



Opus Control Wiring and Programming Quick Setup Parts Guide

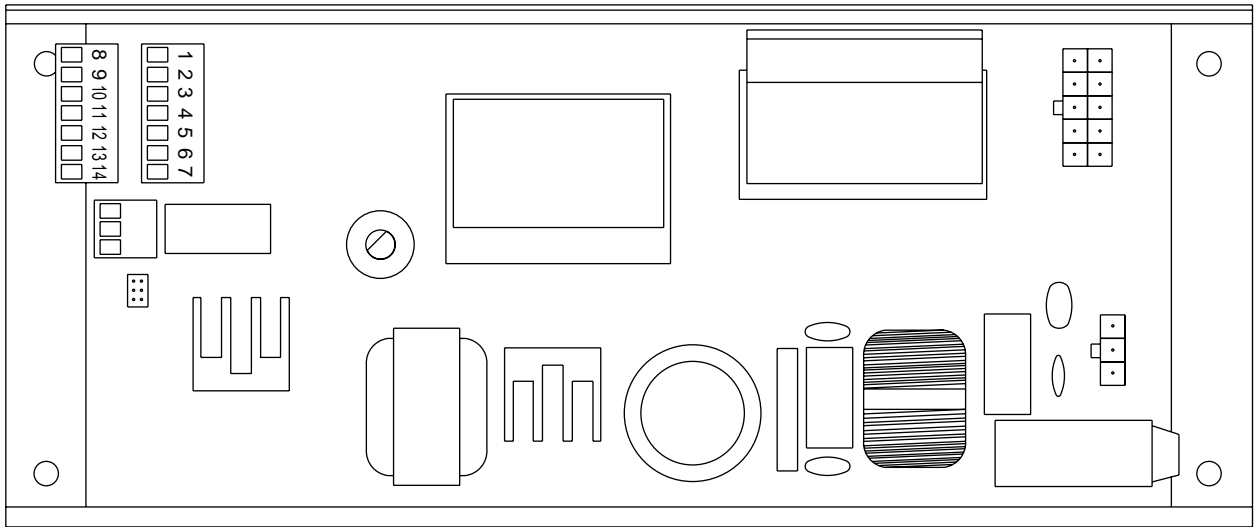
P/N C-00139 Rev 4-1-16

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Associated Manuals Part Numbers: *Opus Control Wiring and Programming Manual; P/N 15-14973*

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 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, ANSI 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 installed within the Header of new or existing; Swing Door systems, Fold Door Systems and Slide Door Systems. 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: 120 VAC GENERAL WIRING

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

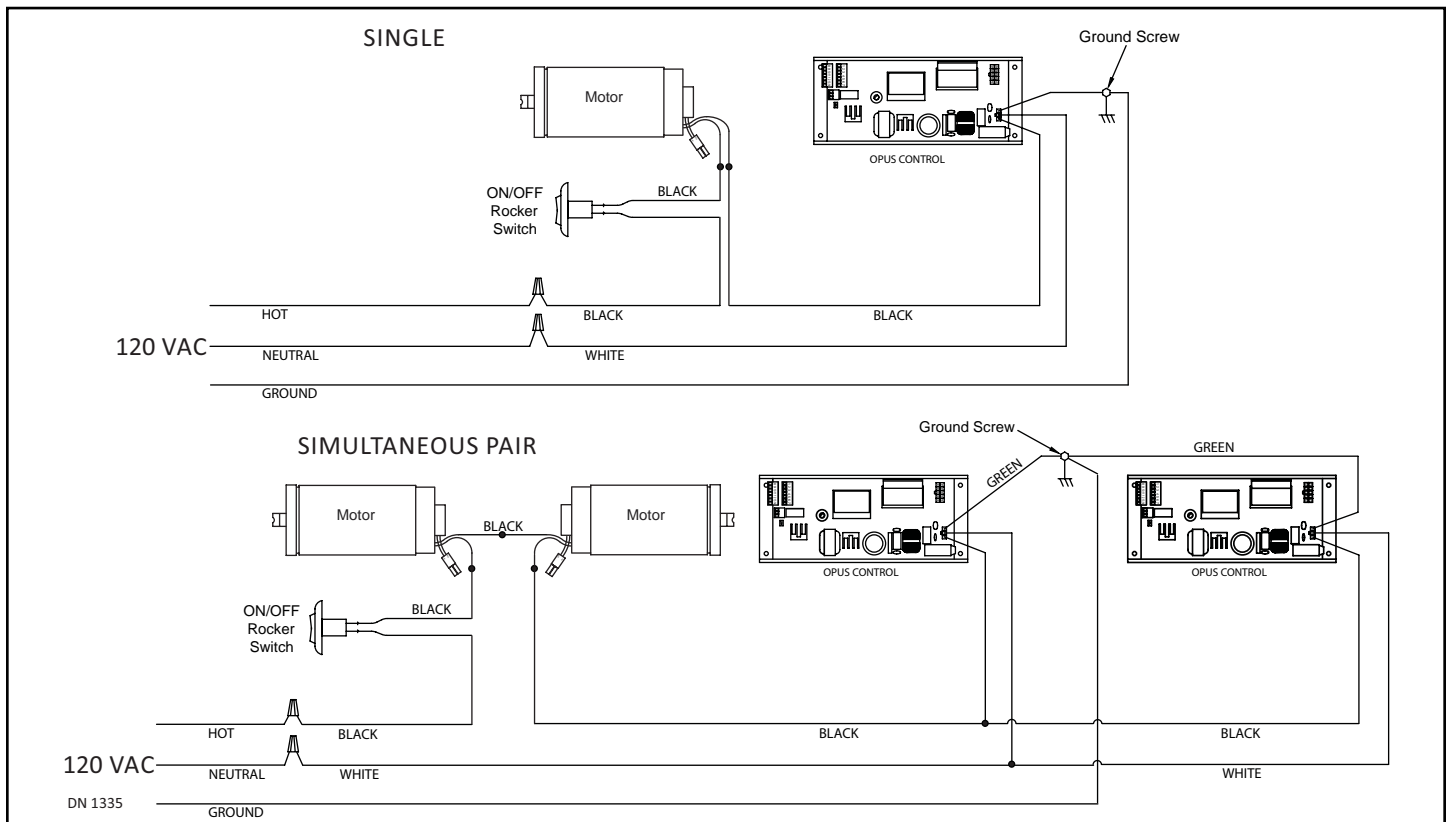
WARNING All high voltage electrical connections must be made by licensed electricians according to National and Local electrical codes/regulations.

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



SECTION 3: THE OPUS CONTROL

The Opus Control is used to power and control operating characteristics of the door. This is done through the use of Harnesses connected to Terminals located on the Control Board, plus wiring that is connected to other components within the Header.

Note: When the LCD Screen is ON and displays settings, the Hold Close feature is disabled. When the LCD screen is OFF, and does not display settings, the Hold Close feature is enabled.

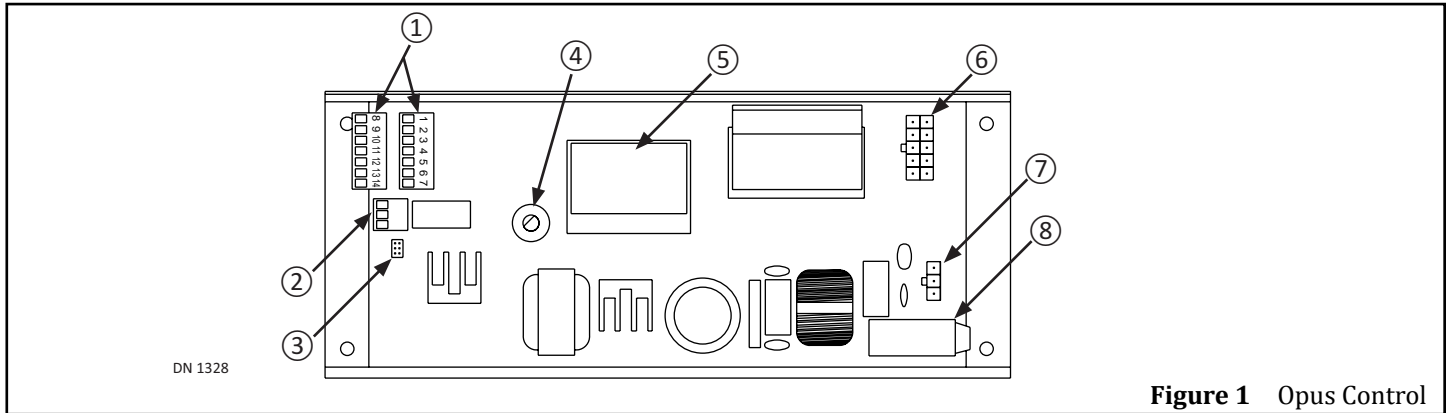


Figure 1 Opus Control

1	CN3	I/O Terminal Strip	5	-	LCD Screen
2	CN5	Output Terminal Strip	6	CN2	Motor Connector
3	CN4	CANBus Communication	7	CN1	Power Connector
4	-	Rotary Dial	8	-	Fuse, MC

3.1 The Rotary Dial

The Rotary Dial is located at the bottom, left side of the LCD Display and is utilized to scroll through LCD screens by:

- ▶ Turning the Rotary Dial:
 - Clockwise: To scroll forward through screens and programming options.
 - Counterclockwise: To scroll backward through screens and programming options.
- ▶ Pressing down on the Rotary Dial:
 - Gains access to a different screen on another Level.
 - Unlock/locks screen Titles and selected Options.
 - Selects current option.

1. Scroll through screens by turning the Rotary Dial or pressing down on the Rotary Dial.
2. To go back to the beginning, press and hold down for (2) seconds on the Rotary Dial. Release the Rotary Dial once the Level One screen is displayed.

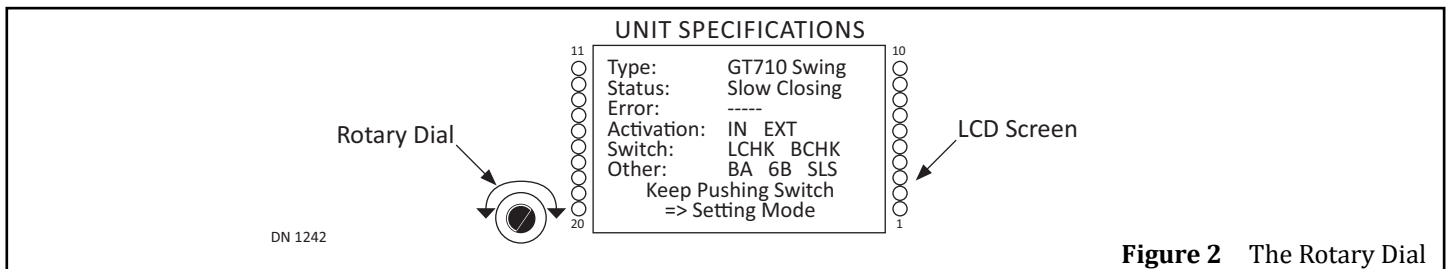


Figure 2 The Rotary Dial

3.2 LCD Screen Transition

(4) LCD Screens are categorized within the following Hierarchy Levels:

- ▶ Level One: Specification
- ▶ Level Two: Access
- ▶ Level Three: Category
- ▶ Level Four: Parameter

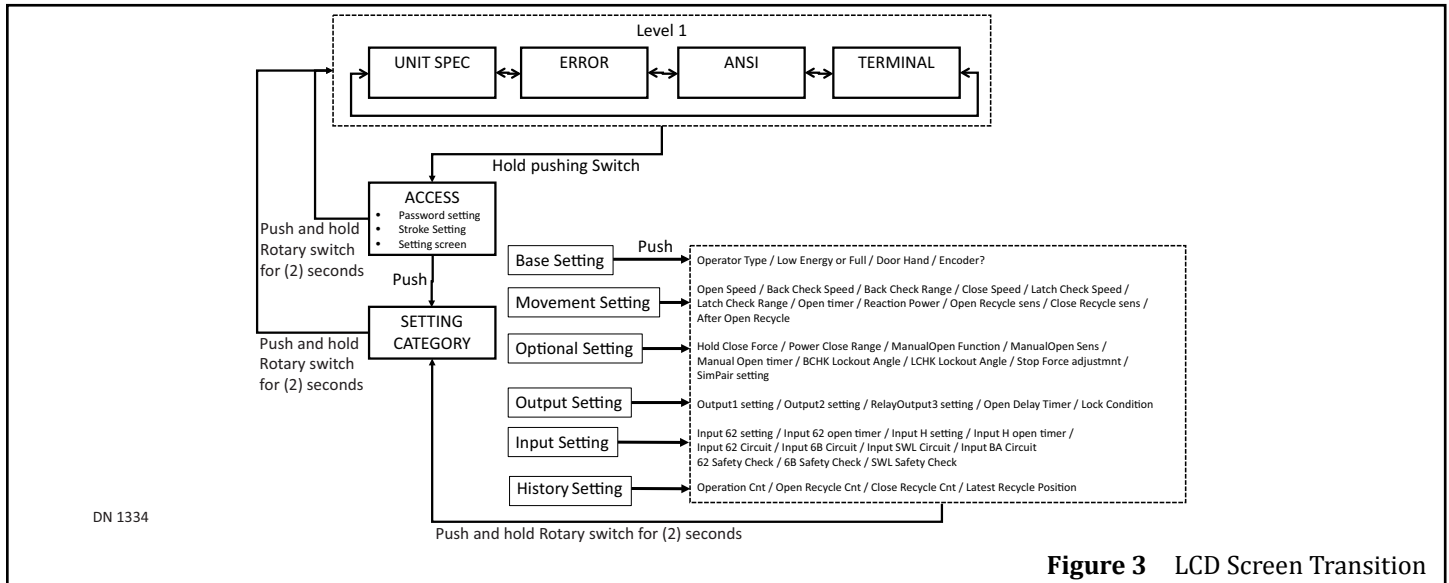


Figure 3 LCD Screen Transition

3.3 Level One: Specification Screens

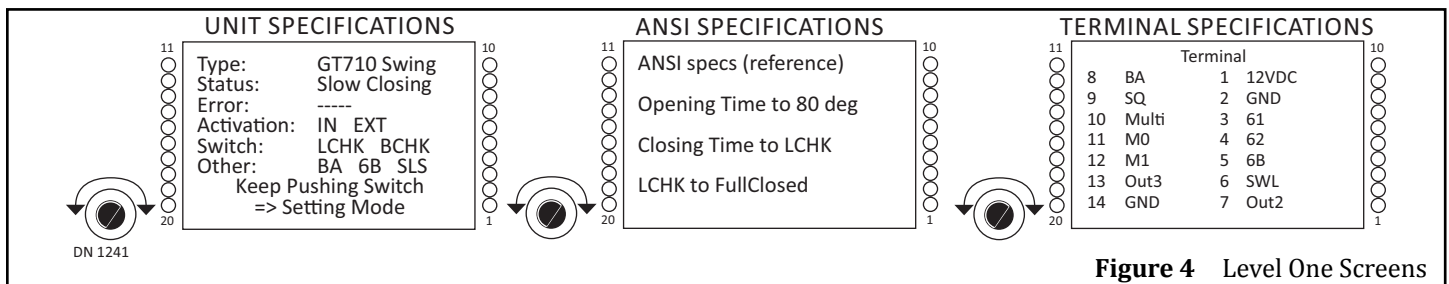


Figure 4 Level One Screens

When Power is turned ON for the first time, the Door does not move. Instead, an LCD screen will illuminate to display a Level One: Unit Specification screen (Default screen). There are (3) Level One screens:

- ▶ **Unit Specifications:** Displays the type of door and current status of the unit. The type of door (swing, slide or folding) can be changed within the Base Settings Category (Level 3 and Level 4). Please refer to Subsection 6.1 The screen above shows the Opus control installed on a GT710.
- ▶ **ANSI Specifications:** Displays the actual time of opening and closing of the door to help determine ANSI compliance. (Applies to swing doors only).
- ▶ **Terminal Specifications:** Displays the current status of all of the Input/Output lines of the terminal strip.

Level One screens are used to inform the User all specifications that have already been programmed into the Opus Control. If a specification needs to be changed, the User must reprogram the Opus Control within the Level Three screen, or Level Four screen.

3.4 Level Two: Access Screen

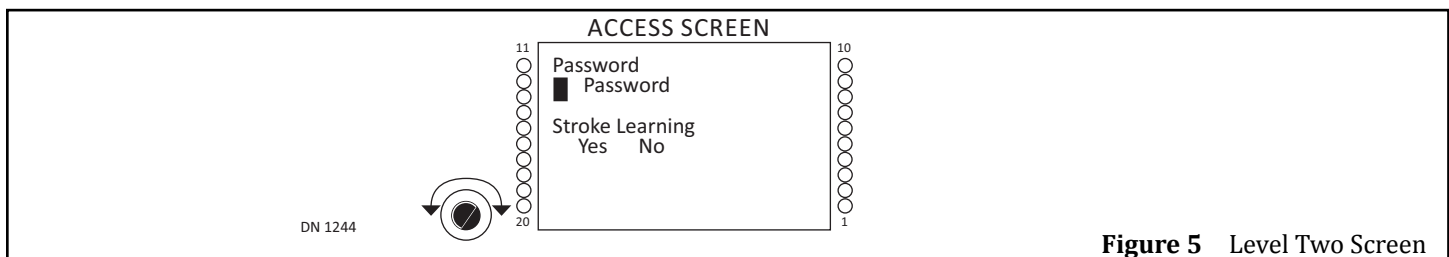


Figure 5 Level Two Screen

3.4.1 Password

The Default password is (0045) and has been programmed into all Opus Controls. To prevent tampering of the Opus Control, the password cannot be changed.

1. Briefly press down on the Rotary Dial. Turn the Rotary dial until the first number (0) is displayed. Repeat until the Default password (0045) has been entered.
 - a. Level Three screen will display.

3.4.2 Stroke Learning

- ▶ Activates the Door to teach the Opus Control the Full Open and Full Closed positions.
- ▶ Measures from Full Closed to Full Open points to determine where Check Points should happen.
- ▶ Determines if an existing Operator Type is correct.
- ▶ Determines if Handing is correct.

1. Briefly press down on the Rotary Dial to select:

- ▶ Yes
 - Opus will start the Stroke Learning Cycle
 - The door will Close slowly → Open Slowly → Close Again
- ▶ No
 - If the Operator and Door Handing settings are correct, Opus will not have to Learn Stroke. Opus automatically determines the Stroke during a normal door cycle.
 - If the Operator Type or Door Hand are the wrong setting, the following messages after the Stroke Learning Cycle will display: “Wrong Motor! Restroke”; or “Wrong Hand! Restroke”. If this event occurs, enter the proper settings within the Base Setting Category screens.

3.5 Level Three: Category Screen

3.5.1 Within Password

Level Three Setting Category displays Parameter options for Level Four.

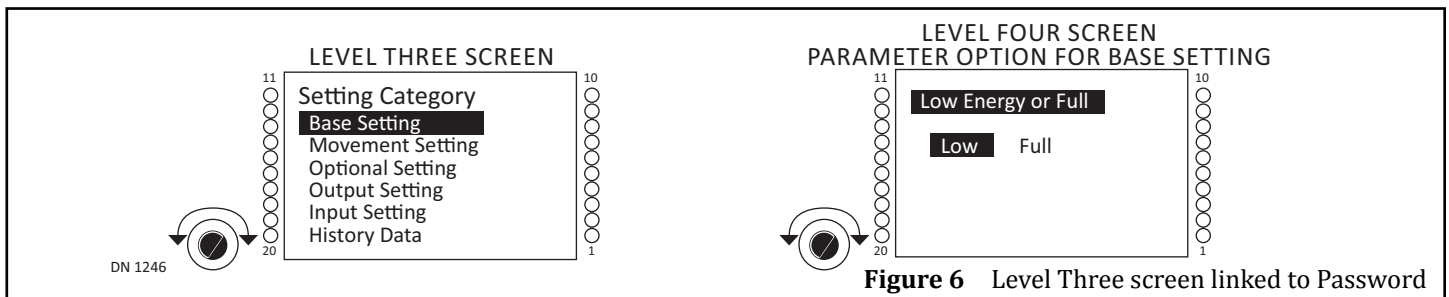


Figure 6 Level Three screen linked to Password

3.5.2 Within Stroke (only if Yes was selected)

Level Three Setting Category will display Error messages if the Door has been programmed incorrectly.

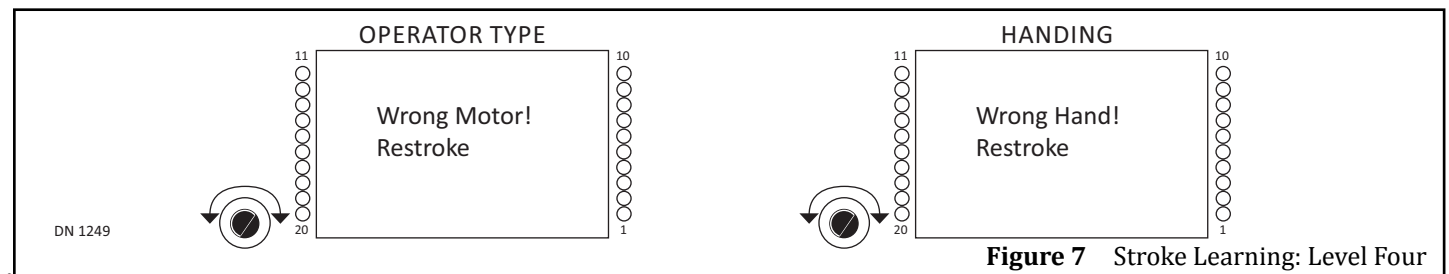


Figure 7 Stroke Learning: Level Four

3.6 Level Four: Parameter Setting Screens

Parameter Options are utilized to select appropriate Parameter Settings. Parameter Options are available after entering a Password.

SECTION 4: PROGRAMMING THE OPUS CONTROL

4.1 Base Settings

Base Settings			
Parameter	Range	Default	Action
Operator Type	<ul style="list-style-type: none"> ▶ GT-300/400/500 Swing ▶ GT-1175 Slide ▶ GT-710 Swing 	GT-710 Swing	<ul style="list-style-type: none"> ▶ Select Operator Type ▶ Select GT300/400/500 Swing, if installing a GT-1400 Fold Door
Low Energy or Full	<ul style="list-style-type: none"> ▶ Low Energy ▶ Full Energy 	Low	Select type of operator application
Swing Door Handing	<ul style="list-style-type: none"> ▶ Left ▶ Right 	Right	From the Exterior Side of Building, determine which Handing to enter: Right or Left
Fold Door Handing	<ul style="list-style-type: none"> ▶ Left ▶ Right 	Right	From the Exterior Side of Building, determine which Handing to enter: Right or Left
Slide Door Handing	<ul style="list-style-type: none"> ▶ Left ▶ Right 	Right	From the Exterior Side of Building, determine which Handing to enter: Right or Left
Encoder	<ul style="list-style-type: none"> ▶ Yes ▶ No 	▶ Yes	<ul style="list-style-type: none"> ▶ Select YES if Encoder is installed with Motor. ▶ Select NO if Encoder is not installed with Motor.

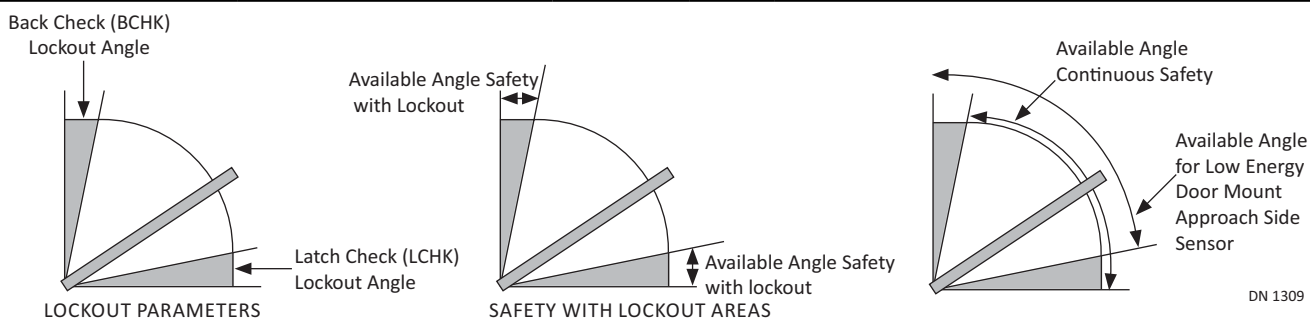
4.2 Movement Settings

Movement Settings			
Parameter	Range	Default	Description
Open Speed	0 - 7	3	The higher the number the faster the Door opens
Back Check Speed	0 - 7	3	Sets door speed during Back Check
Back Check Range	0 - 7	3	<ul style="list-style-type: none"> ▶ Swing Door: 2-1/2° to 35° of Fully Open ▶ Slide Door: 1" to 13-3/4" of Fully Open
Close Speed	0 - 7	3	The higher the number the faster the Door closes
Latch Check Speed	0 - 7	3	Sets door speed during latch check
Latch Check Range	0 - 7	3	<ul style="list-style-type: none"> ▶ Swing Door: 10° to 45° of Fully Closed ▶ Slide Door: 1" to 13-3/4" of Fully Closed
Open Timer	0-10, 12, 15, 20, 25, 30	2	Amount of Hold Open time after deactivation in seconds
Reaction Power	0 - 7	3	Determines how fast the door reacts to a reactivation when closing
Open Recycle Sens	0 - 7	3	Determines how hard the door will push against an obstruction during opening

Movement Settings			
Parameter	Range	Default	Description
Close Recycle Sens	0 - 7	3	Determines how hard the door will push against an obstruction during closing
After Open Recycle	Slow Open Stop	Slow Open	Determines what happens after a recycle during Opening cycle.
Close Recycle Reopen	Yes	Yes	Determines what happens after a recycle while closing cycle.
	No		

4.3 Optional Settings

Optional Settings			
Parameter	Range	Default	Description
Hold Close Force	0 - 3	0	0 OFF
			3 Strongest Hold Close force
Power Close Range	<ul style="list-style-type: none"> ▶ No Power Close ▶ Whole Close Cycle ▶ Latch Check Only ▶ Latch and Back 	No Power Close	Closing assisted by Motor to fight wind or stack pressure
Manual Open Function	<ul style="list-style-type: none"> ▶ No Action ▶ Push and Go ▶ Stop and Close ▶ Try to close 	No Action	Does nothing
			P & G Enables push and go
			S & C Door pauses at open angle then closes
			Door will creep to Close
Manual Open Sensitivity	0 - 3	1	Angle/force to activate Push and Go
Manual Open Timer	<ul style="list-style-type: none"> ▶ 0-10, 12, 15, 20, 25, 30 ▶ Same as Open Timer 	4	Hold Open time for Manual Opening
BCHK Lockout Angle	0 - 9 A	0	<ul style="list-style-type: none"> ▶ Sensor lockout angle at Back Check ▶ Range is from 0° to 30° from Fully Open ▶ Used for Swing or Fold Door Units only
			0 Narrow
			A Wide
LCHK Lockout Angle	0 - 9 A	0	<ul style="list-style-type: none"> ▶ Sensor lockout angle at Latch Check ▶ Range is from 0° to 30° from Fully Close ▶ Used for Swing or Fold Door Units only
			0 Narrow
			A Wide



Stop Force Adjustment	0 - 7	3	Determines how the door reacts to a continuous safety signal: Slow Open, Stop, or Slow Close
SimPair Setting	Single Door	Single Door	Select type of Door
	Normal Sim Pair		
	Overlap Sim Pair		

4.4 Output Settings

Attention: The following Output Settings Table is for **RETRO FIT KITS ONLY**. Output Settings for all other Units are preset at the NABCO Factory.

Output Settings				
Parameter	Terminal	Range	Default	Description
Output1	Terminal 7	▶ — —	Full Open	▶ Relay doesn't change state ▶ Relay changes when fully closed ▶ Relay changes when door is closing ▶ Relay changes when door is opening ▶ Relay changes when fully open ▶ Relay changes when error detected ▶ Relay changes when recycle occurs ▶ Set for electric strike functionality ▶ Set for Mag lock functionality ▶ Set for Airlock functionality ▶ Relay changes when breakout occurs ▶ Provision for door sequencing ▶ Normally open contacts for Monitoring ▶ Normally closed contacts for Monitoring ▶ For BEA Bodyguard
Output 2	Terminal 13	▶ Fully Closed Position ▶ Closing Status	Full Closed	
Output 3	Electric Lock Terminals	▶ Opening Status ▶ Full Opened Position ▶ Error State Output ▶ Recycle happened ▶ Electric Strike Lock ▶ Electric Magnetic Lock ▶ Airlock ▶ Breakout Pass through ▶ Door Sequencing ▶ Sensor Monitoring (N.O) ▶ Sensor Monitoring (N.C.) ▶ BEA Bodyguard Output	— —	
Open Delay Timer	N/A	▶ 0.1 - 0.9 sec ▶ After Unlock Input	0.3	▶ Delay time after activation to allow lock to unlock before the door starts moving. ▶ Only functional if Electric Lock is selected
Lock Condition	N/A	▶ Every Fully Closed ▶ Oneway/Night Only	Every Fully Closed	Determines when the electric lock engages

4.5 Input Settings

Input Settings				
Parameter	Terminal	Range	Default	Description
Input 62	Terminal 4	▶ — — ▶ All Activation Mode ▶ Interior Activation ▶ Exterior Activation ▶ Beam Sensor ▶ LE Approach Sensor ▶ Unlock Input ▶ Spring Close Only ▶ Sequential Input ▶ Open Slow ▶ Safety with Lockout ▶ Continuous Safety ▶ Reduced Opening ▶ Emergency Close ▶ Hold Open Mode	Exterior Activation	▶ No input ▶ Activates in all modes but OFF ▶ Activation on interior for One Way mode ▶ Activation on exterior ▶ Beam input ▶ LE door mounted sensor ▶ Receives unlocked signal from elec Lock ▶ Turns off power close and hold close ▶ Takes on activation to open then another to close the door ▶ Causes slow opening of the door ▶ Swingside header mounted sensor input ▶ Swing side door mounted sensor input ▶ Causes unit to change to reduced open ▶ Forces the door to slowly close and lock ▶ Causes the door to hold open forever
Input 62 Open Timer	N/A	▶ 0-10, 12, 15, 20, 25, ▶ Same as Open Timer	Same as Open Timer	Hold open time for Input 62
Input H Open Timer	N/A	▶ 0-10, 12, 15, 20, 25, ▶ Same as Open Timer	Same as Open Timer	Hold open time for Input H
Input 61 Circuit	N/A	▶ Normally Open ▶ Normally Close	Normally Open	Circuit logic for Input 61
Input 62 Circuit	N/A	▶ Normally Open ▶ Normally Close	Normally Open	Circuit logic for Input 62

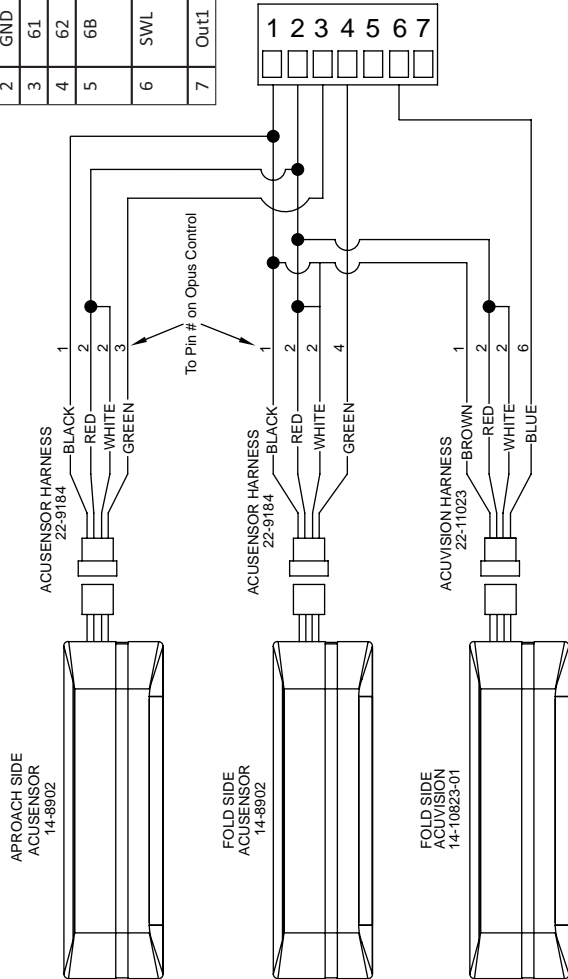
Input Settings				
Parameter	Terminal	Range	Default	
Input H Setting	Terminal 10	<ul style="list-style-type: none"> ▶ — — ▶ All Activation Mode ▶ Interior Activation ▶ Exterior Activation ▶ Beam Sensor ▶ LE Approach Sensor ▶ Unlock Input ▶ Spring Close Only ▶ Sequential Input ▶ Open Slow ▶ Safety with Lockout ▶ Continuous Safety ▶ Reduced Opening ▶ Emergency Close ▶ Hold Open Mode 	— —	<ul style="list-style-type: none"> ▶ No input ▶ Activates in all modes but OFF ▶ Activation on interior for One Way mode ▶ Activation on exterior ▶ Beam input ▶ LE door mounted sensor ▶ Receives unlocked signal from elec Lock ▶ Turns off power close and hold close ▶ Takes on activation to open then another to close the door ▶ Causes slow opening of the door ▶ Swingside header mounted sensor input ▶ Swing side door mounted sensor input ▶ Causes unit to change to reduced open ▶ Forces the door to slowly close and lock ▶ Causes the door to hold open forever
Input 6B Circuit	N/A	<ul style="list-style-type: none"> ▶ Normally Open ▶ Normally Close 	Normally Open	Circuit logic for Input 6B
Input SWL Circuit	N/A	<ul style="list-style-type: none"> ▶ Normally Open ▶ Normally Close 	Normally Open	Circuit logic for Input SWL
Input BA Circuit	N/A	<ul style="list-style-type: none"> ▶ Normally Open ▶ Normally Close 	Normally Open	Circuit logic for Input BA
6B Stop Closing	N/A	<ul style="list-style-type: none"> ▶ Yes ▶ No 	No	Determines door movement stop or close, when 6B is ON at latch check while closing cycle.
After 6B Open?	N/A	<ul style="list-style-type: none"> ▶ Yes ▶ No 	Yes	Determines door movement open or close, after 6B.
61 Monitoring	N/A	<ul style="list-style-type: none"> ▶ Active ▶ Not Active 	Not Active	Sensor monitoring function *
62 Monitoring	N/A	<ul style="list-style-type: none"> ▶ Active ▶ Not Active 	Not Active	Sensor monitoring function *
6B Monitoring	N/A	<ul style="list-style-type: none"> ▶ Active ▶ Not Active 	Not Active	Sensor monitoring function *
SWL Monitoring	N/A	<ul style="list-style-type: none"> ▶ Active ▶ Not Active 	Not Active	Sensor monitoring function *
<p>* If Safety Check is enabled for any input then the sensor MUST be connected to Output 1 or 2. Output 1 or 2 must then be programmed to "Sensor Health Check". If an error occurs, the door will hold open until the error clears or the power is cycled.</p>				

4.6 History Settings

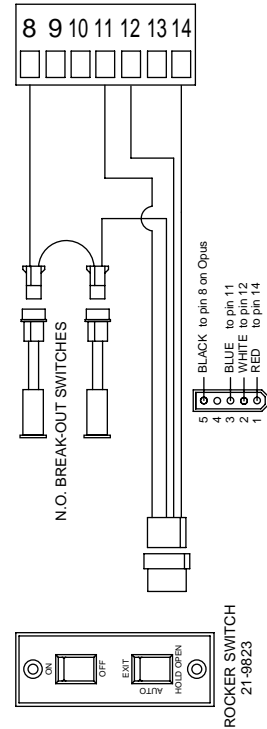
History Settings	
Parameter	Description
Operation Cnt	<ul style="list-style-type: none"> ▶ Indicates number of Door open cycles. ▶ Updated every 100 door cycles.
Open Recycle Cnt	Indicates number of times the Door reversed direction during Opening cycle after sensing: <ul style="list-style-type: none"> ▶ An object was struck. ▶ The amount of friction that surpassed the recycle sensitivity setting.
Close Recycle Cnt	Indicates number of times the Door reversed direction during Closing cycle after sensing: <ul style="list-style-type: none"> ▶ An object was struck. ▶ The amount of friction that surpassed the Recycle Sensitivity Setting.
Latest Recycle Position	<ul style="list-style-type: none"> ▶ Indicates the last recycle position during opening and closing. ▶ For swing doors it displays the approximate angle from closed at recycle. For slide doors it displays the position in inches from closed.

SECTION 5: FOLD DOOR WIRING DIAGRAM (ACCESSORIES)

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	Safety with Lockout (overhead, swing side safety sensor)
		Slide Door Sidelite Sensor
7	Out1	Programmable Output



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



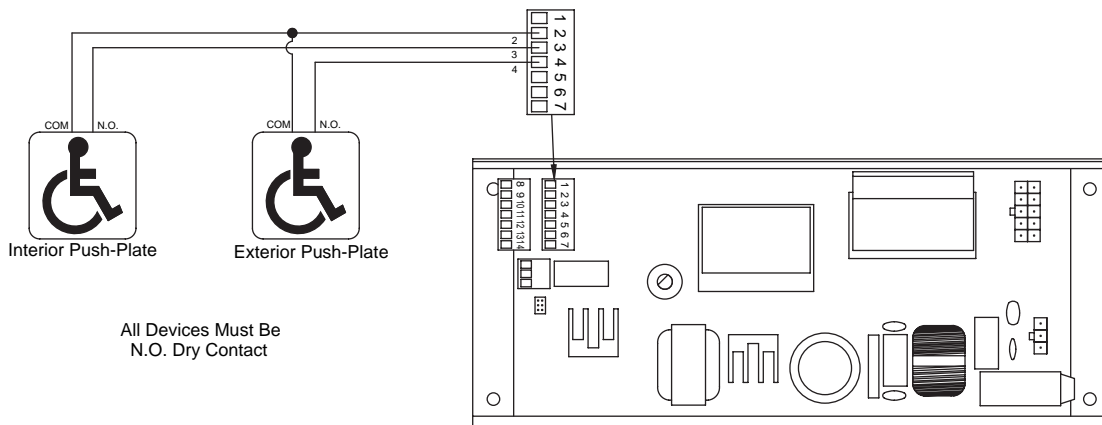
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SECTION 6: SWING DOOR WIRING DIAGRAMS (ACCESSORIES)

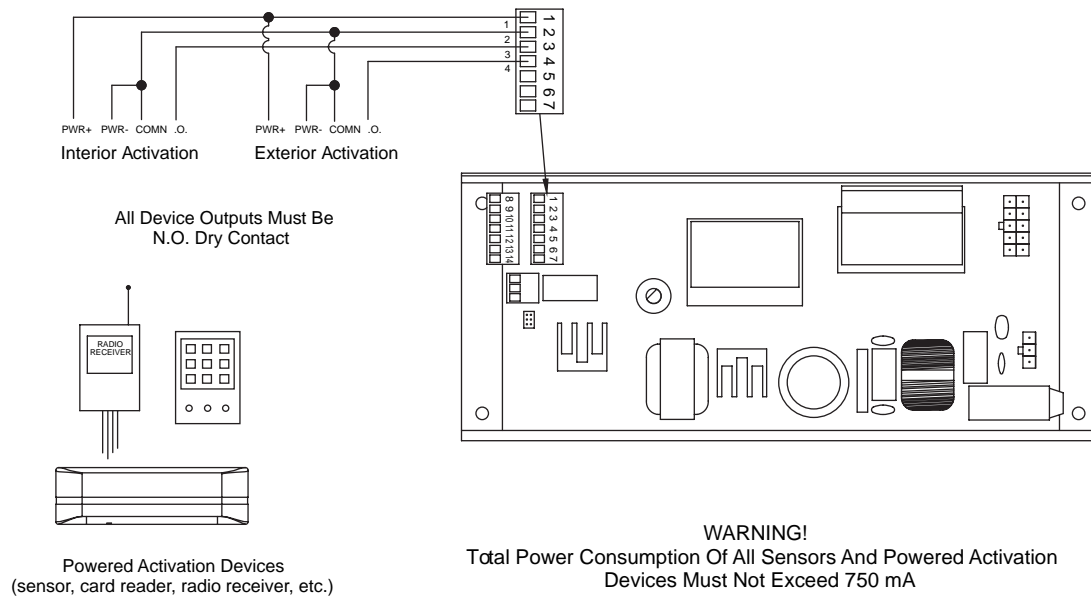
6.1 Activation

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	

Non-Powered Activation Devices



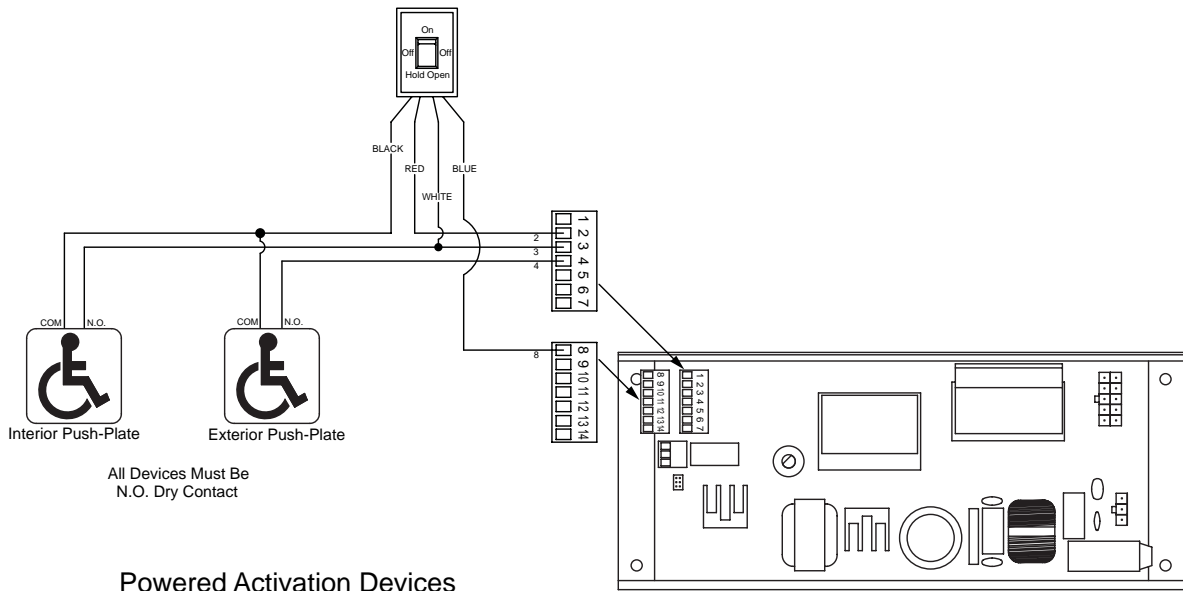
Powered Activation Devices



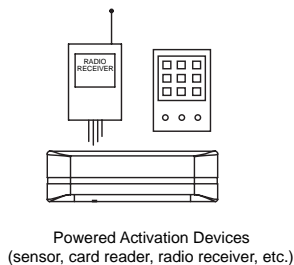
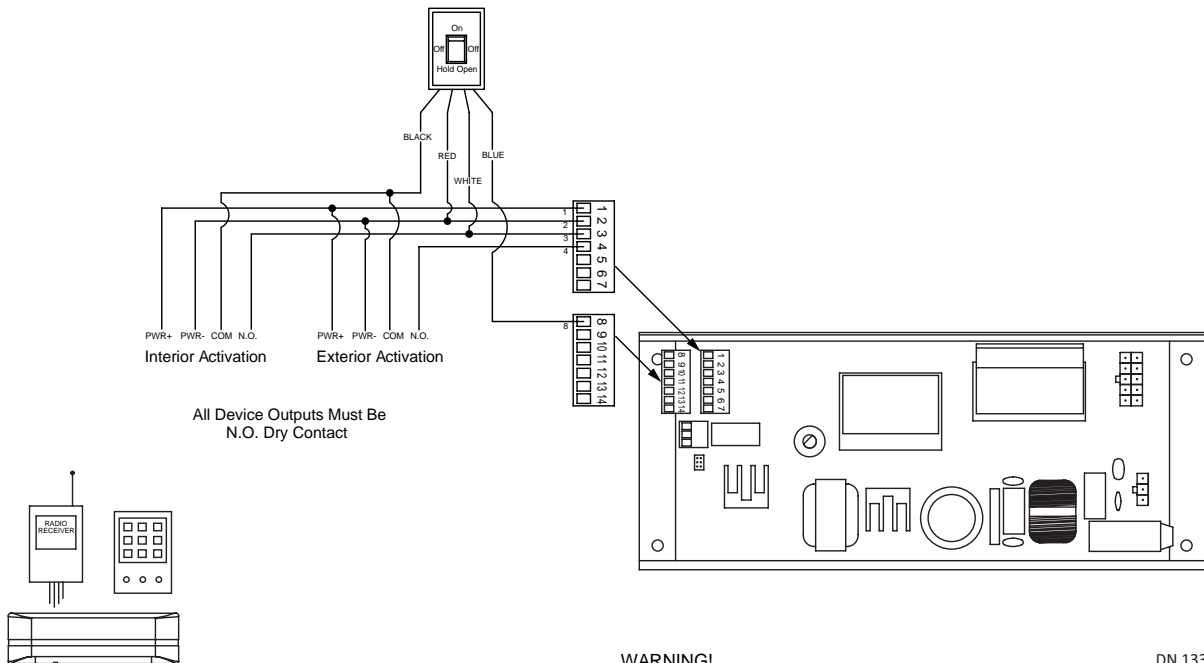
6.2 Activation using Old ON/OFF/Hold-Open Switch

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	

Non-Powered Activation Devices



Powered Activation Devices



WARNING!
Total Power Consumption Of All Sensors And Powered Activation
Devices Must Not Exceed 750 mA

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6.3 Safety

SAFETY SENSORS WITH MONITORING FUNCTION

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

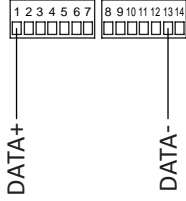
MONITOR



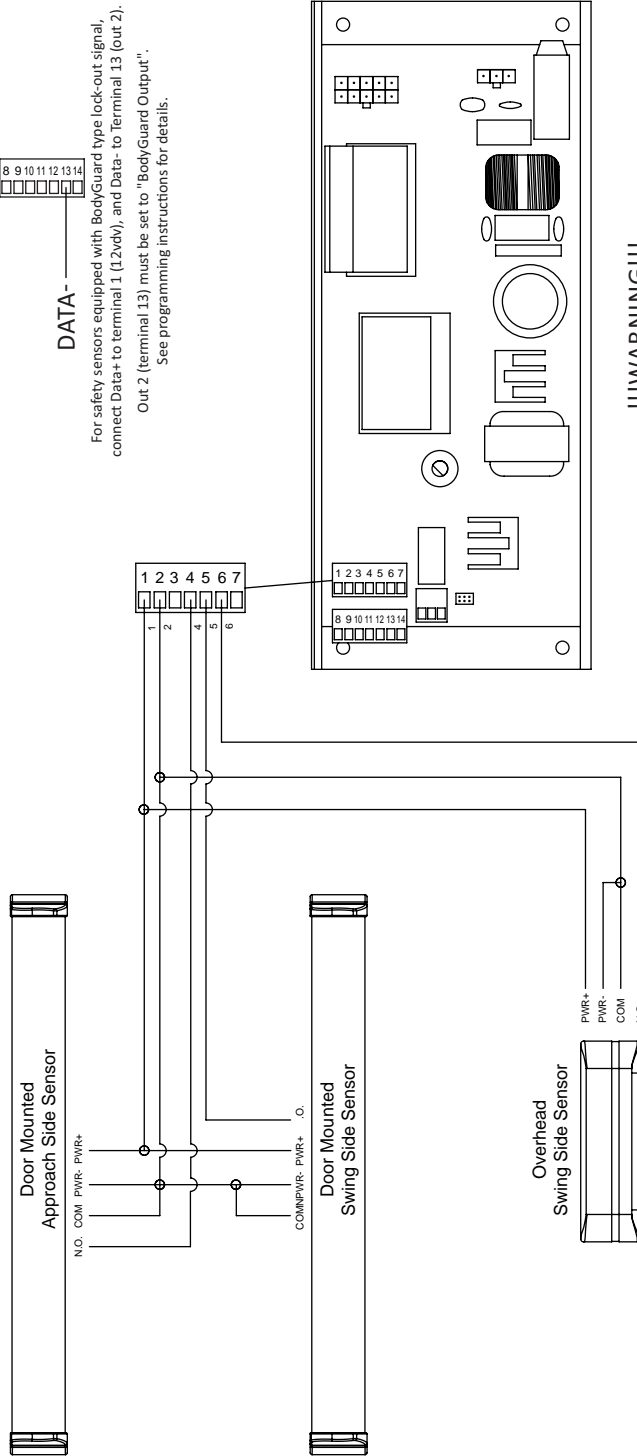
For safety sensors equipped with a monitoring function, Terminal 7 should be connected to the monitor input of the sensor. Out 1 (terminal 7) must be set to "Sensor Health Check". See programming instructions for details.

BODYGUARD

(and other sensors using BodyGuard type signal)



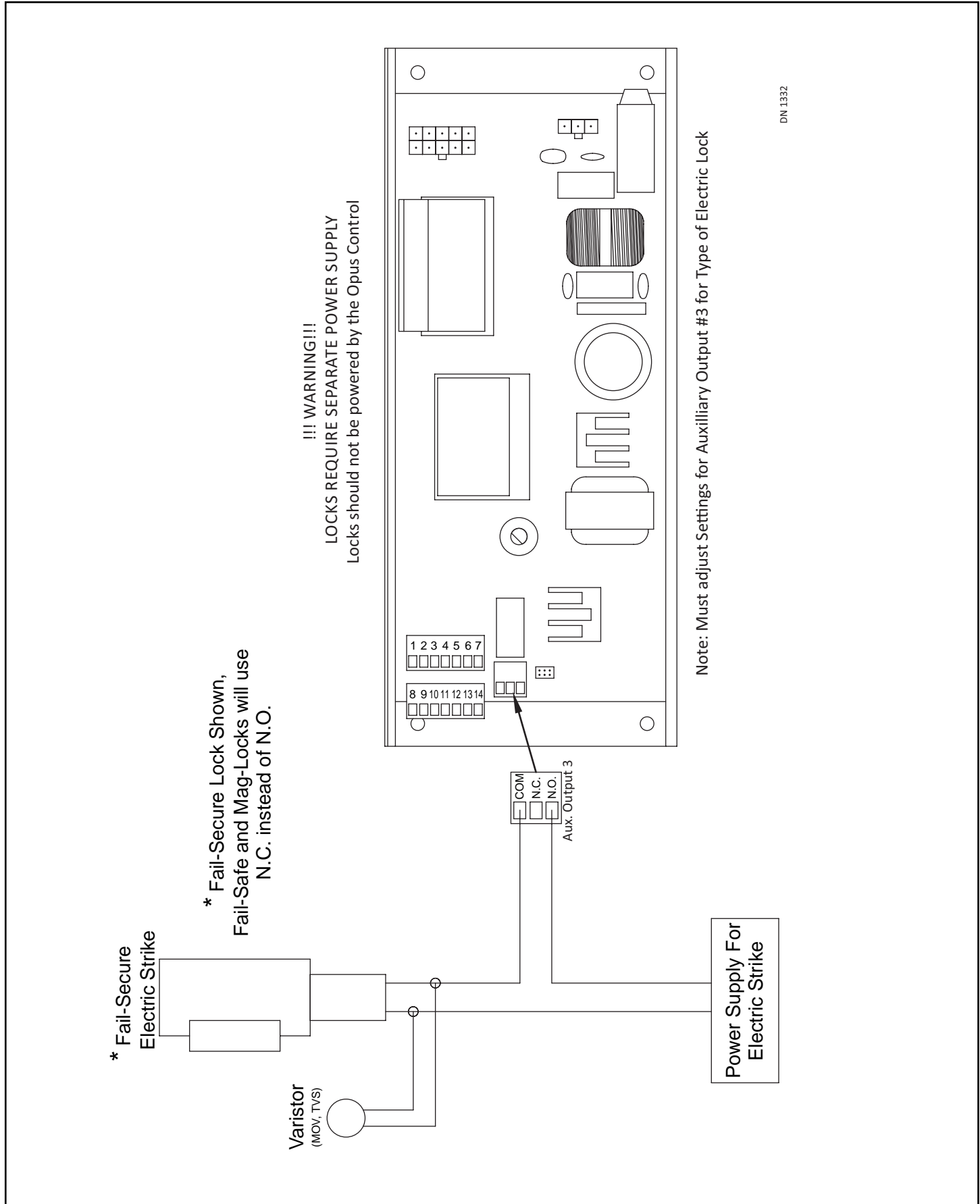
For safety sensors equipped with BodyGuard type lock-out signal, connect Data+ to terminal 1 (12vdc), and Data- to Terminal 13 (out 2). Out 2 (terminal 13) must be set to "BodyGuard Output". See programming instructions for details.



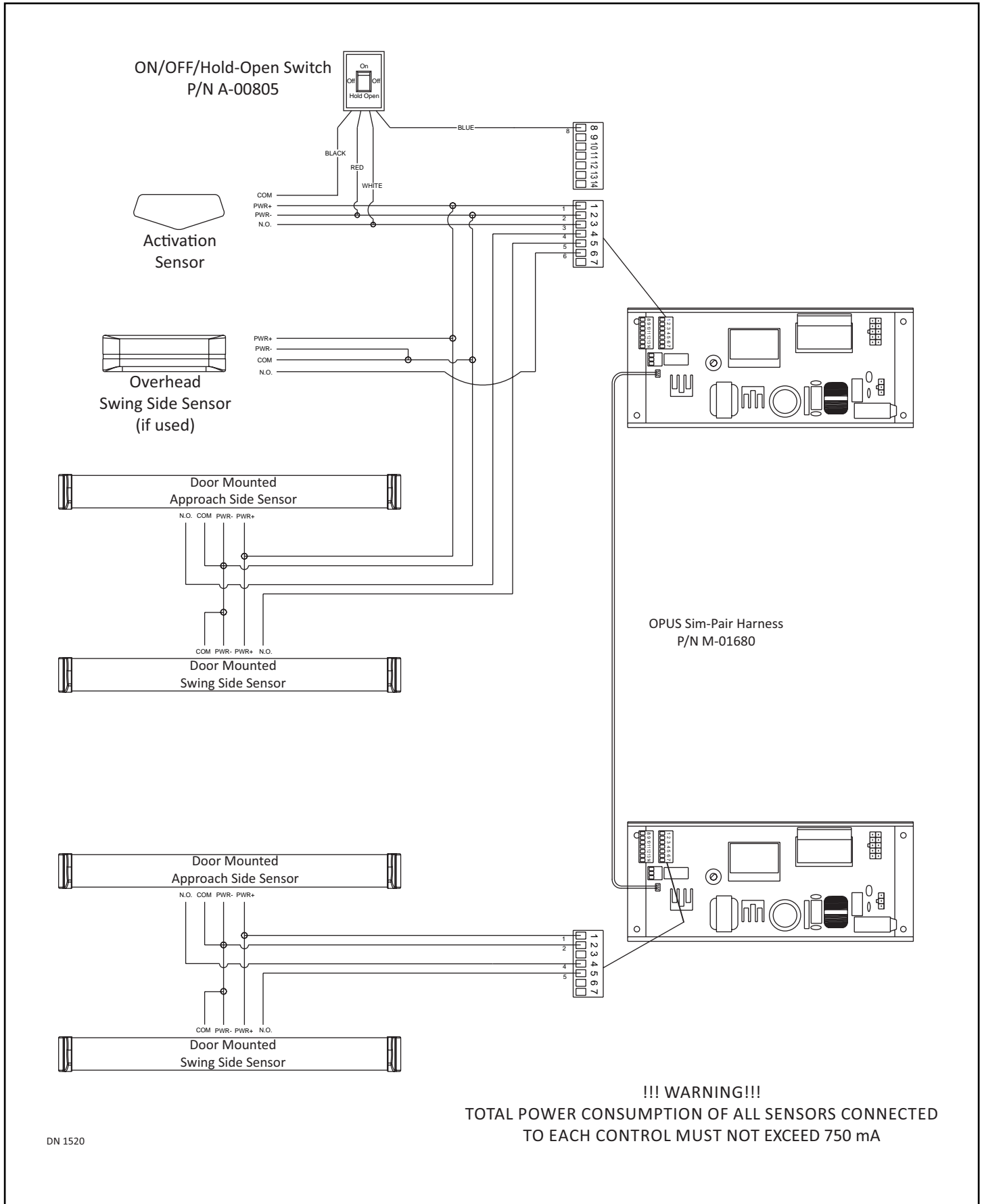
!!!WARNING!!!

Total Power Consumption of all Sensors and Powered Activation Devices Must Not Exceed 750 mA

6.4 Lock

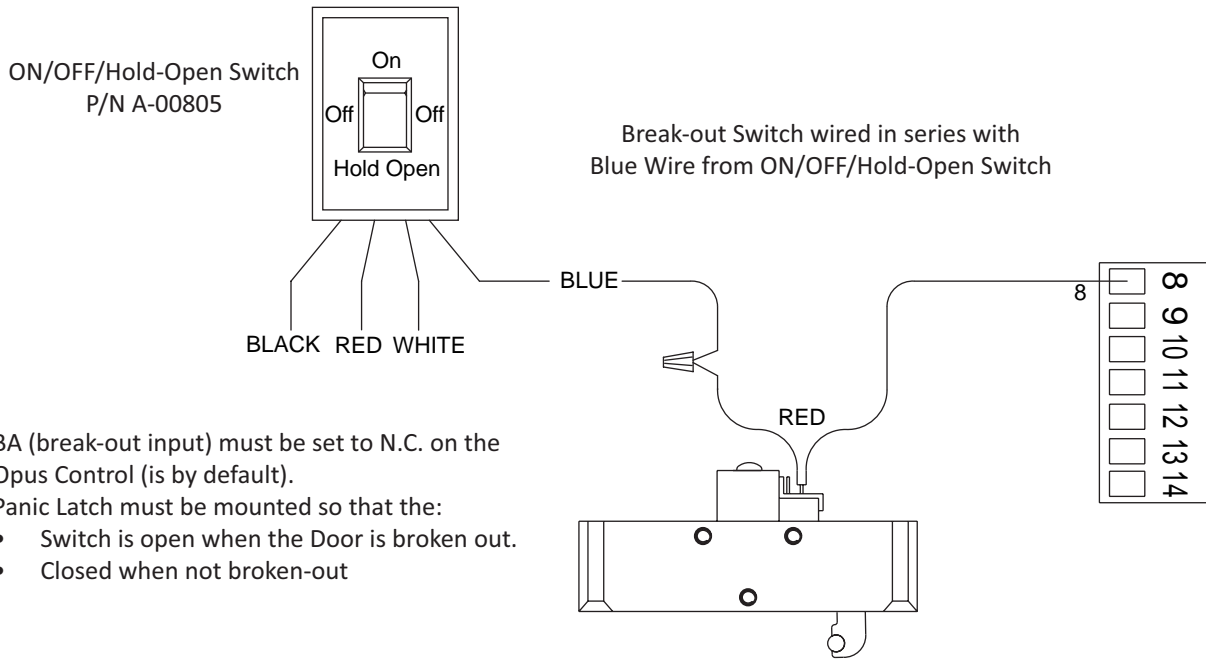


6.6 Standard Wiring for Simultaneous Pair Full Automatic

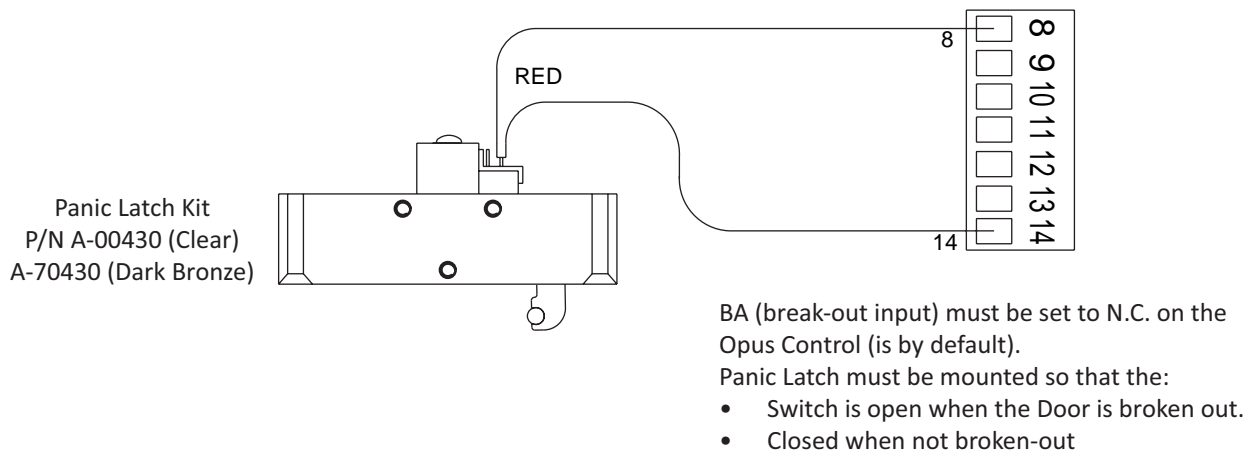


6.7 Connecting a Break-Out Switch

BREAK-OUT WITH ON/OFF/HOLD-OPEN SWITCH



BREAK-OUT WITHOUT ON/OFF/HOLD-OPEN SWITCH



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6.8 Other

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

PROGRAMMABLE INPUT

Example of a switch being used to turn on/off Power-Close and Hold Closed. Programmable input "H" (terminal 10) would be set "Spring Close Only".

To see other options for the programmable input, see programming and input settings.

DN 1333

6.9 Motor Wiring

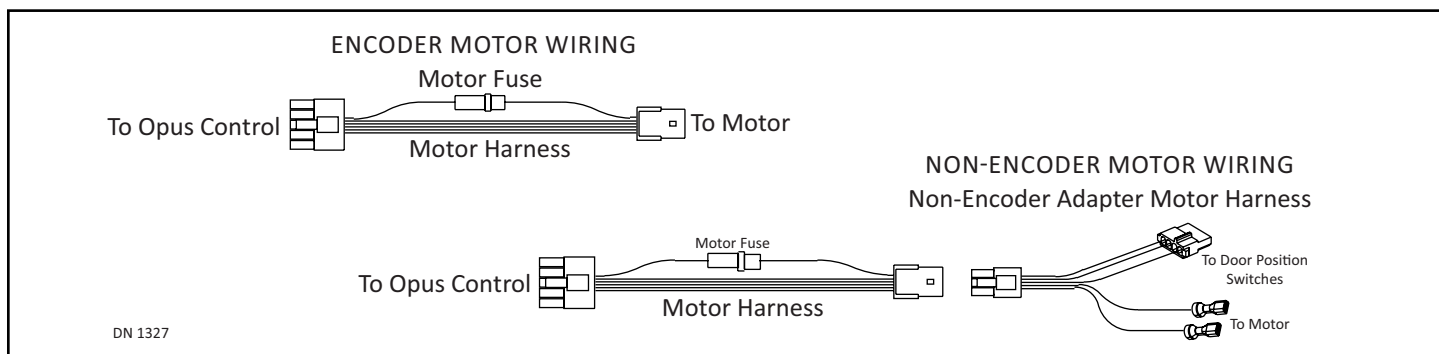
6.9.1 GT300/400/500/600/1400

ENCODER MOTOR WIRING

DN 1315

NON-ENCODER WIRING

6.9.2 GT710/8710



SECTION 7: TROUBLESHOOTING

If the Opus detects an error, the LCD backlight will start flashing and display an Error message within the Error Screen or before the Level Two Screen.

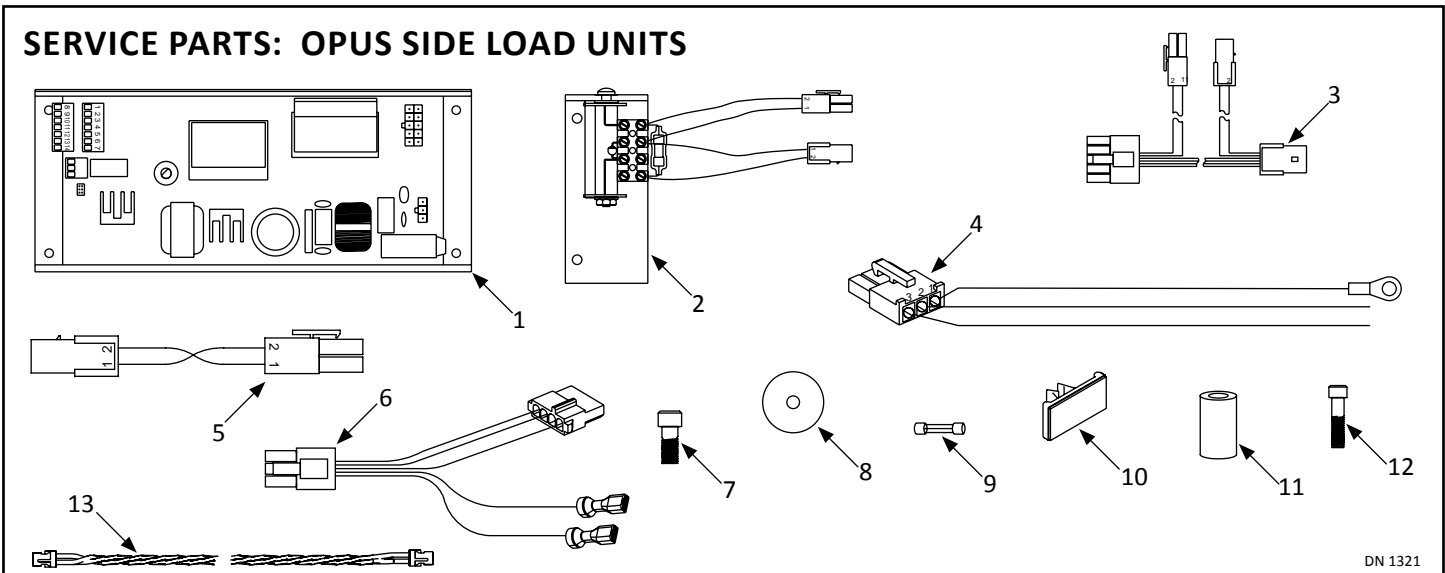
Table 1: Error Message

Error Msg	Description	Resolution
Recycle Warning	Recycle was detected more than (5) times while opening or closing cycle continuously.	<ul style="list-style-type: none"> ▶ Check Door resistance and Door Path for resistance to movement. <ul style="list-style-type: none"> • It may be necessary to adjust the Recycle Sensitivity.
MPU Error	Microprocessor detects errors within the Internal or External Circuits.	<ul style="list-style-type: none"> ▶ This could be just a fluke. <ul style="list-style-type: none"> • If the Error occurs repeatedly, please replace the Opus Control.
Drive Circuit Error	If the Drive Circuit detects an unusual state, the Opus will stop door movement. Possible causes are: <ul style="list-style-type: none"> ▶ Over current at motor ▶ Abnormal voltage at Motor Circuit ▶ Abnormal value from Motor Current detection. 	<ul style="list-style-type: none"> ▶ Check the Motor connection. <ul style="list-style-type: none"> • Opus Control may not be connected to the motor. • Motor wire may be shorted. ▶ If Motor connection is normal; the cause could be electrical noise. ▶ If this error doesn't occur repeatedly then it's most likely not an issue.
Communication Error	<ul style="list-style-type: none"> ▶ CAN-bus Communication Error ▶ Can happen in Simultaneous Pair applications. 	Check the CAN-bus Cable between the two Opus Controls.
61 Sensor Error	<ul style="list-style-type: none"> ▶ The Sensor must support active monitoring. ▶ This error could occur when the sensors are setup for Health Check through: <ul style="list-style-type: none"> • Output 1,2 or 3 • Input 61, 62, 6B ▶ SWL is set for Safety Check and the sensor doesn't respond to the safety check signal. 	Turn the power off and then on to see if the error clears. If not then check the wiring from the sensor to the Output terminal. Possibly replace the sensor.
62 Sensor Error		
6B Sensor Error		
SWL Sensor Error		

Notice: If after troubleshooting a problem, and a satisfactory solution cannot be achieved, please call Nabco Entrances at 1-877-622-2694 between 8 am – 4:30pm Central time for additional assistance.

DO NOT leave any problem unresolved. If the door cannot be repaired immediately, turn off the door and leave it inoperable until repairs can be made. Advise the owner **NOT** to operate the door in the automatic mode until repairs are effected. **NEVER** leave a door operating without all safety detection systems operational.

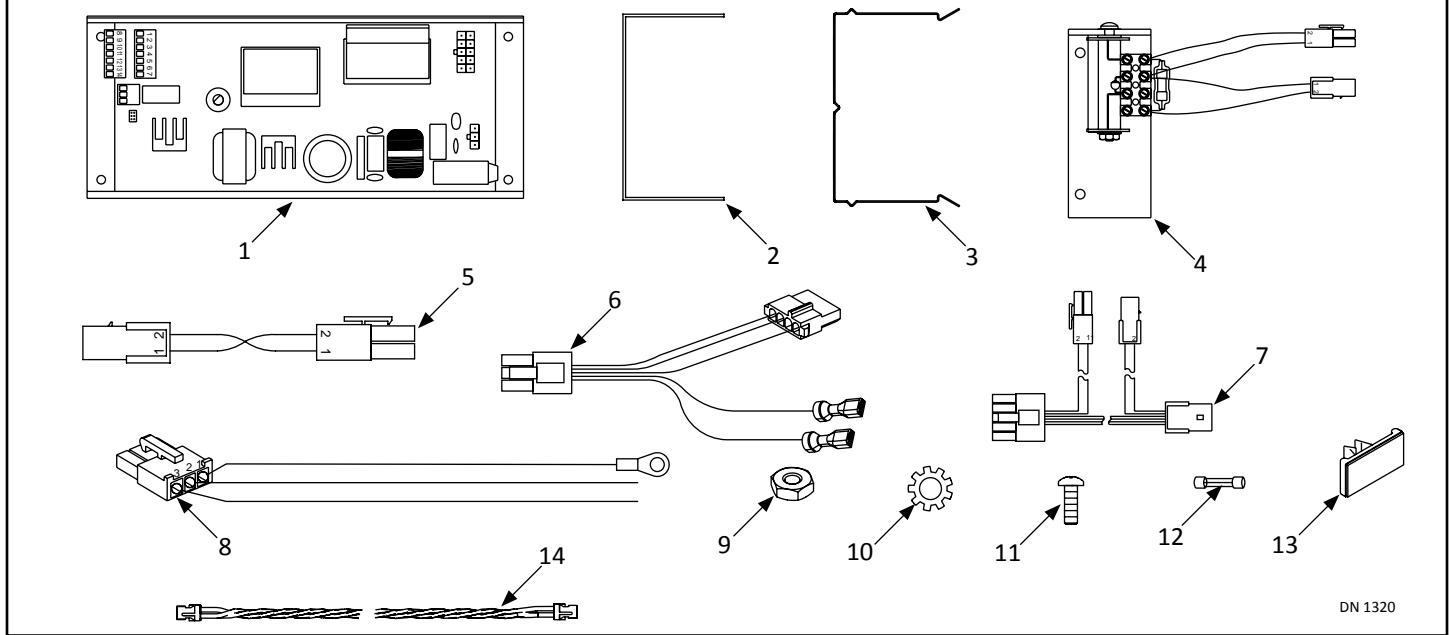
SERVICE PARTS: OPUS SIDE LOAD UNITS



DN 1321

Side Load			
Item	Part	Finish/Sizes/Notes	Description
1	M-01546		"CONTROLLER,OPUS"
2	A-01003	Not used on GT710	"BRAKE MODULE,OPUS"
3	A-01000		"HARNESS,MOTOR,OPUS CONTROL
4	M-01072	Single	HARNESS,POWER,MAGNUM BOARD
5	A-01001		"HARNESS,HANDING,NGT-10"
6	A-01002	Not used on GT710	"HARNESS,ADAPTER,NON-ENCOD,OPUS CONTROL
7	T-00335		SHCS:10-24x0.313L.
8	T-00365		WASHER:5/32IDx3/4ODx.020THK:POLYETHYLE
9	V-00552		FUSE;5A;GMA;5X20mm
10	V-00098		SADDLE, WIRE
11	V-00283	GT710 Only	SPACER,CIRCUIT BOARD,STANDOFF
12	T-00364	GT710 Only	SHCS:10-24x1.000L.:ZINC
13	M-01680	Simultaneous Pair	"HARNESS,OPUS CONTROL,SIM PAIR"

SERVICE PARTS: OPUS BOTTOM LOAD UNITS



DN 1320

Bottom Load			
Item	Part	Finish/Sizes/Notes	Description
1	M-01546		"CONTROLLER,OPUS"
2	M-01066		CHASSIS, CONTROL
3	M-01040		CONTROL BOX MOUNT
4	A-01003		"BRAKE MODULE,OPUS"
5	A-01001		"HARNESS,HANDING,NGT-10"
6	A-01002		"HARNESS,ADAPTER,NON-ENCOD,OPUS CONTROL
7	A-01000		"HARNESS,MOTOR,OPUS CONTROL
8	M-01072	Single	HARNESS,POWER,MAGNUM BOARD
9	T-00367		NUT:HEX:10-24:ZN
10	V-00283		SPACER,CIRCUIT BOARD,STANDOFF
11	T-00369		PHMS:10-24x0.500L.:PHIL:ZINC
12	V-00552		FUSE;5A;GMA;5X20mm
13	V-00098		SADDLE, WIRE
14	M-01680	Simultaneous Pair	"HARNESS,OPUS CONTROL,SIM PAIR"