



# OPUS Retrofit Kit Quick Set-Up and Parts Guide

P/N C-00185 Rev 6-13-16

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This document is meant to serve as a Quick Set-Up and Parts Guide only.  
Installation manuals referenced below should be downloaded and reviewed for complete installation instructions.

*Associated Manuals Part Numbers:* Model GT400,8400,500,8500,600,8600 Concealed Unit Swing Door QSPG; P/N C-00174  
Model GT300,8300,350,8350 Overhead Concealed Swing Door QSPG; P/N C-00175  
Model GT710,8710 Low Energy Swing Door QSPG; P/N C-00178  
Opus Control Wiring and Programming QSPG; P/N C-00139  
Opus Control Wiring and Programming Manual; P/N 15-14973  
Analog Control Wiring & Adjustment Manual; 15-10745  
Magnum 4A Wiring & Adjustment Manual; 15-10682  
NABCO Price Book P/N 16-9244-30 (for Sensors, Switches, and Accessories)

## WARNING

- Turn OFF all power to the Automatic Door if a Safety System is not working.
- Instruct the Owner to keep all power turned OFF until corrective action can be achieved by a NABCO trained technician. Failure to follow these practices may result in serious consequences.
- NEVER leave a Door operating without all Safety detection systems operational.

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## SECTION 1: TO THE INSTALLER

The purpose of this manual is to familiarize the installer and purchaser with the proper installation and operation of this system. It is essential that this equipment be properly installed and operational before the door is used by the public. It is the installer's responsibility to inspect the operation of the entrance system to be sure it complies with any applicable standards. In the United States, Standard 156.10 (Used to cover Full Energy doors) and ANSI Standard 156.19 (Used to cover Low Energy doors) apply. Other local standards or codes may apply. Use them in addition to the ANSI standards. The owner should determine the door is operating properly and should immediately call for service if there is any malfunction. All installation changes and adjustments must be made by qualified, NABCO trained technicians.

The Opus Control can be sold as a Retrofit Kit to replace Magnum Controls, Analog Controls, and U-01 to U-19 Controls. Retrofit kits can be purchased by contacting Customer Service at 1-888-679-3319.

## SECTION 2: FEATURE COMPARISON

The following Non-Encoder motors can be purchased to add feature capabilities by contacting Customer Service at 1-888-679-3319.

**Table 1** Encoder Motor vs Non-Encoder Motor

Motor	Unit	Provided	Feature
11-1390, RH Encoder 11-1391, LH Encoder	300,350 Overhead Concealed	No	<ul style="list-style-type: none"> <li>▶ Power close</li> <li>▶ Hold close</li> <li>▶ Obstacle detection on closing</li> <li>▶ Astragal function</li> </ul>
41-8987-08, RH Encoder 41-8987-07, LH Encoder	(8)400,(8)500,(8)600 Conversion Unit		
41-8987-16, RH Encoder 41-8987-15, LH, Encoder	1400 Fold Door		
A-01091, RH Non-Encoder A-01090, LF Non-Encoder	All the above	Yes	
Motor	Unit	Provided	Feature
22-10311-01, RH, Encoder 22-10311-02, LH, Encoder	710, 8710 Low Energy	No	▶ Astagal function
A-00883, RH, Non-Encoder A-00884, LH, Non-Encoder	710, 8710 Low Energy	Yes	

## SECTION 3: TURN POWER OFF

### WARNING

Shut OFF the installation site, branch Circuit Breaker. Failure to do so may result in serious personal or fatal injury. When uncertain whether power supply is disconnected, always verify using a voltmeter.

### WARNING

All high voltage electrical connections must be made by licensed electricians according to National and Local electrical codes/regulations.

### CAUTION

Permanent wiring shall be employed as required by local codes.

### CAUTION

Keep all Incoming 120 VAC wiring separate from low voltage wiring within Header. 120 VAC Power wires must be routed (separate from other wiring) located near the top of inside Header.

### CAUTION

Ensure that the Grounding of the Electric Power Supply is installed/connected in a proper way (especially the PE Cable from the Building Side).

**Attention:** *It is recommended for the Installer to house all Incoming 120 VAC wires within an Electrical Conduit.*

**Attention:** *Insert all Incoming 120 VAC Power wires into pre-drilled Electric Service Access Holes located within Header.*

**SECTION 4: WIRE TERMINAL STRIPS LOCATED ON OPUS CONTROL**

OPUS TERMINAL STRIP 1-7			
1	12VDC	+12VDC	
2	GND	Common for 12V and Signals	
3	61	Interior Activation	
4	62	Exterior Activation Programmable Input	
5	6B	Swing Door	Continuous Safety (door mounted, swing side Safety Sensor)
		Slide Door	Holding Beam
6	SWL	Swing Door	Safety with Lockout (overhead, swing side safety sensor)
		Slide Door	Sidelite Sensor
7	Out1	Programmable Output	

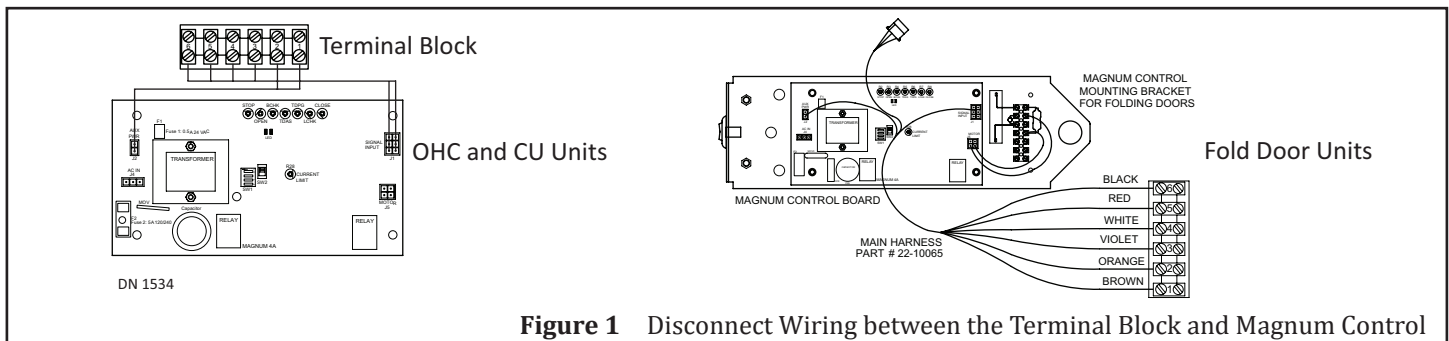
  

OPUS TERMINAL STRIP 8-14			
8	BA	Break-out, Used mainly for sliding doors, can be used for ON/OFF with swing doors.	
9	SQ	Sequential activation. Signal to open, Signal to close.	
10	H	Programmable input	
11	M0	Mode 0, When grounded, puts door into "One-Way" Mode, ("Hold-Open" when grounded with M1)	
12	M1	Mode 1, When grounded, puts door into "Night" Mode, ("Hold-Open" when grounded with M0)	
13	Out2	Aux. Output 2, Programmable output, closes to GND	
14	GND	Ground (common) for all above signals	

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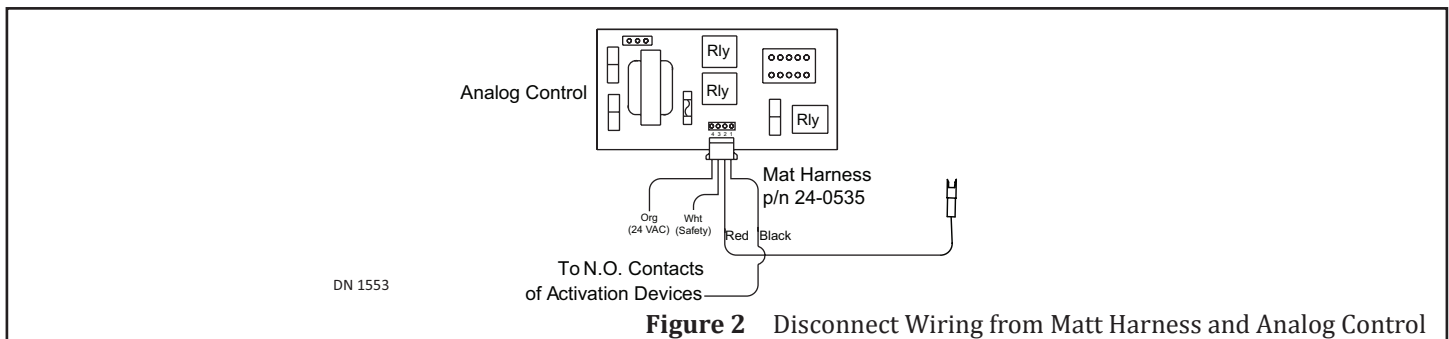
**4.1 Disconnect Terminal Block from the Magnum Control**

1. Disconnect all wiring between the Terminal Block and Magnum Control.
  - a. For the GT710/8710; also disconnect wiring between the Terminal Block and Main Harness.



**4.2 Disconnect Matt Harness from the Analog Control**

1. Disconnect wiring between the Matt Harness and Analog Control.



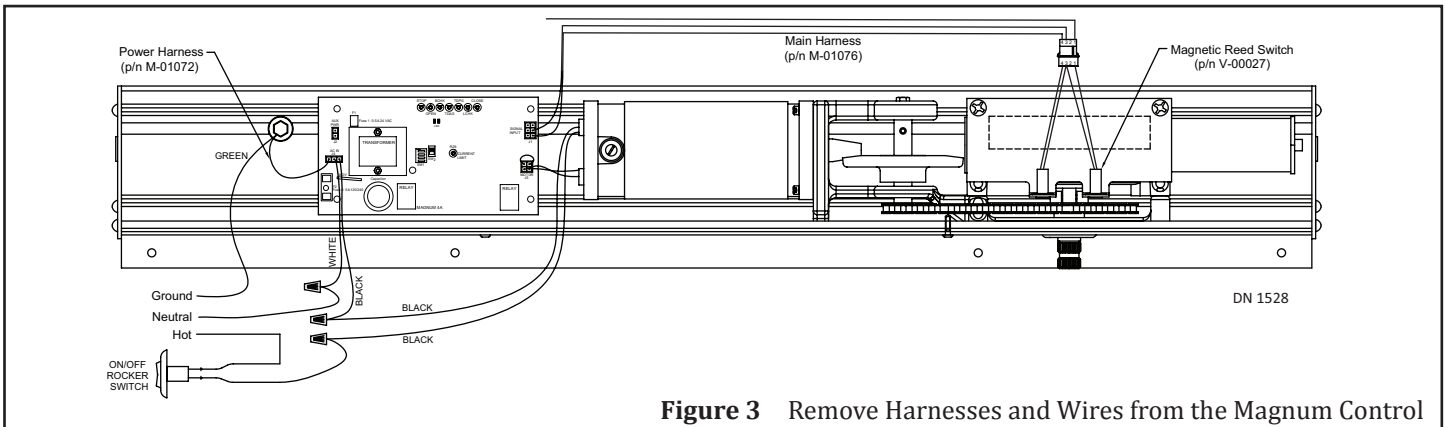
### 4.3 Wire Terminal Strips located on Opus Control

1. Go to the Opus Control. Remove Terminal Strip numbered 1-7 and/or Terminal Strip 8-14.
  - a. Removing Terminal Strips allows easier insertion of wires.
2. Disconnect (1) wire at a time, from the Terminal Block or the Matt Harness, in order to reconnect that wire to the Opus Terminal Strip(s) according to Wiring Diagrams and Programming Tables located within the Opus Control Wiring and Programming QSPG; P/N C-00139 and/or the Opus Wiring and Programming Hardware Installation Manual; P/N 15-14973.
  - a. Reconnect Terminal Strips after the Opus Control is installed to Header.

## SECTION 5: REPLACE MAGNUM CONTROL WITH OPUS CONTROL

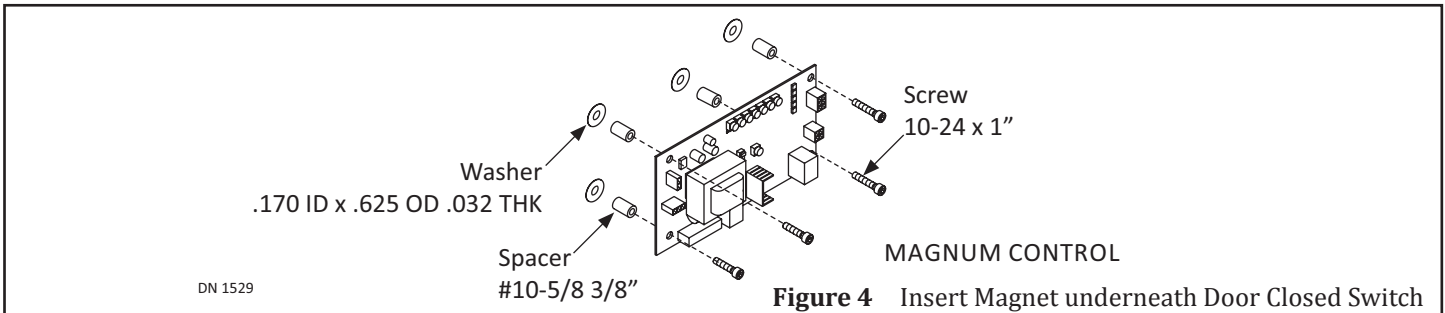
### 5.1 GT710/8710 Low Energy Units

1. Disconnect all Harnesses and Wiring between the Magnum Control, and Motor/Operator, and Accessories.



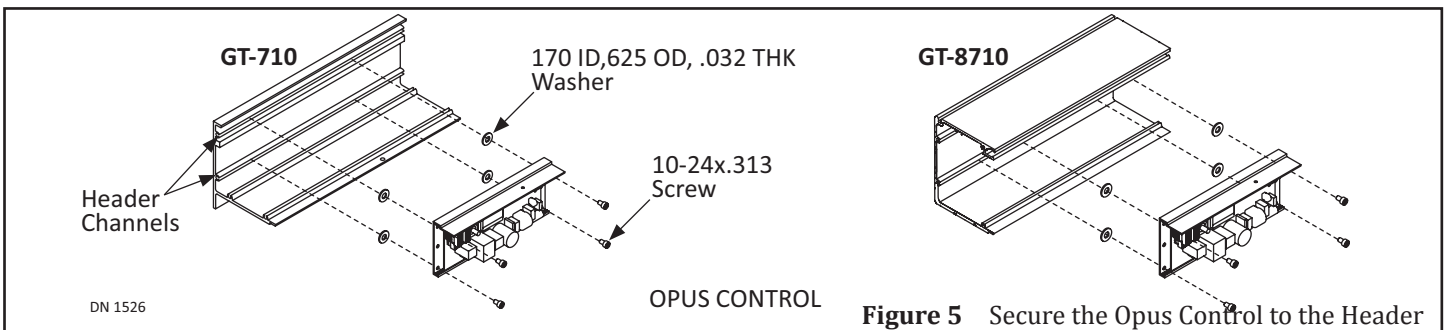
**Figure 3** Remove Harnesses and Wires from the Magnum Control

2. Remove the Magnum Control.



**Figure 4** Insert Magnet underneath Door Closed Switch

3. Secure the Opus Control with (4) 10-24 x .313L Screws and (4) Washers to the (back) inside wall of Header.

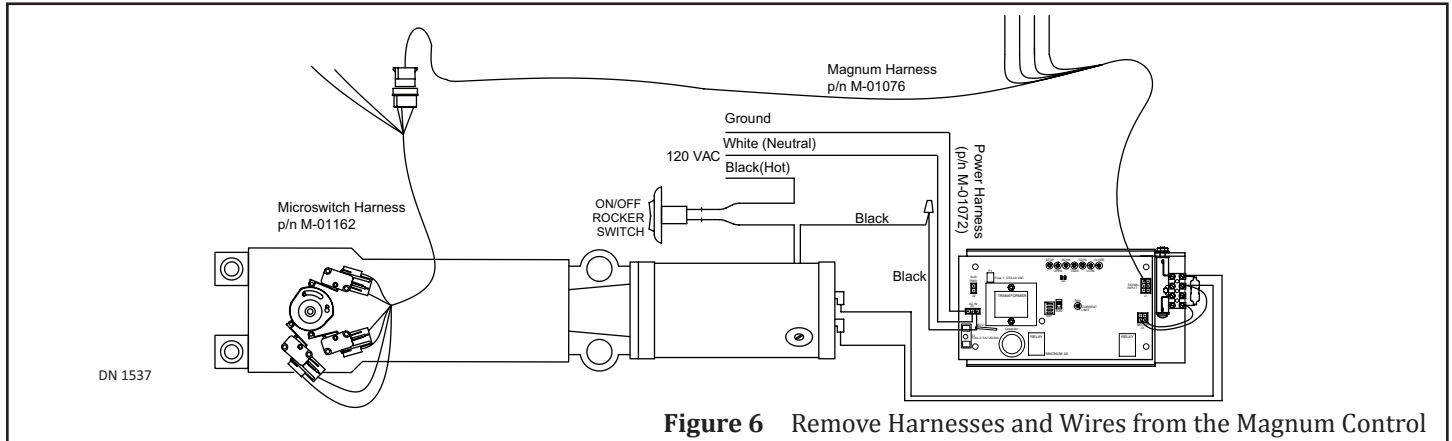


**Figure 5** Secure the Opus Control to the Header

4. Reconnect Terminal Strip(s) to the Opus Control.

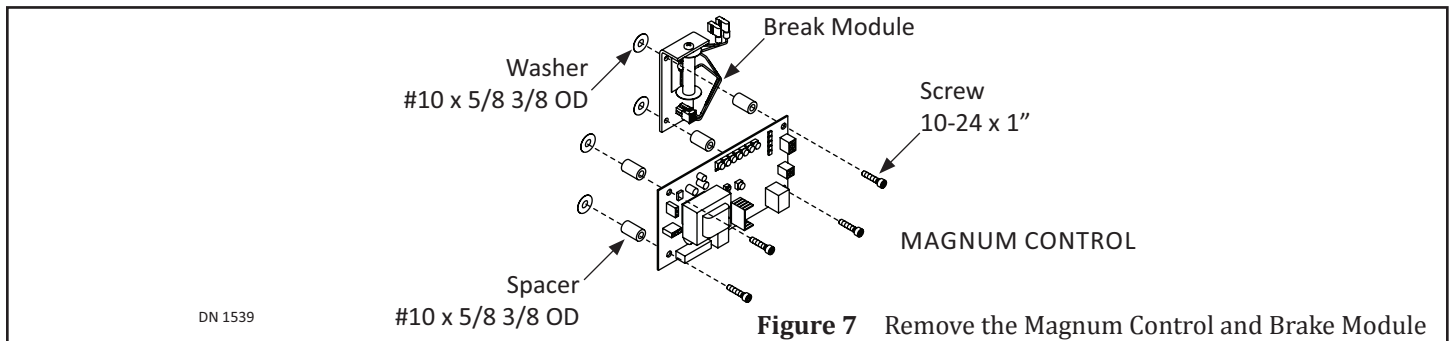
## 5.2 Overhead Concealed & Conversion Units

1. Disconnect all Harnesses and Wiring between the Magnum Control, and Motor/Operator, and Accessories.

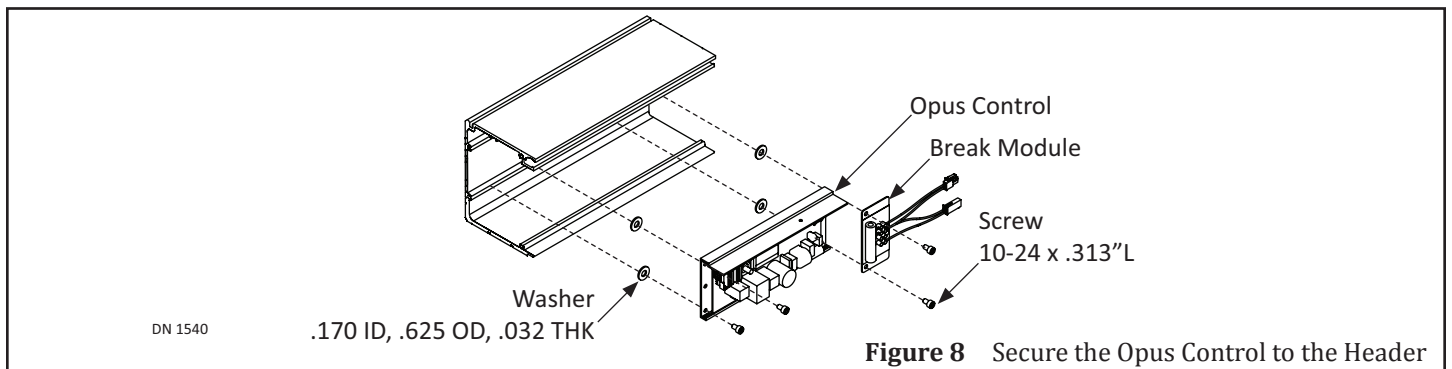


### 5.2.1 Sideload Units

1. Remove the Magnum Control and Brake Module.



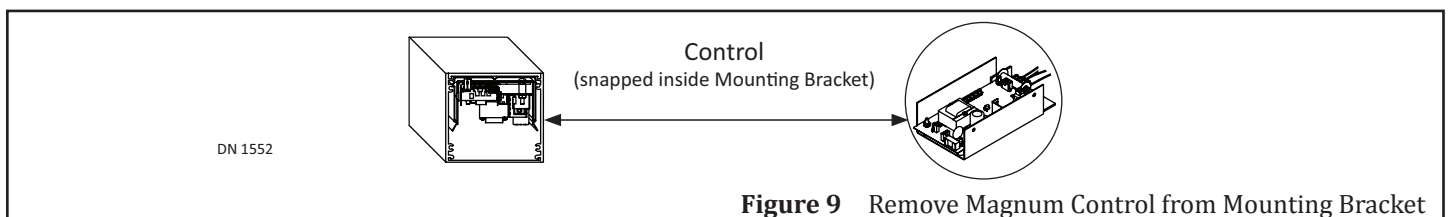
2. Secure the Opus Control with (4) 10-24 x .313L Screws and (4) Washers to the (back) inside wall of Header.



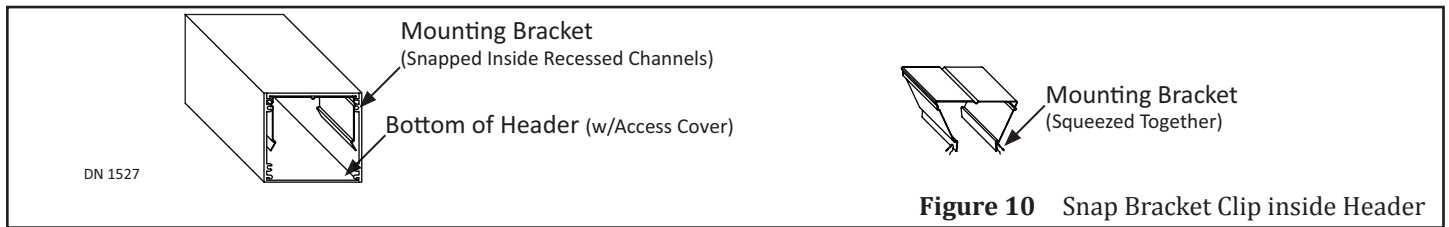
3. Reconnect Terminal Strip(s) to the Opus Control.

### 5.2.2 Bottom Load Units

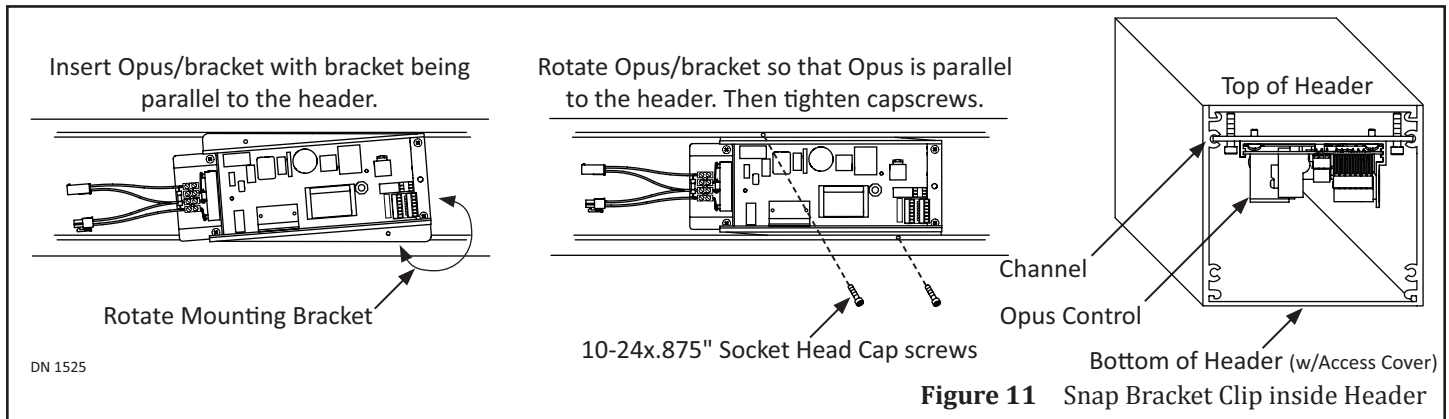
1. Remove the Magnum Control/Brake Module from the Mounting Bracket.
  - a. (1) Flathead screwdriver may be used to help pull out the Magnum Control from the Mounting Bracket.



- Squeeze together each side of Mounting Bracket (at the bottom) to remove the Mounting Bracket from Header.



- Insert the Opus Control with the Mounting Bracket (Control will approximately be at a 4 degree angle).
- Rotate the Opus Control until each side of the Mounting Bracket slides into each Channel located at the top; inside Header.
- Secure the Mounting Bracket to the Header by tightening (2) 10-24x.875 inch Socket Head Cap screws, until the tip butts against the inside wall of the Header.

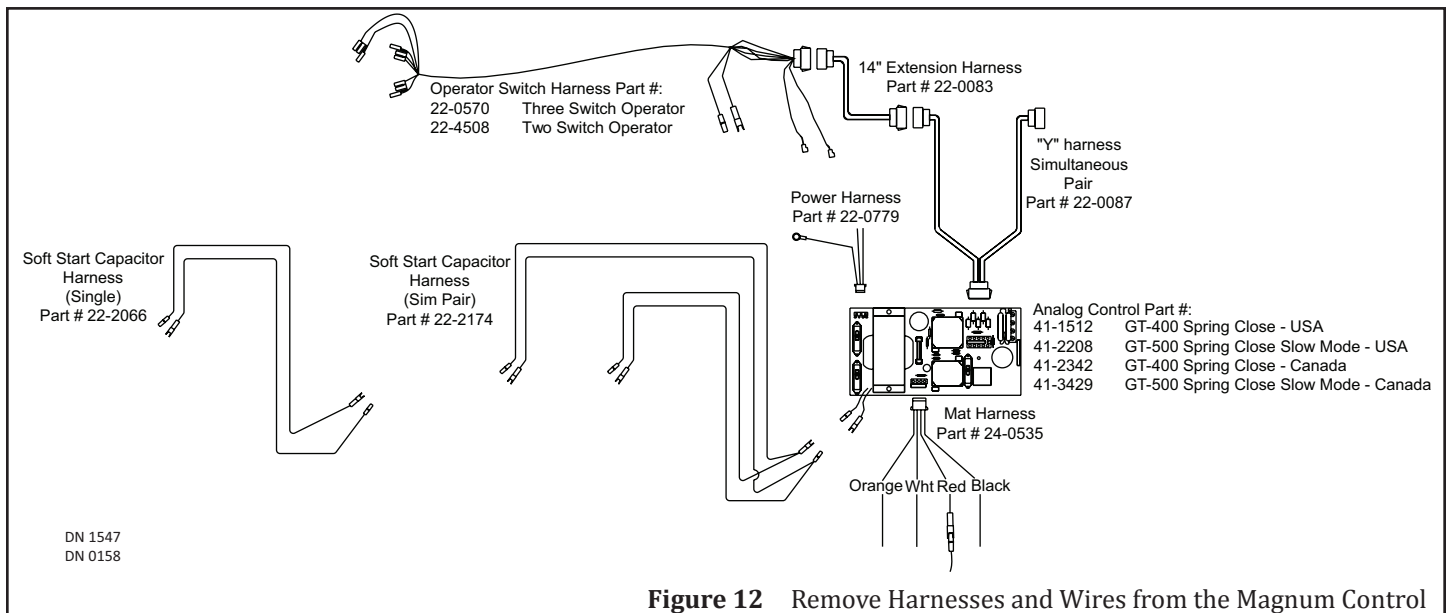


- Reconnect Terminal Strip(s) to the Opus Control. Please see Figure 2.

## SECTION 6: REPLACE ANALOG CONTROL WITH OPUS CONTROL

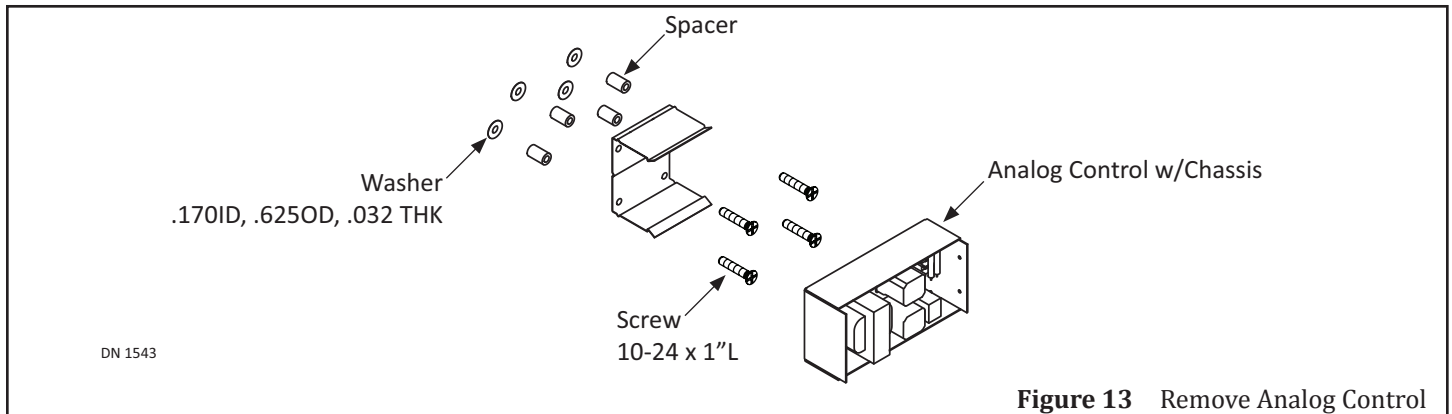
### 6.1 Remove Wiring from the Analog Control

- Disconnect all Harnesses and Wiring between the Analog Control, and Motor, and Accessories.

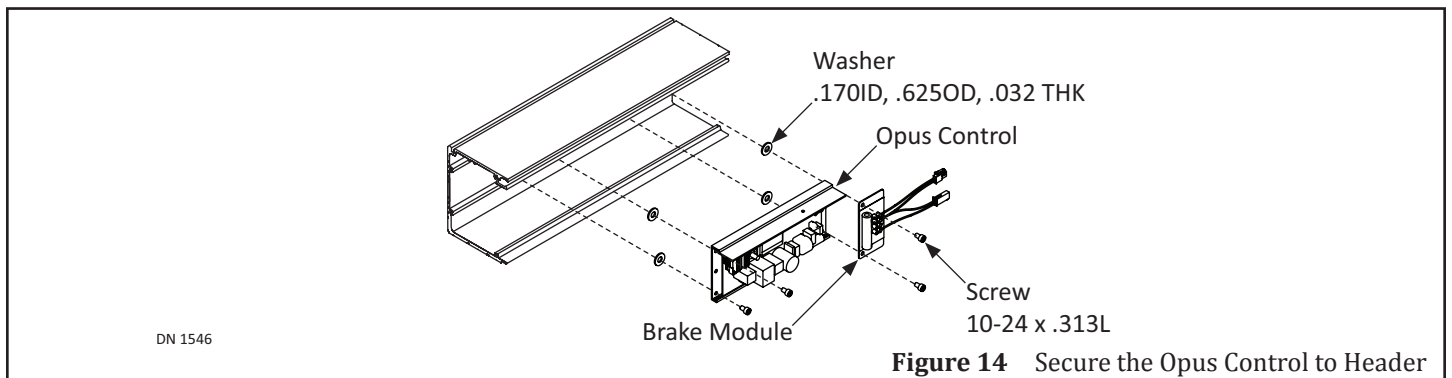


## 6.2 Sideload Units

1. Remove the Analog Control.



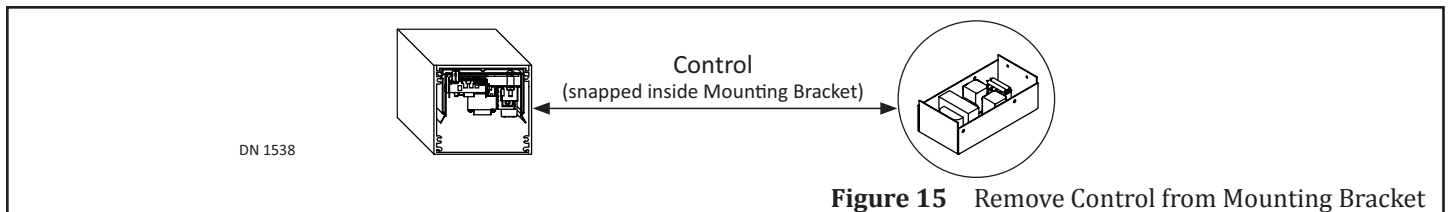
2. Secure the Opus Control with (4) 10-24 x .313L Screws and (4) Washers to the (back) inside wall of Header.



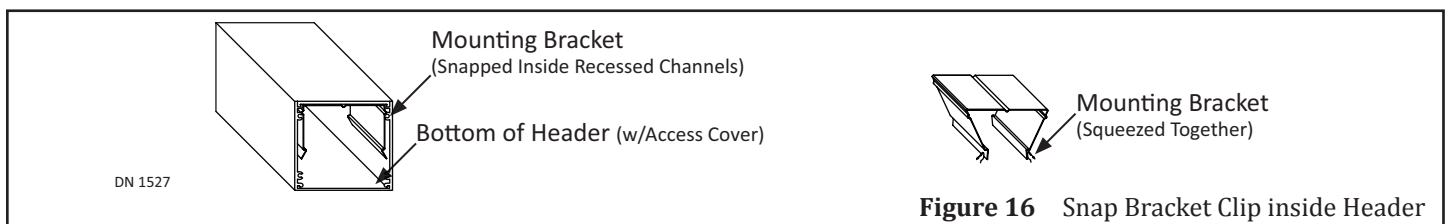
3. Reconnect Terminal Strip(s) to the Opus Control.
4. Remove the Soft Start Capacitor and Time Delay. The Opus Control does not utilize these components.

## 6.3 Bottom Load Units

1. Remove the Magnum Control from the Mounting Bracket.
  - a. (1) Flathead screwdriver may be used to help pull out the Magnum Control from the Mounting Bracket.



2. Squeeze together each side of Mounting Bracket (at the bottom) to remove the Mounting Bracket from Header.



3. Insert the Opus Control/Mounting Bracket assembly into the Header (Control will approximately be at a 4 degree angle).
4. Rotate the Opus Control until each side of the Mounting Bracket slides into each Channel located at the top; inside Header.
5. Secure the Mounting Bracket to the Header by tightening (2) 10-24x.875 inch Socket Head Cap screws, until the tip butts against the inside wall of the Header.



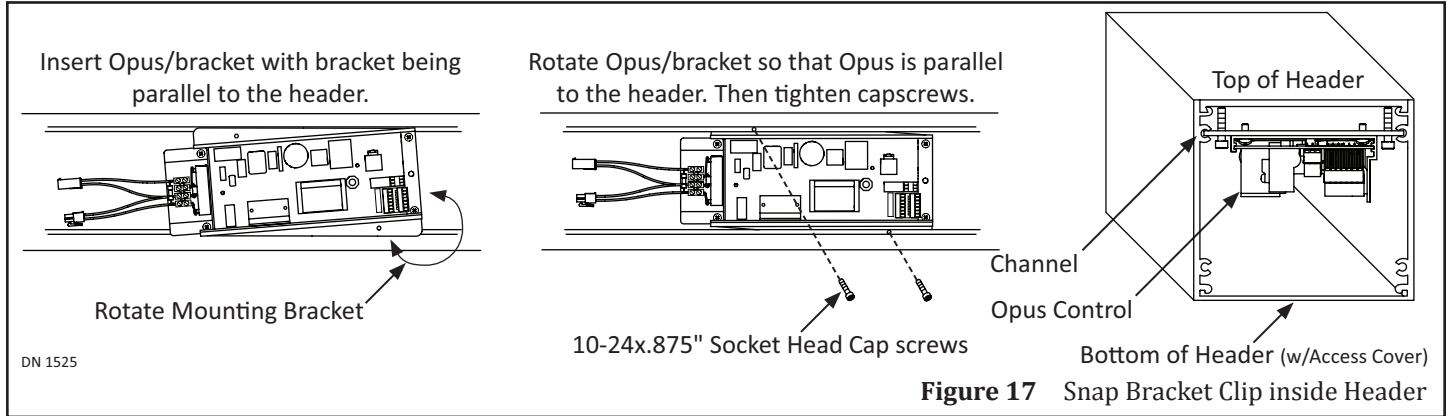


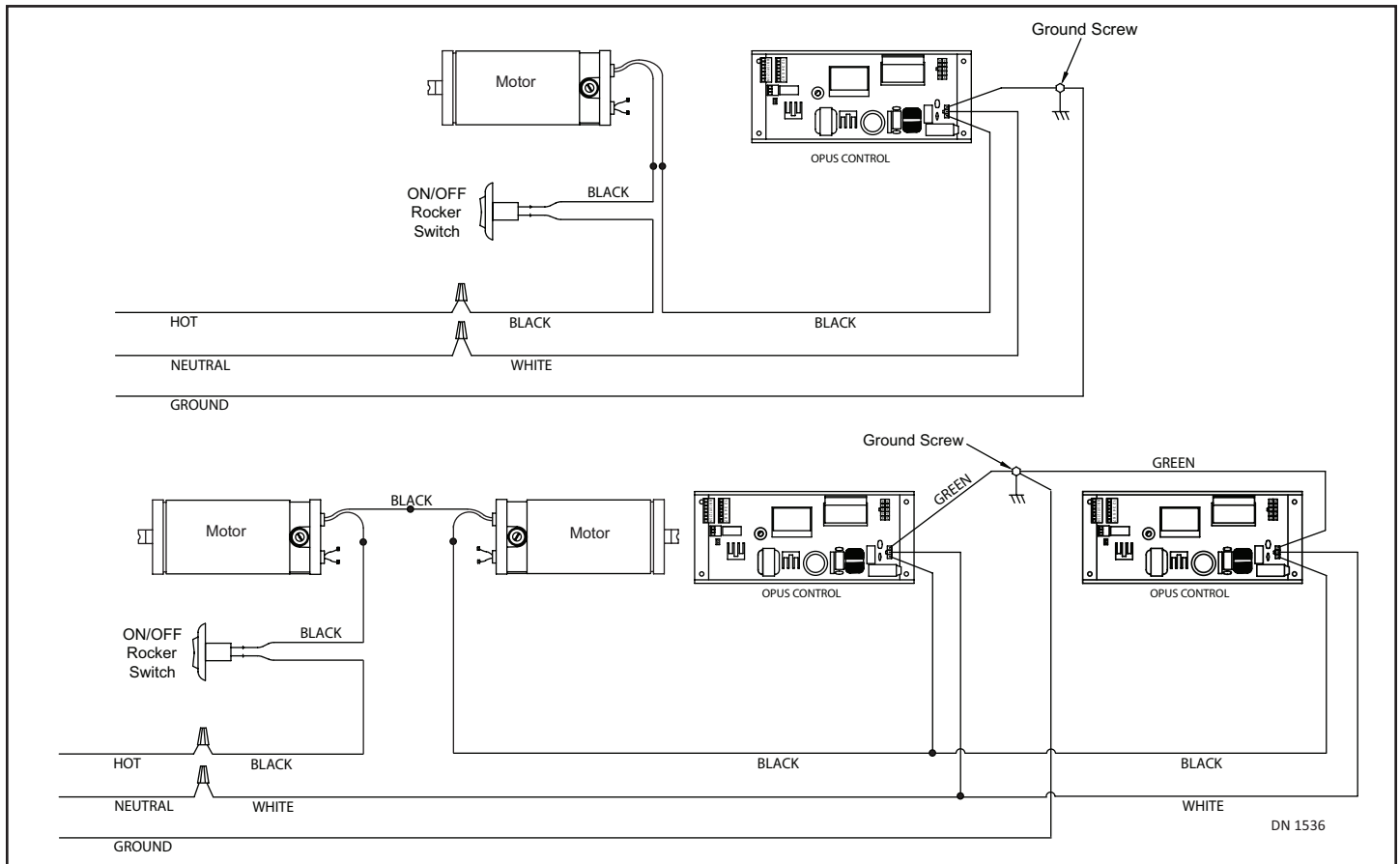
Figure 17 Snap Bracket Clip inside Header

6. Reconnect Terminal Strip(s) to the Opus Control. Please see Figure 2.
7. Remove the Soft Start Capacitor and Time Delay. The Opus Control does not utilize these component.

### SECTION 7: WIRING

#### 7.1 120 VAC General Wiring

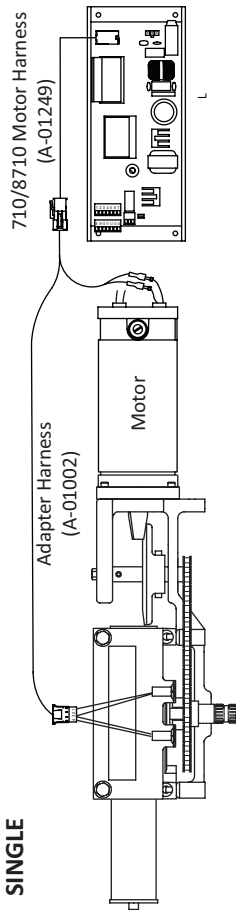
1. Turn Power OFF. Please see SECTION 2.



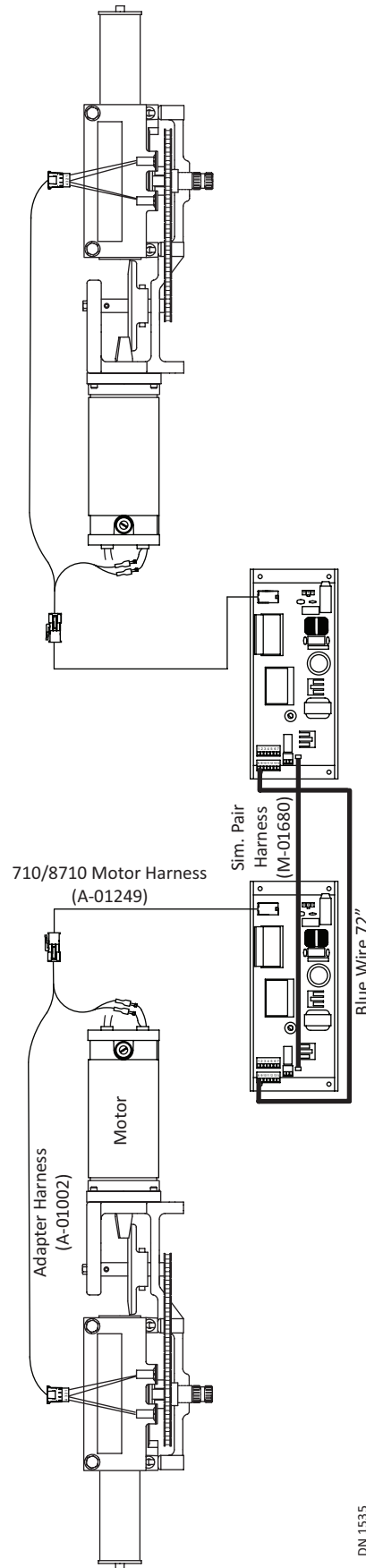
### 7.2 Magnum Control GT710/8710 Retrofit Kit Harness Wiring

#### MAGNUM CONTROL GT710/8710 Units

**SINGLE**

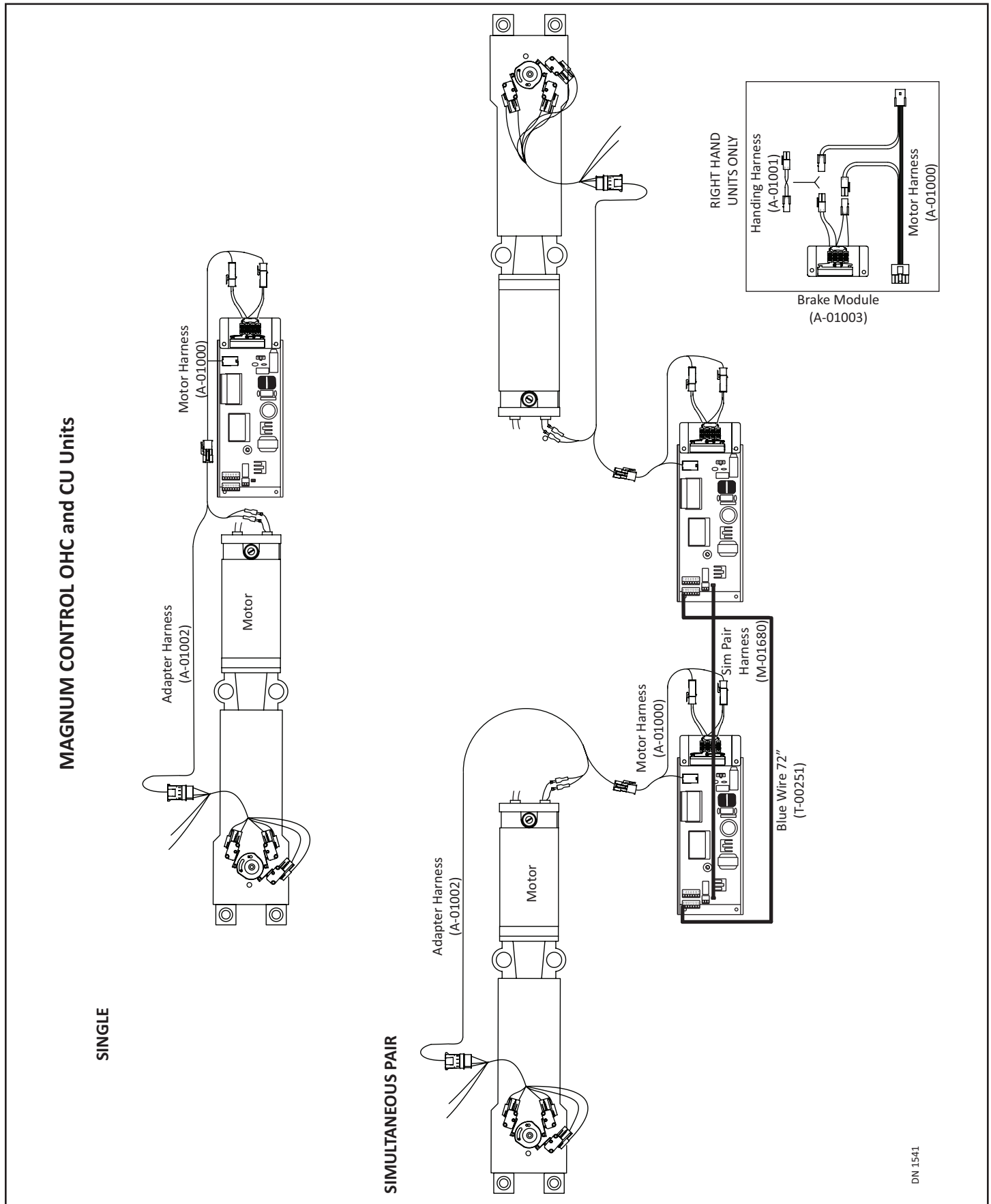


**SIMULTANEOUS PAIR**



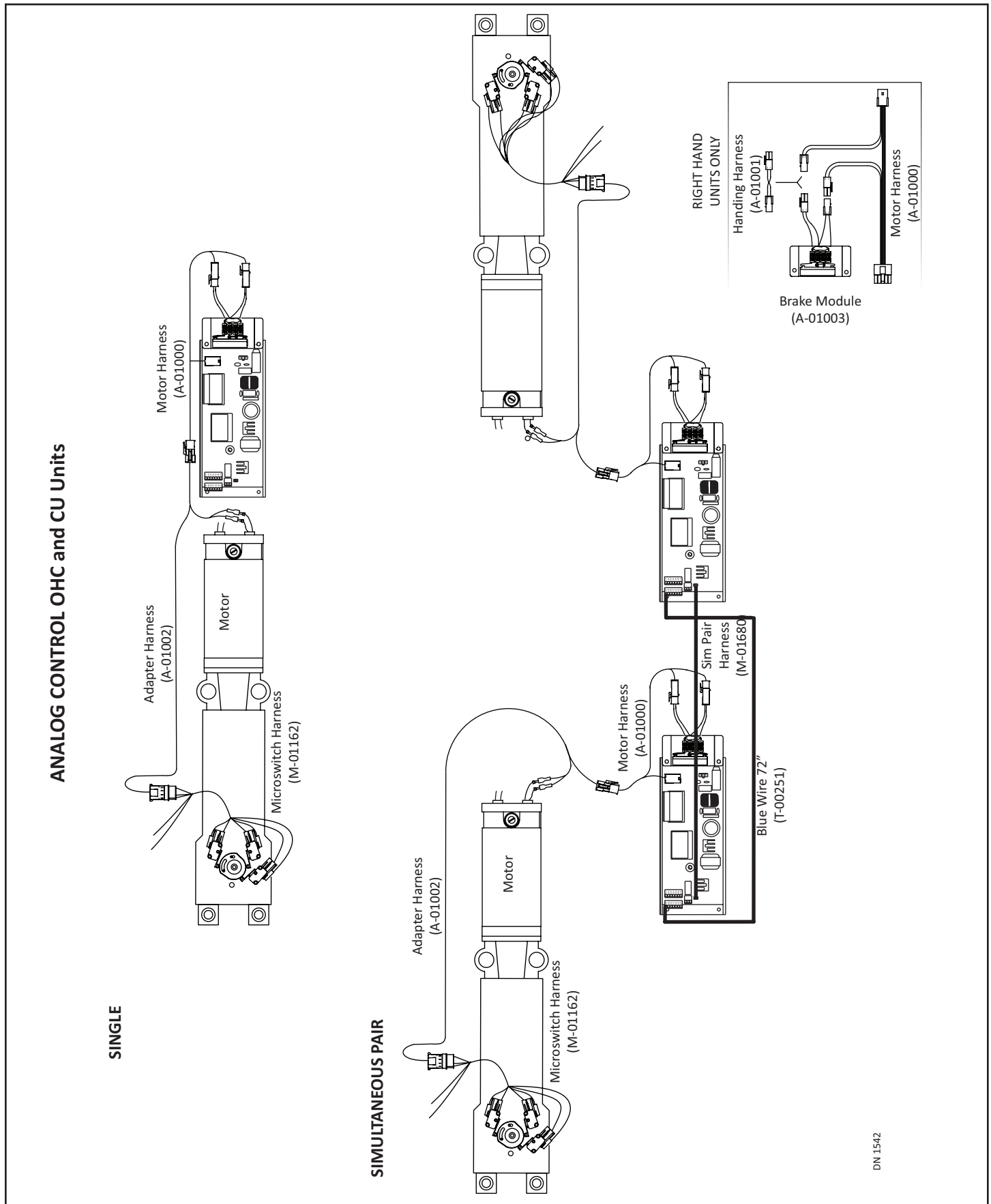
DN 1535

### 7.3 Magnum Control OHC and CU Retrofit Kit Harness Wiring

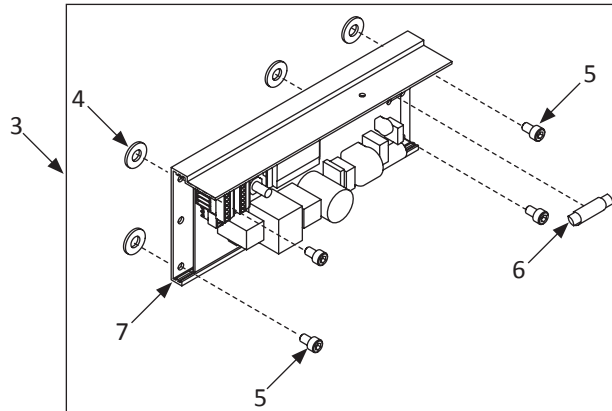
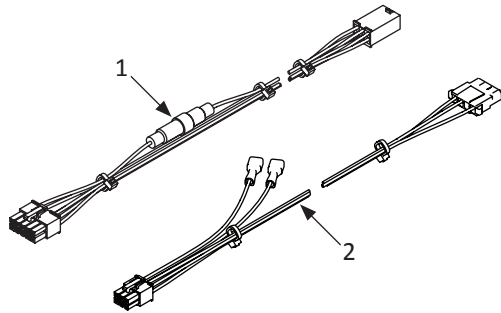


DN 1541

### 7.4 Analog Control OHC and CU Retrofit Kit Harness Wiring



**SERVICE PARTS: GT710/8710, SINGLE SWING DOOR  
RETROFIT KIT P/N A-01101**

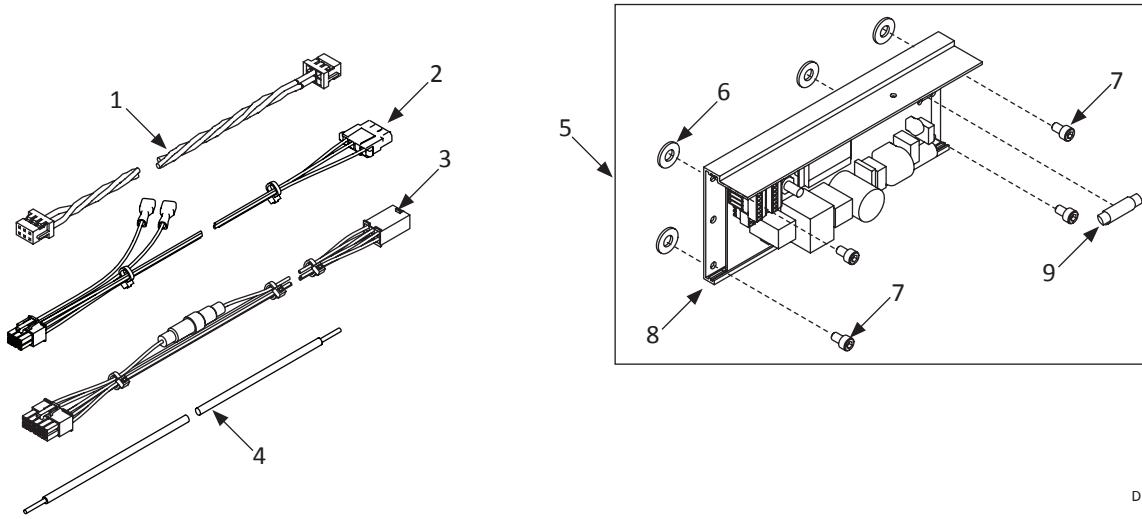


DN 1550

**GT710/8710 Single Swing Door**

Item	Part	QTY	Description	Used To
1	A-01249	1	HARNESS,MOTOR,OPUS,710	Connect Motor to Opus Control
2	A-01002	1	HARNESS,ADAPTER,NON-ENCODER,OPUS	Adapt Opus Control Harness to Non-Encoder Operator
3	A-01097	1	CONTROLLER,710,OPUS	Assembly of Opus Control
4	T-00365	4	WASHER,.170 ID,.625 OD,.032 THK,NYLON	Secures Mounting Hardware to Swing Door
5	T-00335	4	SHCS,10-24x0.313L.,ZINC	Secure Opus Control to Header
6	V-00552	1	FUSE;5A;GMA;5X20mm	Protect Opus Control (Located on Control)
	V-00713		FUSE,2 AMP,5X20mm,250V,FAST ACTING	Protect Motor (Located on Harness A-01249)
7	M-01546	1	CONTROLLER,OPUS	Control the Swing Door

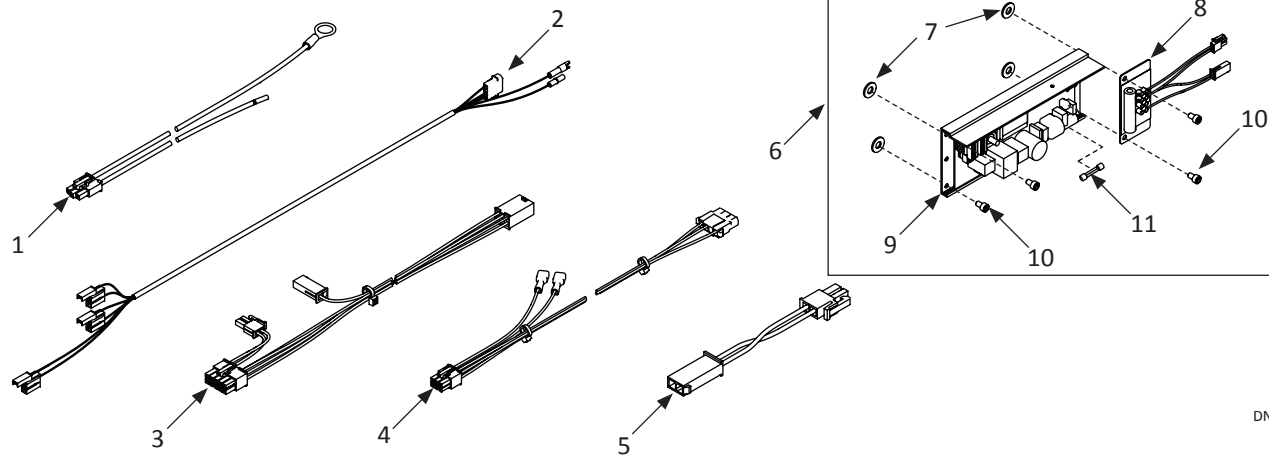
**SERVICE PARTS: GT710/8710, SIMULTANEOUS PAIR SWING DOORS  
RETROFIT KIT P/N A-01102**



DN 1551

GT710/8710 Simultaneous Pair Swing Door						
Item	Part	QTY	Description	Used To		
1	M-01680	1	HARNESS,SIM PAIR,OPUS	Allow Opus Controls to communicate with each other		
2	A-01002	2	HARNESS,ADAPTER,NON-ENCODER,OPUS	Connect Motor to Opus Control		
3	A-01249	2	HARNESS,MOTOR,OPUS,710	Adapt Opus Control Harness to Non-Encoder Operator		
4	T-00251	1	WIRE,20 AWG,300V,UL 1007,BLUE	Connect Breakout Circuit between both Opus Controls		
5	A-01097	2	CONTROLLER,710,OPUS	Assembly of Opus Control		
6	T-00365	8	WASHER,.170 ID,.625 OD,.032 THK,NYLON	Secures Mounting Hardware to Swing Door		
7	T-00335	8	SHCS,10-24x0.313L.,ZINC	Secure Opus Control to Header		
8	M-01546	2	CONTROLLER,OPUS	Control the Swing Door		
9	V-00552	2	FUSE;5A;GMA;5X20mm	Protect Opus Control (Located on Control)		
	V-00713	2	FUSE,2 AMP,5X20mm,250V,FAST ACTING	Protect Motor (Located on Harness A-01249)		

**SERVICE PARTS: SIDELOAD, SINGLE SWING DOOR  
RETROFIT KIT P/N A-01103**



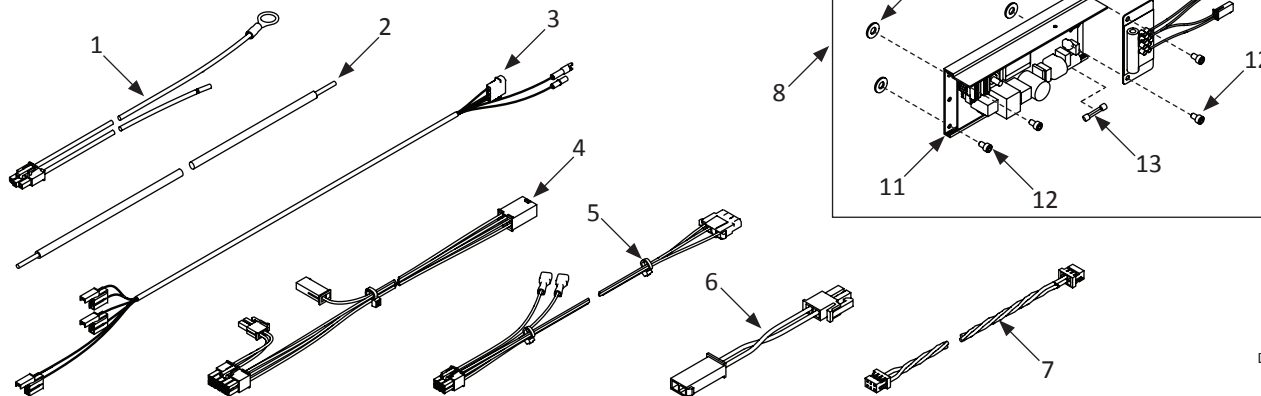
DN 1544

**Sideload Single Swing Door**

Item	Part	QTY	Description	Used To
1	M-01072	1	HARNESS,POWER,MAGNUM/OPUS	Replaces Analog Control Power Harness
2	M-01162	1	HARNESS,MICROSWITCH,MAGNUM	Retrofit Analog Operator for Back Check/Latch Check
3	A-01000	1	HARNESS,MOTOR,OPUS	Connect Motor to Opus Control
4	A-01002	1	HARNESS,ADAPTER,NON-ENCODER,OPUS	Adapt Opus Motor Harness to Non-Encoder Operator
5	A-01001	1	HARNESS,HANDING,OPUS	Retrofit Handing for Right Hand Units
6	A-00888	1	CONTROLLER,W/ BRAKE,SIDELOAD,OPUS	Assembly of Opus Control and Brake Module
7	T-00365	4	WASHER,.170 ID,.625 OD,.032 THK,NYLON	Secures Mounting hardware to Opus Control
8	M-01175	1	HARNESS,MOTOR,BRAKE MODULE,SWINGER	Provide braking when Opus Control is not powered
9	M-01546	1	CONTROLLER,OPUS	Control the Swing Door
10	T-00335	4	SHCS,10-24x0.313L.,ZINC	Secure Opus Control to Header
11	V-00288	1	FUSE,3 AMP,250V,FAST,2AG,AXIAL LEAD	Protect Motor (Located on Brake Module)
	V-00552	1	FUSE;5A;GMA;5X20mm	Protect Opus Control (Located on Control)

### SERVICE PARTS: SIDELOAD, SIMULTANEOUS PAIR SWING DOORS

#### RETROFIT KIT P/N A-01104

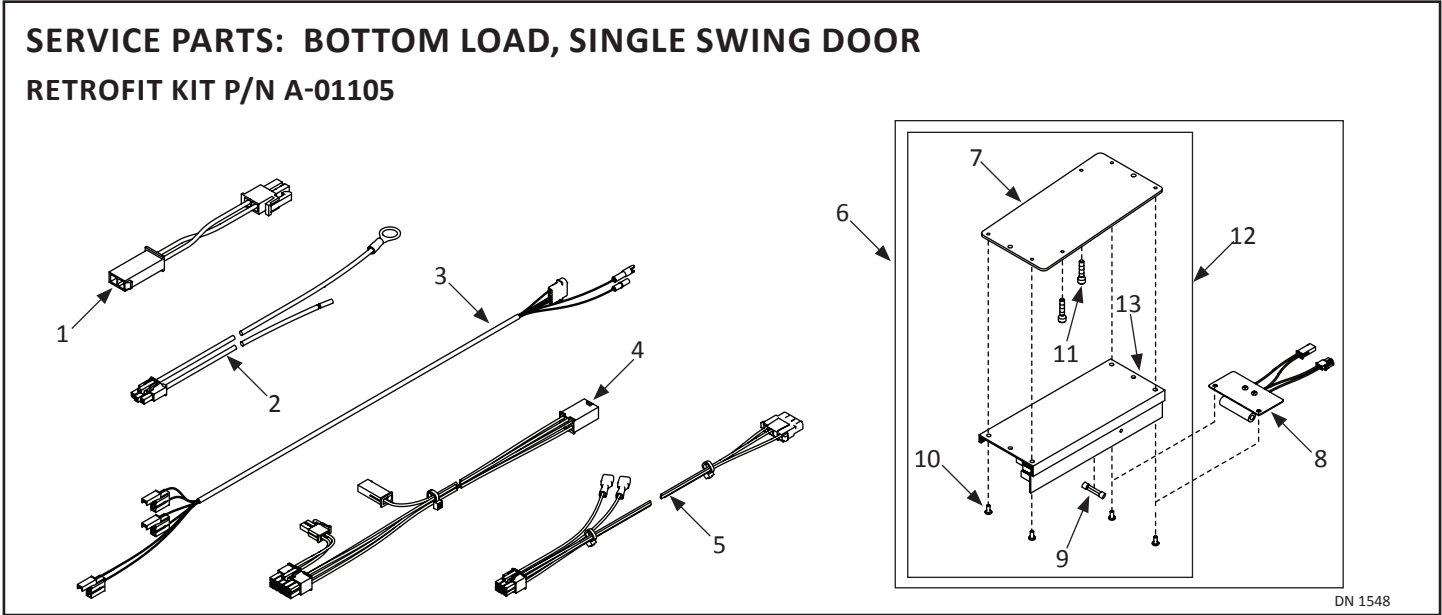


DN 1545

Sideload Simultaneous Pair Swing Door				
Item	Part	QTY	Description	Used To

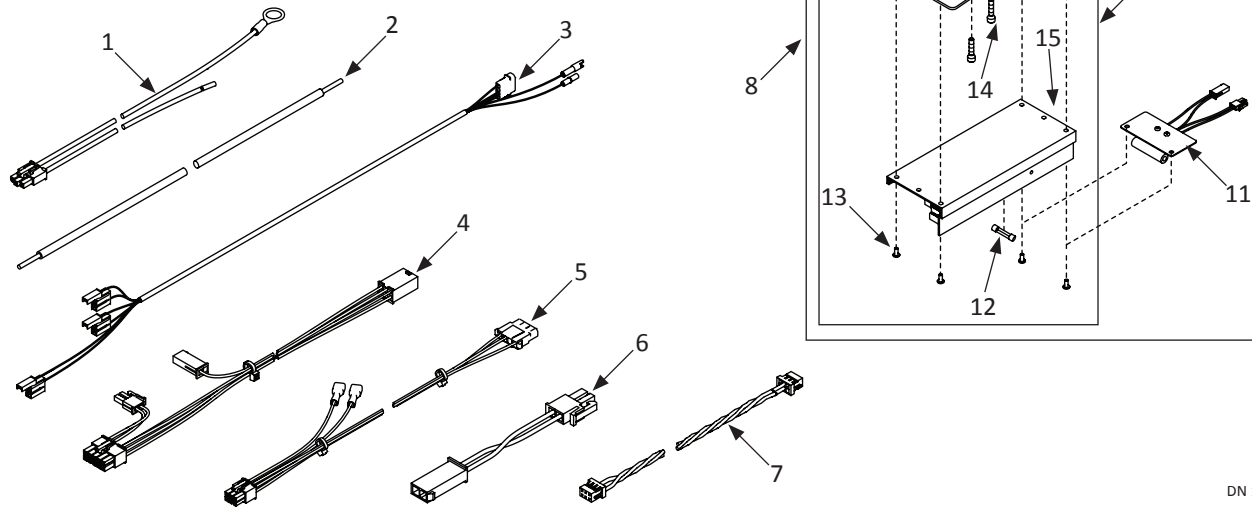
1	M-01072	2	HARNESS,POWER,MAGNUM/OPUS	Replaces Analog Control Power Harness
2	T-00251	1	WIRE,20 AWG,300V,UL 1007,BLUE	Connect Breakout Circuit between both Opus Controls
3	M-01162	2	HARNESS,MICROSWITCH,MAGNUM	Retrofit Analog Operator for Back Check/Latch Check
4	A-01000	2	HARNESS,MOTOR,OPUS	Connect Motor to Opus Control
5	A-01002	2	HARNESS,ADAPTER,NON-ENCODER,OPUS	Adapt Opus Motor Harness to Non-Encoder Operator
6	A-01001	2	HARNESS,HANDING,OPUS	Retrofit Handing for Right Hand Units
7	M-01680	1	HARNESS,SIM PAIR,OPUS	Allow Opus Controls to communicate with each other
8	A-00888	2	CONTROLLER,W/ BRAKE,SIDELOAD,OPUS	Assembly of Opus Control and Brake Module
9	T-00365	8	WASHER,.170 ID,.625 OD,.032 THK,NYLON	Secures Mounting hardware to Opus Control
10	M-01175	2	HARNESS,MOTOR,BRAKE MODULE,SWINGER	Provide braking when Opus Control is not powered
11	M-01546	2	CONTROLLER,OPUS	Control the Swing Door
12	T-00335	8	SHCS,10-24x0.313L.,ZINC	Secure Opus Control to Header
13	V-00288	2	FUSE,3 AMP,250V,FAST,2AG,AXIAL LEAD	Protect Motor (Located on Brake Module)
	V-00552	2	FUSE;5A;GMA;5X20mm	Protect Opus Control (Located on Control)





Bottom Load Single Swing Door					
Item	Part	QTY	Description	Used To	
1	A-01001	1	HARNESS,HANDING,OPUS	Retrofit Handing for Right Hand Units	
2	M-01072	1	HARNESS,POWER,MAGNUM/OPUS	Replaces Analog Control Power Harness	
3	M-01162	1	HARNESS,MICROSWITCH,MAGNUM	Retrofit Analog Operator for Back Check/Latch Check	
4	A-01000	1	HARNESS,MOTOR,OPUS	Connect Motor to Opus Control	
5	A-01002	1	HARNESS,ADAPTER,NON-ENCODER,OPUS	Adapt Opus Motor Harness to Non-Encoder Operator	
6	A-01098	1	CONTROLLER,W/ BRAKE,BOTTOM LOAD,OPUS	Assembly of Opus Control and Brake Module	
7	M-01735	1	PLATE,BOTTOM LOAD,OPUS	Secure Mounting hardware to Opus Control	
8	A-01003	1	MODULE,BRAKE,OPUS	Provide braking when Opus Control is not powered	
9	V-00288	1	FUSE,3 AMP,250V,FAST,2AG,AXIAL LEAD	Protect Motor (Located on Brake Module)	
	V-00552	1	FUSE;5A;GMA;5X20mm	Protect Opus Control (Located on Control)	
10	T-00420	4	PHMS,8-32x0.375L,PHIL,SWAGEFORM,ZINC	Secure Mounting hardware to Opus Control	
11	T-00232	2	SHCS,10-24x0.875L.,ZINC	Secure Opus Control to Header	
12	A-01143	1	CONTROLLER,W/O BRAKE,BOTTOM LOAD,OPUS	Assembly of Opus Control	
13	M-01546	1	CONTROLLER,OPUS	Control the Swing Door	

**SERVICE PARTS: BOTTOM LOAD, SIMULTANEOUS PAIR SWING DOORS**  
**RETROFIT KIT P/N A-01106**



DN 1549

**Bottom Load Simultaneous Pair Swing Door**

Item	Part	QTY	Description	Used To
1	M-01072	2	HARNESS,POWER,MAGNUM/OPUS	Replaces Analog Control Power Harness
2	T-00251	1	WIRE,20 AWG,BLUE	Connect Breakout Circuit between both Opus Controls
3	M-01162	2	HARNESS,MICROSWITCH,MAGNUM	Retrofit Analog Operator for Back Check/Latch Check
4	A-01000	2	HARNESS,MOTOR,OPUS	Connect Motor to Opus Control
5	A-01002	2	"HARNESS,ADAPTER,NON-ENCOD,OPUS CONTROL	Adapt Opus Motor Harness to Non-Encoder Operator
6	A-01001	2	HARNESS,HANDING,OPUS	Retrofit Handing for Right Hand Units
7	M-01680	1	HARNESS,SIM PAIR,OPUS	Allow Opus Controls to communicate with each other
8	A-01098	2	CONTROLLER,W/ BRAKE,BOTTOM LOAD,OPUS	Assembly of Opus Control and Brake Module
9	M-01735	2	PLATE,BOTTOM LOAD,OPUS	Secure Mounting hardware to Opus Control
10	A-01143	2	CONTROLLER,W/O BRAKE,BOTTOM LOAD,OPUS	Assembly of Opus Control
11	A-01003	2	MODULE,BRAKE,OPUS	Provide braking when Opus Control is not powered
12	V-00288	2	FUSE,3 AMP,250V,FAST,2AG,AXIAL LEAD	Protect Motor (Located on Brake Module)
	V-00552	2	FUSE;5A;GMA;5X20mm	Protect Opus Control (Located on Control)
13	T-00420	8	PHMS,8-32x0.375L,PHIL,SWAGEFORM,ZINC	Secure Mounting hardware to Opus Control
14	T-00232	4	SHCS,10-24x0.875L.,ZINC	Secure Opus Control to Header
15	M-01546	2	CONTROLLER,OPUS	Control the Swing Door