record -usa

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1

10/05

The record-usa 5100 slider has been carefully designed, built, and tested to provide years of service.

The life of the door package is directly related to how carefully the installation is accomplished and how accurately the instructions are followed. Installation of this door package is to be performed by properly trained and experienced installers knowledgeable with local code requirements and all requirements of ANSI A156.10 Standards for Power Operated Pedestrian Doors. The authorized service / installation dealer must perform all measurements for forces, speeds, and times to insure proper and safe operation.

record-usa is not responsible for improperly adjusted or maintained automatic doors or activation / safety systems and assumes no responsibility for damages caused by automatic door systems that have not been properly installed, tested, and adjusted.

NOTE: GLASS AND GLAZING ARE NOT INCLUDED IN THE PACKAGE. THE GLAZING MATERIALS IN BOTH THE DOORS AND SIDELITES SHALL COMPLY WITH THE REQUIREMENTS IN THE AMERICAN NATIONAL STANDARD PERFORMANCE SPECIFICATIONS AND METHODS OF TEST FOR SAFETY GLAZING MATERIALS USED IN BUILDINGS, Z97.1.1975

OWNER INFORMATION TO BE PROVIDED BY THE DISTRIBUTOR / INSTALLER

* After the installation instruct the owner on the safe operation of the door.
* Location and proper use of the power switches.
* Location of the main cutoff breaker.
* Necessary warnings not covered in general instructions.
* Owners Manual and Daily Safety Checklist.
* Phone number(s) for the local servicing dealer.
* What to do in the event that a dangerous situation should occur, and how to shut the doors down and call for service.

TABLE OF CONTENTS

TOOL LIST

· Knife	· Hammer Drill	· Shim Material (shingles)
· 4' Level	· Tape Measure	· Flat & Rat tail files
· Hammer	· Electrical Tape	· Combination wrench set (standard & metric)
· Chalk Line	· Extension Cord	· Screwdrivers (#2 & #3 Philips, Sm. & Med.)
· Wire Ties	· 3/8" Cordless Drill	· Allen Hex wrench set (standard & metric)
· Wire Cutter	· Vise Grip Pliers	· Ratchet & Socket set (standard & metric)
· Multi-Meter	· Channel Lock Pliers	· Drill bit set up to 3/8" & 1/4"& 5/16"masonry bits
· 4'or 6' Ladder	· Caulking & Gun	

GENERAL REQUIREMENTS

- Power: 120VAC. 60Hz., 15 Amp Service to terminal block in aluminum head section of door.   Wiring to be in conformance with local codes and routed away from moving parts.

- Non-North American voltages can be 240VAC, if so be sure the operator has a 240VAC power supply.

- Power may be brought in through the top of the jamb on perimeter mount units or in through the back of surface mount units.

- For remote switch locations, routing of low voltage wiring to the operator controls will be required and there locations should be predetermined and wired before installation begins.

- Door Panels may be glazed before or after installation.

POWER INPUT LOCATIONS

115VAC 15 Amp   **115VAC 15 Amp**

COVER PLATE OUT

O-SX   SX-O

COVER PLATE OUT   115VAC 15 Amp

COVER PLATE IN
115VAC 15 Amp

SO-SX   SX-SO

COVER PLATE IN
115VAC 15 Amp

Exterior
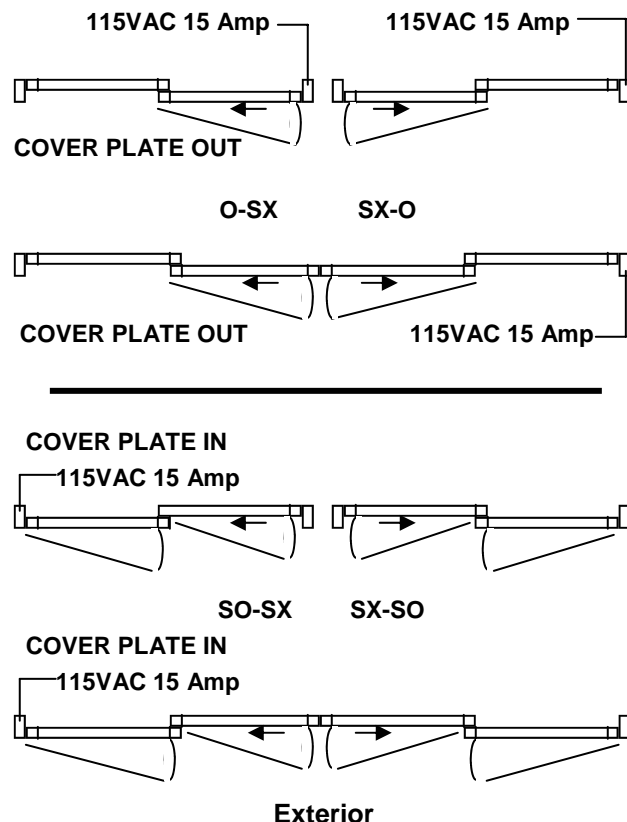
PRODUCT INVENTORY AND PREPARATION

There are several different type packages built. Make sure the package you are installing meets the needs of the opening intended. (Inside slide, outside slide, or surface mount)

1. Once the material has been received inspect all cartons for completeness of order.

   There should be at least six cartons for a standard bi-part package.

   The following items should be present.

   A. Header Assembly (contains sensors and parts bag)

   B. Side Jambs (contains side jambs and transom)

   C. Door panels (contains vinyl)

2. Check the door opening for plumb and level. The floor must be checked for any high spots. The header can be used for the straight edge to detect any variation in the floor surface. Fill the low areas to make the floor level. See the **Figure 1** below for additional information.

3. Do not allow over 8' of unsupported header. (The fixed panel is considered as suitable

support for the header.)   If the unit is equipped with a transom, and the unit length is greater than 8', the

frame of the existing structure must support the weight of the transom, glass, and an additional 130 lbs.

for unit lengths up to 12', and 260lbs.for units up to 16'.

Lay out the frame components and transom (if equipped) on the floor along side the door opening. Be careful not to scratch the finish. Position the header so as to allow for lifting into the opening once all the components have been assembled.
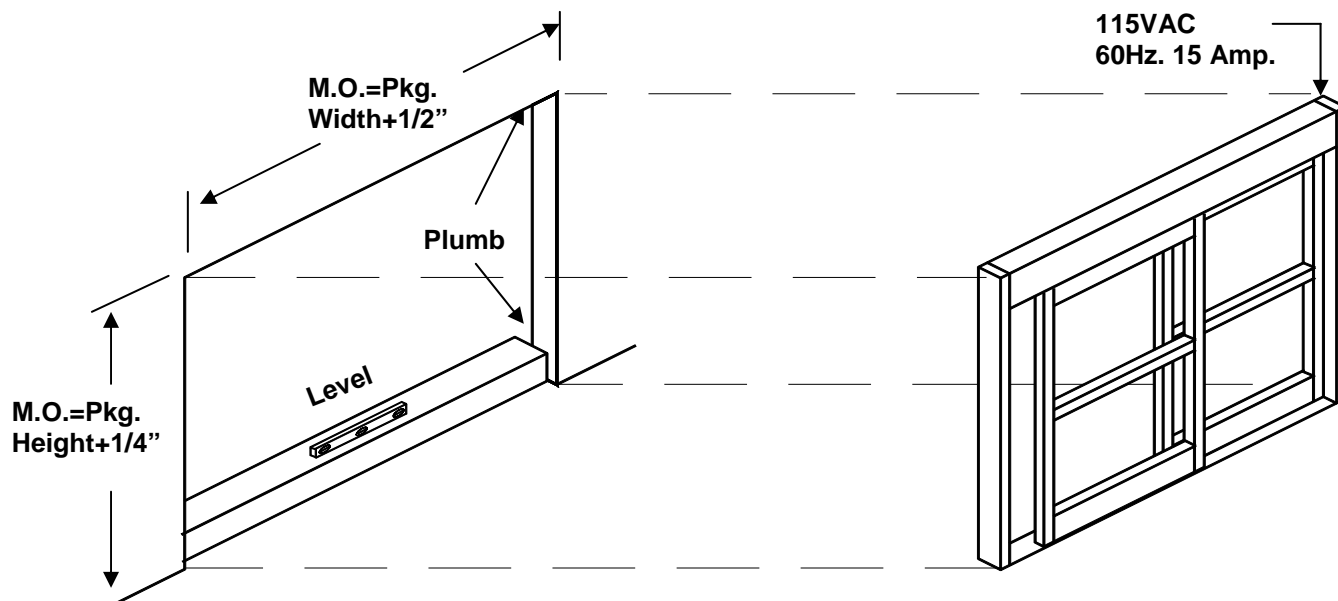
Figure 1

FRAME TO HEADER ASSEMBLY

Please find located in the header
assembly, a small parts bag, the
1/4-20 x 1" Hex Head Bolts with
1/4" flat and 1/4" lock washers to
attach side jambs to header
through the end bracket as shown
in Figure2.
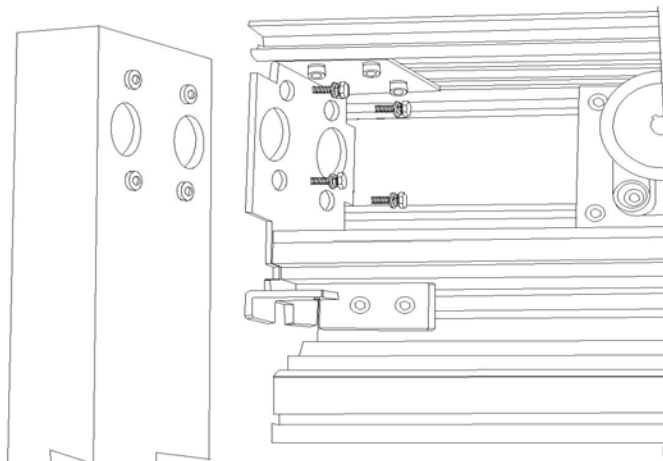
Figure 2
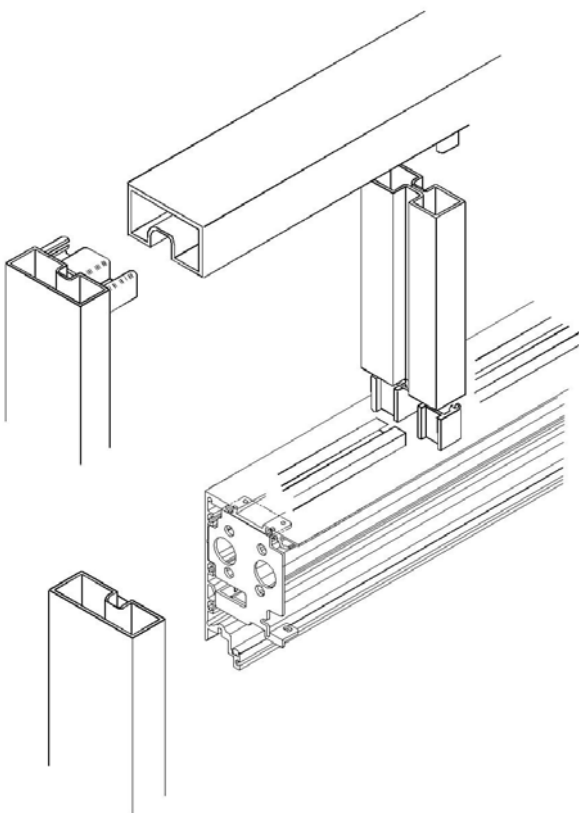
TRANSOM ASSEMBLY

If the unit is supplied with transom,
see Figure 3 for view of assembly.
It is suggested that the frame members
be prepped for attachment and attach
with a screw ; suggested size 10-24
x1/2" flat head machine or sheet metal
thread.

Figure 3

SETTING FRAME

Once the door frame has been assembled, place the frame in front of the opening on the floor so that the bottom of the jambs are at the base of the opening. Snap a chalk line across the opening where the jamb line is going to be. This line will also locate the bottom guide system.

Before lifting the frame into place, check to make sure the cover side of the header will end up on the correct side of the opening. If the unit has sidelites that breakout, the cover will be interior; if the sidelites are fixed or the unit is surface mounted, the cover will be exterior.
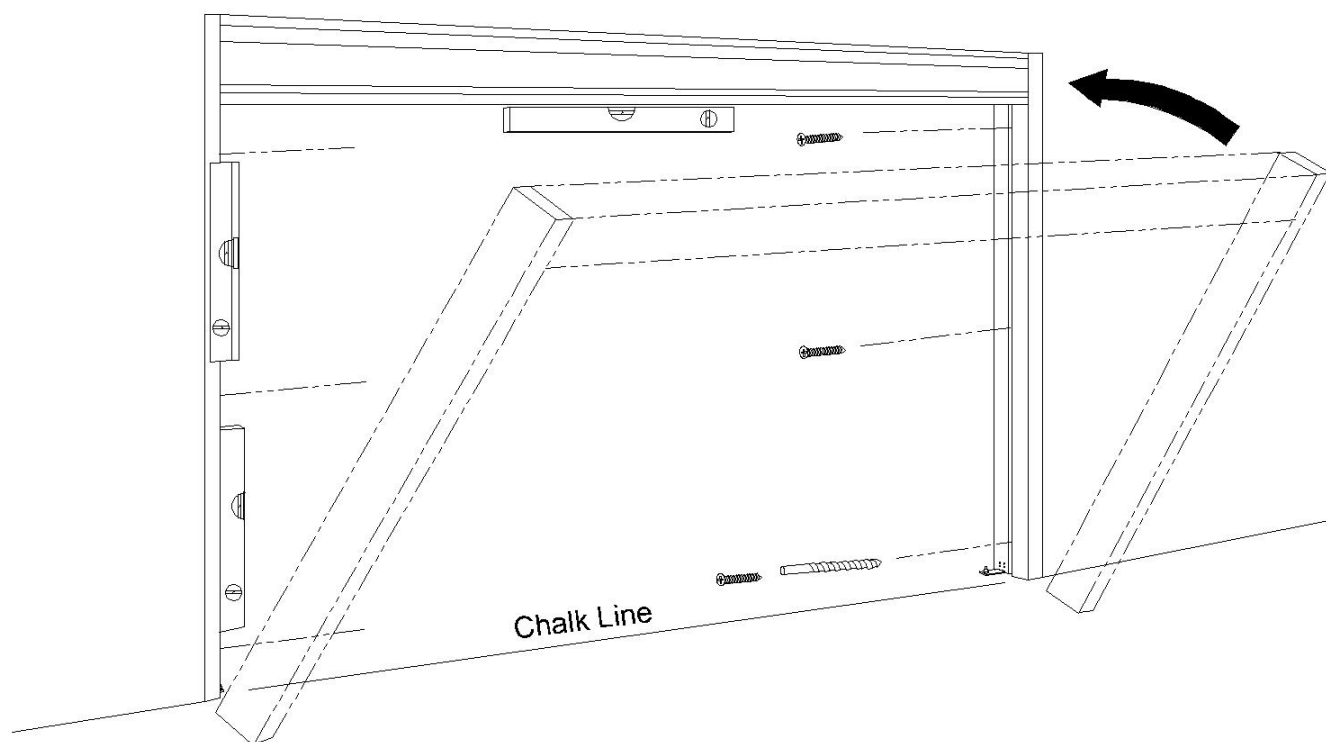
Lift door frame into the opening and set the frame plumb and square to the highest spot on the floor and position the frame within the 4-1/2" dimension as needed. If the high spot or swell in the floor forces the frame to go higher than the rough opening will allow, Do Not install the frame. Door height adjustment will be reduced if the frame is installed with this condition present. Have the contractor rework the floor so the doors can be properly installed.

If there is room to raise the frame up even with the high spot in the floor, shim the bottom of the jambs to the high spot.

FRAME ATTACHMENT

Using wood shims, plumb and square the header and jambs in the opening. Fasten the door frame to the opening with the appropriate type and number of fasteners for the size of the door package being installed. Fasten the header overhead every 36" or less.

Chalk Line
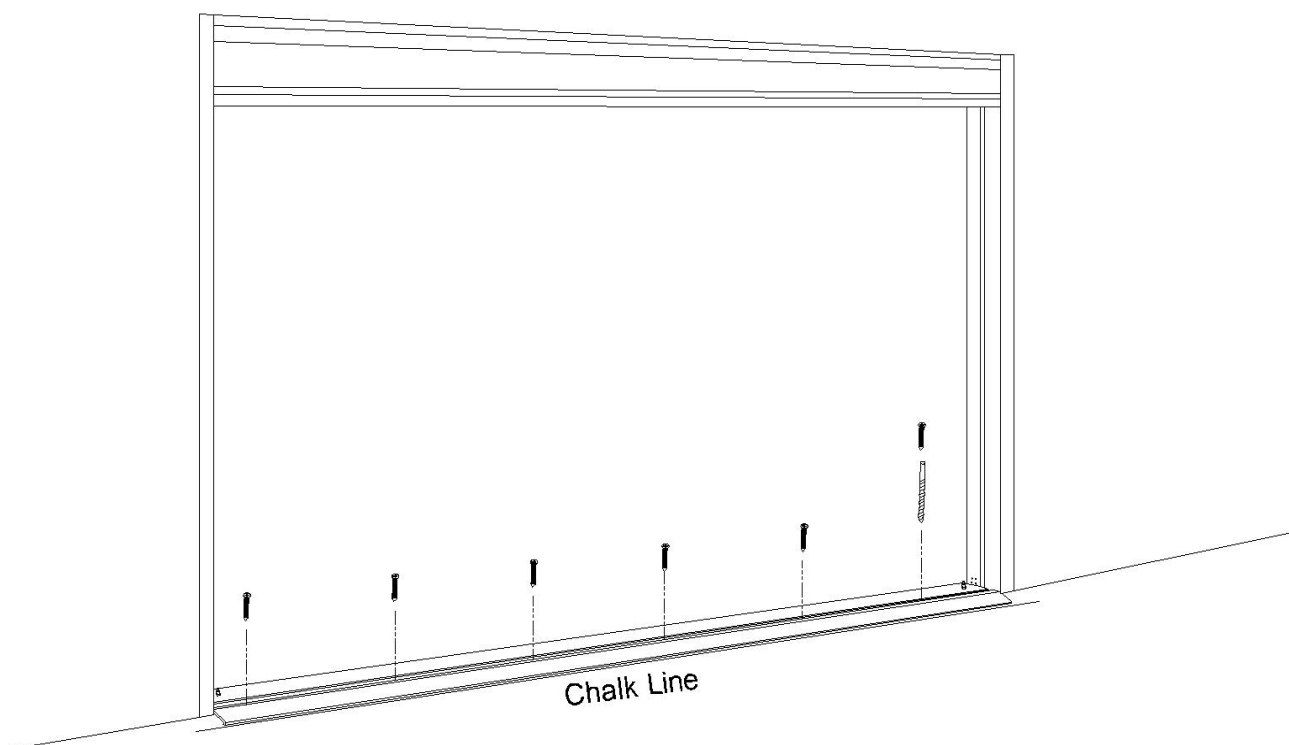
BOTTOM GUIDE INSTALLATION

The bottom guide rails or track must be installed level and in line with the frame for the door package to properly function. If the high spots referred to on page 6 were not corrected as indicated, proper location of the guide rails will be extremely difficult. Correct high spots and continue.

Identify the type of guide system being used with the door package. The standard guide for a fixed panel unit (o-sx-sx-o) is a guide rail with or without threshold; for full breakout units (so-sx-sx-so), the standard bottom guide is a pin guide track which is the same with or without threshold.

"O"
Panel
Top
Attach

"SO"
Panel
Top
Pivot

"SO"
Panel
Top
Latch
Adjustment

"O"
Panel
Security

"O"
Panel
to
Guide
Rail

"SO"
Panel
Bottom
Pivot
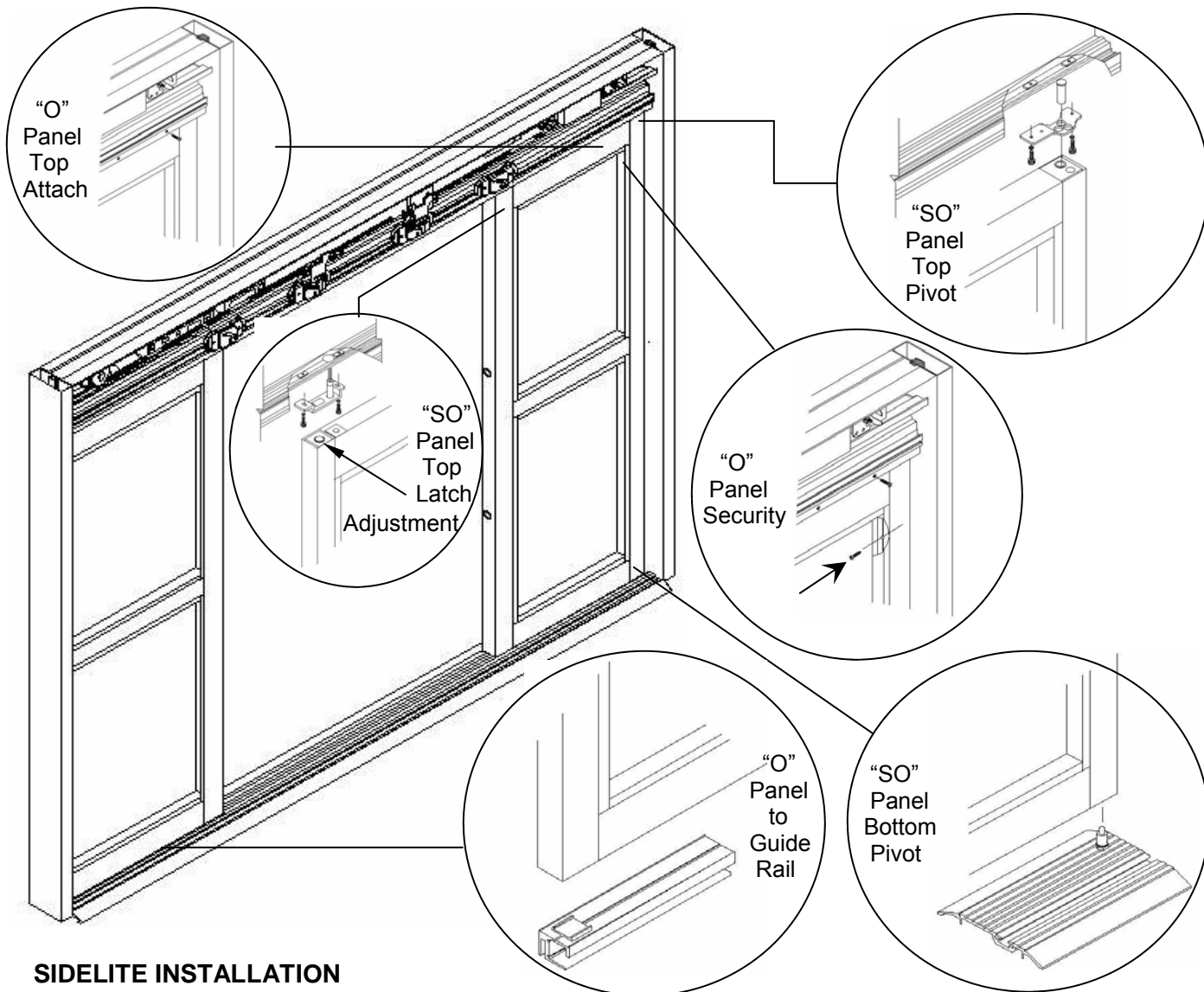
SIDELITE INSTALLATION

To install a full breakout sidelite that has a jamb or floor mounted bottom pivot, remove the top pivot bracket with clevis pin and install it in the top pivot angle of the sidelite. Proceed by feeding the safety beam wires through the third hole in the pivot bracket. Install the sidelite on the bottom pivot first, rotate the sidelite into the 90ºopen position and tilt the top toward the header, aligning the pivot bracket to it's original position on the underside of the header and reinstall the screws while continuing to feed the wires inside the header. Push the sidelite into a vertical position with the top pivot against the jamb. Tighten the allenhead screws securing the top pivot in place. After the safety beam wires are completely fed into the header, connect to the matching connectors. Note the safety beams are pre-wired in the door panels, jambs, and header, with small connectors provided between each as-sembly. No additional wiring should be required. Refer to the included operator wiring diagram.

To install a fixed sidelite to the header, insure the bottom guide rail is set properly to the floor. Install the sidelite to the top of the guide rail. Secure the sidelite to the header with the #10 screws provided after feeding the safety beam wires into the header and making the connections. Additional screws can be installed through the vertical stile and into the jamb before the sidelite is glazed for full security on a fixed panel unit as shown above.

Pin Guide
"SO" Panel Pkg.

OR

Fixed or "O"
Panel Bottom Guide
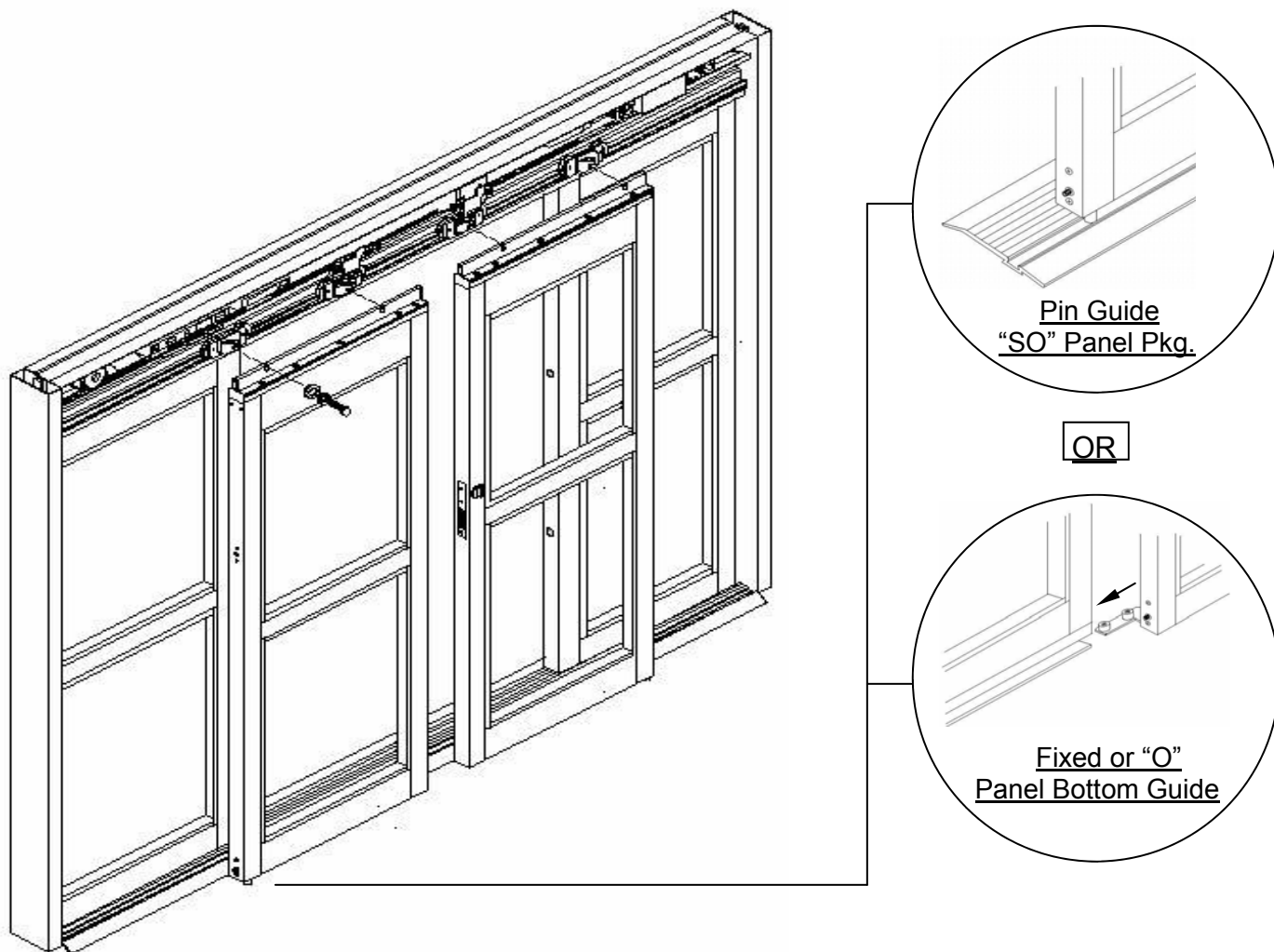
SLIDING DOOR INSTALLATION

Position the door so that it will panic to the exterior of the building when broken out.
Install the door portion of the bottom guide in the pivot stile of the door using four 10-32 screws provided, and one ¼-20 set screw to lock guide pin at proper height.

Position the door portion of the bottom guide into the guide rail or the pin guide track (depending on the type bottom guide used).

Place the door so that the slots in the hanger catch rail are lined up with the 5/16" tapped holes in the door carrier brackets. Thread the two 5/16"-18 x 1-1/4" hardened hex head hanger bolts with the flat washer and split washer through the slots into the door carriers. Tighten the hanger bolts until the door does not sag, but do not tighten all the way.
Verify the anti-rise rollers are properly adjusted in each carrier roller assembly (lightly rolling against the anti-rise shelf in the header). Install and adjust the door height (floor clearance) 1/4-20 hex head bolts above the slots in the top catch rail.
Once proper height has been adjusted insure there are no gaps between doors or door and jamb from top to bottom. It may be necessary to readjust height adjustment screws.
Complete by tightening the hanger bolts.

CAUTION: Do not install the Control Panel Display Module in the Side Jamb until all drilling and frame attachment is accomplished to prevent metal shavings from dropping in the electronics of the module.

COVER END
ATTACHMENT

CENTER SECTION COVER
ASSEMBLY
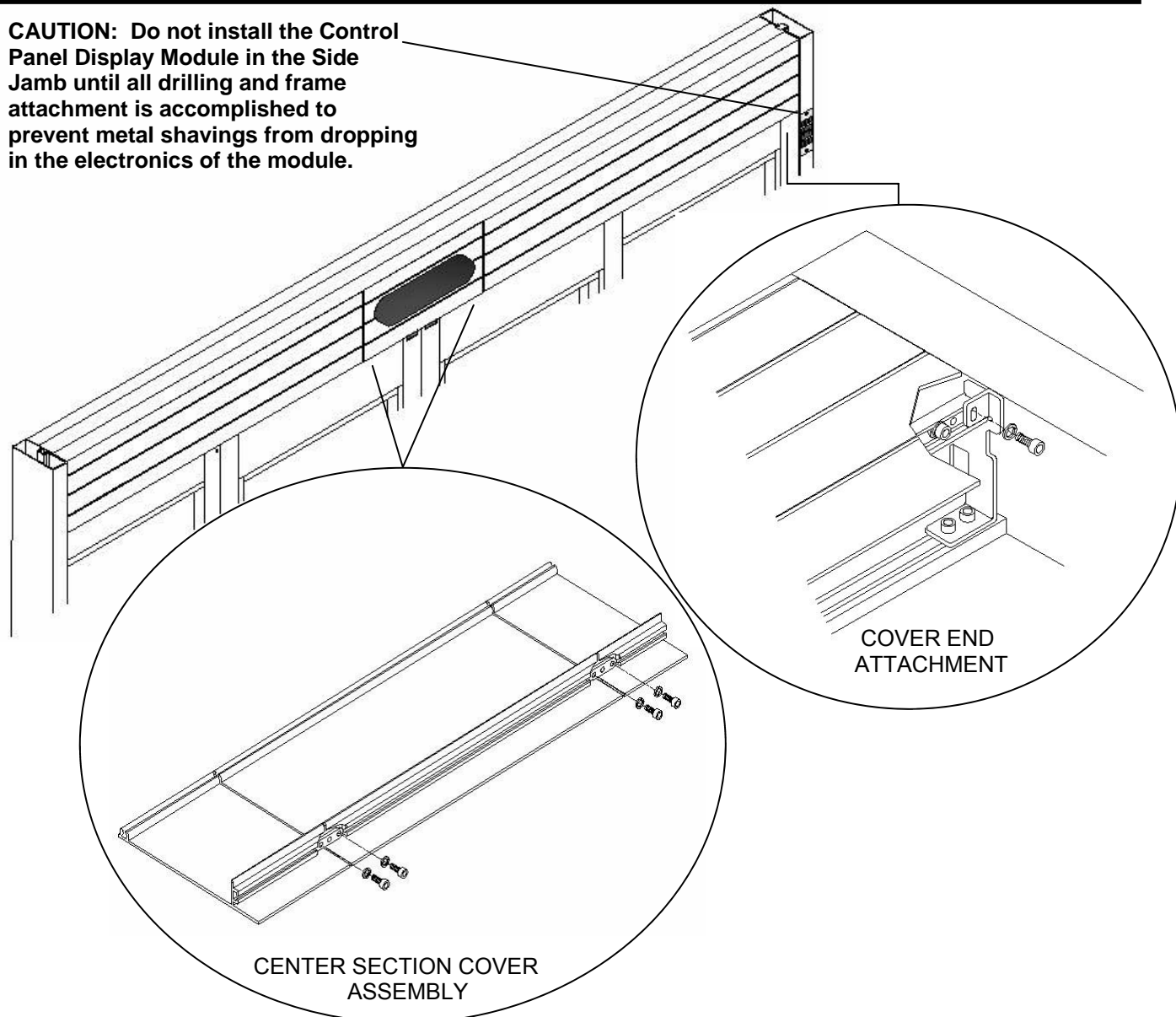
ACCESS COVER ATTACHMENT
If the unit is a bi-part, there will be a short center section that will be held in alignment to the RH and LH covers with two nut plates and four 10-32 Allen cap screws with washers. To remove RH or LH cover, loosen the screws and slide the nut plates with screws to the center section, allowing removal. At either end of the unit, please find a 10-32 Allen cap screw with washer to remove completely, for it attaches through the header to jamb bracket. (See views above)

WIRING THE DOOR
This product is intended for permanent connection to the electrical supply system. Proper grounding must be provided and wiring must conform to applicable codes. 24VDC, 1 Amp power is available for external devices (sensors). Refer to the instructions provided with the sensors and the enclosed wiring diagram. Safety beam cable routing is covered in the sidelite installation section; connections are shown on the wiring diagram. The Display Control Panel wiring is covered on Page 12.

COMMISSIONING THE DOOR
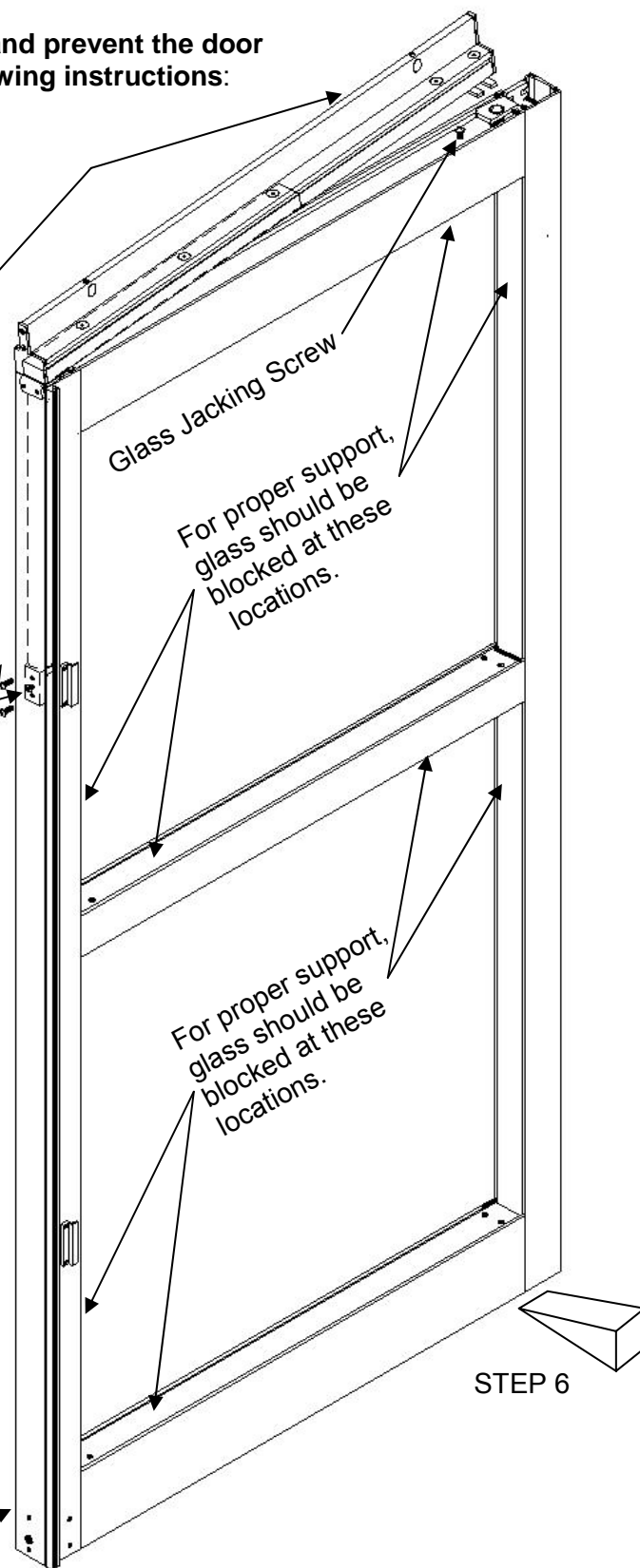Refer to the enclosed instructions for commissioning.

To increase the "lift" of the breakout mechanism and prevent the door from dropping when broken out, perform the following instructions:

1. Insure the glass is blocked properly and in the locations shown at right. Please see location of Glass Jacking Screw to adjust and aid in blocking and preventing the door from dropping when "SX" Panel is in breakout.

2. Breakout the "SX" Panel 6"-8" as shown.

3. Using a 5/32" Allen hex wrench, loosen the two 1/4-20 Button Head socket cap screws located on the back of the vertical pivot stile 18" from the top.

4. Insert a 3/16" Allen hex wrench in the center hole between the two screws and tighten the concealed cap screw clockwise until snug.

5. Using your foot, apply force to the pivot stile below the screws in the direction of the lock stile, lifting the lock stile and the front of the panel.

6. Place a shim/wedge under the lock stile to remain elevated & re-tighten the two 1/4-20 Button Head screws. **Note:** Do not over tighten as this may cause distortion in the aluminum stile.

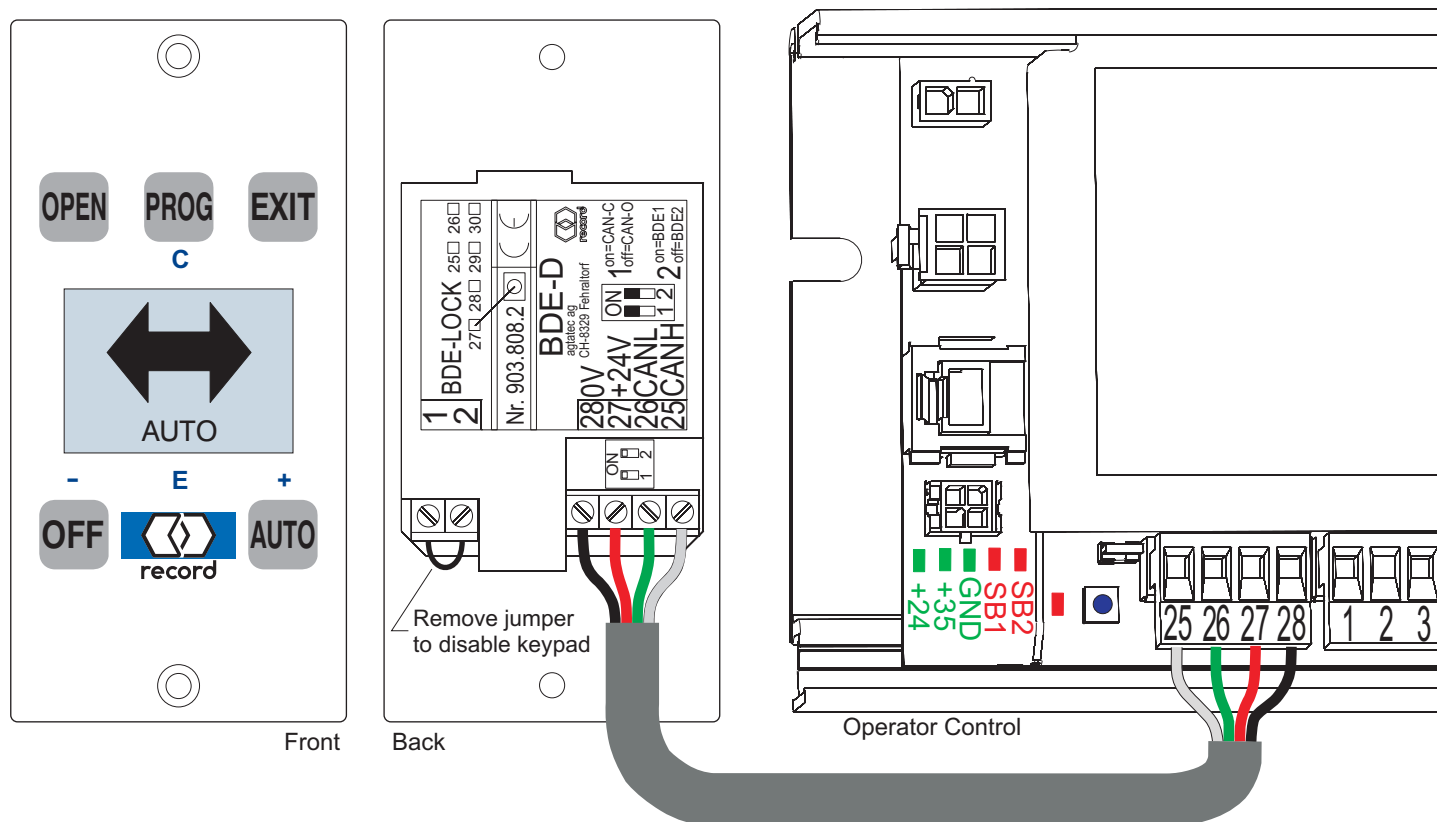7. Remove shim/wedge and check for adequate lift support.

To adjust the force required to initiate a breakout, locate the ball catch at the top of the vertical lock stile and rotate it counterclockwise to increase the force required.

Glass Jacking Screw

For proper support, glass should be blocked at these locations.

For proper support, glass should be blocked at these locations.

STEP 6

STEP 5

APPLY FORCE

Front   Back

Remove jumper
to disable keypad

Operator Control

The Display Panel Control is connected to the Series 5100 Operator Control as shown and is typically mounted in the door jamb adjacent to the sidelite. The unit may be remotely mounted as desired, and should always be in a location where the user can view the door. An optional enclosure is available for remote mounting (see image below right).

The keypad on the display can be disabled by removing the jumper located between screw terminals 1 & 2 on the back of the display (see above). A switch (SPST) can be wired in place of the jumper and provide remote enable/disable of the keypad.

When the keypad is disabled, a small key is displayed on the left of the screen. The unit will continue to display the current operating mode of the door and will exhibit any alarm condition as it occurs, but the keypad will not function.
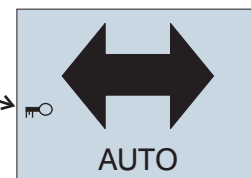
Two Display Control Panels can be connected to a Series 5100 for mode control from two separate locations. The panels are wired in parallel, and Dipswitch #2 (above wire terminals 26 & 27) on one panel should be set to "OFF". Two mechanical switch assemblies (shown at right) are available for connection to a Series 5100 in addition to the Display Control Panel. The mounting template is identical to the display panel; these units can replace the display on the door. Refer to the Series 5100 Wiring Diagram for wiring. Note: When a mechanical panel is connected, it will have priority over the display panel when selecting operating mode.

4-51-0105   4-51-0106
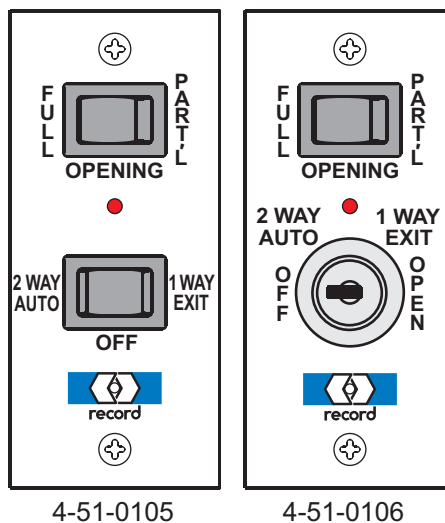
Optional
Enclosure

Commissioning the Series 5100 using the Display Control Panel

Sep06

The Display Control Panel is a convenient input and output unit for the door system and programming of control units in record door openers. Logically arranged pushbuttons permit an intuitive operation of the door and navigation through the drive-specific menu structure. The backlit LCD display provides data and information regarding the status of the door using symbols and plain text messages.
The connection to the door control is via the CAN bus built into the record products.
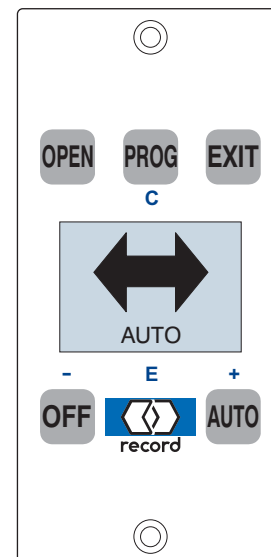
The technical specifications of the control panel are:
Supply voltage: 24 VDC from CAN bus
Connected load: < 2 W
Dimensions: 1.74" X 3.63"
Temperature range: 0°C to +50°C
LCD display: 112 x 64 pixels (0.84" X 1.18"), with white backlight

In addition to providing the owner a method for selecting the door operating modes, the control panel can be used to access and adjust the door parameters. To enable this feature, first gain access to the door operator in the header, and locate the microprocessor control. On the lower left of the control are three green LEDs, 3 red LEDs, and a small pushbutton (Control Switch Button). The pushbutton performs multiple functions depending upon how long it is pressed, as indicated by the adjacent red LED.

Control LED — Control Switch Button — Direction Select Jumper
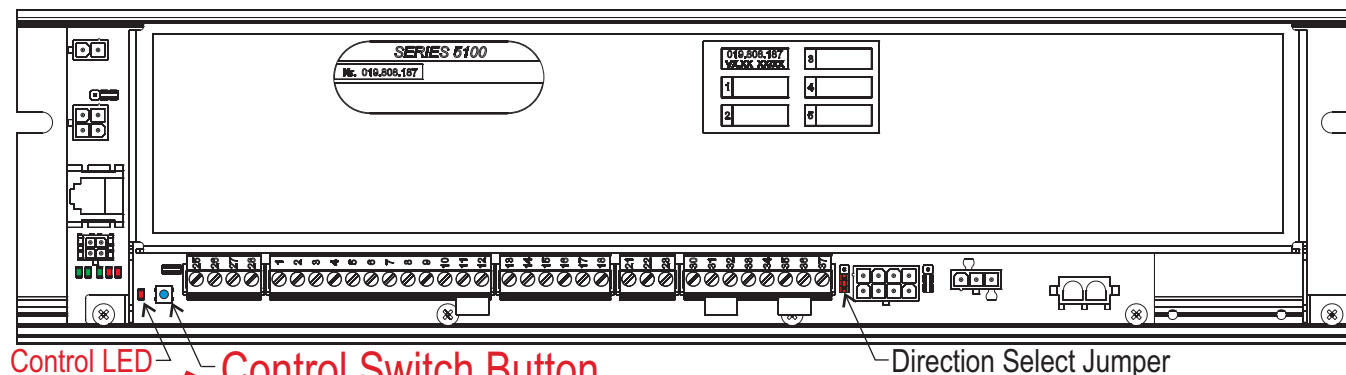
Pressing and holding the button causes the adjacent red Control LED to pulse "on" approximately once per second. The number of pulses determines the resulting effect:
1 pulse simulates the actuation of the interior sensor and initiates a door cycle.
2 pulses initiates an automatic acquisition of safety beam and battery characteristics.
3 pulses initiates a door learn mode where the door weigh and friction are learned.
4 pulses initiates a configuration mode where the Display Control Panel has access to the microprocessor control parameters.
8 pulses resets the microprocessor parameters to the factory defaults.
12+ pulses performs a complete hardware reset.

Typically, during a new installation, the microprocessor will have already been set at the factory for the door opening, **but the completed installation will require a calibration mode initiated by holding the Control Switch Button down for three pulses of the Control LED. Calibration will occur during the next three door cycles, which should be initiated immediately.**
If additional changes to the door operation are desired, then proceed to the next section.

13

Parameter Configurations

Press and hold the Control Switch button for 4 pulses of the adjacent red Control LED.
The Control Panel Display will change from current operator mode to configuration mode -
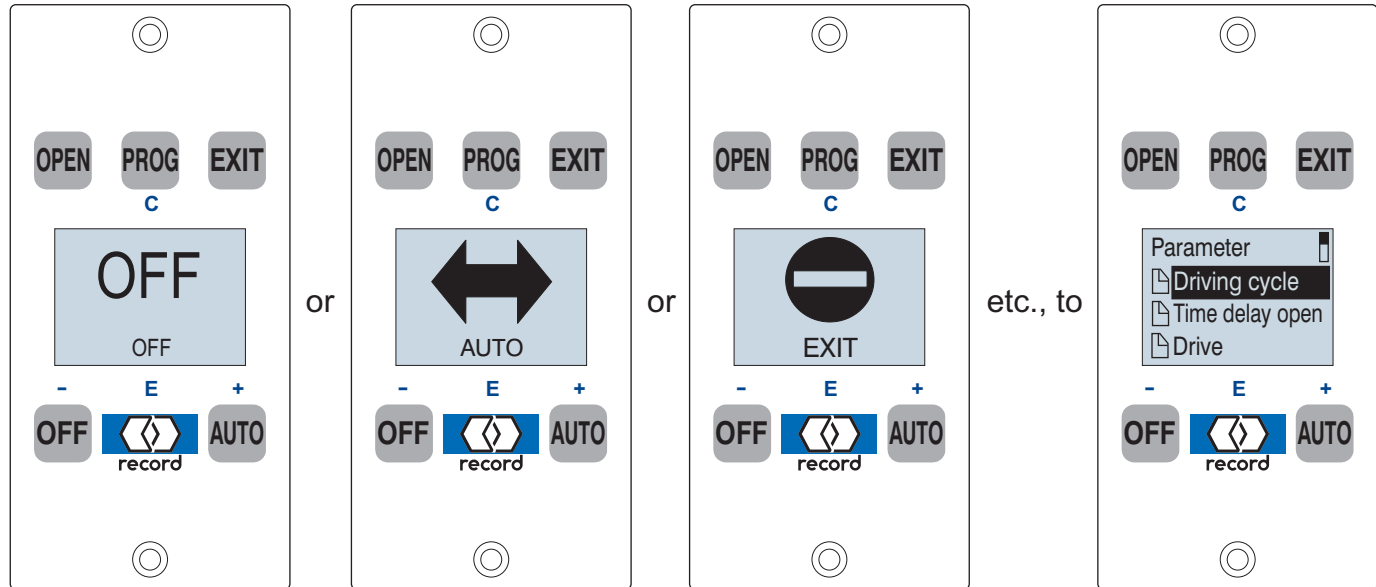
In this mode, the top center "PROG" switch and bottom three switches are used to select and modify the door parameters. Note the small blue legends next to each switch indicates its use in the configuration mode -
Use the "+" (AUTO) switch to scroll down menus, or increase individual parameter values.
Use the "-" (OFF) switch to scroll up menus, or decrease parameter values.
Use the "E" (record) switch to select the currently selected parameter or parameter value.
Use the "C" (PROG) switch to revert to the previous screen.

The various parameters are distributed in menus and sub-menus in the following order:

    Driving Cycle -
        Closing Speed (12 inches per sec. max.)
        Opening Speed
        Acceleration

    Time Delay Open - 60 seconds maximum
        TD Open (for sensor actuation)
        TD Remote Switch

    Drive -
        Partial Open - 8 in. minimum
        Reverse Adjust - More sensitive (default) or Less sensitive
        Emergency Open / Close - normally disabled
        Power Failure - optional for battery backup

    Entrance System -
        Door Type (always select Breakout-USA)

    Control Panel -
        Mechanical Panel (typically disabled), and Display Panel
        Note several options are available for the Display Panel -
        Language (English US), Keyboard (Off), Contrast, and Time Delay - Backlite (seconds)
        (TD Backlite=0 turns off the backlight; TD Backlite=40 is always on)

    Locking -
        Locking Function - Manual, Night locked, 1-Way locked, Always locked
        Lock Type - Without lock, Motor powered, BiStable, MPU, Magnet,
            Fail Secure, and Fail Safe (North American options underlined)

Input -
    Exterior Switch Input - always select "Ext. Sw IN" (as required by ANSI A156.10)
    Emergency Open / Close - typically disabled
    Auxiliary Switch - <u>disabled</u>, <u>Safety Beam</u> (other than builtin unit), <u>Sidescreen Sensor</u>,
        CO48 (North American options underlined)

Output -
    Alarm - will actuate auxiliary relay contacts when an alarm mode occurs
   Gong - will actuate auxiliary relay contacts when safety beam is interrupted

Miscellaneous -
    TOWA - If door is in Partial Open mode and traffic occurs in both directions,
        or occurs for more than 10 seconds, door temporarily fully opens.

To exit the parameter adjust mode, press the "C" (PROG) multiple times until the "Exit Program Mode - NO / YES" screen appears, then press the "E" record switch to exit.
Note; If no switch is pressed for 3 minutes, the Program mode is automatically exited.

The control panel can be "locked", preventing unauthorized use, by pressing the key sequence - [record] + [PROG] + [OFF]   A small square with an "X" will appear on the left of the display. To re-enable the keypad, repeat the above sequence.
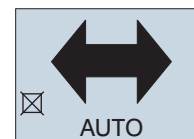
Entering a custom telephone number for the error screens is accessible only through using an FPC902 Flash Programmer / Hand Terminal. See its instructions for further details.

The following are examples of Alarm screens that may appear, indicating an abnormal door status:

Screen	Description
⚠ 63 — Obstruction	The door has encountered an obstruction, either in opening or closing, which requires more power than allowed by code.
⚠ 31 — EMERGENCY STOP/BREAKOUT	One of the door panels has been broken out, and not fully reset into its closed position. Also check for a damaged panel cutoff switch.
⚠ 59 — Safety Beam ELS active>60s	One or more of the safety beams has been obstructed for more than 60 seconds. Also check for damaged wiring to beam heads.
⚠ 5 — Exterior Sensor AKA active>60s	The sensor / switch connected to terminals 2 & 3 has been actuated for more the 60 seconds. Also check wiring for damage.
⚠ 3 — Interior Sensor AKI active>60s	The sensor / switch connected to terminals 22 & 23 has been actuated for more than 60 seconds. Also check wiring for damage.
⚠ 61 — Remote Sw. SSK active>60s	The sensor / switch connected to terminals 13 & 14 has been actuated for more than 60 seconds. Also check wiring for damage.
⚠ 47 — Aux. Sensor SHE active>60s	The sensor / switch connected to terminals 5 & 6 has been actuated for more than 60 seconds.Also check wiring for damage.
⚠ 14 — Alok Mon. Sw VAK fault	The monitor switch on the automatic lock is providing a signal which does not correlate with expected lock status. Also check wiring to switch.
⚠ 10 — Locking error	The automatic lock is not properly engaging and locking the sliding motion of the door. Check mechanical alignment.
⚠ 6 — Unlocking error	The automatic lock is not unlocking and releasing the door to slide open. Check mechanical alignment.
⚠ 43 — Encoder fault	The signals from the encoder on the motordrive do not correlate with operator drive mode. Check wiring & connectors between motor & control.
⚠ 62 — Control panel can't override	A second mechanical control panel or a remote control station has been connected and has priority over the Display control panel.
⚠ 2 — Manual locked	The door has been locked from a remote control station and the Display control panel cannot override.
⚠ 37 — Motor current	The motor current is outside of allowable values (too low or too high) and the control has ceased automatic operation.

Enter the *parameter adjust* mode at the operator control module and, using the Display control panel, scroll down to and select the "**Control Panel**" parameter. Select "**Mech. Panel**", scroll down to and select "**One-way**" (factory default is "**disabled**"). Exit *parameter adjust* mode. The *door operational* mode will now be "**Off**" until a jumper is placed between terminals 15 and 16 on the operator control module.

Remote Control of Automatic / Exit Only modes only –

A single set of dry contacts (rated 0.2A minimum) is required and connected between terminals 15 and 17 on the operator control module. When the contact is open, the door will be in "**Automatic**" mode; when the contact is closed, the door will be in "**Exit**" only mode, and the exterior sensor (connected to terminal 23) is disabled when the door is fully closed. As required by code, the exterior sensor will be active when the door is open and/or closing.

Remote Control of Automatic / Exit Only / Open / Off (or Locked) modes –

Two sets of dry contacts are required. One set will be connected between 15 and 17 as above, and the second set will replace the jumper between 15 and 16. The following table lists the *door operational* mode as defined by the contacts:

Mode	Contact 15/16	Contact 15/17
Off	Open	Open
Automatic	Closed	Open
Exit Only	Closed	Closed
Full Open	Open	Closed

If the door has a Fail Secure automatic lock, the door will be locked when in the "**Off**" mode.

If the door has a Fail Safe automatic lock, the door will not be locked in the "**Off**" mode. This can be changed from "**Off**" to "**Lock**" (locking the Fail Safe lock) by changing an additional parameter. Enter the *parameter adjust* mode at the operator control module and, using the Display control panel, scroll down to and select the "**Control Panel**" parameter. Scroll down to and select the "**Display Panel**", then scroll down and select "**Keyboard**". Change the setting from "**OFF-Mode**" to "**Locked-Mode**". Exit the *parameter adjust* mode. "**Off**" will now be replaced with "**Lock**" when the *Off* button is pressed, or when the above contacts are opened. When using "**Lock**" mode in place of "**Off**" mode, when the *Off* button is pressed (or the above contacts opened), the door, if not closed, will always drive closed then lock. This is also true if using "**Lock**" mode with a Fail Secure automatic lock.

Note: Priority between the remote contacts and the Display control panel follows a safety / security tier. If either is *Off* (or *Locked*), the door will be "**Off**" ("**Lock**"). If the remote contacts are set for *Automatic* mode, the Display control panel has full functionality. If the remote contacts are set for *Exit Only*, only the Display's *Off* and *Exit* buttons function. If the remote contacts are set for *Open*, only the Display's *Off*, *Exit*, and *Open* buttons function.

Press and hold the blue Control Switch for 4 flashes of the red Control LED, then release. The first screen at right should appear on the jamb-mounted Display Control Panel. Scroll down to and select "Input", then scroll down and select "Aux. Sw", then scroll down and select "Safety Beam". Connect the safety sensors as shown below.

Parameter
- Driving cycle
- Time delayopen
- Drive

Parameter
- Control panel
- Locking
- **Input**

Input
- **Ext. Sw**
- Emerg.Opn/Cls
- Aux. Sw

Input
- Ext. Sw IN
- Emerg.Opn/Cls
- **Aux. Sw**

Aux. Sw
- ● disabled
- ○ Safety Beam
- ○ Sidescrn sensr

Aux. Sw
- ○ disabled
- ● **Safety Beam**
- ○ Sidescrn sensr

record

SERIES 5100
Nr. 019.808.187

019.808.187
VX.XX XX/XX

1   2   3   4   5

25 26 27 28   1 2 3 4 5 6 7 8 9 10 11 12   13 14 15 16 17 18   21 22 23   30 31 32 33 34 35 36 37

Control LED
Control Switch

Rly COM +PWR
+PWR
Rly COM
-PWR
-PWR

Rly NC

PLEASE REFER TO PAGE 21 FOR STANDARD WIRING DIAGRAM

Safety Sensor #1

Safety Sensor #2

Control Term.#	Description	Sensor Connections	BEA IRIS	BEA Wizard	MS Sedco DH94 & DH100	Optex OA-Presence & i-One
#5	Power Supply +24V	+24V Power #1 & #2, Relay#1 COM	Red#1, Brn#1, Red#2	Red#1, Wht#1, Red#2	Red#1, Wht#1, Red#2	Gry#1, Wht#1, Gry#2
#6	Aux. Sensor Input	Relay#2 COM	Brn#2	Wht#2	Wht#2	Wht#2
#7	Power Supply - 0V	0V Power #1 & #2	Blk#1, Blk#2	Blk#1, Blk#2	Blk#1, Blk#2	Gry#1, Gry#2
Additional Connections		Relay#1 NC to Relay #2 NC	Relay#1 NC to Relay #2 NC	Relay#1 NC to Relay #2 NC	Relay#1 NC to Relay #2 NC	Relay#1 NC to Relay #2 NC
			Set Parameter = 3	Set Parameter =3		
			Set Parameter F1 = 1	Set Parameter F1 = 1		

Series 5100 Wiring with **2 Safety Sensors**
to be active only when door is open

Oct06 DPH

Press and hold the blue Control Switch for 4 flashes of the red Control LED, then release. The first screen at right should appear on the jamb-mounted Display Control Panel. Scroll down to and select "Input", then scroll down and select "Aux. Sw", then scroll down and select "Safety Beam". Connect the safety sensor as shown below.
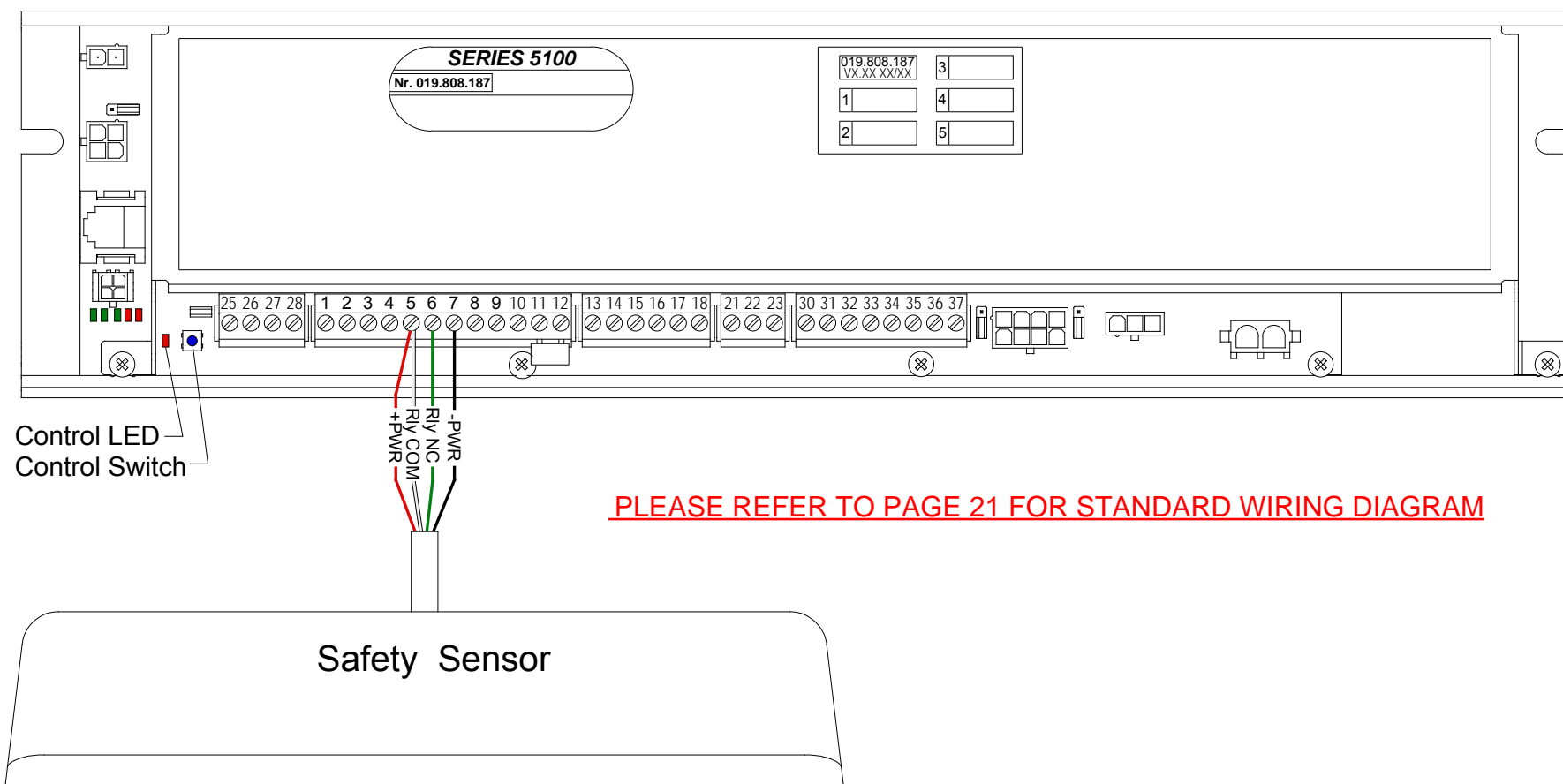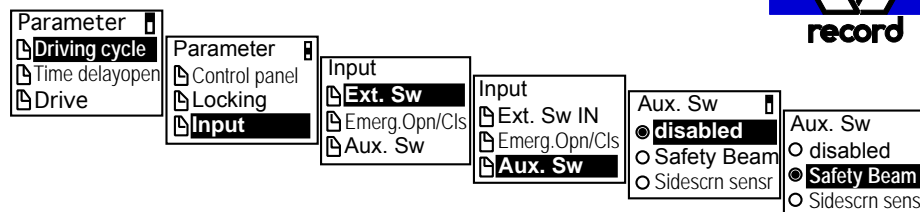
record

Parameter
- Driving cycle
- Time delayopen
- Drive

Parameter
- Control panel
- Locking
- **Input**

Input
- **Ext. Sw**
- Emerg.Opn/Cls
- Aux. Sw

Input
- Ext. Sw IN
- Emerg.Opn/Cls
- **Aux. Sw**

Aux. Sw
- ⦿ **disabled**
- ○ Safety Beam
- ○ Sidescrn sensr

Aux. Sw
- ○ disabled
- ⦿ **Safety Beam**
- ○ Sidescrn sensr

SERIES 5100

Nr. 019.808.187

019.808.187
VX.XX XX/XX

25 26 27 28 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 21 22 23 30 31 32 33 34 35 36 37

Control LED
Control Switch

+PWR
Rly COM
Rly NC
-PWR

Safety Sensor

PLEASE REFER TO PAGE 21 FOR STANDARD WIRING DIAGRAM

Control Term.#	Description	Sensor Connections	BEA IRIS	BEA Wizard	MS Sedco DH94 & DH100	Optex OA-Presence & i-One
#5	Power Supply +24V	+24V Power & Relay COM	Red & Brn	Red & Wht	Red & Wht	Gry & Wht
#6	Aux. Sensor Input	Relay NC	Blu	Grn	Grn	Grn
#7	Power Supply - 0V	0V Power	Blk	Blk	Blk	Gry

Set Parameter •⁚ = 3	Set Parameter •⁚ =3
Set Parameter F1 = 1	Set Parameter F1 = 1

Series 5100 Wiring with **1 Safety Sensor**
to be active only when door is open

Oct06 DPH

PARAMETER ADJUST SCREENS

Parameter adjustment is accessed by pressing & holding the control switch on the operator control thru 4 flashes of the adjacent red control LED. Certain parameters have additional options not shown - these do not apply to North American applications and should not be selected.

Parameter Menus

Parameter
- Driving cycle
- Time delay open
- Drive

Driving cycle
- Closing speed
- Opening speed
- Acceleration

Closing speed
0 10 20 30 40

Driving cycle
- Closing speed
- Opening speed
- Acceleration

Opening speed
0 10 20 30 40

Driving cycle
- Closing speed
- Opening speed
- Acceleration

Acceleration
0 10 20 30 40

Parameter
- Driving cycle
- Time delay open
- Drive

Time delay open
- TD open
- TD Remote Sw

TD open
0 10 20 30 40

Time delay open
- TD open
- TD Remote Sw

TD Remote Sw
0 10 20 30 40

Parameter
- Driving cycle
- Time delay open
- Drive

Drive
- Partial opening
- Reverse adjust
- EmergOpBattery

Partial opening
0 10 20 30 40

Drive
- Partial opening
- Reverse adjust
- EmergOpBattery

Reverse adjust
- ○ Less sensitive
- ● More sensitive

Drive
- Partial opening
- Reverse adjust
- EmergOpBattery

EmergOp Battery
- ● Close, not lock
- ○ Unlock and open
- ○ Close and lock

EmergOp Battery
- ○ Close, not lock
- ● Unlock and open
- ○ Close and lock

EmergOp Battery
- ○ Close, not lock
- ○ Unlock and open
- ● Close and lock

EmergOp Battery
- ○ Unlock and open
- ○ Close and lock
- ● Open, if not lock

Drive
- Reverse adjust
- EmergOpBattery
- Power failure

Power failure
- ● Battery operatio
- ○ Emerg. operation

Power failure
- ○ Battery operation
- ● Emerg. operation

Parameter
- Time delay open
- Drive
- Entrance system

Entrance system
- Door type

Door type
- ● Basic operator
- ○ CO48 Ventouse
- ○ CO48 Sandow dir

Door type
- ○ CO48 Sandow d
- ○ Basic escape rou
- ● Break-out USA

Door type
- ○ Basic escape rou
- ○ Break-out USA
- ● Ratchet

Parameter
- Drive
- Entrance system
- Control panel

Control panel
- Mech. Panel
- Display Panel

Mech. Panel
- ● disabled
- ○ Rkr &/or keysw
- ○ One-way

Mech. Panel
- ○ disabled
- ● Rkr &/or keysw
- ○ One-way

Control panel
- Mech. Panel
- Display Panel

Display Panel
- Language
- Keyboard
- Contrast

Language
- ○ FRANCAIS
- ○ ENGLISH
- ● ENGLISH US

Display Panel
- Language
- Keyboard
- Contrast

Keyboard
- ○ Locked-Mode
- ● OFF-Mode

Display Panel
- Language
- Keyboard
- Contrast

Contrast
0 10 20 30 40

Display Panel
- Language
- Keyboard
- Contrast

Display Panel
- Keyboard
- Contrast
- TD Backlite

TD Backlite
0 10 20 30 40

Parameter
- Entrance system
- Control panel
- Locking

Locking
- Lock function
- Lock type

Lock function
- ○ Manual mode
- ● Night locked
- ○ 1Way locked

Lock function
- ○ Manual mode
- ○ Night locked
- ● 1Way locked

Lock function
- ○ Night locked
- ○ 1Way locked
- ● Always locked

Locking
- Lock function
- Lock type

Lock type
- ● Without lock
- ○ Motor powered
- ○ Bistable

Lock type
- ○ Bistable
- ○ MPV
- ● Magnet

Lock type
- ○ MPV
- ○ Magnet
- ● Fail secure

Lock type
- ○ Magnet
- ○ Fail secure
- ● Fail safe

Parameter
- Control panel
- Locking
- Input

Input
- Ext. Sw IN
- Emerg. Opn/Cls
- Aux. Sw

Ext. Sw IN
- ● Ext. Sw IN
- ○ Inactive by 1way and locked

Ext. Sw IN
- ○ Ext. Sw IN
- ● Inactive by 1way and locked

Input
- Ext. Sw IN
- Emerg. Opn/Cls
- Aux. Sw

Emerg. Opn/Cls
- ● disabled
- ○ Emerg. Open
- ○ Emerg. Close

Emerg. Opn/Cls
- ○ disabled
- ● Emerg. Open
- ○ Emerg. Close

Emerg. Opn/Cls
- ○ Emerg. Open
- ● Emerg. Close
  Manual Override

Emerg. Opn/Cls
  Manual Override
- ● Emerg. Close Locked

Emerg. Opn/Cls
  Locked
- ● Emerg. Close Locked&RemSw

Input
- Ext. Sw IN
- Emerg. Opn/Cls
- Aux. Sw

Aux. Sw
- ● disabled
- ○ Safety Beam
- ○ Sidescrn sensr

Aux. Sw
- ○ disabled
- ● Safety Beam
- ○ Sidescrn sensr

Aux. Sw
- ○ disabled
- ○ Safety Beam
- ● Sidescrn sensr

Parameter
- Locking
- Input
- Output

Output
- Alarm/Gong

Alarm/Gong
- ● Alarm
- ○ Gong

Parameter
- Input
- Output
- Miscellaneous

Miscellaneous
- ☐ TOWA

Miscellaneous
- ☒ TOWA

ALARM SCREENS

⚠ 14	⚠ 47	⚠ 31	⚠ 43	⚠ 5
Alok Mon. Sw VAK fault	Aux. Sensor SHE active>60s	EMERGENCY STOP/BREAKOUT	Encoder fault	Exterior Sensor AKA active>60s
Alok Mon. Sw VAK fault	Aux. Sensor SHE active>60s	EMERGENCY STOP/BREAKOUT	Encoder fault	Exterior Sensor AKA active>60s

⚠ 3	⚠ 10	⚠ 37	⚠ 63	⚠ 61
Interior Sensor AKI active>60s	Locking error	Motor current	Obstruction	Remote Sw. SSK active>60s
Interior Sensor AKI active>60s	Locking error	Motor current	Obstruction	Remote Sw. SSK active>60s

⚠ 59	⚠ 6	⚠ 62	REMINDER DAILY SAFETY CHECK	🔧 Software STA19US V1.40 BDE-D V1.14
Safety Beam ELS active>60s	Unlocking error	Control panel can't override		
Safety Beam ELS active>60s	Unlocking error	⚠ 2 Manual locked	FOR SERVICE CALL 800-438-1937	⚠ 3 Service point 〔XXXXXXXXXX

USER SCREENS

OFF	AUTO	EXIT	OPEN	LOCK
OFF	AUTO PART'L	EXIT PART'L	OPEN PART'L	LOCK
OFF	AUTO	EXIT	OPEN	LOCK
OFF	AUTO	EXIT	OPEN	LOCK
Partial opening 0 10 20 30 40	REMINDER DAILY SAFETY CHECK	FOR SERVICE CALL 800-438-1937	⚠ 3 Service point 〔XXXXXXXXXX	

SERIES 5100
Display Panel
Screens Dec06

record

Daily Safety Check located below control panel

Decals mounted between 36" & 60"

60"

36"
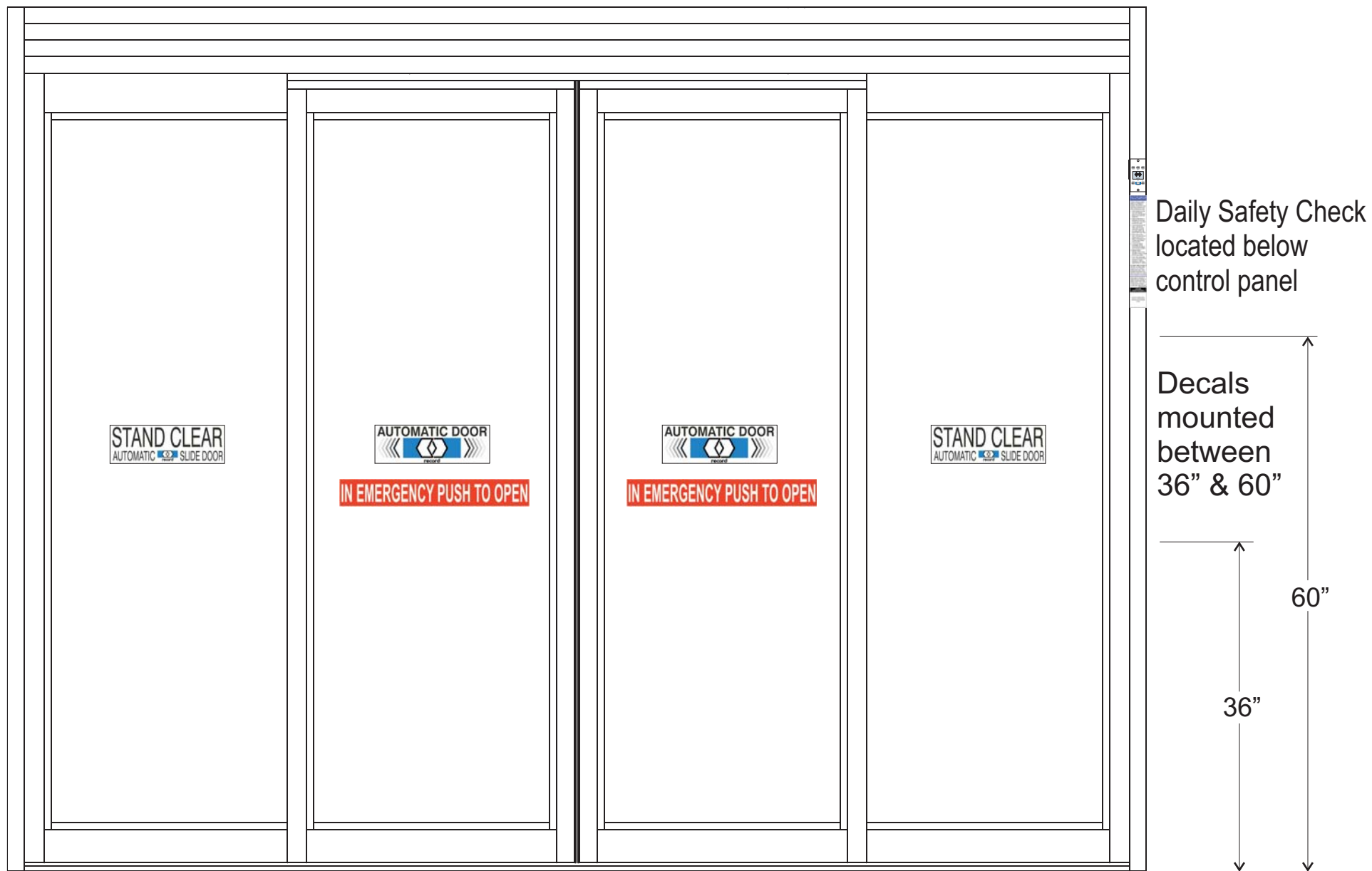
FOR "KNOWING ACT" DOORS, REPLACE [AUTOMATIC DOOR] WITH [AUTOMATIC CAUTION DOOR / ACTIVATE SWITCH TO OPERATE]

SAFETY DECAL REQUIREMENTS

Oct06

20

CONTROL TERMINAL BLOCK CONNECTIONS

1 - Exterior Sensor - Power - 0V
2 - Exterior Sensor - Power/Signal - +24V
3 - Exterior Sensor - Signal
4 - Emergency Open / Close
5 - Auxiliary Power - +24V
6 - Auxiliary Sensor - Signal
 (Threshold Safety / Side Screen)
7 - Auxiliary Power - 0V
8 - Alarm Relay - N.C.
9 - Alarm Relay - COM
10 - Alarm Relay - N.O.
11 - Emergency Breakout - Signal
12 - Emergency Breakout - +24V
13 - Remote Activation - +24V
14 - Remote Activation - Signal
15 - Optional Switch Control Panel - +24V
16 - Optional Switch Control Panel - AUTO
17 - Optional Switch Control Panel - 1W / PO
18 - Optional Switch Control Panel - 0V

21 - Interior Sensor - Power - 0V
22 - Interior Sensor - Power/Signal - +24V
23 - Interior Sensor - Signal
25 - Electronic Control Panel / ADM - DataH
26 - Electronic Control Panel / ADM - DataL
27 - Electronic Control Panel / ADM - +24V
28 - Electronic Control Panel / ADM - 0V
30 - Safety Beam - Emitter 1 +
31 - Safety Beam - Emitter 1 -
32 - Safety Beam - Receiver 1 +
33 - Safety Beam - Receiver 1 -
34 - Safety Beam - Emitter 2 +
35 - Safety Beam - Emitter 2 -
36 - Safety Beam - Receiver 2 +
37 - Safety Beam - Receiver 2 -

Note: For proper operation, use the harness provided with sensors to be installed.
 All wiring should be routed away from moving parts in door operator.
 Power available from operator for sensors is 24VDC, 1A.

NET 19

SERIES 5100

DIRECTION SELECT JUMPER

2&3-Solenoid
4&6-Mon.Sw.

Fail Safe / Fail Secure Automatic Lock

For proper automatic lock operation
the "Locking" parameters for function
and type must be set in the door control:
Lock Function options include "Night Locked", "One-Way Locked", and "Always Locked"
Lock Type options include "Without Lock", "Magnet", "Fail Secure", and "Fail Safe".

Wht or Blu
Blk or Brn
Grn / Yel

L
N
G

120 VAC

Note: This product is intended
for permanent connection to
the electrical supply system.

SAFETY BEAM LEDs
CONTROL LED
CONTROL SWITCH

FPC-902 Hand Terminal Connector

OPTIONAL BREAKOUT CUTOFF MONITOR SWITCH(ES)
(CONTACT CLOSED WITH MAGNET PRESENT)
(REMOVE JUMPER TO USE)

Optional
Remote
Actuation

FULL OPENING
PART'L OPENING

2WAY AUTO
1WAY EXIT
OFF
AWAY EXIT
record

OPTIONAL ROCKER SW CONTROL PANEL

REMOVE JUMPER &
CONNECT SWITCH
TO REMOTELY LOCK
CONTROL PANEL

25 26 27 28

STANDARD DISPLAY CONTROL PANEL

OPEN PROG EXIT
AUTO
OFF record AUTO

To access Control Parameters, locate the blue Control
Switch shown above on the door control. Press and hold
for 4 flashes of the adjacent red Control LED (approximately
4 seconds). The Display Control will change from current
operating mode (OFF / AUTO / EXIT / OPEN) to the Parameter
adjust screen. Use the OFF and AUTO buttons to scroll up and
down; use the "record" button to select, and use the PROG button
to step back. Press PROG several times to return to Operating Mode.

For Installations with BEA
WIZARDS where the secondary
Outputs are to be used, consult the
Diagram Set "S5100WizardSafetyOptions"

		OPTEX	BEA
1	POWER	GREY	BLACK
2	POWER	GREY	RED
2	RELAY	WHITE	WHT(F1=1)
3	RELAY	YELLOW	GRN(F1=1)

EXTERIOR SENSOR

Refer to sensor manufacturer's instructions
for proper adjustment and to verify wiring.

		OPTEX	BEA
21	POWER	GREY	BLACK
22	POWER	GREY	RED
22	RELAY	WHITE	WHT(F1=1)
23	RELAY	YELLOW	GRN(F1=1)

INTERIOR SENSOR

NOTE - A "signal to open" is
provided by connecting the control
input to +24V, not to COM(0V).

For example, a dry contact between 2 & 3 will provide
an "Exterior" signal to open; and a dry contact between
22 & 23 will provide an "Interior" signal to open.

Transmitter B
Receiver B
THRESHOLD SAFETY BEAMS
(REMOVE JUMPERS ON
CONTROL TO ENABLE)
Receiver A
Transmitter A

SERIES 5100 STANDARD WIRING DIAGRAM
Feb10 DPH

record

21