

Stanley Access Technologies  
**Installation and Operating Manual**



**Double Diamond Sliding Door**  
**Installation Instructions**  
**Quick-Reference Guide**

**203973**

**Rev. R, 1/1/10**

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**Installation and Operating Manual**

TABLE OF CONTENTS

1. PURPOSE..... 2

1.1 Discussion..... 2

1.2 Applicability ..... 2

1.3 Features and Functions ..... 2

2. PREREQUISITES ..... 3

3. PRECAUTIONS..... 3

4. INSTALLATION INSTRUCTIONS ..... 4

4.1 Preinstallation Meeting..... 4

4.2 Checking the Rough Opening..... 4

4.3 Installing the Header..... 5

4.4 Mounting the Sensors ..... 9

4.5 Installing the Rotary Switch Box..... 12

4.6 Installing the Slow Panels..... 12

4.7 Installing the Fast Panels ..... 16

4.8 Installing the Floor-Mounted Guide ..... 18

4.9 Installing the Reversing Cable..... 20

4.10 Installing the E-Chain Brackets ..... 21

4.11 Installing and Adjusting the Motor Belt ..... 21

4.12 Installing the Weatherstripping..... 22

4.13 Installing the Keypad and Setting the Codes (U.S. Only) ..... 23

4.14 Programming the Handheld Remotes (U.S. Only) ..... 23

4.15 Wiring Part-Open and Full-Open Pushbuttons (Canada Only) ..... 23

4.16 Tune-In and Adjustment ..... 24

4.17 Closeout Procedure..... 25

4.18 Replacement Parts ..... 25

Attachments

Attachment 1, Documents, Definitions, Special Tools, Equipment, Materials, and Consumables ..... 26

Attachment 2, Masonry Opening ..... 27

Attachment 3, System Wiring Diagram (U.S.) ..... 28

Attachment 4, System Wiring Diagram (Canada) ..... 34

Attachment 5, Forklift Sensor Wiring Diagram..... 40

Attachment 6, Quick-Reference Guide ..... 41

Attachment 7, Replacement Parts ..... 42

Attachment 8, Wind Kit ..... 58

## 1. PURPOSE

### 1.1 **Discussion**

This manual provides installation instructions and a replacement parts listing for the Stanley Double Diamond automatic sliding door system. The Double Diamond is a heavy-duty telescoping sliding door package used in industrial and large retail-type operations. The unit is available in four-panel configurations in widths from 16 to 20 feet and heights from 10 to 12 feet. The synchronized doors can open wide to accommodate forklifts and other large equipment or open narrow to provide pedestrian passage.

### 1.2 **Applicability**

This manual is applicable to the Stanley Double Diamond automatic sliding door. Instructions for installing optional accessories such as key switches, door alarm contacts, push plates, and door position switches are provided in separate installation manuals. This manual does not cover components installed by other companies.

### 1.3 **Features and Functions**

1.3.1 The Double Diamond sliding door includes the following features and functions:

- Surface installation on the outside or inside of the building
- Heavy duty control and extra motor gearbox
- Friction rollers on the fast panel lead edges
- Acrylite scratch-resistant glazing material
- Wall-mounted keypad for entry
- Welded panels
- Eight-laminate hook lock and armored strike
- Bottom rail kick plates
- Energy-absorbing crash bars
- Rotary door operating switch
- SU-100 motion sensors (eight required—four on each side)
- Optex OA-203C infrared presence sensors (four required—two on each side)
- Two-button remote opening
- Falcon sensors (four required—two on each side)
- Doorway holding beams (two pairs required for slow panels—upper and lower)
- Wind kit

## 2. PREREQUISITES

- 2.1 Finished walls have been installed.
- 2.2 Protective barrier (caution/warning tape) has been set up to prevent unauthorized access to work area.
- 2.3 The packing list has been reviewed, and all required parts are included.
- 2.4 The area has been cleared of all obstructions.
- 2.5 The steel beam has been installed to accommodate mounting of the header.
- 2.6 Attachment 1 has been reviewed for the following:
  - Definitions of the terms used in this procedure
  - A listing of the documents, special tools and equipment, materials, and consumables used in this procedure.
- 2.7 Attachment 2 has been reviewed to ensure that there is adequate clearance for the following:
  - Opening the door fully.
  - Installing the header.

## 3. PRECAUTIONS

- 3.1 The header and door panels are very heavy. Extreme caution must be used during installation. Two technicians and a power manlift are required to install this door package.
- 3.2 A licensed electrician is required to install conduit and bring high- and low-voltage supply wiring from the header to the rotary switch box. Electrician is also responsible for grounding the rotary switch box and both sides of the header using the ground strap provided.
- 3.3 When testing or operating doors, make certain there are no obstructions in the path of the panels.

#### 4. INSTALLATION INSTRUCTIONS

##### 4.1 **Preinstallation Meeting**

4.1.1 CONSULT with the General Contractor or Building Superintendent on site regarding the following:

- VERIFY availability of electrician on the second day of installation.
- DISCUSS the scope of electrician's duties outlined in paragraph 3.2.
- DETERMINE the desired location for the rotary switch box.

##### 4.2 **Checking the Rough Opening**

4.2.1 SWEEP floor.

4.2.2 Using a surveyor's transit, PERFORM the following:

- a. CHECK the floor across the entire opening, and DETERMINE the highest and lowest points of the floor.
- b. CALCULATE the difference in height between the highest and lowest points of the floor.

#### **NOTE**

The door package will not operate properly if the difference in height between the highest and lowest points of the floor is *greater than*  $\frac{3}{8}$ ".

- c. IF the difference in height between the highest and lowest points of the floor is *greater than*  $\frac{3}{8}$ ", CONSULT with the Building Superintendent. This must be repaired before the start of the installation.

4.2.3 CHECK the opening width.

4.2.4 Refer to Attachment 2, and DETERMINE if the masonry opening will accommodate the door package.

### 4.3 Installing the Header

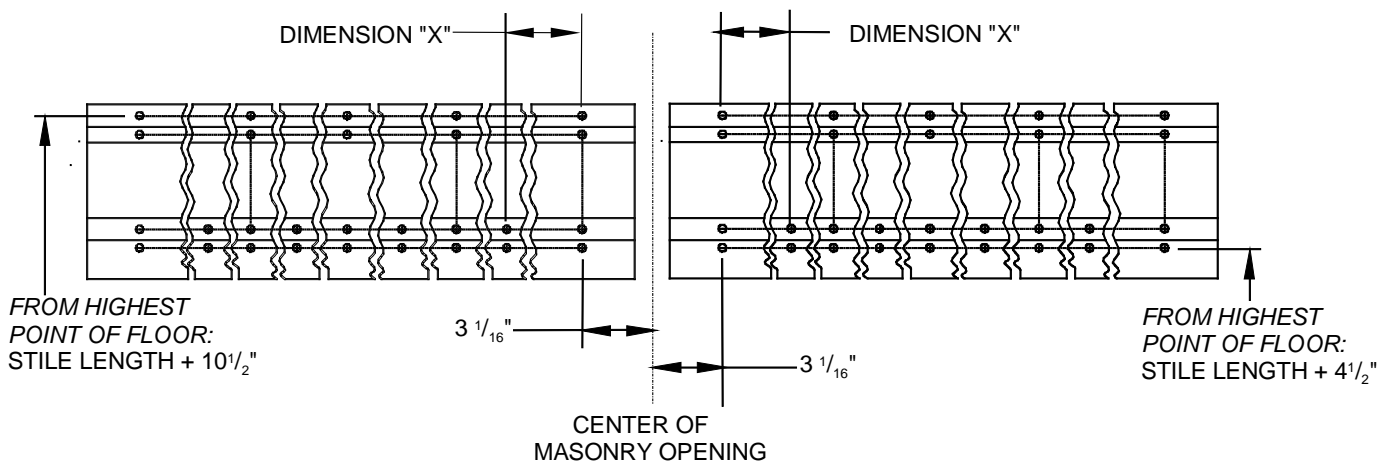
#### NOTE

The header mounting plate holes must be located from the *highest point* on the finished floor.

4.3.1 Refer to Figure 1 and Attachment 2, and, using door stile length and header mounting plate as a guide, DETERMINE header mounting plate hole locations on steel beam as follows:

- The location of the *lower* header mounting plate holes from the highest point of the floor is the door stile length plus  $4\frac{1}{2}$ ".
- The location of the *upper* header mounting plate holes from the highest point of the floor is the door stile length plus  $10\frac{1}{2}$ ".

**Figure 1. Hole Locations for the Header Mounting Plate**



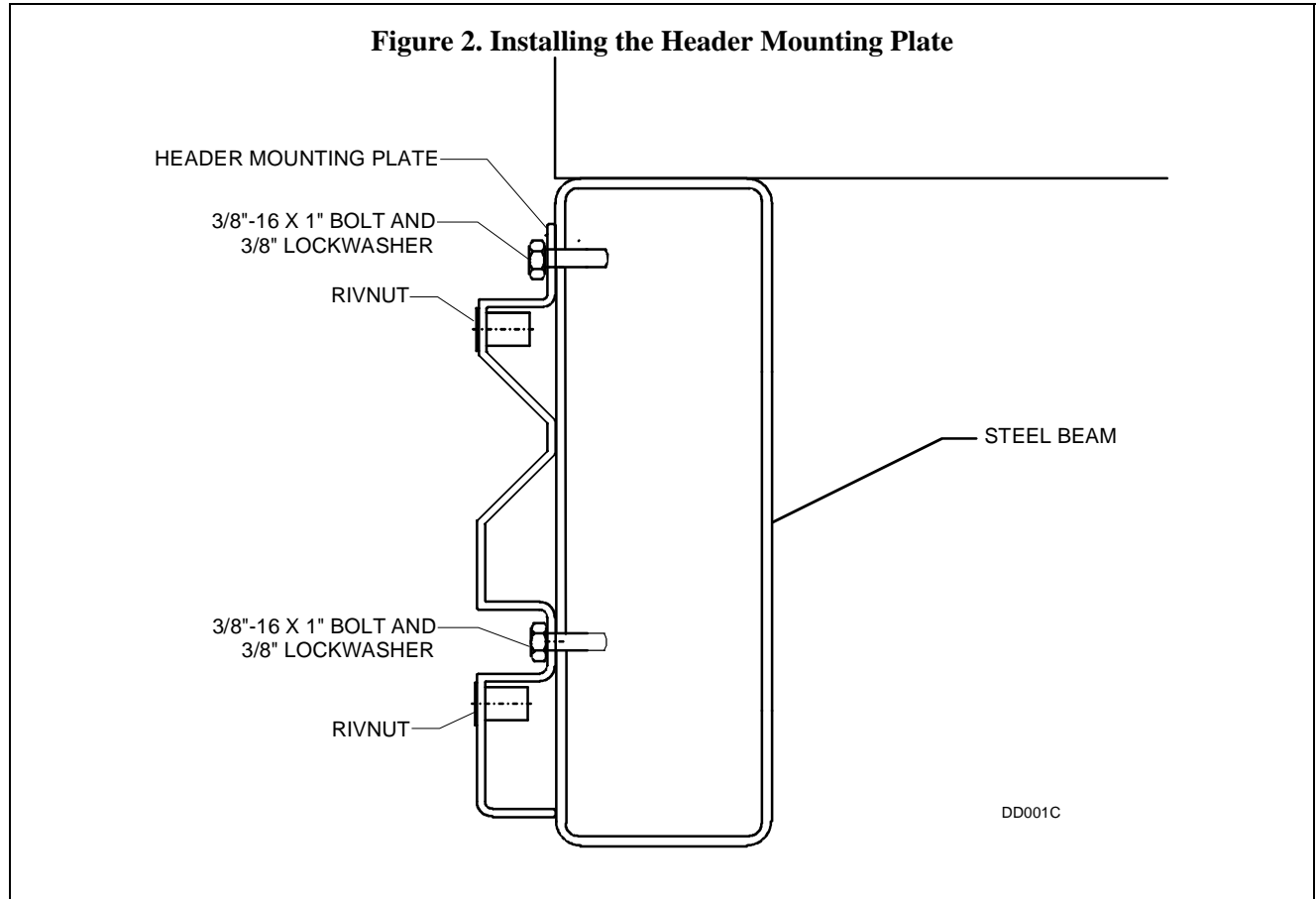
Dimension "X"	Masonry Opening (Feet)	Mounting Plate Length (Inches)	Hole Spacing (Inches)
	20	193.625	23.5
	19	184.625	22.375
	18	175.625	21.25
	17	166.625	20.125
	16	157.625	19

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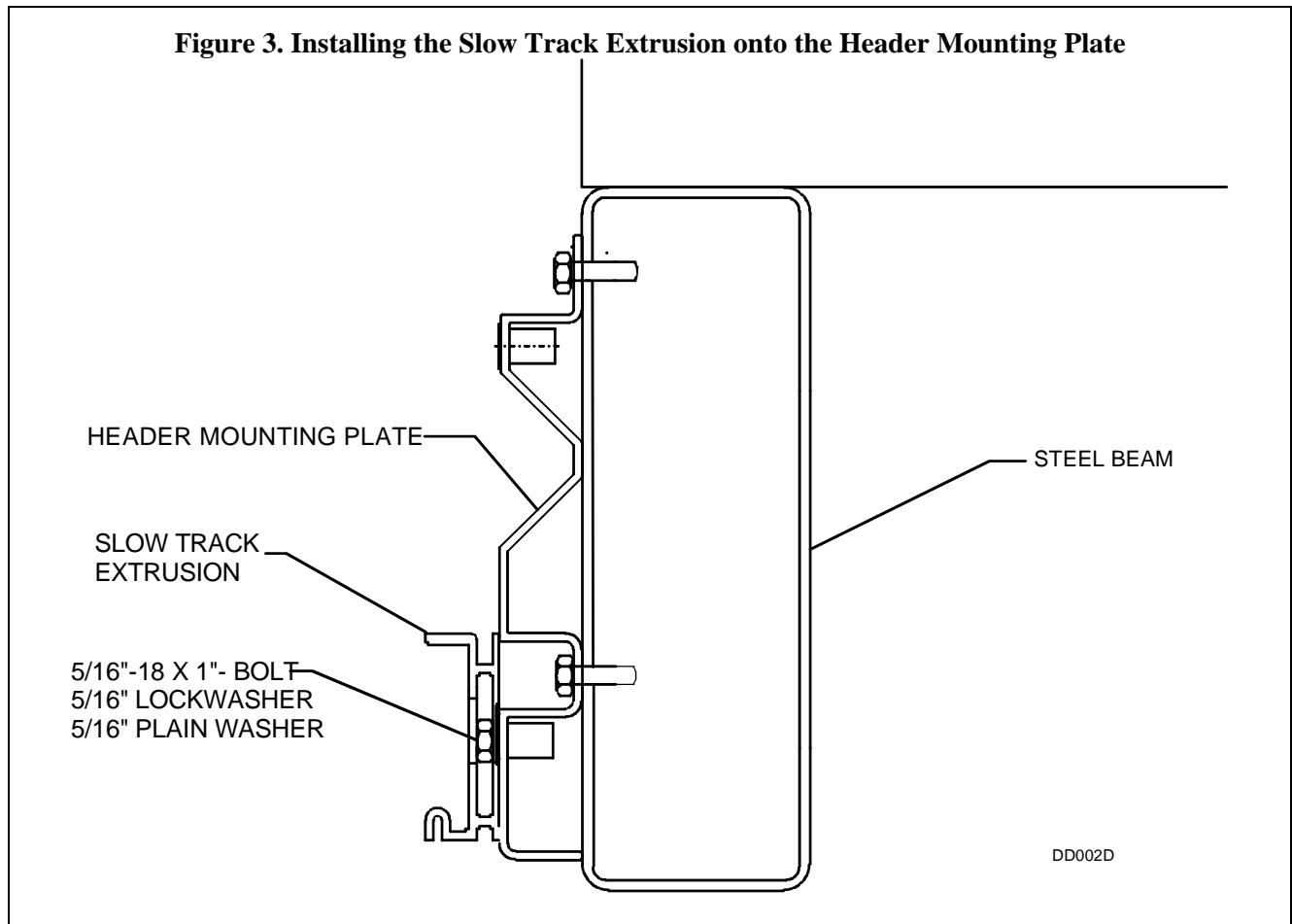
4.3.2 Using the holes in the slow track as a guide, DRILL  $\frac{5}{16}$ " mounting holes through the front of the steel beam at the marked locations.

4.3.3 TAP the holes for  $\frac{3}{8}$ "-16 bolts.

4.3.4 Refer to Figure 2 and, using the  $\frac{3}{8}$ "-16 x 1" bolts supplied, FASTEN the header mounting plate to the steel beam.



- 4.3.5 Refer to Figure 3, and, using the  $\frac{5}{16}$ "-18 x 1" bolts supplied, FASTEN both slow track extrusions to the header mounting plate.



**NOTE**

If the slow track extrusion must be shimmed, install the shims so that they extend into the header area. This will allow the header to be mounted against the shims.

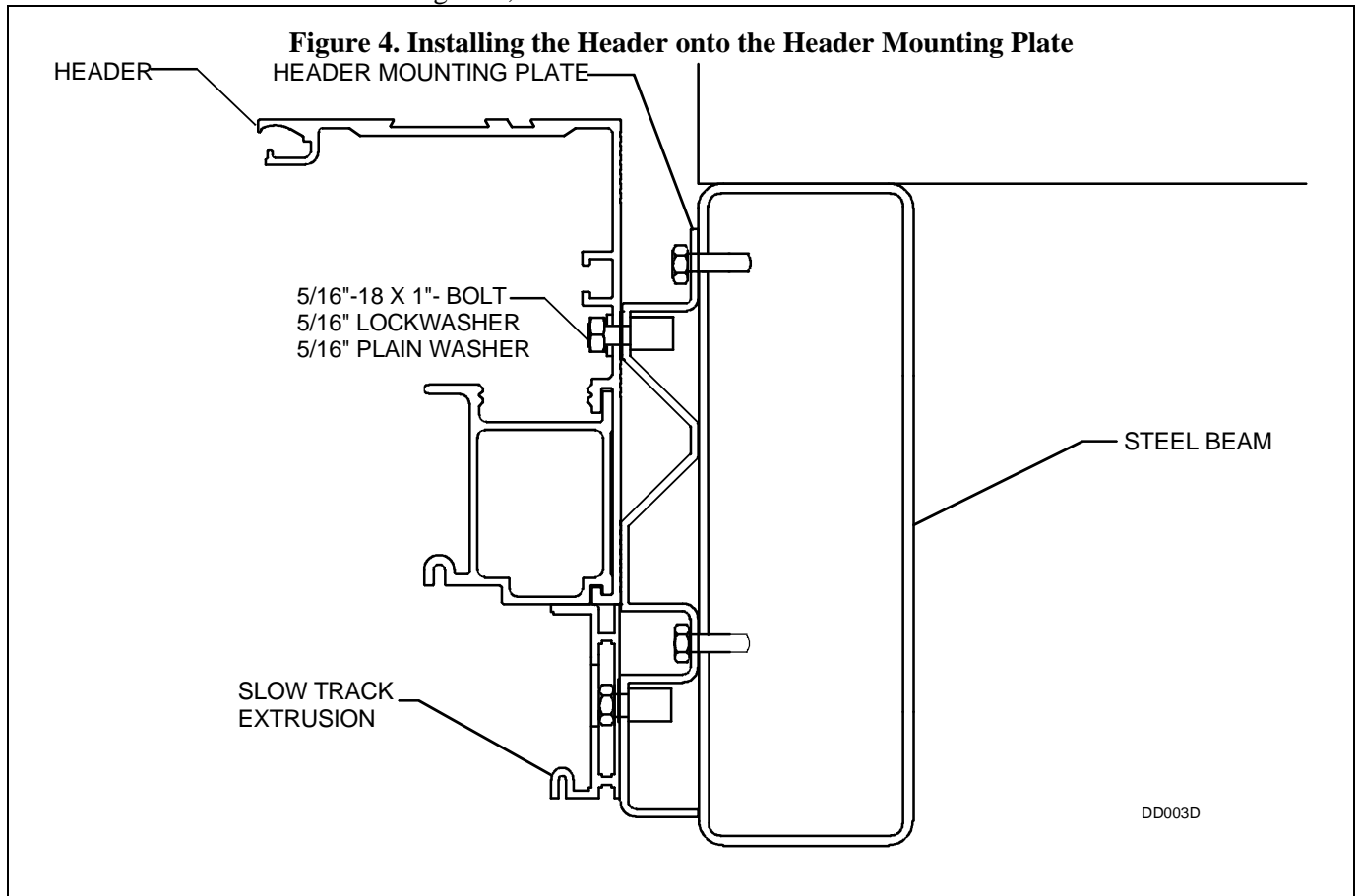
- 4.3.6 Using a line level stretched the length of the header mounting plate, ENSURE the slow track extrusion is level and *not* twisted or bowed. SHIM the slow track extrusion as necessary.



## NOTE

Typically, the header covers are installed *after* the headers have been mounted. When the installation site does *not* provide enough space to the left and right of the MO, the header covers must be installed *before* mounting the header.

- 4.3.7 MEASURE the space to the left and right of the header mounting location.
- 4.3.8 IF necessary, INSTALL header covers.
- 4.3.9 Refer to Figure 4, and POSITION the LH header above the slow track extrusion.



- 4.3.10 Using the  $\frac{5}{16}$ "-18 x 1" bolts supplied, FASTEN the LH header to the header mounting plate.
- 4.3.11 REPEAT steps 4.4.10 and 4.4.11 for the RH header.
- 4.3.12 Using a line level stretched the length of the header mounting plate, ENSURE the headers are level and not twisted or bowed. SHIM as necessary.
- 4.3.13 Using  $\frac{1}{4}$ "-20 x  $1\frac{1}{2}$ " bolts, FASTEN the header center bracket to the headers.
- 4.3.14 Using kit 516397, FASTEN the endcap dress plates to the headers.

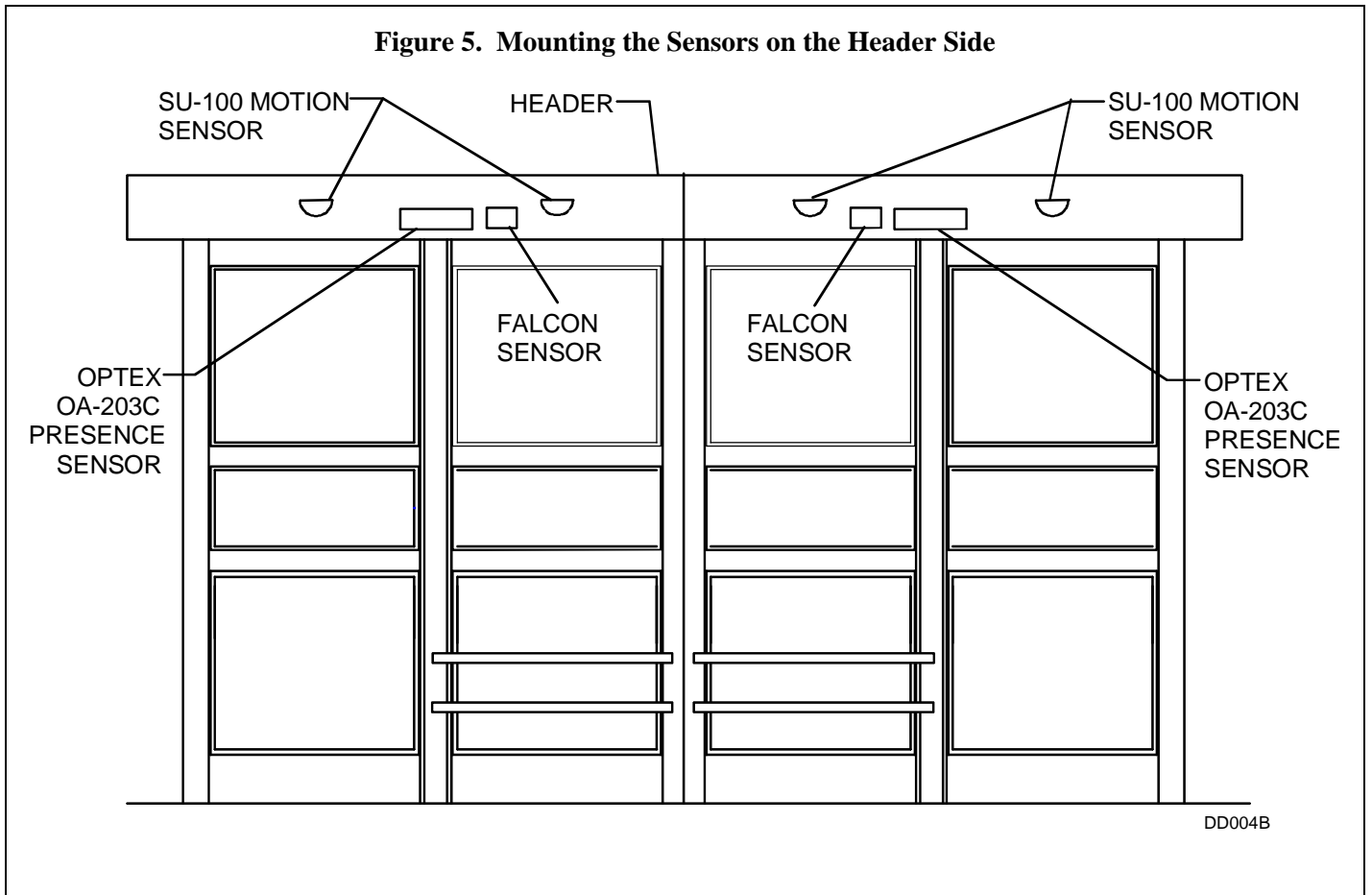
## 4.4 Mounting the Sensors

### NOTE

1. Eight SU-100 motion sensors are required—four on the header side and four on the non-header side. Four Optex OA-203C infrared presence sensors are required—two on the header side and two on the non-header side. Four Falcon sensors—two on the header side and two on the non-header side.
2. The sensors on the non-header side must be mounted to a sensor mounting beam. The sensor mounting beam is then fastened to the steel beam. The header cover and sensor mounting beam are prewired at the factory to accept the sensors.

4.4.1 Refer to Figure 5, and **INSTALL** header-side sensors onto the header cover as follows:

**Figure 5. Mounting the Sensors on the Header Side**

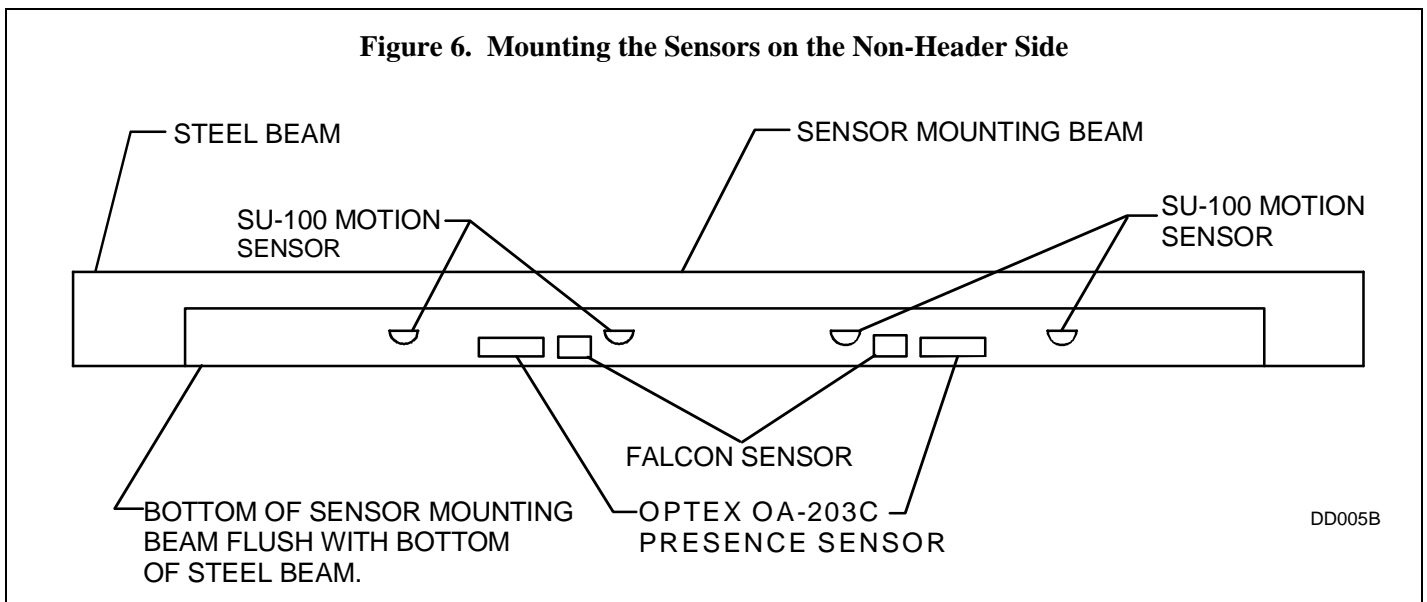


- a. Refer to Stanley Access Technologies document No. 203957, “SU-100 Motion Sensor Installation and Operation,” and **PERFORM** the following:
  - 1) **INSTALL** the narrow-pattern antenna into each SU-100 motion sensor.
  - 2) Using the predrilled holes in the header cover, **MOUNT** the four SU-100 motion sensors.

- b. Refer to Optex OA-203C infrared presence sensor manufacturer's installation and operating instructions, and PERFORM the following for each OA-203C sensor:
  - 1) SET width to maximum.
  - 2) SET depth (modes setting switches 7 and 8) to maximum.
  - 3) SET presence detection time (modes setting switches 1 and 2) to 60 seconds.
  - 4) SET the frequency selection (modes setting switches 3 and 4) such that each sensor is on a different frequency.
  - 5) SET the snow mode (modes setting switches 5 and 6) to the setting that best matches the prevailing environment and weather conditions.
  - 6) SET the sensitivity to high.
  - 7) Using the predrilled holes in the header cover, MOUNT the two Optex OA-203C infrared presence sensors.
- c. IF necessary, INSTALL header covers.
- d. OPEN and CLOSE header covers and ENSURE they open and close freely without interference.
- e. INSTALL the Falcon forklift sensors onto one header cover approximately 4½' from the center of the door opening.
- f. SET the Falcon forklift sensors for approximately 45°.
- g. ATTACH sensor wires to the respective pull strings located at the edges of the header.
- h. Using the pull strings, PULL sensor wires through the wire track to the center of the header.

4.4.2 Refer to Figure 6, and INSTALL non-header side sensors onto the sensor mounting beam as follows:

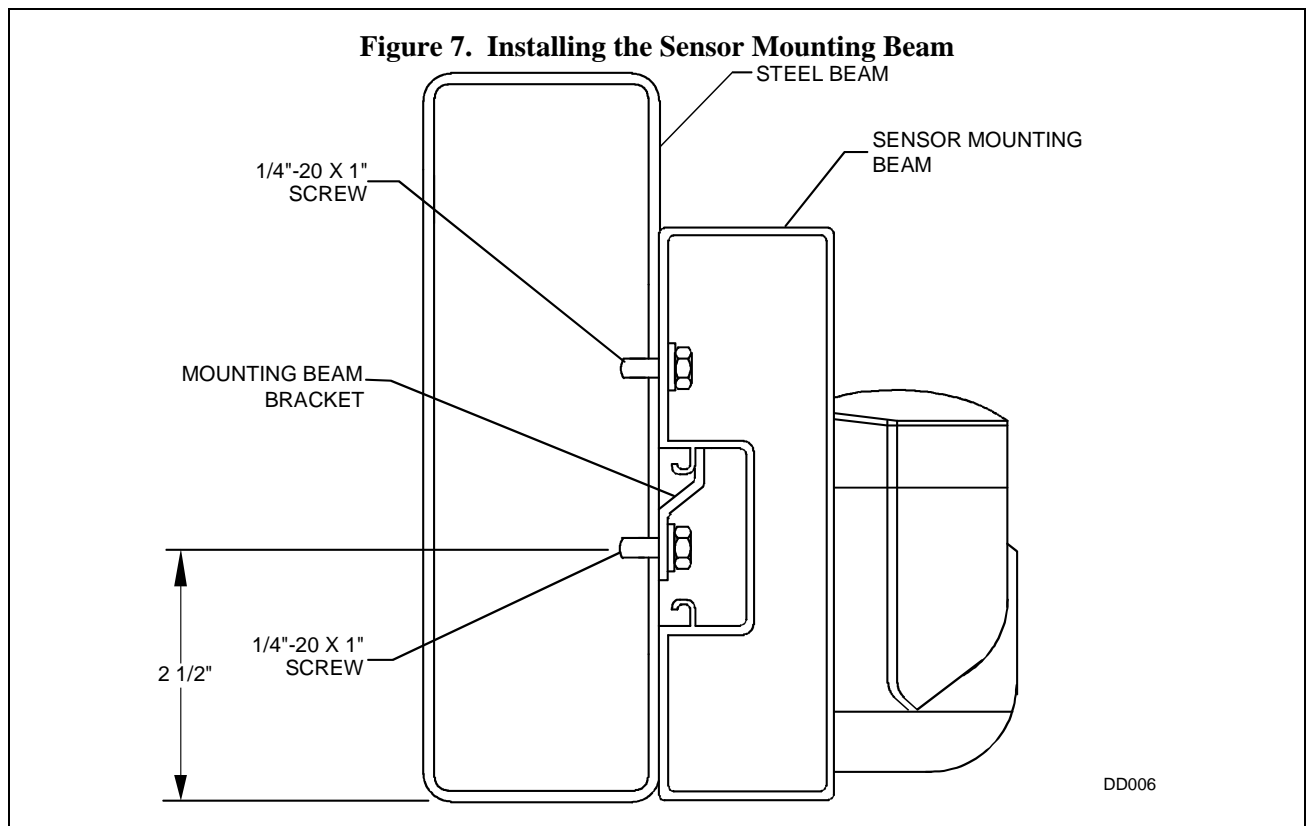
**Figure 6. Mounting the Sensors on the Non-Header Side**



- a. Refer to Stanley Access Technologies document No. 203957, "SU-100 Motion Sensor Installation and Operation," and PERFORM the following:

- 1) INSTALL the narrow-pattern antenna into each SU-100 motion sensor.
  - 2) Using the predrilled holes in the sensor mounting beam, MOUNT the four SU-100 motion sensors.
- b. Refer to Optex OA-203C infrared presence sensor manufacturer's installation and operating instructions, and PERFORM the following for each OA-203C sensor:
- 1) SET width to maximum.
  - 2) SET depth (modes setting switches 7 and 8) to maximum.
  - 3) SET presence detection time (modes setting switches 1 and 2) to 60 seconds.
  - 4) SET the frequency selection (modes setting switches 3 and 4) such that each sensor is on a different frequency.
  - 5) SET the snow mode (modes setting switches 5 and 6) to the setting that best matches the prevailing environment and weather conditions.
  - 6) SET the sensitivity to high.
  - 7) Using the predrilled holes, MOUNT the two sensors to the sensor mounting beam.
- c. DRILL holes in the steel beam and header to permit routing the wires from the sensor mounting beam to the header.

4.4.3 Refer to Figure 7, and INSTALL the three sensor mounting beam brackets onto the steel beam as follows:



- a. Using the sensor mounting beam as a guide, DETERMINE the hole locations for the three evenly spaced sensor mounting beam brackets, and ENSURE the following:
  - When the sensor mounting beam is hung, the bottom of the sensor mounting beam will be flush with the bottom of the steel beam.
- b. Using a No. 7 drill bit, DRILL bracket mounting holes in steel beam.
- c. TAP the bracket mounting holes for ¼-20 screws.
- d. Using ¼-20 screws, FASTEN the three sensor mounting beam brackets to the steel beam.
- e. HANG the sensor mounting beam on the mounting brackets.
- f. Using a No. 7 drill bit and the sensor mounting beam holes as a guide, DRILL three mounting holes into the steel beam.
- g. TAP the three mounting holes in the steel beam for ¼-20 screws.
- h. Using ¼-20 screws, FASTEN the sensor mounting beam to the steel beam.
- i. INSTALL hole plugs into three access holes.
- j. INSTALL each Falcon forklift sensor approximately 4½' from the center of the door opening onto the center of the sensor mounting beam.
- k. SET the Falcon forklift sensor for approximately 45°.
- l. IF the sensor mounting beam is mounted on the exterior of the building, CAULK the area between the sensor mounting beam and the wall.

#### 4.5 Installing the Rotary Switch Box

##### **NOTE**

The rotary switch box contains the rotary switch and power switch. The rotary switch box should be located on an interior wall at a location specified by the General Contractor or Building Superintendent.

- 4.5.1 MARK the location of the rotary switch box on an interior wall.
- 4.5.2 DRILL four 1<sup>1</sup>/<sub>16</sub>" mounting holes into wall.
- 4.5.3 Using the 3<sup>3</sup>/<sub>8</sub>" masonry anchors, screws, and washers provided, FASTEN the rotary switch box to the wall.

#### 4.6 Installing the Slow Panels

- 4.6.1 Refer to Figure 8 and Attachment 8, INSTALL slow panel wind kits as follows:
  - a. PLACE the slow panel on sawhorses.

##### **NOTE**

The grooves in the slow door guide mate with the inside of the bottom rail.

The slow door guide has eight through holes and two tapped holes.

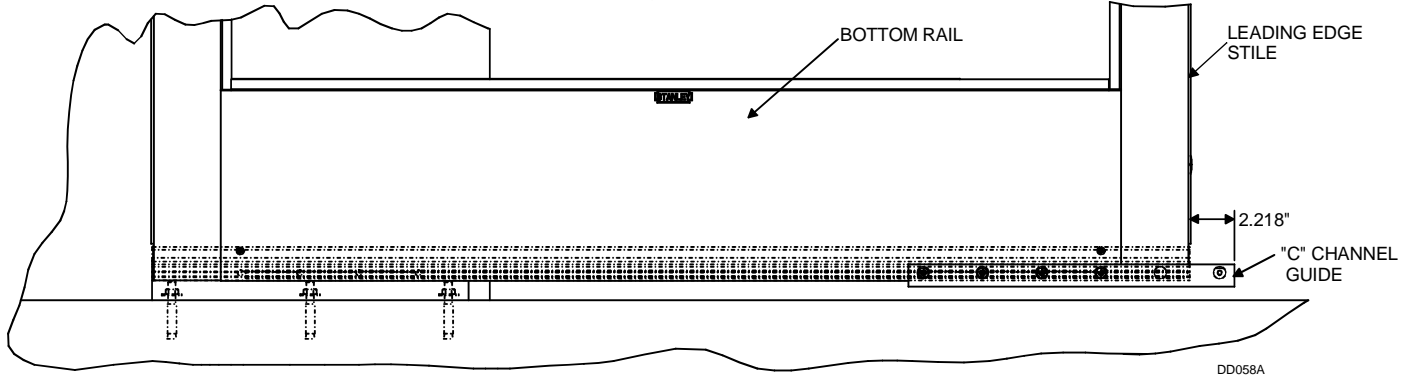
- b. INSERT the slow door guide through the cutout in the stile, and SLIDE it into the bottom rail. The slow door guide will not extend out of the slow panel.
- c. APPLY Loctite to the two 10-32 X ½" flat head screws provided with the wind kit hardware, and FASTEN the slow door guide to the bottom rail.

## NOTE

After the "C" channel guide is inserted into the extrusion, the "C" channel will extend 2.218" past the panel lead edge.

- d. INSERT the "C" channel guide into the extrusion so that the four tapped holes are aligned with the through holes in the bottom rail.
- e. APPLY Loctite to the four  $\frac{1}{4}$ -20 X  $\frac{9}{16}$ " flat head screws provided with the wind kit hardware, and FASTEN the "C" channel guide to the bottom rail.
- f. REPEAT step 4.6.1 for the opposite slow panel.

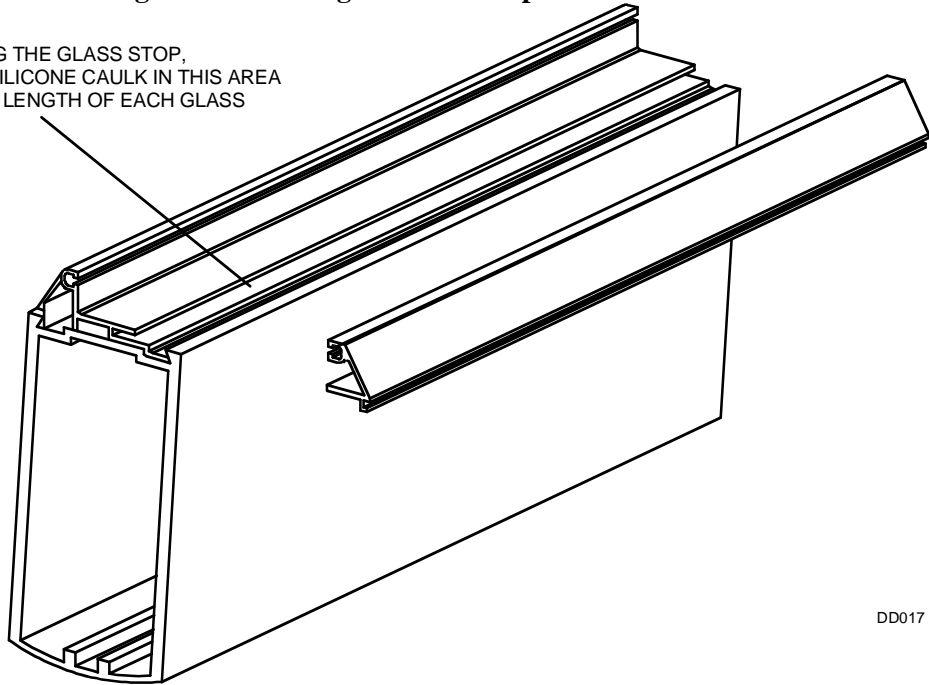
**Figure 8. Installing the Slow Panel Wind Kits**



- 4.6.2 REMOVE the protective coating from the acrylite panels.
- 4.6.3 ENSURE the glass stop gutter is installed towards the *exterior* of the building.
- 4.6.4 Refer to Figure 9, and APPLY a bead of silicone caulk along the entire length of each slow panel glass stop gutter.
- 4.6.5 GLAZE the slow panel.

**Figure 9. Caulking the Glass Stop Gutter**

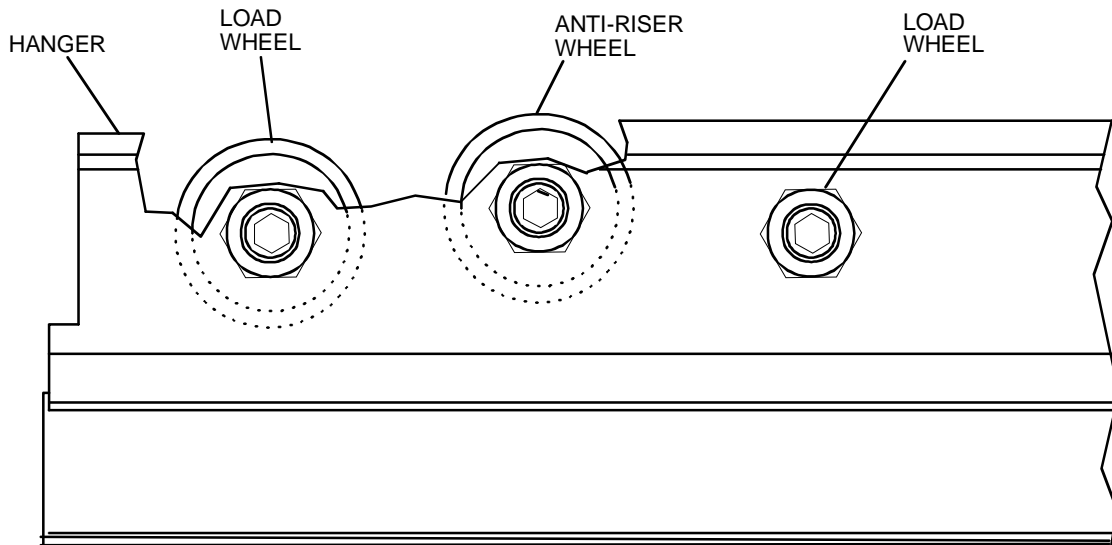
BEFORE INSTALLING THE GLASS STOP,  
APPLY A BEAD OF SILICONE CAULK IN THIS AREA  
ALONG THE ENTIRE LENGTH OF EACH GLASS  
STOP GUTTER.



DD017

4.6.6 Refer to Figure 10, and LOOSEN the nuts securing the load wheels and anti-riser wheels to the hanger.

**Figure 10. Setting the Load Wheels and Anti-Riser Wheels**



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4.6.7 Using an Allen wrench SET the load wheels to the midrange of travel position in the hanger. In this position, the top of the load wheel is  $\frac{1}{16}$ " below the top of the hanger.

4.6.8 SET the anti-riser wheels so that the top of each wheel is flush with the top of the hanger.

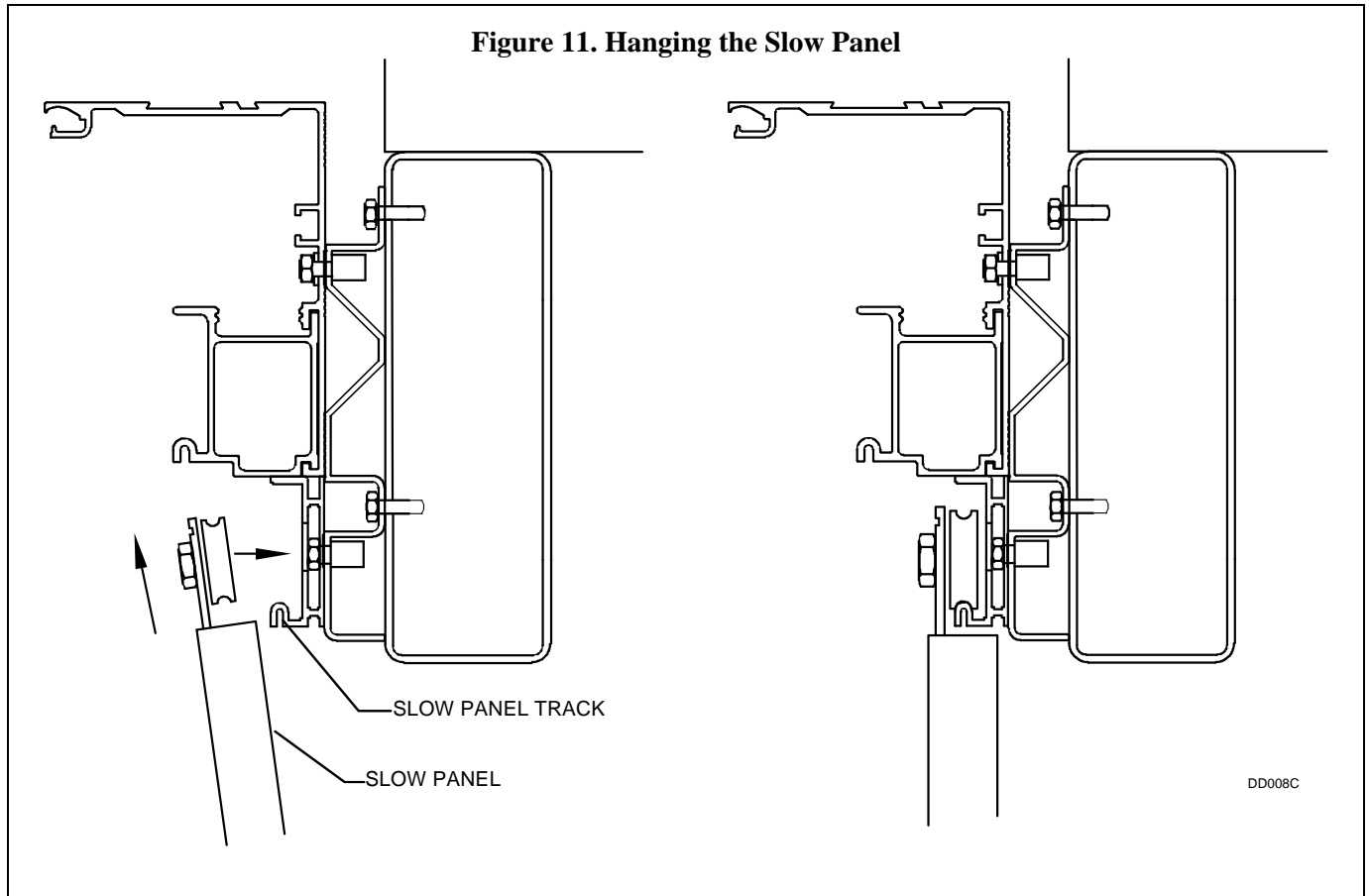
4.6.9 TIGHTEN the nuts securing the load wheels and anti-riser wheels to the hanger.

### WARNING

Whenever the door anti-riser wheels are not set, there is a possibility that the panel could fall off the hanger track. Use extreme caution when handling the slow panels.

4.6.10 Refer to Figure 11, and HANG the slow panel on the slow panel track as follows:

- LIFT the panel up over the slow panel track, and carefully POSITION the panel onto the track.



4.6.11 SET the anti-riser wheels so that there is a 1/64" to 1/32" gap between the top of each wheel and the track.

4.6.12 REPEAT Section 4.6 for the opposite slow panel.



## 4.7 Installing the Fast Panels

4.7.1 Refer to Figure 12 and Attachment 8, and **INSTALL** the fast panel wind kits as follows:

a. **PLACE** the fast panel on sawhorses.

### NOTE

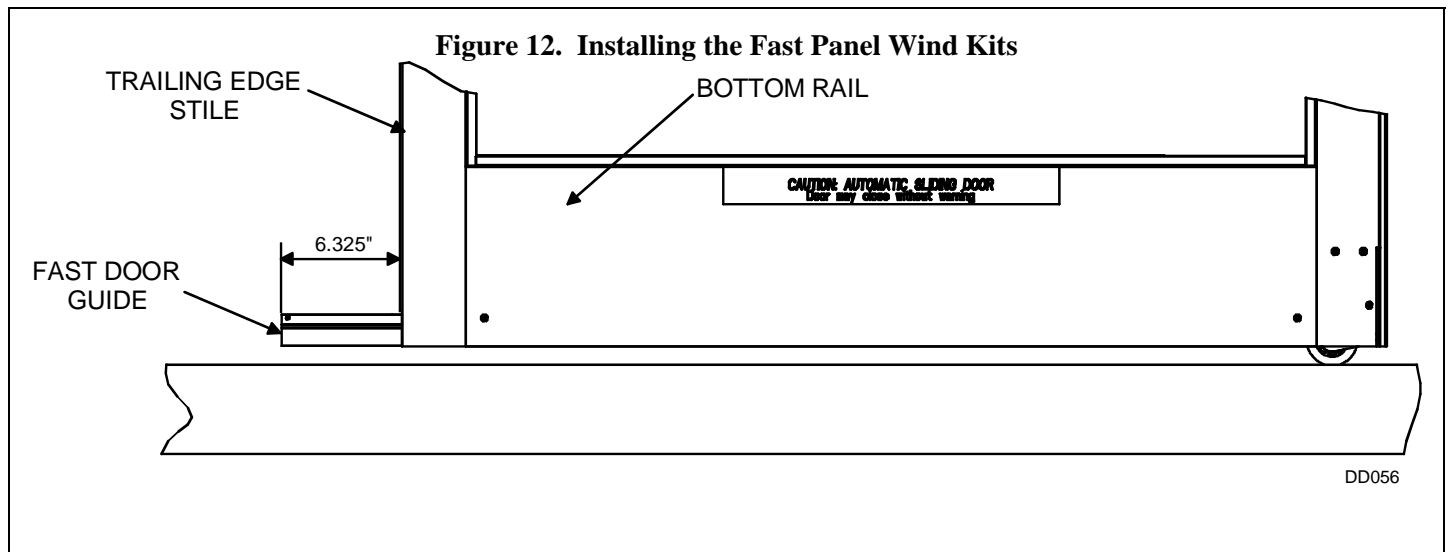
The grooves in the fast door guide mate with the inside of the bottom rail.

The fast door guide has two tapped through holes.

b. **INSERT** the fast door guide through the cutout in the trailing stile, and **SLIDE** it into the bottom rail. The fast door guide will extend 6.325" out from the trailing stile.

c. **APPLY** Loctite to the two 10-32 X  $\frac{9}{16}$ " flat head screws provided with the wind kit hardware, and **FASTEN** the fast door guide to the bottom rail.

d. **REPEAT** step 4.7.1 for the opposite fast panel.



4.7.2 **REMOVE** the protective coating from the acrylite panels.

4.7.3 **ENSURE** the glass stop gutter is installed towards the *exterior* of the building.

4.7.4 Refer to Figure 9, and **APPLY** a bead of silicone caulk along the entire length of each fast panel glass stop gutter.

4.7.5 **GLAZE** the fast panel.

4.7.6 Refer to Figure 10, and **LOOSEN** the nuts securing the load wheels and anti-riser wheels to the hanger.

4.7.7 Using an Allen wrench, **SET** the load wheels to the midrange of travel position in the hanger. In this position, the top of each load wheel is  $\frac{1}{16}$ " below the top of the hanger.

4.7.8 **SET** the anti-riser wheels so that the top of each load wheel is flush with the hanger.

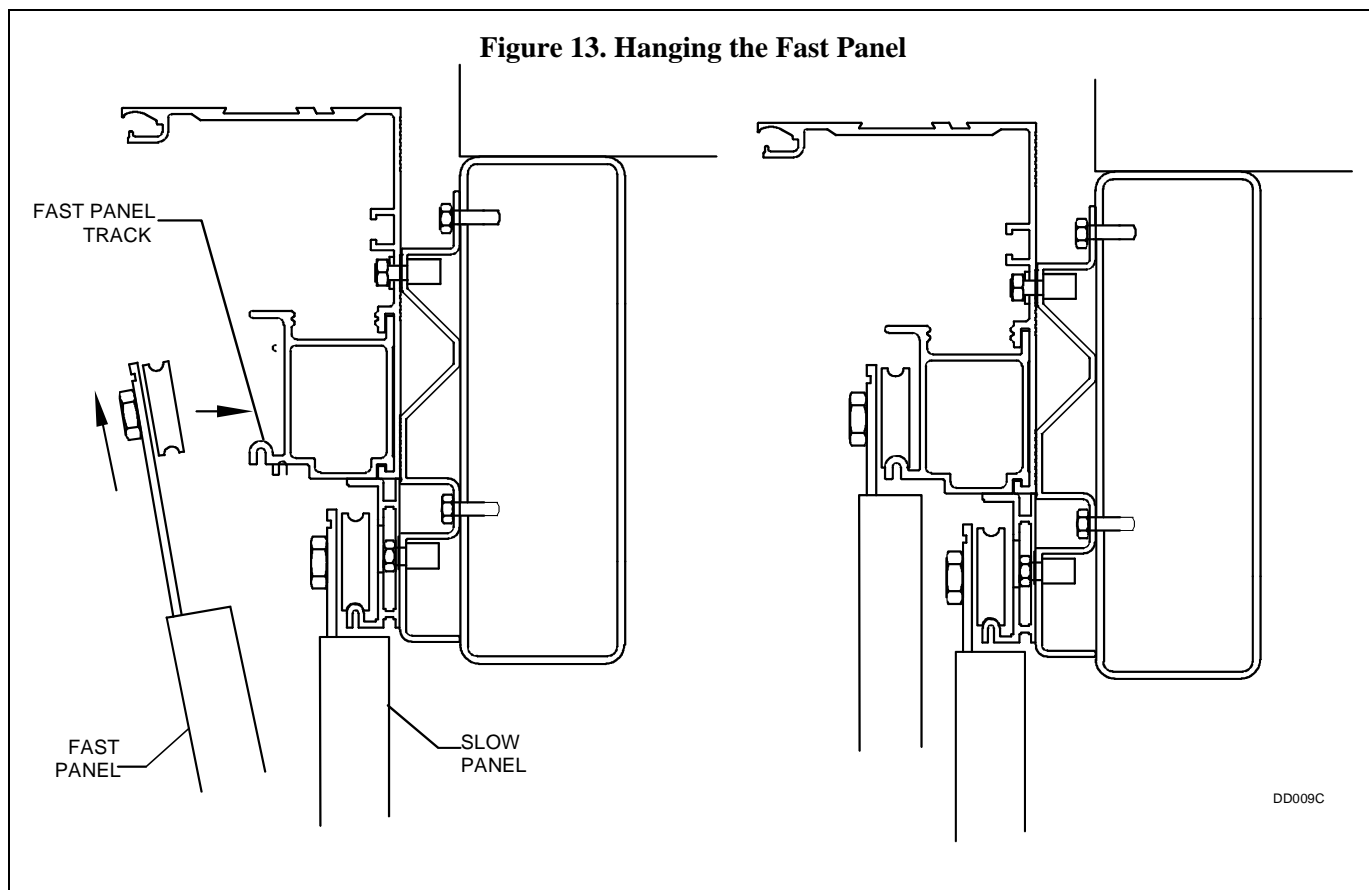
4.7.9 **TIGHTEN** the nuts securing the load wheels and anti-riser wheels to the hanger.

## WARNING

Whenever the door anti-riser wheels are not set, there is a possibility that the panel could fall off the hanger track. Use extreme caution when handling the fast panels.

4.7.10 Refer to Figure 13, and HANG the RH fast panel on the header track as follows:

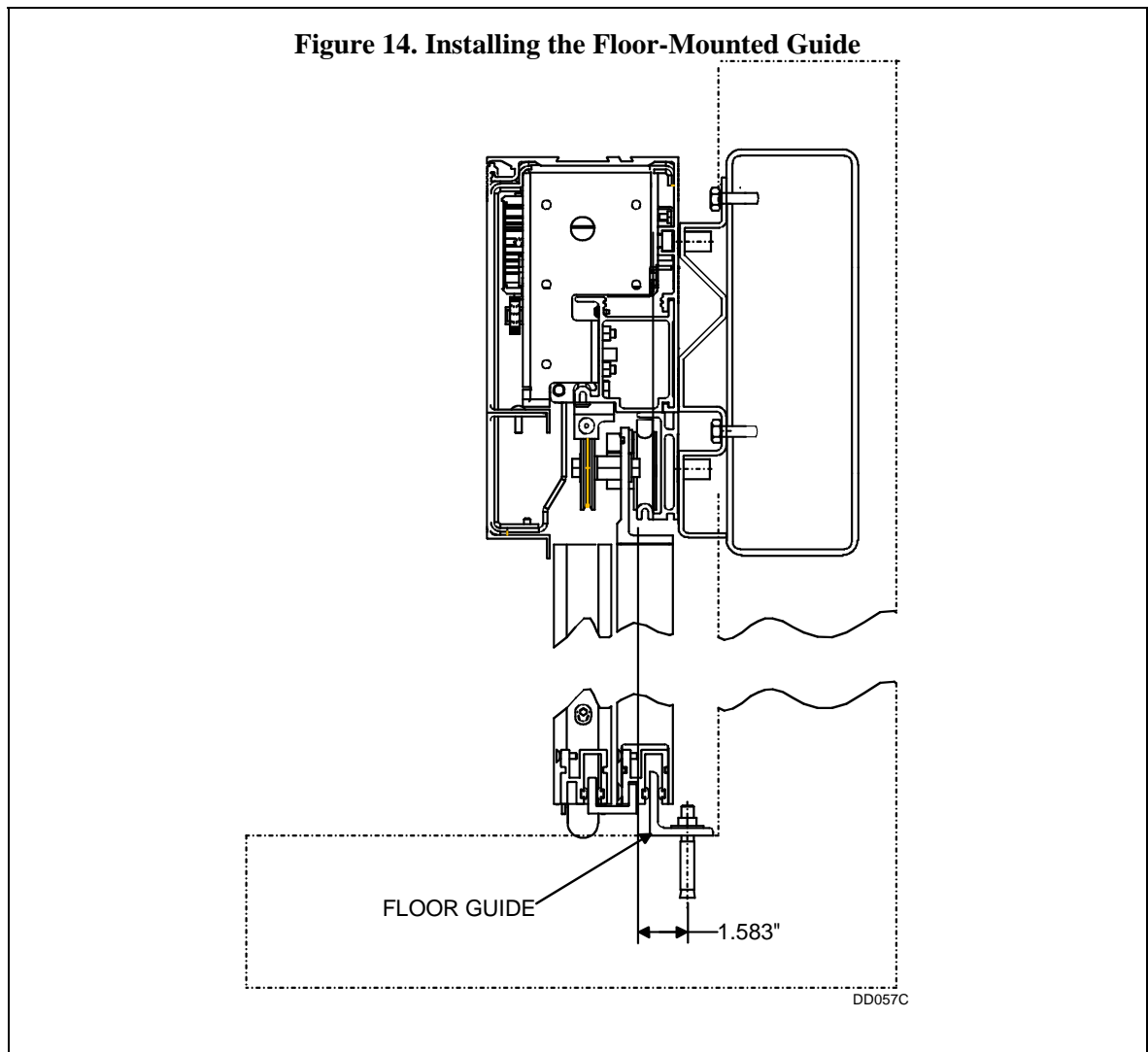
- LIFT the panel up over the header track, and carefully POSITION the panel onto the track.



- 4.7.11 SET the anti-riser wheels so that there is a 1/64" to 1/32" gap between the top of each wheel and the track.
- 4.7.12 MOVE the fast panel into the open position, and ENSURE the leading edge of the fast panel is even with or slightly behind the edge of the masonry opening.
- 4.7.13 POSITION the fast panel bumper stop onto the header, and ENSURE the following:
- The bumper stop is on the correct track of the header.
  - The bumper stop contacts the trailing edge of the rear fast panel hanger.
- 4.7.14 Using a 0.281" drill bit and the holes in the bumper stop as a guide, DRILL bumper stop mounting holes into the header.
- 4.7.15 Using the 1/4"-20 x 3/4" screws provided, FASTEN the bumper stop to the header.
- 4.7.16 REPEAT Section 4.8 for the other fast door.

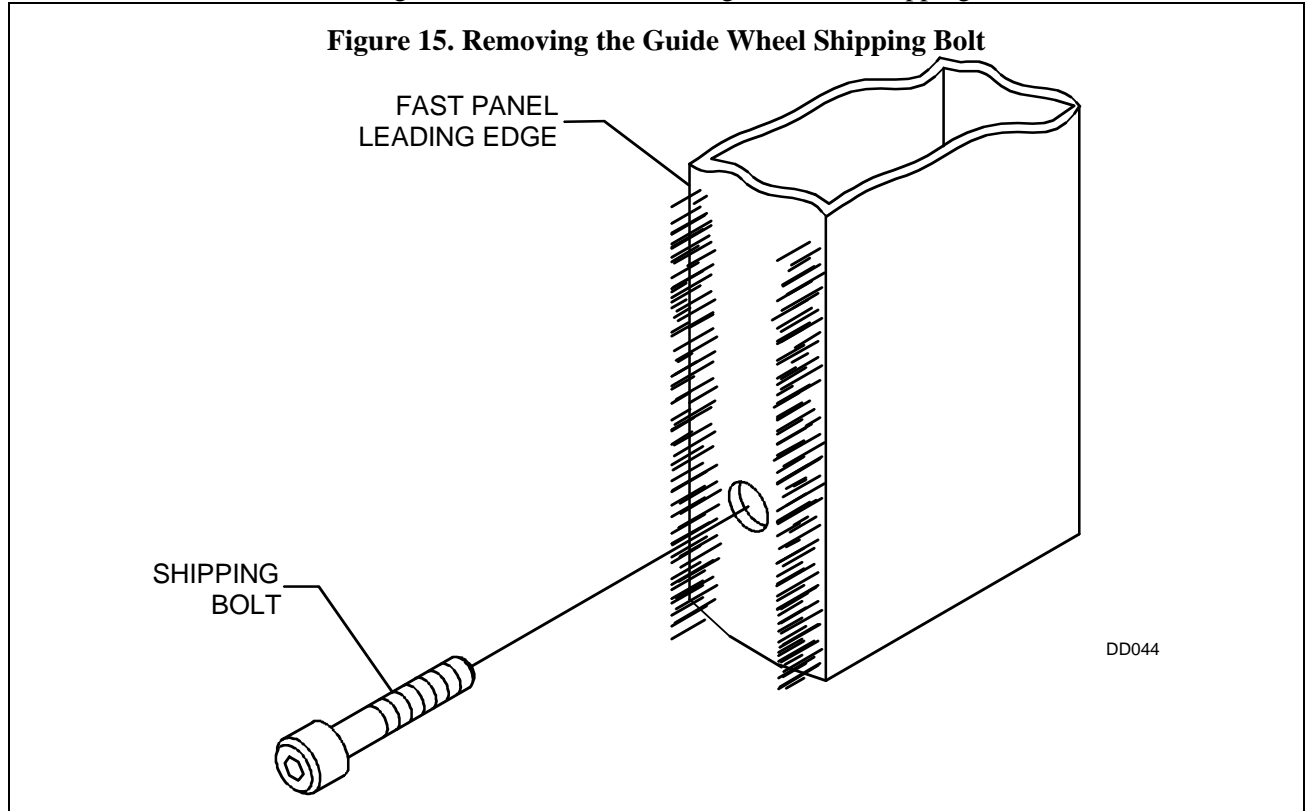
## 4.8 Installing the Floor-Mounted Guide

4.8.1 Refer to Figure 14, and POSITION the doors in the fully closed position.



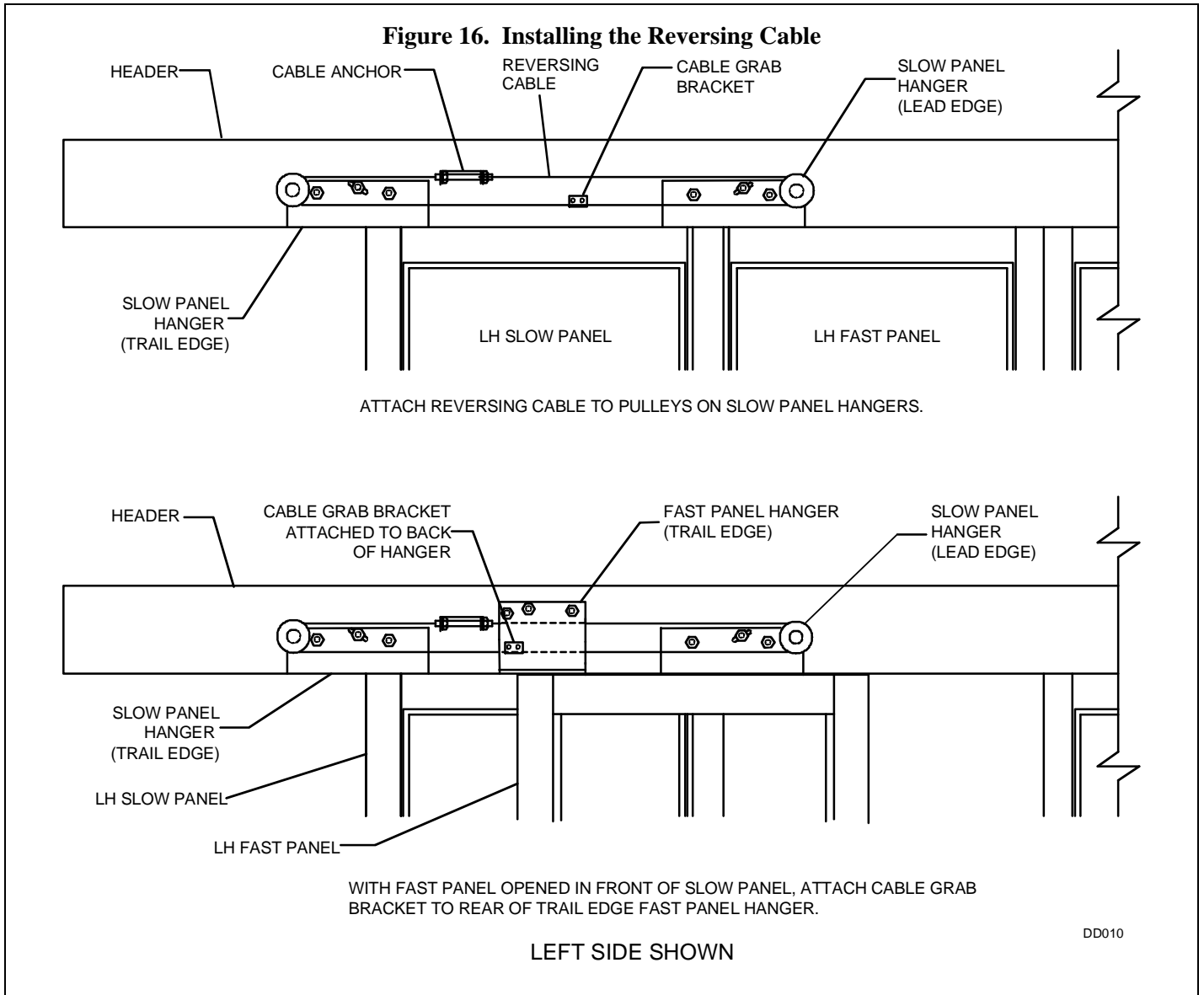
- 4.8.2 MARK a line at the position of the back of the slow panels. This will serve as the back of the floor guide.
- 4.8.3 DROP a plumb bob from the front of the slow track aligned with the edge of the store opening, and MARK this location on the floor.
- 4.8.4 DROP a plumb bob from the front of the slow track aligned approximately 8" from the edge of the store opening, and MARK this location on the floor.
- 4.8.5 DRAW a line connecting the two locations marked in the previous two steps.
- 4.8.6 MEASURE 1.583" *towards* the store, and DRAW a line parallel to the one drawn in the previous step. This will serve as the centerline of the floor guide.
- 4.8.7 With the floor guide located, MARK the location of the rear mounting hole.

- 4.8.8 DRILL a  $\frac{3}{8}$ " diameter hole  $2\frac{1}{2}$ " deep into the concrete at the location marked in the previous step.
- 4.8.9 INSERT a masonry anchor through the floor guide and  $\frac{3}{8}$ " hole, and TIGHTEN fully.
- 4.8.10 DRILL the other two  $\frac{3}{8}$ " diameter holes, INSERT the anchors, and TIGHTEN fully.
- 4.8.11 REPEAT Section 4.8 for the opposite side.
- 4.8.12 Refer to Figure 15, and REMOVE the guide wheel shipping bolt.



## 4.9 Installing the Reversing Cable

- 4.9.1 Refer to Figure 16, and LOOP the reversing cable over both pulleys on the left side slow panel hangers.



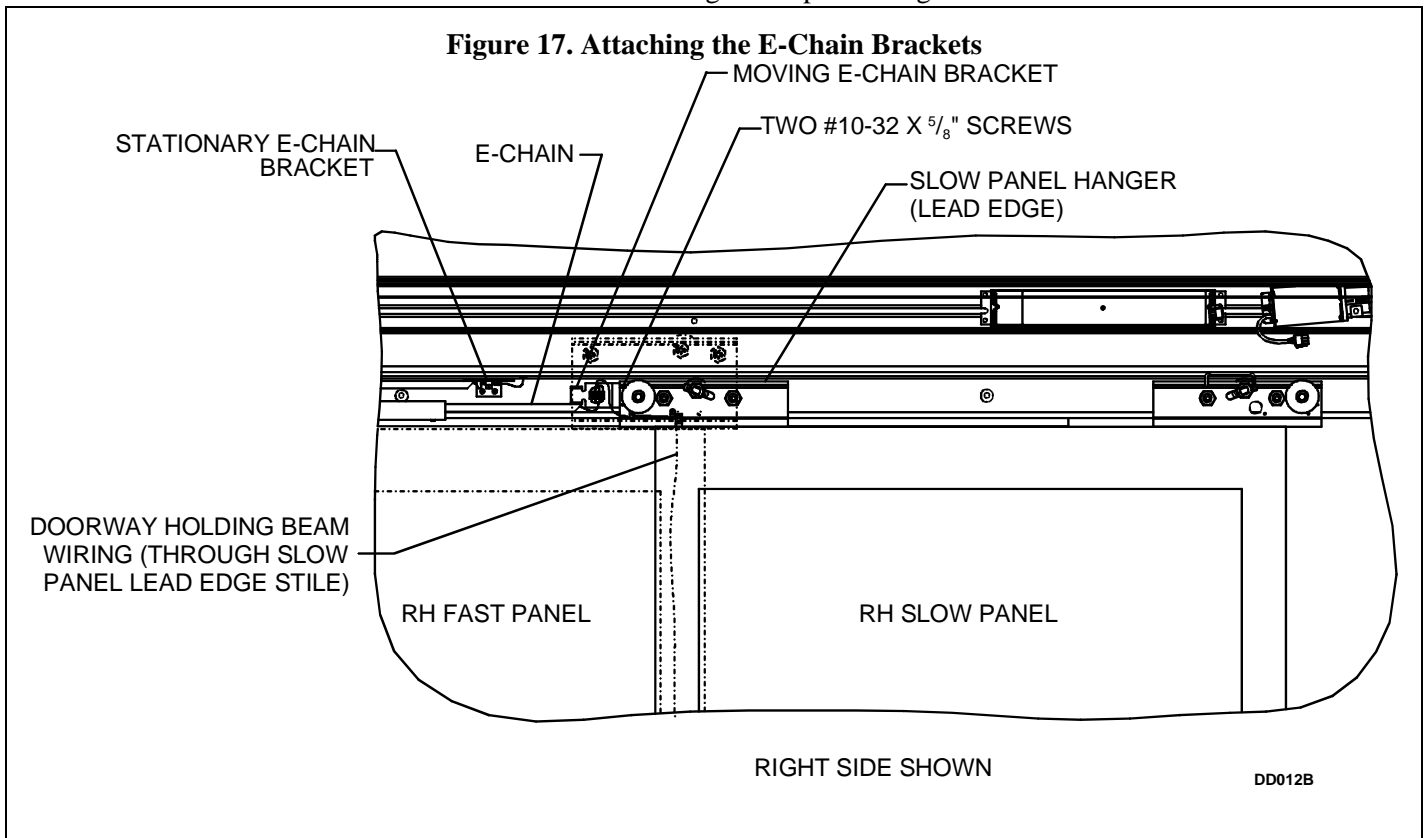
- 4.9.2 ATTACH the reversing cable to the cable anchor mounted on the header bracket, but do not tighten the cable.
- 4.9.3 ATTACH the reversing cable grab bracket to the trail edge hanger of the left fast panel.
- 4.9.4 SET the fast door in the closed position.
- 4.9.5 SET the slow door so that its lead stile is directly in line with the fast door trail stile
- 4.9.6 SET the cable tension as follows:
- a. Finger TIGHTEN the nuts on the inside of the cable anchor.

- b. Using a wrench, **TIGHTEN** the nuts on the inside of the cable anchor an additional one to two turns.
- c. **TIGHTEN** the outer nuts of the cable anchor.

4.9.7 REPEAT Section 4.11 on right side panels.

#### 4.10 Installing the E-Chain Brackets

4.10.1 Refer to Figure 17, and, using the 10-32 x  $\frac{5}{8}$ " screws provided, **FASTEN** the moving E-chain bracket to the RH lead edge slow panel hanger.



4.10.2 Refer to Attachment 3 or 4 as applicable, and **PERFORM** the following:

- **CONNECT** the doorway holding beam wires to the connector on the moving E-chain bracket.
- **CONNECT** the four-conductor cable from the header to the connector on the stationary E-chain bracket.

4.10.3 REPEAT Section 4.12 for the opposite side.

#### 4.11 Installing and Adjusting the Motor Belt

4.11.1 **CLOSE** doors.

4.11.2 **CENTER** the doors in the opening.

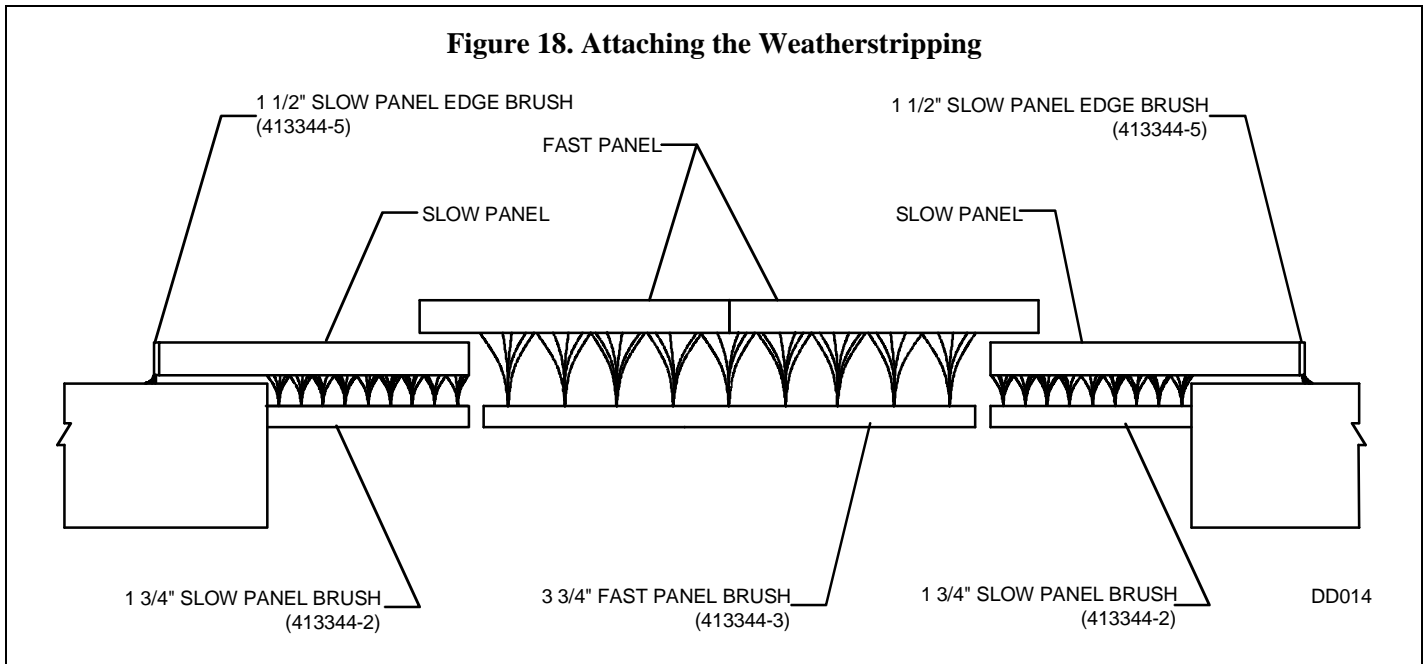
4.11.3 **INSTALL** motor belt over the gear reducer drive pulleys.

4.11.4 **POSITION** the short belt bracket on the RH fast panel lead edge hanger.

- 4.11.5 DRILL and TAP two holes in the hanger for  $\frac{5}{16}$ "-18 screws.
- 4.11.6 Using the  $\frac{5}{16}$ "-18 x  $\frac{5}{8}$ " screws provided, FASTEN the short belt bracket to the RH fast panel lead edge hanger.
- 4.11.7 POSITION the long belt bracket on the LH fast panel lead edge hanger.
- 4.11.8 DRILL and TAP two holes in the hanger for  $\frac{5}{16}$ "-18 screws.
- 4.11.9 Using the  $\frac{5}{16}$ "-18 x  $\frac{5}{8}$ " screws provided, FASTEN the long belt bracket to the LH fast panel lead hanger.
- 4.11.10 ADJUST motor belt tension.

#### 4.12 Installing the Weatherstripping

- 4.12.1 CLOSE the doors.
- 4.12.2 Refer to Figure 18, and CUT the following to the required length:
  - $3\frac{3}{4}$ " fast panel brush (413344-3)
  - Two  $1\frac{3}{4}$ " slow panel top brushes (413344-2)
  - Two  $1\frac{1}{2}$ " slow panel edge brushes (413344-5)



- 4.12.3 INSTALL the  $3\frac{3}{4}$ " fast panel brush (413344-3) onto the underside of the steel beam as follows:
  - a. Using a No. 25 drill and the holes in the  $3\frac{3}{4}$ " fast panel brush as a guide, DRILL fast panel brush mounting holes into underside of steel beam.
  - b. TAP fast panel brush mounting holes for No. 10 screws.
  - c. Using No. 10 X  $\frac{1}{2}$ " screws, FASTEN the  $3\frac{3}{4}$ " fast panel brush to the underside of the steel beam.

- 4.12.4 INSTALL the two 1¾" slow panel top brushes (413344-2) onto the underside of the masonry opening as follows:
  - a. Using a No. 25 drill and the holes in the 1¾" slow panel top brushes as a guide, DRILL slow panel top brush mounting holes into underside of masonry opening.
  - b. TAP slow panel top brush mounting holes for No. 10 screws.
  - c. Using No. 10 X ½" screws, FASTEN the two 1¾" slow panel top brushes to the underside of the masonry opening.
- 4.12.5 Using No. 8 self-tapping screws, FASTEN the two 1½" slow panel edge brushes (413344-5) to the outboard ends of the slow panels.
- 4.12.6 CUT two of the 3¾" (413344-3) brushes provided to the width of the panels.
- 4.12.7 CLOSE the doors.
- 4.12.8 APPLY brushes to the exterior of the fast doors so that the brushes meet the ground.
- 4.12.9 Avoiding the area of the guide wheel, FASTEN the brushes to the fast panels using the self-drilling, self-tapping screws provided.
- 4.12.10 APPLY the brushes to the interior of the slow panels so that the brushes meet the ground when the doors are closed.
- 4.12.11 FASTEN the brushes to the slow panels using the self-drilling, self-tapping screws provided.
- 4.12.12 OPEN and CLOSE the doors, and VERIFY that the brushes do not prevent the doors from functioning properly

#### 4.13 **Installing the Keypad and Setting the Codes (U.S. Only)**

- 4.13.1 MOUNT the keypad on the exterior wall.
- 4.13.2 Refer to manufacturer's installation and operating instructions, and PERFORM the following:
  - a. SET the keypad receiver code to match the code for full-open receiver.
  - b. SET the input code per the customer's request (typically the store number).
  - c. SET the remote code to match the receiver codes.
  - d. INSTALL the remote labels.

#### 4.14 **Programming the Handheld Remotes (U.S. Only)**

### **NOTE**

The two-button handheld remote is programmed so that button one activates the front door to full open, and button two activates the back door to full open.

- 4.14.1 Refer to manufacturer's operating instructions, and SET the handheld remotes for the desired operation.
- 4.14.2 INSTALL applicable operating labels on remotes.

#### 4.15 **Wiring Part-Open and Full-Open Pushbuttons (Canada Only)**

- 4.15.1 Refer to Attachment 3 or 4 as applicable and CONNECT part-open and full-open pushbuttons as necessary.



## 4.16 Tune-In and Adjustment

### NOTE

Operation of the *front* door with the rotary switch in the “AUTOMATIC” position is as follows: Activation from the Falcon forklift sensor causes the doors to open fully. Activation from the keypad causes the doors to open fully. Activation from the sensors causes the doors to open to reduced-open position. When the rotary switch is set to the “AUTOMATIC EXIT ONLY” position, the door is in one-way mode.

Operation of the *back* door with the rotary switch in the “AUTOMATIC” position is as follows: Activation from the Falcon forklift sensor causes the doors to open fully. Activation from the keypad causes the doors to open fully. The sensors are wired for safety only. There is no “AUTOMATIC EXIT ONLY” position on the back door rotary switch.

- 4.16.1 Refer to Stanley Access Technologies document No. 204003, “MC521 Controller Installation and Operation,” and PERFORM the following:
  - a. SET Door Type to “Slide Dual Motor.”
  - b. SET Handing to “Right.”
  - c. SET Function Switch to “Old Rotary.”
  - d. SET Door Obstruction Time to “0.5 sec.”
  - e. Refer to Stanley Access Technologies document No. 204003, “MC521 Controller Installation and Operation,” and TUNE-IN door.
- 4.16.2 Refer to Stanley Access Technologies document No. 203957, “SU-100 Motion Sensor Installation and Operation,” and TUNE-IN the SU-100 motion sensors.
- 4.16.3 Refer to manufacturer’s installation and operating instructions, and TUNE-IN the Optex OA-203C infrared presence sensors.
- 4.16.4 Refer to manufacturer’s user’s guide, and ADJUST the Falcon sensors as follows:
  - a. Using the infrared remote control, CONFIGURE the sensors for the following initial settings:
    - Sensitivity: 9
    - Hold Time: 9
    - Relay configuration: 2
    - Detection mode: 1
    - Rejection mode: 5
  - b. ADJUST desired activation area per customer preference.

#### 4.17 **Closeout Procedure**

- 4.17.1 Using the  $\frac{1}{4}$ "-20 x  $\frac{5}{8}$ " screws provided, FASTEN header cover to header.
- 4.17.2 Refer to Stanley Access Technologies document No. 203743, "Stanley Automatic Sliding Door Safety Decal Installation Guide," (supplied with door package) and PERFORM the following:
  - INSTALL the safety decals.
  - ENSURE the "CAUTION—STAND BACK" decal is installed on the walls over which the doors slide.
- 4.17.3 ENSURE acrylite panels are not cracked or broken.
- 4.17.4 ENSURE acrylite and metal surfaces are clean.
- 4.17.5 ENSURE door installation area is clean and free of debris.
- 4.17.6 ENSURE Stanley Service Sticker and all door decals/signage are properly displayed.
- 4.17.7 COMPLETE Final Inspection Checklist.
- 4.17.8 COMPLETE Work Order and REPORT your actions to the Building Superintendent.
- 4.17.9 PROVIDE "Daily Safety Checklist" and handheld remotes to building superintendent.

#### 4.18 **Replacement Parts**

- 4.18.1 Refer to Attachment 7 for a listing of the Double Diamond replacement parts.

## Attachment 1

### Documents, Definitions, Special Tools, Equipment, Materials, and Consumables

(Sheet 1 of 1)

#### Documents

- Stanley Access Technologies document No. 203728, “Dura-Glide™ 2000-, 3000-, and 5000-Series; Dura-Guard™ 2000- and 3000-Series; and Dura-Storm™ 3000-Series Microprocessor Control Box Quick-Reference Guide”
- Stanley Access Technologies document No. 204003, “MC521 Controller Installation and Operation”
- Stanley Access Technologies document No. 203957, “SU-100 Motion Sensor Installation and Operation”
- Manufacturer’s installation and operating instructions for Telco doorway holding beams
- Manufacturer’s installation and operating instructions for Optex OA-203C infrared presence sensor
- Manufacturer’s operating instructions for the handheld remotes
- Manufacturer’s operating instructions for the time delay module
- Manufacturer’s user’s guide for Falcon sensors

#### Definitions

- None

#### Special Tools and Equipment (including, but not limited to)

- Automatic laser level
- Caulking gun
- Combination square
- Electric drill, metal drill bit set, concrete drill bit set
- Level
- Line level
- Open-end wrench set
- Plumb bob
- Power-head chisel with mortar head
- Power manlift
- Pry bar
- Sawhorses
- Scribe or center punch
- Screwdriver kit
- Set of taps for threading “C” channel, if applicable
- Socket wrench set
- SU-100 tune-in remote control
- Tape measure

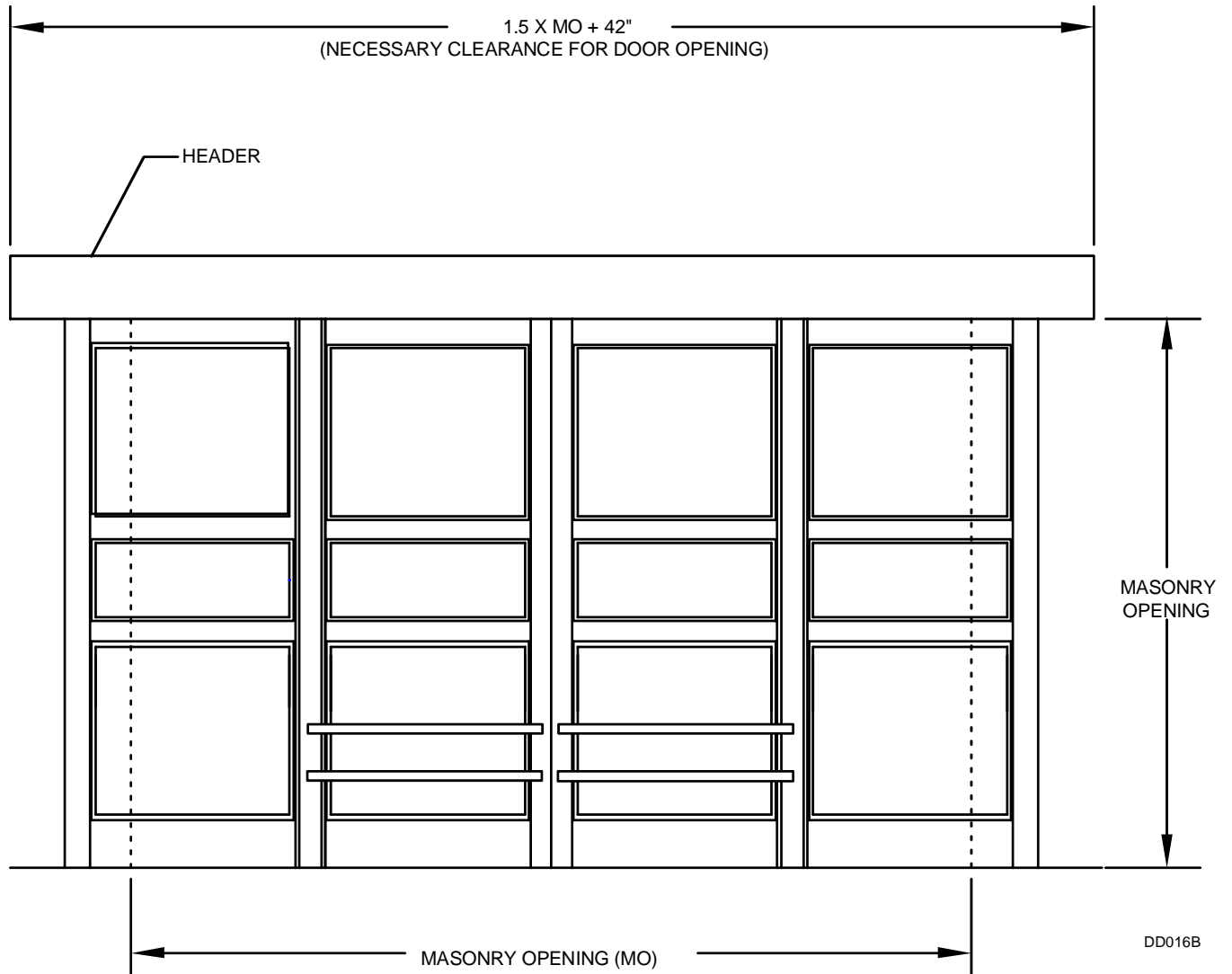
#### Materials (including, but not limited to)

- Assorted fasteners
- Assorted masonry anchors
- Shims for header and slow track extrusion
- 4-conductor, 22-awg cable

#### Consumables (including, but not limited to)

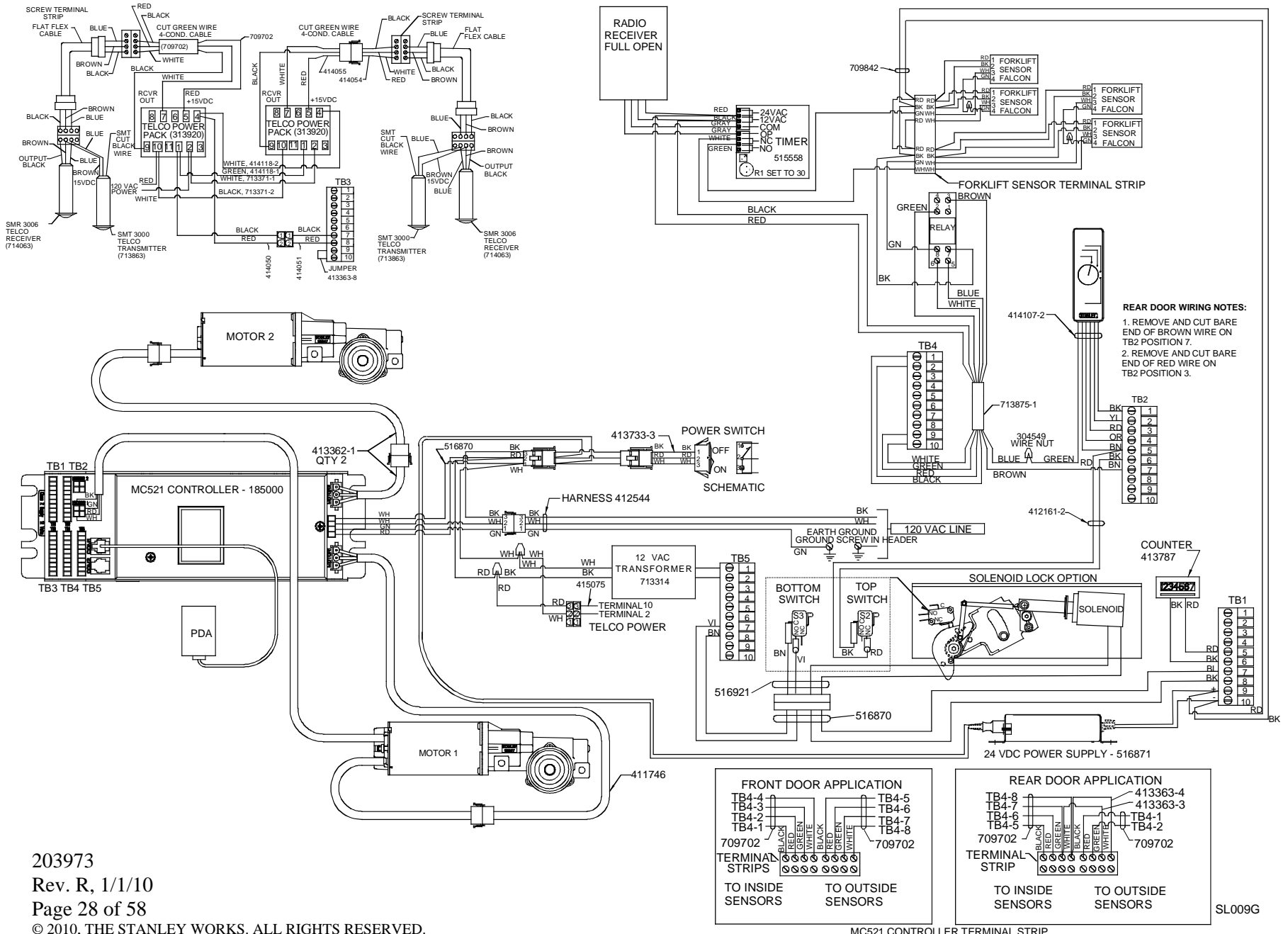
- Clean rags
- Clear silicone caulk
- Degreaser
- Glass cleaner
- Loctite
- Tie wraps

**Attachment 2**  
**Masonry Opening**  
(Sheet 1 of 1)



# Attachment 3 System Wiring Diagram (U.S.)

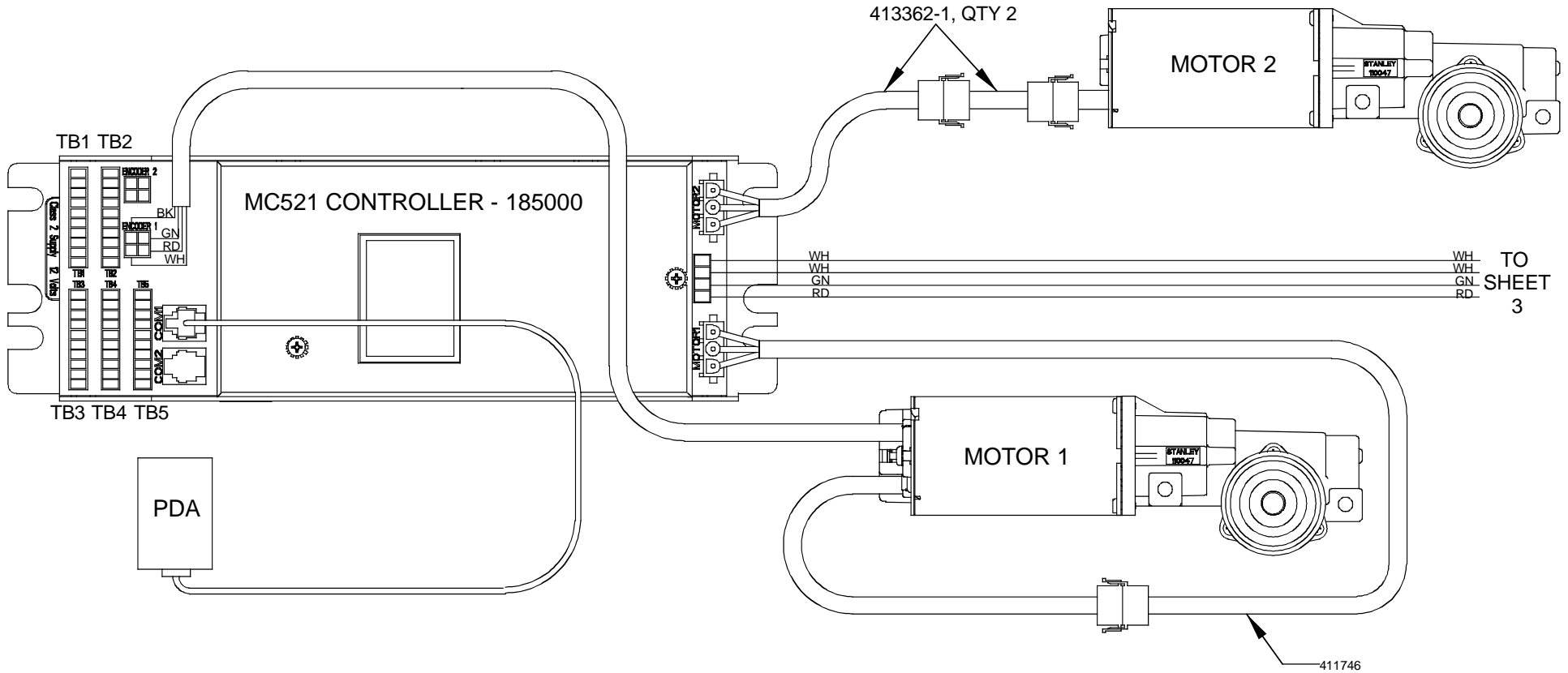
(Sheet 1 of 6)



- REAR DOOR WIRING NOTES:**
1. REMOVE AND CUT BARE END OF BROWN WIRE ON TB2 POSITION 7.
  2. REMOVE AND CUT BARE END OF RED WIRE ON TB2 POSITION 3.

### Attachment 3 System Wiring Diagram (U.S.)

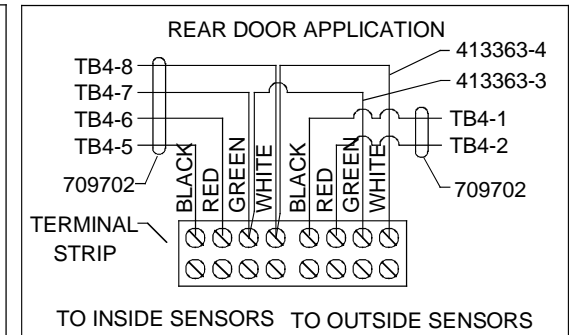
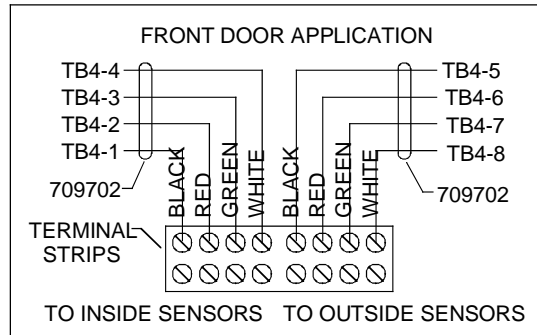
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#### REAR DOOR WIRING NOTES

1. REMOVE AND CUT BARE END OF BROWN WIRE ON TB2 POSITION 7.
2. REMOVE AND CUT BARE END OF RED WIRE ON TB2 POSITION 3.

#### MC521 CONTROLLER TERMINAL STRIP



203973

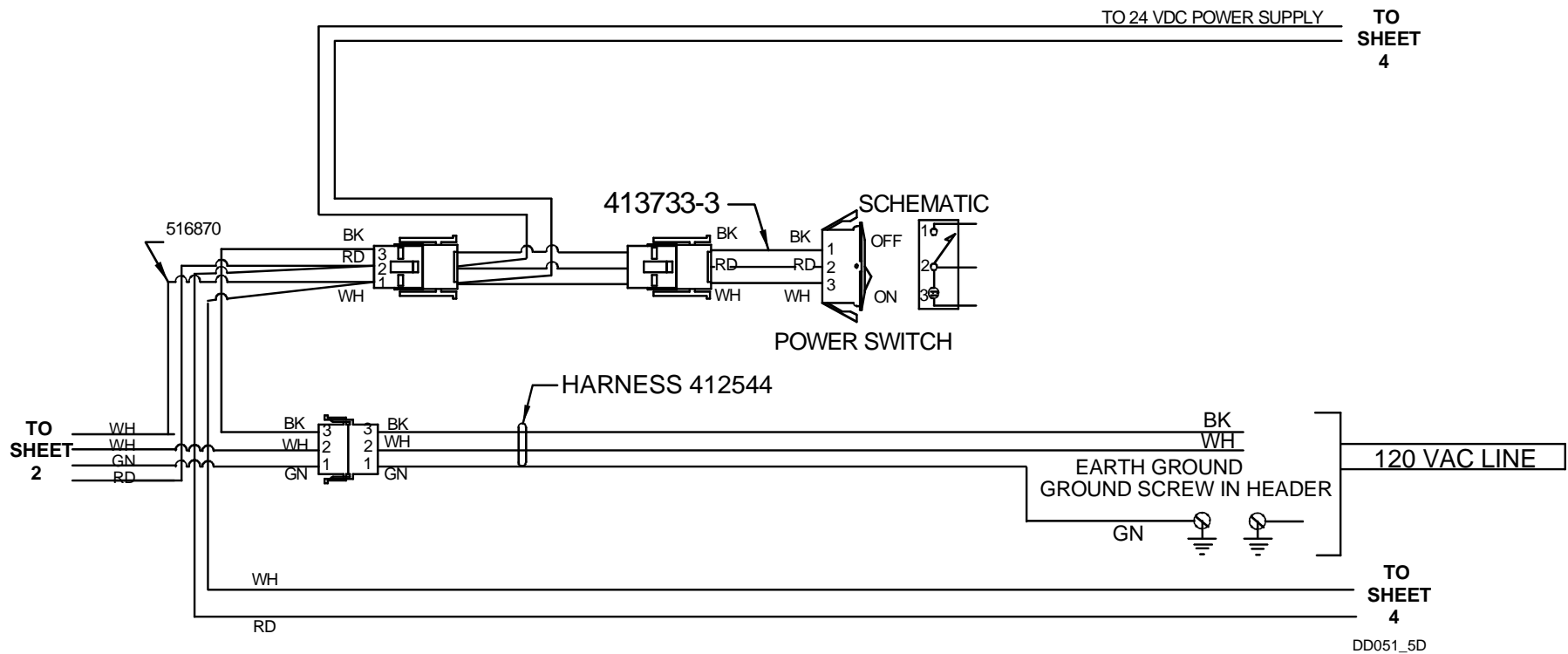
Rev. R, 1/1/10

Page 29 of 58

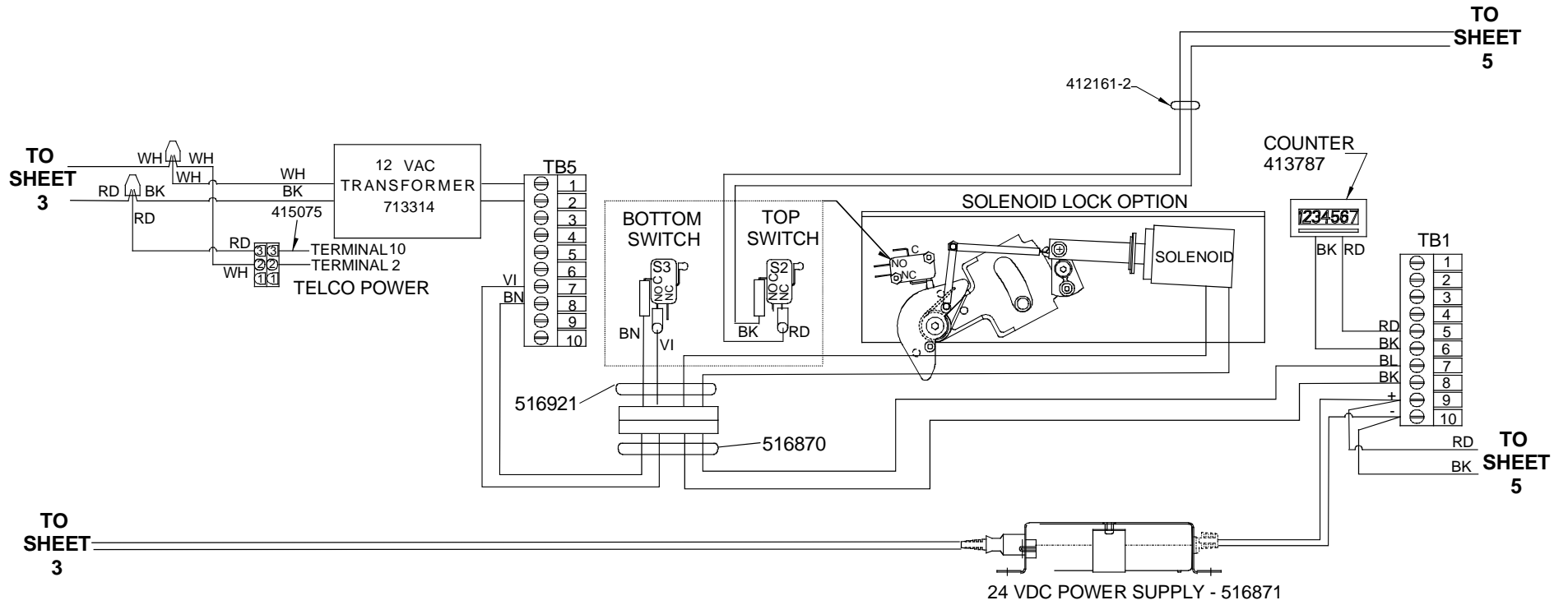
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DD051\_1C

**Attachment 3**  
**System Wiring Diagram (U.S.)**  
 (Sheet 3 of 6)



### Attachment 3 System Wiring Diagram (U.S.) (Sheet 4 of 6)



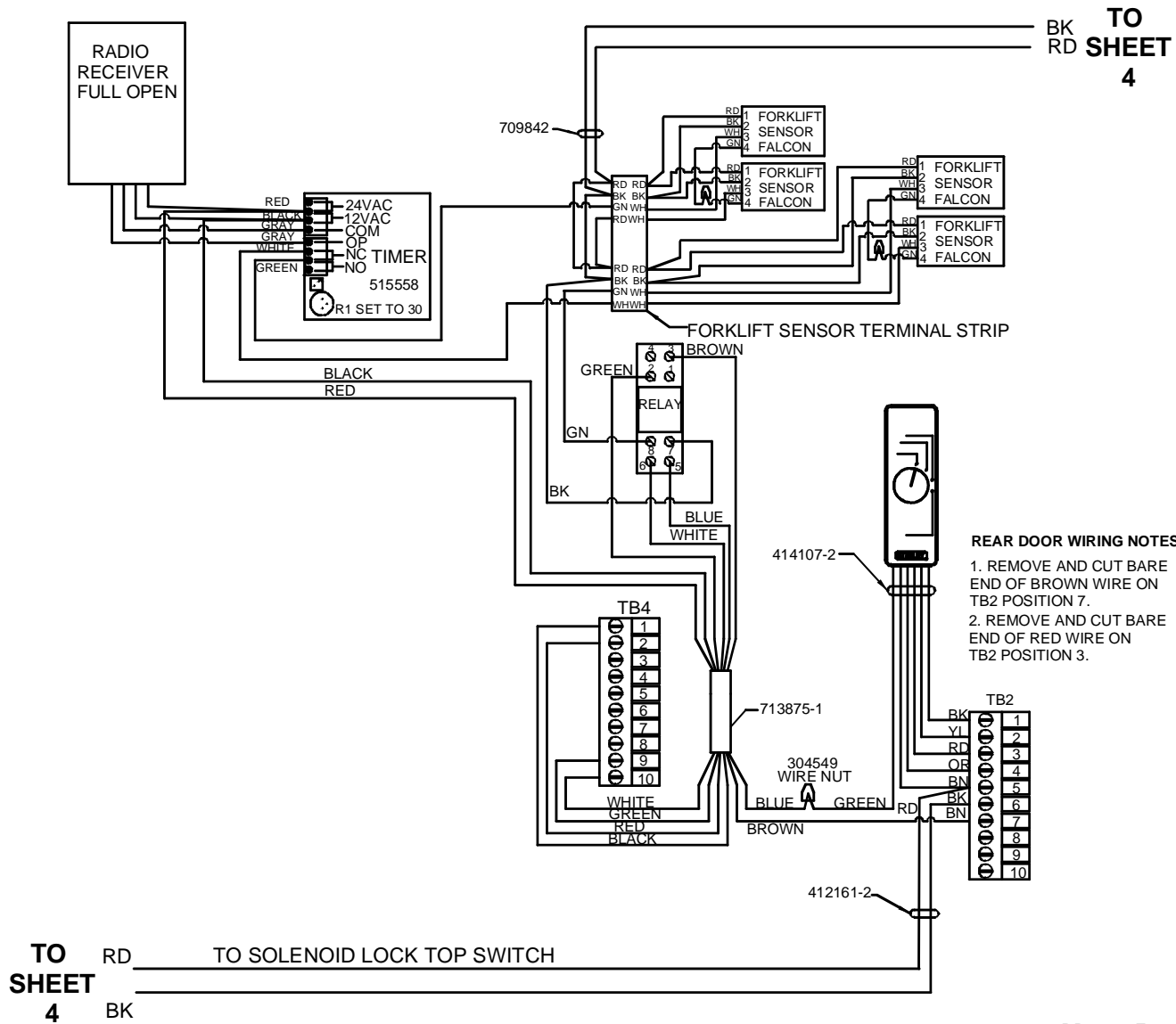
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# Attachment 3

## System Wiring Diagram (U.S.)

(Sheet 5 of 6)



DD051\_4F

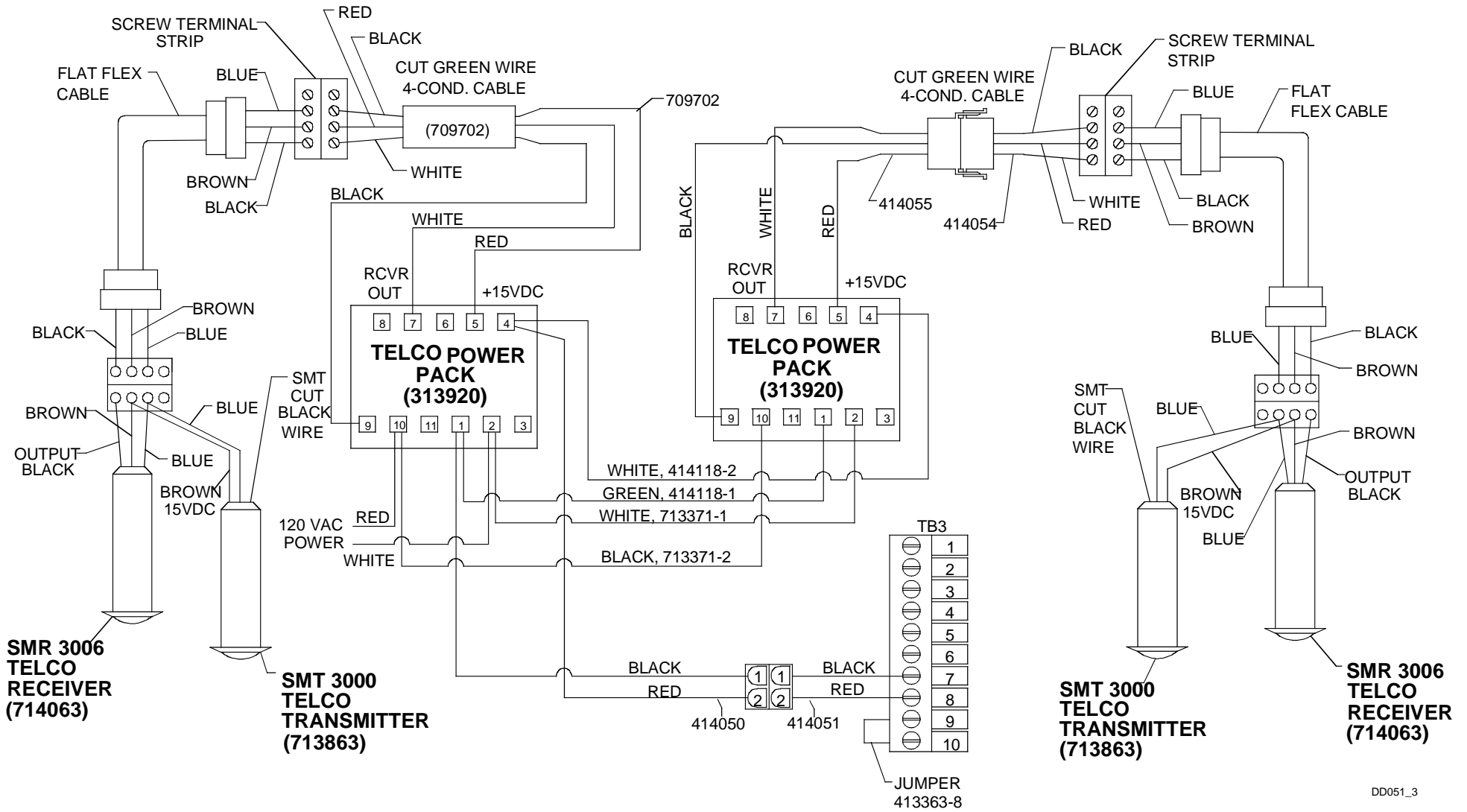
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Rev. R, 1/1/10

Page 32 of 58

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### Attachment 3 System Wiring Diagram (U.S.) (Sheet 6 of 6)



DD051\_3

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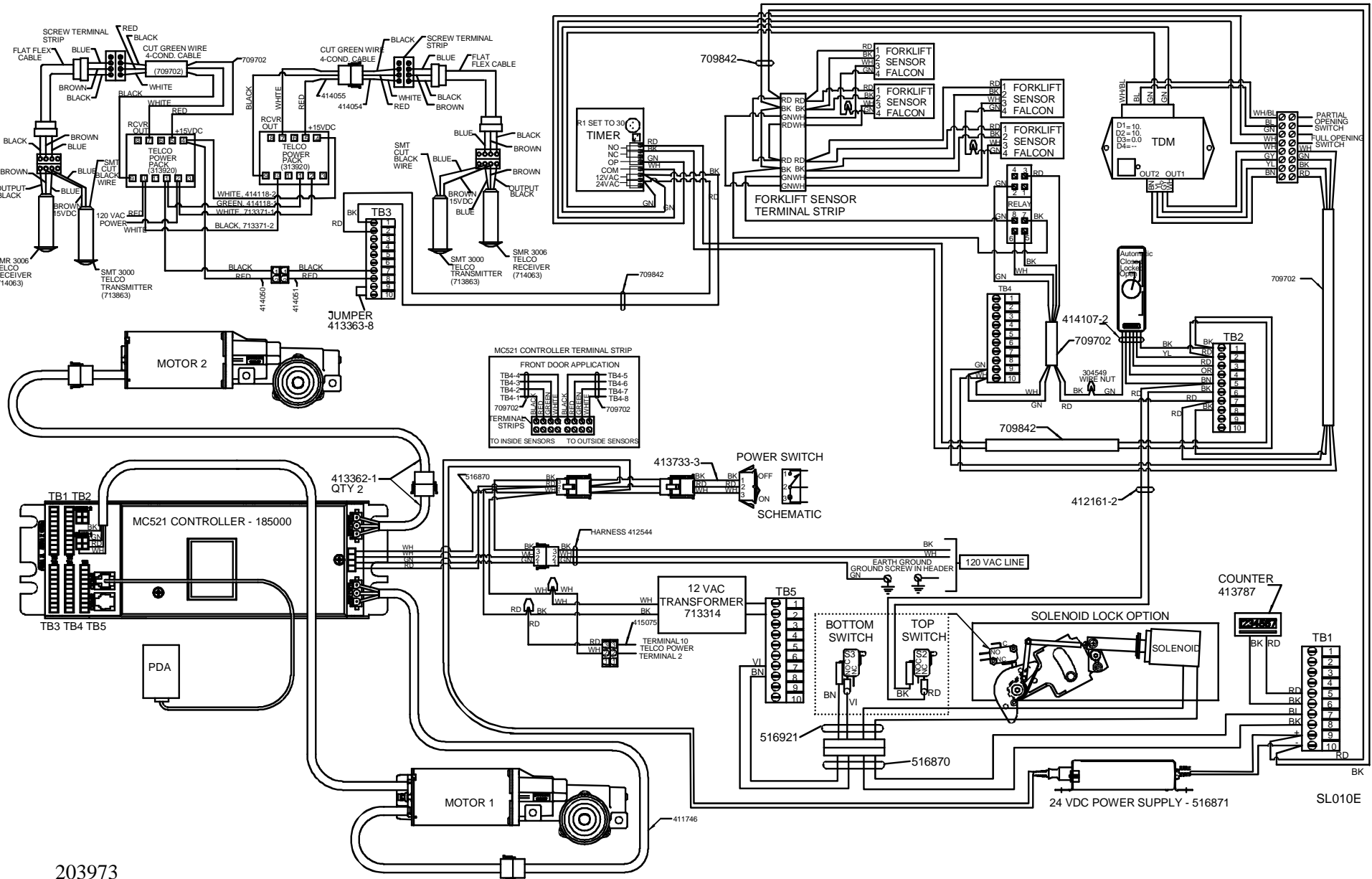
Page 33 of 58

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# Attachment 4

## System Wiring Diagram (Canada)

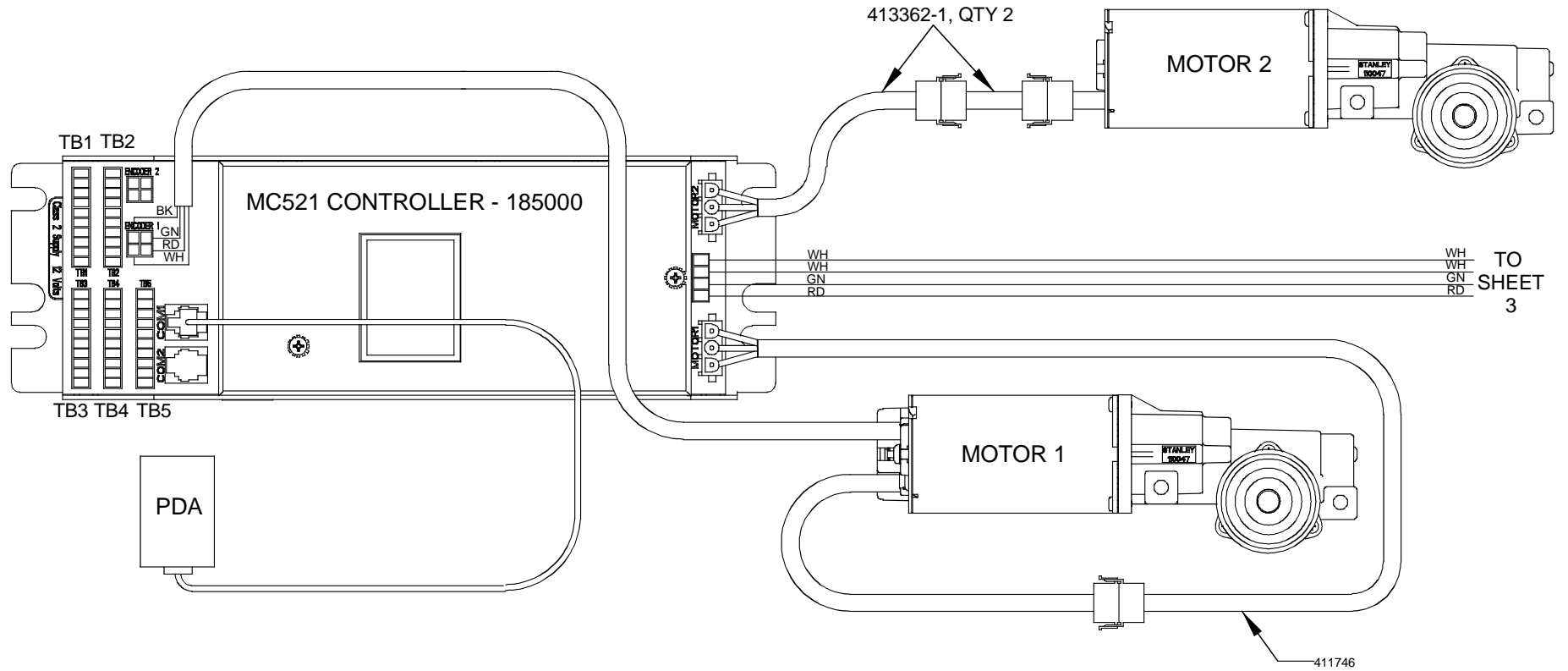
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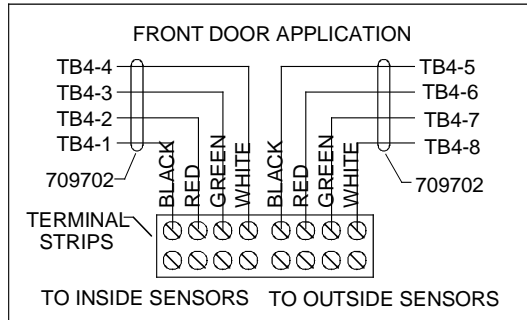
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## System Wiring Diagram (Canada)

(Sheet 2 of 6)



**MC521 CONTROLLER TERMINAL STRIP**



DD090\_2B

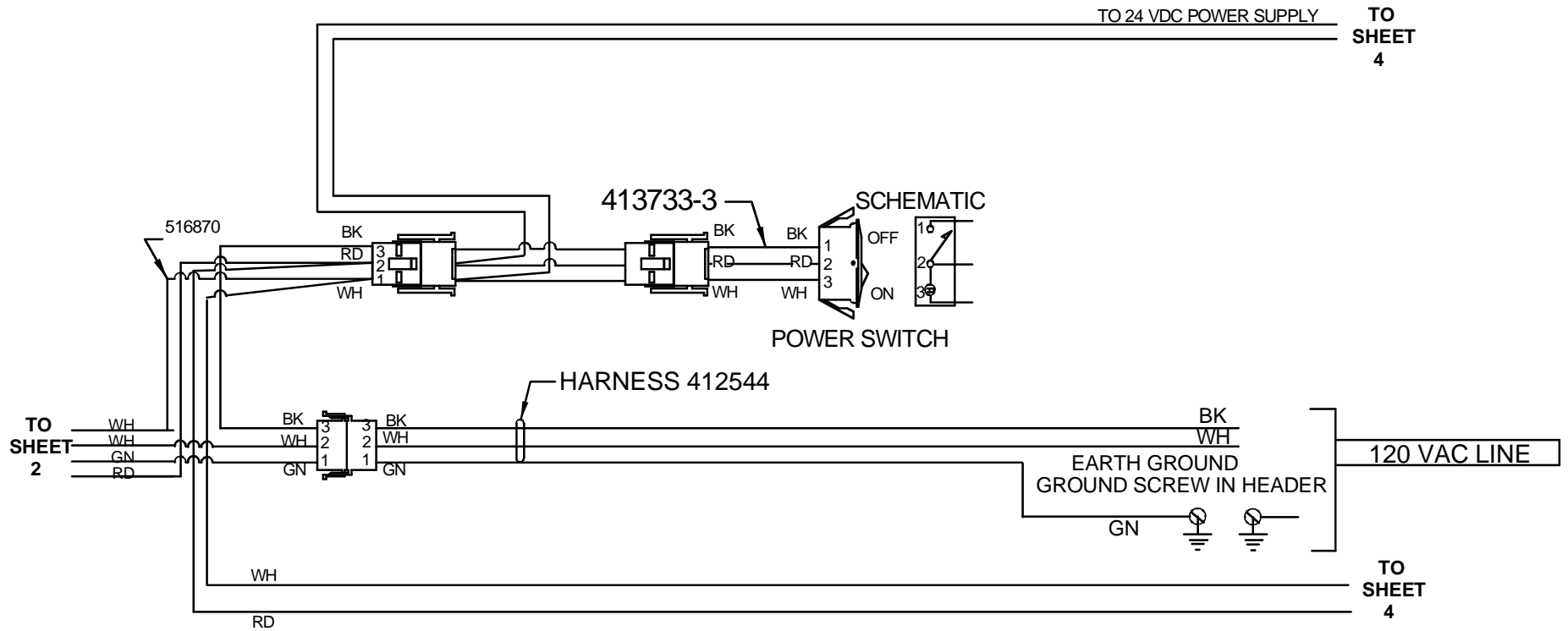
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Rev. R, 1/1/10

Page 35 of 58

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**Attachment 4**  
**System Wiring Diagram (Canada)**  
 (Sheet 3 of 6)

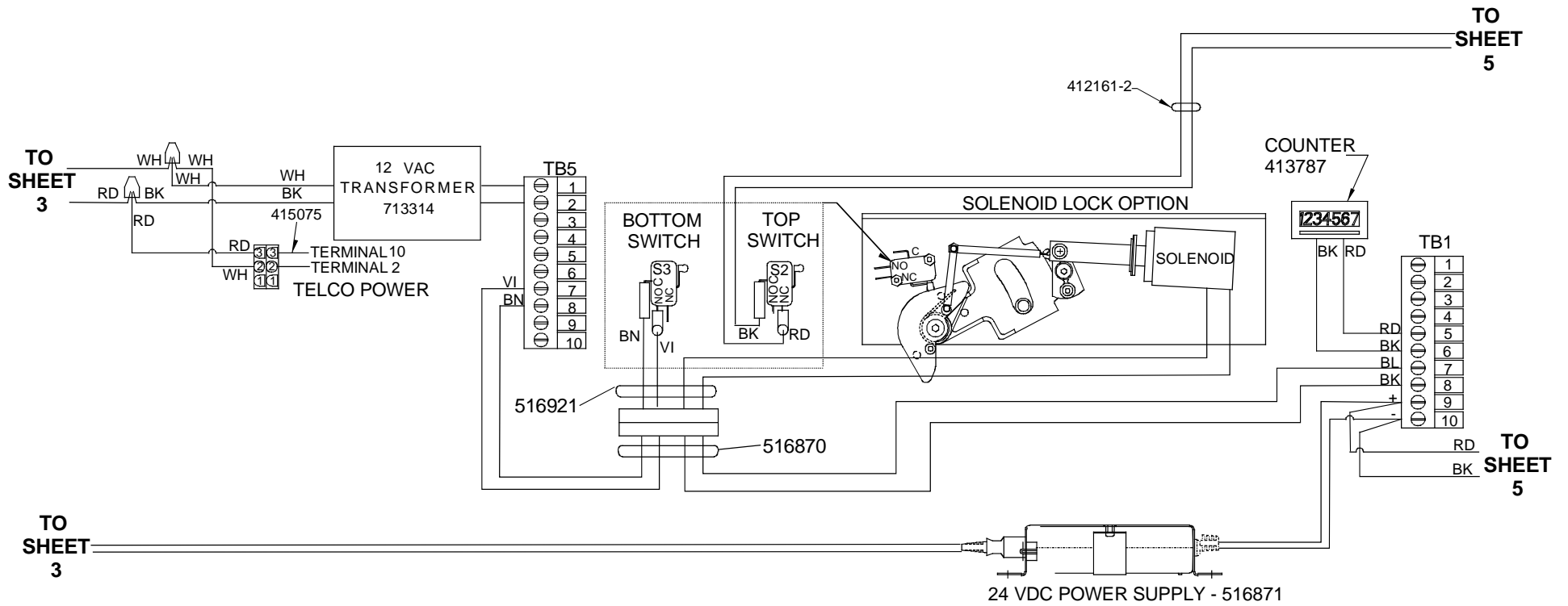


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# Attachment 4

## System Wiring Diagram (Canada)

(Sheet 4 of 6)



DD051\_2C

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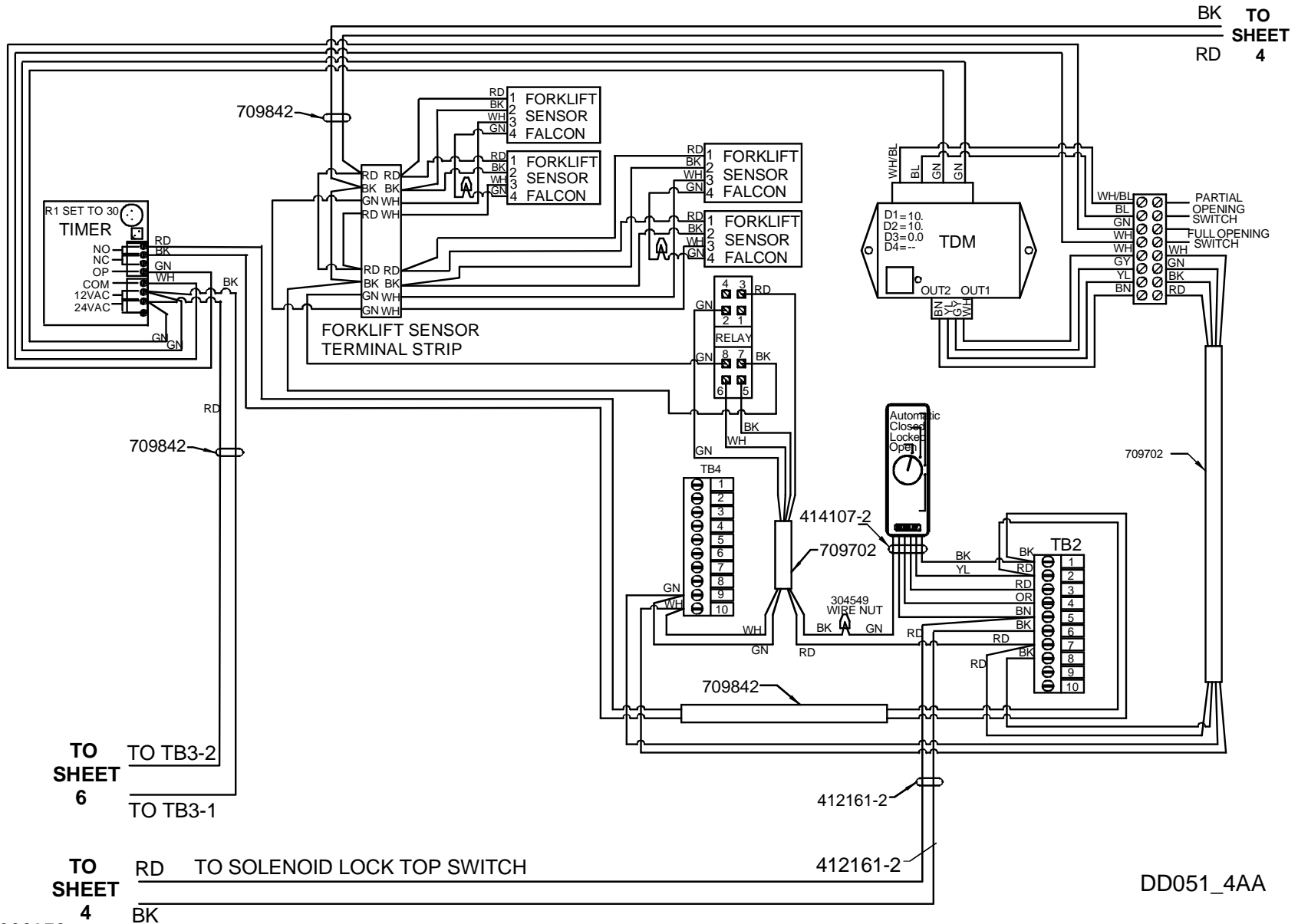
Page 37 of 58

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# Attachment 4

## System Wiring Diagram (Canada)

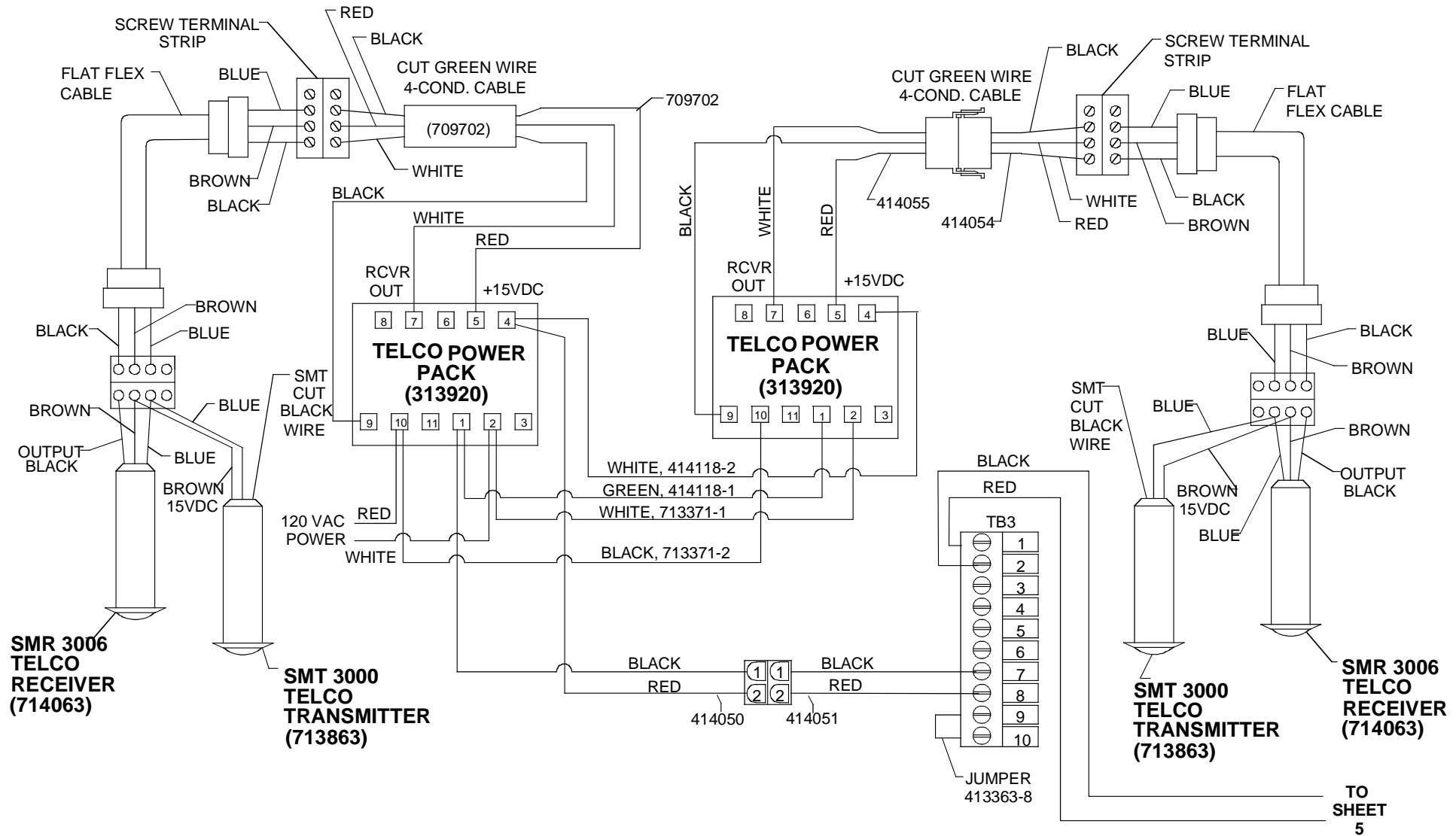
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# Attachment 4

## System Wiring Diagram (Canada)

(Sheet 6 of 6)

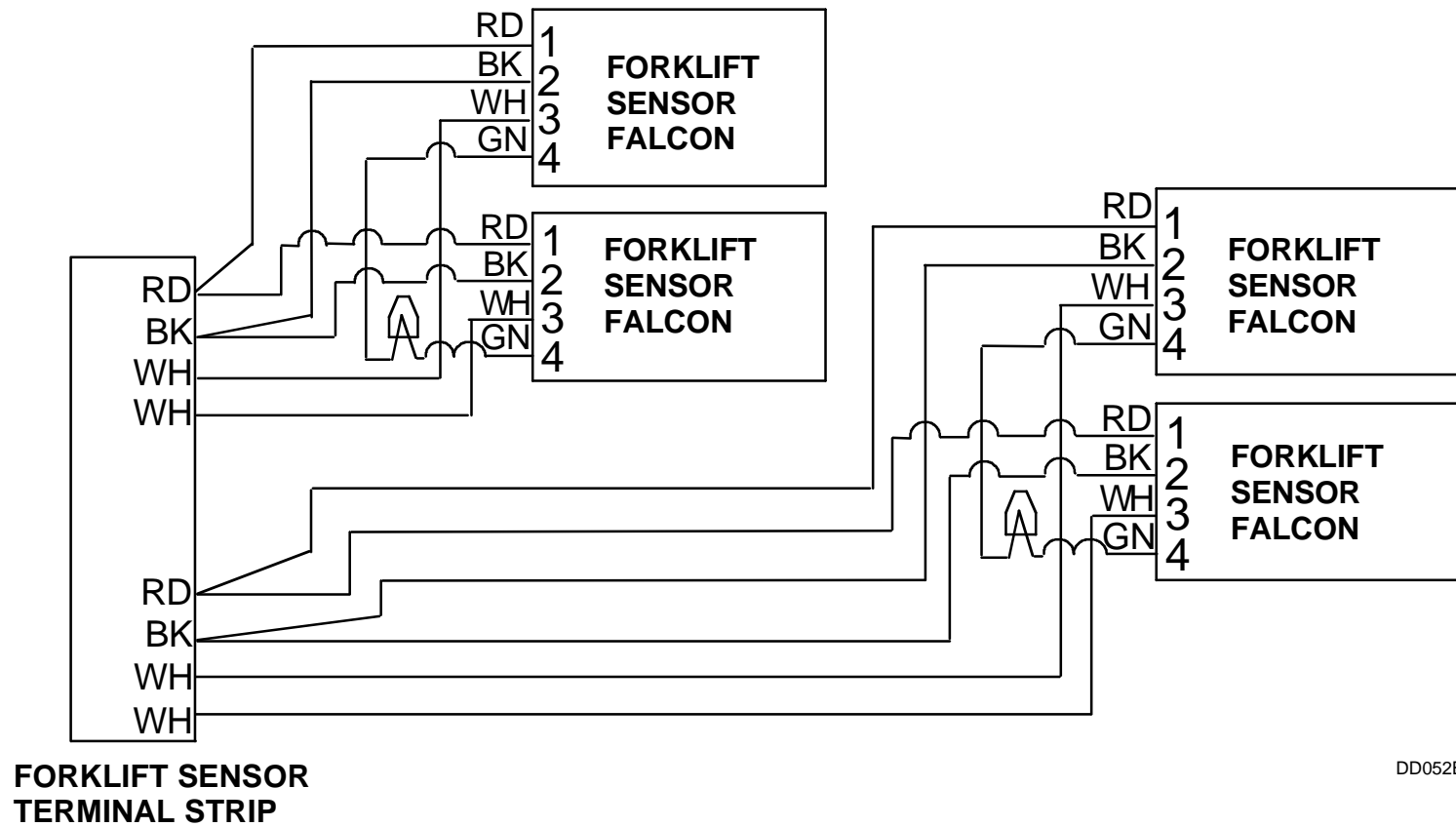


TO SHEET 5

DD051\_3A



**Attachment 5**  
**Forklift Sensor Wiring Diagram**  
(Sheet 1 of 1)



DD052B

203973

Rev. R, 1/1/10

Page 40 of 58

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**Attachment 6**  
**Quick-Reference Guide**  
(Sheet 1 of 1)

**PREREQUISITE**

- Level floor such that the difference between the high and low points is no greater than  $\frac{3}{8}$ ".

**HEADER MOUNTING HOLE LOCATIONS**

- The location of the **lower** header mounting plate holes from the highest point on the floor is: DOOR STILE LENGTH + 4  $\frac{1}{2}$ "
- The location of the **upper** header mounting plate holes from the highest point on the floor is: DOOR STILE LENGTH + 10  $\frac{1}{2}$ "
- Drill  $\frac{5}{16}$ " holes through both sides of the steel beam and then tap for  $\frac{3}{8}$ -16 bolts.

**SU-100 SENSOR SETTING**

- Install narrow-pattern antenna

**OPTEX OA-203 SENSOR SETTINGS**

- Width – Maximum
- Depth – Maximum
- Sensitivity – High
- Presence detection time – 60 seconds
- Frequency switch – Assign each sensor a different frequency
- Snow mode – Set to appropriate setting for environment and weather conditions

**TIMER ISOLATOR BOARD SETTING**

- Set the R1 potentiometer on the timer isolator board (attached to the radio receiver in the remote header box) to 6 seconds.

**CONTROL BOX SETTINGS**

- Dual motor
- Right hand
- Old rotary switch
- 0.5-sec. obstruction
- Reduced-open 9' 6" (approx.)
- Lock—Fail Secure or Fail Safe

**TELCO POWER PACK SWITCH**

- Set switch to up position on both power packs.

**TDM**

- D1= 10 Sec
- D2= 10 Sec
- D3= 0.0 Sec
- D4= NA

**Attachment 7**  
**Replacement Parts**  
(Sheet 1 of 16)

Item	Part No.	Description	Item	Part No.	Description
1	714225	Falcon sensor	29	313921	E-chain and harness kit
2	313911	Weatherstripping kit	30	185040-1	Solenoid lock assembly, RH, fail safe
3	516721	Optex OA-203C presence sensor	31	413347	Cover seal
4	157713-1	Slow panel, LH	32	313969	MC521 control box
5	157713-2	Slow panel, RH	33	313922	Bumper stop kit
6	414011	Load wheel	34	413836	SU-100 rain hood
7	N/A	N/A	35	516669	SU-100 motion sensor
8	412691	Pulley assembly, telescoping slider	36	713750-12 / 714088	Receiver: multicode/megacode
9	313941-XX*	Reversing cable kit	37	516812 516860	Controller assembly (U.S. Only) Controller assembly (Canada Option)
10	157715-1	Fast panel, LH	40	313920	Telco power pack kit
11	157715-2	Fast panel, RH	41	413787	Electronic counter
12	413936	Anti-riser wheel	42	515558	Timer isolator
13	706812	Glass stop weatherstrip	43	713928-2	Relay, 24 VDC
14	717807-21000	Glass stop gutter extrusion	44	713928-1	Relay Socket
15	412472-21000	Glass stop extrusion	46	713033 / 714090	Transmitter: multicode/megacode
16	713863	Doorway holding beam transmitter	47	713034 / 714089	Keypad: multicode/megacode
17	714063	Doorway holding beam receiver	48	185036	Wind kit
18	170031	Bottom guide assembly	49	516872	Floor guide ("L" bracket)
19	N/A	N/A	50	516865	Slow guide
20	516646C	Crash bar	51	516866	Fast guide
21	313923-1 313923-2	Lock/cylinder kit, clear Lock/cylinder kit, bronze	52	413753	Time delay module
22	N/A	N/A	53	516844	Panel guide ("C" channel)
23	516692	Strike	54	516870	Harness, Solenoid Lock MC521
24	713081	Power rocker switch	55**	516921	Harness, Solenoid Lock Pigtail
25	413960 413973	Rotary switch, 4-position (front door) Rotary switch, 3-position (back door)	56	415075	Harness, Telco Power
26	411624	Adhesive-backed pile, brown	57	516871	Power Supply, 24VDC
27	110055	Motor and gearbox assembly			
28	711450	Timing belt, 3/4", long length			
* "XX" refers to the masonry opening width in feet.					
**516921 needed for solenoid locks that do not include solenoid lock pigtail.					

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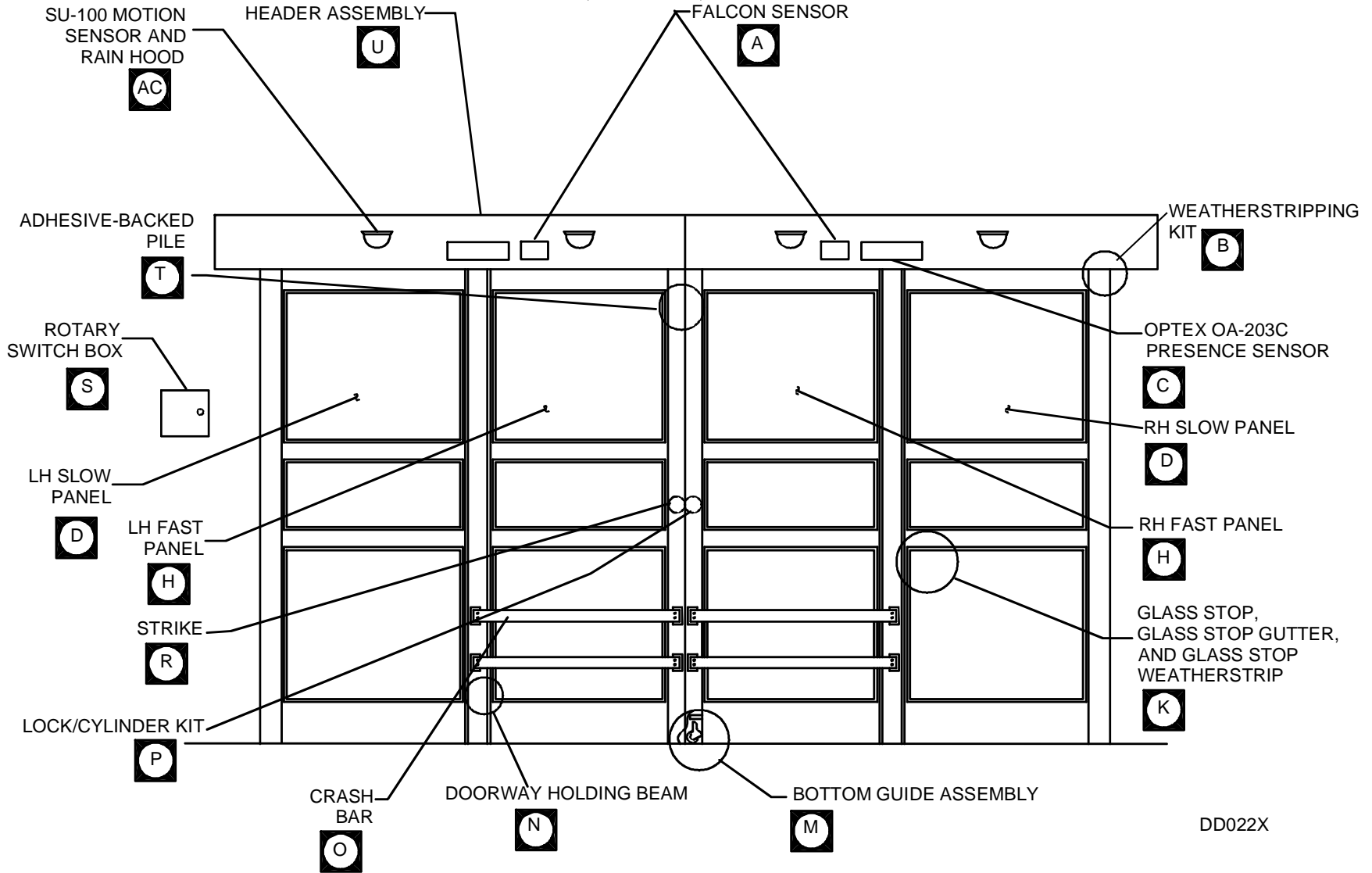
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Page 42 of 58

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# Attachment 7 Replacement Parts

(Sheet 2 of 16)



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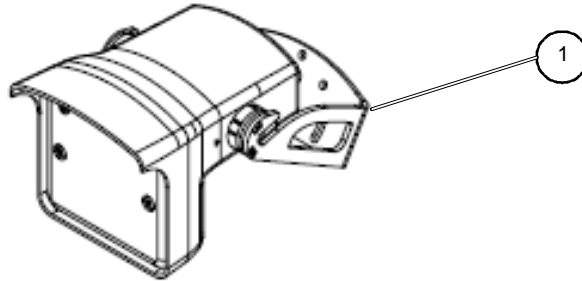
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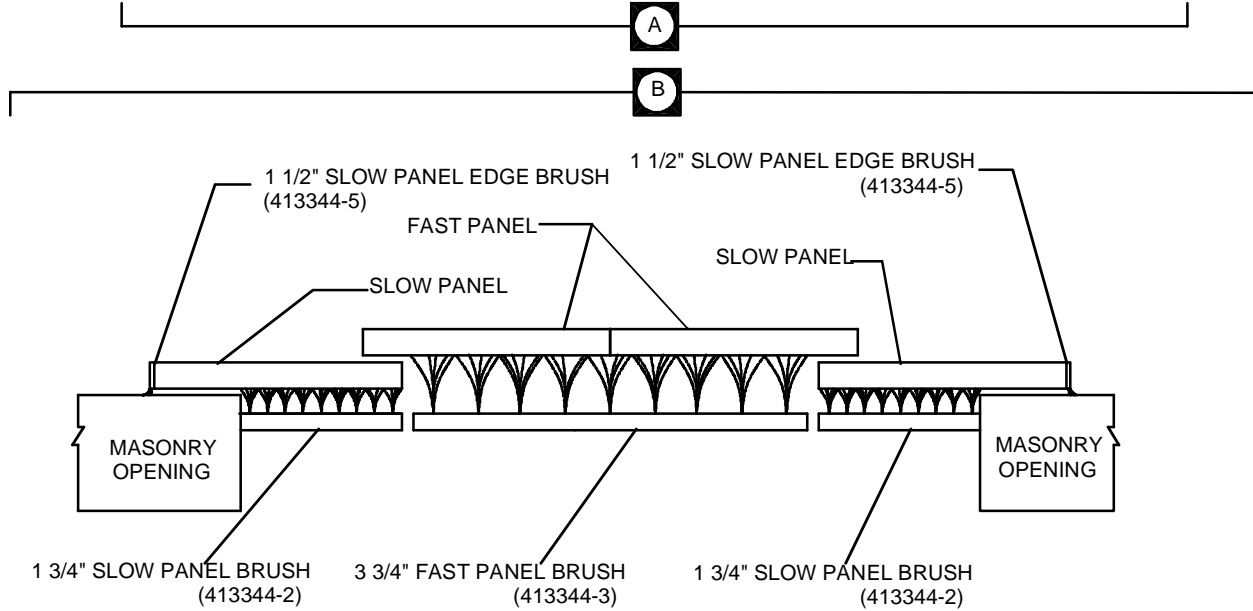
Page 43 of 58

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**Attachment 7**  
**Replacement Parts**  
(Sheet 3 of 16)



**FALCON SENSOR**



**WEATHERSTRIPPING KIT** 2

DD023C

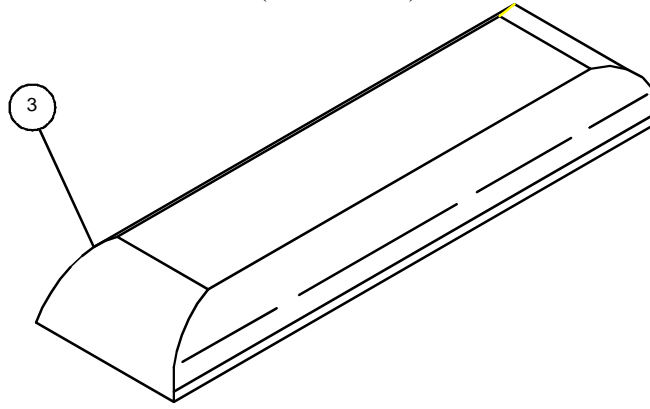
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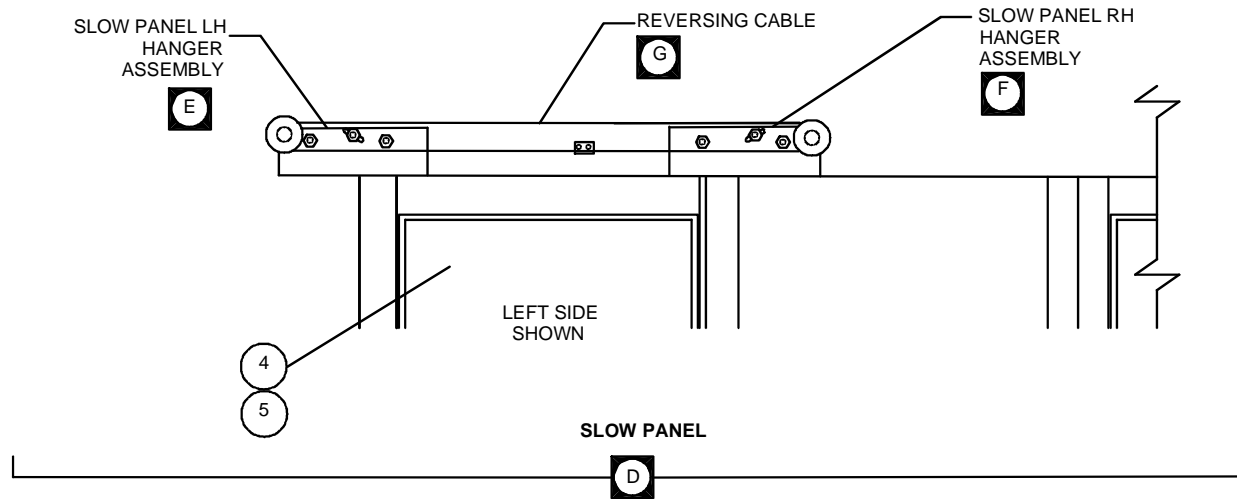
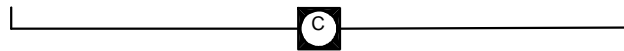
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**Attachment 7**  
**Replacement Parts**  
(Sheet 4 of 16)



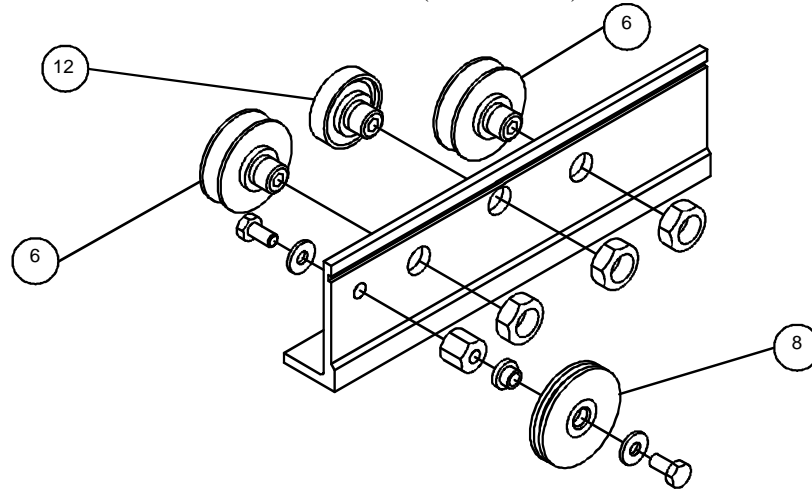
OPTEX OA-203C PRESENCE SENSOR



DD024

**Attachment 7**  
**Replacement Parts**

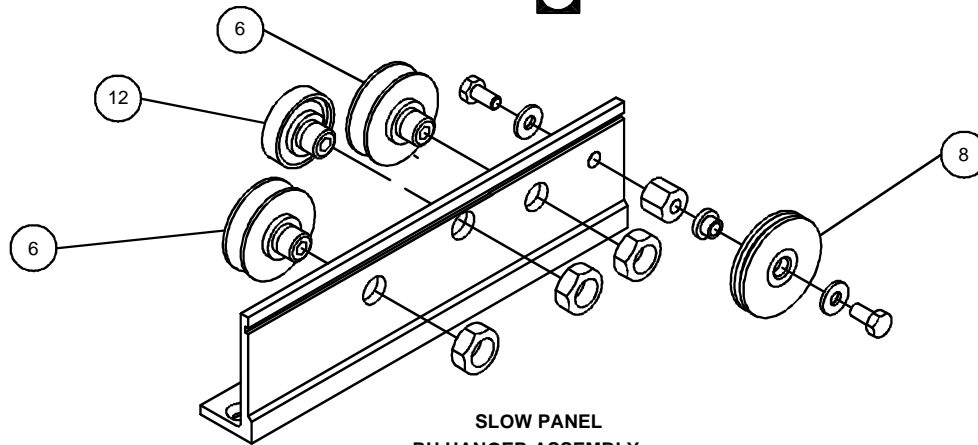
(Sheet 5 of 16)



**SLOW PANEL**  
**LH HANGER ASSEMBLY**

**E**

**F**



**SLOW PANEL**  
**RH HANGER ASSEMBLY**

DD025X

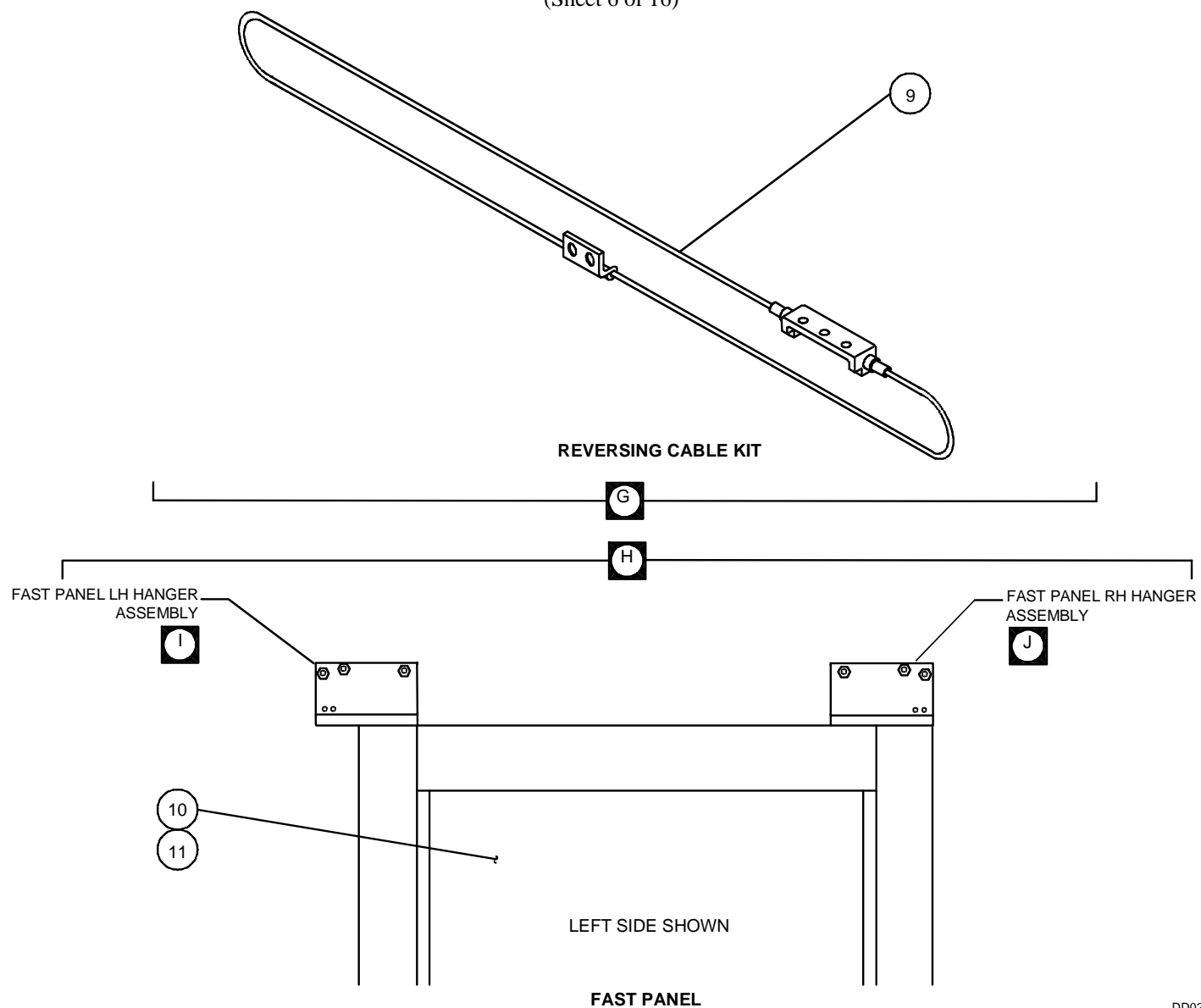
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Page 46 of 58

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**Attachment 7**  
**Replacement Parts**  
(Sheet 6 of 16)



DD026A

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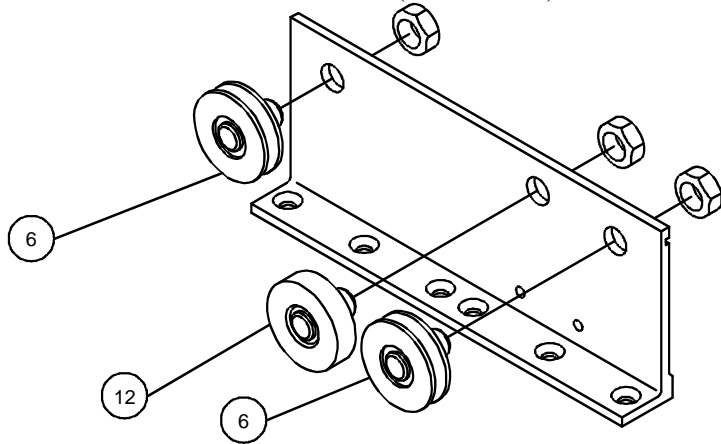
Page 47 of 58

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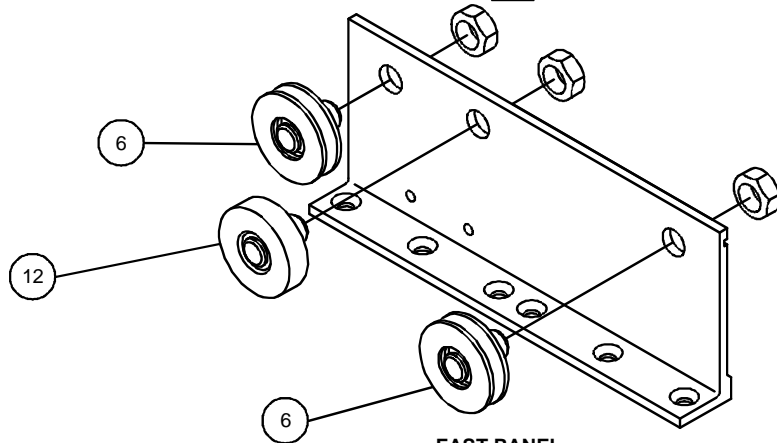


**Attachment 7**  
**Replacement Parts**

(Sheet 7 of 16)



**FAST PANEL**  
**LH HANGER ASSEMBLY**



**FAST PANEL**  
**RH HANGER ASSEMBLY**

DD027

203973

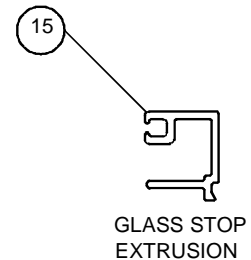
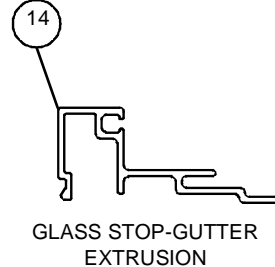
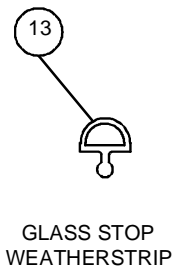
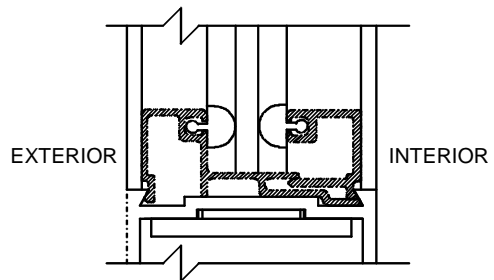
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Page 48 of 58

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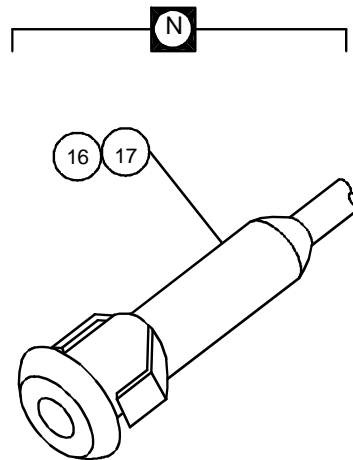
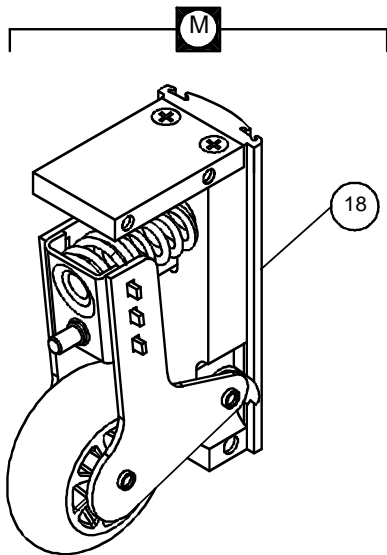
**Attachment 7**  
**Replacement Parts**

Sheet 8 of 16)



**GLASS STOP, GLASS STOP GUTTER,  
AND GLASS STOP WEATHERSTRIP**

**K**



DD028Y

203973

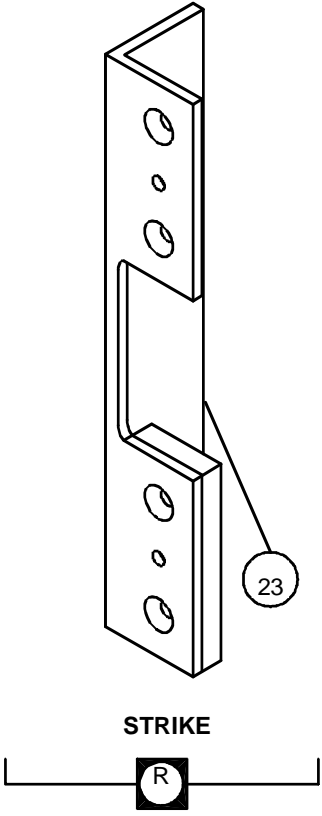
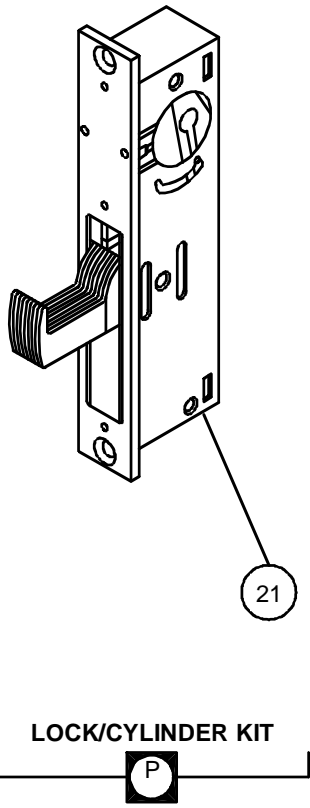
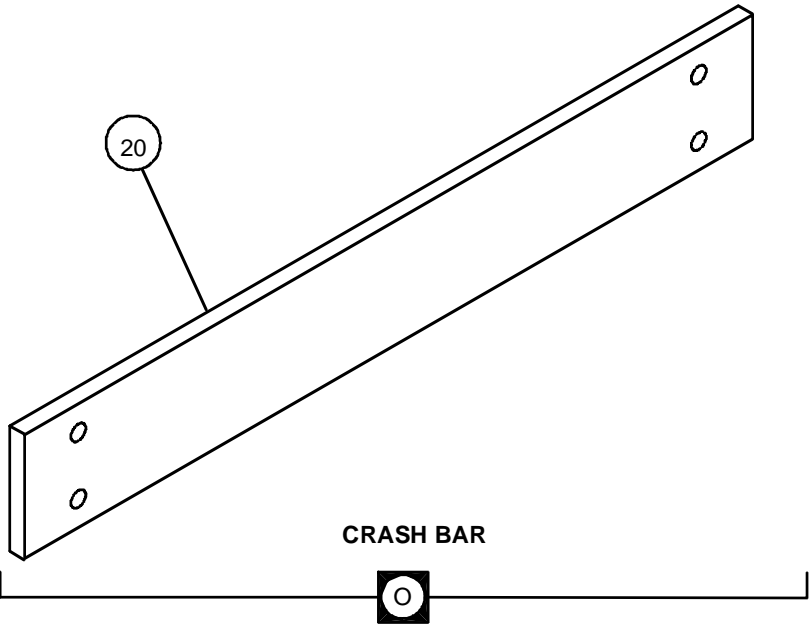
Rev. R, 1/1/10

Page 49 of 58

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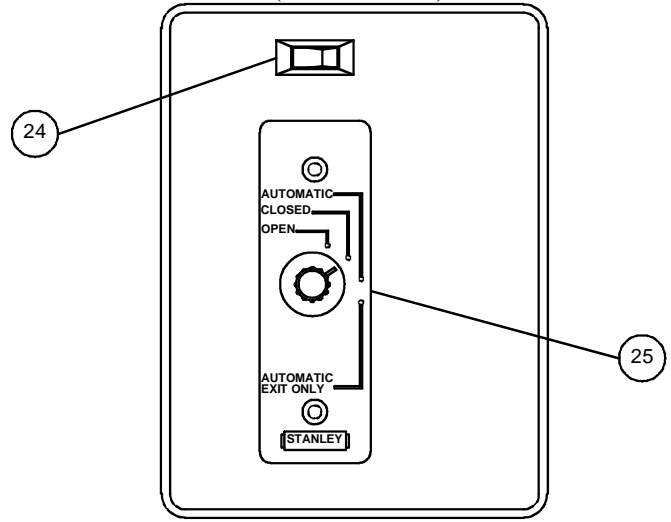
**Attachment 7**  
**Replacement Parts**

(Sheet 9 of 16)

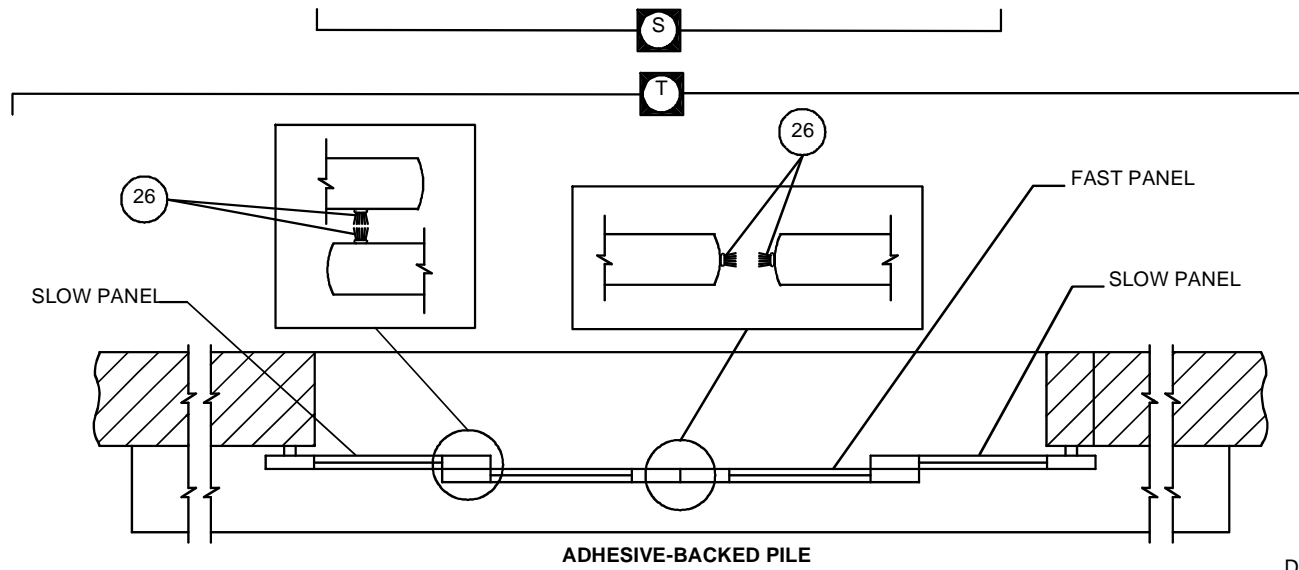


DD029X

**Attachment 7**  
**Replacement Parts**  
(Sheet 10 of 16)



ROTARY SWITCH BOX



DD030

203973

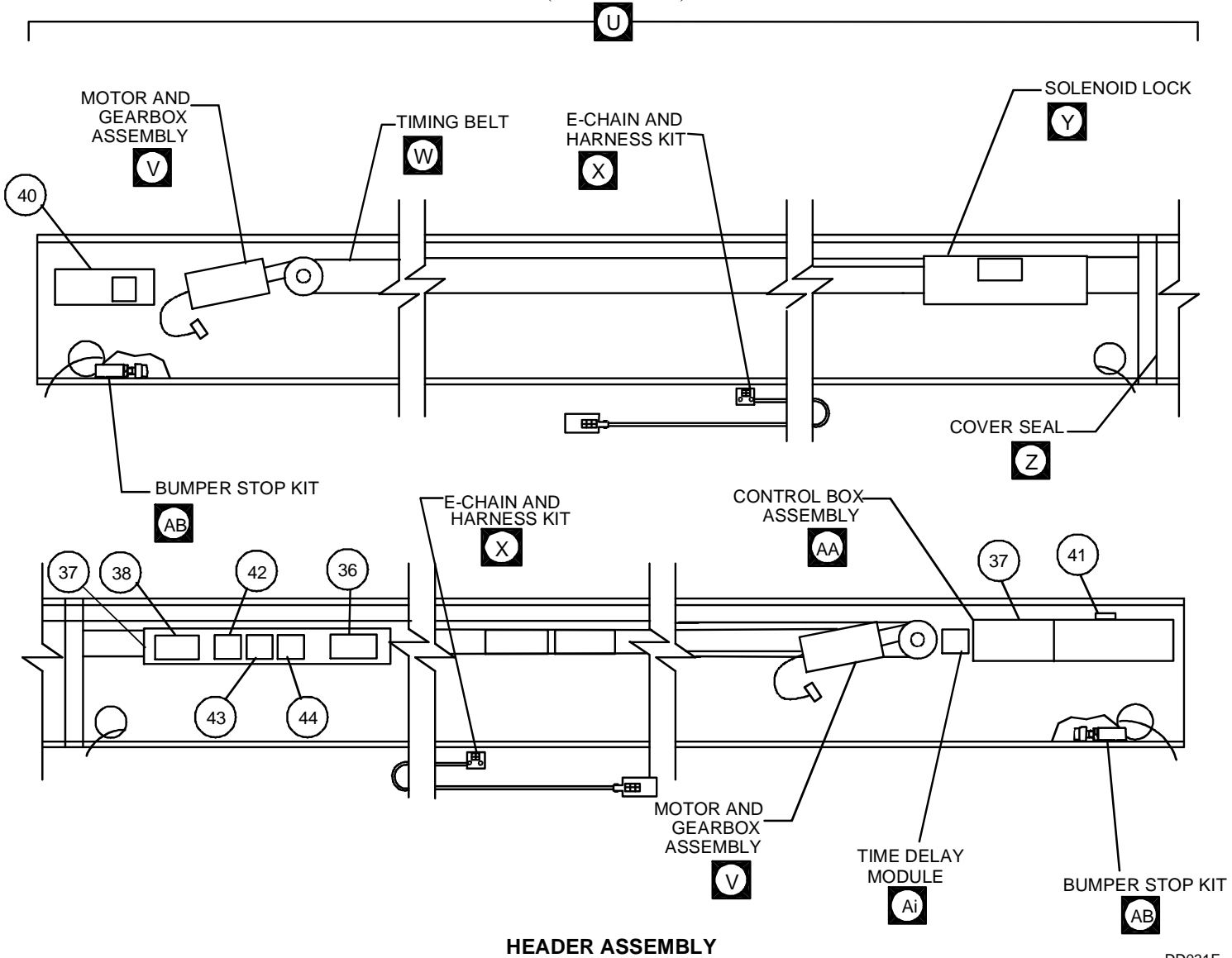
Rev. R, 1/1/10

Page 51 of 58

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# Attachment 7 Replacement Parts

(Sheet 11 of 16)



**HEADER ASSEMBLY**

DD031E

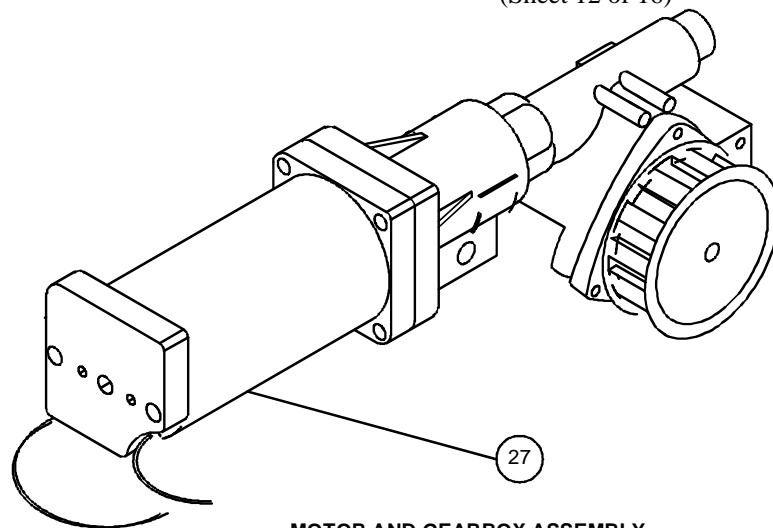
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Rev. R, 1/1/10

Page 52 of 58

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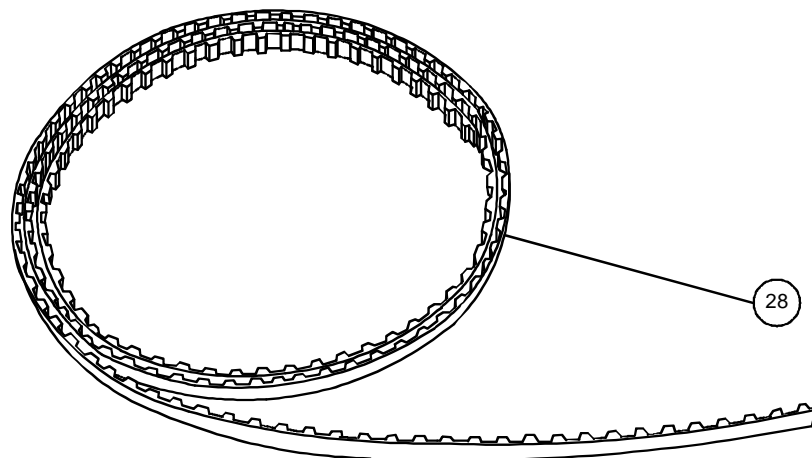
**Attachment 7**  
**Replacement Parts**  
(Sheet 12 of 16)



**MOTOR AND GEARBOX ASSEMBLY**

V

W



**TIMING BELT**

DD032

203973

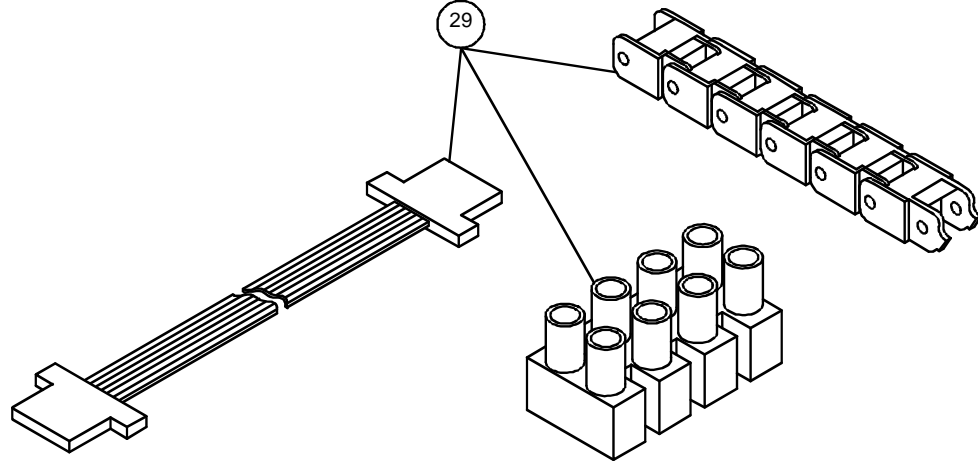
Rev. R, 1/1/10

Page 53 of 58

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# Attachment 7 Replacement Parts

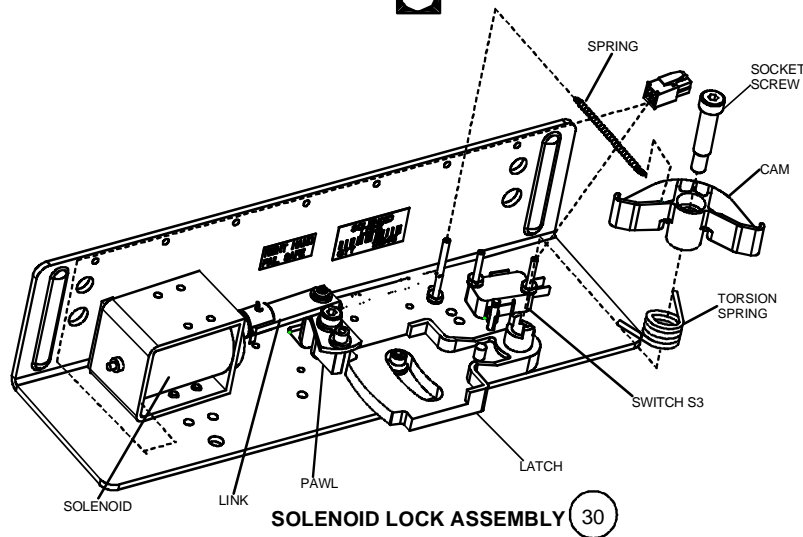
(Sheet 13 of 16)



E-CHAIN AND HARNESS KIT

X

Y



SOLENOID LOCK ASSEMBLY 30

DD033B

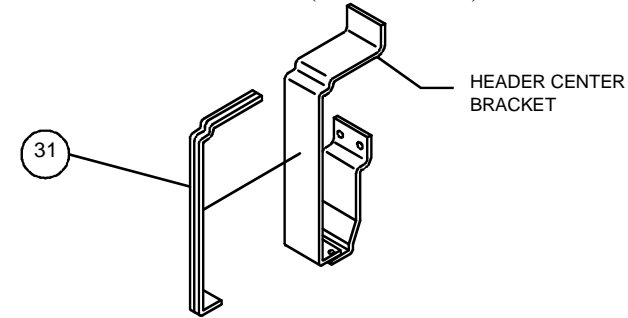
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Rev. R, 1/1/10

Page 54 of 58

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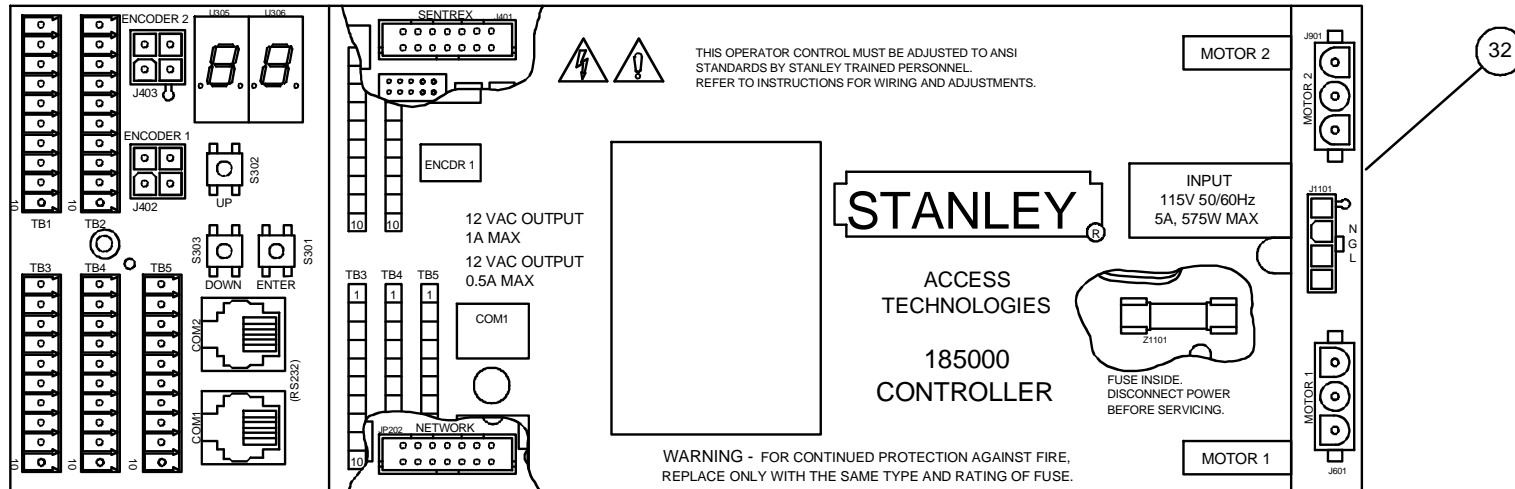
## Attachment 7 Replacement Parts (Sheet 14 of 16)



COVER SEAL

Z

AA



CONTROL BOX

DD034A

203973

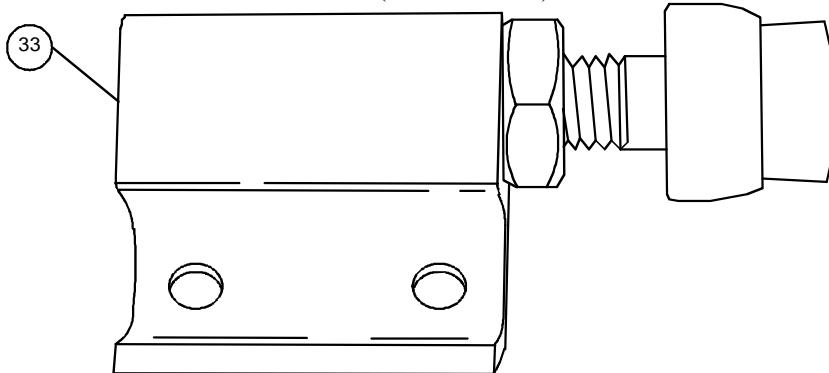
Rev. R, 1/1/10

Page 55 of 58

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**Attachment 7**  
**Replacement Parts**  
(Sheet 15 of 16)

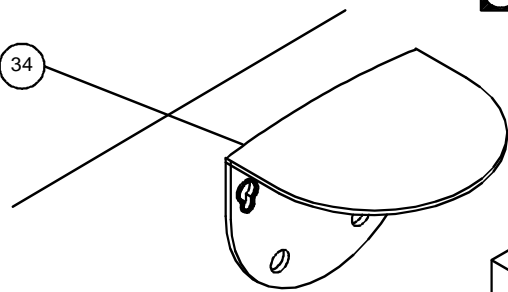


**BUMPER STOP KIT**

AB

AC

34



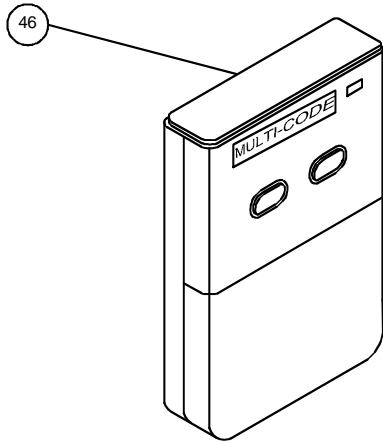
35

**SU-100 MOTION SENSOR  
AND RAIN HOOD**

DD035

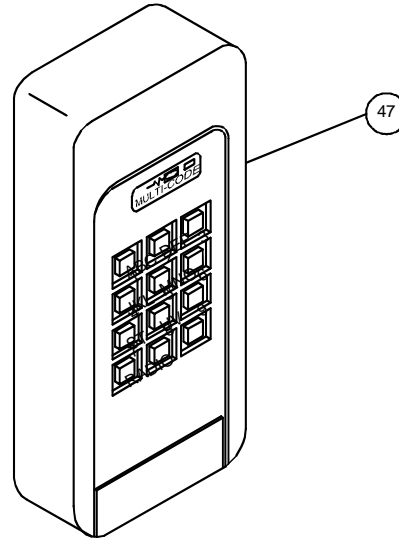
**Attachment 7**  
**Replacement Parts**  
(Sheet 16 of 16)

AD



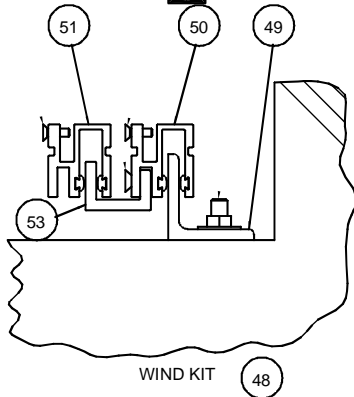
REMOTE

AE



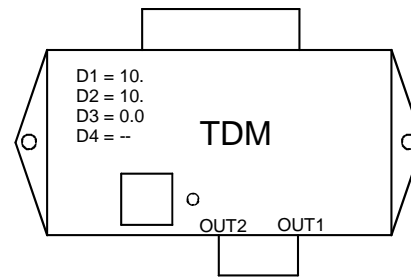
KEYPAD

AF



WIND KIT

AG



TIME DELAY MODULE

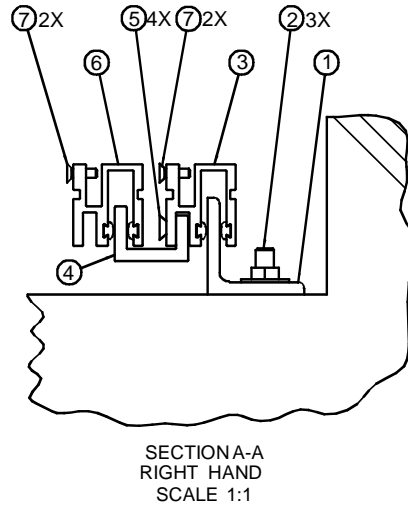
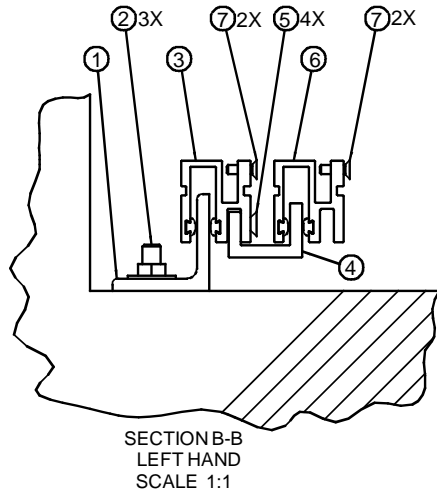
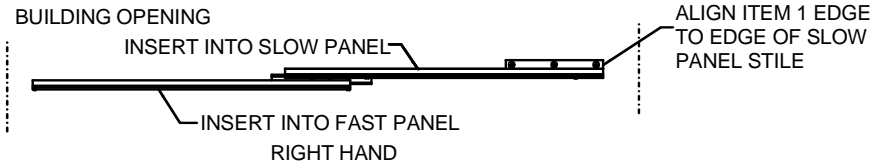
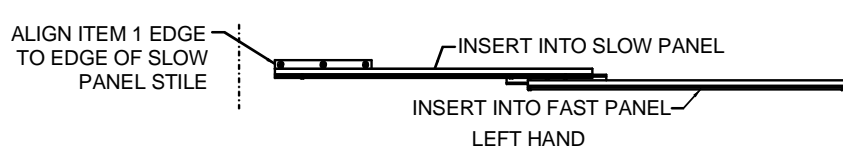
DD037D

# Attachment 8

## Wind Kit

(Sheet 1 of 1)

ITEM	PART	DESCRIPTION
1	516872	ANGLE - WIND KIT
2	713932	MASONRY ANCHOR, STUD HEX NUT
3	516865-16	SLOW GUIDE MACHINED & WEAR STRIP ASSY
	516865-17	
	516865-18	
	516865-19	
	516865-20	
4	516844	CHANNEL MACHINED - WIND KIT
5	312064499	SCREW, 1/4-20 UNC FLAT HEAD RECESSED
6	516866-16	FAST GUIDE MACHINED & WEAR STRIP ASSY
	516866-17	
	516866-18	
	516866-19	
	516866-20	
7	713321-1	SCREW, PF 10-32 X 1/2 SS CLEAR



DD059