Adjustments

Generally, your HP-14 Checkweigher has been tested and initially adjusted at the factory prior to shipping. The following items, however, should be checked after completing installation for reliable, accurate checkweighing operation.

Motor Operation	Make sure all motors (weighing, infeed, discharge) are operating at the intended speed and direction.
Weigh Table Belt Alignment	The weighing belt must be properly aligned and centered (i.e., "tracked") when in operation. Misalignment causes undue wear and may result in weighing inaccuracies. The following section in this manual provides additional information about adjusting belt tracking. (See Servicing Procedures).
Control Setup and Calibration	The controls must be initially set up when starting the system. Also, the loadcell must be properly cali- brated. For a quick start-up procedure to follow to get the system running, refer to the User's Manual that is included with the documentation package for your Alpha Checkweigher.

Situations to Avoid	There are certain situations that should be avoided when installing your Checkweigher.		
	Customer Installed Guide Rails	A common error is that guide rails are mounted so they touch the checkweigher or items being weighed. If an item touches a guide rail while being weighed - even slightly this binds the scale and pre- vents accurate weighing. An item on the scale must touch only the weigh table conveyor.	
		If guide rails must be installed over the check- weigher, make certain that they "bridge" the check- weigher - but are supported by other equipment. Also make sure that items do not touch the rails while on the checkweigher.	
	Infeed Timing Devices	Timing screws, moveable gates and star wheels are all common infeed devices upstream of the check- weigher. A common error is to mount these devices on the checkweigher or on the infeed conveyor too close to the checkweigher.	
		Mount these devices on the infeed conveyor, not on the checkweigher, and make sure that these devices are far enough upstream. How to determine this is as follows: Watch the first item in line when a group is released. Is that item up to your conveyor's speed before it transfers onto the checkweigher? If the item is still sliding on your conveyor or on the checkweigher's infeed belt, the spacing device is too close.	
	Checkweigher Not Secured	Checkweighers require to be securely mounted with the feet in place. If this is not accomplished, this makes the checkweigher more susceptible to vibra- tion than if it were properly secured. The conse- quence of this error would be random weighing errors. To avoid this situation, secure the check- weigher to the floor with lag screws.	
	Attached Reject Bins/Chutes	A common mistake is to mount a reject bin or chute directly to the checkweigher. When an item is rejected, it tumbles into the chute or bin and cre- ates vibration, which is transmitted to the load cell. If this situation occurs while another container is being weighed, that item's weight may be inaccu- rate.	
		Any reject bin must have its own legs, and a chute that is attached to the bin must not make direct contact with the checkweigher. There must be a small gap between the chute and the checkweigher.	
	Exceeding Speed Capabilities	If a checkweigher is rated at 120 items per minute, this means that it requires a half-second to weigh	

	each container. This does not mean that if the machine is "down" for a period of time that the speed can exceed this amount. The line rate is a maximum value - not an average. Adjust your infeed conveyor to deliver items to the check- weigher at or below its rated line rate.
	Another common mistake is to change the drive sprockets to a different size to achieve a faster line rate. This effort proves to be futile, because the checkweigher's best line rate is limited by the settle time of the scale. If a faster checkweigher is need- ed, contact your Sales Representative. Changes to multiple components may be required to acheive the desired line rate.
Feeding Items Too Close Together	When items are being fed into the checkweigher too close together, two items may be weighed simultaneously. This makes accurate weighing impossible. Space the containers further apart, so that only one item is on the weigh table conveyor at any time. Use the weigh table length - plus two inches. This is a good "rule of thumb".
Checkweigher Used as a Step/Shelf	When any weight, other than the containers, are placed on the checkweigher - there is a good chance that the load cell will be destroyed because of overloading. The conveyor mechanism also could be damaged, or mis-aligned because of this. Be certain that personnel know that a checkweigher is not a storage shelf or a substitute for a steplad- der.

	This section presents the general servicing instructions, procedures, and recommendations for maintaining your HP-14 Checkweigher. Included are:		
SERVICING	 Preventative Maintenance Corrective Maintenance Troubleshooting Servicing Problems Return and Repair Procedures The servicing guidelines provided in this section are for reference only. Actual servicing activities, schedules, and procedures depend on your specific checkweigher, application, and standard plant operating requirements. Should you have a particular servicing or maintenance question or concern, contact your Alpha Checkweighers, Inc. representative for additional information.		
Preventative Maintenance	Following a regular pattern of daily and monthly preventative maintenance will assure con- tinued, reliable operation of your checkweigher. Establishing procedures to perform mainte- nance will assist you in keeping your equipment in proper operating condition, as well as allowing you to recognize potential problems that could lead to a breakdown. In addition to your daily or production shift procedures of startup, shutdown, etc., you should design a program of daily and monthly maintenance that includes activities listed in the fol- lowing.		
	Daily Maintenance		
	The following should be checked on a daily basis after production shutdown or before start- up for each HP-14 Checkweigher. Refer to the " <i>Service Procedures</i> " in this section for addi- tional maintenance instructions.		
	!!! WARNING !!!		
	All electrical power should be disconnected from the machine prior to performing any maintenance activities. Disconnecting all power will reduce the chances of injuries or equipment damages.		
	 Clean any accumulated product buildup, container debris dirt, moisture, etc., from the transport and weigh table assemblies. 		
	• Clean dirt and debris away from the infeed and discharge conveyors (when used).		
	 Remove any loose tools or parts from around the machine. If the machine includes guards, ensure that they are properly positioned to avoid damage or injury. 		
	Inspect all drive and transport components for proper alignment.		

Monthly Maintenance

The following should be checked on a monthly basis for each HP-14 Checkweigher.

!!! WARNING !!!

All electrical power should be disconnected from the machine prior to performing any maintenance activities. Disconnecting all power will reduce the chances of injuries or equipment damage.

- Check all drive belts for wear and proper tension. Replace with spare if worn.
- Clean out foreign material that may have accumulated in and around the weighing and package transport components.

!!! IMPORTANT !!!

Do not over lubricate! The machine may be operating in a dust filled environment due to the nature of the product and/or package. Over lubrication will cause dust and particles to stick to greasy and oiled surfaces. This combination will cause excessive wear of moving parts of the machine. All other components of the machine, such as the drive motor, are sealed and do not require lubrication by the user.

Corrective Maintenance

Failure of the checkweigher to operate properly can often be quickly diagnosed in the field and corrected without the need for costly, time consuming repairs or spare parts. If a problem cannot be resolved using the troubleshooting methods listed in the following, refer to the Return/Repair Procedures at the end of this section for information about getting your machine repaired.

Part Identification

Locations of selected parts and assemblies can be identified using bill of materials supplied with these instructions, and various drawings included. Using the part/assembly identifications can greatly assist you in subsequent servicing, repair, and replacement of parts and equipment included with your checkweigher.

Troubleshooting

The information in Table 1 can be used to diagnose and correct problems or faults with the HP-14. If, after troubleshooting, problems still cannot be corrected, contact the Alpha Checkweigher Service Department for additional assistance.

Та	ble 1 - Troubleshooting	
Problem	Possible Cause	Solutions
Won't Run	On/Off Switch	Check position of conveyor power and/or Emergency Stop switches.
	Input Power	Make sure the check- weigher is plugged in. Check for AC input voltage in the enclosure (refer to wiring diagram). Check fuses.
Inaccurate or Erratic Weighing	Vibration	Identify source of vibration and isolate accordingly.
	Conveyor	Adjust belt and drive com- ponents for proper tension- ing and/or alignment.
	Speed	Check motor controller speed selection and re- adjust as required.
	Programming	Check menu entries and selections. Re-enter as necessary.
	Loadcell	Replace with spare.
Won't Checkweigh	Photoeyes	Check for correct function- ing using the TEST SCREEN menu selections. Check photoeye sensitivity, especially if the package has changed.
	Programming	Check menu entries and selections. Re-enter as necessary.
Won't Reject	Air Input	Check for pressure con- nected at regulator. Check fuse. Use the TEST SCREENS to individually operate the rejection device.
	Programming	Check menu entries and selections. Re-enter as necessary.
Touch Screen Display Problems	AC Noise	Isolate AC power input wiring from other equip- ment. Protect against elec- trical interference.

Servicing Procedures For your convenience, the most common servicing procedures are contained in the following pages for reference when maintaining the HP-14 Checkweigher. The following procedures are provided:

- Adjusting Belt Tracking
- Cleaning
- Removing the Weightable Conveyor
- Photoeyes
- Motor Diagnostics

Additional servicing instructions are also provided in the manufacturer's information supplied with your manual.

Adjusting Belt Tracking

Before using for production checkweighing, the belt used to transport packages over the weigh table should be checked, and adjusted if necessary. Because of the physical characteristics of these belts, adjustments are required to ensure that the belt is centered along its path of travel across the weighing area. No special tools or materials are required to adjust belt tracking. There is a finger roller used on each conveyor to accomplish this. Finger Roller location is shown in Figure 7.



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Cleaning

Dirt, product build-up, or package debris can prevent the HP-14 Checkweigher from continuous, accurate checkweighing. Areas that require frequent cleaning are listed in the following.

- 1. Clean the junctions between the infeed/discharge areas and the weigh table using a low pressure airhose or a clean, damp cloth.
- 2. Wipe down the conveyors. Check the drive sprockets and idlers for accumulated dirt and debris that may impair smooth operation.
- 3. If required, remove belts and clean separately.

!!! IMPORTANT !!!

Do not use chemical cleaners or petroleum-based solvents on belts. These can soften and/or dissolve the material and may cause unexpected breakage. Clean only with warm, soapy water.

Removing the Weigh Table Conveyor

It may be necessary to remove the weigh table conveyor to clean accumulated product, debris, etc. Use the following procedure to remove. Removal sequence is illustrated in Figures 8-13.

- 1. Disconnect electrical power from the checkweigher.
- 2. Unclamp the four (4) mounting clamps. This is accomplished by first placing a finger beneath the lower lip of the clamp and swinging it upward.

!!! IMPORTANT!!!

Be aware that you are performing work on a scale. If the mounting clamps do not swing up easily, look for the source of the bind, before putting excessive pressure on this component.

- 3. Take the upper lip of the mounting clamps and pull them away from the conveyor. This frees the clamps from the conveyor.
- 4. Gently remove the conveyor by lifting it upward. Notice that there is still a motor connection attached.
- 5. Remove the motor connection by gently unscrewing the knurled connector counterclockwise.
- 6. When fully unscrewed, gently pull the connector free from the motor.
- 7. Reverse the above procedure for conveyor installation.
- 8. The above procedure can be used to remove the infeed and/or discharge conveyors, as well.

!!! IMPORTANT !!!

When re-installing the conveyor - verify that the holes in the motor connector properly line up with the corresponding pins, and press in. Turn the knurled connector clockwise to tighten.



Figure 8 Lower Lip of Mounting Clamp

Figure 9 Upper Lip of Mounting Clamp





Figure 10 Mounting Clamps Free From Conveyor

Figure 11 Conveyor Removed


Photoeye Testing and Adjustment

Proper operation of the photoeyes mounted on the HP-14 are crucial to reliable, accurate checkweighing. These photoeyes operate by the reflection of light from the package. If the HP-14 Checkweigher is not checkweighing and the photoeyes are suspected (see *"Troubleshooting"*), or if packages are changed and the HP-14 does not operate with the new packages, you should read the following to test and/or adjust.

- 1. Access the corresponding Test Screen used for photoeye testing
- 2. Pass your hand (or a package) in front of the selected photoeye while observing at the display. The appropriate "photoeye indicator" should appear illuminated.
- 3. If indicator DOES NOT change, then the following should be checked:
 - Photoeye lens (dirt, product, etc.)
 - Input/Output module in control enclosure
 - Power supply, fuses, wiring connections

Refer to the wiring diagram provided when performing additional testing or diagnostics.

Motor Diagnostics

The motors used on the infeed, scale, and outfeed conveyors of the Model HP-14 include red and green LED's that can be used to verify correct startup and operation, and to identify error conditions. These LED's are located adjacent to the power supply connector at the rear of the casing. LED meanings are listed in Table 2.

Table 2 – Motor LED Meanings

LED State	Meaning
Flashing at 2.5 sec. Intervals	Startup sequence
Flashing at 1.0 sec. Intervals	Operational
Green LED lit continuous	Emergency *
Green Flashing (10's), Red Flashing (units)	Error Code *

* May require factory servicing

Motor Error Codes

The flashing green and red LED's on the motor casing of the conveyors can be used to identify the specific type of error occurring. This code can be useful when contacting Alpha Checkweighers for factory servicing. To identify error codes:

- Count the number of flashes of the green LED x 10
- Count the number of flashes of the red LED x 1
- Sum these values for error code

For Example:

- Green LED flashes two times ("20")
- Red LED flashes three times ("3")
- Error Code = "23"

Return and Repair Procedures

Alpha Checkweighers can repair or replace failed equipment and components for the HP-14 Checkweigher when accompanied by a factory supplied Returned Goods authorization number. Components and equipment of the Alpha Checkweigher still covered under warranty will be repaired or replaced under the terms of Alpha Checkweigher's standard 90 day warranty. Items no longer under warranty will be repaired or replaced according to the standard Terms and Conditions supplied with the machine at the time of purchase.

Refer to the Standard Terms and Conditions for additional information concerning the return, repair, and replacement of equipment and components.

APPENDIX	
	Sample Maintenance Checklist
	4

Sample	Checkweigher:			
Maintenance Checklist	Location:			
	Product:			
	Checked	Date	Initials	
	Adjusting Belt Tracking Cleaning Photoeyes	// // //	 	

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ALPHA CHECKWEIGHER PRINTED CIRCUIT BOARD BATTERY & FUSE INSTRUCTIONS

The CW700 Printed Circuit Board controlling Alpha Checkweighers includes a battery to preserve data in the memory of the controller. Over time, this battery may discharge, requiring replacement. Additionally, the Human/Machine Interface (HMI) touch screen panel includes a fuse protecting internal components from extraneous voltage. This fuse may also require periodic replacement. These instructions describe how to measure battery strength, replace the battery, and replace the HMI fuse.

Tools & Supplies

A Digital Voltmeter or Multimeter and common handtools (i.e., screwdrivers) should be available to perform the following procedures. The Battery and Fuse can be supplied by Alpha Checkweighers or found in an electronics supply store. Battery type is:

Lithium-Ion Cell, CR2032 Fuse type is: 1.25A/250V, 20mm "ABC Glass" Fuse

The lithium-ion cell is available directly from Alpha Checkweighers through the following part number: BATCR2032

Locations

Both the printed circuit board Battery and the HMI Fuse are located within the control enclosure of the checkweigher. Unlatch the enclosure door and use the following to locate and identify the fuse and battery.



Certain models and/or applications may have an additional printed circuit board assembly installed over the battery location, as shown in the following. If the checkweigher includes this additional assembly, it must be removed before replacing the battery (see "Replacing Battery when Additional Printed Circuit Board Installed").



Additional Printed Circuit Board Assembly



HMI Fuse Location



Alpha Checkweighers, Inc. 418 Creamery Way Exton, PA 19341 • USA 877 GO ALPHA • Fax: (610) 524-7346 http://www.alphacheckweighers.com

Battery Instructions

CW700 Printed Circuit Board includes a Battery Low LED indicator to alert the user that battery requires replacement. This LED is at position D19. If Bat Low LED is On, replace with spare as soon as possible. If battery cannot be replaced in a timely manner, you may want to consider storing setup and parameter data in the Flash Memory component of the checkweigher controls printed circuit board (when equipped).

- 1. Battery must be replaced while power to the CW700 board is ON.
- 2. Gently push the retaining clip holding the battery in its holder to extract battery.
- 3. Use a DVM to measure the voltage of the new battery, should be above 3.1V.
- 4. Insert positive [+] side of the battery toward the retaining clip into the battery holder.
- 5. Measure voltage of the new battery. Use as GND reference the pad of U9 and measure the voltage on the battery holder retaining clip. Voltage should be equal to value measured in Step 3.

After replacing the battery, order a new one for future use by specifying part: BATCR2032.

Replacing Battery when Additional Printed Circuit Board Installed

If the checkweigher includes an additional Printed Circuit Board assembly installed over the battery location, use the following to replace. As described in the previous, if the Bat Low LED at position D19 is On, replace with spare as soon as possible. If battery cannot be replaced in a timely manner, you may want to consider storing setup and parameter data in the Flash Memory component of the checkweigher controls printed circuit board (when equipped).

- 1. Battery must be replaced while power to the CW700 board is ON.
- 2. Turn power off to the CW700 board by toggling the switch at location SW2 (lower right-hand coner).
- Remove bottom screw securing additional printed circuit board assembly to the standoff and lift assembly away. Turn power back on at switch SW2.
- 4. Gently push the retaining clip holding the battery in its holder to extract battery.
- 5. Use a DVM to measure the voltage of the new battery, should be above 3.1V.
- 6. Insert positive [+] side of the battery toward the retaining clip into the battery holder.
- 7. Measure voltage of the new battery. Use as GND reference the pad of U9 and measure the voltage on the battery holder retaining clip. Voltage should be equal to value measured in Step 5. Turn power off at switch SW2 and mount the additional printed circuit board assembly removed in Step 3. Secure with screw at standoff. Use switch SW2 and turn power on to the CW700 board.

After replacing the battery, order a new one for future use by specifying part: BATCR2032.

Fuse Instructions

If the HMI fuse blows out, nothing will appear on screen and the 3 LEDs will be off.

- 1. Use a small screwdriver to pry out fuse holder, located above Power connector.
- 2. Use an Ohmmeter to check the fuse; if ok you'll read about 0 ohm.
- 3. If fuse is blown, replace it with the spare 1.25A/250V, 20mm fuse.
- 4. If HMI still not operating, unit may or may not be repairable (check internal power supply). Contact your local, authorized service representative for further information.

PROTECTING FILLING/CHECKWEIGHING EQUIPMENT DURING WELDING

Whenever machine modifications are required in the field, special precautions must be followed when Arc, MIG, or TIG welding is performed. If a ground is clamped onto the machine, there will be a huge potential placed onto the frame of the machine. The attached electronics must be powered down and isolated.

Before performing any welding, the physical connection between the machine and electronics must be removed, including:

- Servo Motors And Drives
- Programmable Logic Controllers (Plcs)
- Checkweigher Load Cells
- Scales

Failure to do this could result in serious damage to electronic devices.

Percautions

Use the following as guidelines to protect your filling/weighing equipment from damage due to welding.

Servomotors	Disconnect the servo cables from the servo drives. Some servo cables unplug, others have to be unwired by a qualified electrician. Also, disconnect any encoders.
Programmable Logic Controllers (PLCs)	Remove the processor, and all of the individual processor cards. This will isolate the electronics from the ground.
Checkweighers and Scales	Disconnect all scale cables. Some have a connector at the scales themselves, others have a connector back at the electronics of the system. Unplug or remove all connections. Disconnect ANY wire that goes from the machine back to the electronics.

!!! IMPORTANT !!!

Power down all devices before disconnecting any electronic devices. Physically unplug the machine. The display and operating lights on the machine should be dark.

Disconnection of these electronic devices should only be accomplished by a qualified electrician.

ALL-FILL, Inc.

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SERVICE INFORMATION

ALL-FILL maintains a fully-staffed Service Department to assist you in the installation, operation, and maintenance of your equipment. The following information is presented for your use to make service quick and trouble-free as possible.

EQUIPMENT IDENTIFICATION TAGS

ALL-FILL equipment is identified with printed metal tags attached to the machine. Use the following to locate these tags for your type of machine before contacting ALL-FILL service. For most auger fillers, (e.g., Semi-Automatics, Automatics, & Rotary), Tags may be located on either the left or right side of the Fill Head casting, at the rear of the casting, or mounted on a control enclosure. Volumetric piston fillers (liquid applications) may include tags at the back of the housing (rear of cylinder), or attached to the front of the control panel. Checkweighers include tags attached to the frame, or on the leg portion of the frame.

Other equipment, such as free-standing conveyors, custom designed models, etc., will include these tags, however physical inspection may be required to locate and read tag information. Machines located in corrosive environments may also contain duplicate tags within the control enclosure.

These tags contain the following information:



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CONTROLLER IDENTIFICATION

Before contacting ALL-FILL for service, you should also identify the type of controls (if any) included with the machine. ALL-FILL manufacturers several different machines with different types of controls. The particular type of controls can generally be identified by the keypad and/or display. This information is listed in the following.

Keypad	Display	Controls
Up/Down buttons	B&W digits (or none)	Timer controls, Models CT-530, CX-200 series, CX-300 series
Numeric buttons	Red digits	Micro-Counter Panel * (i.e., "BC panel")
Numeric buttons	Green/Blue digits and letters	Cerebus II *
Numeric buttons	1/2" alphaneumeric red LED display	Cerebus III *
Red-bordered numeric keys	5-Digit LED	Quantum II *
(None)	Flat panel (B&W or Color)	Touchscreen Controls
Numeric buttons	2-Line display	Model 350e, Keypad Controls *
3" x 2.25" Touch Screen	LCD Display	Model B-350e Touch Screen
4-Buttons	4-Digit LED	Model B-350 Controls *
Lighted numeric buttons	Red digits	Sentronics * (checkweighers only)
Numeric buttons	Green digits on light blue background	Microcheck * (checkweighers only)

* Obsolete item. Service and support may be limited.

CONTACTING ALL-FILL FOR SERVICE

In order to provide fast and efficient service for your filler/checkweigher, you should record the following information about your equipment:

Type of Machine:

Serial Number:

Wiring Diagram Number:

Controls:

If desired, you can record this information on this page for future reference.

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TUTC	
	102-51
	102-52
	102-53
	102-54
rown Coll ACCEPT WEIGHT LIGHT	102-55
	102-56
	102-57
reent The ment of	102-58
/hite	102-59
	102-60
	102-61
REJECT BUZZER	102-62
	102-63
	102-64
	102-65
EJECT SOLENOIL VALVE	102-66
	102-67
IGH REJECT SOLENDIL VALVE(OPTIONAL)	102-68
	102-69
NDEX SPACING (OPTIONAL)	102-70
	102-71
	102-72
	102-74
	102-75
	102-76
	102-77
	102-78
HECKWEIGHER SYNC	102-79
	102-80
AISE SIGNAL #2	102-81
(OPTIONAL)	102-82
JWER SIGNAL #2	102-83
	102-84
	102-85
	102-86
	102-87
	102-88
AISE SIGNAL 1	102-89
	102-90
JWER SIGNAL 1	102-91
	102-92
INSECUTIVE REJECT (OPTIONAL)	102-93
	102-94
W READY	102-95
	IGHERS
EXTIN, PA 1934 A Division of All-Fill, Inc.	
WIRING DIAGRAM CHECKWEIGHER 7	00 SERIES
HP SERIES ECLREF. ELC_CV700_HP14-4 DVN. BY BAP DRAVING NG , , , ,	0./7004
	w/UUD

CAD No. HPW7006

SHEET 2 DF 3



Configuring the Modules



Turn on the appropriate DIP switch to set the order of the components, counting up from the tower light's base.



Assembly Options			DIP Switches							
Cascing	opaulis	1	2	3	4	5	6	7	8	
	Module 1	ON								
Light and Standard Audible Components	Module 2		ON							
	Module 3			ON						
	Module 4				ON					
	Module 5					ON				
	Module 6						ON			
Light Module Flash Rate	3 Hz							ON	OFF	
	1.5 Hz							ON	ON	
	Solid On*							OFF	OFF	
	Pulse 1.5 Hz							ON	OFF	
Standard Audible Module Settings	Chirp Alarm							ON	ON	
	Siren Alarm							OFF	ON	
	Continuous Alarm*							OFF	OFF	



Assembly Options		DIP Switches									
		1	2	з	4	5	6	7	8	9	10
	Pulse 1.5 Hz							ON	OFF		
oud Audîble Module Settings	Chirp Alarm							ON	ON		
	Siren Alarm							OFF	ON		
	Continuous Alarm*							OFF	OFF		
	Low Intensity									OFF	OFF
	Med. Intensîty									ON	OFF
	Med./Loud Intensity									OFF	ON
	Loud Intensity									ON	ON

Wiring Terminal Block



Terminal Block Key

- 0 = dc common
- 1 = Module 1
- 2 = Module 2
- 3 = Module 3
- 4 = Module 4
- 5 = Module 5
- 6 = Module 6

CHECKWEIGHER TOWER LIGHT CONFIG

SET SET	MODULE	6 HORN FO
SET	MODULE	WHITE FOR

- SET MODULE RED FOR SOLID ON
- SET MODULE GREEN FOR SOLID ON

FILLER TOWER LIGHT CONFIG

SET	MODULE	6	HORN	FDF
SET	MODULE	5	BLUE	FDF
SET	MODULE	4	WHITE	FC
SET		4		FDF

- SET MODULE 1 GREEN FOR SOLID ON

OUTPUTS

IR CONTINUOUS & LOUD SOLID ON SOLID ON

SET MODULE 4 HORN FOR CONTINUOUS & LOUD SET MODULE YELLOW FOR SOLID ON

> IR CONTINUOUS & LOUD IR XX OR XX

IR CONTINUOUS & LOUD SET MODULE 3 RED FOR 1.5 Hz FLASHER SET MODULE 2 YELLOW FOR 3 Hz FLASHER

REV.		DESCRIPTION					
	ALPHA CHECKWEIGHERS EXTEN, PA 19341 A Division of All-Fill, Inc.						
TITL	ECOND WEIGHER TOWER LIGHT WIRING						
ECL.REF. WA275C DWN. BY BB			DRAWING ND.	1./40	750		
1ST. USED DN XXXXX DATE 06/12/18				WHC	/ 30		
CAD	No. SAME AS DWG				SHEET 1 DF	• 1	



REV.

∢

QUANITY :

GROUP :

P1/8	2	1/8 MUF	FLER			
2100824VDC	1	MEAD MFI	D SOLENOID VA	LVE	- 24V	DC
G/PART NO.	QTY.		DESCRIPTION			
ALL-FILL, INC. EXTON, PA 19341						
AIR SCHEMATIC (24 VOLT) AIR BLAST						
ASSEMBLY		DWN.BY DK	DRAWING NO. R-1	721.	_7	
1 ST. USED ON 160	069	DATE 11/19/02		/ _		
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AIR NOZZLE

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Model HP-14 Checkweigher Touch Screen Control Panel Users Manual



Alpha Checkweighers

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INTRODUCTION

This manual consists of the following major sections:

TOUCH SCREEN CONTROL PANEL	Describes the control panel on the front panel of the checkweigher, as well as introductory instruc- tions on how to select checkweighing functions.
	Refer to this section first if you are new and unfa- miliar with the Touch Screen controls.
USING THE CONTROLS	Contains step-by-step procedures to initially start, setup, and run checkweighing production.
	If you are already familiar with operation of Touch Screen controls (e. g., with an ALL-FILL filler), you can skip directly to this section.
REFERENCE	Contains detailed descriptions of each available menu selection of the Touch Screen Control Panel.
	You can use this section for more information con- cerning the selections and entries for each menu.
An Appendix to this manual contains of Checkweigher.	ther related information used in operating the



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Zone Indicators

Provide a visual display of package weight status when transported over the weigh table of the checkweigher:

Red —Underweight Green — Acceptable Weight Amber — Overweight

Flash Memory

The control panel includes a non-volatile data storage component ("Flash Memory") to save and restore all major setup settings and entries. This component is protected from accidental or unauthorized use by a factory-assigned password. Password must be entered on the Cal screen to save or read data from the flash memory.

The Flash Memory component can store up to 25 different setup settings, entries, and selections. Information stored in Flash Memory easily recalled through screens and selections on the touch screen panel.

USB Connector

This control panel includes the capability of storing weight data on a standard Universal Serial Bus (USB) device. Any device equipped with a standard USB male connector can be connected to the Alpha Checkweigher such as compact, portable disk drives, solid state "thumbdrive" data storage devices, etc. Installation consists of plugging the USB device into the designated connector.

Data to be stored on the USB device is specified from a screen of the Stats menu.

Ethernet Network Connection

The Control Enclosure includes a connection to communicate checkweigher data over an Ethernet network using the Data Capture software included in the control panel. Installation and use of the Data Capture software is provided elsewhere in this manual.

The Data Capture pc software is supplied separately.

Data available on the Ethernet Network is specified from a screen of the Stats menu.

Touch Screen Panel

The Touch Screen panel provides a series of menus, selections and entries to test, setup, and operate all major checkweighing functions.

All major machine setup, production, and testing are performed using the Touch Screen

Touch Screen Operation

panel on the Control Panel. This screen provides simple, direct selection of all operations, control settings, and production data display. When the checkweigher is initially started, the following screen appears.



СРМ	Displays a computed Container Per Minute as an indicator of production rate.	
Total	Displays total number of weighed packages since Start/Clear Stats was used. This display can be ref- erenced as a measure of production.	
Sample	Accesses the Sample & Hold screen for independ- ent, offline weighing of a selected package to verify continuing accuracy of the checkweigher. After sampling, package is rejected (if equipped).	
Clear Stats	Resets statistical data and totals. Selection can be used at startup so only the most up to date data appears at the checkweigher.	
Max./Min/Avg./Std	Displays maximum, minimum, average and stan- dard deviation of packages passing through the checkweigher. These displays provide a perform- ance summary of the chewckweigher.	
Product Name	Displays the defined product name of the current setup program in use. Product names are defined using a selection of the Container Parameters setup screen. This display can be useful in verifying product, package, or setup program.	
Target Weight	Displays the defined target weight setting of the current setup program in use. The Target Weight is set using a selection of the Container Parameters setup screen. This display can be useful in verifying product, package, or setup program use.	
Menu Selection	Provides access to the Select, Setup, Cal (calibra- tion), Test and Stat screens and selections.	
Status Messages		
A single line message indicating the current operational state of the checkweigher. The fol- lowing messages may appear:		
NO CONTROL POWERCHECK BACKUP SENSORSYSTEM READY: PRESS STARTDELAY BEFORE TARE PLATFORMWAITING FOR CONTAINERCHECK DYN CAL SETTINGSPHOTOEYE LOCKOUT TIMESTARTING OUTFEED CONVEYORREADING SCALE DATASTARTING SCALE CONVEYORPROCESS DATASTARTING INFEED CONVEYORWAITING FOR OUTFEED PESHUTDOWN SCALE CONVEYORTARE SCALE PLATFORMSHUTDOWN OUTFEED CONVEYORCHECK INFEED & OUTFEED EYEWAIT FOR CONVEYORS TO POWER UF		
pertaining to each message, are provided in a subsequent section of this manual (See "USING THE CONTROLS").		

Menus & Selections

A series of interactive, English-language menus and selections provide operational control of the filler/checkweigher. Each menu has an associated group of selections in that general category to allow you to select and specify control in an organized, logical manner. Selections in each menu allow you to enter values from a given range, such as Target Weight; or make a choice between different functions, such as Net or Gross Weight weighing. Individual descriptions of each Menu Selection are provided in the REFERENCE section of the publication.

Main

- Start
- Weight Display
- Weight Type Display
- Weight Unit Display
- Stop
- Over Reject Count Display
- Accept Count Display
- Under Reject Display
- Last 15 Weight Bargraph Display
- CPM Display
- Total Display
- Sample
- Clear Stats
- Max Display
- Min Display
- Avg Display
- Std Display
- Product Name Display
- Target Weight Display
- Menu Selection

Select

- Program Number
- Shift Number
- Program Summary Target Weight Display
 Packet Length Display
 Scale Conveyor Speed Display
- Date/Time Display
- Quick Setup
- System Settings

Setup

- Setup Main Menu
- Container Parameters Product Name Weigh Type Packet Length Tare Weight Target Weight
- Statistical Parameters Stat High/Low Weight

 Under Light Accept Light Over Light Scale Weight Display Infeed Sensor Indicator E-Stop Indicator Tare Outfeed Sensor Indicator Reject Verification Indicator Test Conv Infeed Conveyor Infeed Conveyor Speed Scale Conveyor Speed Outfeed Sidebelt Infeed Sidebelt Outfeed Sidebelt Speed Test Aux Test Low Reject Test Aux Alarm Test C/W Ready Infeed Sensor Indicator
Stats
 Stats Main Menu Traffic Cop Screen Accept/Reject Status Weight Display Over Reject Total Over Accept Total Accept Weight Total Under Accept Total Under Reject Total Container Weight Data Weight Display Packs Per Minute, Indicator Packs Per Minute, Count Infeed PE Time Weighing Time Last Weigh Samples
Last Weigh Samples Last Peak Samples Production Stats Weight Display Over Reject Indicator, Total & % Accept Indicator, Total & % Under Reject Indicator, Total & % Average Weight Range

Clear Stat • History of Last 20 Last Sample Weight Weight History, Last 25 Packs High/Low Limit Display Sample Batch Data Stats Current/Last Batch: Accept Total Over Reject Total Under Reject Total Maximum Weight Average Weight Std. Dev. Weight • Short Term Stats Current Short Term Stats: Accept Total Over Reject Total Under Reject Total Maximum Weight Average Weight Std. Dev. Weight Last Short Term Stats: Accept Total Over Reject Total Under Reject Total Maximum Weight Average Weight Std. Dev. Weight Short Term Stat Count • System Information Start/Stop Cycles **Operating Hours** E-Stop Cycles Infeed Conv. Hours Scale Conv. Hours Outfeed Conv. Hours Aux, Conv. Hours In Sidebelt Hours Out Sidebelt Hours LDW-LWT Cycles Static Cal. Cycles Dyn. Cal. Cycles • Single Weight Backup to USB **USB** Indicator Time/Date Backup Start Day Days to Backup Start Backup Set Date/Time



Checkweigher Testing

The Test screens and selections allow individual operation and testing of various components and devices of the checkweigher. You can use the following to test these devices prior to any setup or operation.

- 1. Make sure Emergency Stop switch is in the "In" ("Off") position. Press **STOP** from the Main screen. Test functions can only be accessed when machine is stopped.
- 2. Press **TEST**. Use selections on this screen to test and operate:



- Under, Accept & Over Lamps
- Scale Weight
- Infeed & Outfeed Sensors
- E-Stop Switch
- Tare Scale
- 3. Use the **TEST CONV.** selections to check motor operation and speed settings of conveyors.
- 4. Press **TEST AUX**. To check the following:
 - Reject equipment
 - Checkweigher Ready Signal (external)
- 5. Use selections to turn equipment on & off or verify the on/off status of sensors and signals. Make required adjustments as needed.

Upon successful completion of this testing, you can proceed to the following to set the Deadload of the weighcell to compensate for the weight present on the weighcell before being put into use.

Setting Weighcell Deadload

The weighcell component used in the Model HP-14 Alpha Checkweigher includes a setting to compensate for the conveyor weight on the cell. If this procedure is not performed, the weighcell may not respond correctly and an underweight or overweight error will be generated.

Although this Deadload Setting is performed at the factory prior to shipping, it may be necessary to re-establish this setting in the field when checkweigher components are replaced or software upgraded. No special tools or materials are required to perform this procedure, however the checkweigher must be operational.

- 1. Turn on the Model HP-14. Press **MAIN** for Main screen. Press **SELECT**.
- 2. Press **SYSTEM SETTINGS** from **SELECT** menu. Password screen appears.
- 3. Press **ENTER PASSWORD** area. Use the pop-up for the following password:

5241000

!!! IMPORTANT !!!

This password is only used for setting the deadload of the weigh cell. It cannot be changed.

- 4. Press **ENTER** on the pop-up screen. The Deadload screen should appear.
- Make sure weighing area is clear of containers, product, or debris. Put a known weight value (i.e., "standard mass") on the checkweigher. Verify scale weight display. Remove weight.
- Press SET DEADLOAD. Verify changed weight value on Scale Weight display. Press SET DEADLOAD again until scale weight display approaches zero. This may take multiple Set Deadload commands.
- 7. When Scale Weight approaches zero, press **SAVE DEADLOAD** to store the deadload value.
- 8. Press **MAIN** to return to main menu and proceed to setup and calibrate according to your application.

When deadload is set, you can proceed to the following to start setting up the control panel for your specific checkweighing application.

Setting Up Checkweighing	 Setup of the checkweigher consists of the following major procedures: Planning Setup and Package Parameters Selecting Program Numbers for each Setup Setting Up Container Parameters Defining Statistical Limits Specifying Weighing Data Setting Up Scale Operation
	 Selecting Conveyor Speeds Setting Up Rejection Procedures to perform these setup operations are provided in the following. The Appendix of this manual contains a Setup Worksheet that can be used to help you develop and record Checkweighing Setup selections and entries.
Planning Setup and Package Parameters

Before using the Touch Screen and Setup screens to make selections and enter data, it is suggested you initially plan your relevant setup and package parameters beforehand. Important details to be considered include:

Size of Container	Defined as "Packet Length" in Container Parameters. Package should be measured by length as it enters the checkweigher. Measure your package(s) using an inch ruler/scale to determine this Setup entry.
Target Weight	Is the desired weight value to be accepted at the checkweigher. This should be set as the acceptable tolerance of labeled weight.
Statistical Limits	Defined as the heaviest and lightest weight contain- ers that will be rejected by the checkweigher.

Determining these values before performing any actual setup at the Touch Screen will greatly speed the setup process so you can start production using the checkweigher in minimum time.

Selecting Program Numbers for each Setup

Prior to using the selections in the Setup Screens to define your checkweighing application, you must assign a number for each setup program. Depending upon options selected at purchase, anywhere from 25 to 300 Programs can be created, stored, and recalled for use. Use the following to assign setup program numbers.

- Press SELECT on the MAIN screen.
- Press **PROGRAM NUMBER**. Choose the Program number using the keypad. Press **ENT** (Enter) to use that program.
- Press **SETUP** and continue with the following.

Any changes that you make to the currently-selected program will be saved. The type of parameters that can be changed for a specific program are presented in the following.

Setting Up Container Parameters

The Setup Containers Parameters screen allows packages to de defined by name, weighing type to be selected, length of the container to be defined, its tare weight (for net weighing applications, and the target weight for acceptable containers. The following procedure describes how to setup these parameters.

1. Press **MAIN** and **SETUP**. Press **CONTAINER PARAMETERS** from the Main Setup screen so the following appears.



- 2. Press **PRODUCT NAME** to associate particular containers, products, batches, lots, etc., with the with a particular setup program. Any alphanumeric character (0-9/A-Z) can be used up to 10 characters in length.
- 3. The **WEIGHT TYPE** selection defines whether the entire package (contents & container) are weighed, or, in net weight applications, filled contents only. Selecting Gross Weight will return weight data of the entire package passing over the platform. The Net Weight entry limits data to the total value minus a pre-specified container weight value. The empty container weight is entered using a subsequent selection (see "*Tare Weight*").
- 4. Press **PACKET LENGTH** to define package size that is used to determine containerper-minute production rate appearing in the Main and Stats displays.
- 5. The **TARE WEIGHT** entry specifies the empty, unfilled, tare weight of the container prior to being checkweighed. This selection can be used when performing Net Weight applications. It can be ignored for Gross Weight applications (see Step 3, above).
- 6. The **TARGET WEIGHT** selection specifies the desired weight value to be accepted at the checkweigher.
- 7. Press **BACK** to return to the Main Setup screen to select Statistical Parameters.

Defining Weight Limits

High and low package weights that define acceptable/rejected containers, as well as high and low statistical totals are defined using the Setup Statistical Parameters screen.

1. If necessary, press **MAIN** and **SETUP**. Press **STATISTICAL PARAMETERS** from the Main Setup screen so the following appears.



Specifying Weighing Data

Weighing Data setup selections define how signals from the loadcell are used to generate the corresponding weight value. Generally, these setting and selections do not require entry by the user. When Automatic Calibration is performed, these entries are adjusted by the checkweigher controller without user intervention. Included as these parameters are the following:

- Photoeye Lockout Time
- Weighing Delay
- Auto-Tare Delay
- Weigh Sample Time

!!! IMPORTANT !!!

It may not be necessary to determine the specific operating parameters entries for accurate checkweighing. Parameters can be adjusted automatically using the "Dynamic Calibration" procedure.

The relevant factors affecting each are described in the following.

Photoeye Lockout Time	This parameter is available to create a delay between when the photoeye is actuated by the package and when weight signals are accepted from the loadcell. This parameter can be adjusted to accommodate inconsistencies in packages that may cause false photoeye actuation (e.g., clear packages containing irregular products).
Weighing Delay	An additional delay available to allow packs to set- tle on the weighing platform.
Auto-Tare Delay	The control panel automatically re-zeroes the weigh table at the completion of a weighing cycle. This prevents inaccuracies and false weights from occur- ring as packs enter and exit the weigh table. The Auto-Tare Delay entry in the setup should be at least 2 complete weighing sequences. Weighing sequence time depends on pack settling time, weighing delay, and the operating speed of the package across the weigh table.
Weight Sample Time	Specifies how long (in msec.) signals are accepted from the loadcell (weight samples).
If weighing conditions change, excessive encountered, these Weighing Data entri only authorized and experienced service	e container rejection occurs, or accuracy problems es may require changes. It is recommended that e personnel perform any changes to these settings.
Complete descriptions of these entries a tion.	are provided in the Reference section of this publica-

Setting Up Scale Operation

This checkweigher setup screen defines operational characteristics of the scale and rejection mechanism settings. Use the following to setup.

1. If necessary, press **MAIN** and **SETUP**. Press **SCALE PARAMETERS** from the Main Setup screen so the following appears.



- Press DYNAMIC CAL. RATIO to define the proportion of weight measured while moving versus by static weighing. Change only the least significant digit in increments of 1 or 2 to adjust weighing performance.
- 3. The **% TARE ADJUSTMENT** selection defines a comparison between the last tare weight taken, and the current tare weight. The difference between these weights cannot exceed the entered percentage value. This selection can used as a precaution against false tare readings due to stuck containers, debris, spilled product etc.
- 4. The **DELTA TARE LIMIT** defines the change (i.e., "delta") between tare readings as a limit set on a tare weight. Tare weights cannot exceed this entered value. This selection, along with the % Tare Adjustment can be used together as precautions against false tare readings due to stuck containers, debris, spilled product etc.
- Press FILTER CALIBRATION to select between Automatic or Manual scale signal filtering. When selected as "Automatic" the controls selects the best scale filter rate. When selected as "Manual" the user must define a filtering level from the Scale Filter selection (see following).
- 6. The **SCALE FILTER** selection determines the level of filtering of electrical noise and is only available when Filter Calibration selected as "Manual" (see previous). Lower entries provide more filtering and suggested for electrically noisy environments.
- 7. Press **BACK** to return to the Main Setup screen to setup conveyor speeds of your checkweigher.

Selecting Conveyor Speeds

Operating speeds of the infeed, scale, and outfeed (discharge) conveyors can be independently set using this setup screen. Use the following procedure to setup, adjust, or change speed of the infeed, scale, outfeed or any additional (i.e., auxiliary or side belt transfers) conveyors.

Generally conveyor speeds should correspond to the overall desired production rate and be sufficient to achieve proper spacing between containers. Proper spacing can be estimated as 1 package per length of the scale conveyor's length, plus 1 inch.

1. If necessary, press **MAIN** and **SETUP**. Press **CONVEYOR SPEED** from the Main Setup screen so the following appears.



- Press INFEED CONVEYOR SPEED to select the operating speed of the Infeed Conveyor. Generally, the speed of the infeed conveyor should coordinate with the rate at which containers are delivered to the checkweigher area and should be set to achieve proper spacing between containers.
- 3. Press **SCALE CONVEYOR SPEED** for the conveyor mounted over the loadcell. Conveyor speed should be set to closely match speed of the infeed conveyor and be set to achieve proper spacing between containers.
- 4. Press **OUTFEED CONVEYOR SPEED** to setup operating speed of the Outfeed Conveyor.
- 5. If the checkweigher includes an additional conveyor (e.g., a separate conveyor located before the Infeed, after the outfeed, a rejected container conveyor, etc.), the **AUX. CONVEYOR SPEED** can be used to select desired operating speed.
- 6. If the checkweigher includes a sidebelt mechanism at either or the Infeed or outfeed locations, the **INFEED & OUTFEED SIDEBELT SPEED** sets up operating speed.
- 7. Press **BACK** to return to the Main Setup screen to select Reject Parameters.

Setting Up Rejection

How containers are rejected varies according to your application, acceptable package weights, type of package and container, and specific operational characteristics of the reject mechanism. Use the following procedure to setup and adjust rejection.

1. If necessary, press **MAIN** and **SETUP**. Press **REJECT PARAMETERS** from the Main Setup screen so the following appears.



Using Quick Setup

After completing the detailed setup of your checkweighing application, you can use the "*Quick Setup*" function to make periodic adjustments to major setup entries and settings. In response to specific operational conditions. For example, you may need to change the Target Weight entry due to environmental conditions affecting product weight. The Quick Setup screen allows these changes to be quickly accessed, reviewed, and changed without paging through additional setup screens.

To use Quick Setup:

- 1. Press MAIN and SELECT.
- 2. Press QUICK SETUP for the following.



- 3. Review, verify, and if necessary, change:
 - Product Name
 - Packet Length
 - Weigh Type
 - Tare Weight
 - Conveyor Speed
 - Target Weight
- 4. Be sure to complete the Auto. Dynamic Calibration procedure after making changes using Quick Setup. Additionally, other Setup parameters (Weight Limits, Rejection) should be accessed using the corresponding Setup screens before using the checkweigher.

Calibration Procedures	Before using the equipment for produc motor controllers should be calibrated controls provide the following methods	tion, the scale of the checkweigher and conveyor for efficient, accurate operation. The Touch Screen of calibration.
	Dynamic Scale Calibration	Adjusts the loadcell with actual package weight and menu entries stored in each Setup Program.
	Static Scale Calibration	Adjusts the scale for the largest (heaviest) weight that may be present. Static Calibration is checked before startup and only repeated when service is performed or accuracy levels become unreliable.

Static Calibration Procedure

A verified, known weight (i.e., "Standard Mass") should be available to perform Static Calibration of the checkweigher.

- 1. Press CAL. to access CAL MAIN MENU.
- 2. Press LOG IN.
- 3. Enter 2-2-2-2. Press ENTER. Press BACK.
- 4. Select STATIC SCALE CAL.

SCREEN 17	IO CONTROL	POWER	LAST WEIGHT
RAW WEIGHT	STATIC WEIGHT 0.00	KNOWN WEIGHT	START CAL
			STEP 1
			STEP 2
			STEP 3
			STEP 4
STA.	TIC SCALE CALIBRA	TION	BACK
5. Press START CA	L. Follow instructions of	n the screen for steps 1	through 4.
Remove all we Enter known v Place known v CAL. complete	eight from the scale. The veight. Then press STEP veight on scale. Then pre ed. Remove weight then	n press STEP 1. 2. ess STEP 3. press STEP 4.	
Note date, time, and o	ther details of Calibratior	n for quality control purpo	oses.

Automatic Dynamic Calibration Procedure

Perform the following for each target weight and/or setup program used at your facility. A sample container approximately equal to target weight is recommended.

- 1. Press CAL. from MAIN menu.
- 2. Select AUTO DYNAMIC CALIBRATION.
- 3. Enter target weight value as **CALIBRATED WEIGHT**. Press **ENTER**.
- 4. Select **CAL SAMPLES** for total number of weighings to take place. Enter from 6-10 samples with 10 samples providing greater accuracy. Press **ENTER**.
- 5. Press **START AUTO. CALIBRATION** to begin. Conveyors will start and the following screen appears.



- 6. Position the calibration weight on infeed conveyor and allow to pass over checkweigher scale. Each time you manually run it through, the SAMPLE display numeric value will decrease by one, and the actual recorded weight will be displayed in the **LAST PACK WEIGHT** display window.
- 7. When the last calibration sample is run through the checkweigher, the DYNAMIC CALI-BRATION DONE SCREEN appears. This shows the results of the AUTO DYNAMIC CALIBRATION.

Note date, time, and other details of Calibration for quality control purposes.

Using HMI Flash Memory	Upon completing setup progra the Flash Memory component selections. Saving data in Flas in case of failures, damage, or	ms for each container pro of the Control Panel to pres h Memory provides a replac malfunctioning controls.	oduct target weight, y serve all relevant settin ceable method recordin	/ou can use gs and ng your data
	Either setup data or system pa parameter data saved (and res bration data.	rameter values can be save stored from) in flash memor	ed in Flash Memory. S y includes scale and s	ystem beed cali-
	Use the following procedure to	save (or restore) data valu	es using Flash Memor	y.
	1. From any other screen, pr	ess BACK/MAIN until Mai	n screen appears.	
	2. Press CAL and select LO	G IN. Enter password as 2	2 2 2 2 and press BA	CK.
	3. Press BACKUP DATA T	O HMI FLASH. The follow	ving screen appears.	
	140 No	Control Power	0	.00
	Backup Data To HMI Flash Targe Conve	Recipe Number t Weight yor Speed	0 Resto From H 0.00 0	re Data IMI Flash
				Back
	Saving Setup Data:			
	 Press BACKUP DATA T flash memory. 	O HMI FLASH to record a	all setup entries and se	elections in
	Restoring Setup Data:			
	5. If you need to restore prev RESTIORE DATA FROM	iously saved setup data from M HMI LASH.	m flash memory, press	i
	The Stats screens provide con	nplete summaries of all rele	vant checkweighing pr	oduction

Starting and Running Checkweighing

totals while in operation. These screens include:

Traffic Cop

The Traffic Cop Stat screen provides a quick, visual summary of checkweighing production. It includes the following. Additionally, a selection on this screen resets the graph ("Clear Graph").



Container Weigh Data

The Container Weight Data screen includes valuable productivity measurements and displays useful in estimating the effectiveness of the checkweigher. This screen also includes displays that can be used to evaluate when re-calibration is suggested.



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Production Stats

The Production Stats screen displays production levels.

SCREEN	NO CONT	ROL POW	E R	LAS	ST WEIGHT
	().00		M GR (IET AM).00
OVER REJECT				0	0.00%
ACCEPT				0	0.00%
UNDER REJECT				0	0.00%
AVERAGE	0.00	RA	NGE	C	0.00
Production Stats		CLEAR STAT			BACK

History of Last 25

Displays weight data for only the most recent 25 packages as an indicator of current check-weighing activity.



Batch Data Stats

Displays container and weight totals from the current and most recent designated batch.

SCREEN N	O CONTROI	POWER	LAST WEIGHT
ACCEPT 0	CURRENT BATCH	LAST BATCH	ACCEPT 0
OVER <mark>0</mark>	UNDER 0	OVER 0	UNDER <mark>0</mark>
Max Weight=	0.00	Max Weight=	0.00
Min Weight=	0.00	Min Weight=	0.00
Average Wt=	0.00	Average Wt=	0.00
Std. Dev. =	0.00	Std. Dev. =	0.00
BATCH ST	ATISTIC		BACK

Short Term Stats

Displays the following for the current and most recent designated Short Term Group.

SCREEN 54	IO CONTROI	POWER	LAST WEIGHT
ACCEPT 0	CURRENT SHORT STATS	LAST SHORT STATS	ACCEPT 0
OVER 0	UNDER <mark>0</mark>	over <mark>0</mark>	UNDER 0
Max Weight =	0.00	Max Weight=	0.00
Min Weight =	0.00	Min Weight.=	0.00
Avg Weight =	0.00	Avg Weight =	0.00
Std. Dev. =	0.00	Std. Dev. =	0.00
0 8	HORT STAT COUNTS RANGE 5 TO 30000		BACK

System Information

Displays the following as an aid in troubleshooting and documenting operation of the check-weigher.

SCREENNO C	ONTROL POWE	R LAST WEIGHT
START/STOP CYCLES	OPERATING HOURS	E-STOP CYCLES
0	0	0
INFEED CONV HRS	SCALE CONV HRS	OUTFEED CONV HRS
0	0	0
CHE	CKWEIGHER INFORMA	TION BACK

Single Weight Backup To USB

Weight and package data detected by the Alpha Checkweigher can be recorded and stored for later, remote use with this software. All relevant package data is recorded, including:

- Date/Time
- Weighing Time
- Setup Recipe Number
- Product Name
- Target Weight
- Last Weight
- High/Low/Accept Status

Data is sent to a Universal Serial Bus (USB) connector on the control enclosure. Data is provided in the industry standard Comma-Separated Values (.csv) format for use with common spreadsheets and database applications.

This software is installed during assembly of the checkweigher and no special configuration is required. Any device equipped with a standard USB male connector can be connected to the Alpha Checkweigher such as compact, portable disk drives, solid state "thumbdrive" data storage devices, etc. Installation consists of plugging the USB device into the designated connector.

Using the Single Weight To USB software involves setting the correct date and time of the internal clock/calendar of the checkweighing controls, then specifying how data is collected. Use the following to setup and capture checkweighing data on a USB device.



- Locate the USB connection on the checkweigher and plug-in the USB device to be used for data storage. A window will appear on the screen briefly to allow operation to be cancelled. The USB indicator on the USB screen should appear green. If USB Indicator remains Red and the message "NO USB" appears, USB device may be faulty. Use another device.
- 3. Press **PASSWORD NUMBER** and enter **2 2 2 2**.
- 4. Press **SET DATE AND TIME** if settings incorrect, uuse the Month/Day/Year and Hour/Minute selections to enter current date and time. Press **BACK**.
- 5. Press **BACKUP START DAY** to select when data will start to be collected. Starting days can be selected for the present or up to 7 previous days.
- 6. Press **DAYS TO BACKUP** to select length of data collection. From 1 to 10 day's data can be specified.
- 7. Press **START BACKUP** to collect data. A confirmation message briefly appears on the screen that data collection performed.

Using the Data Capture Software

The Alpha Checkweigher Data Capture software package allows checkweighed package weight and reject status (i.e., "accept" or "reject") to be used for storage, record-keeping, and display at any standard Personal Computer. Use the following to install and use this package.

Requirements

Personal Computer:

- Windows Version XP/Windows 7
- Available USB Port
- Local Area Network (LAN) connection
- MS Office, Excel & Access

Checkweigher:

Any model Alpha Checkweigher (CW-10, PW-12, HP-14, HW-15, MW-16) equipped with a protocol converter and connected to the same LAN as the PC. Instructions to install and connect your Alpha Checkweigher with the RS-232/Ethernet Converter are supplied separate (see AFI Publication 1610109).

Installation

Installation of the Weight Capture software package is performed using the supplied USB Card. It is estimated installation can be performed in less than 5 minutes.

- 1. Insert the Weight Capture USB Card into a USB port of your computer.
- 2. Double-click the SETUP.EXE to initiate installation.
- 3. Follow the on-screen instructions for installation.
- 4. When the "Installation Complete" message appears, verify the network connection of the PC before proceeding.
- 5. If using the Windows 7 operating system, proceed to the following, otherwise installation is complete.

Windows 7, 8 or 10 Installation

If the Data Capture software is used on a pc with Windows 7, 8, or 10 you must perform the following, additional installation to ensure that checkweighing data is saved.

- 1. Navigate to the Data Capture icon located in Program Files (X86).
- 2. Double click in the Data Capture icon and select Properties.

ienerar Comp	paripling Security Details Previous Versions
I)	CW700_SingleWt
Type of file:	Application (.exe)
Description:	CW700_SingleWt
Location:	C:\Program Files (x86)\CW700_SingleWt
Size:	144 KB (147,456 bytes)
Size on disk:	144 KB (147,456 bytes)
Created:	Monday, November 04, 2013, 9:45:36 AM
Modified:	Monday, November 04, 2013, 9:45:36 AM
Accessed:	Monday, November 04, 2013, 9:45:36 AM
Attributes:	🗌 Read-only 🔲 Hidden 🛛 Advanced
	OK Cancel App

3.

ue.

CW700_ErrorLog	
* CW700_SingleWt Properties	×
General Compatibility Security Details Previous Versions	
If you have problems with this program and it worked correctly on an earlier version of Windows, select the compatibility mode that matches that earlier version. <u>Help me choose the settings</u> Compatibility mode Run this program in compatibility mode for: <u>Windows XP (Service Pack 3)</u> Settings	
Run in 640 x 480 screen resolution	
Disable visual themes	
Disable desktop composition	
Disable display scaling on high DPI settings	
Privilege Level Run this program as an administrator	
Change settings for all users	
OK Cancel Apply	
Starting the Program	
After installation, you can start the Weight Capture software similar to sta Windows program:	arting any other
 Select Start > Programs from the Windows desktop. 	
 Navigate to the CW700_SingleWt folder and click CW700_Single 	eWt Icon.
 The "Splash" page appears briefly indicating that the program has 	started.
When the Main Screen appears, proceed to the following to establish co your Alpha Checkweigher connected to your network.	mmunications with

Connecting to a Checkweigher

You can use the Connect selection on the Main Screen to select which checkweigher for data acquisition. Before attempting any connection, you will need to know the IP Address of the checkweigher. The standard factory setting IP Address is

192.168.1.200 Port 2000

The checkweigher also includes a factory-assigned IP Address that is listed on a label attached at the rear of the enclosure.

1. Click **Connect** and **Select Checkweigher** (or the keyboard shortcut of CTRL+S) for the following.

Available :[DEMO	:192.168.1	.100
Available ;[EMO	;192.168.1	.100
Available ;[EMO	;192.168.1	.100
Available ;[EMO	;192.168.1	.100
Available ;[DEMO	;192.168.1	.100
Charlessiaha	vblama	Chapleusisher ID As	delve e e
Checkweigne	rivame	Checkweigher IP Au	auress

- Assign and enter a name in the Checkweigher Name field. Enter the corresponding IP Address. Click ADD. Use DELETE to remove. Click DONE. Note that this closes the Select Checkweigher window. Use the Connect menu on the Main Screen to select which checkweigher for data acquisition.
- 3. Click a checkweigher from the list and click **DONE**.
- 4. Click Save. Choose a directory/subdirectory location and file name at your pc for subsequent data.
- 5. When checkweigher is started, the following will be captured, in sequence of weighing:

Setup Program Number & Product Name, Weight, Date/Time, Under/Accept/Over Status

!!! IMPORTANT !!!

Pressing END BATCH of the checkweigher Touch Control screen only resets internal totals at the checkweigher.

CW700 Main **Data Capture Screens** Screen can be used as a running verification of weight data. Use the SAVE selection to record data as either .txt (text) file or .csv (comma delimited) file. Sample files are shown in the following. Use PRINT to print hard copy record. Stats Provides a pie chart graphic of checkweighing along with Current and Last Batch Report consisting of: Start Date/Time Last Weight **Container Per Minute** Average Weight Standard Deviation Maximum and Minimum Weights Total Count Good/Over/Under Count Use the END BATCH to start new batch. Use PRINT for hard-copy record. !!! IMPORTANT !!! Data and graphs appearing on the screen are for display only and CANNOT be saved electronically. Use the PRINT selection if future reference is required. Graph Weights are plotted on an x-y graph. Graph can include weight values or points only. Use the DATA DISPLAY selection to turn weight values on or off. MAX/MIN LIMIT selections can be used for display within a selected range. Alarm Log Displays any checkweighing Alarm conditions. CLEAR selection removes alarms. PRINT selection provides a hard-copy record.

Protecting Checkweighing Entries	During operational use of the checkweigher, it may be necessary to protect access to infor- mation stored in the Control Panel. This will protect your entries and selections from unau- thorized or accidental changes that may affect production and/or accuracy. The Setup, Test, and Cal. (calibration) menus can be locked to prevent accidental or unauthorized changes. This selection allows each menu to be locked or unlocked, accordingly.
	When a locked menu is accessed (i.e., from the Main screen), a message appears that the menu is locked. Setup details are also listed when attempting to access a locked setup menu. Use the following to lock (or unlock) these menus.
	1. If necessary, press MAIN , then press SELECT .
	2. Press SYSTEM SETTINGS.
	3. Enter password: 5-2-4-7-3-5-0 and press ENTER .
	4. Press SET MENU LOCK.
	MENU LUCK SETTINGS
	SETUP MENU UNLOCK
	TEST MENU UNLOCK
	CAL. MENU UNLOCK
	BACK
	 Press corresponding menu to lock or unlock. Press BACK and MAIN to use check- weigher with locked settings.

Troubleshooting and Service	Several methods are available to perform periodi faults of the machine.	c servicing or diagnosing problems and
	The Test Menu selections provide selections to or ment for testing and/or adjustment. Test Menu se on/off status of the switches and conditions of the available when the machine is not currently weig	perate selected components of the equip- elections are also provided to display the e machine. Test Menu selections are only hing (STOP used).
	During production, the touch screen panel indica Status Messages that appear at the top of the pa cate possible faults or failures of the machine or in the following.	tes machine activity through display of anel. These messages can be used to indi- equipment. Status Messages are described
	Status Messages	
	The current operation being performed by the sy Messages appearing at the top of the panel. The to ensure that the machine is functioning correct with the equipment. Messages are described in t	stem and controls are displayed via Status se messages can be used by the operator y, or to detect possible problems or errors he Table 1.
	Table 1 – Status Messa	ge Troubleshooting
	Message	Meaning/Action
	NO CONTROL POWER SYSTEM READY: PRESS START WAITING FOR CONTAINER PHOTOEYE LOCKOUT TIME READING SCALE DATA PROCESS DATA WAITING FOR OUTFEED PE TARE SCALE PLATFORM CHECK INFEED & OUTFEED EYE CHECK BACKUP SENSOR DELAY BEFORE TARE PLATFORM CHECK DYN CAL SETTINGS STARTING OUTFEED CONVEYOR STARTING SCALE CONVEYOR STARTING INFEED CONVEYOR SHUTDOWN SCALE CONVEYOR SHUTDOWN OUTFEED CONVEYOR WAIT FOR CONVEYORS TO POWER UP	Check switch and/or connections Press START on MAIN screen Ensure containers move to checkweigher Check setup entry, calibration values Verify weight data Check outfeed photoeye Check alignment, correct actuation Check setup entries Check alignment, correct actuation Check operation, positioning Check setup entries Re-calibrate Verify that conveyor starts Verify that conveyor starts Verify that conveyor starts Verify that conveyor starts Verify that conveyor stops Verify that conveyor stops Allow conveyors to start

REFERENCE	Each selection of the Menus of the Touch Screen Control Panel are described in the follow- ing as reference when using the checkweigher, entering new setup programs, or performing maintenance and/or adjustment of the machine. The following are included:
	 Main Select Setup Cal. (Calibration) Test Stats
	A description of each selection of these menus is provided, along with a factory pro- grammed setting, and the range of valid entries.
Main	The Main checkweigher screen provides a convenient access point for display of relevant checkweigher data and package totals. It includes the following:
	Start
	Provides operational control of the checkweigher. When used, the outfeed convetor starts, followed by the scale, then infeed. This sequence is designed to clear any existing containers before weighing starts.
	This selection is accessed from the Main screen.
	Weight
	Displays the most recent weight detected by the checkweigher. This can be used to verify general package weight and type.
	The corresponding Weight Type (Gross, Net), and Weight Units appear adjacent to this dis- play for verification. The Weight Type is selected from the Container Parameters setup screen. The Weight Units are defined during factory-programming of the checkweigher.
	These selections are accessed from the Main screen.
	Stop
	Halts checkweighing and conveyors for a regulated shutdown.
	This selection is accessed from the Main screen.

Over/Accept/Under Count

Displays quantities of packages in overweight, acceptable weight, and underweight categories. This displays can be useful in recognizing problem areas or trends in production.

This selection is accessed from the Main screen.

Last 15 Weight Bargraph

Displays the 15 most recent weights in bargraph form to indicate weighing performance or weighing trands.

This selection is accessed from the Main screen.

СРМ

Displays a computed Container Per Minute as an indicator of production rate.

This selection is accessed from the Main screen.

Total

Displays total number of weighed packages since Start/Clear Stats was used. This display can be referenced as a measure of production.

This selection is accessed from the Main screen.

Sample

Accesses the Sample & Hold screen for independent, offline weighing of a selected package to verify continuing accuracy of the checkweigher. After sampling, package is rejected (if equipped).

This selection is accessed from the Main screen.

Clear Stats

Resets statistical data and totals. Selection can be used at startup so only the most up to date data appears at the checkweigher.

This selection is accessed from the Main screen.

Max./Min/Avg./Std

Displays maximum, minimum, average and standard deviation of packages passing through the checkweigher. These displays provide a performance summary of the chewckweigher.

This selection is accessed from the Main screen.

Product Name

Displays the defined product name of the current setup program in use. Product names are defined using a selection of the Container Parameters setup screen. This display can be useful in verifying product, package, or setup program.

This selection is accessed from the Main screen.

Target Weight

Displays the defined target weight setting of the current setup program in use. The Target Weight is set using a selection of the Container Parameters setup screen. This display can be useful in verifying product, package, or setup program use.

This selection is accessed from the Main screen.

Menu Selection

Provides access to the Select, Setup, Cal (calibration), Test and Stat screens and selections.

This selection is accessed from the Main screen.

Select	The Select screen provides functions that define how the checkweigher operates, regard- less of weighing parameters or mechanical configuration of the machine.
	These selections are described in the following.
	Program Number
	This selection is used to choose the desired Setup Program previously stored in memory of the controls. Setups should only be changed when the checkweigher is not currently running (STOP pressed).
	Use \clubsuit to increment program numbers or \clubsuit to decrement. Pressing the center window allows direct numeric entry of program number.
	This selection is accessed from the Select screen.
	Factory Setting: 0 Valid Entries: 1-300
	Shift Number
	Allows the user to select from 1 of three available shift numbers for use in identifying pro- duction, statistical, or weight data information.
	This selection is accessed from the Select menu screen.
	Factory Setting: 0 Valid Entries: 1, 2, 3
	Program Summary
	For convenience, major operating parameters of the currently used setup program are dis- played for quick reference. Included are:
	 Target Weight Packet Length Scale Conveyor Speed
	These selections are accessed from the Select screen and are for display only. No entries are available.
	Time/Date Display
	Displays the currently defined time and date for reference.
	These selections are accessed from the Select screen and are for display only. No entries are available.

Quick Setup	Commonly used setup entries and selections can be accessed from the Select screen as a quick method of specifying setup parameters without accessing the individual setup screens. Pressing Quick Setup displays the following:
	 Product Name Packet Length Weigh Type Tare Weight Scale Conveyor Speed Target Weight Perform Auto. Dynamic Calibration
	This screen can be useful when only package characteristics change and complete access to all setup selections is not required.
	!!! IMPORTANT !!!
	Quick Setup does not include weighing and container parameters that can seri- ously affect production (e.g., Reject Limits). Use Quick Setup only after becom- ing familiar with the complete range of Setup menu selections.
	Complete descriptions of selections appearing in this Quick Setup screen are provided else- where in this publication (see "Setup").
	This selection is accessed from the Select menu screen.
System Settings	For reference, the following can be displayed using System Settings:
	 Software Version Serial Number Zones Table Length
	System Filter Setting Peak Rate
	Zone Lights Eeedback Option
	Printer Option
	These selections are intended for factory servicing and not available to the user.

Setup	Setup selections are used to define the operational characteristics of the controls and checkweigher. Each group of selections and entries are saved together as a group, in a designated Program. Setup program numbers are first specified using the SELECT Menu, then Setup entries are made in the SETUP Menu. These selections are described in the following. A sample Setup Program Worksheet is provided in the Appendix to this publication that can be completed to serve as record documenting the selections that you will make using the Setup Menu.
Setup Main Menu	For convenience, each major group of Setup selections are grouped together in six menu screens. This selection allows you to specify each group. The following appears on this screen. Container Parameters Statistical Parameters Weighing Parameters Scale Parameters Conveyor Speed Reject Parameters These screens and corresponding selections are described in the following.
Container Parameters	Individual container (pack) weight parameters can be accessed for display and/or subse- quent change using this screen. When selected, the following can be displayed: • Product Name • Weigh Type • Packet Length • Tare Weight • Target Weight Each selection is described in the following. This screen is available from the Setup Main Menu screen.
	Product NameThis selection allows you to assign an alphanumeric identification to the weighing or package details of that particular program. Product Names can be used to associate Setup Programs with specific product types, containers, etc.This screen is available from the Container Parameters screen.Factory Setting: (blank) Valid Entries: 1-24 chars.

Weight Type

This selection defines whether the entire package (contents & container) are weighed, or, in net weight applications, filled contents only.

Selecting Gross Weight will return weight data of the entire package passing over the platform. The Net Weight entry limits data to the total value minus a pre-specified container weight value.

The container weight is entered using a subsequent selection (see "Tare Weight").

This screen is available from the Container Parameters screen.

Factory Setting: Net Weight Valid Entries: Gross Weight, Net Weight

Packet Length

Defines package length to determine container-per-minute production rate appearing in the Main and Stats displays.

Entries are in inches. For convenience, the checkweigher frame includes a scale at the front to measure packet length.

This screen is available from the Container Parameters screen.

Factory Setting: 0.00 Valid Entries: 1.00-46.00

Tare Weight

Specifies the empty, unfilled, tare weight of the container prior to being filled and checkweighed. This selection can be used when performing Net Weight applications.

This screen is available from the Container Parameters screen.

Factory Setting: 0.00 Valid Entries: 0-99,999.99

Target Weight

This selection specifies the desired weight value to be accepted at the checkweigher.

This screen is available from the Container Parameters screen.

Factory Setting: 0.00 Valid Entries: 0-99,999.9

Statistical Parameters	High and low package weights that define acceptable/rejected containers, as well as high and low statistical totals are defined using the Setup Statistical Parameters screen.
	Each selection in this screen is described in the following.
	This screen is available from the Setup Main Menu screen.
	Stat High & Low Weight
	Excessive overweight and underweight packs that exceed the normally expected operational range, such as due to mechanical failures, etc., can be eliminated from statistical totals using these selections. Any detected weights above the entered stat high limit or below the entered stat low limit will not be included in statistical totals calculated by the controls.
	These selections are available from the Statistical Parameters screen.
	Factory Settings: 0.00
	Stat High Weight: Greater Than Target
	Stat Low Weight: Less Than Target
	High & Low Limit Weights
	These selections specify the operational range of the checkweigher. Packs weighing above the entered High Limit or below the entered Low Limit will be subject to rejection.
	These selections are available from the Statistical Parameters screen.
	Factory Settings: 0.00
	High Limit: target weight to 999999.9
	Low Limit: 0.0 to target weight

Weighing Parameters	This screen provides access to parameters involved with actual weight data values returned from the loadcell and includes the following selections:
	 Photoeye Lockout Time Weighing Samples Weighing Delay Auto. Tare Delay
	These selections can be used for setup "tuning" and adjustment based on particular pack- age types, operating speeds of the line, etc.
	!!! IMPORTANT !!!
	These entries are automatically adjusted and optimized during Calibration of the checkweigher and should only be accessed/changed for specific operating con- ditions and performance enhancement.
	Each selection in this screen is described in the following.
	This screen is available from the Setup Main Menu screen.
	PE Lockout Time
	This selection defines the time delay period from when the leading edge of the pack passes the photoeye (PE) and the package starts to be weighed on the platform.
	This time may be adjusted to prevent false actuation (turning off) of the photoeye due to irregularly shaped packages, etc. At the completion of the Photoeye Lockout period, a Weighing Delay can be specified separately to ensure the entire package is on the weigh table.
	This selection is available from the Weighing Parameters screen.
	Factory Setting: 0.000 Valid Entries: 0.000-9.999
	Weigh Sample
	This selection defines the total amount of weight sampling data collected from the weigh table as the package passes over the platform.
	This selection is available from the Weighing Parameters screen.
	Factory Setting: 0 Valid Entries: 20-999

Weighing Delay	
Selects a period before weight samples are accepted from the weigh table.	
This selection is available from the Weighing Parameters screen.	
Factory Setting: 0.000 Valid Entries: 0.000-9.999	
Auto. Tare Delay	
This selection defines the time period between when the last package leaves the Container Leaving photoeye and the platform is re-zeroed prior to another package arriving.	
This selection is available from the Weighing Parameters screen.	
Factory Setting: 0.000 Valid Entries: 0.000-9.999	
Scale Parameters This Setup screen provides selections and entries that define how weight signals are processed from the loadcell. Selections are described in the following.	
This screen is available from the Setup Main Menu screen.	
Dynamic Cal. Ratio	
Defines the proportion of weight measured while moving versus by static weighing. Change only the least significant digit in increments of 1 or 2 to adjust weighing performance.	
This selection is available from the Setup Scale Parameters screen.	
Factory Setting: 0.0000 Valid Entries: 0.5000-1.5000	
% Tare Adjustment	
The Percent Tare Adjustment selection defines a comparison between the last tare weight taken, and the current tare weight. The difference between these weights cannot exceed the entered percentage value.	
This selection can used as a precaution against false tare readings due to stuck containers, debris, spilled product etc.	
This selection is available from the Setup Scale Parameters screen.	
Factory Setting: 0 Valid Entries: 5-100	

Delta Tare Limit

Defines the change (i.e., "delta") between tare readings as a limit set on a tare weight. Tare weights cannot exceed this entered value.

This selection, along with the previous Percent of Tare Adjustment can be used together as precautions against false tare readings due to stuck containers, debris, spilled product etc.

This selection is available from the Setup Scale Parameters screen.

Factory Setting: 0.00 Valid Entries: 0.00-50.00

Filter Calibration

Selects between Automatic or Manual scale signal filtering. When selected as "Automatic" the controls selects the best scale filter rate. When selected as "Manual" the user must define a filtering level from the Scale Filter selection (see following).

This selection is available from the Setup Scale Parameters screen.

Factory Setting: Manual Valid Entries: Auto., Manual

Digital Filtering

Selects level of filtering of electrical noise and is only available when Filter Calibration selected as "Manual" (see previous). Lower entries provide more filtering and suggested for electrically noisy environments.

This selection is available from the Setup Scale Parameters screen.

Factory Setting: (none) Valid Entries: 1.0-14.0 Hz.

Dynamic Cal. Ratio Adj.

Adjusts the proportion of weight measured while moving versus by static weighing.

This selection is available from the Scale Parameters screen.

Factory Setting: 0.0000 Valid Entries: 0.5000-1.5000

Conveyor Speed	This Setup screen provides selections and entries that specify operating speeds of each conveyor (Infeed, Scale, Outfeed & Sidebelt Transfers)
	This screen is available from the Setup Main Menu screen.
	Infeed Conveyor Speed
	Sets up operating speed of the Infeed Conveyor.
	This selection is available from the Setup Conveyor Speed screen.
	Factory Setting: 0 Valid Entries: 0-999
	Scale Conveyor Speed
	Sets up operating speed of the Scale Conveyor.
	This selection is available from the Setup Conveyor Speed screen. The Valid range of entries will vary according to speed calibration of the scale conveyor drive motor.
	Factory Setting: 0 Valid Entries: 0-999
	Outfeed Conveyor Speed
	Sets up operating speed of the Outfeed Conveyor.
	This selection is available from the Setup Conveyor Speed screen. The Valid range of entries will vary according to speed calibration of the outfeed conveyor drive motor.
	Factory Setting: 0 Valid Entries: 0-999
	Aux. Convevor Speed
	Sets up operating speed of an auxiliary Conveyor
	This selection is available from the Setup Conveyor Speed screen. The Valid range of
	entries will vary according to speed calibration of the conveyor drive motor.
	Factory Setting: 0 Valid Entries: 0-999
	Infeed & Outfeed Sidebelt Speed
--------------------------	---
	Sets up operating speed of either an Infeed or Outfeed Sidebelt Transfer Conveyor.
	This selection is available from the Setup Conveyor Speed screen. The Valid range of entries will vary according to speed calibration of the sidebelt drive motor.
	Factory Setting: 0 Valid Entries: 0-999
Reject Parameters	This Setup screen provides selections and entries that specify how rejection operates to remove either overweight (High Reject) or underweight (Low Reject) containers. Selections appearing on this screen are described in the following.
	This screen is available from the Setup Main Menu screen.
	Overweight Pack
	Rejection of overweight containers can be controlled using this entry. When selected as "Reject," any container weighing in excess of the entered high limit setup entry will be removed. When selected as "Accept," overweight packs remain in production.
	Selection is color-coded for a quick, visual indication of the current setting. Selection appears Green when set to Accept or Red when set to Reject.
	This selection is available from the Reject Parameters setup screen.
	<i>Factory Setting:</i> Accept (Green) <i>Valid Entries:</i> Reject (Red), Accept (Green)
	Spacing Error Reject
	If spacing errors occur (inadequate distance between packages), this selection can be used to selectively reject package of the error (first pack rejected).
	Spacing errors can cause excessive overweight counts. Selecting this entry ("Enable") can be used to reduce overweight counts due to inadequately spaced packages. The "Disable" entry turns this function off.
	Selection is color-coded for a quick, visual indication of the current setting. Selection appears Green when set to Disabled or Red when set to Enabled.
	This selection is available from the Reject Parameters setup screen.
	<i>Factory Setting:</i> Disable (Green) <i>Valid Entries:</i> Enable (Red), Disable (Green)

Low Reject Delay

The reject delay is the time period between after the photoeye detects the leading edge of the pack (turns off) and the center of the reject device is reached, based on the operating speed of the machine.

These delays can be used to optimize rejection operation and movement and will vary according to operating speed and type of reject mechanism.

These selections are available from the Reject Parameters setup screen.

Factory Setting: 0.000 Valid Entries: 0-30.000

Low Reject Width

Specifies how long the reject signal is turned on to actuate the reject device.

This entry can be used to coordinate reject operation, speed, and type (configuration) of package to be rejected.

These selections are available from the Reject Parameters setup screen.

Factory Setting: 0.000 Valid Entries: 0.000-30.000

Reject Confirm Time

Selection that specifies the period after the reject device operates until the Reject Verification sensor is actuated. If the sensor does not detect a rejected container in this period, an alarm is generated and the checkweigher stops.

This setting will vary with conveyor speed, reject device operation, and container weight.

This selection is accessed from the Setup Reject Parameters screen.

Factory Setting: 0.000 Valid Entries: 0.200-2.000

Consecutive Reject

Selection that allows the user to select how many consecutive under packages can occur before an alarm condition is generated. When the number of consecutive under- packages attains the value specified, an Alarm screen appears on the control panel of the check-weigher.

Consecutive rejects can be used to identify problems in other areas of the production line (i.e., filling).

This selection is accessed from the Setup Reject Parameters screen.

Factory Setting: 0 Valid Entries: 1-9999

Cal. Main Menu	Provides access to perform calibration available.	of the checkweigher. The following selections are
	Auto Dynamic Cal.	Each time different target weight Setup Program created or used.
	Setting Up Reject	Adjusting reject operations to actual packages, speeds, and reject equipment.
	Save/Load To/From Flash	Using the Flash memory component of the control panel to store and load setup and system parame-ters.
	Static Scale Cal.	Adjusts the loadcell component, checkweigher con- trols, and actual weight values.
	Login	Allows entry of a Calibration Password to access Cal. Menu selections. Cal. Menu functions can only be accessed by password entry to prevent acciden- tal or unauthorized use.
	Descriptions of each of these selectior perform calibration are provided in a p <i>Controls</i> ").	ns are provided in the following. Specific procedures to previous section (See "Using the Checkweigher
	The Cal Main Menu is accessed from	the Main screen.
Login	Calibration of the scale and storage in unauthorized changes by a login funct	Flash memory are protected against accidental or tion that requires a factory-specified password.
		!! IMPORTANT !!!
	Login password cannot be change to login password to avoid accider	ed and is factory-programmed. Restrict access ntal or unauthorized changes.
	Factory Setting: 2 2 2 2	

Auto. Dynamic Calibration	Adjusts the loadcell with actual package weight and menu entries stored in each Setup Program and is performed each time a Setup Program created or used with different target weight. Screen includes the following.
	This selection is accessed from the Cal. Main menu.
	Calibration Weight
	Provides entry of a standard mass value used during the calibration process. Entry should correspond to the defined Target Weight of each Setup Program.
	This selection is accessed from the Auto. Dynamic Calibration screen of the calibration menu.
	Factory Setting: 0.00 Valid Entries: 0-99,999.00
	Calibration Samples
	Determines the total number of weighings to take place during the Dynamic Calibration sequence. Greater number of samples will yield higher accuracy, yet will require greater time to perform.
	This selection is accessed from the Auto. Dynamic Calibration screen of the calibration menu.
	Factory Setting: 0 Valid Entries: 5-25
	Current Settings
	For reference, the following settings appear during the Auto. Dynamic Calibration sequence:
	 Packet Length Infeed Conveyor Speed Scale Conveyor Speed Outfeed Conveyor Speed
	These selections are for display only and appear on the Auto. Dynamic Calibration screen of the calibration menu.
	Start Auto. Calibration
	Initiates automatic dynamic calibration. No entries are needed. Pressing the selection starts the sequence.

Setting Up Reject

As an aid in determining the proper reject settings, this screen can be used after calibration to set and adjust reject entries directly from the front panel. This screen provides access to these adjustments.

!!! IMPORTANT !!!

Changes made using this screen may change any previously entered Reject Delay and Width settings of the current setup program.

This selection is accessed from the Cal. Main menu.

Reject Delay

Defines the time period between after the photoeye detects the trailing edge of the pack (turns off) and the center of the corresponding low or high reject device is reached, based on the operating speed of the machine.

This selection is accessed from the Setting Up Reject screen of the calibration menu.

Factory Setting: 0.000 Valid Entries: 0.000-9.999

Reject Width

Specifies how long the reject signal is turned on to actuate the device. Entry will vary with reject device and/or package weight. Heavier packages may require a longer reject width to effectively move the package off the conveyor.

This selection is accessed from the Setting Up Reject screen of the calibration menu.

Factory Setting: 0.000 Valid Entries: 0.000-9.999

Start Reject

Actuates the reject device to adjust Delay and Width settings.

This selection is accessed from the Setting Up Reject screen of the calibration menu.

Save & Load Setup To & From Flash	Screen available from the Calibration Main menu that provides access to selections to use the internal, non-volatile memory component (i.e., "Flash") included with the control panel.
	This selection is accessed from the Cal. Main menu and requires a correct Login password
	Save Setup Program 1-25 to Internal Flash
	Stores data from 25 setup programs to flash memory.
	This selection is accessed from the Save & Load Setup To & From Flash screen.
	Load Setup Program 1-25 from Internal Flash
	Restores data from 25 setup programs from flash memory.
	This selection is accessed from the Save & Load Setup To & From Flash screen.
	Save/Load System Parameters
	Provides access to selections to save or restore system parameters to or from the flash memory component.
	This selection is accessed from the Save & Load Setup To & From Flash screen.
	Save to Flash
	Saves all system parameters to flash memory.
	This selection is accessed from the Save/Load System Parameters screen.
	Load from Flash
	Restores all system parameters from flash memory.
	This selection is accessed from the Save/Load System Parameters screen.

Static Scale Calibration	Selection of the Cal. Main menu used to adjust the loadcell component with actual weight values. Static Calibration is checked before startup and only repeated when service is performed or accuracy levels become unreliable.
	!!! IMPORTANT !!!
	User must log in for access to this selection
	This selection is accessed from the Cal. Main menu and requires login with the correct password.
	Raw Weight
	Displays the input from the loadcell to verify that the loadcell is responding. If a weight is present on the scale and Raw Weight doesn't register, failure of the loadcell may be suspected.
	This selection is for display only and is accessed from the Static Scale Calibration screen.
	Static Weight
	Indicates weight present on the scale during the static calibration process.
	This selection is for display only and is accessed from the Static Scale Calibration screen.
	Known Weight
	Provides entry of a standard mass value used during the static calibration process.
	Entry should correspond to the heaviest weight package of your checkweighing application.
	This selection is for display only and is accessed from the Static Scale Calibration screen.
	Factory Setting: 0.00 Valid Entries: 0-9999.99
	Start Cal.
	Initiates the static calibration process. A procedure to perform static calibration is provided elsewhere in this manual (see "Using the Controls").
	This selection is for display only and is accessed from the Static Scale Calibration screen.

Test	Test screen selections are provided to individually operate components of the checkweigher for maintenance, service, or troubleshooting. The following functions are available for test-ing:
	 Weight Zone Lamps Infeed & Outfeed Photoeye Sensors Conveyors Rejection
	Test functions are only available when the machine is not currently checkweighing, i.e., STOP mode indicated on the display. Each selection is described in the following.
	Under/Accept, & Over Light
	Correct operation of the zone lamps mounted on the enclosure can be tested using these selections.
	Pressing the selection turns the corresponding zone lamps on/off. This can be used to check for burned out bulbs, or as part of the troubleshooting process if the checkweigher does not seem to be operating correctly.
	If any lamps are turned on using these selections, they will be automatically turned off when the checkweigher is restarted.
	Factory Setting: Off Valid Entries: On, Off
	Scale Weight
	Indicates the current weight value detected by the checkweigher. This selection is for display only. No entries are possible.
	Infeed & Outfeed Sensor Indicators
	These selections can be used to display the current condition (on or off) of the photoelectric sensors of the checkweigher.
	Indicators appear Green when sensor actuated or Red when off.
	These selections are for display only. No entries are available. Selections are accessed from the Test screen.
	E-Stop Indicator
	Displays the current status of the control power switch on the control panel. Selection is for display only. Indicator appears Green when switch in "On" position (i.e., pulled-out) or Red when in Off (pushed-in).

This selection is accessed from the Test screen.

	Tare Scale
	Re-zeroes (tare) the scale to account for extraneous weight (i.e., product, debris, etc.).
	This selection is accessed from the Test screen.
	Reject Verification Indicator
	Displays status of the Reject Verification sensor located at the Reject Tray assembly of the checkweigher. Indicator appears Green when sensor actuated or Red when Off.
	This selection is accessed from the Test screen.
Test Conv.	Provides access to selections to operate conveyors (Infeed, Scale, & Outfeed) of the check- weigher.
	Each selection is described in the following.
	The Test Conv. screen is accessed from the Test screen.
	Infeed Conveyor & Speed
	Selectively operates the Infeed Conveyor of the checkweigher for testing, adjustment, trou- bleshooting, etc. Lower selection turns conveyor on & off. Upper selection used to set test- ing speed.
	!!! WARNING !!!
	Operating the conveyor using this selection may present a safety hazard. Inform surrounding personnel that conveyor will start/stop.
	These selections are available from the Test Conv. screen.
	Factory Settings
	Infeed Conveyor: Off
	Valid Entries
	Infeed Conveyor: On, Off
	inieed Conveyor Speed. 0-999

Scale Conveyor & Speed

Selectively operates the Scale Conveyor of the checkweigher for testing, adjustment, troubleshooting, etc. Lower selection turns conveyor on & off. Upper selection used to set testing speed.

!!! WARNING !!!

Operating the conveyor using this selection may present a safety hazard. Inform surrounding personnel that conveyor will start/stop.

These selections are available from the Test Conv. screen.

Factory Settings Scale Conveyor: Off Scale Conveyor Speed: 0 Valid Entries Scale Conveyor: On, Off Scale Conveyor Speed: 0-999

Outfeed Conveyor & Speed

Selectively operates the Outfeed Conveyor of the checkweigher for testing, adjustment, troubleshooting, etc. Lower selection turns conveyor on & off. Upper selection used to set testing speed.

!!! WARNING !!!

Operating the conveyor using this selection may present a safety hazard. Inform surrounding personnel that conveyor will start/stop.

These selections are available from the Test Conv. screen.

Factory Settings Outfeed Conveyor: Off Outfeed Conveyor Speed: 0 Valid Entries Outfeed Conveyor: On, Off Outfeed Conveyor Speed: 0-999

Infeed Sidebelt & Speed

Selectively operates the Infeed Sidebelt of the checkweigher for testing, adjustment, troubleshooting, etc. Lower selection turns sidebelt on & off. Upper selection used to set testing speed.

!!! WARNING !!!

Operating the conveyor using this selection may present a safety hazard. Inform surrounding personnel that conveyor will start/stop.

These selections are available from the Test Conv. screen.

Factory Settings Infeed Sidebelt: Off Infeed Sidebelt Speed: 0 Valid Entries Infeed Sidebelt: On, Off Infeed Sidebelt Speed: 0-999

Outfeed Sidebelt & Speed

Selectively operates the Outfeed Sidebelt of the checkweigher for testing, adjustment, troubleshooting, etc. Lower selection turns sidebelt on & off. Upper selection used to set testing speed.

!!! WARNING !!!

Operating the conveyor using this selection may present a safety hazard. Inform surrounding personnel that conveyor will start/stop.

These selections are available from the Test Conv. screen.

Factory Settings Outfeed Sidebelt: Off Outfeed Sidebelt Speed: 0 Valid Entries Outfeed Sidebelt: On, Off Outfeed Sidebelt Speed: 0-999

Test Aux.	Provides access to selections to display sensor status, scale weight, reject equipment, and an external Checkweigher Ready signal.
	Each selection is described in the following.
	The Test Aux. screen is accessed from the Test screen.
	Test Low Reject
	This selection can be used to test the rejection mechanism of the checkweigher. Pressing the selection actuates the Low Reject device.
	!!! WARNING !!!
	Operating rejection using this selection may present a safety hazard. Inform sur- rounding personnel that rejection will operate.
	These selections are available from the Test Aux. Screen.
	Factory Setting: Off Valid Entries: On, Off
	Test Aux Alarm
	Selectively operates an external auxiliary alarm signal generated by the control panel for other equipment. Pressing the selection turns the Alarm signal On & Off.
	This selection is available from the Test Aux. Screen.
	Factory Setting: Off Valid Entries: On, Off
	Test C/W Ready
	Selectively operates an external Checkweigher (C/W) Ready mode signal generated by the control panel for other equipment.
	During "Run Mode," this signal is high and the checkweigher is capable of weighing. When this signal goes low, the checkweigher is in Alarm Mode and not capable of weighing.
	This selection is available from the Test Aux. Screen.
	Factory Setting: Off Valid Entries: On, Off

	Infeed & Outfeed Sensor Display
	These selections can be used to display the current condition (on or off) of the photoelectric sensors of the checkweigher.
	Indicator appears Green shen sensor actuated or Red when off.
	These selections are available from the Test Aux. Screen.
Stats Main Menu	For convenience, each major group of Stat selections are grouped together in the following screens. This selection allows you to specify each group.
	 Traffic Cop Screen Container Weight Data Production Stats History of Last 20 Batch Data Stats Short Term Stats
	 System Information Data Capture Single Weight Backup to USB
	These screens and corresponding displays are described in the following. The Stats Main Menu screen is accessed from the Main screen.
Traffic Cop Screen	The Traffic Cop Stat screen displays the following.
	 Accept/Reject Status Weight Display Over Reject Total Over Accept Total Accept Weight Total Under Accept Total Under Reject Total
	Additionally, a selection on this screen resets the graph ("Clear Graph").
	This screen is only available from the Stats Main Menu screen.

Container Weigh Data	The Container Weight Data screen includes valuable productivity measurements and dis- plays useful in estimating the effectiveness of the checkweigher. This screen also includes displays that can be used to evaluate when re-calibration is suggested. The following dis- plays appear.
	 Weight Display Packs Per Minute, Indicator Packs Per Minute, Count Infeed PE Time Weighing Time Last Weigh Samples Last Peak Samples
	This screen is available from the Stats Main screen.
Production Stats	The Production Stats screen provides quick, visual indications of pack production levels, including the following.
	 Weight Weight Type Over Reject Indicator, Total, & % Accept Indicator, Total, & % Under Reject Indicator, Total, & % Range
	Additionally, a selection on this screen allows totals to be cleared ("Clear").
	This screen is available from the Stats Main screen.
History of Last 25	Displays weight data for only the most recent 25 packages as an indicator of current check- weighing activity. This screen includes the following.
	 Last Sample Weight Last Pack Weight Weight History, Last 25 Packs
	The Reset History selection appearing on this screen clears any accumulated data.
	This screen is only available from the Stats Main screen.

Batch Data Stats	Displays container and weight totals from the current and most recent designated batch, including the following.
	 Accept Over Reject Under Reject Maximum Weight Minimum Weight Average Weight Standard Deviation This screen is available from the Stats Main screen.
Short Term Stats	 Displays the following for the current and most recent designated Short Term Group. Accept Over Reject Under Reject Maximum Weight Minimum Weight Average Weight Standard Deviation
	Short Term group size is selected from the Short Stats Count Range entry.
	This screen is only available from the Stats Main screen.
	Short Stats Count Range Factory Setting: 0 Valid Entries: 5-30,000
System Information	Displays the following as an aid in troubleshooting and documenting operation of the check- weigher. Start/Stop Cycles Operating Hours Emergency Stop Cycles Infeed Conv. Hours Scale Conv. Hours Outfeed Conv. Hours Aux. Conv. Hours Infeed/Outfeed Side Belt Hours LDW-LWT Cycles Static Cal. Cycles Dynamic Cal. Cycles This screen is only available from the Stats Main screen.

Data Capture Settings	Displays and allows changes to the Ethernet Network settings used for Data Capture.
	This screen is available from the Stats Main screen.
Single Weight Backup to USB	Provides access to store weight and package data detected by the Alpha Checkweigher on a Universal Serial Bus (USB) device. Data is provided in the industry standard Comma- Separated Values (.csv) format for use with common spreadsheets and database applica- tions.
	This screen is accessed from the Stats screen and includes the following.
	USB Indicator
	Displays status of the USB connector installed on the control enclosure of the EW-8 check- weigher. Indicator appears Green with the message, "USB READY" when a functioning USB is installed. Indicator appears Red with the message "NO USB" when no device connected or is faulty.
	This selection is available on the USB screen of the Stat screen.
	Time/Date
	Displays the current time and date as specified from the Select screen.
	Displays the current time and date as specified from the Select screen. !!! IMPORTANT !!!
	Displays the current time and date as specified from the Select screen. !!! IMPORTANT !!! Weight and package data is stored with time/date data. If time/date display incorrect, use the Set Date/Time selection on the USB screen (see following) to correct. Otherwise data stored on the USB may not accurately reflect operation of the checkweigher.
	Displays the current time and date as specified from the Select screen. !!! IMPORTANT !!! Weight and package data is stored with time/date data. If time/date display incorrect, use the Set Date/Time selection on the USB screen (see following) to correct. Otherwise data stored on the USB may not accurately reflect operation of the checkweigher. This selection is available on the USB screen of the Stat screen.
	Displays the current time and date as specified from the Select screen. I!! IMPORTANT !!! Weight and package data is stored with time/date data. If time/date display incorrect, use the Set Date/Time selection on the USB screen (see following) to correct. Otherwise data stored on the USB may not accurately reflect operation of the checkweigher. This selection is available on the USB screen of the Stat screen. Backup Start Day
	Displays the current time and date as specified from the Select screen. I!! IMPORTANT !!! Weight and package data is stored with time/date data. If time/date display incorrect, use the Set Date/Time selection on the USB screen (see following) to correct. Otherwise data stored on the USB may not accurately reflect operation of the checkweigher. This selection is available on the USB screen of the Stat screen. Backup Start Day Selects when data will start to be collected on the USB device. Starting days can be select- ed for the present or up to 7 previous days.
	Displays the current time and date as specified from the Select screen. I!! IMPORTANT !!! Weight and package data is stored with time/date data. If time/date display incorrect, use the Set Date/Time selection on the USB screen (see following) to correct. Otherwise data stored on the USB may not accurately reflect operation of the checkweigher. This selection is available on the USB screen of the Stat screen. Backup Start Day Selects when data will start to be collected on the USB device. Starting days can be select- ed for the present or up to 7 previous days. This selection is available on the USB screen of the Stat screen.
	Displays the current time and date as specified from the Select screen. III IMPORTANT III Weight and package data is stored with time/date data. If time/date display incorrect, use the Set Date/Time selection on the USB screen (see following) to correct. Otherwise data stored on the USB may not accurately reflect operation of the checkweigher. This selection is available on the USB screen of the Stat screen. Backup Start Day Selects when data will start to be collected on the USB device. Starting days can be selected for the present or up to 7 previous days. This selection is available on the USB screen of the Stat screen. <i>Factory Setting:</i> Today <i>Valid Entries:</i> Yesterday, 2-7 Days Ago, Today
	Displays the current time and date as specified from the Select screen. I!! IMPORTANT !!! Weight and package data is stored with time/date data. If time/date display incorrect, use the Set Date/Time selection on the USB screen (see following) to correct. Otherwise data stored on the USB may not accurately reflect operation of the checkweigher. This selection is available on the USB screen of the Stat screen. Backup Start Day Selects when data will start to be collected on the USB device. Starting days can be select- ed for the present or up to 7 previous days. This selection is available on the USB screen of the Stat screen. Factory Setting: Today Valid Entries: Yesterday, 2-7 Days Ago, Today
	Displays the current time and date as specified from the Select screen. I!! IMPORTANT !!! Weight and package data is stored with time/date data. If time/date display incorrect, use the Set Date/Time selection on the USB screen (see following) to correct. Otherwise data stored on the USB may not accurately reflect operation of the checkweigher. This selection is available on the USB screen of the Stat screen. Backup Start Day Selects when data will start to be collected on the USB device. Starting days can be select- ed for the present or up to 7 previous days. This selection is available on the USB screen of the Stat screen. Factory Setting: Today Valid Entries: Yesterday, 2-7 Days Ago, Today

Days to Backup

Specifies how much data is stored in the future as backup information on the USB device. From one to ten days can be selected.

This selection is available on the USB screen of the Stat screen.

Factory Setting: 0 Valid Entries: 1-10

Start Backup

Initiates data storage on the USB device. Pressing the selection starts recording.

This selection is available on the USB screen of the Stat screen.

Set Date/Time

Accesses the internal clock/calendar component of the control panel to set the current date and time for USB data storage. Requires entry of the Password to avoid accidental or unauthorized changes. When accessed, use the Month, Day, Year, Hour, and Minute selection to coreect.

These selections are accessed from the USB screen of the Stat screen.

Valid Entries Password: 2 2 2 2 Month: 1-12 Day: 1-31 Year: 0-9999 Hour: 1-24 Minute: 0-60

APPENDIX	Setup Program Worksheet
	Menu and Selection Reference

Setup Program	Product:	
Worksheet	Container:	
Setup Program Worksheet	Product: Container: Setup Program Number Container Parameters Product Name Weigh Type Packet Length Tare Weight Target Weight Statistical Parameters Stat High Weight Stat Low Weight High Limit Weight Low Limit Weight Useighing Parameters PE Lockout Time Weigh Sample Weighing Delay Auto Tare Delay Scale Parameters Dynamic Cal Ratio % Tare Adjustment Delta Tare Limit Filter Calibration Digital Filtering Dyn Cal Ratio Adj. Conveyor Speed Infeed Conveyor Speed Aux. Conveyor Speed Infeed Sidebelt	
	Outfeed Sidebelt Reject Parameters Overweight Pack Spacing Error Reject Lo Reject Delay Lo Reject Width Reject Confirm Time Consecutive Reject	<pre> Reject (Red) _ Accept (Green) _ Enable (Red) _ Disable (Green)</pre>

Menu and Selection Reference	Menu Selection Factory Setting Entries	Valid	
	Main		
	Start Weight Display Weight Type Display Weight Unit Display Stop	@ @ @	(press to start) @ @ @ (press to stop)
	Over Reject Count Display Accept Count Display Under Reject Display Last 15 Weight Bargraph Display CPM Display Total Display	000000000000000000000000000000000000000	@ @ @ @ @ (press to sample)
	Clear Stats Max Display Min Display Avg Display Std Display Product Name Display Target Weight Display Menu Selection	000000000000000000000000000000000000000	(press to clear) (press to cl
	Select		
	Program Number Shift Number Program Summary: Product Name Display Target Weight Display Packet Length Display Scale Conveyor Speed Display Date/Time Display	0 0 @ @ @ @	1-300 1-3 @ @ @ @
	Product Name Packet Length Weigh Type Tare Weight Conveyor Speed Target Weight Auto. Dynamic Cal. System Settings	(blank) 0.00 Net 0.00 0 0.00	24-chars. 1.00-46.00 Gross, Net 0.00-99999.9 0-25 0.00-999999.9 (press to start) (reserved for factory service)

Setup

Setup Main Menu		
Container Parameters		(press to access)
Statistical Parameters		(press to access)
Weighing Parameters		(press to access)
Scale Parameters		(press to access)
Conveyor Speed		(press to access)
Reject Parameters		(press to access)
Container Parameters		
Product Name	(blank)	24-chars.
Weigh Type	Net	Gross, Net
Packet Length	0.00	1.00-46.00
Tare Weight	0.00	0.00-99999.9
Target Weight	0.00	0.00-99999.9
Statistical Parameters		
Stat High Weight	0.00	> Target
Stat Low Weight	0.00	< Target
High Limit Weight	0.00	> Target
Low Limit Weight	0.00	< Target
Weighing Parameters		0
PE Lockout Time	0.000	0.000-9.999
Weigh Sample	0	20-999
Weighing Delay	0.000	0.000-9.999
Auto Tare Delay	0.000	0.000-9.999
Scale Parameters		
Dynamic Cal Ratio	0.0000	0.5000-1.5000
% Tare Adjustment	0	5-100
Delta Tare Limit	0.00	0.00-50.00
Filter Calibration	Manual	Auto-Stand., Auto-Med., Auto-Low
Manual		
Digital Filtering	0	1-14 Hz.
Dyn Cal Ratio Adj.	0.05	
Conveyor Speed		
Infeed Conveyor Speed	0	0-999
Scale Conveyor Speed	0	0-999
Outfeed Conveyor Speed	0	0-999
Aux. Conveyor Speed	0	0-999
Infeed Sidebelt	0	0-999
Outfeed Sidebelt	0	0-999
Reject Parameters		
Overweight Pack	Accept (Green)	Reject (Red), Accept (Green)
Spacing Error Reject	Disable (Green)	Enable (Red). Disable (Green)
Lo Reject Delav	0.000	0.000-30.000
Lo Reject Width	0.000	0.000-30.000
Reject Confirm Time	0.000	0.200-2.000
Consecutive Reject	0	1-9999
	-	

Cal

Cal Main Menu		
Auto Dynamic Calibration		(press to access)
Setting Up Reject		(press to access)
Save & Load Setup To & From	Flash	(Login to access)
Static Scale Calibration		(Login to access)
Login		
Password		2222
Auto Dynamic Calibration		
Calibration Weight	0.00	0.00-99999.99
Cal Samples	0	1-25
Current Settings Display	@	@
Start Auto. Calibration	-	(press to start)
Setting Up Reject		
Reject Delay	0.000	0.000-9.999
Reject Width	0.000	0.000-9.999
Start Reject		(press to start)
Save & Load Setup To & From Fla	ish *	(i)
Save Setup Program 1-25 to In	ternal Flash	(press to save)
Load Setup Program 1-25 from	Internal Flash	(press to load)
Save/Load System Parameters		(press to save/load)
Static Scale Calibration		(i /
Raw Weight Display	@	@
Static Weight Display	<u>@</u>	<u>@</u>
Known Weight	0.00	0.00-9999.99
Start Cal		(press to start)
Step 1-4		(press to calibrate)
Test		
Under Light	Off	On, Off
Accept Light	Off	On. Off
Over Light	Off	On. Off
Scale Weight Display	0	@
Infeed Sensor Indicator	0	0
E-Stop Indicator	0	0
Tare	0	(press to tare)
Outfeed Sensor Indicator	0	() ()
Reject Verification Indicator	0	0
Test Conv	0	0
Infeed Convevor	Off (Red)	On (Green), Off (Red)
Infeed Conveyor Speed	0	0-999
Scale Convevor	Off (Red)	On (Green), Off (Red)
Scale Conveyor Speed	0	0-999
Outfeed Conveyor	Off (Red)	On (Green), Off (Red)
Outfood Convoyor Spood	,	, , , , , , , , , , , , , , , , , , , ,
	0	0-999
Infeed Sidebelt	0 Off (Red)	0-999 On (Green), Off (Red)
Infeed Sidebelt Infeed Sidebelt Speed	0 Off (Red) 0	0-999 On (Green), Off (Red) 0-999
Infeed Sidebelt Infeed Sidebelt Speed Outfeed Sidebelt	0 Off (Red) 0 Off (Red)	0-999 On (Green), Off (Red) 0-999 On (Green), Off (Red)

Test Aux Test Low Reject Test Aux Alarm Test C/W Ready Infeed Sensor Indicator Outfeed Sensor Indicator	Off Off @ @	On, Off On, Off On, Off @ @
Stats		
Stats Main Menu Traffic Cop Screen Container Weight Data Production Stats History of Last 20 Batch Data Stats Short Term Stats System Information Data Capture Single Weight Backup to USB		(press for access) (press for access)
Traffic Cop Screen Accept/Reject Status Weight Display Over Reject Total Over Accept Total Accept Weight Total Under Accept Total Under Reject Total	0 0 0 0 0 0	000000000000000000000000000000000000000
Container Weight Data Weight Display Packs Per Minute, Indicator Packs Per Minute, Count Infeed PE Time Weighing Time Last Weigh Samples Last Peak Samples	0 0 0 0 0 0	000000000000000000000000000000000000000
Production Stats Weight Display Over Reject Indicator, Total & % Accept Indicator, Total & % Under Reject Indicator, Total & Average Weight Range Clear Stat	@ %@ % @ @	@ @ @ @ @ (press to clear)
Last Sample Weight Weight History, Last 25 Packs High/Low Limit Display Sample Batch Data Stats	@ @ @	@ @ @ (press to sample)
Accept Total Over Reject Total Under Reject Total Maximum Weight	@ @ @	@ @ @

Average Weight Std. Dev. Weight Last Batch:	@ @	@ @
Accept Total	\bigcirc	Ø
Over Reject Total	@	a
Under Reject Total	0	Ø
Maximum Weight	0	0
Average Weight	0	
Std Dev Weight	0	
Short Term Stats	6	
Current Short Term Stats		
Accept Total	\bigcirc	Ø
Over Reject Total	0	
Under Reject Total	0	
Maximum Weight	@	
Average Weight	0	
Std Dev Weight	@	
Last Short Term Stats	<u>u</u>	
Accept Total	\bigcirc	Ø
Over Reject Total	0	
Under Reject Total	0	
Maximum Weight	0	
Average Weight	0	
Std Dev Weight	0	
Short Term Stat Count	0	5-30.000
System Information	·	
Start/Stop Cycles	@	Ø
Operating Hours	@	0
E-Stop Cycles	@	0
Infeed Conv. Hours	@	0
Scale Conv. Hours	@	0
Outfeed Conv. Hours	0	0
Aux. Conv. Hours	0	0
In Sidebelt Hours	0	0
Out Sidebelt Hours	0	Ø
LDW-LWT Cvcles	<u>@</u>	0
Static Cal. Cycles	<u>@</u>	0
Dvn. Cal. Cvcles	<u>@</u>	0
Single Weight Backup to USB	0	0
USB Indicator	@	0
Time/Date	@	<u>0</u>
Backup Start Day	Today	Yesterday, 2-7 Days Ago, Today
Days to Backup	0	1-10
Start Backup		(press to start)
Set Date/Time		
Password		2222
Month		1-12
Day		1-31
Year		0-9999
Hour		1-24
Minute		0-60
@ Display Only		
[^] Requires Login		

MODEL HP-14 CHECKWEIGHER TOUCH SCREEN CONTROL PANEL MODEL HP-14 CHECKWEIGHER TOUCH SCREEN CONTROL PANEL QUICK REFERENCE QUICK REFERENCE

Status Messages

NO CONTROL POWER SYSTEM READY: PRESS START WAITING FOR CONTAINER PHOTOEYE LOCKOUT TIME READING SCALE DATA PROCESS DATA WAITING FOR OUTFEED PE TARE SCALE PLATFORM CHECK INFEED & OUTFEED EYE CHECK BACKUP SENSOR DELAY BEFORE TARE PLATFORM CHECK DYN CAL SETTINGS STARTING OUTFEED CONVEYOR STARTING SCALE CONVEYOR STARTING INFEED CONVEYOR SHUTDOWN SCALE CONVEYOR SHUTDOWN OUTFEED CONVEYOR WAIT FOR CONVEYORS TO POWER UP Main



Start – Provides operational control of the checkweigher. When used, the outfeed convetor starts, followed by the scale, then infeed. This sequence is designed to clear any existing containers before weighing starts.

Weight – Displays the most recent weight detected by Max./Min/Avg./Std - Displays maximum, minimum, averthe checkweigher. This can be used to verify general age and standard deviation of packages passing through package weight and type. The corresponding Weight the checkweigher. These displays provide a performance Type (Gross, Net), and Weight Units appear adjacent summary of the chewckweigher. to this display for verification. The Weight Type is selected from the Container Parameters setup screen. Product Name - Displays the defined product name of The Weight Units are defined during factory-programthe current setup program in use. Product names are defined using a selection of the Container Parameters ming of the checkweigher. setup screen. This display can be useful in verifying prod-Stop – Halts checkweighing and conveyors for a requuct, package, or setup program.

Stop – Halts checkweighing and conveyors for a reg lated shutdown.

Over/Accept/Under Count – Displays quantities of
packages in overweight, acceptable weight, and
underweight categories. This displays can be useful in
recognizing problem areas or trends in production.Target Weight – Displays the defined target weight set-
ting of the current setup program in use. The Target
Weight is set using a selection of the Container
Parameters setup screen. This display can be useful in
verifying product, package, or setup program use.



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Last 15 Weight Bargraph – Displays the 15 most recent weights in bargraph form to indicate weighing performance or weighing trends.

 $\ensuremath{\textit{CPM}}$ – Displays a computed Container Per Minute as an indicator of production rate.

Total – Displays total number of weighed packages since Start/Clear Stats was used. This display can be referenced as a measure of production.

Sample – Accesses the Sample & Hold screen for independent, offline weighing of a selected package to verify continuing accuracy of the checkweigher. After sampling, package is rejected (if equipped).

Clear Stats – Resets statistical data and totals. Selection can be used at startup so only the most up to date data appears at the checkweigher.

Menu Selection – Provides access to the Select, Setup, Cal (calibration), Test and Stat screens and selections.



MODEL HP-14 CHECKWEIGHER TOUCH SCREEN CONTROL PANEL QUICK REFERENCE

Menus & Selections

Main

- Start
- Weight Display
- Weight Type Display
- Weight Unit Display
- Stop
- Over Reject Count Display
- Accept Count Display
- Under Reject Display
- Last 15 Weight Bargraph Display
- CPM Display
- Total Display
- Sample
- Clear Stats
- Max Display
- Min Display
- Avg Display
- Std Display
- Product Name Display
- Target Weight Display
- Menu Selection

Select

- Program Number
- Shift Number
- Program Summary
- Date/Time Display
- Quick Setup
- System Settings

Setup

- Setup Main Menu
- Container Parameters Product Name Weigh Type Packet Length Tare Weight
- Target Weight • Statistical Parameters Stat High/Low Weight High/Low Limit Weight
- Weighing Parameters PE Lockout Time Weigh Sample Weighing Delay Auto Tare Delay
- Scale Parameters **Dynamic Cal Ratio** % Tare Adjustment Delta Tare Limit Filter Calibration **Digital Filtering** Dyn Cal Ratio Adj.
- Conveyor Speed Infeed Conveyor Speed Scale Conveyor Speed Outfeed Conveyor Speed Aux. Conveyor Speed Infeed Sidebelt **Outfeed Sidebelt**
- Reject Parameters **Overweight Pack** Spacing Error Reject Lo Reject Delay Lo Reject Width **Reject Confirm Time Consecutive Reject**

Cal

- Cal Main Menu
- Login
 - Password
- Auto Dynamic Calibration Calibration Weight Cal Samples Current Settings Display
- Start Auto. Calibration • Setting Up Reject
- **Reject Delay Reject Width** Start Reject
- Save & Load Setup To & From Flash * Save Setup Program 1-25 to Internal Flash Load Setup Program 1-25 from Internal Flash Save/Load System Parameters
- Static Scale Calibration Raw Weight Display Static Weight Display Known Weight Start Cal Step 1-4

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Test

- Under Light
- Accept Light
- Over Light
- Scale Weight Display
- Infeed Sensor Indicator
- E-Stop Indicator
- Tare
- Outfeed Sensor Indicator
- Reject Verification Indicator
- Test Conv
 - Infeed Conveyor Infeed Conveyor Speed Scale Conveyor Scale Conveyor Speed **Outfeed Conveyor** Outfeed Conveyor Speed Infeed Sidebelt Infeed Sidebelt Speed **Outfeed Sidebelt Outfeed Sidebelt Speed**
- Test Aux Test Low Reject Test Aux Alarm Test C/W Ready Infeed Sensor Indicator **Outfeed Sensor Indicator**

Stats

- Stats Main Menu
- Traffic Cop Screen
- Container Weight Data
- Production Stats
- History of Last 20
- Batch Data Stats
- Short Term Stats
- System Information
- Single Weight Backup to USB



All Fill, Inc.

Bill of Materials Report

Item & Part Number Peront Item #: 00281~FUTP	<u>Quantity</u>	Description	<u>Req.</u>
1 ASYCS935C7	1 A	UTOMATIC IN-LINE CW KIT	1
2 WTA/D65294 R***	1 H	P_14 36" I H I_R	1
1 FRMD6527AC	1 H	P-14 CW FRAME	1
1 BARB9205H	2 M	OUNTING BAR NUT	2
2 SCCS564B	6 A	LIM STANDOFF 10-32 THREAD X 3/8 LG	6
3 NUT917510	6 N	UT HEX 3/4-10 STSTL	6
4 L FA 3689****	6 A	RTICULATED FOOT 3/4-10 THRD	6
5 ASYD6008AC	1 C	W FRONT MOUNTED CONTROLS	1
1 RFFHMI	1 U	MI CONTROL (SEE FLEC BOM)	1
2 PAND6453B	1 El	LECTRICAL PANEL MODIFICATION	1
1 PANCP2424G	1 P/	ANEL 24 x 24. GALVANIZED	1
3 REFESTOP	1 E-	-STOP (SEE ELEC BOM)	1
4 REFLIGHT	3 LI	GHT (SEE ELEC BOM)	3
5 CONDG909MF2	1 R	IGHT ANGLE ADAPTER DB9 FEMALE TO	1
6 BOXD6007AE	1 M	ACHINING FOR PLC CONTROL BOX	1
1 BOXCSD24248SSST	1 89	SST HOFFMAN BOX 24X24X8	1
7 REFDISCONNECT	1 D	ISCONNECT KNOB	1
6 WTA/D6897AH***	1 H	P-14 CW CONVEYORS ASSEMBLY	1
1 PLD4420OP****	1 C	ONVEYOR MOUNTING PLATE	1
2 PSTB8076	2 SU	UPPORT POST	2
3 PSTB8076A	1 SU	UPPORT POST	1
4 BKTB8082A	1 SU	UPPORT BRACKET	1
5 PLTB8081A	1 SU	UPPORT PLATE HP-14	1
1 MATB8081A	1 A	LUM JIG PLATE 1/2"X5-1/4"X6" PRECISION	1
6 PLTB8081S	1 SU	UPPORT PLATE	1
7 BARA7378	10 SI	PACER BAR	10
8 RODA7379AK	2 SU	UPPORT ROD	2
9 RODB10840D	2 L0	ONG SUPPORT ROD	2
10 BARB8078D	4 SU	UPPORT TRACKING BAR	4
11 BARB10222	2 C	ONVEYOR BAR SPACER	2
12 REFCONVEYOR	1 R	EF. CONVEYOR	1
13 BRB4109PS****	2 TI	IE BAR	2
14 PLTD7043B	1 C	ONVEYOR SIDE PLATE	1
15 PLTD7043C	1 C	ONVEYOR SIDE PLATE	1
16 RODA8087DG30	1 SU	UPPORT ROD	1
17 BNA4611HL****	4 B.	AR NUT	4
18 SPCA6713H**4*	2 PI	HOTOEYE MOUNTING SPACER	2
1 STD93805A292	1 M	5X0.8X20MM STSTL THREADED STUD	2
19 BARA8254D	1 R	EJECT MOUNTING BAR	1
7 ASYD7438M	1 PI	HOTOEYE/REFLECTOR MTG ASSEMBLY	1
1 BKTB11129	1 SU	UPPORT BRACKET	1
2 BKTC5240G	1 PI	HOTOEYE MOUNTING BRACKET	1
3 98089A137	1 18	3-8 ST. STL ROUND SHIM	1
4 REFPHOTO	1 R	EF PHOTO EYE	1
5 REFP55F	1 R	EFLECTOR (SICK) P55F	1
6 BKTC5241G	1 R.	EFLECTOR MOUNTING BRACKET	1

All Fill, Inc.

Bill of Materials Report

Item & Part Number	Quantity Description
8 ASYD7438N	1 PHOTOEYE/REFLECTOR MTG ASSEMBLY
1 BKTB11129	1 SUPPORT BRACKET
2 BKTC5240H	1 PHOTOEYE MOUNTING BRACKET
3 98089A137	1 18-8 ST. STL ROUND SHIM
4 REFPHOTO	1 REF PHOTO EYE
5 REFP55F	1 REFLECTOR (SICK) P55F
6 BKTC5241H	1 REFLECTOR MOUNTING BRACKET
9 RJA/C3539AW***	1 AIR BLAST REJECT ASSEMBLY
1 NOZA3880R****	1 AIR REJECT NOZZLE
2 NOZ5329K63	1 FLAT AIR NOZZLE
3 CMPVG021-02	1 BAR CLAMP (VG-021-02)
4 RODB10374B	1 SUPPORT ROD
5 CMPB10660	1 PARALLEL CLAMP
10 ASYD5225BR	1 ST.ST'L REJECT BIN ASSMBLY
1 WLDD5257BB	1 ST.ST'L REJECT BIN W/ DOOR WELDMENT
1 BIND5224BD	1 REJECT BIN
2 HNGA7556L	1 ACCESS DOOR HINGE
3 DORD6853S	1 REJECT BIN DOOR
4 TABA9560A	1 REJECT DOOR LOCKING TAB
2 PLTB10337R	1 REJECT TRANSFER PLATE
3 PLTC3993H	1 LEXAN INSPECTION WINDOW
4 COVC4372A	1 REJECT BIN SIDE COVER
5 SCCS564C	8 SPACER 3/8" HEX X 1.50" OAL #10-32 F/F
6 ASYD7476	1 LIGHT CURTAIN ASSEMBLY
1 PEGL-R23F	1 LIGHT CURTAIN, 14mm RES/23
2 BNA4611JS****	4 BAR NUT
3 PLTA11040	4 MOUNTING PLATE
7 BINLOCK	1 REJECT BIN LOCK
8 BARB11130	4 MOUNTING BAR
9 BARB11131	2 MOUNTING BAR
10 SPC91115A697	4 SPACER 5/16" HEX X 1-1/8" OAL #10-32 F/F
11 PLTC5327	1 REJECT BIN BACKING PLATE
11 ASYD5027BV	1 DRAFT COVER ASSEMBLY
1 BKTC4028CD	1 SUPPORT BRACKET
2 BKTC4028CC	1 SUPPORT BRACKET
3 SPA6056*****	4 DRAFT COVER PIN 5/16"-24 X 1"
4 COVD4419BZ****	1 DRAFT COVER
3 AIA/B4721Z**	1 AIR SCHEMATIC (24 VOLT)
1 VLVM4V2100824VDC	1 MEAD MFD SOLENOID VALVE - 24VDC
2 MUFASP1/8	2 MUFFLER AIR 1/8 NPT
4 PLTA4875E	1 VALVE MTG PLATE
5 REG1/4P100P	1 REGULATOR
6 GGE1.5D160	1 GAUGE 0-160 PSI
7 ELC_CW700_HP14-10D	1 E C HP14 CW WIPOTEC SCALE FRT MOUNT
1 HPW7006	1 E. DIA. C/W 700 HP14 CW WIPOTEC SCALE
2 EHP700006H	1 ELC COMP STD CWHP14 FRONT MOUNT
1 BRD-CW700-DIG	1 BASIC CW-700 I/O BOARD for DIG. SCALE

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All Fill, Inc.

Bill of Materials Report

<u>Item & Part Number</u>	Quantity Description	Req.
2 PWR1606XLE240E	1 AB 10A 24-28VDC PS 85/240VAC INPUT	1
3 PLC-MT8070IE	1 HMI TOUCHSCREEN 800X480 DISPLAY 7"	1
4 CBL10D1-20406	1 DB9F /DB9F, NullModem cable; 6 ft. for CW700	1
5 BRK1489-A1C040	1 (A-B) 1 POLE 4A CIRCUIT BREAKER UL &	1
6 ASYB3419CN	1 E-STOP CABLE FOR STANDARD	1
1 PLGV-3.81 /04	1 (1826995) MCVW1,5/4-ST-3,81; Vert Plg, 3.81	1
7 ASYB3419CP	1 TOWER LIGHT CABLE FOR STANDARD	1
1 PLGV-3.81 /08	1 Vert Plg, 3.81 mm, 8 pos MCVW1,5/8-ST-3,81	1
8 ASYB3419CM	1 HMI 24V POWER CABLE FOR STANDARD	1
1 PLGV-3.81 /03	1 MCVW1,5/3-ST-3,81; Vert Plg, 3.81 mm, 3 pos	1
9 BRD1-86	8 STANDOFF #8423 H.H. SMITH	8
10 PLG1827033	1 Vert Plg, 3.81 mm, 8 pos MCVW1,5/8-ST-3,81	1
11 PLG1826982	4 Vert Plg, 3.81 mm, 3 pos MCVW1,5/3-ST-3,81	4
12 PLG1827017	1 Vert Plg, 3.81 mm, 6 pos MCVW1,5/6-ST-3,81	1
13 HLD1492H6	1 FUSE HOLDER-TERMINAL STRIP	1
14 BRR1492N37	1 END BARRIER FOR HLD1492H6	1
15 FSEABC5	1 FUSE 5 AMP	1
16 CBLCD12MOB070A1	2 CABLE 4 PIN 7 METER STRAIGHT PLUG (DC	2
17 PEHL18G-B4B3BP	2 sick lit/drk pnp/npn retroreflective pe	2
18 BRDIMOT-BUS	1 C/W CONVs. CONTROL BOARD FROM	1
19 REL16Q4CD024	1 24VDC RELAY 4 P.D.T. "EAGLE"	1
20 SKT60SH4B05	1 SOCKET 14 PIN BASE MOUNT	1
21 BRD-CW-CONVERTER	1 CW CONVERTER RS232<>RS485	1
22 ASYCS945C	1 CW FRONT MOUNT BOX SW SET 24VDC	1
1 SWT800FDMT44X02	1 A/B 800FD E-STOP 2 NC CONTACTS	1
2 SWT800FD-P5N3	1 ALLEN BRADLEY PILOT LIGHT yellow	1
3 SWT800FD-P3N3	1 ALLEN BRADLEY PILOT LIGHT GREEN	1
4 SWT800FD-P4N3	1 ALLEN BRADLEY PILOT LIGHT RED (24vdc)	1
3 SWH_HP700_100501	1 HMI SOFTWARE	1
4 SWP_HP700_100501	1 PLC SOFTWARE	1
8 DIS194L-E12-1752	1 A-B LOAD 12A DISCONNECT 2 POLES,	1
9 KNB194L-HE6N-175	1 A-B LOAD DISCONNECT KNOB	1
10 CBLGL-RP5P	2 LIGHT CURTAIN CABLE, 5-CORE, PNP, 5m	2
11 ASYUSBBULKHEAD90	1 USB BULKHEAD AND CAP FOR MT8070IE	1
1 WPUSBAX-1M	1 USB BULKHEAD 1 METER CABLE W/USB	1
2 WPCVR-USB-1394	1 WATER PROOF CAP FOR WPUSBAX-1M	1
3 USB90DEGADT	1 USB MALE-FEMALE RIGHT ANGLE	1

Report: 130 Record(s)

CRITERIA

Detail Report Sorted by Parent Item #

Specific Option(s): 1.) AFI BOM Explosion 2.) Exclude Minutes/Cost

Filter(s): Item #: "00281~FUTP "

All Fill, Inc. Bill of Materials Report

Item & Part Number	Quantity Description	Req.
Parent Item #: ELC_CW700_HP14-10D		-
1 HPW7006	1 E. DIA. C/W 700 HP14 CW WIPOTEC SCALE	1
2 EHP700006H	1 ELC COMP STD CWHP14 FRONT MOUNT	1
1 BRD-CW700-DIG	1 BASIC CW-700 I/O BOARD for DIG. SCALE	1
2 PWR1606XLE240E	1 AB 10A 24-28VDC PS 85/240VAC INPUT	1
3 PLC-MT8070IE	1 HMI TOUCHSCREEN 800X480 DISPLAY 7"	1
4 CBL10D1-20406	1 DB9F /DB9F, NullModem cable; 6 ft. for CW700	1
5 BRK1489-A1C040	1 (A-B) 1 POLE 4A CIRCUIT BREAKER UL &	1
6 ASYB3419CN	1 E-STOP CABLE FOR STANDARD	1
1 PLGV-3.81 /04	1 (1826995) MCVW1,5/4-ST-3,81; Vert Plg, 3.81	1
7 ASYB3419CP	1 TOWER LIGHT CABLE FOR STANDARD	1
1 PLGV-3.81 /08	1 Vert Plg, 3.81 mm, 8 pos MCVW1,5/8-ST-3,81	1
8 ASYB3419CM	1 HMI 24V POWER CABLE FOR STANDARD	1
1 PLGV-3.81 /03	1 MCVW1,5/3-ST-3,81; Vert Plg, 3.81 mm, 3 pos	1
9 BRD1-86	8 STANDOFF #8423 H.H. SMITH	8
10 PLG1827033	1 Vert Plg, 3.81 mm, 8 pos MCVW1,5/8-ST-3,81	1
11 PLG1826982	4 Vert Plg, 3.81 mm, 3 pos MCVW1,5/3-ST-3,81	4
12 PLG1827017	1 Vert Plg, 3.81 mm, 6 pos MCVW1,5/6-ST-3,81	1
13 HLD1492H6	1 FUSE HOLDER-TERMINAL STRIP	1
14 BRR1492N37	1 END BARRIER FOR HLD1492H6	1
15 FSEABC5	1 FUSE 5 AMP	1
16 CBLCD12MOB070A1	2 CABLE 4 PIN 7 METER STRAIGHT PLUG (DC	2
17 PEHL18G-B4B3BP	2 sick lit/drk pnp/npn retroreflective pe	2
18 BRDIMOT-BUS	1 C/W CONVs. CONTROL BOARD FROM	1
19 REL16Q4CD024	1 24VDC RELAY 4 P.D.T. "EAGLE"	1
20 SKT60SH4B05	1 SOCKET 14 PIN BASE MOUNT	1
21 BRD-CW-CONVERTER	1 CW CONVERTER RS232<>RS485	1
22 ASYCS945C	1 CW FRONT MOUNT BOX SW SET 24VDC	1
1 SWT800FDMT44X02	1 A/B 800FD E-STOP 2 NC CONTACTS	1
2 SWT800FD-P5N3	1 ALLEN BRADLEY PILOT LIGHT yellow	1
3 SWT800FD-P3N3	1 ALLEN BRADLEY PILOT LIGHT GREEN	1
4 SWT800FD-P4N3	1 ALLEN BRADLEY PILOT LIGHT RED (24vdc)	1
3 SWH_HP700_100501	1 HMI SOFTWARE	1
4 SWP HP700 100501	1 PLC SOFTWARE	1

Report: 33 Record(s)

All Fill, Inc. Bill of Materials Report

Specific Option(s): 1.) AFI BOM Explosion 2.) Exclude Minutes/Cost

Filter(s): Item #: "ELC_CW700_HP14-10D "


	1		PARALLEL CLAMP	
	1		SUPPORT ROD	
	1		BAR CLAMP (VG-021-	-02)
	1		FLAT AIR NOZZLE	
	1		AIR REJECT NOZZLI	E
	QTY.		DESCRIPTION	
244-5	AIR DWN. B DATE	F BLAST Y CRP 1/18/19	ALL-FILL, INC. EXTON, PA 19341 REJECT ASSEMBLY - DRAWING NO. C-3539-AW	
W1-	SCALE:	1:1.25	RJA/C3539AW***	SHEET 1 OF 1

WIPOTEC AUTOMATIC IN-LINE CHECKWEIGHING

WEIGH CELL: EC 2000-2-FS-2-10-27 MEASURING RANGE: 750 g MAX. DEAD LOAD: 4000 g DISPLAY VALUE (d): 0.05 g CALIBRATION VALUE: 0.1 g POWER SUPPLY: 24 VDC INTERFACE 1/2: RS-422 / RS-232 HOUSING: IP44 STAINLESS STEEL WITH FAST SAMPLING WITH OPTION FORCELESS CONNECTION OF ELECTRICAL AGGREGATES WITH OPTION INTERFACE RS422 INSTEAD OF CAN INFEED CONVEYOR (L x W): 600x150mm, NT30 WEIGHING CONVEYOR (L x W): 300x150mm, NT30 OUTFEED CONVEYOR (L x W): 600x150mm, NT30 1 x I-MOT BUS DISTRIBUTOR 1 x WEIGH CELL CONNECTION CABLE, 5m 1 x CONNECTION CABLE FOR PLUGGABLE MOTOR CONNECTION FOR MOTOR TYPE IMOT, 400mm LONG 3 x MOTOR CONNECTION CABLE, 5m REV. DESCRIPTION WORKING DIRECTION: LEFT TO RIGHT REVISIONS $A \parallel - F \parallel$ EXTON, PA TITLE AUTOMATIC IN-LINE CHEC DWN. BY CRP DRAWING NO. ASSEMBLY

1 ST. USED ON 00281-2

CAD No. CS935CZ1-

DATE 9/8/20

SCALE

NG KIT
N DATE
FILL, INC. n, pa 19341
HECKWEIGHING KIT
^{NG NO.} CS-935-CZ
ASYCS935CZ SHEET 1 OF 1









11	PLTC5327	1	REJECT BIN BACKING PLATE			
10	SPC91115A697	2	SPACER 5/16" HEX X 1-1/8" OAL #10-32 F/F ST.S			
9	BARB11131	2	MOUNTING BAR			
8	BARB11130	4	MOUNTING BAR			
7	BINLOCK	1	REJECT BIN LOCK			
6	ASYD7476	1	LIGH	t curtain assembly		
5	SCCS564C	8	SPACER 3/8" HEX X 1.50" OAL #10-32 F/F ST.ST'L			
4	COVC4372A	1	REJECT BIN SIDE COVER			
3	PLTC3993H	1	LEXAN INSPECTION WINDOW			
2	PLTB10337R	1	REJECT TRANSFER PLATE			
1	WLDD5257BB	1	ST.ST'L REJECT BIN WITH DOOR WELDMENT			
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION			
UNLESS OTHERNISES SPECIFIED DIMENSIONS ARE IN INFIRS TOLERNICES ARE: FFWCTIONS DECUMALS ANGLES FFWCTIONS DECUMALS ANGLES 1064 J004 101 114 0 J004 J003		ALL-FILL, INC. EXTON, PA 19341				
	REMOVE ALL BURRS & SHARP EDGES DO NOT SCALE DRAWING	TITLE	STEEL REJECT BIN			
	JOB No. :	ASSEMBLY -	DWN. BY CRP DRAWING NO. D-5225-BR			
	GROUP :	CAD No. D5255BR1- SCALE : 1:2.5 ASYD5225BR S				







	11	ASYD5027BV	1	1 DRAFT COVER ASSEMBLY						
ĺ	10	ASYD5225BR	1		ST.ST'L REJECT BIN ASSEMBLY					
	9	RJA/C3539AW***	1		AIR BLAST REJECT ASSEMBLY					
	8	ASYD7438N	1	PH	PHOTOEYE / REFLECTOR MOUNTING ASSEMBLY					
	7	ASYD7438M	1	PH	OTOEYE / REF	ELECTOR MOUNTING ASSEMBLY				
	6	WTA/D6897AH***	1		HP-14 CW	CONVEYORS ASSEMBLY				
	5	ASYD6008AC	1	CW FRONT MOUNTED CONTROLS						
	4	LFA3689****	6	ARTICULATED FOOT						
	3	NUT917510	6	3/4-10 HEX NUT						
	2	SUCS548B	6			TUBE END				
	1	FRMD6527AC	1 HP-14 CW FRAME							
	ITEM NO.	PART NUMBER	QTY.	DESCRIPTION						
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS +1/64 XX +01 3/0X +030		A	L-FILL, INC. EXTON, PA 19341						
		REMOVE ALL BURRS & SHARP EDGES DO NOT SCALE DRAWING	TITLE		CHECKWEIGHER -					
		JOB No. :	ASSEMBLY -		DWN. BY CRP	Drawing ND. D-6529-AR				
		GROUP :	1ST USED ON 00281-2 CAD No. D6529AR1-		DATE 9/24/20 SCALE : 1:6	WTA/D6529AR*** SHEET 1 OF				







19	BARA8254D	1		REJECT MOUNTING BAR				
18	SPCA6713H**4*	2		PHOTOEYE MOUNTING SPACER (2" LONG)				
17	BNA4611HL****	4		BAR NUT				
16	RODA8087DG30	1		SUPPORT ROD				
15	PLTD7043C	1		CONVEYOR SIDE PLATE				
14	PLTD7043B	1		CONVEYOR SIDE PLATE				
13	BRB4109PS****	2		TIE BAR				
12	REFCONVEYOR	1		AUTO	MATIC IN-LINE CW KIT			
11	BARB10222	2		CON	VEYOR BAR SPACER			
10	BARB8078D	4		TRAC	CKING SUPPORT BAR			
9	RODB10840D	2		LONG SUPPORT ROD				
8	RODA7379AK	2	SUPPORT ROD					
7	BARA7378	10	SPACER BAR					
6	PLTB8081S	1		SUPPORT PLATE				
5	PLTB8081A	1		SUPPORT PLATE				
4	BKTB8082A	1		SUPPORT BRACKET				
3	PSTB8076A	1		SUPPORT POST				
2	PSTB8076	2	SUPPORT POST					
1	PLD4420QP****	1	CONVEYOR MOUNTING PLATE					
ITEM NO.	ITEM NO. PART NUMBER		DESCRIPTION					
UNLESS OTHERMINES SAFETINEED DIMENSIONS ARE IN INCHES DIMENSIONS ARE IN INCHES FRANCTIONS DECRIMAS INVICES FRANCTIONS OF 114 ° JOIN 401 ° 114 °			ALL-FILL, INC. EXTON PA 19341					
	REMOVE ALL BURRS & SHARP EDGES DO NOT SCALE DRAWING	TITLE	TITLE HP-14 CW CONVEYORS ASSEMBLY -					
	JOB No. :	ASSEMBLY -	2004-0	DWN. BY CRP	Drawing NO. D-6897-AH			
		IST USED ON OU	1201-2	UATE 9/24/20	WTA/DC007ALI***			







6	BKTC5241G	1	REFLECTOR MOUNTING BRACKET					
5	REFP55F	1		REFLECTOR (SICK)				
4	REFPHOTO	1		SICK PHOTOEYE (SEE ELECTRICAL BOM)				
3	98089A137	1		18-8 ST. STL ROUND SHIM				
2	BKTC5240G	1		PHOTOEYE MOUNTING BRACKET				
1	BKTB11129	1	SUPPORT BRACKET					
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION					
UNLESS OTHERWISS SPECIFIED DIMENSIONS ARE IN NOCHES TOLERWIGS ARE FRUCTIONS DECIMALS ANGLES †164 J. 304 (51) ± 114 °		ALL-FILL, INC. EXTON, PA 19341						
REMOVE ALL BURRS & SHARP EDGES DO NOT SCALE DRAWING		TITLE PHOTOEYE / REFLECTOR MOUNTING ASSEM					SEMBLY	
	JOB No. :		- DWN. BY CRP		DRAWING NO.	D-7438-M		
	QUANITY :		00281-2	DATE 9/24/20		B 7 100 IVI		
	GROUP :	CAD No. D7438	BM1-	SCALE : 1:1.5	ASYD7438M		SHEET 1 OF 1	





6	BKTC5241H	1		REFLECTOR MOUNTING BRACKET				
5	REFP55F	1		REFLECTOR (SICK)				
4	REFPHOTO	1		SICK PHOTOEYE (SEE ELECTRICAL BOM)				
3	98089A137	1		18-8 ST. STL ROUND SHIM				
2	BKTC5240H	1		PHOTOEYE MOUNTING BRACKET				
1	BKTB11129	1	SUPPORT BRACKET					
ITEM NO.	PART NUMBER	QTY.	DESCRIPTION					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN NOTES TOLERWICES ARE FRACTIONS DECIMALS ANGLES 1064 JX(101 ± 114 °		ALL-FILL, INC. EXTON, PA 19341						
REMOVE ALL BURRS & SHARP EDGES DO NOT SCALE DRAWING		TITLE PHOTOEYE / REFLECTOR MOUNTING ASSEMBLY -					SEMBLY	
JOB No. :		ASSEMBLY -	DWN. BY CRP		DRAWING NO.	D-7438-N		
	QUANITY :	1ST USED ON	00281-2	DATE 9/24/20		D-1400-14		
	GROUP :	CAD No. D743	BN1-	SCALE : 1:1.5	ASYD7438N		SHEET 1 OF 1	

ALL-FILL SUPPORT PROGRAMS

PHONE SUPPORT - 866-ALL-FILL (255-3455) or 610-524-7350

CUSTOMER SUPPORT E-MAIL ADDRESS - WWW.ALL-FILL.COM

Click on Parts & Service to E-Mail your questions or concerns.

FIELD SERVICE - Within 48 Hours or less, in most cases

Contact Manager Millet George at milletg@all-fill.com or direct at 484-875-3416.

FILLER TRAINING PROGRAMS - At our facility or at your plant.

Our qualified Service Technicians can "show you the ropes" regarding your machines.

ELECTRONIC COMPONENT REPLACEMENT - Overnight or 2nd Day service.

AUGER FILLER RE-BUILD OR REPAIR - Programs are available

SPARE PARTS DEPARTMENT - WWW.ALL-FILL.COM

Jeff Arra: 866-ALL-FILL (255-3455) Ext. 213 / DIRECT 484-875-3400 / E-MAIL jeffa@all-fill.com

Rick Deihm: 866-ALL-FILL (255-3455) Ext. 211 / E-MAIL rickd@all-fill.com

PRODUCT TESTING - Free, in our Exton, PA labratory.

