

The manufacturer's specifications for this product require the installation to be approved by an AAADM certified inspector.
record

## 8600/8700 Series OHC Swing Door Installation Instructions

The record-usa 8600/8700 Operator Package has been carefully designed, built, and tested to provide years of service.
The life of the operator package is directly related to how carefully the installation is accomplished and how accurately the instructions are followed. Installation of this operator package should be done by properly trained and knowledgeable installers with a knowledge of local code requirements and the requirements of ANSI A156.10 Standards for Power Operated Pedestrian Doors and A156.19 Standards for Low Energy and Power Assisted Pedestrian Doors. The authorized service / installation dealer must perform all measurements for forces, speeds, and times to insure proper and safe operation.
Verify that the door may be opened without power applied to the unit.
Verify that the force required to open the door with the power disconnected shall not be greater than 50 pounds.
Verify that the door does not close with a force greater than 40 pounds at the latch side of the closing stile, and does not close the final 10 degrees in less than 1.5 seconds.
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.

## 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.

READ INSTALLATION INSTRUCTIONS BEFORE INSTALLING.
The sequence of installation and adjustment is in order, however some sections will not apply. Review this instruction manual and determine those sections that do apply. Be sure all doors swing freely and clear all objects before creating an activation.
INDEX
INTRODUCTION, OWNER INFORMATION \& INDEX ..... 2
HANDING ID, ELECTRICAL PREPARATION, OPERATOR VIEW ..... 3
8600/8700 HEADER TO JAMB PREP / 8600 DOOR PREP ..... 4
8600 OPERATOR \& POWER SUPPLY TECHNICAL ..... 5
8600 MULTIFUNCTION BUTTON / FINGERGUARD INSTALLATION ..... 6
ROCKER SWITCH INFO / 8700 HANDING ID ..... 7
8700 DOOR PREP AND ARM INFO ..... 8
8600/8700 SERVICING WITH THE FPC902 ..... 9,10
8600/8700 PARTS LISTS ..... 11,12
SIGNAGE REQUIREMENTS ..... 13
WIRE DIAGRAMS ..... 14,15,16,17
record

## 8600 Series OHC Swing Door <br> Installation Instructions

## OPERATOR HANDING IDENTIFICATION—CENTER PIVOTED



LH-RH


RH


LH
W/PANIC BREAKAWAY


RHR


RH
W/PANIC BREAKAWAY


LH-RH

## AS VIEWED FROM THE EXTERIOR

## Electrical preparation

Before preparing jambs, determine the method and requirements for the electrical wiring involved and whether mats or other type of activation is used. Power Req--115 VAC, 60Hz, 15 Amp service.

## Product Description

The record Series 8600/8700 Swing Door Operator is a power-open, spring-close unit providing full functionality conforming to either ANSI A156.10 or ANSI A156.19 requirements. The self-monitoring microprocessor-based control maintains precise regulation throughout the door open / close cycle. Two operators can be connected together in a master/slave configuration providing synchronized operation. Safety is additionally increased by the use of a redundant force limitation.


1 Adjusting screw for spring tension
2 Output Shafts for Arms \& Stop
3 Drive Unit
4 Closing Spring
5 Multifunction Pushbutton / Control
6 Terminal Blocks for I/O
7 Microprocessor Control

8 Motor Drive Circuit Board
9 Slide switch S1 (rotating direction)
10 Power Supply
11 Fuse (2.0A, 5X20mm, Slo-Blo)
12 Power Supply Circuit Board
13 On / Off / Open Rocker Switch
14 Status LED and Reset Pushbutton
record

## 8600 Series OHC Swing Door <br> Installation Instructions

## Mounting the Header 8600

Measure opening to insure correct dimension for door height plus header size before placing and securing in position. Secure the Header through each end of header to door frame with the appropriate fasteners as indicated in diagrams of Header to Jamb Prep below.
Door Prep 8600 Door Package
See below for Top \& Bottom Door Prep.


Recommend Rivnuts or Nutserts for 1/4-20 Prep for adequate support.


PREP FOR 1/4-20 BOLT - 4 PLACES IF DOOR WEB DOES NOT HAVE $1 / 4 "$ THICK WALL TO RECEIVE 1/4-20 BOLTS, USE OF RIVNUTS OR NUTSERTS IS RECOMMENDED.

1" DEEP WEB
REQUIRED - TOP AND BOTTOM HORIZONTALS

THE VERTICAL PIVOT RAIL OF THE DOOR SHOULD BE NOTCHED AT THE TOP AND BOTTOM 1-1/2" WIDE X 1" DEEP TO ACCOMODATE END LOADING THE DOOR ONTO THE DRIVE ARM AND BOTTOM PIVOT.



| ITEM | PART NUMBER | DESCRIPTION | QTY. | LIST PRICE |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{D}$ | $9-99-2832$ | Threshold \& Bottom Pivot (Recessed in FIr.) | 1 | ea |
|  |  |  |  |  |

record

## 8600 Series OHC Swing Door Installation Instructions

## Operator Swing Direction

If the operator does not close slowly, the handing selection switch should be changed. It is located behind a slot in the sheet metal cover for the operator control -

With no power applied, the operator should be capable of being easily pushed open and when released, will close the door at a controlled speed.

## Closing Spring Adjustment

The closing force provided by the spring is adjustable.
Do not adjust the force so low that the door will not consistently close under spring power.

On a typical 3'-0" door with a standard arm assembly, the spring closing force can be adjusted from less than 5 pounds force to more than 20 pounds force, measured at the leading edge of the door.


## Open Stop

The unit is provided with an adjustable full open stop.
Rotate the door to the full open position; mount the Shaft Stop onto the upper output shaft and against the Fixed Stop. The spline of the output shaft allows indexing in $6^{\circ}$ increments. For finer adjustment, the Fixed Stop is slightly eccentric; loosen and rotate until the desired stop location is achieved and re-tighten.

For installations where severe physical abuse may occur (such as extreme wind conditions), it is suggested a floor mounted stop be installed at full open. Additionally, the operator full open stop can be set at 100 degrees or more of opening, and program the operator to electronically stop at the 90 degree full open position. This can be accomplished by manually stopping the door at 90 degrees during a calibration run, or by reducing the opening angle under the para-meter "Drive / Opening angle" (using an FPC902 Hand Terminal or a Display Control Panel).

## Power Supply Connection

Connect 115VAC, $60 \mathrm{~Hz}, 10 \mathrm{~A}$, to Power Supply terminal strip
115VAC "Hot" (Line) to "L" terminal;
115VAC "Neutral" to "N" terminal
The second "L" and "N" terminals provide a convenient junction for dual operator systems. Proper grounding must be provided for the unit. A grounding tab and screw are located adjacent to the Power Supply terminal strip.


The power supply cover must be installed after connecting 115VAC primary service.
record
The multifunction pushbutton can be used for the following functions:
1 flash of the red LED will actuate a standard open cycle (if the rocker switch is on).
3 flashes of the red LED will initiate a calibration run.
4 flashes of the red LED will initiate the parameter adjust mode of a Display Control Panel.

8 flashes of the red LED will reset the unit's parameters to factory defaults.
15-17 flashes will cause the unit to reset without affecting any of the field set parameters.


After completion of the mechanical installation and prior to adjusting the parameters, always initiate a calibration run by pressing and holding the pushbutton for 3 flashes of the red LED. This will insure proper door operation by calibrating the unit to the installation conditions.


Drill $9 / 64^{\prime \prime}$ through center of fingerguard on spacings shown at right.


Insert screw, compressing fingerguard until screw contacts aluminum, then tighten slowly and allow head to swage through flexible section of fingerguard.


Continue to tighten screw to secure in place. Do not overtighten as screw head will compress pinch rigid section of fingerguard, resulting in pulling away from aluminum.

record-usa

The Series 8600 Standard Rocker Switch Control Panel


## 8700 OPERATOR HANDING IDENTIFICATION—CONTINUOUS HINGE



## 8700 Series OHC Swing Door Installation Instructions

TOP OF DOOR-TRACK PREP

## LHR SHOWN



| 1 | $9-80-0006$ | Adaptor, Drive Arm, 20 mm | 5 | $4-20-1090$ | Arm, Stud |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | $4-85-1009$ | Slide Arm, (Butt Hung) | 6 | $4-24-9003$ | Slide Block |
| 3 | $4-85-1008$ | Extension, Slide Arm, (Butt Hung) | 7 | $9-99-7356$ | Washer, Wave Spring |
| 4 | $9-99-1822$ | M8-1.25 x 16 BSHCS | 8 | $9-01-0001$ | Loctitie 222, Purple Threadlocker |

After the operator has been mechanically installed, the arms attached to the door, and 120VAC connected to the power supply, connect the FPC902 Hand Terminal to the operator control. The following sequence of screens will occur. The final screen shown below is the base point from which various settings for the operator are accessed and modified.

| AKKU | PASS |
| :--- | :--- |
| FLASH | PASS |
| EEPROM | PASS |
| RTC | PASS |
| CAN | PASS |

```
FPC902
```

Nov 242006
10:48:48


Connect with STG ...
กा 1 ITM
Accept all parameter
from the STG?


Parameter download
from STG ...

${ }^{46} \mathbf{N H}^{55}$
Continue


Parameter
Maintenance Functions
Operation mode
Diagnostics

The following page indicates suggested parameter configurations for a typical installation. For a detailed description of all the parameters, consult the instructions with the FPC-902.

The following documents the suggested sequence of programming the operator:

The Series 8500 is shipped configured for a combination operation designated as "USA Low Energy". If manual operation of the door is not desired (with 120VAC power present), this should be changed to "USA", as shown in the sequence at right.

If a pair of operators are to be operated simultaneously, and only one rocker switch is to be used, it should be connected to the master control, and the slave control must be set as shown at right, allowing it to function without a rocker switch.

If automatic operation in response to pushing the door is desired (Push-ToStart), select "Miscellaneous", then "Push to Actuate" and enable by selecting "2 Normal". Note on paired units, this option must be set individually for both operators.

The unit is defaulted to include support for an automatic lock. If one is not provided, select the "Locking" parameter, then "Locking Functions", and change from "3 Always locked" to "1 Night locked" to eliminate the delay before opening.


The unit(s) are now ready to be placed into operation. Turn the control panel "on", press and hold the Control Button on the door control for 3 blinks of the adjacent LED. This will initiate a calibration cycle of the operator. After a few seconds the operator should open slowly, with a short pulse during mid-opening. It should be allowed to complete this cycle without interruption.
Note: Calibration must be performed individually on both operators of a pair.
The Series 6100 and 8000 Instructions included with the FPC-902 Terminal will have a complete listing of the screens, options, and adjustments available for this operator.

## SERIES 85008600 OHC SWING DOOR OPERATOR



| 1 | $81-0012-0404$ | Screw, 8-32x1/4" Ph, FH,UC,MS | 17 | $4-85-0019$ | Drive Arm Assy., OHC, Complete |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | $4-85-1010$ | End Cap, Header, OHC | 17 a | $4-85-1007$ | Door Arm, OHC |
| 3 | $4-85-1002$ | Bracket, Header to Jamb | 17 b | $9-80-0006$ | Arm Adaptor, 20mm (1/2") |
| 4 | $5-85-4003$ | Header Extrusion, OHC, CL-DB | 17 c | $4-85-1006$ | Drive Arm, OHC |
| 5 | $9-99-3507$ | Nut Plate, 1/4-20 | 18 | $81-0014-2666$ | Screw, 1/4-20x3/4" BH, CS |
| 6 | $4-85-0022$ | Bracket Assy., Door Closed Stop | 19 | $4-85-0101$ | Drive Module w/ Control, OHC |
| 7 | $4-85-4020$ | Block, Door Closed Stop | 19 a | $4-85-0102$ | Drive Module w/ Control, OHC w/Brake |
| 8 | $81-0011-0676$ | Screw, 1/4-20x1 1/2" Ph,FH,MS | 20 | $81-0017-2658$ | Screw, 1/4-20x3/8", BH, CS |
| 9 | $9-99-2594$ | Pad, Foam Rubber | 21 | $5-85-4004$ | Cover Extrusion, OHC, CL-DB |
| 10 | $9-73-0074$ | Breakout Stop w/Switch | 22 | $81-0012-0562$ | Screw, 10-32x1/2", Ph, FH, MS |
| 11 | $4-85-9003$ | Block, Breakout Stop Mounting | 23 | $4-80-0811$ | Kit, Harness Extension, FPC902 |
| 12 | $81-4811-0420$ | Screw, 8-16x1" Ph, FH, Plastite | $\sim$ | $4-85-0803$ | Kit, Fixed Stop, OHC, \# 6,7,8,9 |
| 13 | $4-80-0101$ | Relay Assy., Panic Breakout | $\sim$ | $4-85-0804$ | Kit, Breakout, Panic Stop, OHC <br> $\# 10,11,12,13$ |
| 14 | $4-51-1004$ | Bracket, Conduit Anchor | $\sim$ | $9-90-0000$ | Pivot Assy., Bottom, Center, OHC |
| 15 | $9-80-0102$ | Power Supply | $\sim$ | $4-85-0806$ | Kit, On/Off/Open, Rocker Switch, Jamb |
| 16 | $9-80-0103$ | Kit, Hard Stop | $\sim$ | $4-80-0809$ | Kit, On/Off/Open, Keyswitch, Dual |
|  |  | $\sim$ | $4-85-9001$ | Fingerguard, 7' S/L |  |

# 8700 Series OHC Swing Door Installation Instructions 

## SERIES 8500/8700 BUTT- HUNG SWING DOOR OPERATOR



| 1 | $81-0012-0404$ | Screw, 8-32x1/4" Ph, FH,UC,MS | 12 | $4-85-4021$ | Spacer, Operator Body |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | $4-85-1002$ | Bracket, Header to Jamb | 13 | $9-99-7182$ | Washer, Lock, 1/4" |
| 3 | $5-85-4003$ | Header Extrusion, OHC, CL-DB | 14 | $5-85-4004$ | Cover Extrusion, OHC, CL-DB |
| 4 | $9-99-3507$ | Nut Plate, 1/4-20 | 15 | $4-30-1010$ | Track, Slide Arm |
| 5 | $4-85-1010$ | End Cap, Header, OHC | 16 | $4-85-0021$ | Slide Arm Assy., Butt Hinge, RH |
| 6 | $81-0017-2658$ | Screw, 1/4-20x3/8", BH, CS | $16 a$ | $4-85-0020$ | Slide Arm Assy., Butt Hinge, LH |
| 7 | $4-51-1004$ | Bracket, Conduit Anchor | 17 | $9-99-7318$ | Weatherpile, Door Catch, DB |
| 8 | $9-80-0102$ | Power Supply | 18 | $4-85-4022$ | Cover, Slide Arm, CL-DB, RH |
| 9 | $4-85-0101$ | Drive Module w/ Control, OHC | 18 a | $4-85-0023$ | Cover, Slide Arm, CL-DB, LH |
| $9 a$ | $4-85-0102$ | Drive Module w/ Control, OHC w/Brake | 18 b | $4-85-0024$ | Cover, Slide Arm, CL-DB, Dual |
| 10 | $81-0014-2674$ | Screw, 1/4-20x1 1/4", BH CS | 19 | $81-0012-0562$ | Screw, 10-32x1/2", Ph, FH, MS |
| 11 | $9-80-0103$ | Kit, Hard Stop | 20 | $4-80-0811$ | Kit, Harness Extension, FPC902 |
| $\sim$ | $9-99-2801$ | Continuous Hinge, CL-DB,83" | $\sim$ | $4-24-9003$ | Slide Block, Arm Assy. |
| $\sim$ | $9-99-2802$ | Continuous Hinge, CL-DB,95" | $\sim$ | $4-85-0805$ | Kit, Header Accessories, OHC, <br> Butt Hung |

## 8700 Series OHC Swing Door Installation Instructions

8600/8700 - To increase the lift and prevent the door from dropping


Place wedge or shim under lock stile to aid in lifting the door leaf to adjust.


ALARM CODES AND ERROR MESSAGES

| No. | Display text | Type | Res | Comments and possible troubleshooting |
| :---: | :---: | :---: | :---: | :---: |
| 3 | AKI > 60 sec . active |  |  | Inside radar longer than 60 sec . active and door remains open. Check that no moving objects are activating the radar. |
| 5 | AKA > 60 sec. active |  |  | Outside radar longer than 60 sec . active and door remains open. Check that no moving objects are activating the radar. |
| 6 | Unlocking error |  | X | Unlocking error: it is impossible to unlock the door. Repeat unlocking attempt after chanaina the BDE operatina mode. |
| 7 | No redundancy test | RED | X | When no „redundancy" test could happen within the last 24 h or the "redundancy" test was not correctly performed on a door not locked. Reset. Control settings. |
| 9 | Battery fuse open |  | X | Battery fuse is disconnected or battery is not plugged in. |
| 9 | Open. unsuccessful |  |  | Door does not open or only slowly. SIO miaht possibly be active or motion be mechanically hindered (e.a. dirt in floor track). |
| 10 | Locking error |  |  | Locking error and door remains approx. 10 cm open $\rightarrow$ depending on parameterising door remains closed. Door might possibly be hindered or locking device might need to be adjusted. |
| 11 | Difference AKI | RED | X | Error in the interpretation of the inside radar signal. Check inside radar. |
| 12 | Low BAT voltage |  | X | Battery is missing or is not plugged in. Door works if mains voltage is provided. |
| 12 | BAT capacity |  | X | Battery no longer meets minimum power requirements. Replace Battery. |
| 14 | VAK defective |  | X | Locking device hampered. Adjust door leaves and locking device. |
| 15 | EMERG. OPEN. | RED |  | On RED installations emergency opening switch has been actuated. |
| 17 | Timeout open. time | RED | X | $80 \%$ of escape route opening not reached within 3 sec. Control with FPC, adjust opening speed. Under „Status", openina time +400 ms . |
| 18 | VAK closed automatic |  | X | Adjust locking device. <br> Make contact (NOC) of locking device is active with Automatic. Locking is set on „wrong" position. Change operating mode on BDE-D to Locked and again to Automatic. Actuate manual unlocking, or rather completely reset it. |
| 29 | TOS not locked | $\begin{gathered} \hline \text { TOS with } \\ \text { DV } \\ \hline \end{gathered}$ |  | TOS not locked (rotary switches) on Locked. Turn rotary switches onto Locked position (above). |
| 30 | TOS locked | $\begin{gathered} \text { TOS with } \\ \text { DV } \\ \hline \end{gathered}$ |  | Automatic mode, TOS locked, but door stays in manual mode. |
| 31 | EMERGENCY STOP |  |  | Emergency stop key has been pressed or manual unlocking has been actuated. |
| 33 | Error ELS1 |  | X | Light barrier signal is not identified. Inform after-sales service. Calibrate ELS with 2 light pulses. |
| 36 | VOK closed I. |  | X | Locking device does not work properly. On BDE-D change operating mode to Automatic and again to Locked. Wrong locked nosition or VRR faulty. |
| 37 | Motor current |  | X | Possibly wrong motor type parameterised or motor is overloaded. |
| 38 | Motor 1 overheat |  | X | Motor 1 is too warm. Door works sluggishly. |
| 39 | Overload 24V |  | X | 24 volts supply for peripheral units is overloaded. Check wiring. |
| 41 | Temp. sensor 1 |  | X | With motor 1: temperature sensor is faulty or motor cable is disconnected. |
| 42 | Temp. sensor 2 |  | X | With motor 2: temperature sensor is faulty or motor cable is disconnected. |
| 43 | Encoder fault |  | X | Encoder or cable is faulty or not plugged in. Reset. |
| 44 W | T. motor high |  |  | Warning message; Time Delays will be extended. <br> Door miaht work sluacishlv. Check for oresence of mechanical hindrance. |
| 46 | STG defective |  | X | Control unit is defective. Reset. If no success, then replace control unit. |
| 47 | SIO > 60 sec active |  | X | Door does not open or slides at reduced speed. Check Safety Sensor SIO. |
| 48 | NSK or SOK activated |  |  | Remote Alarm has just received. Control safety alarm. Control external signal. |
| 50 | Watchdog fault |  |  | Replace control unit. |
| 51 | VOK op n unl. |  | X | Repeat locking and unlocking procedures. <br> Connection cable miaht be missing or is not properlv pluaged in. Check locking settings. |
| 52 | No run param. |  | X | Door must be calibrated (perform teach-in run). |
| 53 | Interrupt. mot. 1 |  | X | Motor is not plugged in. Motor is faulty. |
| 54 W | Calibrating run |  | X | Warning message: Calibration run is perforned. |
| 55 | Power failure |  |  | No mains supply. Door works in battery service provided that there is a battery and not "Basic escape route" has been confiaured. |
| 57 | Interrupt. mot. 2 |  | X | 2nd motor is not plugged in. Motor is faulty. |
| 59 | ELS > 60 sec . active |  |  | Light barriers interrupted or disconnected and door remains open. Check that safety barriers are not covered or extremelv dirtv. |
| 59 | SIS > 60 sec . active |  | X | Door does not close. Check Safety Sensor SIS. |
| 60 | EEPROM defective |  | X | Load factory settings. 9 light pulses with MFT and reset within 10 seconds. Afterwards language selection has to be displayed on BDE-D. Attention! All programmings are reset. Reconfigure door. Replace control unit if door still fails to function |
| 61 | SSK > 60 sec . active |  |  | Key-operated contact stays active. Door remains open. <br> Check Remote Switch (SSK) wirina_connections_ and switch. |
| 62 | BDE no priority |  |  | BDE is locked e.g. by a clock timer on input SURV/SURA accordingly configured. |
| 92 | STG relay defect. |  | X | Change control unit. |
| 93 | Overvoltage 24V |  | X | Wiring error. Check connections. |
| 96 | EEPROM void |  | X | Load factory settings. See error 60. |
| 97 W | Maintenance time exceeded |  | X | Warning message: Acknowledge message. Alarm is reset for 13 days. Actual value $=105 \%$ of target value of cycles or operating hours. <br> Inform after-sales service and have installation serviced. Set Targets to 0 to avoid alert. |
| 98 W | Maintenance due |  | X | Warning message: Acknowledge message. Alarm is reset for a short time. Repeats at $100 \%$ Actual value $=95 \%$ of target value of cycles or operating hours. <br> Inform after-sales service and have installation serviced. Set Targets to 0 to avoid alert |
| 112 | Batt. not charged complet. |  |  | Battery is not fully charged. Message disappears from display in case of full charge. |
| 2132 | FPC Can blocked <br> BDE Can blocked $* * * * * * * * * * * * *$ <br> ERROR by saving in the STG |  |  | On a locked door the CAN-Bus will be blocked for devices like the BDE-D(Display) or FPC if they were not connected BEFORE the door was locked. When reading either of the 3 messages from the left column, to unblock, the door needs to be unlocked or the emergency switch has to be activated or the multi-function switch on the control has to be pressed for 1 flash. |

- Approach Sensor - Power/Signal - +24V - Approach Sensor - Signal
- Approach Sensor - Power - OV

4 - Guide Rail Beam - Power/Signal - +24V
5 - Guide Rail Beam - Signal
6 - Guide Rail Beam - Power - OV
7 - Remote Switch - Signal
8 - Header Mounted Swing Side Safety - Signal

9 - BodyGuard Data Line - Data +
10 - Door Mounted Swing Side Safety - Signal
11 - Door Mounted Sensors - Power/Signal - +24V 12 - Door Mounted Approach Side Recycle - Signal 13 - Door Mounted Sensors - Power - OV
14 - Fire Alarm Signal (Jumper to 15 if not used)
15 - Fire Alarm - +24V
16 - Door Alarm Relay - N.O

17 - Door Alarm Relay - COM
18 - Door Alarm Relay - N.C.
19 - Automatic Lock Power - OV (0.5A Max.) 20 - Automatic Lock Control Relay - N.O. 21 - Automatic Lock Control Relay - COM 22 - Automatic Lock Control Relay - N.C.
23 - Automatic Lock Monitor Signal
24 - Automatic Lock Power/Signal - +24 V

There are three levels of resetting an operator. To reset without changing any operating parameters, press \& hold the black reset button (next to the ON/OFF rocker switch) for 6 seconds, until relay "clicks" occur. To reset and restore typical operating parameters (speed, master slave, etc.), press \& hold the blue button (on the door control) for 8 flashes of the red LED. To fully reset the unit, eliminating all parameter modifications (including Series $6100 / 8000$ setting), press \& hold the blue button on the control for 9 flashes of the red LED, then immediately remove the jumper between terminals 14 \& 15. After a full reset, the parameter "Entrance System / Door Type" must be changed from "0 Basic Operator" to "25 USA Low Energy". Additional parameters, including factory settings, will also have to be re-entered. Consult factory for additional details.



Series 8000 Swing Door Operator

BREAKOUT ASSEMBLY includes: 9-73-0074 BREAKOUT w/SWITCH P\&B \#27E487 RELAY SOCKET P\&B \#K10P-11D15-24 RELAY


$$
10 \text { - Door Mounted Swing Side Safety - Signal }
$$

$$
11 \text { - Door Mounted Sensors - Power/Signal - +24V }
$$

$$
\begin{aligned}
& 12 \text { - Door Mounted Sensors - - Mower/signa - +24V } \\
& 12 \text { Approach Side Recycle - Signal }
\end{aligned}
$$

$$
13 \text { - Door Mounted Sensors - Power - OV }
$$

14 －Fire Alarm Signal（Jumper to 15 if not used）
15 －Fire Alarm－＋24V
16 －Door Alarm Relay－NO

8 －Door Alarm Relay N．C．
19 －Automatic Lock Power－OV（0．5A Max．） 20 －Automatic Lock Control Relay－N．O． 21 －Automatic Lock Control Relay－COM 22 －Automatic Lock Control Relay－N．C． 23 －Automatic Lock Monitor Signal
24 －Automatic Lock Power／Signal－+24 V

There are three levels of resetting an operator．To reset without changing any operating para－ meters，press \＆hold the black reset button（next to the ON／OFF rocker switch）for 6 seconds， until relay＂clicks＂occur．To reset and restore typical operating parameters（speed，master／ slave，etc．），press \＆hold the blue button（on the door control）for 8 flashes of the red LED．To fully reset the unit，eliminating all parameter modifications（including Series $6100 / 8000$ setting）， press \＆hold the blue button on the control for 9 flashes of the red LED，then immediately remove the jumper between terminals 14 \＆15．After a full reset，the parameter＂Entrance System／Door Type＂must be changed from＂0 Basic Operator＂to＂25 USA Low Energy＂．Additional parameters， including factory settings，will also have to be re－entered．Consult factory for additional details．

8 －Header Mounted Swing Side Safety－Signal YYew Ildex

 Replace only with same type \＆rating fuse． MOTOR PCB ${ }^{1-\text { WhHITE }}$ 2－GREE
3－RED
－RESET O STATUS LED STÁUS LED





CONTROL TERMINAL BLOCK CONNECTIONS


17 - Door Alarm Relay - COM
18 - Door Alarm Relay - N.C.
20 - Automatic Lock Control Relay - N.O
21 - Automatic Lock Control Relay - COM
22 - Automatic Lock Control Relay - N.C.
23 - Automatic Lock Monitor Signal
24 - Automatic Lock Power/Signal - +24V

There are three levels of resetting an operator. To reset without changing any operating parameters, press \& hold the black reset button (next to the ON/OFF rocker switch) for 6 seconds, until relay "clicks" occur. To reset and restore typical operating parameters (speed, master/ slave, etc.), press \& hold the blue button (on the door control) for 8 flashes of the red LED. To fully reset the unit, eliminating all parameter modifications (including Series 6100/8000 setting), press \& hold the blue button on the control for 9 flashes of the red LED, then immediately remove the jumper between terminals 14 \& 15. After a full reset, the parameter "Entrance System / Door Type" must be changed from "0 Basic Operator" to "25 USA Low Energy". Additional parameters including factory settings, will also have to be re-entered. Consult factory for additional details.


REMOTE/SECURE ACTIVATION
HEADER-MOUNTED SENSOR
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 $24 \mathrm{VDC}, 1 \mathrm{~A}$.


NOTE: All activation devices need to be connected to the 2 gray wires of the System Harness except for Remote/Secure Activation. It will unlock and open a door even when unit is turned "Off". When using an Eagle Sensor, it will plug directly into Motion 1 on the Hub and Motion 2 for the second one for 2 way traffic.

For dual configurations, two home(position) switches must be used and wired in series.

For Independent Dual Egress configuration, the operators will be setup as two Master Operators and will require both Control Harnesses to be used.

After connecting \& powering on-door sensors, a calibration cycle is required to learn environment.

System Harness Legend Optional Act.> 2 Grays Home Switch> 2 Orange

Note: Orange wires connect to Door Position Switch. Yellow/ Red Striped, Stall NC> \#10 White/Black Striped, Safe Com> \#4 Green/ Black Striped, Safe NO> \#8 White, Act. Com>\#1 Green, Act. NO> \#2

## LZR MICROSCAN WIRING DIAGRAM SERIES 8000 SWING

CONTROL TERMINAL BLOCK CONNECTIONS
1 - Approach Sensor - Power/Signal +24V
2 - Approach Sensor - Power
Approach Sensor - Signal
3 - Approach Sensor - Power - 0V
4 - Guide Rail Beam - Power/Signal - +24V
5 - Guide Rail Beam - Signal
6 - Guide Rail Beam - Power - OV
7 - Remote Switch - Signal
9 - BodyGuard Data Line - Data +
10 - Door Mounted Swing Side Safety - Signal
17 - Door Alarm Relay - COM
18 - Door Alarm Relay - N.C.
11 - Door Mounted Sensors - Power/Signal - +24V
12 - Door Mounted Approach Side Recycle - Signal 13 - Door Mounted Sensors - Power - OV
14 - Fire Alarm Signal (Jumper to 15 if not used) 15 - Fire Alarm - +24V
8 - Header Mounted Swing Side Safety - Signa
16 - Door Alarm Relay - NO
20 - Automatic Lock Control Relay - N.O
21 - Automatic Lock Control Relay - COM
22 - Automatic Lock Control Relay - N.C.
23 - Automatic Lock Monitor Signal
24 - Automatic Lock Power/Signal - +24V

There are three levels of resetting an operator. To reset without changing any operating parameters, press \& hold the black reset button (next to the ON/OFF rocker switch) for 6 seconds, until relay "clicks" occur. To reset and restore typical operating parameters (speed, master/ slave, etc.), press \& hold the blue button (on the door control) for 8 flashes of the red LED. To fully reset the unit, eliminating all parameter modifications (including Series 6100/8000 setting), press \& hold the blue button on the control for 9 flashes of the red LED, then immediately remove the jumper between terminals 14 \& 15. After a full reset, the parameter "Entrance System / Door Type" must be changed from "0 Basic Operator" to " 25 USA Low Energy". Additional parameters, including factory settings, will also have to be re-entered. Consult factory for additional details.


STG Parameter Settings . Input/Output > STG > Aux1 Out 2 - Test Sensors


Harness Legend to STG
Red +24V - \#4
Black -0V - \#3
Blue Swing side Stop - \#10
Brown Common - \#11
Green Approach side Reopen - \#12
White Common - \#11
Purple Test - \#9
Purple Test - \#13
After connecting \&
powering on-door sensors, a calibration cycle is required to learn environment.

BEA LZR FLATCANS WIRING DIAGRAM SERIES 8000 SWING

CONTROL TERMINAL BLOCK CONNECTIONS
1 - Approach Sensor - Power/Signal - +24V 2 - Approach Sensor - Signal
3 - Approach Sensor - Power - OV
4 - Guide Rail Beam - Power/Signal - +24V
5 - Guide Rail Beam - Signal
6 - Guide Rail Beam - Power - OV
7 - Remote Switch - Signal
8 - Header Mounted Swing Side Safety - Signal

9 - BodyGuard Data Line - Data +
10 - Door Mounted Swing Side Safety - Signal
11 - Door Mounted Sensors - Power/Signal - +24V 12 - Door Mounted Approach Side Recycle - Signal 13 - Door Mounted Sensors - Power - OV 14 - Fire Alarm Signal (Jumper to 15 if not used) 15 - Fire Alarm - +24V
16 - Door Alarm Relay - N.

17 - Door Alarm Relay - COM
18 - Door Alarm Relay - N.C. 19 - Automatic Lock Power - OV (0.5A Max.) 20 - Automatic Lock Control Relay - N.O. 21 - Automatic Lock Control Relay - COM 22 - Automatic Lock Control Relay - N.C. 23 - Automatic Lock Monitor Signal 24 - Automatic Lock Power/Signal - +24V

There are three levels of resetting an operator. To reset without changing any operating parameters, press \& hold the black reset button (next to the ON/OFF rocker switch) for 6 seconds, until relay "clicks" occur. To reset and restore typical operating parameters (speed, master/ slave, etc.), press \& hold the blue button (on the door control) for 8 flashes of the red LED. To fully reset the unit, eliminating all parameter modifications (including Series 6100/8000 setting), press \& hold the blue button on the control for 9 flashes of the red LED, then immediately remove the jumper between terminals 14 \& 15. After a full reset, the parameter "Entrance System / Door Type" must be changed from "0 Basic Operator" to "25 USA Low Energy". Additional parameters, including factory settings, will also have to be re-entered. Consult factory for additional details.


CONTROL TERMINAL BLOCK CONNECTIONS


17 - Door Alarm Relay - COM
18 - Door Alarm Relay - N.C.
19 - Automatic Lock Power - OV (0.5A Max.) 20 - Automatic Lock Control Relay - N.O. 21 - Automatic Lock Control Relay - COM 22 - Automatic Lock Control Relay - N.C. 23 - Automatic Lock Monitor Signal 24 - Automatic Lock Power/Signal - +24V

There are three levels of resetting an operator. To reset without changing any operating parameters, press \& hold the black reset button (next to the ON/OFF rocker switch) for 6 seconds, until relay "clicks" occur. To reset and restore typical operating parameters (speed, master/ slave, etc.), press \& hold the blue button (on the door control) for 8 flashes of the red LED. To fully reset the unit, eliminating all parameter modifications (including Series 6100/8000 setting), press \& hold the blue button on the control for 9 flashes of the red LED, then immediately remove the jumper between terminals 14 \& 15. After a full reset, the parameter "Entrance System / Door Type" must be changed from "0 Basic Operator" to "25 USA Low Energy". Additional parameters, including factory settings, will also have to be re-entered. Consult factory for additional details.


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 senable from operator
sors is $24 \mathrm{VDC}, 1 \mathrm{~A}$.

SERIES 8000/8500 WIRING DIAGRAM with RC SWING CANbus On Door Sensors

Dec 2018 BG

