

6410T0030 Revision: EN01

# **Albany RR1000**





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#### Manufacturer:

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### Introduction

These operating instructions are intended for use with Albany RR1000 doors with the associated control system. They constitute part of the product and describe how to use the product properly and safely throughout the product lifecycle. The operating instructions are only valid in combination with the operating instructions for the control system and associated electrical schematics which are supplied on delivery.

The information contained in these instructions constitutes the technical specifications applicable at time of print. Keep these operating instructions inside the control system electrical cabinet or in another safe and accessible storage location. If ownership of the door is passed to a third party, these operating instructions must also be supplied to the new equipment owner.

These operating instructions are intended for trained, qualified and authorized staff. Only employees of the original equipment manufacturer or other staff trained by the original equipment manufacturer may install, commission, inspect, maintain, repair and dismantle the door.

This product has been designed and manufactured under consideration of a risk analysis according careful selection of the standards to be observed and other technical specifications. It is therefore state-of-the-art and guarantees the highest possible degree of safely. However, this level of safety can only be achieved in practice if all the necessary measures are taken. In particular, when the door is operated, all persons that use the door must have been instructed in the use of the door and the potential danger involved in walking under the closing door must be highlighted.



Warning notices refer to dangers to the life and health of people or to the machine, equipment or the environment. The notices applied directly to the door must be followed and kept in legible condition.

## **Safety Definitions**

The contents of this manual are designed to help you maintain Albany RR1000 high performance doors. **DO NOT execute any maintenance procedures on the high speed door unless you have read through the instructions in this manual.** 



The safety alert symbol is used to identify safety information about hazards that can result in personal injury. A signal word (DANGER, WARN-ING, or CAUTION) is used with the safety alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.



DANGER indicates a hazard that, if not avoided, will result in death or serious injury.



WARNING indicates a hazard that, if not avoided, could result in death or serious injury.



CAUTION indicates a hazard that, if not avoided, might result in minor or moderate injury.



CAUTION, when used without the alert symbol, indicates a situation that could result in damage to the door.



NOTICE is used to inform you of a method, reference, or procedure that could assist with specific operations or procedures.

Other symbols that may be used in this manual are:



Lock Out / Tag Out



Crushing



Fire



Shock



Read Manual



## **General Safety Information**



Special personal protection equipment is not required for use of the door. Nevertheless, the door may only be used by trained and authorized staff. Additional site-specific conditions pertaining in the operation where the door is used may also apply.

The Albany RR1000 door is designed and manufactured under consideration of safety technical specifications. This meets the highest standard of safety. However, this safety can only be reached in operational practice if all necessary measures are met. It is the duty of the operator of such door system to ensure all these measures and check it's status. Please read the operation manual carefully and keep it in a safe place.

The operator of the door is held to ensure especially that:

- Installation, first operation, inspection, servicing, repair work and dismantling are only done by personnel that have been trained by the manufacturer.
- Only to be operated by personnel that have been sufficiently assigned and authorized to operate this door system.
- The door must only be used for its intended purpose.
- The door must be only operated in a functional perfect state and especially the safety features must be checked for function in regular intervals.
- Keep the working vicinity and the opening of the door in clear of obstructions. Maintain a clear door opening at all times. Obstructions may cause accidents.
- The operation manual should be kept at the site of the fitted door system in readable condition.
- All safety and warning labels should not be removed from the machine and should also be kept readable.
- Do not drive through the door opening unless door is completely open.
- Do not run through the door opening. Go upright and with normal pace.
- Do not climb or hang on the door.

- During operation of the door, do not stick your hands in the side frames. Keep hands and feet clear of the door at all times. Stay clear of the door while it is operating.
- Never reach into the area of the top roll when the door may be energized.
- Do not operate the door when excessive wind load is present. Refer to applicable specifications for "operational wind load".
- Only operate the door at the approved supply voltage and mains frequency.
- Only use accessories or attachments that have been approved by the manufacturer for use with this door.
- The STOP Button on the front of the panel is a momentary stop ONLY with the ACS-50 and MCC control panels. The door will only stop for that cycle; motion detectors, floor loops, or any activating device can activate the door! To ensure that the door keeps from being activated, use the rotary disconnect on the front of the panel.
- When damage occurs to the door (mechanically or electrically) turn off operational power immediately. This is especially true if you have damage of the curtain or drive system.



- For all kind of work on the door the main switch (main disconnect) must be set to the OFF position and secured from being re-energized by unauthorized persons by following proper lock-out tag-out procedures.
- Do not ever use petroleum-based products on the door curtain. If done, this voids all warranty on the curtain material.



## **Product Description**

Albany RR1000 doors are vertically opening, rapid roll doors. They comprise two side frames, a top roll with an electric drive, the door curtain and a bottom profile.

#### **Side Frames**

The side frames guide the bottom profile and flexible door curtain that is rolled onto the top roll when the door opens. These side frames are constructed from continuous extruded steel profiles and segmented aluminum and polymer curtain retention profiles which retain the wind lock edges of the door curtain.

#### **Curtain**

The flexible door curtain is made from high tensile strength underlying weave coated with a resilient textured SBR or EPDM rubber material. Additional features of the curtain including the wind lock are made of similar materials and friction-limiting coverings.

#### **Bottom Beam**

The bottom beam assembly is made from impact-resistance fiberglass pultrusion profiles bolted to the front and rear face of the curtain. A reversing edge sensor profile is connected to the bottom edges of the fiberglass and is surrounded by a rubber bottom edge weather seal.

#### **Top Roll**

The top roll drum and idler are made from steel tubes with welded axle plates. The idler tube also has welded axle shafts, though the top roll drum has forged steel axles bolted to the ends.

#### **Drive Unit**

The drive unit contains an electric motor, gear reducer, limit switch and electronic position encoder.

### **Control System**

The electrical control system will either be the ACS50 contactor control system or MCC variable frequency control system, depending on configuration. The MCC control system facilitates a gentle acceleration and braking of the door with higher overall speeds, while the ACS50 operates the door in a more abrupt manner and is meant for shorter lifecycle periods without required maintenance.

#### **Operation and Safety Systems**

Albany RR1000 doors contain one open button, close button, and stop button integral to the control system which can be used to operate the door. This is the minimum activation devices; however, many types and quantities of accessory activation items may be added such as auxiliary push button or palm button stations, pull cords, motion sensors, presence sensors, photo eyes, inductive loop detectors, laser scanning sensors, building control and security systems, or other various switches and sensors. Incorporation and operation sequences for these various types of sensors may be found in the control system manual provided with the door.

Without respect to how the door is activated, once commanded to open, the drive unit will turn to draw up and wrap the flexible curtain around the top roll drum until it reaches the set open position. When the door closes, the curtain is rolled off the top roll and descends under the weight of the bottom profile and the curtain itself.

All Albany RR1000 doors are fitted with compliant protection of the main bottom edge. The electric safety edge is tested prior to initiating downward movement and monitored permanently while the door closes. The door will not initiate downward movement if a fault is detected. If a fault is detected during downward movement, the drive unit reverses and opens the door immediately.

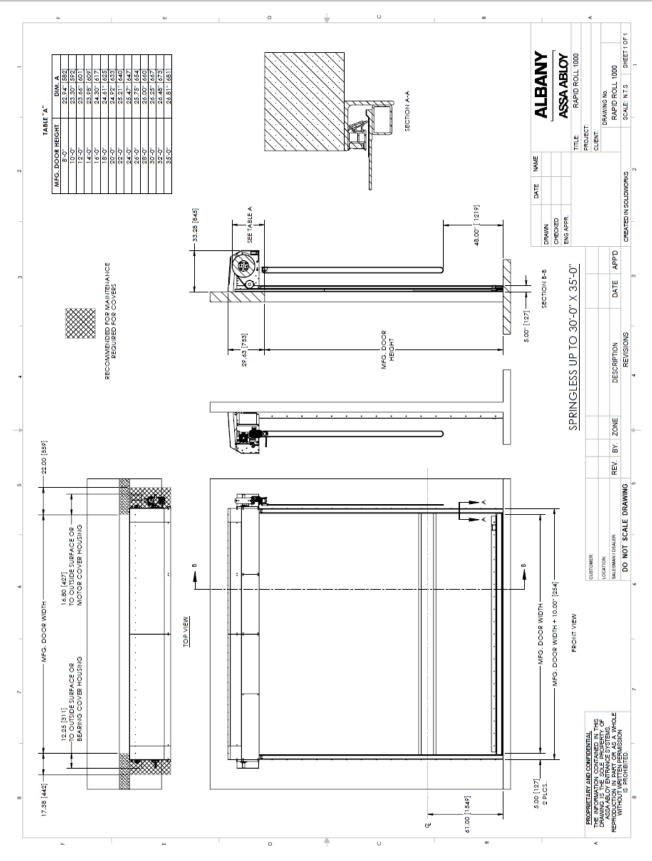
All doors are also fitted with an integrated safety photocell or an integrated light curtain in the side frames. The stationary safety photocell or light curtain monitors the closure area of the door. If the light beam is broken, the door is prevented from closing. If the door is closing and the light beam is broken, the door immediately returns to the open position.

### **Self-Repairing Breakaway**

Albany RR1000 doors are designed to allow the curtain to break away from the side frames upon impact without damage to the door. Sensors integral to the curtain wind lock detect such an event and are transmitted wirelessly to the control system. The control system immediately stops all movement of the door and requires a user to press the "open" button to initiate the automatic repair sequence. The door then opens to the upper repair limit position resetting itself



# **Technical Information**



| IMENSIONAL SPECIFICATIONS       |   |
|---------------------------------|---|
| Min Width                       | 6 ft (1,829 mm)   |
| Max Width                       | 30 ft (9,144 mm)  |
| Min Height                      | 6 ft (1,829 mm)   |
| Max Height                      | 35 ft (10,668 mm)   |
| Side Frame Clearance            | 5 in (127 mm)   |
| Side Frame Projection           | 5 in (127 mm)   |
| Headroom Clearance              | 22.94 in (582 mm) - 26.81 in (681 mm) (door height dependant)   |
| Headroom Projection             | 33.28 in (845 mm)   |
| ERFORMANCE INFORMATION          | 55.25 m (6.15 mm)   |
| Opening Speed                   | up to 60 in/sec (door size dependent)   |
| Closing Speed                   | ≈24 in/sec  |
| Static Wind Load                | up to 130 mph (100 mph @ max size)  |
| Static Pressure Load            | up to 43psf (26psf @ max size)  |
| Operating Wind Load             | 40 mph  |
| Operating Pressure Load         | 4 psf   |
| Self-Repairing Breakaway        | YES (push button)   |
| Applicable Agency Approvals     | UL508A  |
| ATERIALS & FEATURES             |   |
| Door Curtain Construction       | 1/4" Thick Rubber - Black SBR, *Tan SBR, *Blue EPDM, *Grey EPDM   |
| Reversing Edge Type             | wireless electric contact edge  |
| Photo Safety Type               | through-beam photoeye or *light curtain   |
| Counterbalancing                | none  |
| Life Length of Counterbalance   | N/A   |
| Side Frame Construction         | self-supporting heavy duty 3/8" painted steel   |
| <b>Bottom Beam Construction</b> | high strength fiberglass pultrusion (multiple layers depending on door width)   |
| Top Roll Construction           | 8-5/8" diameter steel tube drum<br>6-5/8" diameter steel idler barrel   |
| Roll Cover Construction         | 18 gauge steel powder-coated black (RAL 9005)   |
| Motor Cover Construction        | 18 gauge steel powder-coated black (RAL 9005)   |
| Control Panel                   | MCC All-In-One  |
| Voltage Options                 | **208V 3Ø (± 10%), **230V 3Ø (± 10%), 460V 3Ø (± 10%), **575V 3Ø (± 10%)<br>** - with transformer internal to control panel |
| Motor Size                      | up to 3.35hp helical-worm gearmotor   |
|                                 | 1-year parts & labor w/ACS50  |
| Warranty Terms                  | 5-year, 1 Million Cycle w/MCC   |
| IVIRONMENTAL LIMITS             |   |
| One with a Temperature Person   | Standard 14 °F - +104 °F (-10 °C - +40 °C)  |
| Operating Temperature Range     | *Extended -20 °F - +140 °F (-29 °C - +60 °C)  |
| Controls Environmental Rating   | NEMA-4  |
| Motor Environmental Rating      | IP-55   |

(\*) - indicates optional item



### **Maintenance Schedule**

Before starting work on the door, the power must be disconnected by switching off the main power disconnect and then locked out. Then the control box needs to be checked to verify that voltage has been eliminated from the panel. Please observe that all used ladders, scaffoldings, or such, correspond with the valid safety regulations.

The working area must be blocked for both vehicle and foot traffic. Lubrication oil on the floor, tools and other material should be removed from the floor when work has been finished.

The necessary maintenance inspections, check-up and time intervals are listed in the Inspection section.

#### **Daily Inspection**

- 1. Inspect the door curtain for obvious wear or damage.
- 2.Operate the door through several openings and closing cycles. Verify that the door seats against the floor and that the door fabric remains tight and does not wrinkle. Verify that the door opens fully, slightly beyond the wall opening, and does not open too far.
  - •If the door does not seat against the floor properly or opens to the wrong position, refer to "Setting Door Limit Adjustments" in the applicable controls manual.
  - •If the door fabric has diagonal wrinkles, the door fabric roll at the top of the door is not level and perpendicular to the side rails. Leveling adjustments should be made as soon as possible to prevent wear or damage. Refer to the installation instructions or contact Technical Support.
- 3. With the door closing, place an object through the light curtain, or photo eyes, on each side of the door. Verify that the door stops immediately.



Do not stand under the door when performing the following inspection. If the bottom bar reversing switch is not functioning correctly injury can occur.

- 4. While the door is closing, tap the bottom of the door edge wand verify that the door stops and reverses to a fully open position.
- 5.See the applicable control panel or installation manual for operation details pertaining to the controls.

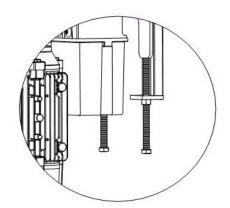
| Installation Mounting   |                            |  |
|---|----------------------------|--|
| Inspect and tighten mounting hardware   | annually                   |  |
| Check welding seams   | 6 months or 50,000 cycles  |  |
| Drive   |                            |  |
| Inspect assembly of the torque arm and isolation bushings   |                            |  |
| Inspect brake condition and function of break release lever   | 6 months or E0 000 syclos  |  |
| Check the chain, adjust and possibly tension and lubricate (if applicable)  | 6 months or 50,000 cycles  |  |
| Check function and condition of the torque arm during operation   |                            |  |
| Drive shaft   |                            |  |
| Check screws to drive shafts and flange bearings  | 6 months or E0 000 syclos  |  |
| Chain drive: check fastening of locking element (if applicable)   | 6 months or 50,000 cycles  |  |
| Door curtain  |                            |  |
| Check curtain for cracks and traces of scrapes or shavings in the guides  |                            |  |
| Check connection of door curtain at the top roll and at the bottom profile  | 6 months or 50,000 cycles  |  |
| Check winding performance of door curtain and ropes/belts   |                            |  |
| Bottom profile  |                            |  |
| Check condition of the safety edge and the cable  |                            |  |
| Check battery level in wireless transmitter (should be 3.6V)  | 6 months or E0 000 system  |  |
| Check the condition and function of the crash system  | 6 months or 50,000 cycles  |  |
| Check opening and closing position of the bottom profile  |                            |  |
| Side Frame  |                            |  |
| Check mounting hardware and condition of the profiles with attachments  | annually                   |  |
| Remove dirt from the photocell optics   | clean if necessary         |  |
| Check condition and installation of the springs and the spring mounting, if applicable check for easy movement of the axial bearing | 6 months or 50,000 cycles  |  |
| Check for wear & tear on guiding rails  | annually                   |  |
| Control box and additional attachments (e.g. impulse activator)   |                            |  |
| Check for full number/completeness of circuit   |                            |  |
| Check main switch and control box lock  |                            |  |
| Inspect for presence of water or moisture inside control cabinet  | annually                   |  |
| Check mounting hardware   |                            |  |
| Electrical components   |                            |  |
| Visual inspection for mechanical damage   |                            |  |
| Check function of safety edge, photocell, additional safeties and actuators   | 6 months or E0 000 avalage |  |
| Check activation devices for mechanical damage and ensure they function properly  | 6 months or 50,000 cycles  |  |



## **Adjustments for Chain Drive Doors**

#### **Drive Chain Tension Adjustment**

The drive chain tension is preset from the factory. This setting should be checked after the door is cycled a few times. The drive chain is to be tensioned so the deflection of the slack side of the chain is equal to 2% of the distance between the shafts, or about 3/8" (9.5 mm).



If the Chain tension needs to be adjusted, loosen the (4) bolts that attach the operator to the header assembly.

Using the threaded adjustment bolts located on the bottom of the attachment bracket, either raise or lower the operator to achieve the proper tension.

Retighten the (4) bolts that attach the operator to the header assembly when finished.

#### **Installing the Inertia Brake**

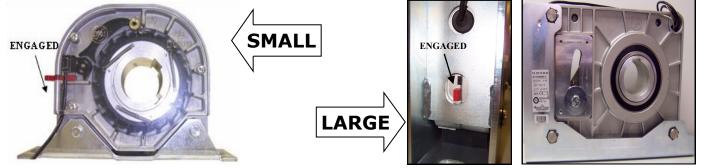
A safety inertia brake is supplied on all chain drive doors. This device engages and locks the top drum from turning if the maximum operation speed is exceeded.

The brake must be installed on the bracket on the non-drive side of the header assembly after the phase rotation has been verified. This must be installed with the correct rotation direction. Installing backwards can cause the brake to engage.

# CAUTION

The smaller inertia brake shown below on the left is a onetime use only device. If it has been engaged it must be replaced (P/N 6622T001).

The larger inertia brake shown below to the right might be reset dependent upon how hard of an activation has taken place. If this brake has been engaged, consult the following instructions to properly inspect, repair or replace this brake. Repair parts may be required.





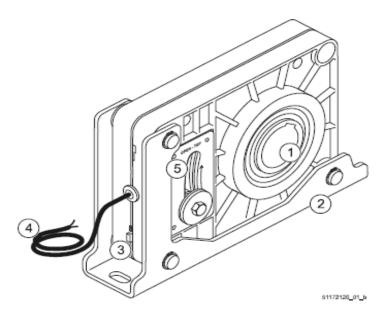
### **Inertia Brake Reset Procedure**







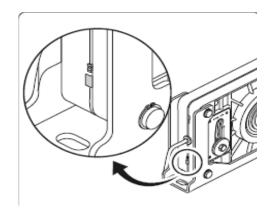
Lock-Out Tag-out all electrical power supplied to the door before making any electrical installations or connections. Also Lock-out Tag-out any equipment near the installation site if that equipment may be inadvertently operated into the area used to assemble and install the door. Failure to properly de-energize electrical circuits and disable equipment during maintenance could result in serious injury or death.



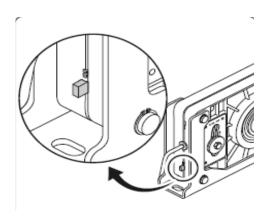
- 1 Hollow shaft
- 2 Floating foot
- 3 Button (Plunger)
- 4 Safety switch/cable
- 5 Damping element(plate)

In the event that the resettable inertia brake becomes engaged, it locks the drum shaft and must be reset before normal door operation can continue. Conditions that caused the inertia brake to engage must first be understood and rectified as additional components may need to be replaced or adjusted.

An engaged inertia brake is indicated by the protrusion of the red indicator tab shown in the image below to the right.



NORMAL POSITION

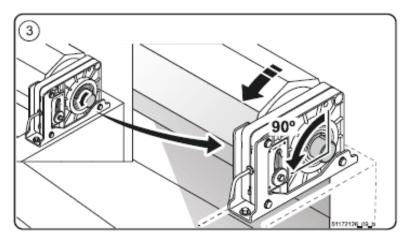


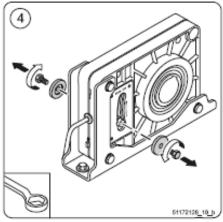
**ENGAGED BRAKE** 

# ASSA ABLOY

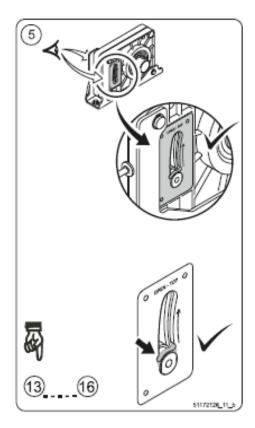
If the brake is engaged, the magnitude of engagement must be determined in order to proceed with the proper reset procedure sequence.

First rotate the drum approximately 90degrees in the direction that lifts the door curtain upward. This may be accomplished using the manual chain hoist connected to the drive unit. Then once in this position, remove the two M10 bolts and clamping spacers shown being removed in the image below.

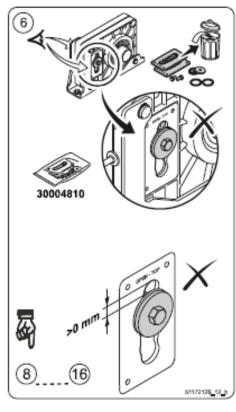




Next, use the following diagrams to determine the proper course of action.

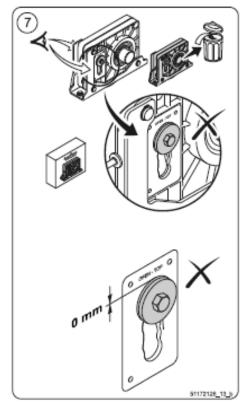


Damping Elements OK Safety Brake OK **Proceed to Step #13** 

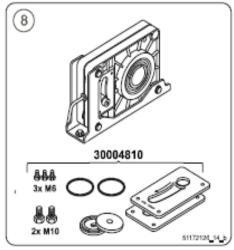


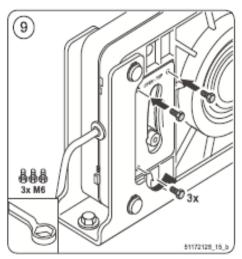
Damping Elements Damaged Safety Brake OK

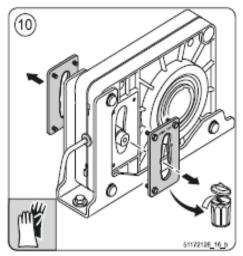
**Proceed to Step #8** 

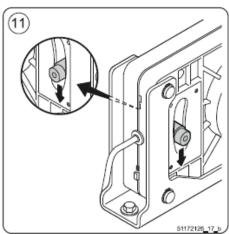


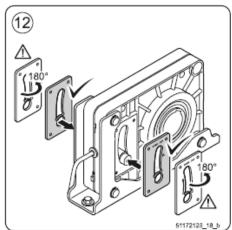
Damping Elements Damaged Safety Brake Damaged Replace Entire Safety Brake

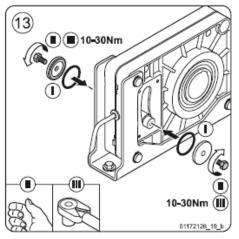








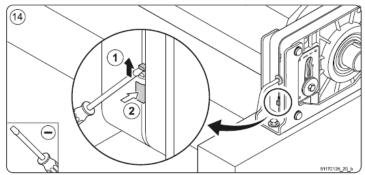


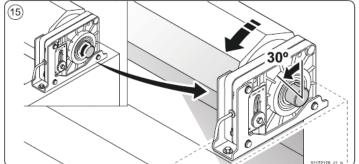


The picture to the right shows all the parts that are included in the dampening plate repair kit (order P/N 6622T0023). Situation (6) shown on the previous page would be the only time that a repair kit would be needed.



Finally, when all component replacements and adjustments have been made, reset the inertia safety brake indicator in accordance with steps (14) and (15) as follows.



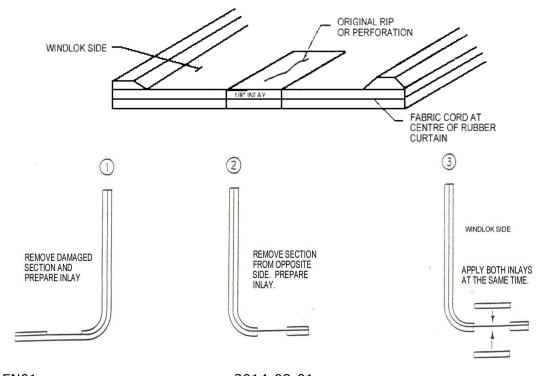




## **Curtain Repair**

In order to work on the ripped or perforated area, the curtain must be taken out of the guides and lowered to the floor. Then, either work on an area supported by the floor or alternatively, a solid, level surface provided by a heavy table, for example.

- 1) Using a utility knife, set it to a depth that will penetrate the rubber down to the nylon cord center of the curtain and cut a rectangular section approximately 2" wider than the sides of the rip or perforation. Be careful not to cut the nylon cord itself.
- 2) Using a screwdriver and pliers and starting at one corner of the cut, peel the surface from the nylon cord center within the perimeter of the cut.
- 3) Using coarse sandpaper or a wire brush, remove loose rubber particles from the nylon cord center; however, it is not necessary to have the fabric 100% bare.
- 4) Flip the curtain over to the other side of the rip or perforation and repeat steps 1-3
- 5) From the  $^{1}/_{8}$ " thick piece of repair rubber, cut some pieces to inlay into the prepared areas. Using a grinder with a sanding disc or a wire brush, roughen-up the inlay surfaces for bonding.
- 6) Mix the adhesive as per the manufacturer's instructions and apply a liberal coating to the nylon cord fabric and the rough surfaces of the inlay rubber segments. Allow pieces to dry to the touch (about 15 to 20 minutes) and apply a second coating. Allow to set until tacky. Place the inlay segments into position and, using a rubber or rawhide mallet and a steel buckler, impact the entire area of the patch repeatedly. A high degree of impact ensures proper adhesion. Clamping is not acceptable. Allow the cement to fully cure for 24hrs before moving the curtain.
- 7) Finally, raise the curtain to an open position, reassemble the guides, and resume normal operation.



## **Curtain Cleaning**

# **A** WARNING



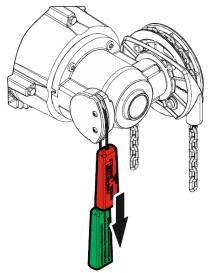
Lock-Out Tag-out all electrical power supplied to the door before cleaning the door curtain. Also Lock-out Tag-out any equipment near the installation site if that equipment may be inadvertently operated into the area used to clean the door. Failure to properly de-energize electrical circuits and disable equipment during cleaning and/or maintenance could result in death or serious injury.

- DO NOT EVER USE PETROLUM BASED PRODUCTS ON THE CURTAIN, IF DONE THIS VOIDS ALL WARRANTY ON THE CURTAIN MATERIAL.
- Clean curtain with a citrus based cleaner or a cleaner specifically designed for cleaning SBR / EPDM rubber materials. All cleaners are to be petroleum free and non-caustic.
- Dust may be removed with a cloth. Harder dirt may be removed with water. Dirt, grease, or oil on metal may be removed with a citrus cleaner.

## **Manual Hoist Usage**

#### **Manual Hoist Engagement**

A manual hand chain is provided to move the door without power. Lightly pull the red handle of the hoist disengagement until it stops. The control circuit is now interrupted and the door can be opened or closed with the hand chain only.



#### Manual Hoist Disengagement

By lightly pulling the green handle until it stops, the control circuit is re-made and the door is electrically operational and the hoist is disengaged from the drive.



### **Electrical Adjustments**







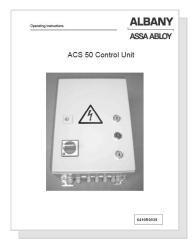
Lock-Out Tag-out all electrical power supplied to the door before making any electrical installations or connections. Also Lock-out Tag-out any equipment near the installation site if that equipment may be inadvertently operated into the area used to assemble and install the door. Failure to properly de-energize electrical circuits and disable equipment during installation and/or maintenance could result in death or serious injury.



A qualified electrician must make all electrical mountings and connections in accordance with all applicable regulating authority electrical codes and standards.

Consult the control system manual supplied with the door for additional specifications and detailed instructions for installation and troubleshooting. A full set of electrical schematics are supplied with each door as well. These will either be located inside the control system enclosure, or included packaged with the product manuals. Standard products will utilize one of the two systems shown below.

#### **Albany ACS50 Controller**

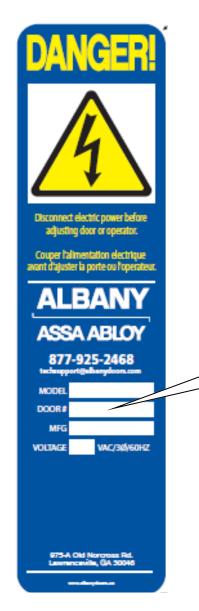


### Albany MCC Controller



## **Technical Support Contact Information**





The door serial number is always required when calling in for technical support assistance. Please write this number below for convenient future reference.

DOOR#:

### For more information, please contact ASSA ABLOY Entrance Systems:

Albany Sales Support <a href="mailto:sales.us.albany@assaabloy.com">sales.us.albany@assaabloy.com</a>
Toll free: (800) ALBANY1 \*press 3

Albany Technical Support <a href="mailto:techsupport.us.albany@assaabloy.com">techsupport.us.albany@assaabloy.com</a>
Toll free: (800) ALBANY1 \*press 1

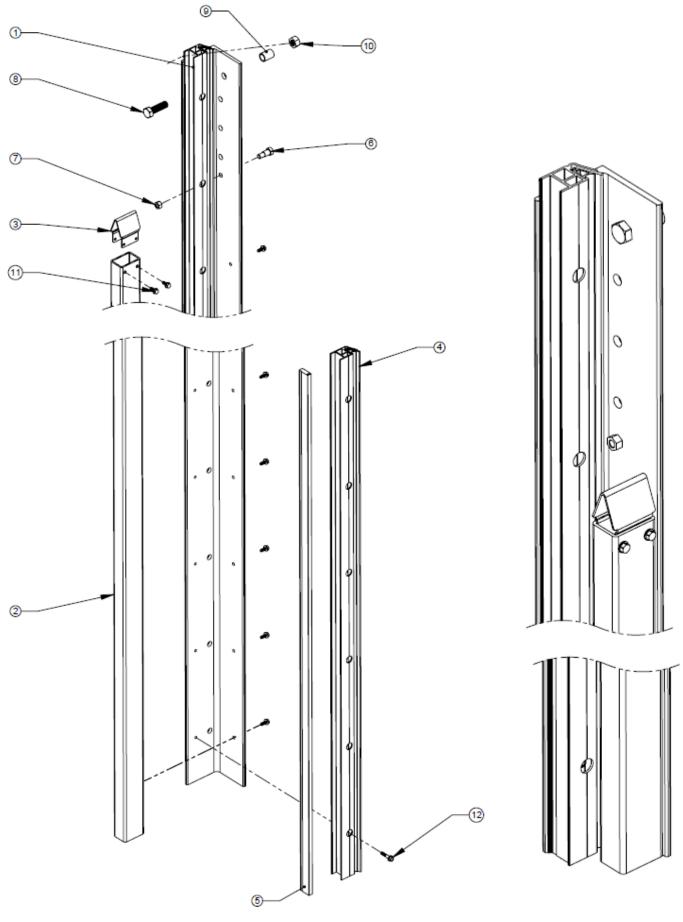




# **Parts List - Right Side Frame Assembly**

| Item | Qty    | Part No.    | Description  |
|------|--------|-------------|--|
| 1    | 1      | 4502T0014   | Angle 5" x 5" x .375" Side Frame Right   |
| 2    | 1      | 4511T0016   | Tube 2" x 3" x .188" Side Frame Right  |
| 3    | 1      | 4521T0687   | Bracket Door Panel Lead-In   |
| 4    | varies | 8120T0039   | Rubber Panel Retainer Assembly 4ft   |
| 4    | varies | 8120T0040   | Rubber Panel Retainer Assembly 6ft   |
| 5    | 1      | 4904R0577   | Light Curtain SG-14 D-profile Transmitter  |
| 6    | 1      | 5499T0015   | 1/2-13 X .75 G8 SHOULDER SCREW   |
| 7    | 1      | 5407T0019   | 1/2-13 G8 FLANGE LOCKNUT   |
| 8    | 1      | 5402T0027   | 3/4-16 X 2.50 G8 HEX HEAD BOLT   |
| 9    | 1      | 5499T0012   | SPACER, END PLATE HOOK   |
| 10   | 1      | 5407T0020   | 3/4-16 G8 SERRATED FLANGE LOCKNUT  |
| 11   | varies | 5402T0028   | 5/16-18 X .75 G8 HEX FLANGED THREAD FORMING SCREW, ZINC PLATED                                     |
| 12   | varies | 5402T0029   | 5/16-18 X 1.50 G8 HEX FLANGED THREAD FORMING SCREW, ZINC PLATED                                    |
| 13   | 1      | 23-8003-00  | PHOTOCELL GUARD, YELLOW P.C. (not shown)   |
| 14   | 1      | 230031-4000 | BRACKET, PHOTOCELL (not shown)   |
| 15   | 1      | 4521T0260   | SPACER, PHOTOCELL (not shown)  |
| 16   | 1*     | 8904R0002   | Photocell Set, Thru Beam (Sender & Receiver) (*set for both left and right side frames; not shown) |

**NOTE:** Quantities marked "varies" are dependent on the specific door configuration. Please contact ASSA ABLOY Entrance systems prepared with the door serial number available for more information.

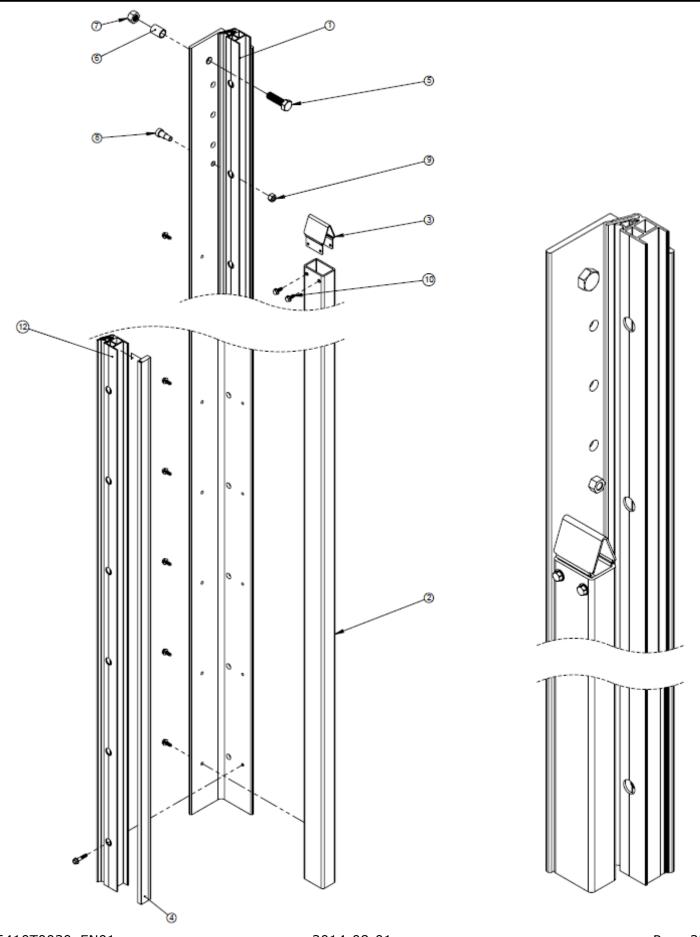




# **Parts List - Left Side Frame Assembly**

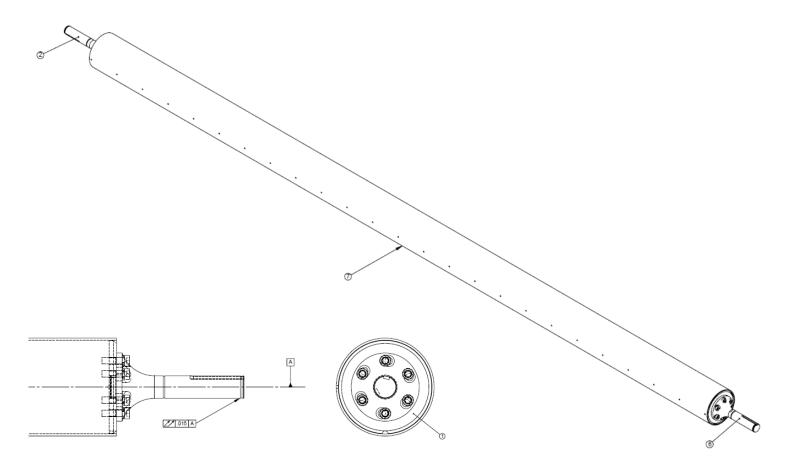
| Item | Qty    | Part No.    | Description  |
|------|--------|-------------|--|
| 1    | 1      | 4502T0013   | Angle 5" x 5" x .375" Side Frame Left  |
| 2    | 1      | 4511T0014   | Tube 2" x 3" x .188" Side Frame Left   |
| 3    | 1      | 4521T0687   | Bracket Door Panel Lead-In   |
| 4    | varies | 8120T0039   | Rubber Panel Retainer Assembly 4ft   |
| 4    | varies | 8120T0040   | Rubber Panel Retainer Assembly 6ft   |
| 5    | 1      | 4904R0578   | Light Curtain SG-14 D-profile Receiver   |
| 6    | 1      | 5499T0015   | 1/2-13 X .75 G8 SHOULDER SCREW   |
| 7    | 1      | 5407T0019   | 1/2-13 G8 FLANGE LOCKNUT   |
| 8    | 1      | 5402T0027   | 3/4-16 X 2.50 G8 HEX HEAD BOLT   |
| 9    | 1      | 5499T0012   | SPACER, END PLATE HOOK   |
| 10   | 1      | 5407T0020   | 3/4-16 G8 SERRATED FLANGE LOCKNUT  |
| 11   | varies | 5402T0028   | 5/16-18 X .75 G8 HEX FLANGED THREAD FORMING SCREW, ZINC PLATED                                     |
| 12   | varies | 5402T0029   | 5/16-18 X 1.50 G8 HEX FLANGED THREAD FORMING SCREW, ZINC PLATED                                    |
| 13   | 1      | 23-8003-00  | PHOTOCELL GUARD, YELLOW P.C. (not shown)   |
| 14   | 1      | 230031-4000 | BRACKET, PHOTOCELL (not shown)   |
| 15   | 1      | 4521T0260   | SPACER, PHOTOCELL (not shown)  |
| 16   | 1*     | 8904R0002   | Photocell Set, Thru Beam (Sender & Receiver) (*set for both left and right side frames; not shown) |

**NOTE:** Quantities marked "varies" are dependent on the specific door configuration. Please contact ASSA ABLOY Entrance systems prepared with the door serial number available for more information.





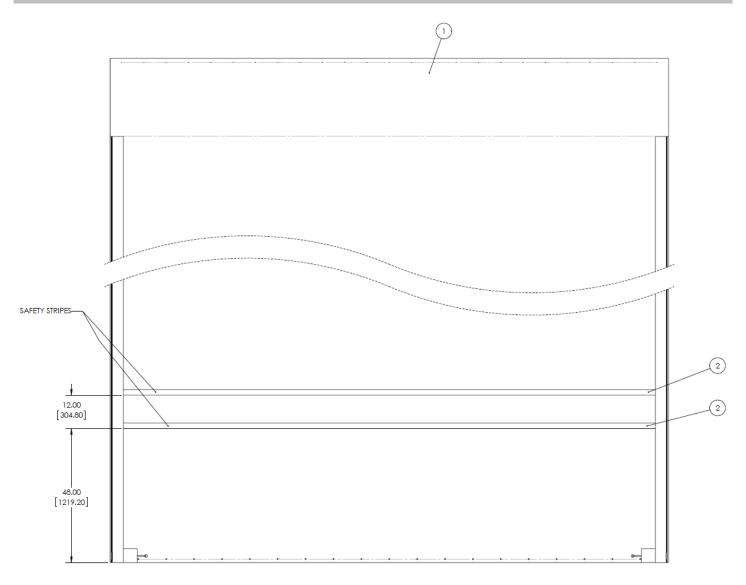
# **Parts List - Drum Tube Assembly**



| Item | Qty    | Part No.  | Description                     |
|------|--------|-----------|---------------------------------|
| 1    | 2      | 4521T0006 | END BOSS, DRIVE BARREL          |
| 2    | varies | 4521T0005 | STUB AXLE, DRIVE, 2.0"          |
| 4    | 12     | 5403T0002 | SCREW, SHC, 5/8" X 2" , GRADE 5 |
| 5    | 12     | 5408T0016 | LOCK WASHER                     |
| 6    | varies | 4521T0241 | STUB AXLE, 2.0"                 |
| 7    | 1      | 4512T0012 | 8.63 X .18 WALL DOOR PANEL DRUM |

**NOTE:** Quantities marked "varies" are dependent on the specific door configuration. Please contact ASSA ABLOY Entrance systems prepared with the door serial number available for more information.

# **Parts List - Curtain Assembly**



| Item | Qty    | Part No.  | Description   |
|------|--------|-----------|---|
| 1    | 1      | 8230TG029 | Curtain Rubber RR1000 Assembly                      |
| 2    | varies | 8230TG031 | Curtain Rubber RR1000 Safety Stripe Assembly Detail |
| 3    | varies | 8230TG030 | Curtain Rubber RR1000 Window Assembly Detail        |

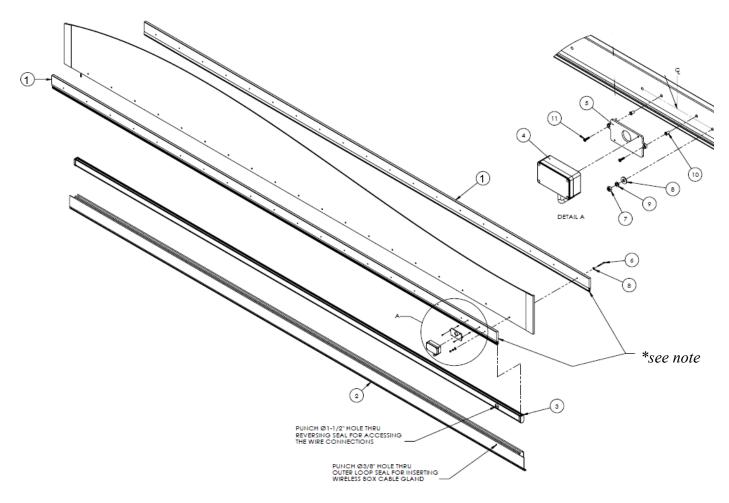
**NOTE:** Quantities marked "varies" are dependent on the specific door configuration. Please contact ASSA ABLOY Entrance systems prepared with the door serial number available for more information.



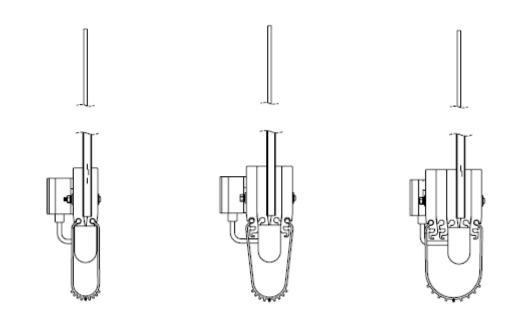
# **Parts List - Bottom Beam Assembly**

| Item | Qty    | Part No.  | Description  |
|------|--------|-----------|--|
| 1    |        | 4121T0040 | Pultrusion Fiberglass Bottom Beam 202in              |
| 1    | varies | 4121T0041 | Pultrusion Fiberglass Bottom Beam 342in              |
| 2    | 1      | 4421T0013 | Bottom Loop Seal Notched                             |
| 3    | 1      | 8550TG002 | Reversing Edge Assembly RR1000 GE F65                |
| 4    | 1      | 4904R0554 | Wireless Safety Receiver 2.4GHz 2-Channel, FCC Cert. |
| 5    | 1      | 4521T0489 | Wireless Mounting Bracket SS                         |
| 6    | varies | varies    | 1/4"-20 X 2.25 SOCKET HEAD PAN HEAD SCREW            |
| 7    | varies | varies    | 1/4"-20 HEX NUT                                      |
| 8    | varies | 5408T0008 | 1/4" STANDARD WASHER                                 |
| 9    | varies | 5408T0009 | 1/4" STANDARD LOCK WASHER                            |
| 10   | 2      | 5413T0012 | 8-32 RIVET NUT Zn                                    |
| 11   | 2      | 5404T0005 | 8-32 X 5/8" FLAT HEAD PH SCREW SS                    |

**NOTE:** Quantities marked "varies" are dependent on the specific door configuration. Please contact ASSA ABLOY Entrance systems prepared with the door serial number available for more information.



\*Quantity and arrangement of fiberglass pultrusions is dependent on door width.

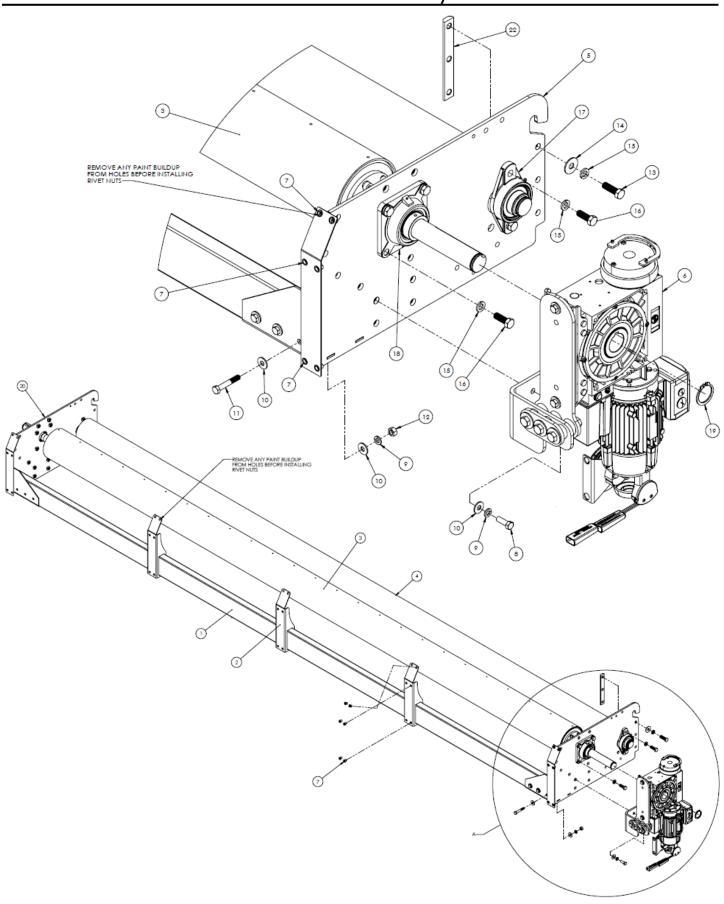




# Parts List - Header Assembly (direct drive)

| Item | Qty    | Part No.  | Description  |
|------|--------|-----------|--|
| 1    | 1      | 4511T0017 | Tube 6" x 2" Header                                |
| 2    | varies | 4521T0681 | Bracket Midspan Front Fascia Mount                 |
| 3    | 1      | 9140T0046 | Drum Tube Assembly 8.625"                          |
| 4    | 1      | 4521TG146 | Idler Barrel 2.00" Shaft - 6.625" OD - 0.125" Wall |
| 4    | 1      | 4521TG145 | Idler Barrel 2.00" Shaft - 6.625" OD - 0.25" Wall  |
| 5    | 1      | 4521T0678 | End Plate Weld Assembly Right                      |
| 6    | varies | varies    | Drive Unit   |
| 7    | varies | 5413T0013 | RIVET NUT 5/16-18 X 0.690" STEEL ZINC PLATED       |
| 8    | 4      | 5402T0005 | .50-13 X 1.50 HEX HEAD BOLT                        |
| 9    | 10     | 5408T0014 | .50 LOCK WASHER                                    |
| 10   | 16     | 5408T0015 | .50 STD WASHER                                     |
| 11   | 6      | 5402T0030 | .50-13 X 3.00 HEX HEAD BOLT                        |
| 12   | 6      | 5407T0010 | .50-13 HEX NUT                                     |
| 13   | 6      | 5402T0004 | .63-11 X 2.00 HEX HEAD BOLT                        |
| 14   | 24     | 5408T0012 | .63 STD WASHER                                     |
| 15   | 18     | 5408T0013 | .63 LOCK WASHER                                    |
| 16   | 16     | 5402T0033 | .63-11 X 1.75 HEX HEAD BOLT                        |
| 17   | 2      | 5103T0004 | BEARING FLANGED, 2" BORE, 2 BOLT                   |
| 18   | 2      | 5103T0001 | BEARING FLANGED, 2" BORE, 4 BOLT                   |
| 19   | 3      | 5413T0001 | RETAINING RING EXTERNAL 2"                         |
| 20   | 1      | 4521T0679 | End Plate Weld Assembly Left                       |
| 21   | 1      | 5409T0008 | KEY, 1/2" X 1/2" X 4" UNDERSIZED                   |
| 22   | 2      | 4521T0991 | BACK PLATE - END PLATE MOUNT                       |

**NOTE:** Quantities marked "varies" are dependent on the specific door configuration. Please contact ASSA ABLOY Entrance systems prepared with the door serial number available for more information.





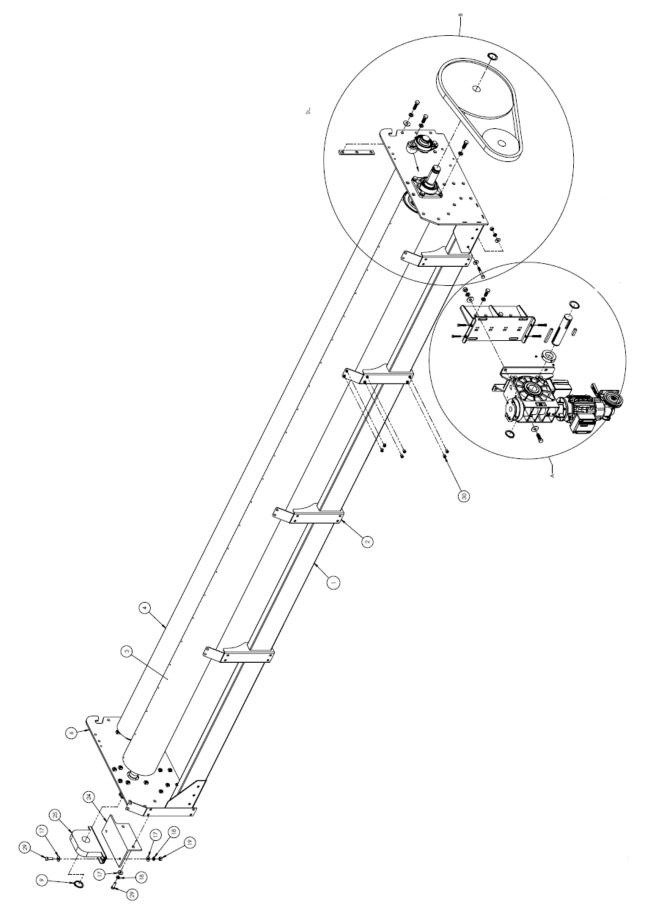
# **Parts List - Header Assembly (chain drive)**

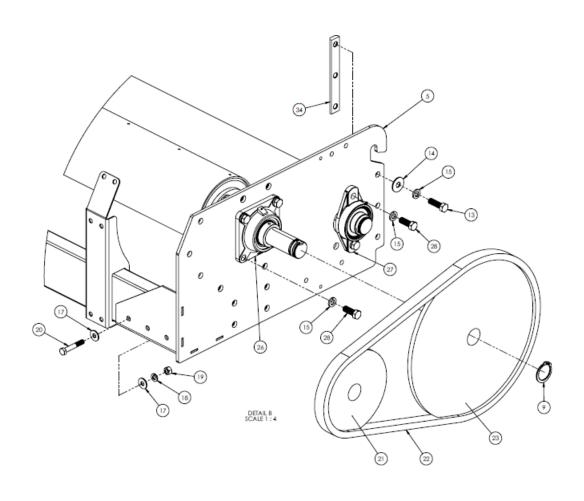
| Item | Qty    | Part No.  | Description  |
|------|--------|-----------|--|
| 1    | 1      | 4511T0017 | Tube 6" x 2" Header                                |
| 2    | varies | 4521T0681 | Bracket Midspan Front Fascia Mount                 |
| 3    | 1      | 9140T0046 | Drum Tube Assembly 8.625"                          |
| 4    | 1      | 4521TG146 | Idler Barrel 2.00" Shaft - 6.625" OD - 0.125" Wall |
| 4    | 1      | 4521TG145 | Idler Barrel 2.00" Shaft - 6.625" OD - 0.25" Wall  |
| 5    | 1      | 4521T0975 | End Plate Weld Assembly Chain Drive Right          |
| 3    | 1      | 4521T0976 | End Plate Weld Assembly Chain Drive Left           |
| 6    | 1      | 4521T0678 | End Plate Weld Assembly Right                      |
| 0    | 1      | 4521T0679 | End Plate Weld Assembly Left                       |
| 7    | varies | varies    | Drive Unit   |
| 8    | 1      | 4521T0987 | Chain Drive Gearmotor Input Shaft 2"               |
| 9    | 4      | 5413T0001 | Retaining Ring External 2"                         |
| 10   | 2      | 5409T0008 | KEY 1/2" X 1/2" X 4" UNDERSIZED                    |
| 11   | 1      | 5409T0002 | KEY 1/2" X 1/2" X 2" UNDERSIZED                    |
| 12   | 2      | 4521T0898 | Bracket Chain Drive Mount Half                     |
| 13   | 6      | 5402T0004 | .63-11 X 2.00 HEX HEAD BOLT                        |
| 14   | 15     | 5408T0012 | .63 STD WASHER                                     |
| 15   | 22     | 5408T0013 | .63 LOCK WASHER                                    |
| 16   | 4      | 5411T0009 | 63-11 HEX NUT                                      |
| 17   | 18     | 5408T0015 | .50 STD WASHER                                     |
| 18   | 10     | 5408T0014 | .50 LOCK WASHER                                    |
| 19   | 6      | 5407T0010 | .50-13 HEX NUT                                     |
| 20   | 6      | 5402T0030 | .50-13 X 3.00 HEX HEAD BOLT                        |
| 21   | 1      | 5101T0056 | SPROCKET SINGLE 80B30 2" BORE                      |
| 22   | varies | 5101T0013 | CHAIN #80 SINGLE                                   |

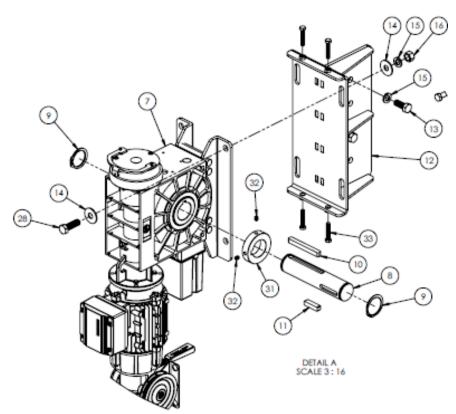
**NOTE:** Quantities marked "varies" are dependent on the specific door configuration. Please contact ASSA ABLOY Entrance systems prepared with the door serial number available for more information.

| Item | Qty    | Part No.  | Description                                  |
|------|--------|-----------|--|
| 23   | 1      | 5101T0057 | SPROCKET SINGLE 80B60 2" BORE                |
| 23   | 1      | 5101T0056 | SPROCKET SINGLE 80B30 2" BORE                |
| 24   | 1      | varies    | SAFETY BRAKE BRACKET                         |
| 25   | 1      | 6622T0001 | BRAKE SAFETY                                 |
| 26   | 2      | 5103T0001 | BEARING FLANGED, 2" BORE, 4 BOLT             |
| 27   | 2      | 5103T0004 | BEARING FLANGED, 2" BORE, 2 BOLT             |
| 28   | 4      | 5402T0005 | .50-13 X 1.50 HEX HEAD BOLT                  |
| 29   | 16     | 5402T0033 | .63-11 X 1.75 HEX HEAD BOLT                  |
| 30   | varies | 5413T0013 | RIVET NUT 5/16-18 X 0.690" STEEL ZINC PLATED |
| 31   | 1      | 4521T0992 | COLLAR INPUT SHAFT 2"                        |
| 32   | 1      | 5105T0017 | CONNECTING LINK ANSI #80 CHAIN               |
| 33   | 4      | 5402T0032 | 3/8-16 X 2" HEX HEAD BOLT                    |
| 34   | 2      | 4521T0991 | BACK PLATE - END PLATE MOUNT                 |







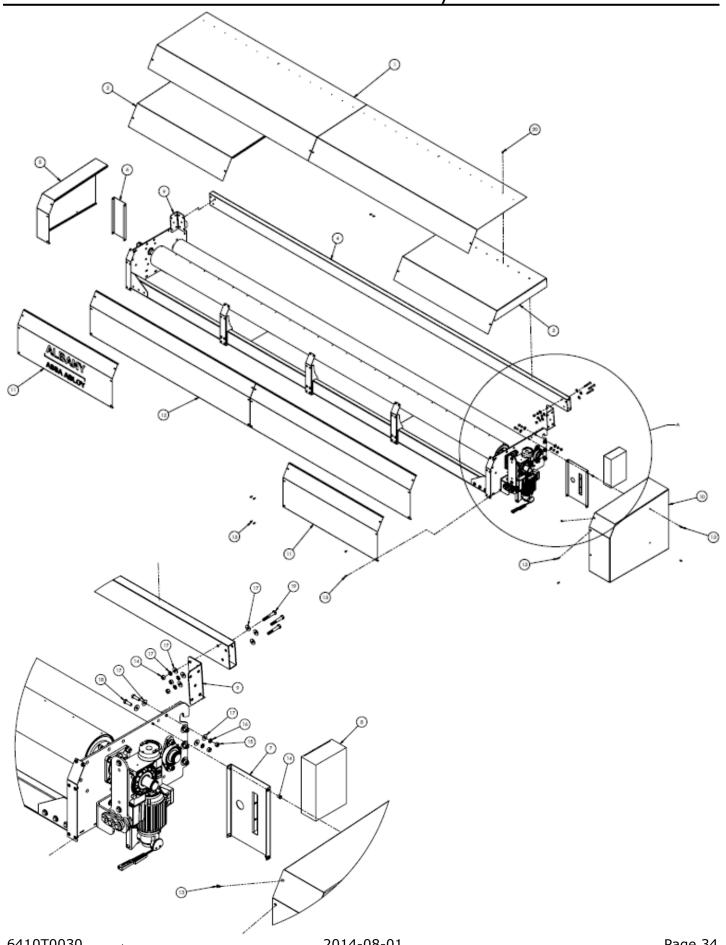




# Parts List - Top Roll & Motor Covers (direct drive)

| Item | Qty    | Part No.  | Description   |
|------|--------|-----------|---|
| 1    | varies | 4521T0685 | TOP HOOD SECTION CENTER 90"                                 |
| 2    | 1      | 4521T0698 | TOP HOOD SECTION LEFT                                       |
| 3    | 1      | 4521T0699 | TOP HOOD SECTION RIGHT                                      |
| 4    | 1      | 4521T0701 | TUBE REAR HOOD SUPPORT 2" X 6"                              |
| 5    | 1      | 4521T0684 | COVER NON GEAR MOTOR LH                                     |
| 3    | 1      | 4521T0693 | COVER NON GEAR MOTOR RH                                     |
| 6    | 1      | 4521T0691 | BRACKET BEARING COVER SUPPORT                               |
| 7    | 1      | 4521T0690 | BRACKET GEAR MOTOR COVER                                    |
| 9    | 2      | 4521T0700 | BRACKET REAR HOOD SUPPORT TUBE                              |
| 10   | 1      | 4521T0683 | MOTOR COVER RIGHT   |
| 10   | 1      | 4521T0692 | MOTOR COVER LEFT  |
| 11   | 2      | 4521T0696 | FRONT FASCIA SECTION END                                    |
| 12   | varies | 4521T0682 | FRONT FASCIA SECTION CENTER 90"                             |
| 13   | varies | 5403T0013 | .312 -18 x .75 BUTTON HEAD SOCKET<br>CAP SCREW, BLACK OXIDE |
| 14   | varies | 5413T0013 | .312 -18 x .690 STEEL RIVET NUT                             |
| 15   | 10     | 5407T0010 | .50-13 HEX NUT  |
| 16   | 10     | 5408T0014 | .50 STD LOCK WASHER   |
| 17   | 20     | 5408T0015 | .50 STD WASHER  |
| 18   | 4      | 5402T0005 | .50-13 X 1.50 HEX HEAD BOLT                                 |
| 19   | 6      | 5402T0030 | .50-13 X 3.00 HEX HEAD BOLT                                 |
| 20   | varies | varies    | .25-14 x .75 SELF DRILLING SCREW                            |

**NOTE:** Quantities marked "varies" are dependent on the specific door configuration. Please contact ASSA ABLOY Entrance systems prepared with the door serial number available for more information.



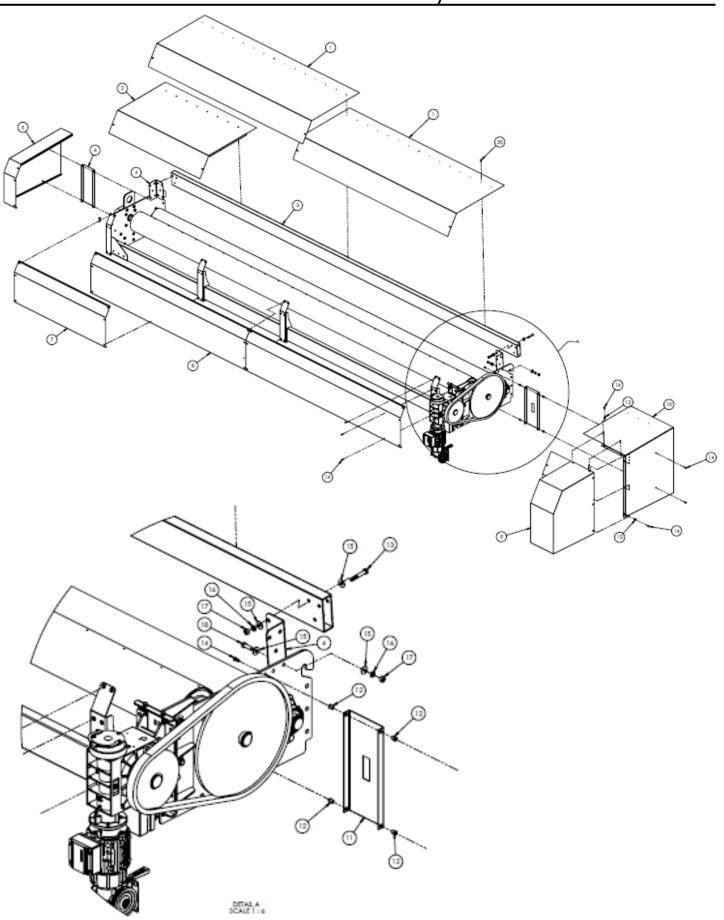
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# Parts List - Top Roll & Motor Covers (chain drive)

| Item | Qty    | Part No.  | Description   |
|------|--------|-----------|---|
| 1    | varies | 4521T0685 | TOP HOOD SECTION CENTER 90"                                 |
| 2    | 1      | 4521T0698 | TOP HOOD SECTION END (with logo)                            |
| 3    | 1      | 4521T0701 | TUBE REAR HOOD SUPPORT 2" X 6"                              |
| 4    | 2      | 4521T0700 | BRACKET REAR HOOD SUPPORT TUBE                              |
| 5    | 1      | 4521T0684 | COVER NON GEAR MOTOR LH                                     |
|      |        | 4521T0693 | COVER NON GEAR MOTOR RH                                     |
| 6    | 1      | 4521T0691 | BRACKET BEARING COVER SUPPORT                               |
| 7    | 1      | 4521T0696 | FRONT FASCIA SECTION  |
| 8    | varies | 4521T0682 | FRONT FASCIA SECTION CENTER 90"                             |
| 9    | 1      | 4521T0980 | COVER CHAIN DRIVE FRONT RIGHT                               |
|      |        | 4521T0985 | COVER CHAIN DRIVE FRONT LEFT                                |
| 10   | 1      | 4521T0981 | COVER CHAIN DRIVE REAR RIGHT                                |
|      |        | 4521T0986 | COVER CHAIN DRIVE REAR LEFT                                 |
| 11   | 1      | 4521T0988 | BRACKET, GEAR MOTOR COVER CHAIN<br>DRIVE SIDE               |
| 12   | varies | 5413T0013 | .312 -18 x .690 STEEL RIVET NUT                             |
| 13   | varies | 5402T0030 | .50-13 X 3.00 HEX HEAD BOLT                                 |
| 14   | varies | 5403T0013 | .312 -18 x .75 BUTTON HEAD SOCKET<br>CAP SCREW, BLACK OXIDE |
| 15   | 20     | 5408T0015 | .50 STD WASHER  |
| 16   | 20     | 5408T0014 | .50 STD LOCK WASHER   |
| 17   | 10     | 5407T0010 | .50-13 HEX NUT  |
| 18   | 4      | 5402T0005 | .50-13 X 1.50 HEX HEAD BOLT                                 |

**NOTE:** Quantities marked "varies" are dependent on the specific door configuration. Please contact ASSA ABLOY Entrance systems prepared with the door serial number available for more information.



ASSA ABLOY Entrance Systems specializes as a leading supplier of automatic



entrance systems which ensure efficient flow of vehicles, goods and people.

With our global presence, comprehensive range of products and extensive service network we help customers to run their businesses reliably and securely over the long term.

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