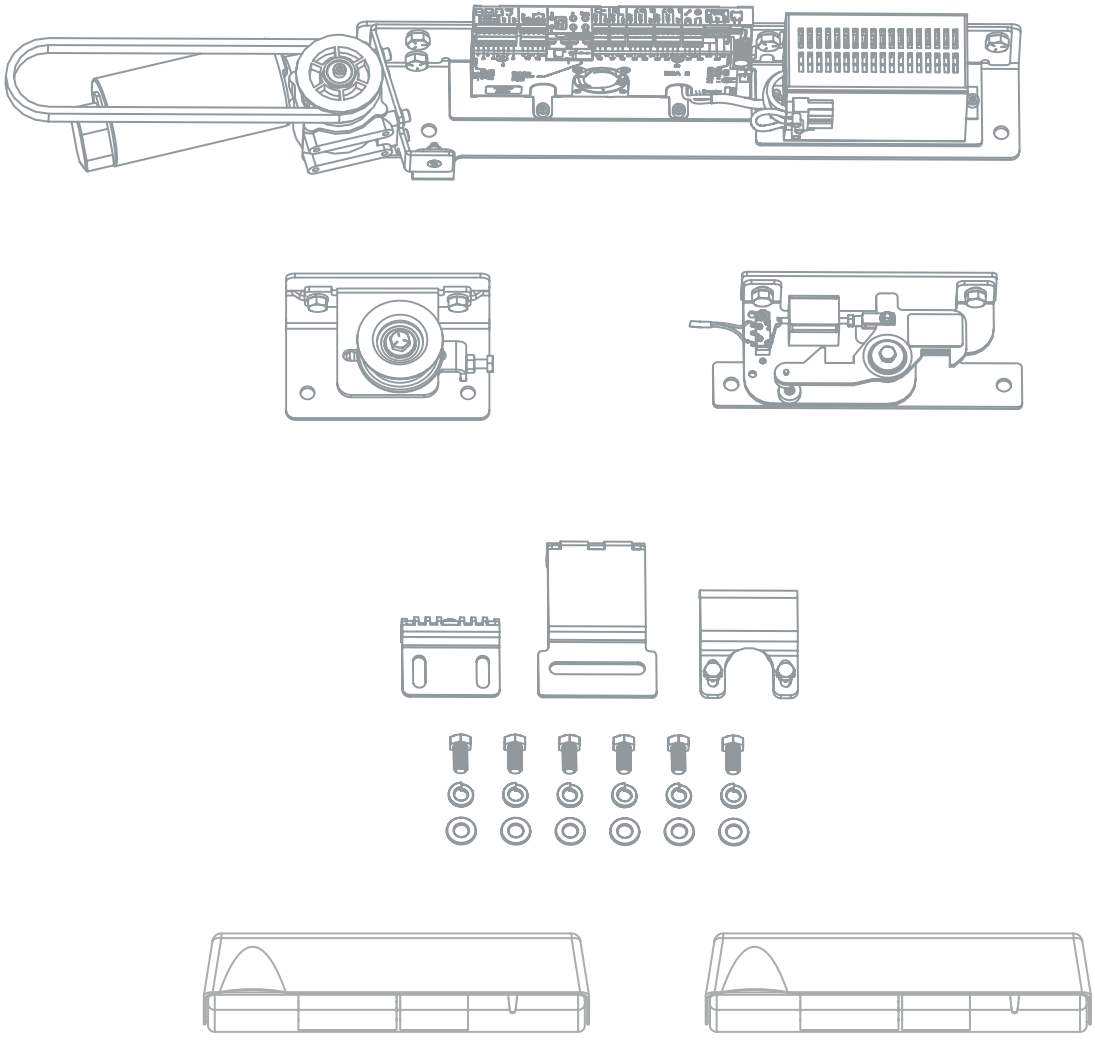
dormakaba

ESA conversion kit

Automatic sliding doors

Installation Manual | **Stanley Dura-Glide**



DL0658-070 - 11/2024
Original document

EN

Table of contents

1 General information

1.1 ESA Conversion Kit for automatic sliding doors.
This manual provides installation steps required to install the ESA Conversion Kit into a Stanley Dura-Glide single or bi-part sliding door system.

NOTICE

- **Modification of steps documented in this manual may be required due to configuration of manufacturer's sliding door installation.**
- Pictures and diagrams shown in this manual are representative of an installation of the ESA Conversion Kit into an existing Stanley Dura-Glide header.
- Existing sliding door installation may require different component locations, orientations or mounting methods.

⚠ WARNING

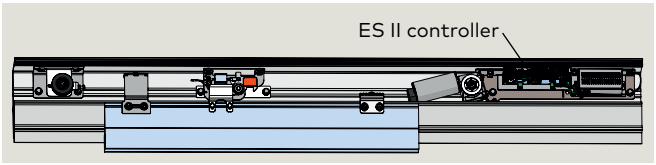
Check all mechanical components of the door system and replace any components not in satisfactory condition due to wear or other issues.

TIPS AND RECOMMENDATIONS

Initial startup and programming of the ES II controller is contained in the ESA II Controller Commissioning, Troubleshooting, and Maintenance manual DL2842-010,

1.2 Dimensions
Unless otherwise specified, all dimensions are given in both inches (") and millimeters [mm].

Fig. 1.1 ESA Conversion Kit installation



1.3 Symbols used in these instructions.

⚠ WARNING

This symbol warns of hazards which could result in personal injury or threat to health.

NOTICE

Draws attention to important information presented in this document.

CAUTION

Warns of a potentially unsafe procedure or situation.

TIPS AND RECOMMENDATIONS

Clarifies instructions or other information presented in this document.

2 Product overview

2.1 ESA conversion kit for automatic sliding door

Fig. 2.1.1 ESA conversion kit

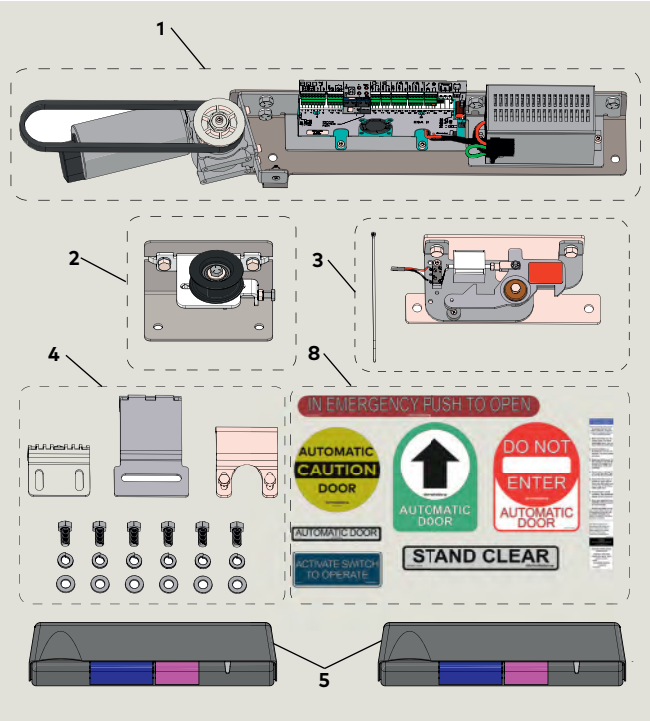


Table 2.1.1 ESA conversion kit DK7200-001

Part / Assembly		Description	Qty
1	DK7201-001	ESII MDU conversion kit	1
2	DK7202 -001	Idler pulley conversion kit	1
3	DK7203-001	Autolock conversion kit (option)	1
4	DK7205-001	ESA RetroKit conversion hardware kit	1
5	DX3336-092	ULTIMO activation and safety sensor-automatic sliding doors	2
6	DL0658-070	ESA Conversion kit Instruction Manual (not shown)	1
7	DL2842-050	ESA Conversion kit User Manual (not shown)	1
8	DK0106-001	I-Revive label kit	1

Fig. 2.1.2 ESII MDU conversion kit

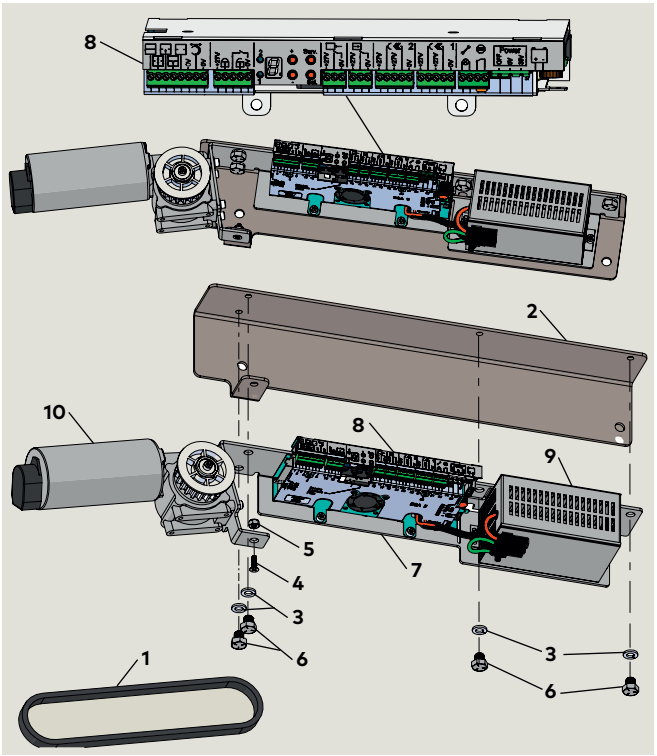


Table 2.1.2 ESII MDU conversion kit DK7201-001

Part / Assembly		Description	Qty
1	DC0641-000	ESA drive belt - cut to 336" (28')	1
2	DC6501-01Z	MDU conversion bracket	1
3	DF0418-00Z	5/16" lock washer, zinc	4
4	DF0502-01Z	1/4-20 x 3/4" Phillips flat head screw, zinc	1
5	DF0503-01Z	1/4-20 hex nut, Nylock, zinc	1
6	DF0510-01Z	5/16-18 x 3/8" hex head screw, zinc	4
7	DX2815-010	ESA II mini drive unit (MDU)	1
8	DS2814	ES II controller	1
9	DX3025-020	Power supply, 110VAC	1
10	DS2813-010	ESA MDU motor with sprocket	1

TIPS AND RECOMMENDATIONS

MDU factory-assembled to MDU conversion bracket.

Fig. 2.1.3 Idler pulley conversion kit

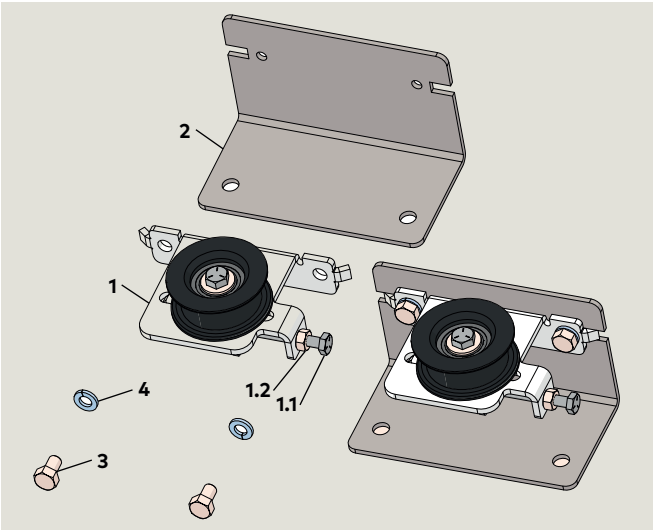


Table 2.1.3 Idler pulley conversion kit DK7202-001

Part / Assembly		Description	Qty
1	DS4801-010	Idler pulley assembly	1
1.1	DF0508-01Z	1/4-20 x 2" hex head bolt, zinc	1
1.2	DF1325-01Z	1/4-20 hex nut, zinc	1
2	DC6502-01Z	Idler pulley conversion bracket, zinc plated	1
3	DF0431-01Z	5/15-18 x 1/2" hex head cap screw, zinc	2
4	DF0418-00Z	5/16" lock washer, zinc	2

TIPS AND RECOMMENDATIONS

Idler pulley factory-assembled to conversion bracket.

Fig. 2.1.4 Autolock conversion kit (Option)

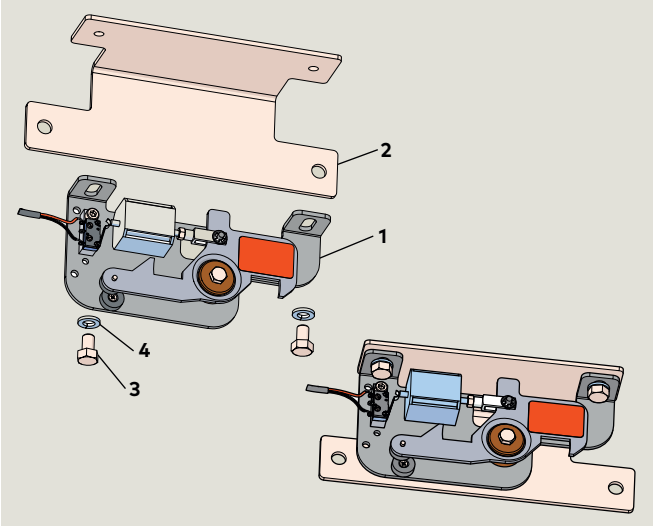


Table 2.1.4 Autolock conversion kit (option) DK7203-001

Part / Assembly		Description	Qty
1	DX0900-010	ESA fail secure auto lock	1
2	DC6503-01Z	Autolock conversion bracket	1
3	DF0431-01Z	5/15-18 x 1/2" hex head cap screw, zinc	2
4	DF0418-00Z	5/16" lock washer, zinc	2

TIPS AND RECOMMENDATIONS

Auto-lock factory-assembled to conversion bracket.

Fig. 2.1.5 Conversion hardware kit

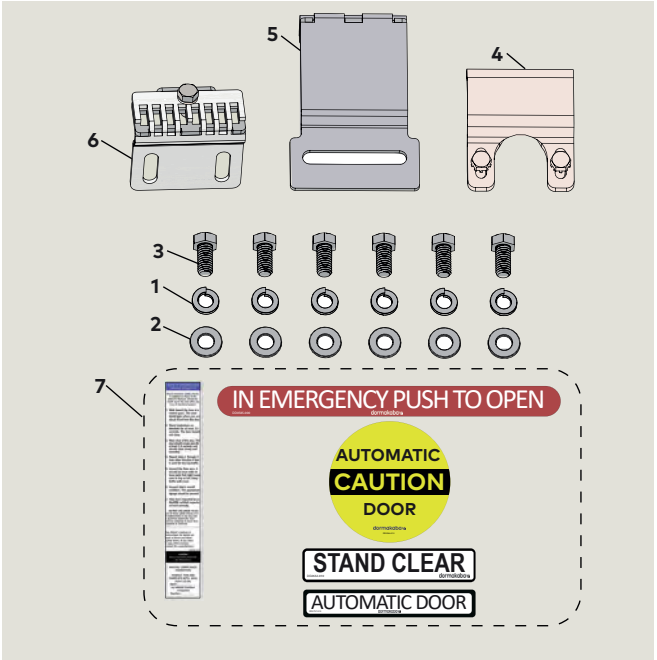


Table 2.1.5 ESA Retrokit hardware conversion kit DK7205-001

Part / Assembly		Description	Qty
1	DF0504-01Z	3/8" Lock washer, zinc	6
2	DF0505-01Z	3/8" flat washer, zinc	6
3	DF0507-01Z	3/8-16 x 3/4" hex head screw	6
4	DK0992-001	Standard Autolock braket kit	1
5	DS4803-010	Conversion kit upper belt assembly bracket (bi-part door)	1
6	DS4802-010	Conversion kit lower belt assembly bracket	1
7	DK0106-001	Label kit	2

Fig. 2.1.6 Autolock standard bracket kit

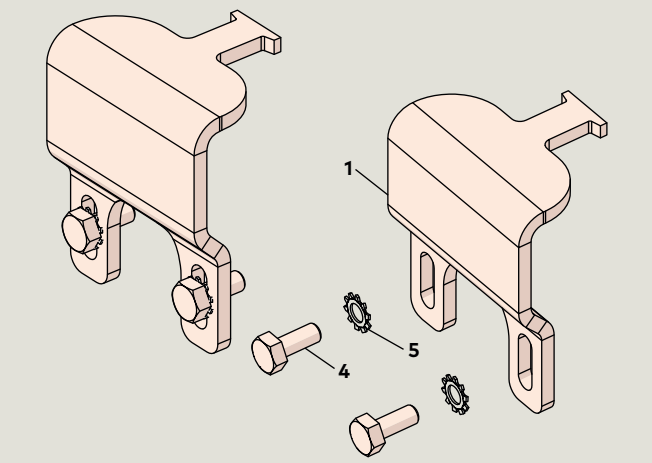


Table 2.1.6 Autolock standard bracket kit DK0992-001

Part / Assembly		Description	Qty
1	DC0992-04Z	Standard Autolock carrier bracket	1
4	DF0401-00Z	1/4-20 x 5/8" hex head screw, zinc	2
5	DF1295-01Z	1/4" external tooth lock washer	2

Fig. 2.1.7 Lower belt bracket assembly

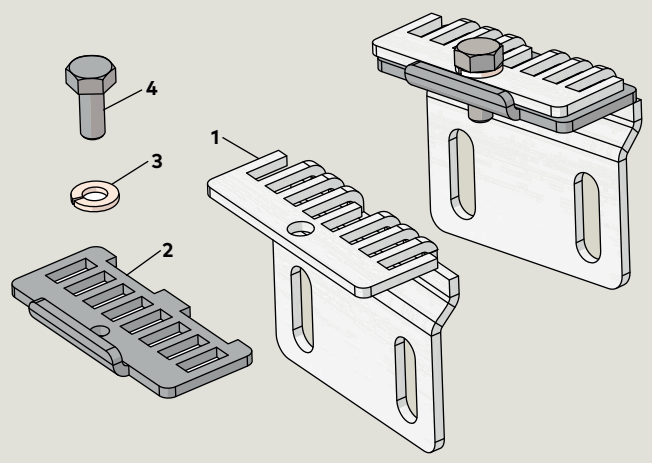


Table 2.1.7 Conversion kit lower belt bracket assembly DS4802-010

Part / Assembly		Description	Qty
1	DC4752-01Z	Lower belt conversion bracket	1
2	DC0115-010	Belt clamping plate	1
3	DF0858-00Z	1/4" lock washer, zinc	1
4	DF0401-00Z	1/4-20 x 5/8" hex head bolt, zinc	1

TIPS AND RECOMMENDATIONS

Clamping plate factory-assembled to lower belt bracket

Fig. 2.1.8 Upper belt bracket assembly

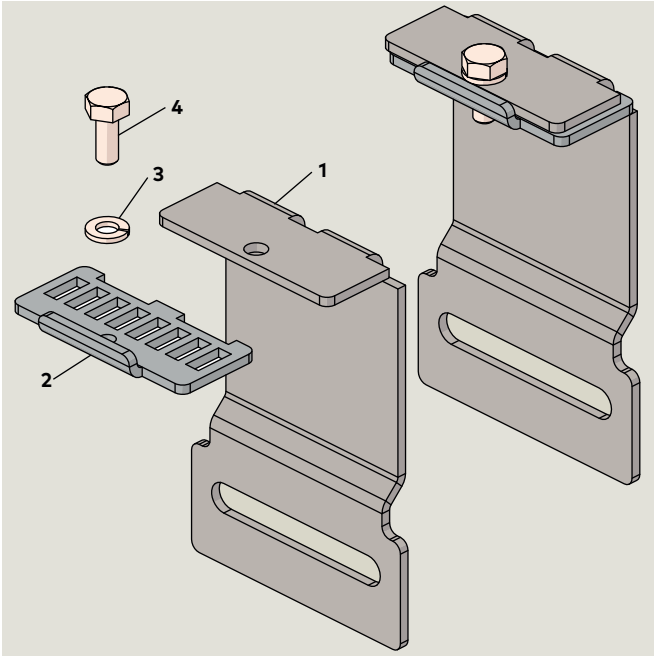


Table 2.1.8 Conversion kit upper belt bracket assembly DS4803-010

Part / Assembly		Description	Qty
1	DC4753-01Z	Upper belt conversion bracket	1
2	DC0115-010	Belt clamping plate	1
3	DF0858-00Z	1/4" lock washer, zinc	1
4	DF0401-00Z	1/4-20 x 5/8" hex head bolt, zinc	1

TIPS AND RECOMMENDATIONS

Clamping plate factory-assembled to upper belt bracket

Fig. 2.1.9 I-Revive label kit

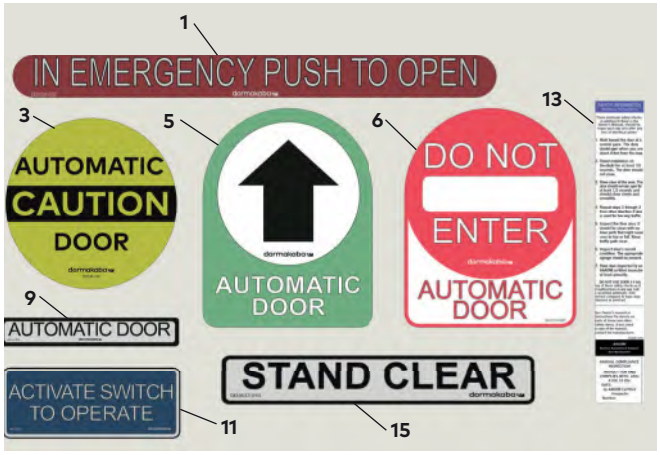


Table 2.1.8 I-Revive label kit DK0106-001

Part / Assembly		Description	Qty
1	DD0585-000	Decal, Emergency Push to Open	2
3	DD0586-010	Decal, Auto/Caution/Door	2
5	DD0739-010	Decal, Do Not Enter / Up Arrow	2
6	DD0739-010	Decal, Do Not Enter	2
9	DD0757-010	Decal, Automatic Door	2
11	DD0758-010	Decal, Activate Switch to Operate	2
15	DD2632-010	Decal, Stand Clear	2
4	DD1269-010	Decal, AAADM, Safety, F.E. slide	1

3 Stanley Duraglide 2000/3000 Single or Bipart

3.1 Removal of Stanley header drive components

3.1.1 115 VAC power to controller.

1. Locate circuit breaker supplying 115 VAC power to controller.
2. Turn circuit breaker OFF.

3.1.2 Disconnect 115 VAC wiring from controller.

1. Disconnect 115 VAC connector from Stanley controller.
2. Remove 115 Vac wiring (Blk, Wht, Grn) from connector.
3. Install wire nuts or electrical black tape on ends of 115 VAC wiring.
4. If circuit breaker number and location not identified in header, affix label or tag with this information.

3.1.3 Removal of belt and belt brackets.

1. Release belt tension using the idler pulley adjuster.
2. Remove belt and belt brackets.

NOTICE

Retain the belt bracket mounting screws for mounting the new belt brackets to the header. Ref.: Chapter 6.

3.1.4 Remove header switch panel wiring.

1. Remove header panel switch connector from Stanley controller (Fig. 3.1.2). Remove wires from connector.
2. Remove wires with their connectors from each header panel switch.

NOTICE

The switch panel wires will be reused for connection to the ESII controller connector (Ref.: Chapter 8).

WARNING

115 VAC power wiring must be removed from controller (Para. 3.1.1).
Electric shock hazard if circuit breaker not turned OFF!

Fig. 3.1.1 Stanley header 115VAC power connection

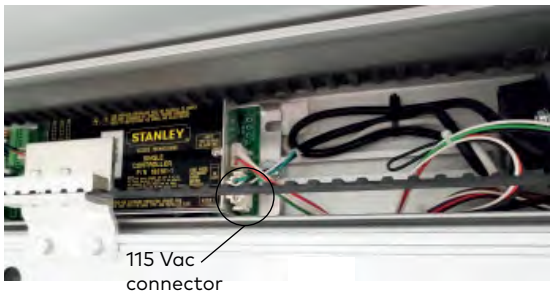
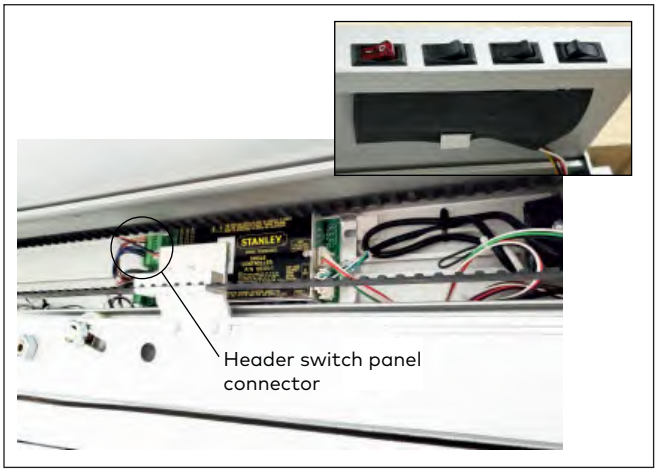


Fig. 3.1.2 Header switch panel wiring



3.1.5 Disconnect all connectors from motor drive and Stanley controller.

NOTICE

Label all connectors with their function.

3.1.6 Disconnect all ground wires.

3.1.7 Remove communication extension port hardware (if present) and its wiring from the Stanley controller.

1. Remove screw securing communication extension port to header and remove communication port and its wiring.

3.1.8 Remove all activation and safety sensors and their wiring.

NOTICE

BEA ULTIMO sensors.
BEA ULTIMO activation and safety sensors for automatic sliding doors are included in the ESA conversion kit. Ref. Chapter 10.

NOTICE

Breakout sensors.
If there are breakout sensors, leave sensors and their wiring intact. Sensors will be connected to ES II controller. Ref: ESA II Controller Commissioning, Maintenance and Troubleshooting Instructions DL2842-010.

3.1.9 Remove two bolts securing the motor drive to the header and remove motor drive.

3.1.10 Remove two screws securing the Stanley controller to the header and remove the controller.

3.1.11 Mark centerline of Stanley idler pulley before removing.

1. Remove the two bolts securing the idler pulley to the header.
2. Remove the idler pulley assembly.

3.1.12 3/8-16 square nuts.

NOTICE

The 3/8-16 square nuts in the header channel will be reused to fasten the Conversion Kit components.
Any unused square nuts should be fastened with 3/8-16 bolts to prevent unwanted noise/rattles.

Fig. 3.1.3 Stanley controller and motor drive connectors

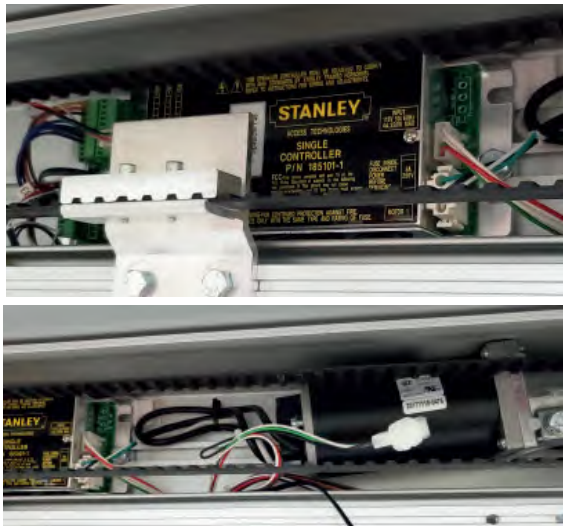
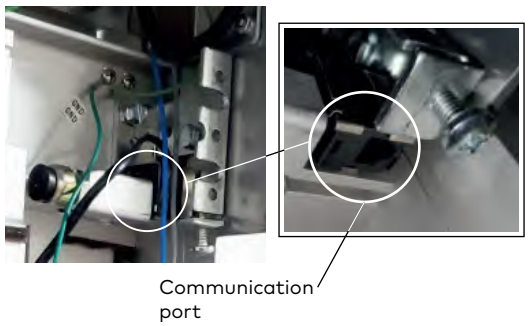
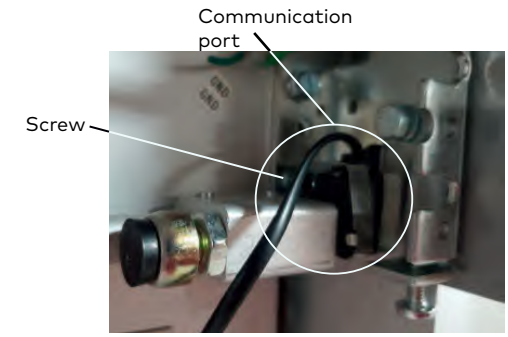


Fig. 3.1.4 Stanley communication extension port





CAUTION

All existing safety sensors, door safety beam sensors and all wiring must be removed and sensor holes plugged.

4 ESII MDU conversion kit installation

4.1 Install ESII MDU conversion kit DK7201-001

Table 4.1.1 ESII MDU conversion kit

Part / Assembly		Description	Qty
1	DK7201-001	ESA II MDU conversion kit	1

Table 4.1.2 Conversion kit mounting hardware

	DK7205-001	Conversion kit mounting hardware	
2	DF0504-01Z	3/8" Lock washer, zinc	2
3	DF0505-01Z	3/8" flat washer, zinc	2
4	DF0507-01Z	3/8-16 x 3/4" hex head screw	2
5		3/8-16 square nut (existing)	2

Fig. 4.1.1 ESII MDU conversion kit and mounting hardware

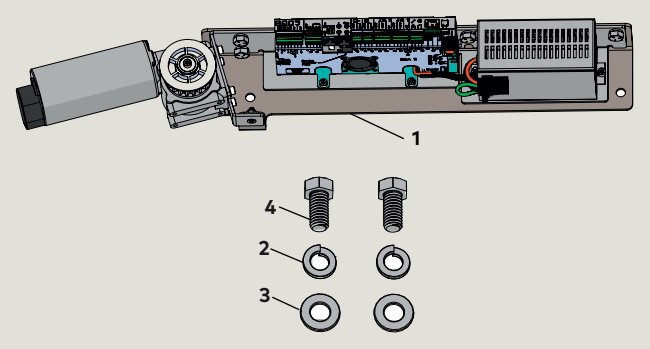
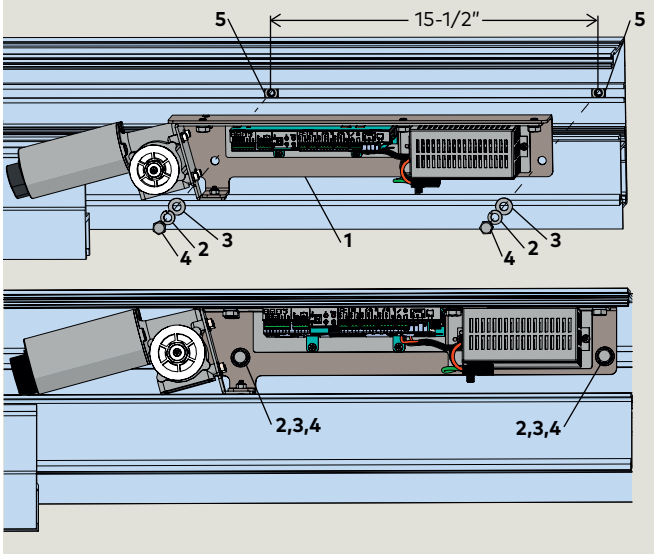


Fig. 4.1.2 ESII MDU conversion kit installation



4.1.1 Install ESII MDU conversion kit.

1. Locate the two far-right 3/8-16 square nuts (5) in the header channel.
2. Space the square nuts on 15-1/2" centers to enable better alignment for the 3/8-16 x 3/4" hex head screws (4).
3. Carefully position the DK7201-001 MDU into place at the far-right header location.

WARNING

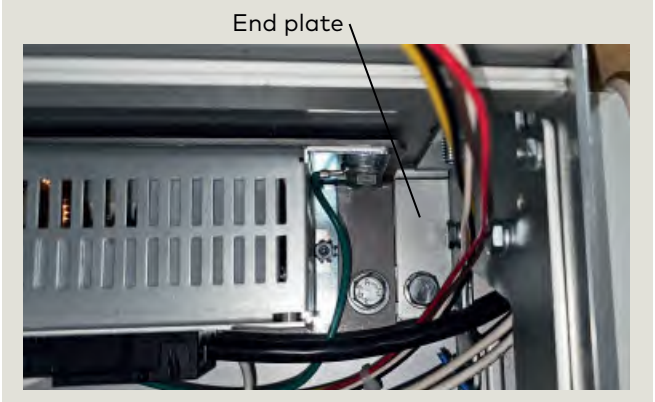
Use caution when lifting and positioning MDU conversion kit!

TIPS AND RECOMMENDATIONS

The MDU conversion kit can be a snug fit, but there is clearance for the installation.

4. From kit DK7205-001 (Table 4.1.2), use two lock washers (2), flat washers (3) and hex head screws (4) to fasten ESII MDU conversion kit to header square nuts (5). DO NOT TIGHTEN HEX HEAD SCREWS.
5. Slide ESII MDU conversion kit to the right until it stops against header end plate (Fig. 4.1.3).
6. Check fit and tighten hex head screws (4).

Fig. 4.1.3 ESII MDU conversion kit against end plate



5 Idler pulley conversion kit installation

5.1 Install idler pulley conversion kit

Table 5.1.1 Idler pulley conversion kit

Part / Assembly		Description	Qty
1	DK7202-001	Idler pulley conversion kit	1

Table 5.1.2 Conversion kit mounting hardware

	DK7205-001	Conversion kit mounting hardware	
2	DF0504-01Z	3/8" Lock washer, zinc	2
3	DF0505-01Z	3/8" flat washer, zinc	2
4	DF0507-01Z	3/8-16 x 3/4" hex head screw	2
5		3/8-16 square nut (existing)	2

Fig. 5.1.1 Idler pulley conversion kit

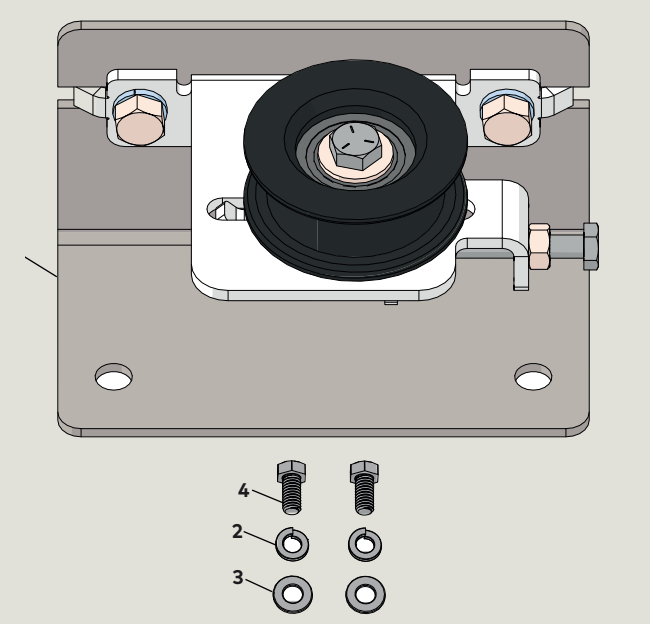
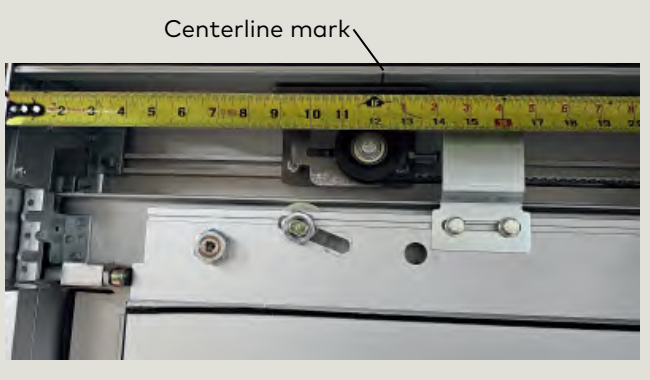


Fig. 5.1.2 Idler pulley conversion kit at pulley centerline mark



5.1.1 Install Idler wheel conversion kit.

1. Locate the two far-left 3/8-16 square nuts (5) in the header channel.
2. Space the square nuts on 3-15/16" centers to enable better alignment for the 3/8-16 x 3/4" hex head screws (4).

TIPS AND RECOMMENDATIONS

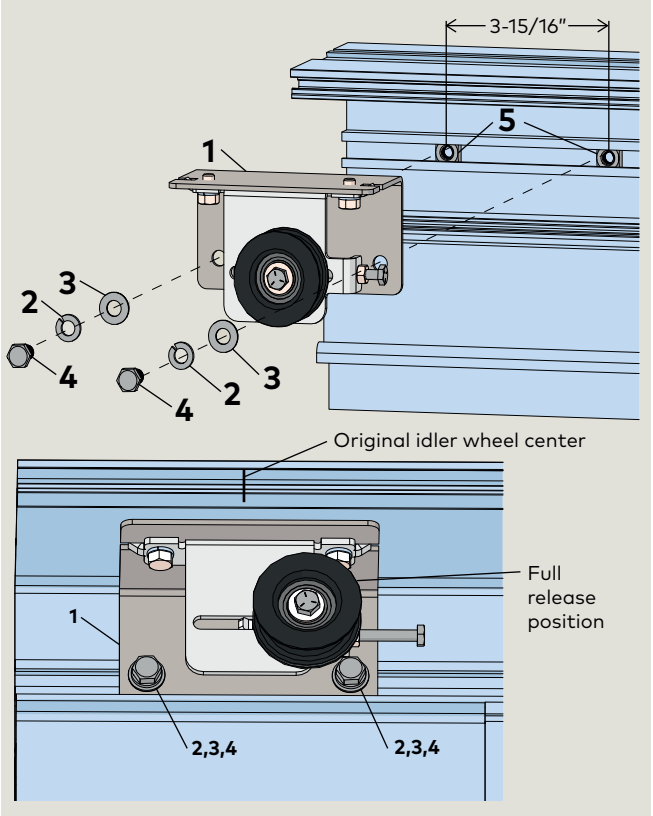
Idler wheel positioning.
Idler wheel should be adjusted close to the full release position to maximize tensioning travel.

3. From kit DK7205-001 (Table 5.1.2), use two lock washers (2), flat washers (3) and hex head screws (4) to fasten idler wheel conversion kit to header square nuts (5). DO NOT TIGHTEN HEX HEAD SCREWS.

5.1.2 Align and center dormakaba pulley where centerline of previous pulley was marked (Para. 3.1.11).

4. Slide Idler wheel assembly until idler wheel bracket center is aligned to mark on header of original wheel position (Fig. 5.1.2).
   Tighten hex head screws (4). Ref. Fig. 5.1.3.

Fig. 5.1.3 Idler pulley conversion kit installed



6 Belt and belt attachment brackets installation

6.1 Install belts and belt attachment brackets

Table 6.1.1 Lower belt bracket assembly conversion kit

Part / Assembly		Description	Qty
1	DS4802-010	ESA II lower belt bracklet assembly conversion kit	1
2	DF0401-00Z	1/4-20 x 5/8" hex bolt	1
3	DF0858-00Z	1/4" lock washer	1
4	DC0115-010	Belt clamping plate	1
5	DC4752-01Z	ESA Lower belt bracket	1

Table 6.1.2 Lower belt bracket mounting hardware

6		Lock washer (existing)	2
7		Hex head bolt (existing)	2

Table 6.1.3 ESA drive belt

9	DC0641-000	ESA drive belt	1

Table 6.1.4 Idler pulley conversion kit

10	DK7202-001	Idler pulley conversion kit	1
11	DF0508-01Z	1/4-20 x 2" hex head bolt	1
12	DF1325-01Z	1/4-20 hex nut	2

Fig. 6.1.1 Conversion lower belt bracket assembly

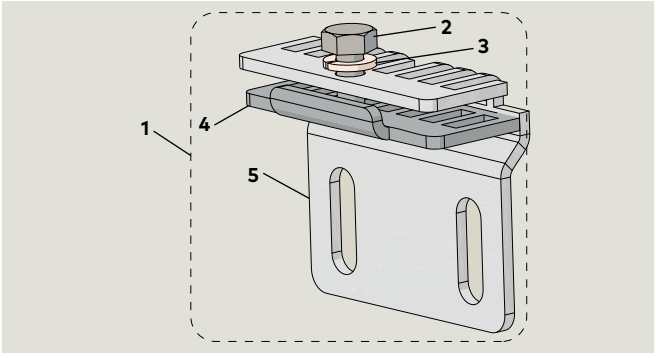


Fig. 6.1.2 ESA drive belt

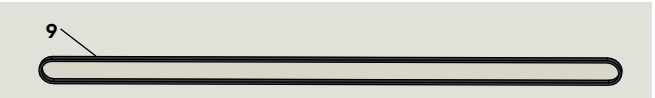
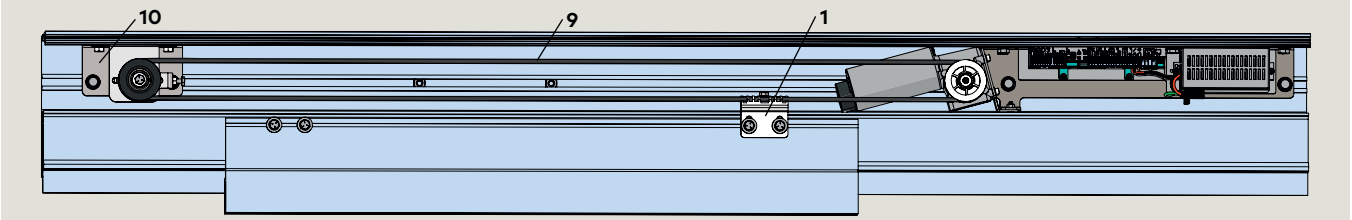


Fig. 6.1.3 ESA drive belt installed in header



6.1.1 Cut belt to required length.

6.1.2 Install belt and lower belt bracket.

1. Splice belt together with lower belt bracket conversion assembly (1).
2. Install belt over pulleys and secure ESA lower belt bracket assembly to panel using Stanley hex bolts (7) and lock washers (6). Ref. Fig. 6.1.5.
3. Adjust belt tension by adjusting idler pulley 1/4-20 hex head bolt (11).

NOTICE

Adjust belt tension to obtain belt deflection at center of belt of 1/4' to 3/8" when squeezing top and bottom belts together with moderate effort.

Fig. 6.1.4 Idler pulley assembly belt tensioning.

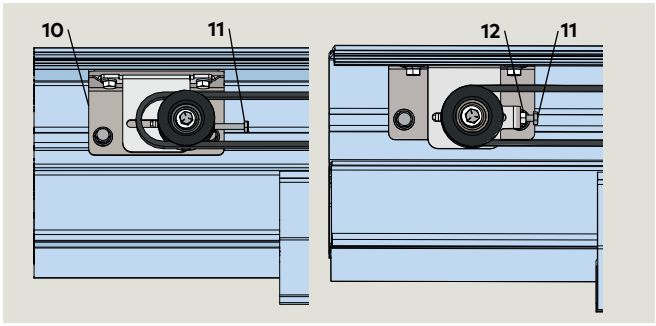
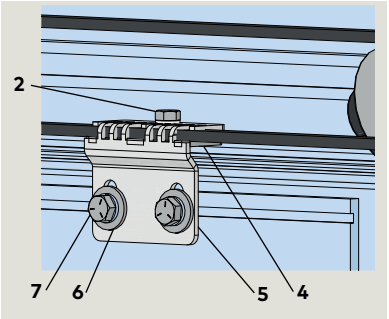


Fig. 6.1.5 Lower belt bracket installation



If bi-part door, attach conversion kit upper belt bracket assembly DS4803-010 to opposite panel. Reference: Chapter 2, Fig. 2.1.8.

7 Autolock installation (option)

7.1 Install Autolock conversion kit and standard bracket kit

Table 7.1.1 Autolock conversion kit (option) DK7203-001

Part / Assembly		Description	Qty
1	DX0900-010	ESA fail secure auto lock (Option)	1
2	DC6503-01Z	Autolock conversion bracket	

Table 7.1.2 Conversion kit mounting hardware DK7205-001

3	DF0504-01Z	3/8" Lock washer, zinc	2
4	DF0505-01Z	3/8" flat washer, zinc	2
5	DF0507-01Z	3/8-16 x 3/4" hex head screw	2
6		Square nuts (not part of kit)	

Fig. 7.1.1 Autolock conversion kit (Option)

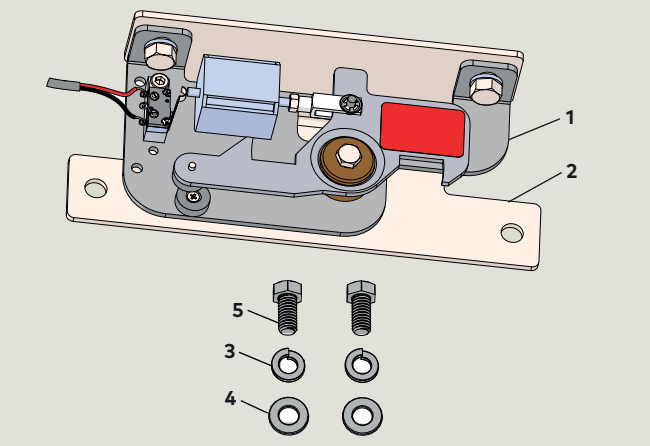
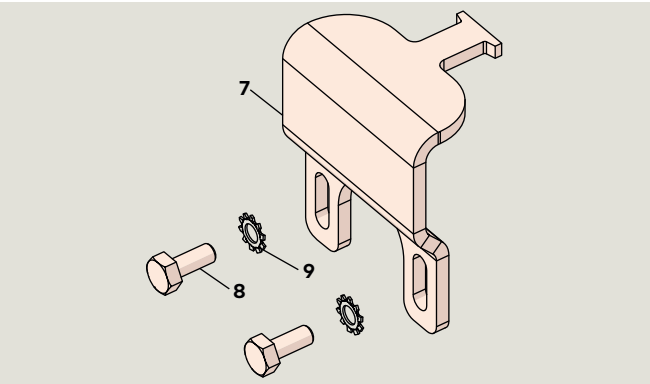


Table 7.1.3 Autolock standard bracket kit DK0992-001

Part / Assembly		Description	Qty
7	DC0992-04Z	ESA standard Autolock carrier bracket	1
8	DF0401-00Z	1/4-20 x 5/8" hex head screw, zinc	2
9	DF1295-01Z	1/4" external tooth lock washer	2

Fig. 7.1.2 Autolock standard bracket kit



7.1.1 With panel closed, determine best location for Autolock and install.

1. Determine best location for Autolock conversion kit in header.
2. Locate two 3/8-16 square nuts (6) in the header channel for Autolock bracket mounting.
3. Space the square nuts on 7-1/2"" centers to enable better alignment for the 3/8-16 x 3/4" hex head screws (5).
4. Fasten the bracket (2) with Autolock assembly (1) to Stanley square nuts (6) using hardware in Table 7.1.2.

7.1.2 Autolock standard bracket installation.

1. Depending on door handing and type, determine whether left or right location for Autolock bracket to engage.
2. Mark two hole locations for mounting the Autolock bracket (7) to the panel carrier.
3. Drill and tap two 1/4-20 holes in the panel carrier.
4. Secure the bracket to panel carrier with two hex head screws (8) and external tooth lock washers (9).

Fig. 7.1.2 Autolock installation

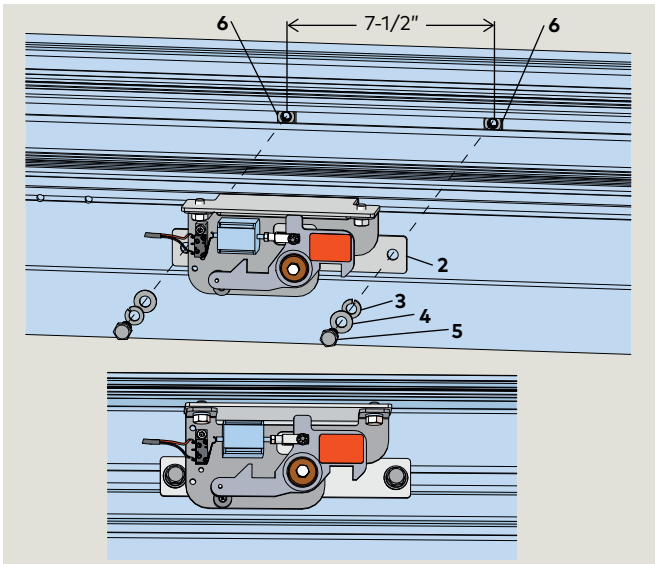
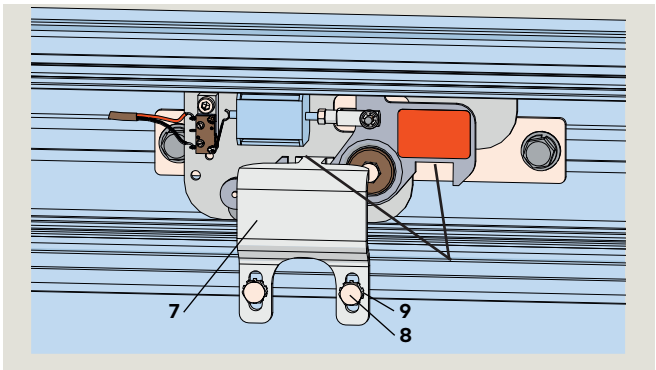


Fig. 7.1.3 Autolock standard bracket installation



8 Switch panel wire harness installation

8.1 Connect switch panel wire harness to ESII controller interface

Fig. 8.1.1 ESII controller connector switch panel wiring interface

TIPS AND RECOMMENDATIONS

Stanley MC521 function switch
For MC521 wiring interface to ESA II controller, reference Para. 8.2.

8.1.1 Connection of Stanley switch wire harness to ESII Controller program switch connector.

1. Locate wire harness removed from Stanley panel switches (Para. 3.1.4).
2. Clip existing wire ties to separate wires in the bundle.
3. Retain the red, black, yellow, orange, brown, blue and purple wires.

TIPS AND RECOMMENDATIONS

Reference Fig. 8.1.3 for wiring interface diagram.

4. Terminate wires (with connectors) on Stanley panel switches as shown in Fig. 8.1.1.
5. Route wires from panel to ESII controller. Leave a service loop in the wire bundle to allow for connector removal. Secure wiring away from any moving parts.
6. Remove ESII controller program switch connector from controller and terminate switch panel wire harness wires on connector as shown in Fig. 8.1.1.
7. Power connector: Remove red wire from 35V terminal and splice into black wire from Power switch. Ref. Fig. 8.1.1.

NOTICE

Reference ESA II controller Commissioning, Maintenance and Troubleshooting Instructions DL2842-010 for additional detail on program switch and connector wiring.

Fig. 8.1.1 Stanley switch wiring harness to ES II controller

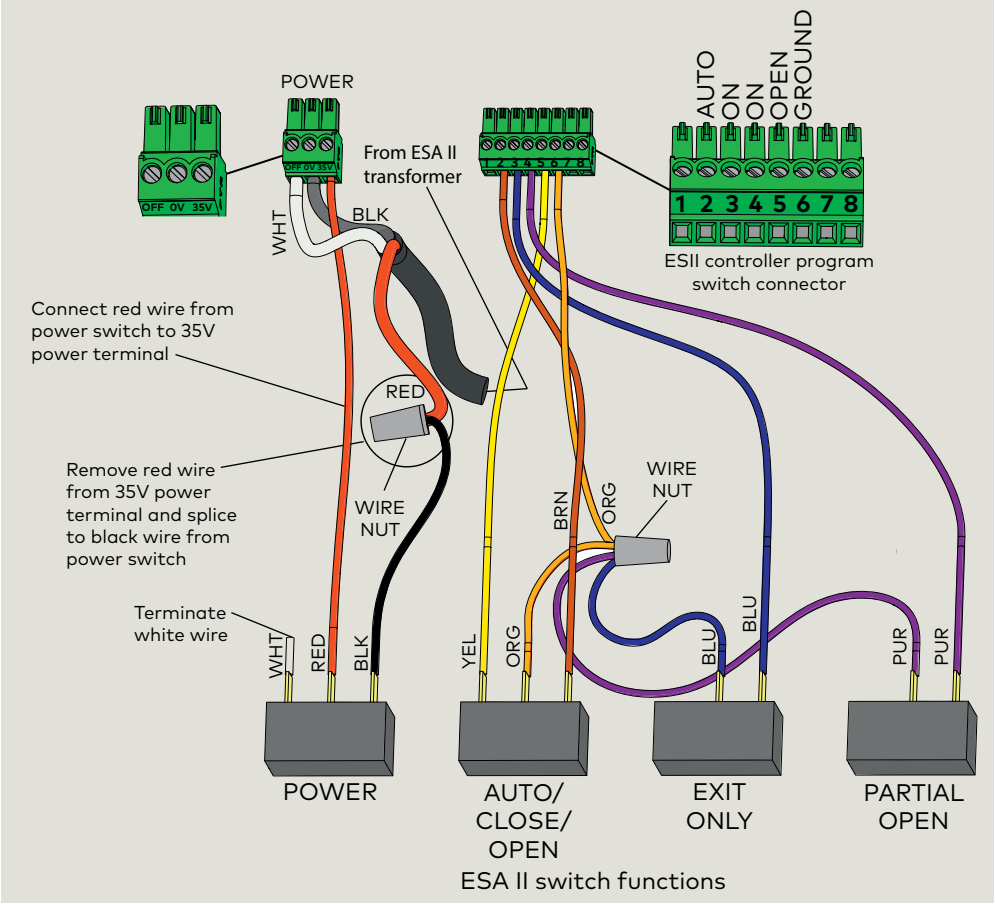


Fig. 8.1.2 ESII controller, program switch and power connectors

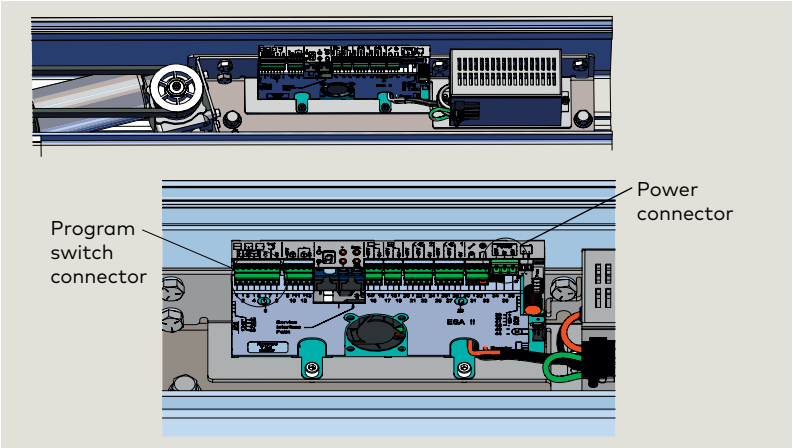


Fig. 8.1.3 Stanley switch wiring harness interface to ES II controller

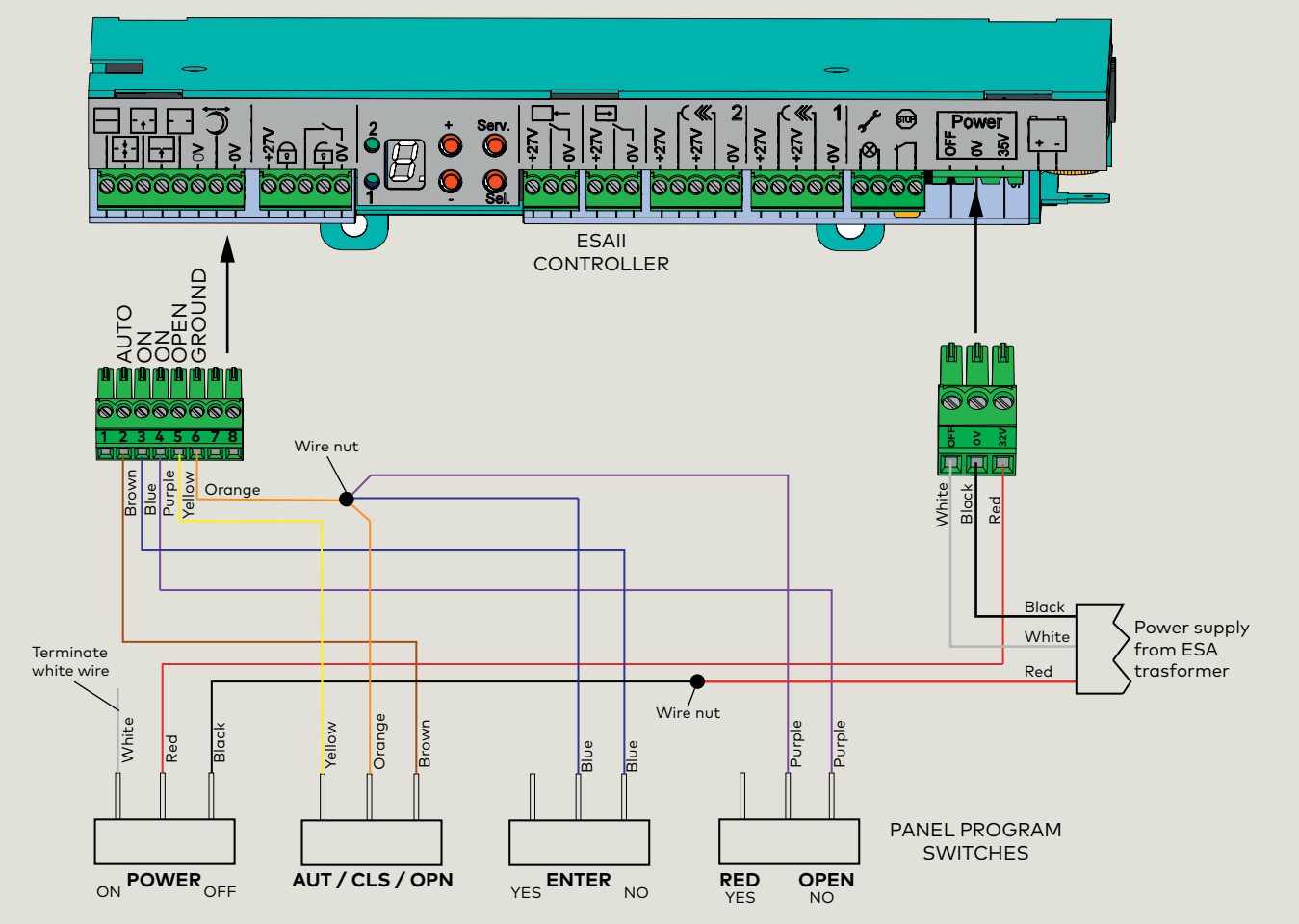
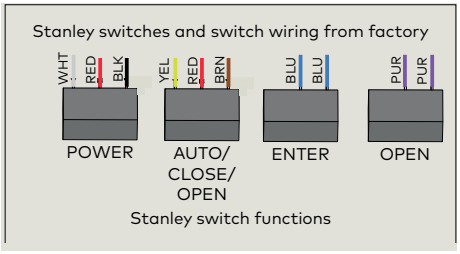


Fig. 8.1.4 Stanley switches - factory wired



8.2 Connect MC521 function switch to ESII controller interface

8.2.1 Connection of Stanley MC521 function switch wire harness to ESII controller program switch connector.

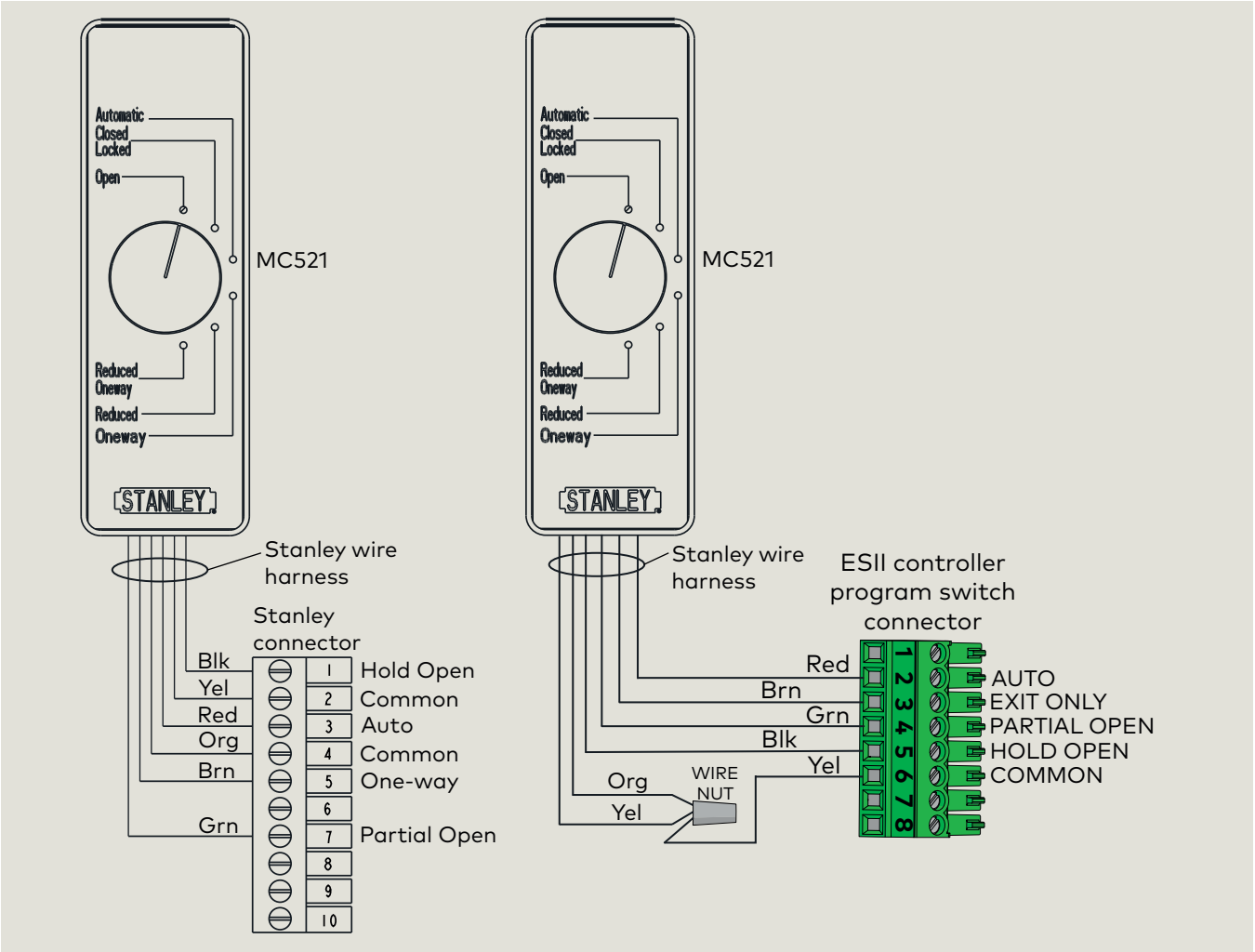
1. Disconnect MC521 wire harness from Stanley connector.
2. Route wire harness from MC521 function switch to ESII controller. Leave a service loop in the wire bundle to allow for connector removal. Secure wiring away from any moving parts.
3. Remove ESII controller program switch connector from controller and terminate MC521 wiring on connector as shown in Fig. 8.2.1.

NOTICE

Reference ESA II controller Commissioning, Maintenance and Troubleshooting Instructions DL2842-010 for additional detail on program switch and connector wiring.

4. Using wire harness from Stanley MC521, use wiring diagram below to connect Stanley wires to ESII controller program switch connector.

Fig. 8.2.1 MC521 wiring interface to ESII controller connector



9 Install safety labels on door panels

9.1 Install safety labels

9.1.1 Install safety labels on door panels per ANSI/BHMA A156.10.

Table 9.1.1 I-Revive label kit DK0106-001

Part / Assembly		Description	Qty
1	DD0585-000	Decal, Emergency Push to Open	2
3	DD0586-010	Decal, Auto/Caution/Door	2
5	DD0739-010	Decal, Do Not Enter / Up Arrow	2
6	DD0739-010	Decal, Do Not Enter	2
9	DD0757-010	Decal, Automatic Door	2
11	DD0758-010	Decal, Activate Switch to Operate	2
15	DD2632-010	Decal, Stand Clear	2
4	DD1269-010	Decal, AAADM, Safety, F.E. slide	1

Fig. 9.1.1 I-Revive label kit

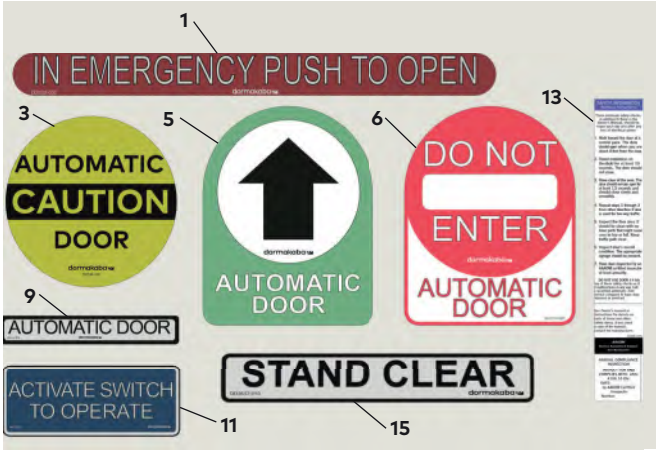


Fig. 9.1.2 Annual Compliance Inspection label

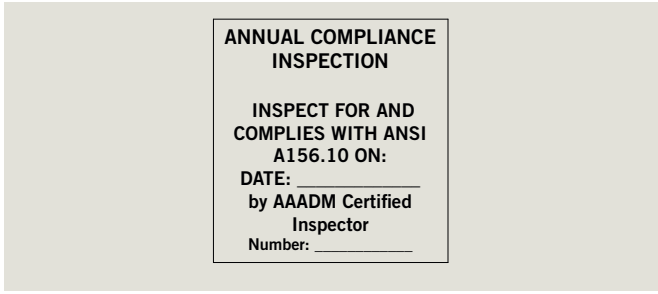
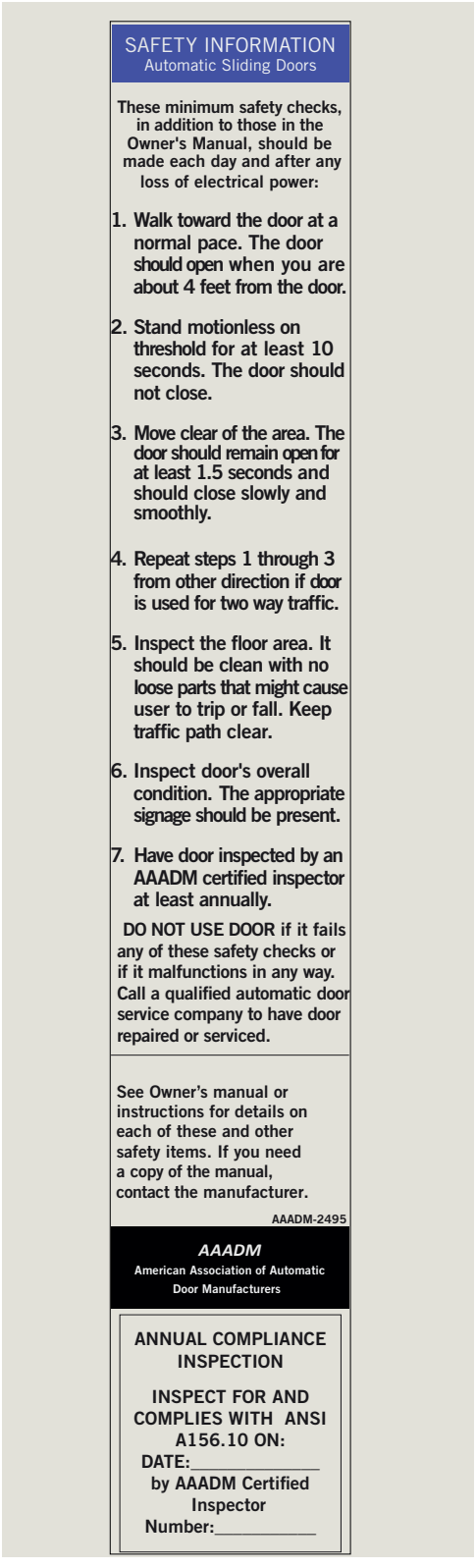


Fig. 9.1.3 AAADM safety information label



9.1 Install safety labels (Con't)

Fig. 9.1.3 Automatic single slide door with signage for two way traffic control example

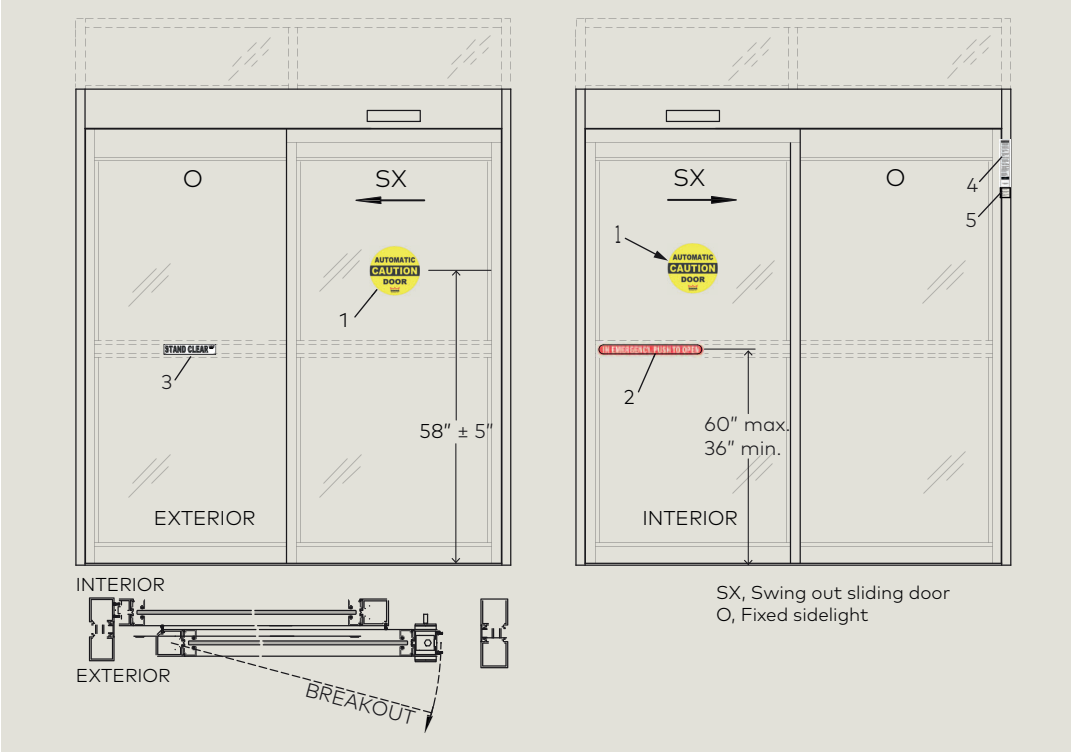
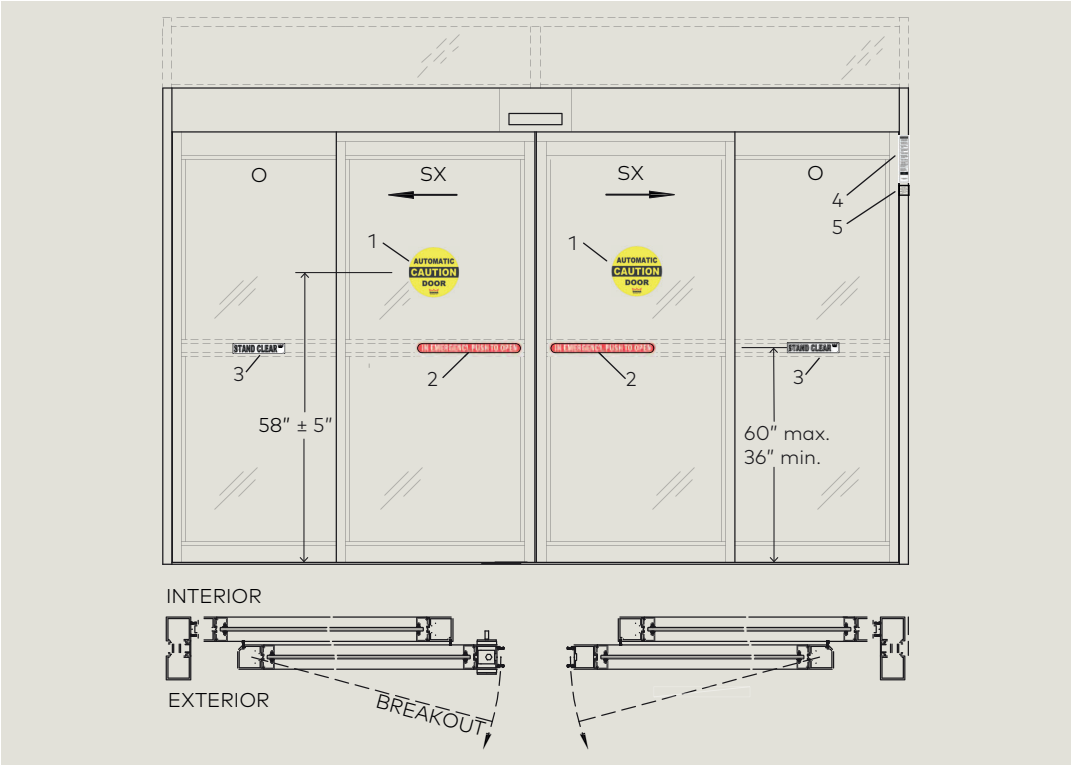


Fig. 9.1.4 Automatic bi-part slide door with signage for two way traffic control example



10 Complete ESII controller wiring

10.1 Complete ESII controller wiring

Table 10.1.1 ULTIMO sensor

			Single	Bi-part
1	DX3336-092	ULTIMO activation and safety sensor	1	2

Fig. 10.1.1 ULTIMO sensor

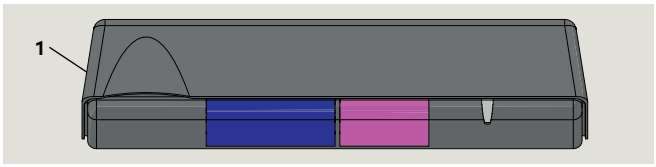
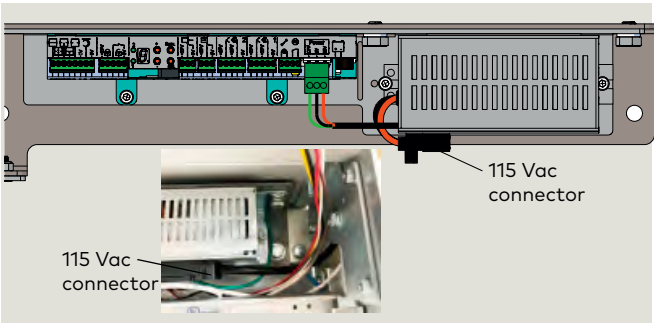


Fig. 10.1.2 ESII and power supply



10.1.1 Install and wire ULTIMO sensor (s).

1. Install ULTIMO sensor(s) and wire to activation and presence connectors on ESII controller.
2. Route wires from sensor(s) to ESII controller. Leave a service loop in the wires to allow for connector removal. Secure wiring away from any moving parts.

NOTICE

Reference BEA ULTIMO sensor User Guide for Installation.

NOTICE

ULTIMO wiring interface.
Reference ESA II Controller Commissioning, Maintenance and Troubleshooting Instructions DL2842-010 Chapter 25, Para. G: Activation and Safety sensors - BEA IXIO-DT1. Wiring is the same for ULTIMO sensor.

10.1.2 Connect customer 115Vac wiring to ESII power supply 115 Vac connector.

WARNING

Work on electrical equipment and ESII controller115 Vac wiring installation must be only be performed by qualified personnel!

NOTICE

Reference ESA II controller Commissioning, Maintenance and Troubleshooting Instructions DL2842-010 for wiring interface.

10.1.3 Connect any other wiring required for installation.

11 Setup and commission – ESA door

11.1 ESA setup and commissioning.
For setup and commissioning of the ESA conversion kit, reference manual DL2842-010, Chapters 11 through 20.

Also reference Chapters 2 through 9 for product and safety information.

NOTICE

Reference DL2842-010, ESA II controller Commissioning, Maintenance and Troubleshooting Instructions for setup and commissioning.

Scan for product details and downloads.
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