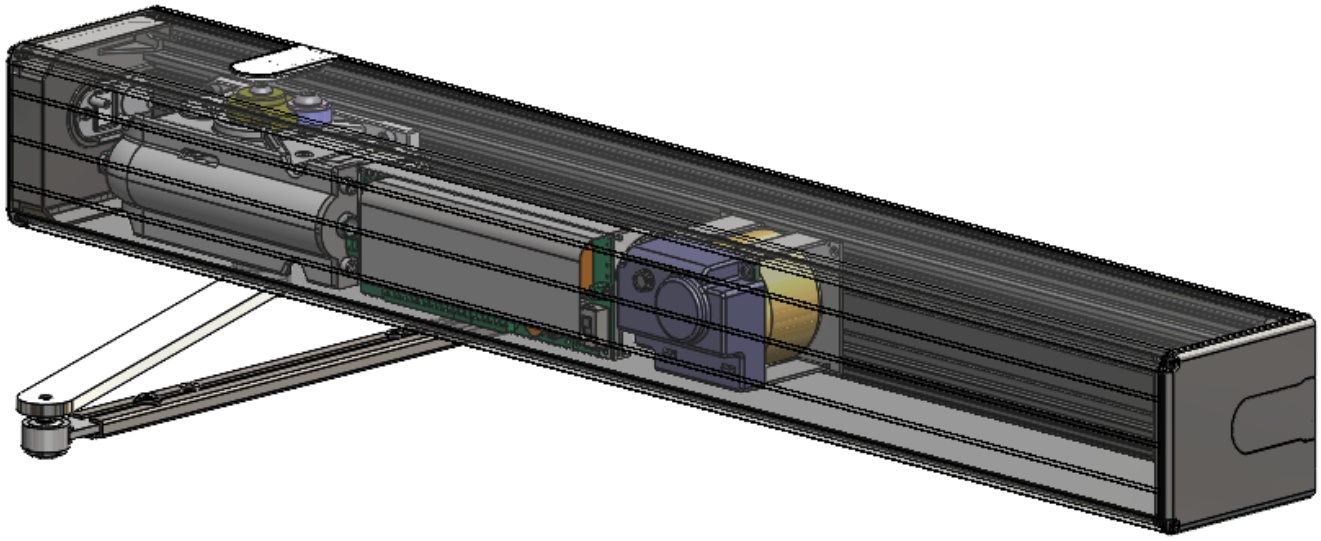
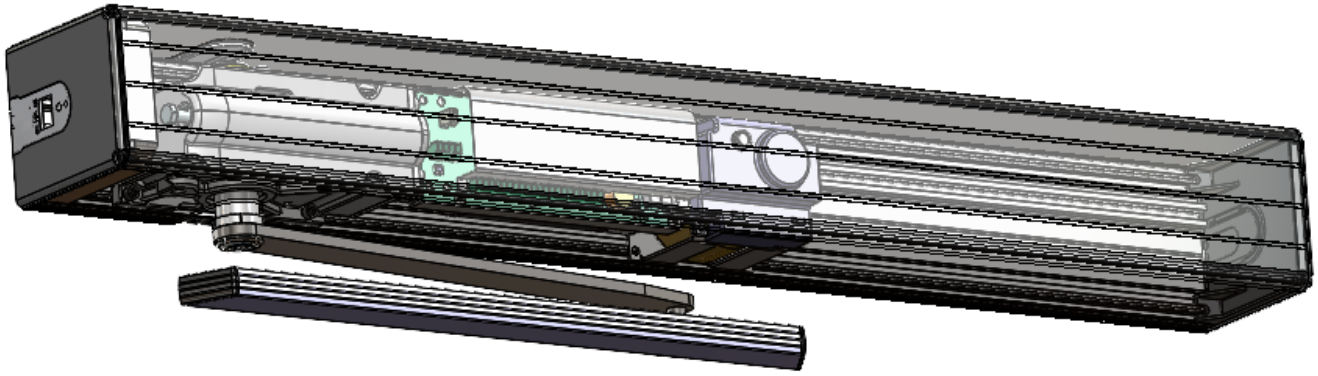
# 8000/8100/8200 Series Swing Door Operator Installation Instructions



A copy of the Installation Manual has been provided with your order.
For additional copies, please download and print from;
recorddoors.com>documents>8100



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

# 8000/8100/8200 Series Swing Door Operator
# Installation Instructions

The record-usa 8000/8100 Operator 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.

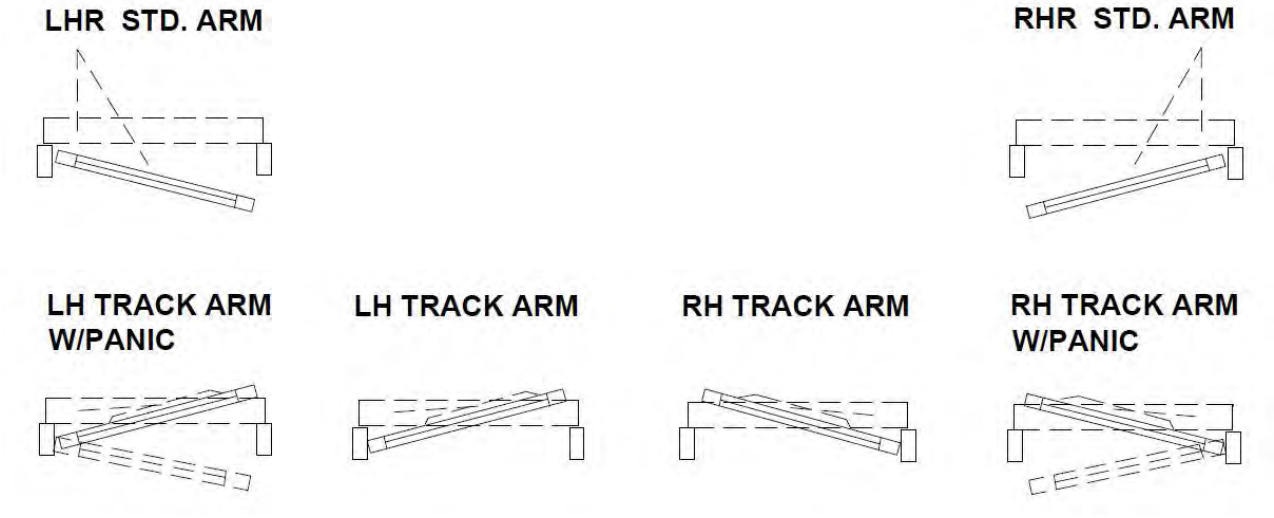
OWNER INFORMATION TO BE PROVIDED BY THE DISTRIBUTOR / INSTALLER

* 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 attaching arms.**
**Special attention needs to be given to installations with parallel and slide arms when an adjacent wall is perpendicular to the door frame.**

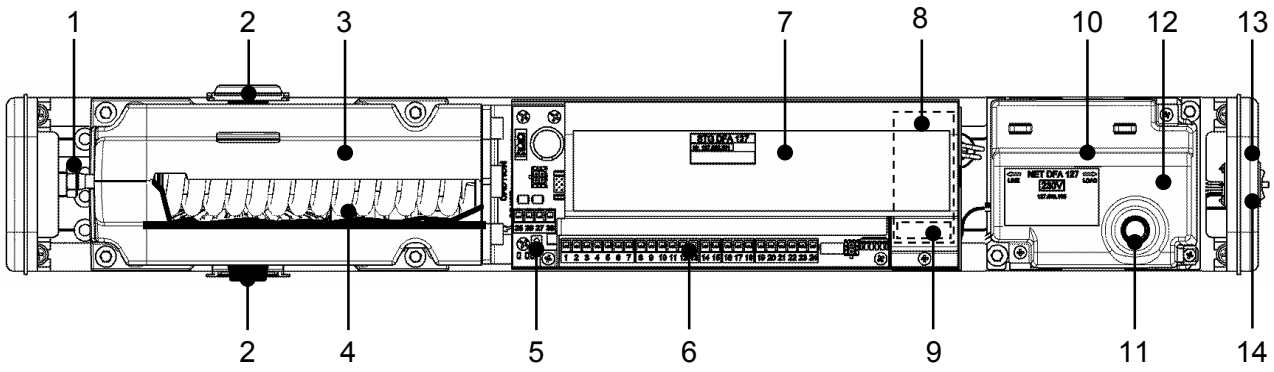
## INDEX

## OPERATOR HANDING IDENTIFICATION




## Product Description

The record Series 8100 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

**Drive Arms**

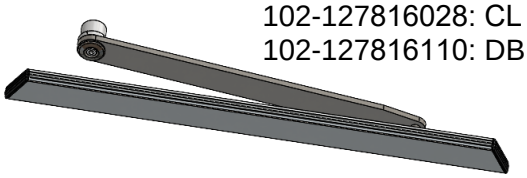
Three types of drive arms are available:

The Standard Arm provides the most flexibility –
- Outswing (push) reveals to 12"
- Inswing (pull) reveals up to 6"

102-127815969: CL
102-127816107: DB

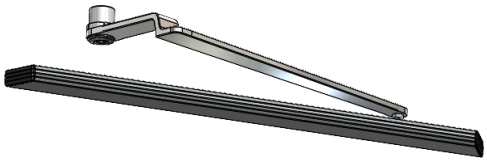
The Slide Track Arm –
- Inswing (pull) reveals to 6"
- Outswing (push) reveals to 3"

102-127816028: CL
102-127816110: DB



The Offset Slide Track Arm –
- Suitable for center-pivoted doors with breakout capability;
- Allow double-egress installations in a common header.

| Right Hand | Left Hand |
|---|---|
| 102-127816079: CL | 102-127816078: CL |
| 102-127816112: DB | 102-127816111: DB |



An extension adapter is included with each arm assembly, connecting the drive arm to the operator output shaft. The Standard Arm is provided with a 35mm adapter which mounts the drive arm approximately 1-1/8” below the bottom of the header. The Slide Track Arm includes a 20 mm adapter, mounting the drive arm approximately 1/2” below the bottom of the header. Optional adapters are available that will increase the distance below the header to approximately 1-3/4” (50mm - P/N 102-127816016/102-127816087)(CL/DB), or approximately 3” (80mm - P/N 102-127816017/102-127816089). For double-egress installations, a standard arm, offset arm a 50mm adapter for the standard arm will be provided, accommodating a double-rabbet frame.

Layouts for the different arm / installation configurations are attached. Check the arm assemblies prior to unit installation and verify dimensions and clearances.

**Instructions to the Installer**

This unit is to be installed and commissioned by a trained technician with knowledge of ANSI A156.10 and A156.19 Standards for Power Operated Doors, applicable local codes, and record-USA installation recommendations.

After installation, verify the door can be opened without power applied, and the force required to open the door does not exceed 50 pounds-force (222 N).

**Information to provided to the owner**

The Owners Manual with training and explanation of the daily safety check.
Location of the operator control panel (On / Off / Hold Open).
Specific information pertinent to the proper operation of the installation.

**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 requirements — 115 VAC, 60 Hz, 15 Amp Service.

**Mechanical Installation**

The door panel must move freely throughout its entire opening and closing rotation. The door frame must provide a stable base, structurally sufficient to support automatic operation. Typically the operator baseplate will overlap the door jambs by 1-1/2".

Verify the installation conditions and select the arm configuration that most closely matches the installation. As a general rule, the operator output shaft will mount 4" away from the hinge jamb, measured parallel to the closed door. The door mounted foot on a Standard arm assembly will typically mount 18" from the hinge jamb. For Slide Track arm assemblies, the door mounted track will mount with one end located 4" from the hinge jamb.
Consult the attached layout drawings for additional details.

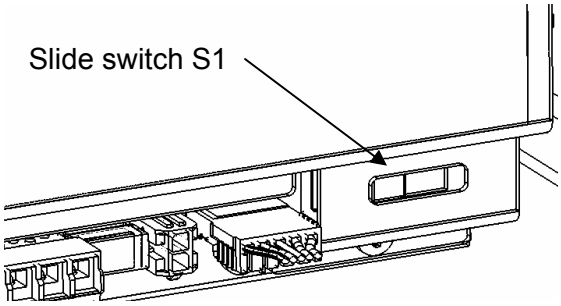
Securely attach the unit baseplate to the door frame; Hex Head Tek Screws are included - #14 X 2” for unit mounting to door frame, and #10 X 1-1/2” for Arm mounting to door.

Typically, the drive arm is attached to the operator with the unit in the closed position. Additionally, the arm is positioned on the splined output shaft with a slight pre-load, pushing the door against the door closed stop. The spline provides incremental adjustment of 6°; typically, one spline index for pre-loading is sufficient.
The drive arm is attached to the lower operator output shaft using the extension adapter supplied with the arm assembly. Consult the appropriate arm configuration for proper arm positioning on the shaft (The most common application – an outswing / push configuration using the Standard arm assembly – has the drive arm mounted to the shaft perpendicular to the closed door.) When securing the arm on the shaft, insure the extension adapter has seated properly on the shaft spline. If not seated correctly, slippage of the arm on the shaft may occur. For Track arms, install the arm with the outer end of the arm against the closed door. Do not tighten the bolt; using the arm, pull the operator open and during the slow, controlled closing, insure the splines seat correctly and tighten the 6mm socket head bolt.
Verify all fasteners are securely tightened.

**Operator Swing Direction**

If the operator does not close slowly (with either arm), 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.

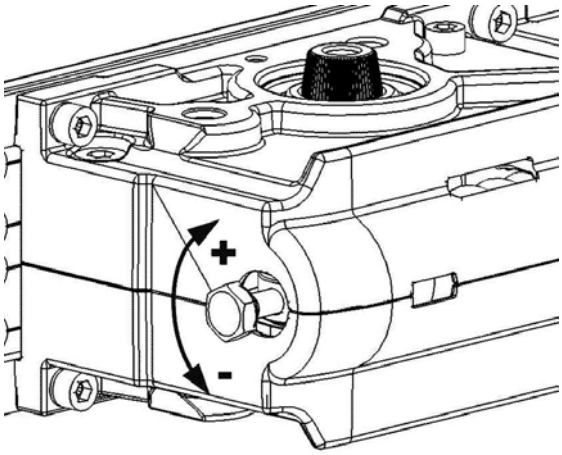



**Closing Spring Adjustment**

The closing force provided by the spring is adjustable.

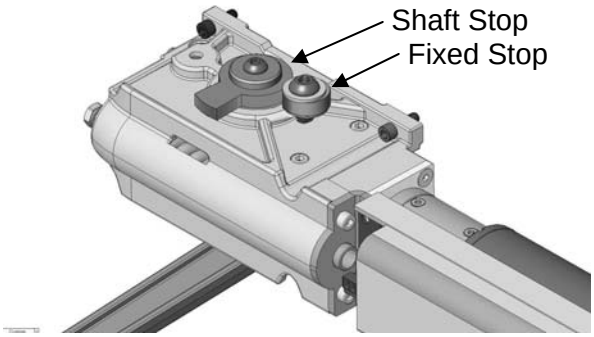
Do not adjust the force so low that the door will not consistently close under spring power.

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.



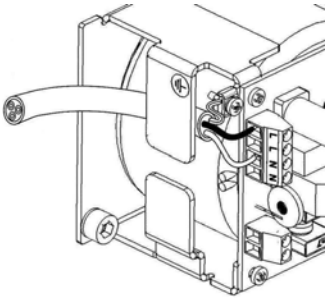
**Open Stop**

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° 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 parameter “Drive / Opening angle” (using an FPC902 Hand Terminal or a Display Control Panel).

**Power Supply Connection**



Connect 115VAC, 60 Hz, 10A, 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.

The **multifunction pushbutton on main control** can be used for the following functions:

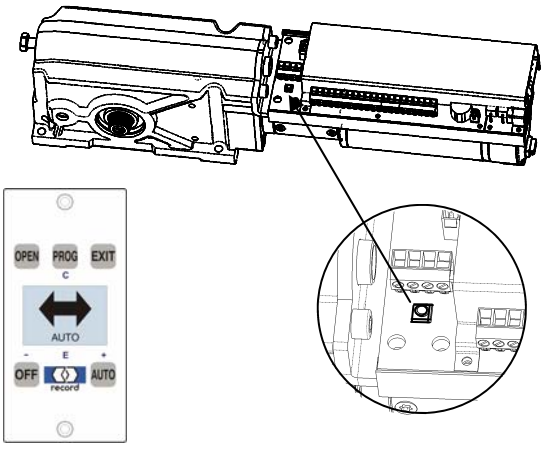
1 flash of the red LED will actuate a standard open cycle (if the rocker switch is on).

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. (If on board)**

8 flashes of the red LED will reset the unit’s parameters to factory defaults.

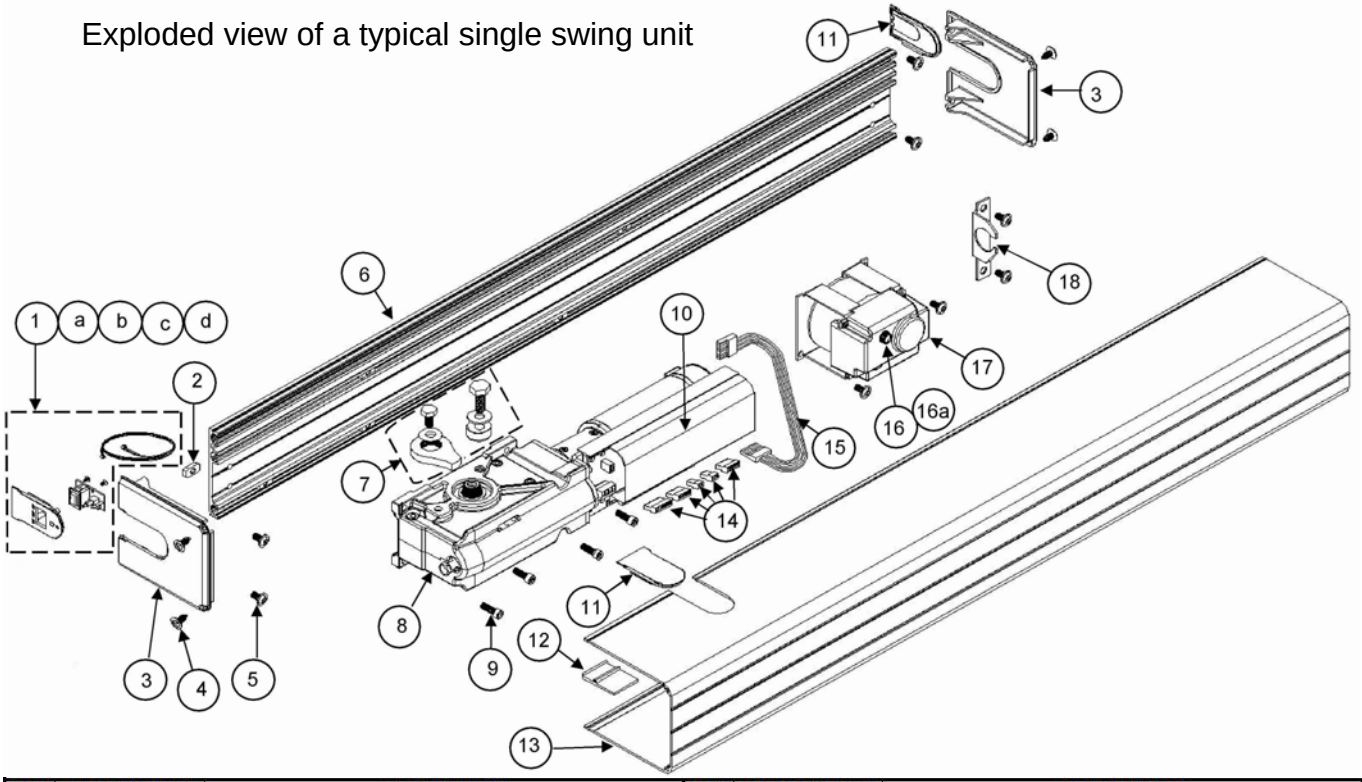
15-17 flashes will cause the unit to reset without affecting any of the field set parameters.



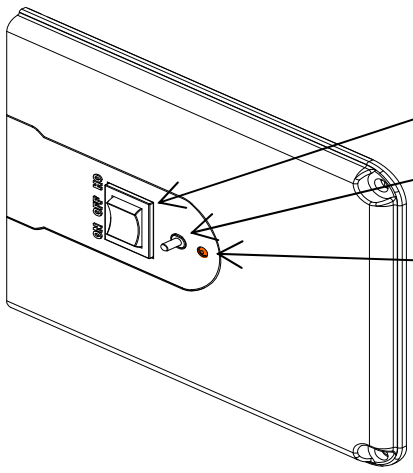

- **+ = Scroll down - = Scroll up**
- **E = Enter or Select C = Clear or Cancel**

**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.**

Exploded view of a typical single swing unit




| ITEM | PART NUMBER | DESCRIPTION | ITEM | PART NUMBER | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 4-80-0802 | KIT, ROCKER SWITCH, CABLE, INSERT, & SCREWS | 11 | 6-80-9003 | INSERT, PLAIN, COVER & END CAP |
| 2 | **9-99-3507** | **NUT, SQUARE, 1/4-20** | 12 | 6-80-9002 | INSERT, SHAFT CUTOUT, COVER |
| 3 | 6-80-9001 | END CAP, COVER | 13 | 5-80-4003 | COVER, 6100/8100 CL-DB |
| 4 | 81-3114-0412-DB | SCREW, 8x1/2" Ph. PH SMS BL OXIDE | 14 | 4-80-0801 | KIT, ELECTRICAL CONNECTORS, J1 - J6 |
| 5 | 81-0017-2658 | SCREW, 1/4-20X3/8" ALLEN BH BL OXIDE | 15 | 9-80-0010 | HARNESS, ENCODER |
| 6 | 5-80-4001-MF | PLATE, OPERATOR MOUNTING, 6100/8100 | 16 | 9-99-1902 | FUSE CAP |
| 7 | 9-80-0103 | MOUNTING SET, HARD STOP ADAPTOR | 16a | 9-99-1940 | FUSE, 2.5 A, 5mm X 20mm |
| 8 | 9-80-0101 | DRIVE MODULE, SERIES 8000 OPERATOR | 17 | 9-80-0102 | POWER SUPPLY, 6100/8100 |
| 9 | 81-0014-2666 | SCREW 1/4-20X3/4" ALLEN BH, BLK OXIDE | 18 | 4-80-1001 | BRACKET, CONDUIT ANCHOR |
| 10 | 9-80-0108 | CONTROL, SERIES 6100/8100 OPERATOR | 19 | 9-80-0009 | HARNESS, POWER SUPPLY TO CONTROL (not shown) |




The Series 8000 Standard Rocker Switch Control Panel includes:

3 Position Rocker Switch - ON / OFF / OPEN

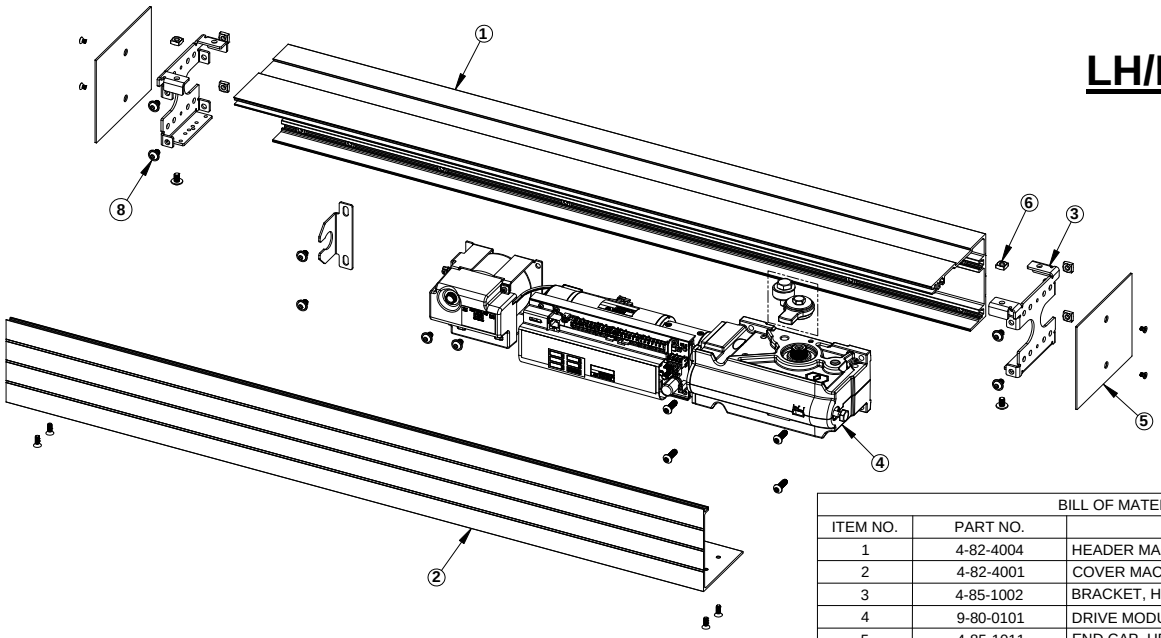
Pushbutton - To reset the operator, press and hold for 8 seconds

LED (red) - Normally off; flashing indicates either the unit is performing a calibration run, or an error has been encountered.

To clear an error, press & hold the pushbutton for approximately 8 seconds, or until the LED turns off.

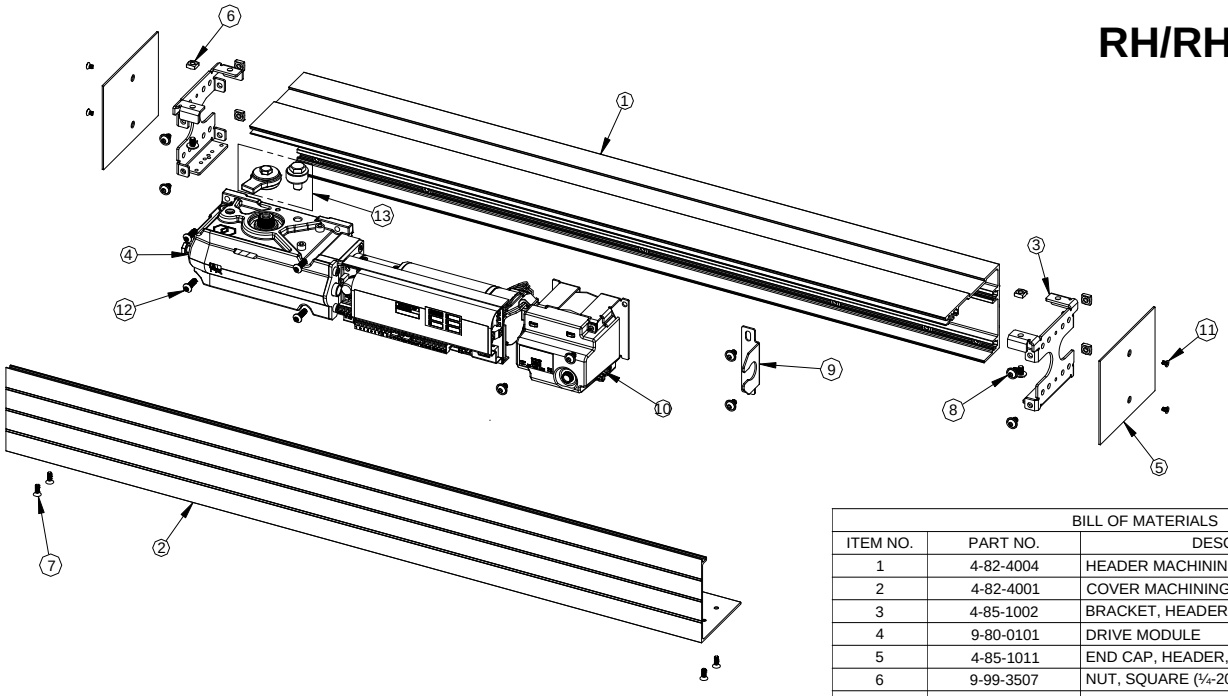
# 8200 SINGLE UNITS

## LH/LHR




| BILL OF MATERIALS | | | |
|---|---|---|---|
| ITEM NO. | PART NO. | DESCRIPTION | QTY. |
| 1 | 4-82-4004 | HEADER MACHINING | 1 |
| 2 | 4-82-4001 | COVER MACHINING | 1 |
| 3 | 4-85-1002 | BRACKET, HEADER-TO-JAMB | 2 |
| 4 | 9-80-0101 | DRIVE MODULE | 1 |
| 5 | 4-85-1011 | END CAP, HEADER, BLANK | 2 |
| 6 | 9-99-3507 | NUT, SQUARE (¼-20) | 14 |

## RH/RHR

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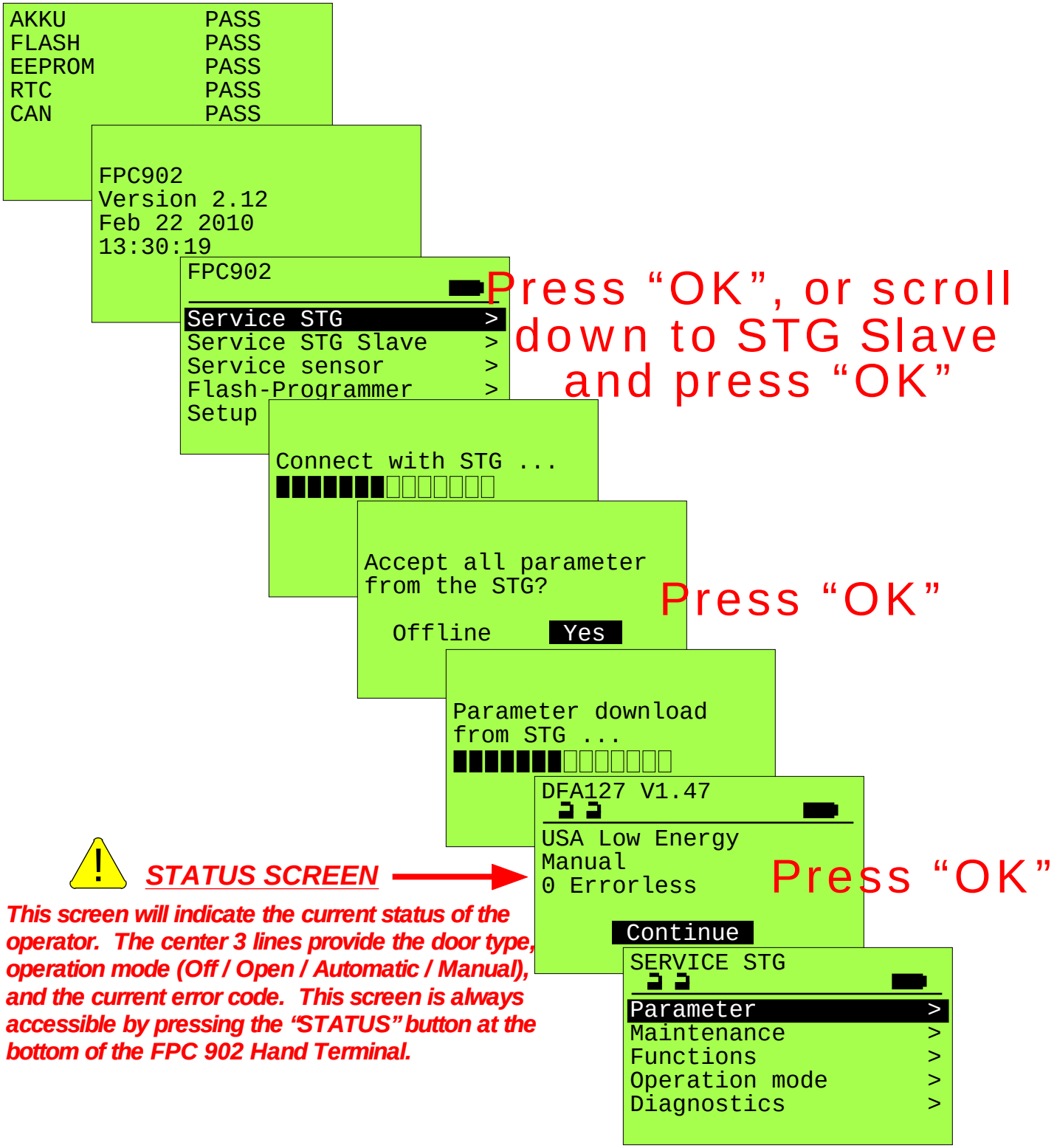
| 5 | 4-85-1011 | END CAP, HEADER, BLANK | 2 |
| 6 | 9-99-3507 | NUT, SQUARE (¼-20) | 14 |

## Servicing the Series 6100 & 8000 with the FPC-902 Hand Terminal

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.

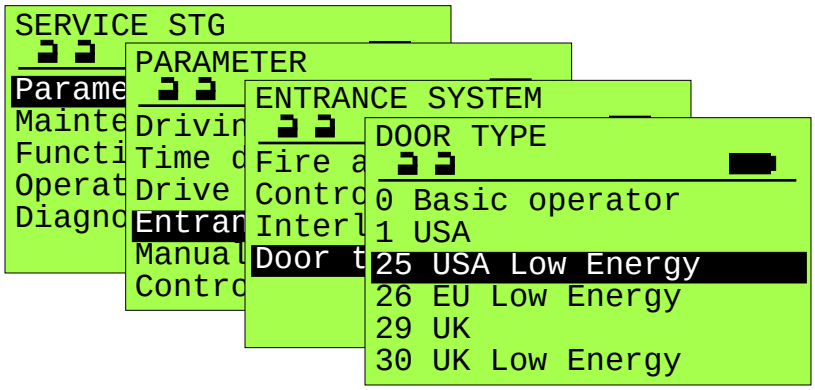



***This screen will indicate the current status of the operator. The center 3 lines provide the door type, operation mode (Off / Open / Automatic / Manual), and the current error code. This screen is always accessible by pressing the "STATUS" button at the bottom of the FPC 902 Hand Terminal.***

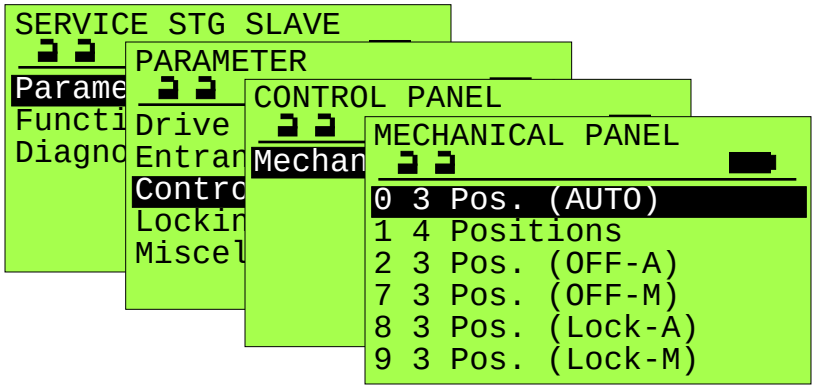
The following page indicates suggested parameter configurations for a typical installation. For a detailed description of all parameters, consult the instructions provided with the FPC902.

The following documents the suggested sequence of programming the operator:

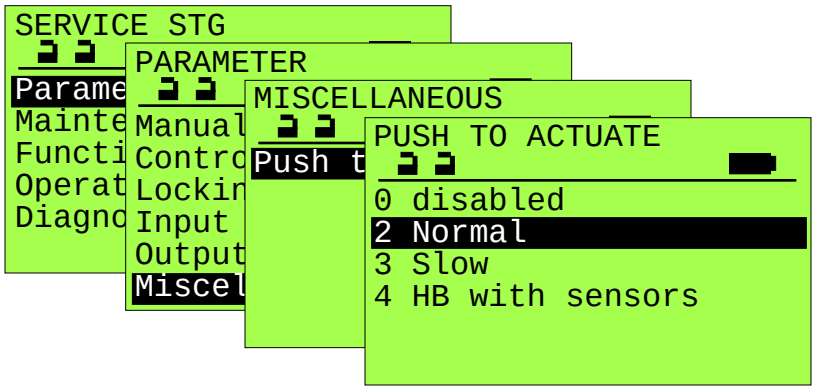
The Series 8000 is shipped configured for a combination operation designated as “USA Low Energy”. If manual operation of the door is not desired (with 120VAC power present), this should be changed to “USA”, as shown in the sequence at right.



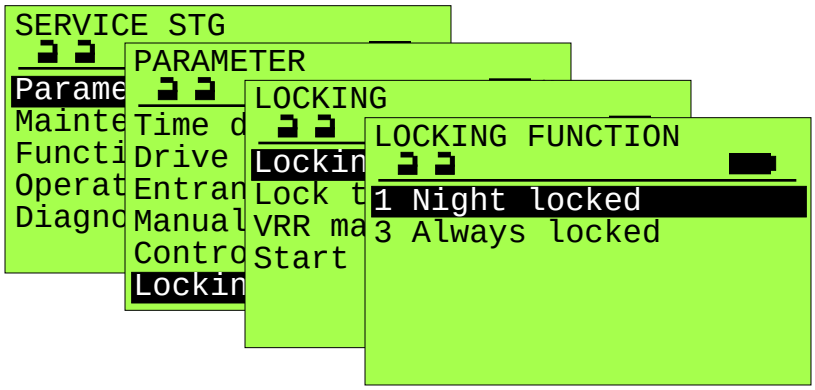

If a pair of operators are to be operated simultaneously, and only one rocker switch is to be used, it should be connected to the master control, and the slave control must be set as shown at right, allowing it to function without a rocker switch.




If automatic operation in response to pushing the door is desired (Push-To-Start), 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.



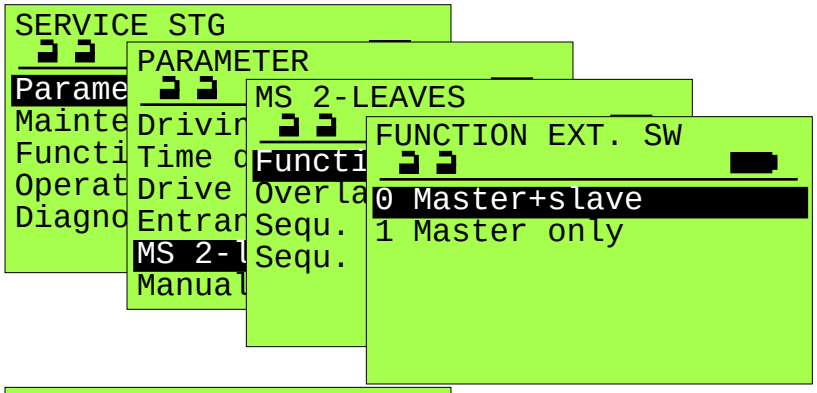

The unit is defaulted to include support for an automatic lock. If one is not provided, select the “Locking” parameter, then “Locking Functions”, and change from “3 Always locked” to “1 Night locked” to eliminate the delay before opening.



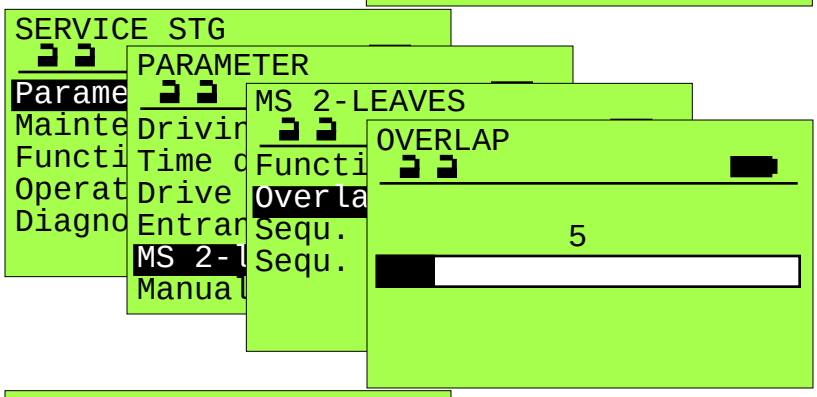

The unit(s) are now ready to be placed into operation. Turn the control panel “on”, press and hold the Control Button on the door control for 3 blinks of the adjacent LED. This will initiate a calibration cycle of the operator. After a few seconds the operator should open slowly, with a short pulse during mid-opening. It should be allowed to complete this cycle without interruption.
Note: Calibration must be performed individually on both operators of a pair. See page 10.

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.

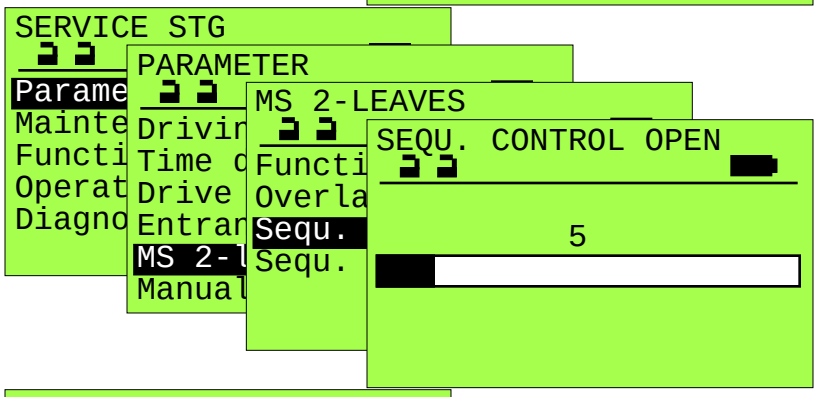
## Screens Available when synchronizing two operators
## Both Simultaneous Pairs and Double Egress



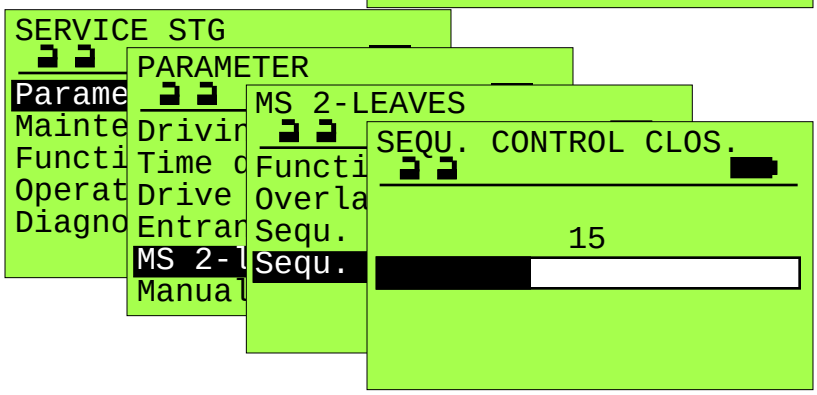

This is automatically set by the controls upon reading the Master / Slave jumper block (J13) on the controls.




This sets the lead time and lag time between operation of the master and slave operators, useful with an over-lapping astragal. When set above 0, the Master begins opening before the slave and will stop 10° before fully closed, allowing the slave to close first. When set to 0, operation is simultaneous.




This adjusts a delay time between when the master operator begins opening and when the slave begins. Closing will not be affected. When set to 0, operation is simultaneous.




This adjusts a delay time between when the slave operator begins closing and when the master begins closing. Opening will not be affected. When set to 0, operation is simultaneous.

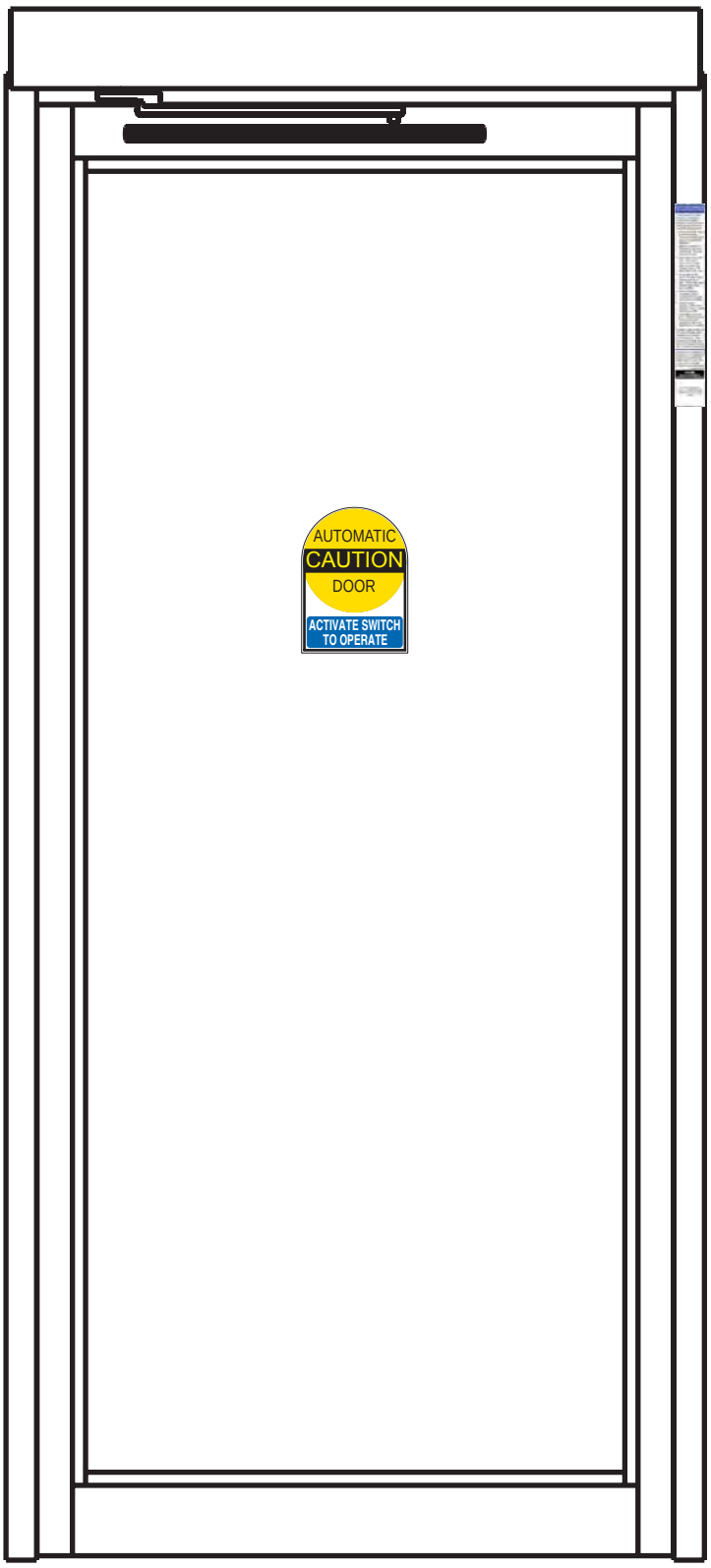
When ordered as a dual synchronized pair or a double egress, the operators are factory wired and parameters preset. If any changes are made, the following setup sequence is suggested - Insure Jumper J14 is set to M1 on the master unit and set to S1 on the slave unit. Apply power to both units, then press and hold the blue Control button on the master control for 8 flashes of the red LED (reset to factory defaults). Next press and hold the Control button for 8 flashes on the slave control. Return to the master unit and press & hold the Control button for 3 flashes of its red LED (initiate a calibration run). Finally, press & hold the button for 3 flashes on the slave control. The units should now be configured for synchronous operation, and with the above parameters set to 0 providing simultaneous operation. Note: If only one rocker switch is used, it is to be connected to the master control, and the slave control parameter CONTROL PANEL / MECHANICAL PANEL should be set to 0 3 Pos. (AUTO).


Full Power & Low Energy
“Knowing Act” doors


Full Power - Swing
Side, 2-Way Traffic;
Low Energy - Sensor
Activation


Full Power
Approach Side


Full Power
Non-Approach Side




Daily Safety
Check locate
below control
panel

8-92-3017 Auto Swing
Full Power Only
8-92-3030 LE Swing
Low Energy Only

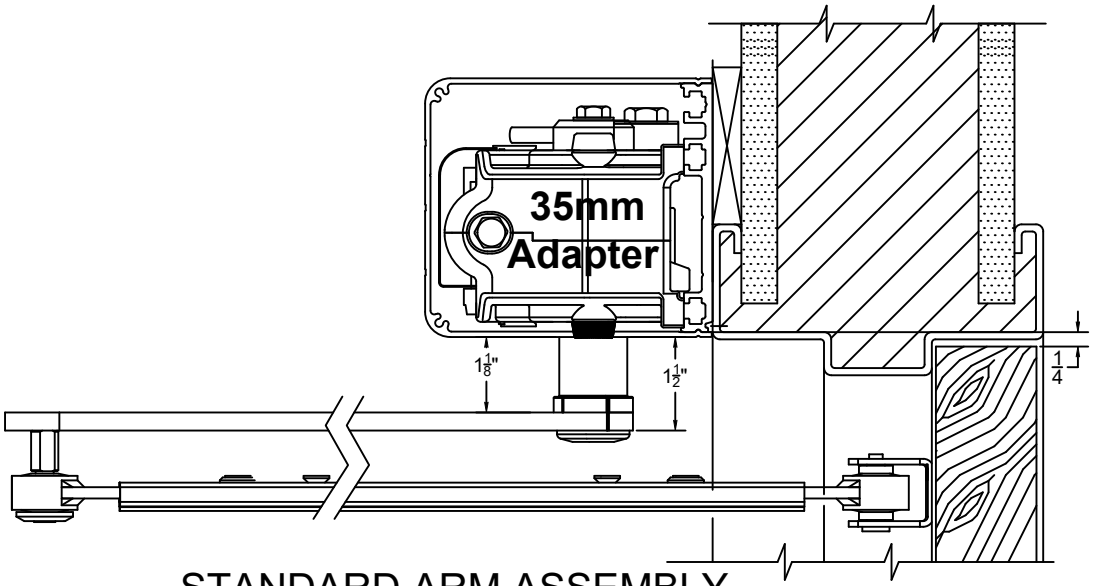
58”
±5”

# SAFETY DECAL REQUIREMENTS

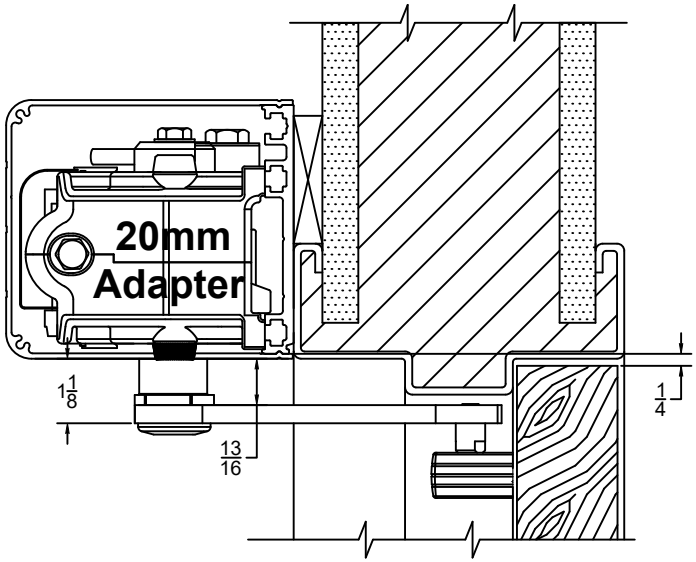
APR2020

record-USA
4324 Phil Hargett Ct.
Monroe, NC 28110
(704) 289 - 9212

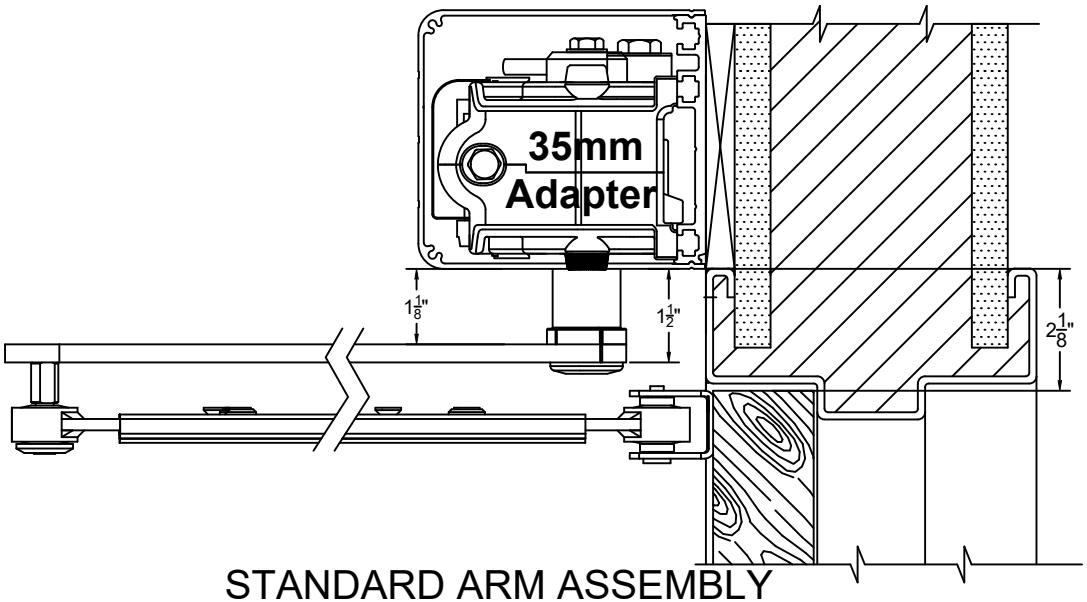
# SERIES 6100 / 8100 ARM CONFIGURATIONS
## VERTICAL LOCATIONS AND DIMENSIONS



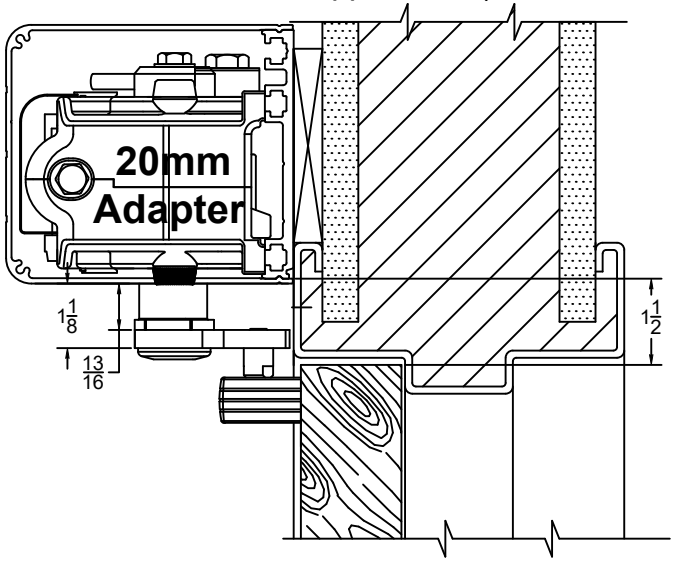

STANDARD ARM ASSEMBLY
OUTSWING CONFIGURATION




SLIDE TRACK ARM ASSEMBLY
OUTSWING CONFIGURATION
(Not recommended for heavy doors &/or abusive installations. Not recommended for exterior applications)




STANDARD ARM ASSEMBLY
INSWING CONFIGURATION

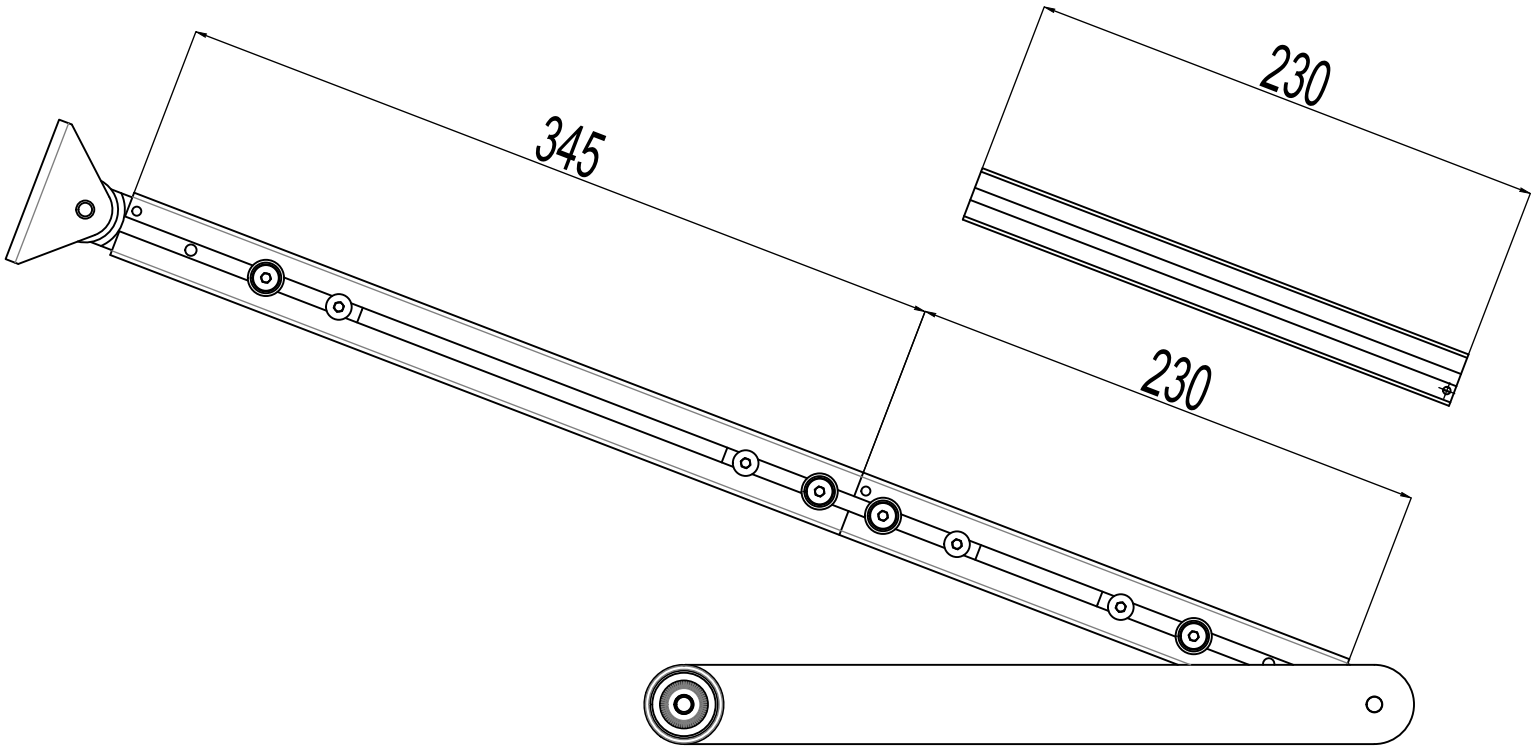



SLIDE TRACK ARM ASSEMBLY
INSWING CONFIGURATION

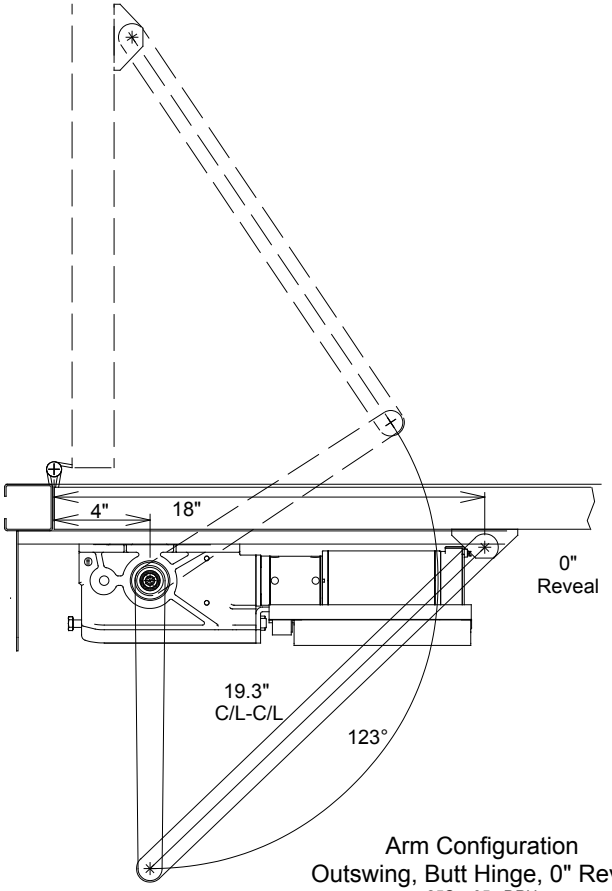
FOR DOUBLE-EGRESS INSTALLATIONS, CONSULT PAGE 20 OF THE INSTALLATION MANUAL

MAR'22

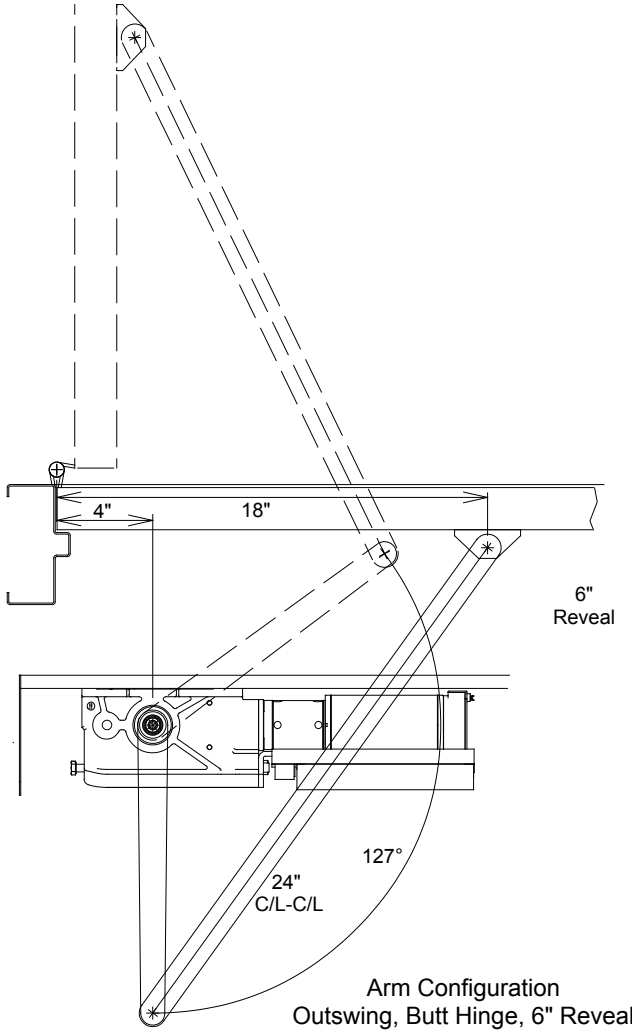
| Standard Arm Extension Configurations | | | | |
|---|---|---|---|---|
| **Standard Arms (CL/BL)** | **Extensions (230/345 mm)** | **Reveal Min. [in./mm]** | **Reveal Max. [in./mm]** | **Reveal Range [in./mm]** |
| Standard Arm (102-127815969/102-127816107) | 345 | 0 | 0.86 / 22 | 0.86 / 22 |
| | 230 + 230 | 0.86 / 22 | 6.65 / 169 | 5.78 / 147 |
| | 230 + 345 | 6.6 / 169 | 11.9 / 303 | 5.2 / 134 |



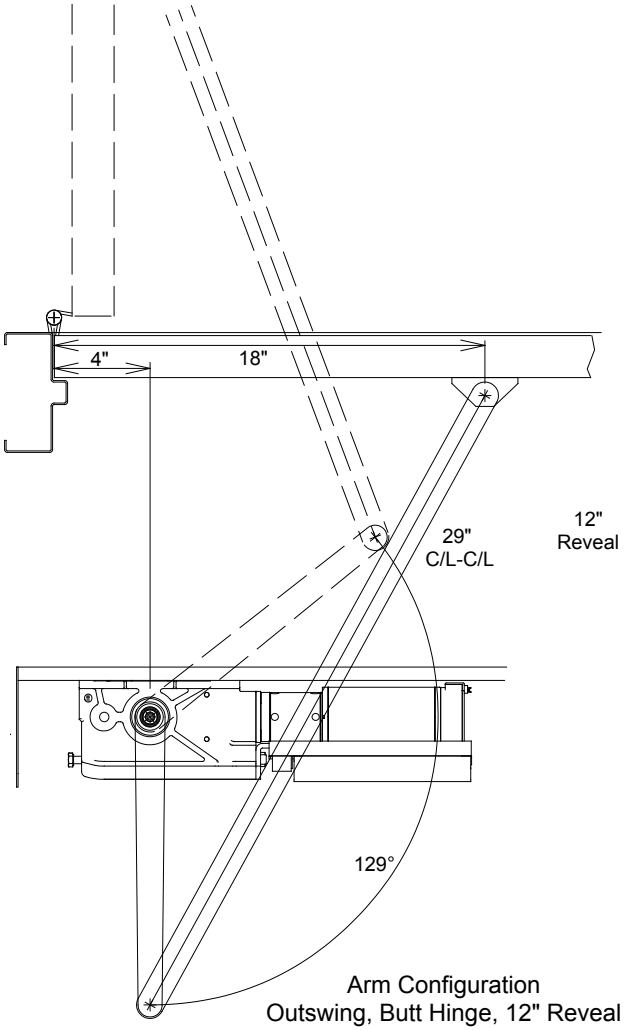
record



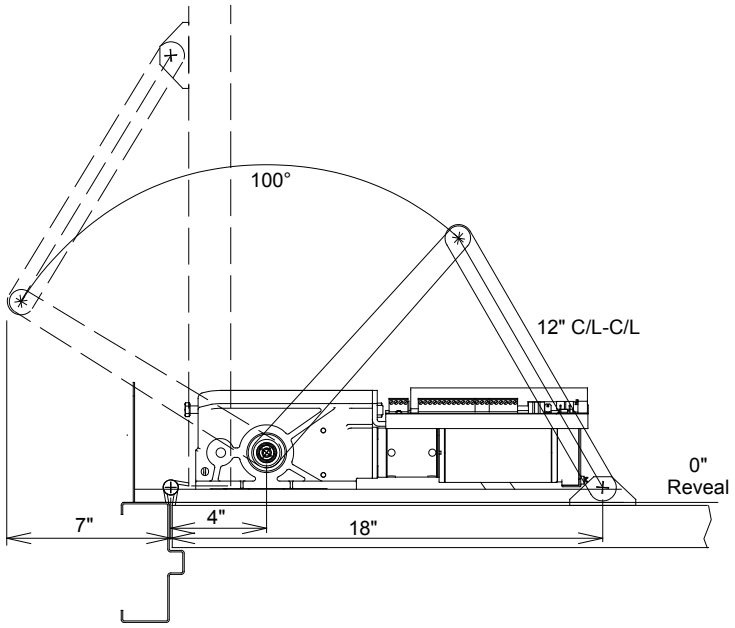

Arm Configuration
Outswing, Butt Hinge, 0" Reveal
25Sep05 DPH



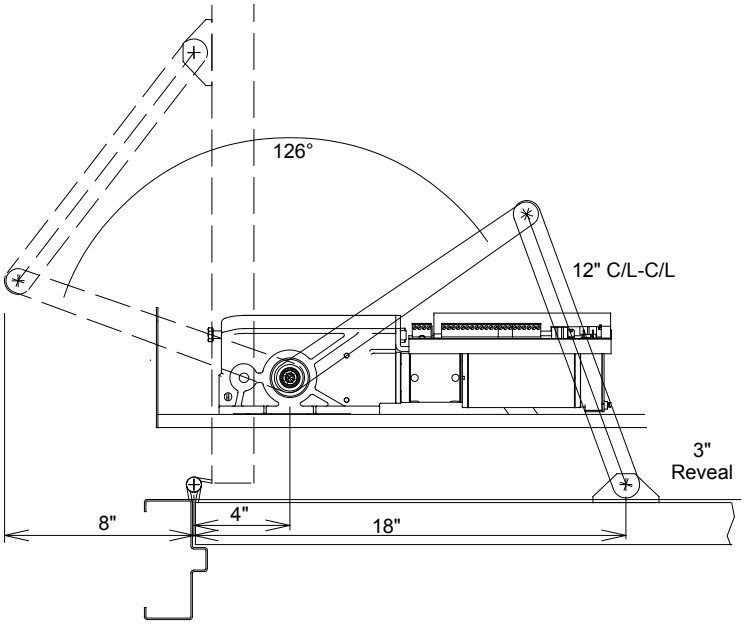

Arm Configuration
Outswing, Butt Hinge, 6" Reveal
25Sep05 DPH



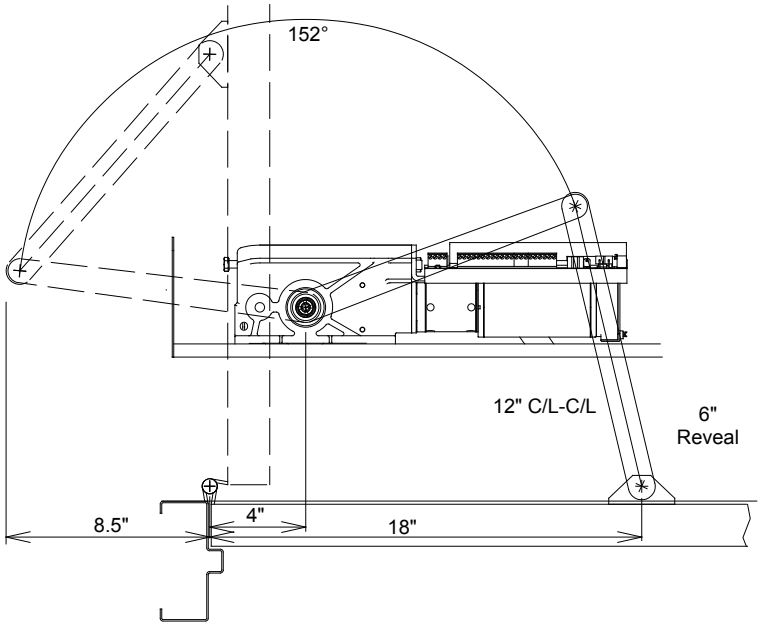

Arm Configuration
Outswing, Butt Hinge, 12" Reveal
25Sep05 DPH



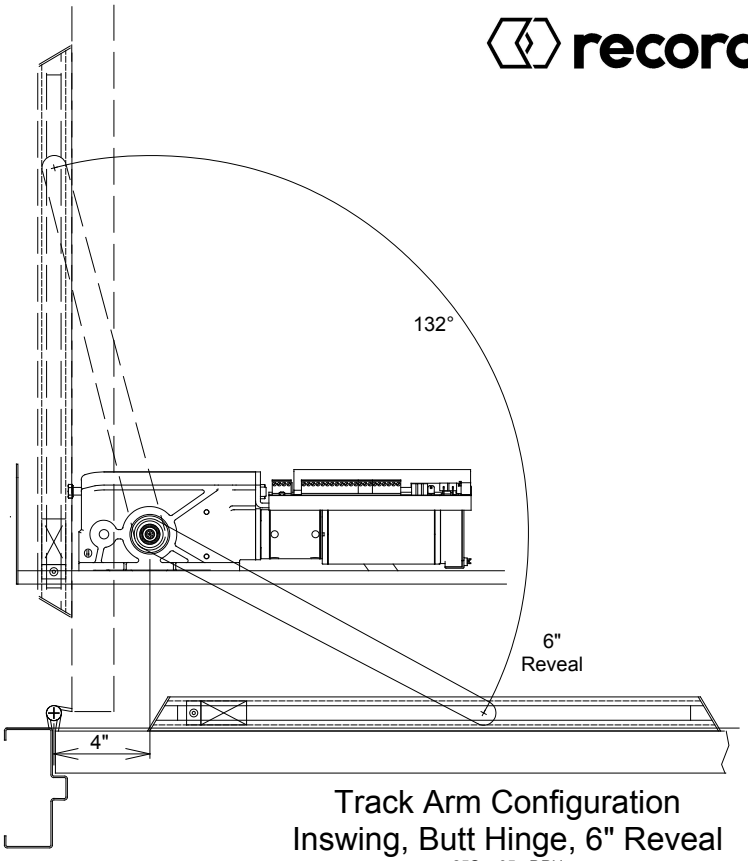

Arm Configuration
Inswing, Butt Hinge, 0" Reveal
25Sep05 DPH



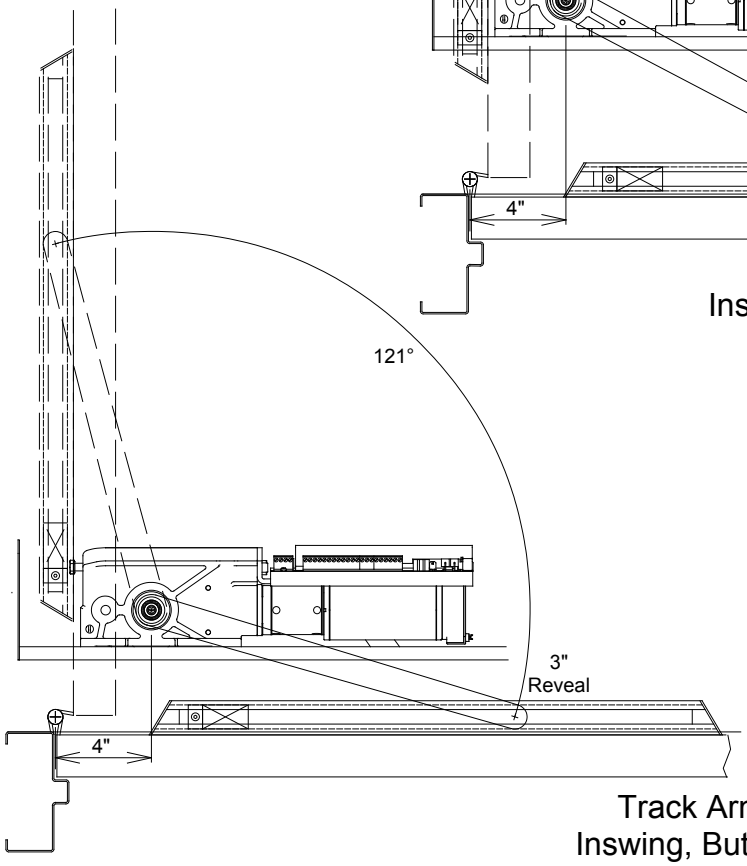

Arm Configuration
Inswing, Butt Hinge, 3" Reveal
25Sep05 DPH



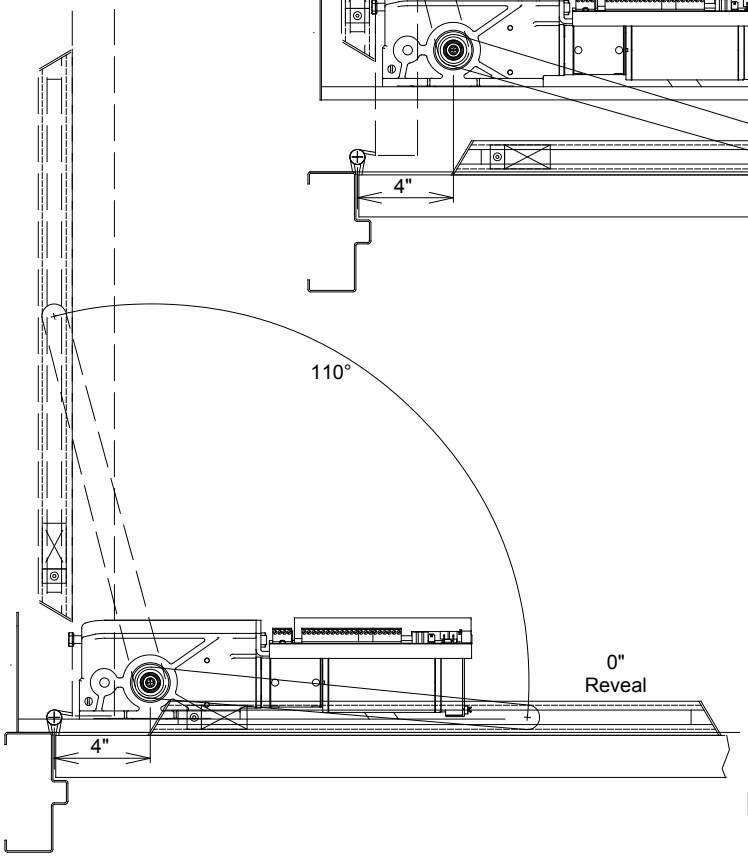

Arm Configuration
Inswing, Butt Hinge, 6" Reveal
25Sep05 DPH



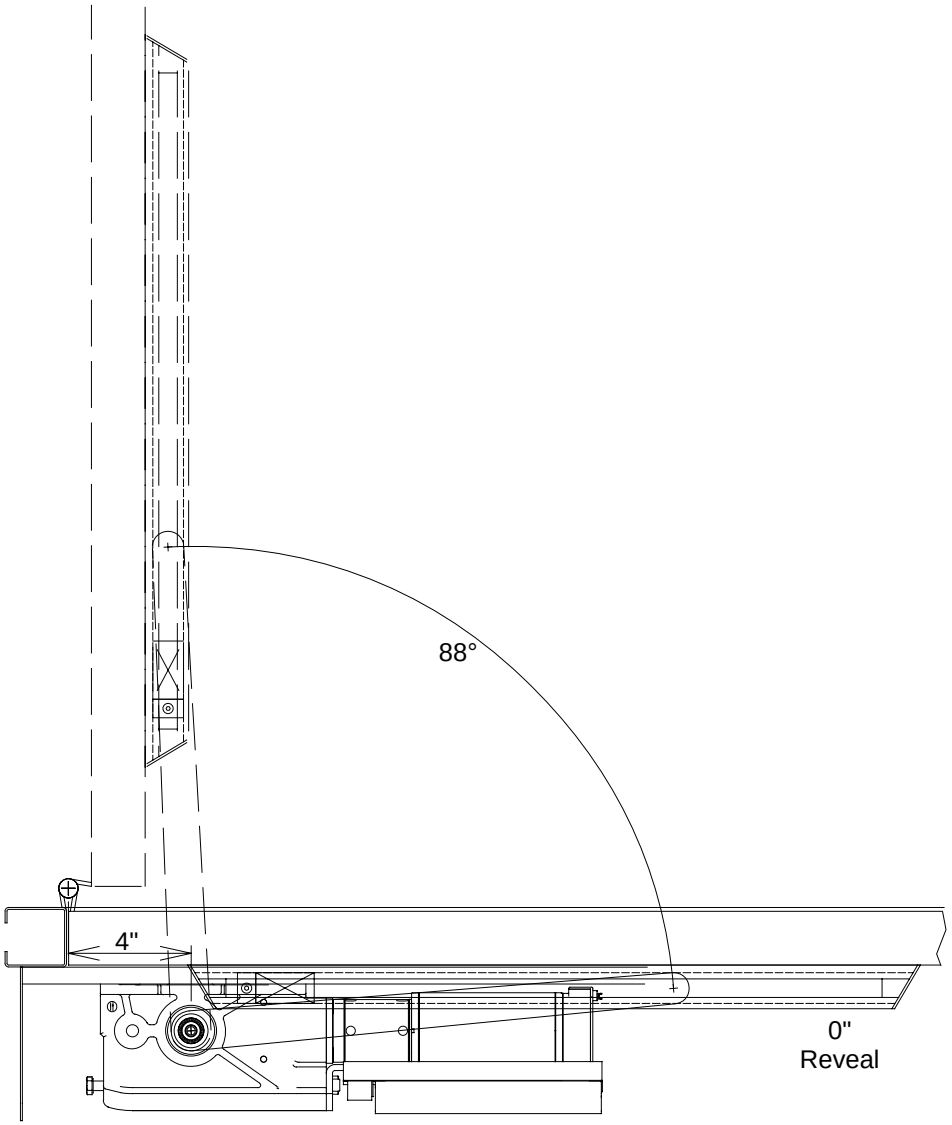

Track Arm Configuration
Inswing, Butt Hinge, 6" Reveal
25Sep05 DPH



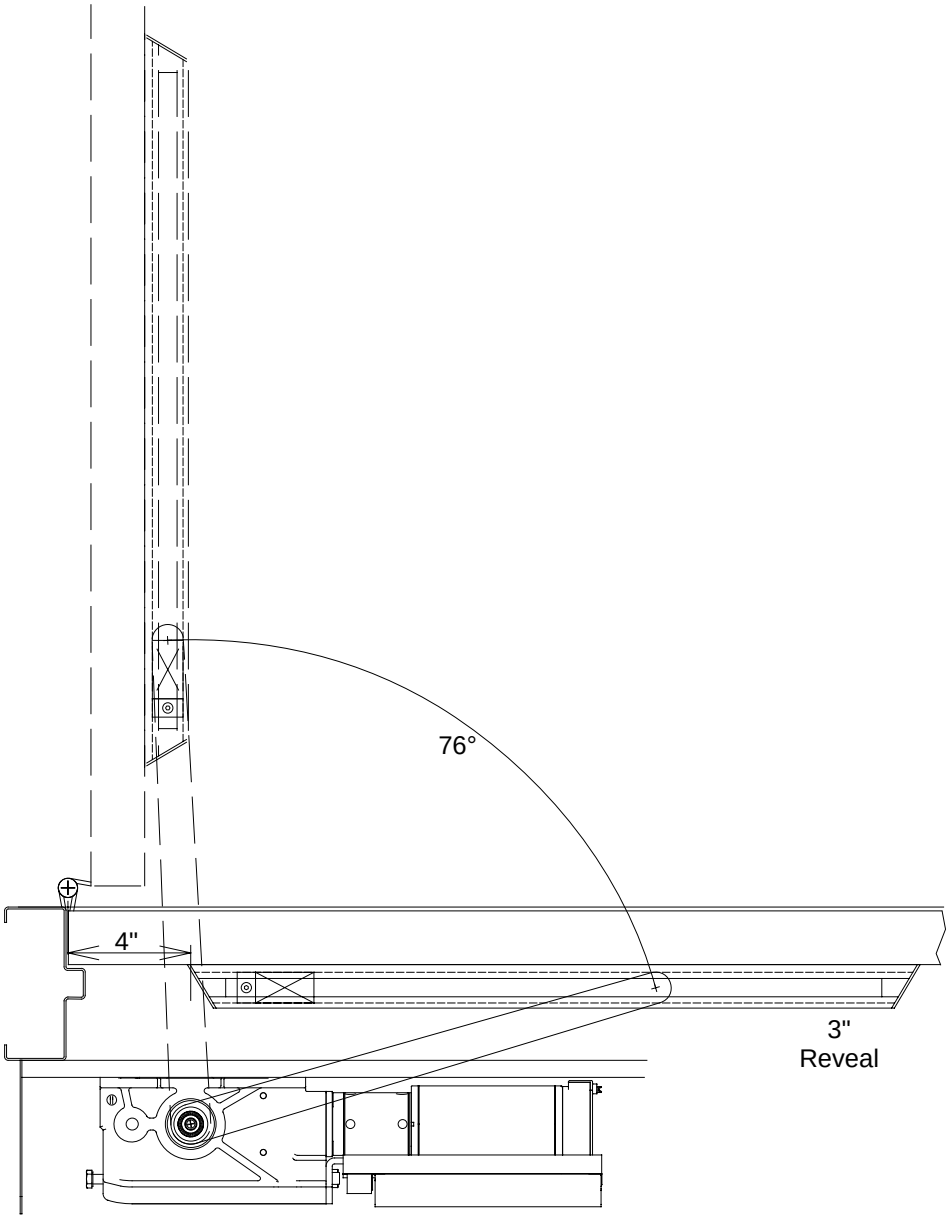

Track Arm Configuration
Inswing, Butt Hinge, 3" Reveal
25Sep05 DPH




Track Arm Configuration
Inswing, Butt Hinge, 0" Reveal
25Sep05 DPH

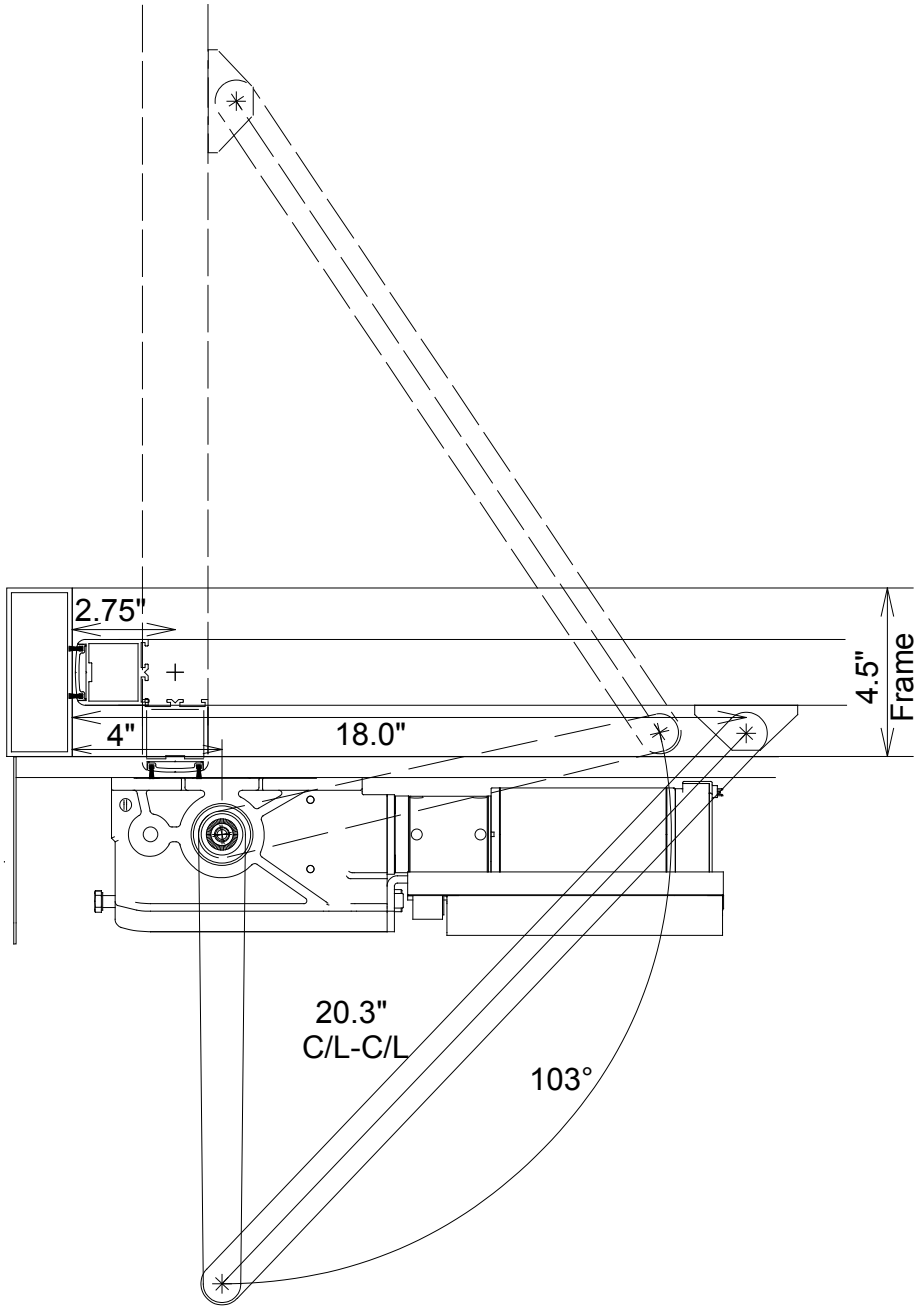



Track Arm Configuration
Outswing, Butt Hinge, 0" Reveal
25Sep05 DPH

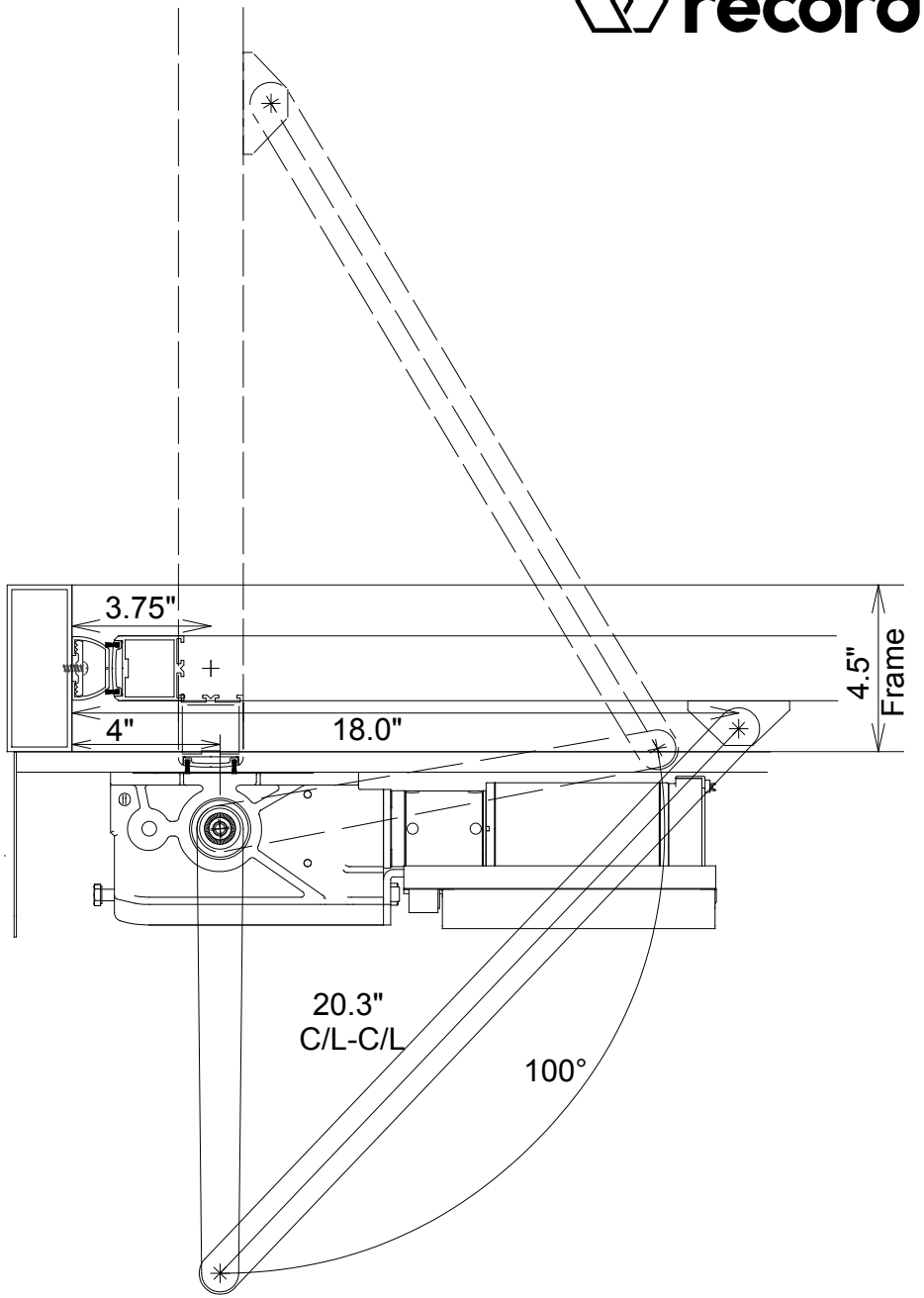



Track Arm Configuration
Outswing, Butt Hinge, 3" Reveal
25Sep05 DPH

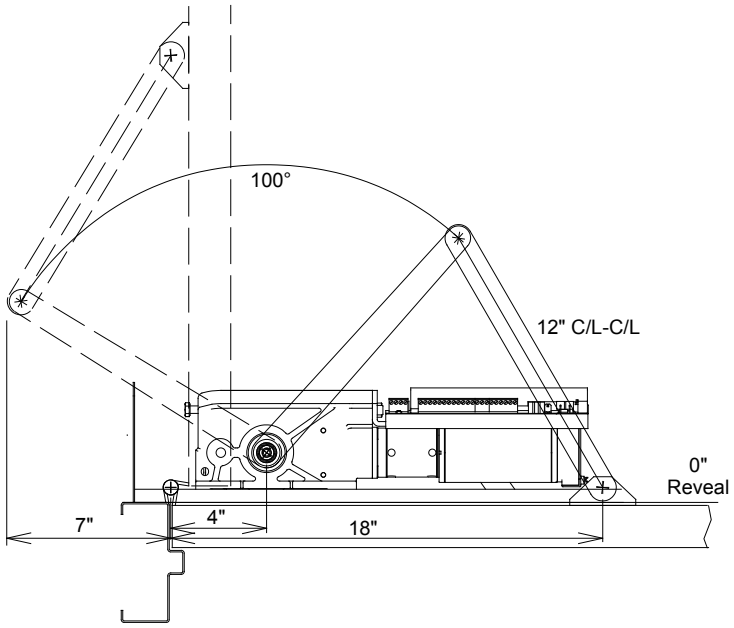
Not recommended for heavy doors and/or abusive installations



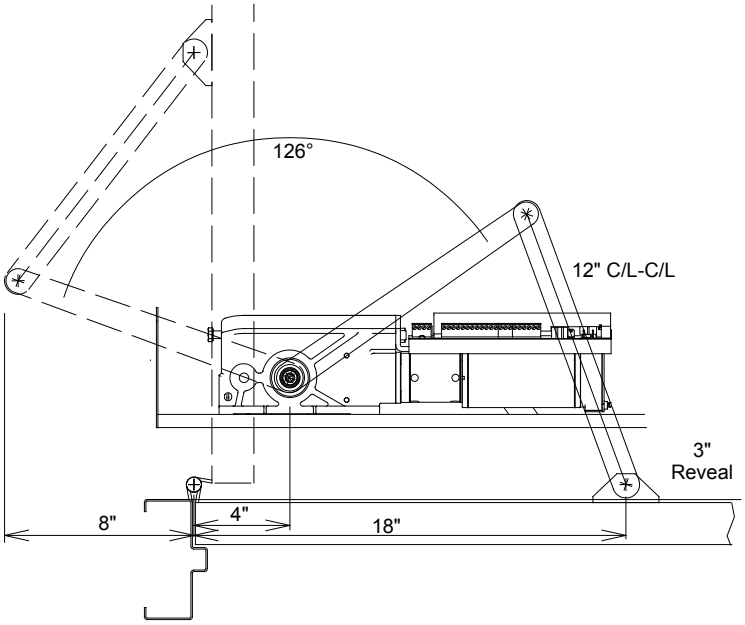

Arm Configuration
Outswing, 2.75"CenterPivot, 4.5"Frame
25Sep05 DPH



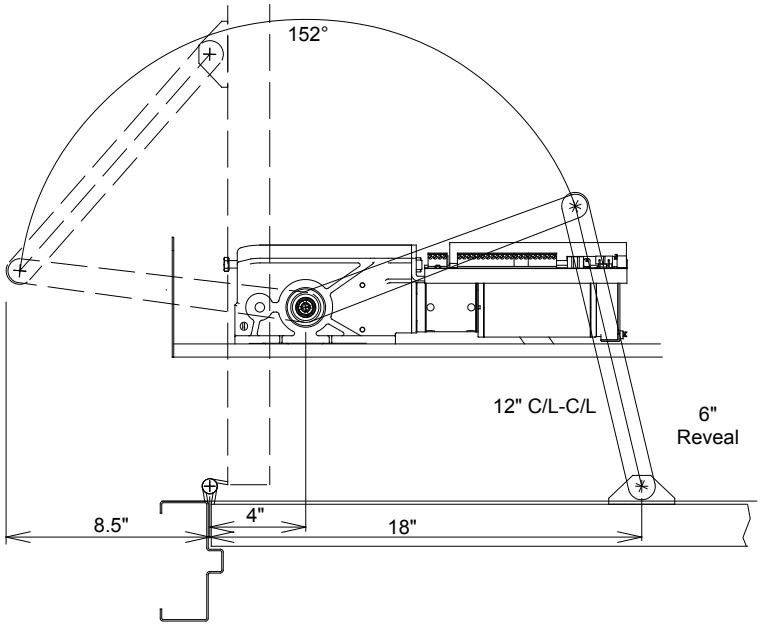

Arm Configuration
Outswing, 3.75"CenterPivot, 4.5"Frame
25Sep05 DPH



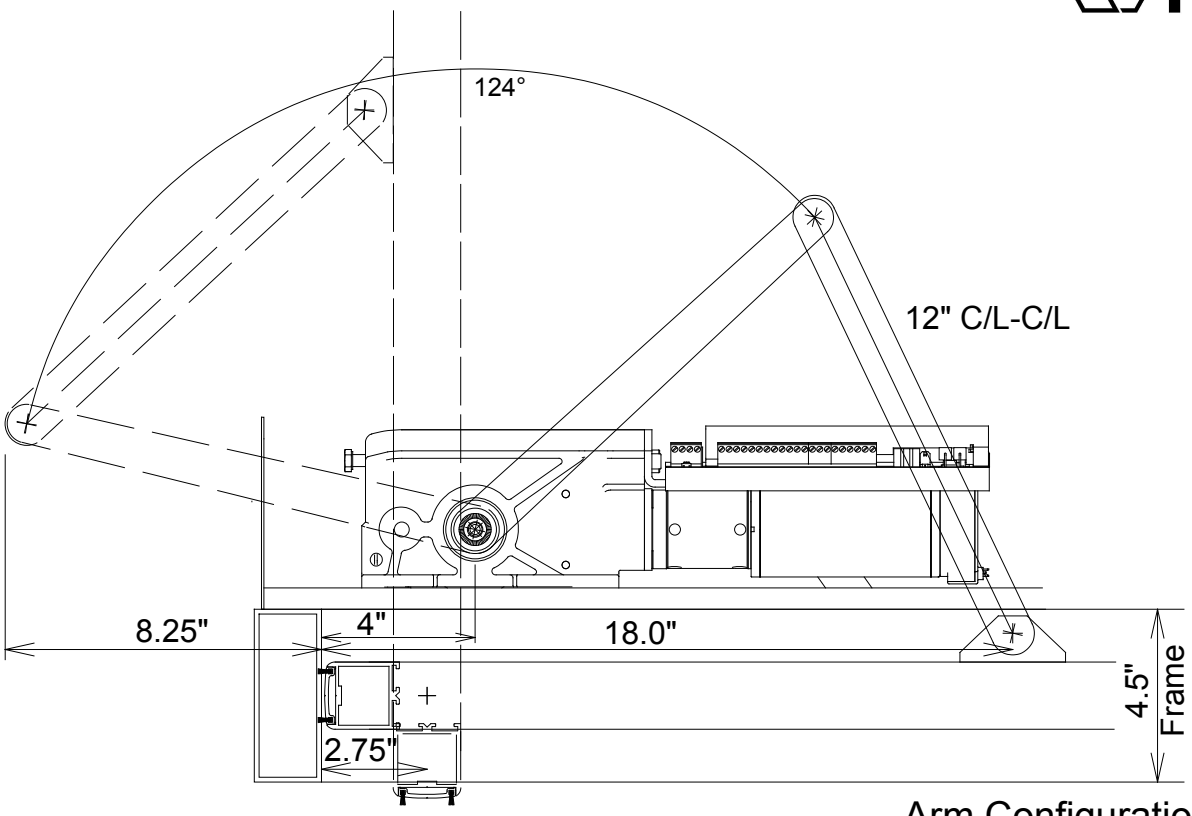

Arm Configuration
Inswing, Butt Hinge, 0" Reveal
25Sep05 DPH



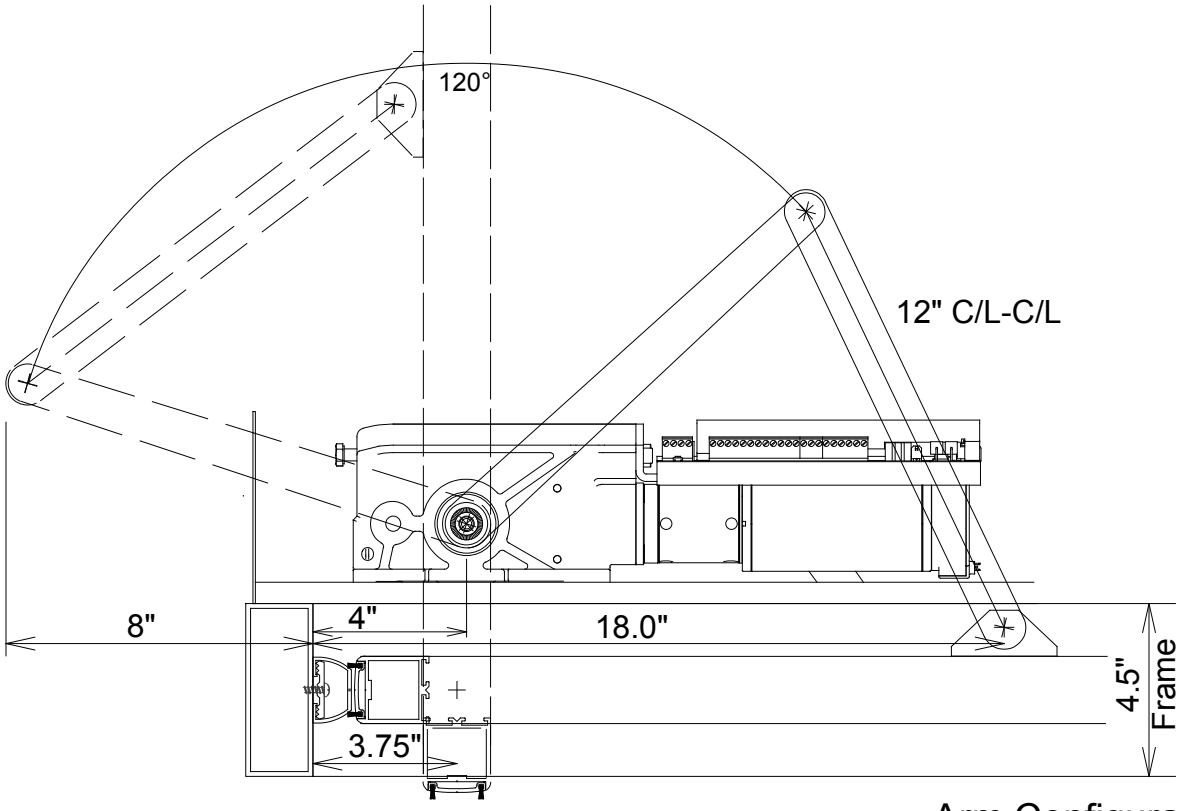

Arm Configuration
Inswing, Butt Hinge, 3" Reveal
25Sep05 DPH



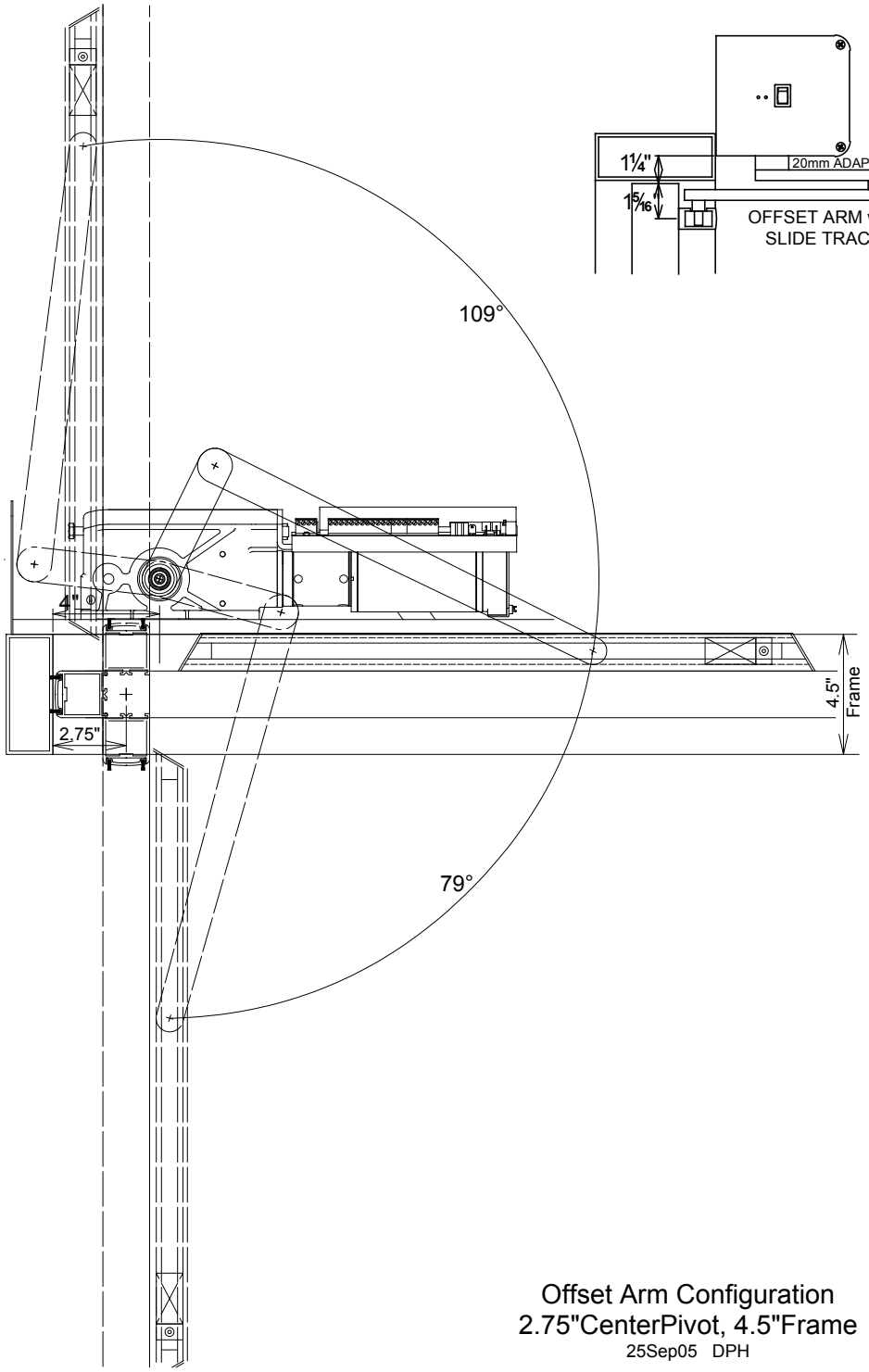

Arm Configuration
Inswing, Butt Hinge, 6" Reveal
25Sep05 DPH



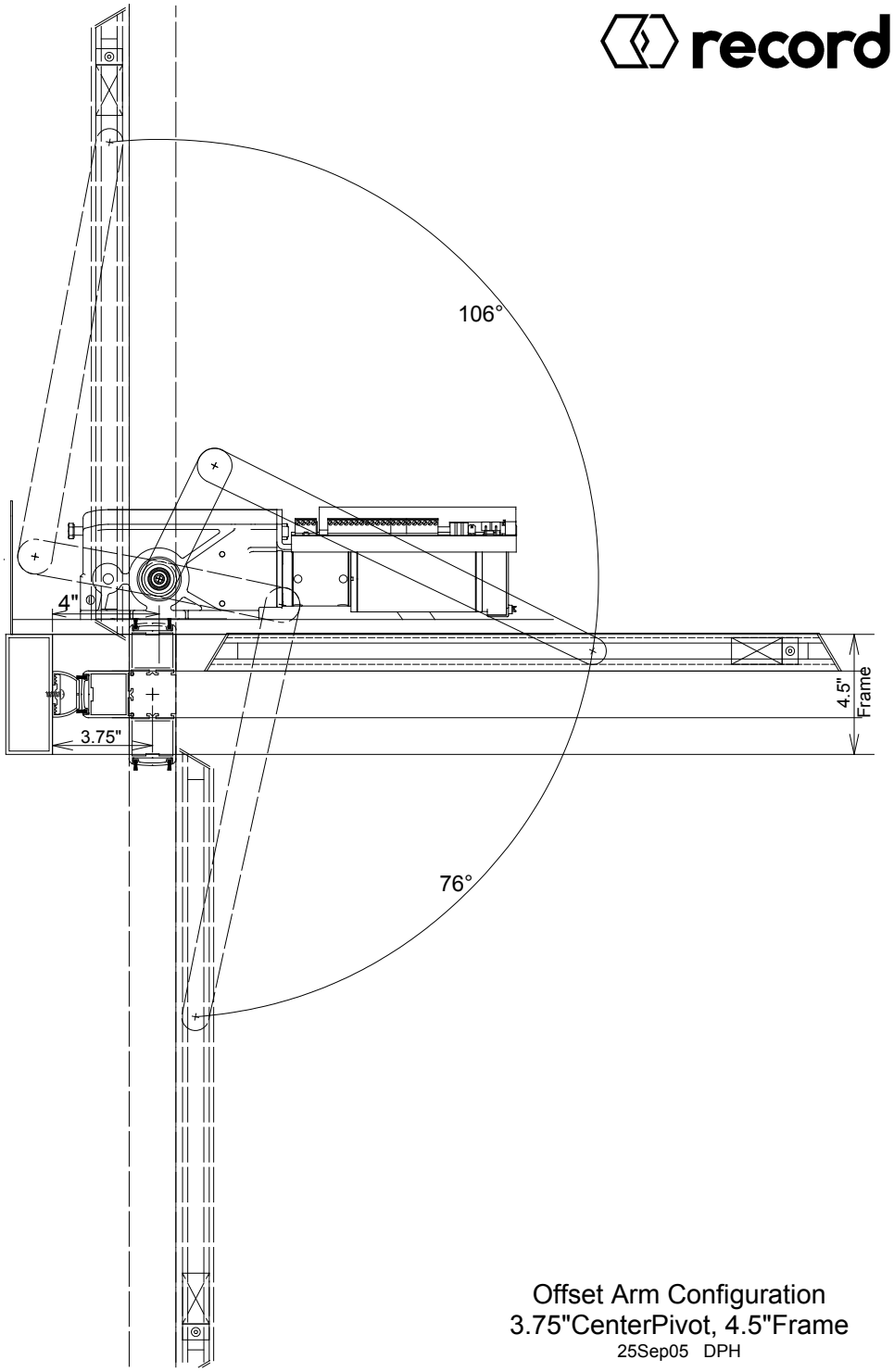

Arm Configuration
Inswing, 2.75"CenterPivot, 4.5"Frame
25Sep05 DPH



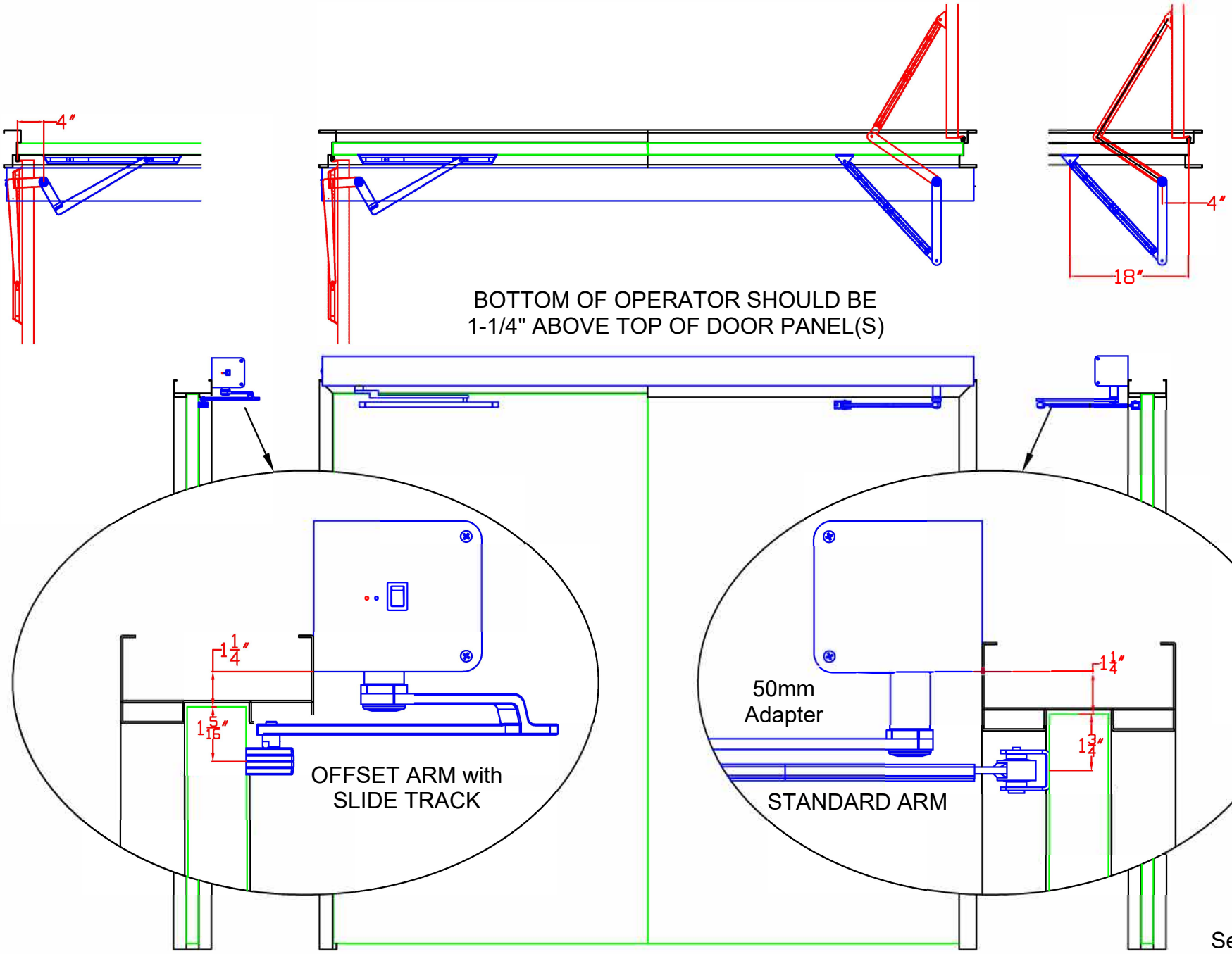

Arm Configuration
Inswing, 3.75"CenterPivot, 4.5"Frame
25Sep05 DPH




Offset Arm Configuration
2.75"CenterPivot, 4.5"Frame
25Sep05 DPH




Offset Arm Configuration
3.75"CenterPivot, 4.5"Frame
25Sep05 DPH




For double-egress installations, a standard arm, offset arm a 50mm adapter for the standard arm will be provided, accommodating a double-rabbet frame.

# 11 Abbreviations

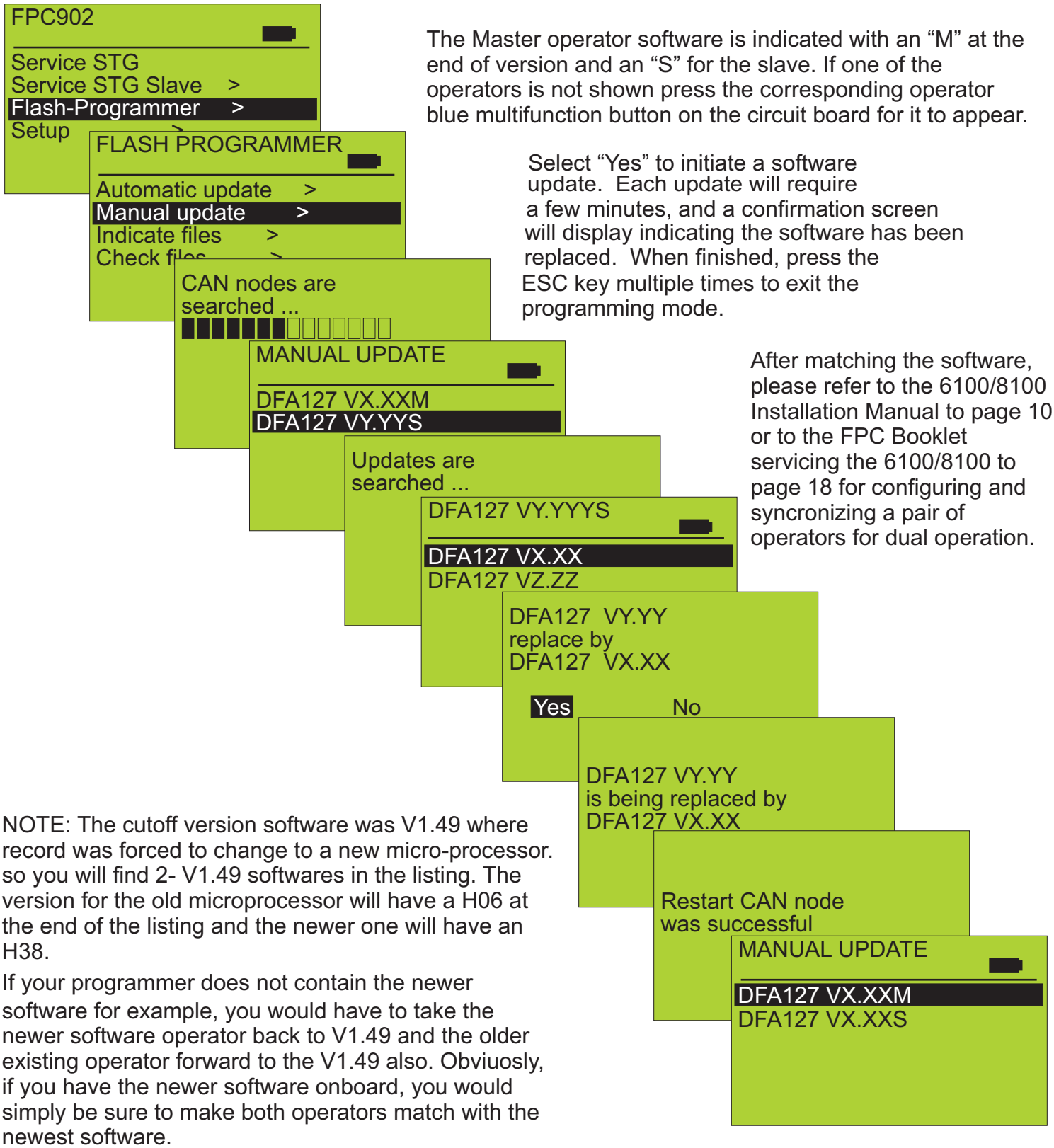
| | | |
|---|---|---|
| A | A | Width of passage |
| | AKA | Actuating contact „outside“ |
| | AKI | Actuating contact „inside“ |
| | AMP | Lamp |
| | APA | actuating switch for pharmacies |
| | APD | Pushbutton for pharmacies |
| | APR | locking bar for pharmacies |
| | APS | safety device for pharmacies |
| | AS | Connection or general schematic diagram |
| | ATE | Drive unit |
| | ATM | Drive module |
| B | BAT | Battery-pack |
| | BDE | Control unit |
| | BDE-E | Control unit electronic |
| | BDE-M | Control unit mechanical |
| | BDE-R | Control unit redundant |
| | BS | BDE with lock |
| C | CAN-H | Serial interface |
| | CAN-L | Serial interface |
| | CO48 | special standard in France |
| | CPU | microprocessor |
| D | D-STA | Double sliding door drive |
| | DUO | heavy door operator |
| E | EEPROM | parameter storage |
| | ELS | Light barrier |
| | EMK | Receiver head |
| | EPROM | program storage |
| | ES | Electrical connection diagram |
| | E-STA | Single sliding door drive |
| | E-STA-L | Single sliding door drive left |
| | E-STA-R | Single sliding door drive right |
| F | F | Length of header |
| | FEM | Extended functions module |
| | FIRST | redundant operator |
| G | G | Height of passage |
| | GTR | Gearbox |
| H | HEA | Manual unlocking „from outside“ |
| | HEI | Manual unlocking „from inside“ |
| | HES | Manual unlocking switch |
| K | KA | Cable exit |
| L | LED | Light-emitting diode |
| | LS | Wiring diagram |
| M | MOT | Motor |
| | MP | General installation plan |
| N | NET | Power supply |
| | NSK | Emergency fail close contact |
| O | OUT | Output |
| | OVA | Optical lock indicator |
| R | RAD-A | Radar „outside“ |
| | RAD-I | Radar „inside“ |
| | RED | Redundant module |
| S | SAA | interlock control “exit actuation blocked” |
| | SAG | Control unit |
| | S-AUS | Interlock control |
| | SEA | Interlock control “entrance actuation blocked” |
| | SEK | Transmitter head |
| | SHE | Safety element, external |
| | SÖK | Emergency opening contact |
| | SPS | Stored program control SPC |
| | SSA | Slidebar operator |
| | SSK | Key-operated contact |
| | STA | Sliding door drive |
| | STD | Socket |
| | STG | Control unit |
| | STM | Control module |
| | STP | Control p.c.b. |
| | SUR-A | Time switch contact “exit mode” |
| | SUR-V | Time switch contact “locking mode” |
| T | THS | Thermostatic switch |
| | TOS | Break-out system |
| | TOZ | Door hold-open time |
| | TSA | Telescopic sliding door operator |
| | TÜV | Industrial inspectorate |
| U | UMR | Guide pulley |
| | µP | Microprocessor |
| V | VAK | Lock indicating contact |
| | VAL | Locking alarm |
| | VL | Wiring list |
| | VRR | Locking device |
| Z | ZLP | Supplementary printed circuit board |

## 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.<br>Repeat unlocking attempt after changing the BDE operating 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.<br>SIO might possibly be active or motion be mechanically hindered (e.g. dirt in floor track). |
| **10** | Locking error | | | Locking error and door remains approx. 10 cm open → 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”, opening 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.<br>Change operating mode on BDE-D to Locked and again to Automatic.<br>Actuate manual unlocking, or rather completely reset it. |
| **29** | TOS not locked | TOS with DV | | TOS not locked (rotary switches) on Locked. Turn rotary switches onto Locked position (above). |
| **30** | TOS locked | TOS with DV | | 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 l. | | X | Locking device does not work properly. On BDE-D change operating mode to Automatic and again to Locked. Wrong locked position 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 might work sluggishly. Check for presence 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 might be missing or is not properly plugged 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 perfomed. |
| **55** | Power failure | | | No mains supply. Door works in battery service provided that there is a battery and not "Basic escape route" has been configured. |
| **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 extremely dirty. |
| **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) wiring, 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>**********<br>BDE Can blocked<br>**********<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. |

# PROTOCOL WHEN REPLACING ONE OPERATOR OF A DUAL

First the software of the 2 operators must match. To see if that is true, please go to FLASHPROGRAMMER and open to find Automatic or Manual Update. The preferred would be Manual Update for it will allow going forward and backward with software. Please see screens below.




The Master operator software is indicated with an “M” at the end of version and an “S” for the slave. If one of the operators is not shown press the corresponding operator blue multifunction button on the circuit board for it to appear.

Select “Yes” to initiate a software update. Each update will require a few minutes, and a confirmation screen will display indicating the software has been replaced. When finished, press the ESC key multiple times to exit the programming mode.

After matching the software, please refer to the 6100/8100 Installation Manual to page 10 or to the FPC Booklet servicing the 6100/8100 to page 18 for configuring and syncronizing a pair of operators for dual operation.

NOTE: The cutoff version software was V1.49 where record was forced to change to a new micro-processor. so you will find 2- V1.49 softwares in the listing. The version for the old microprocessor will have a H06 at the end of the listing and the newer one will have an H38.

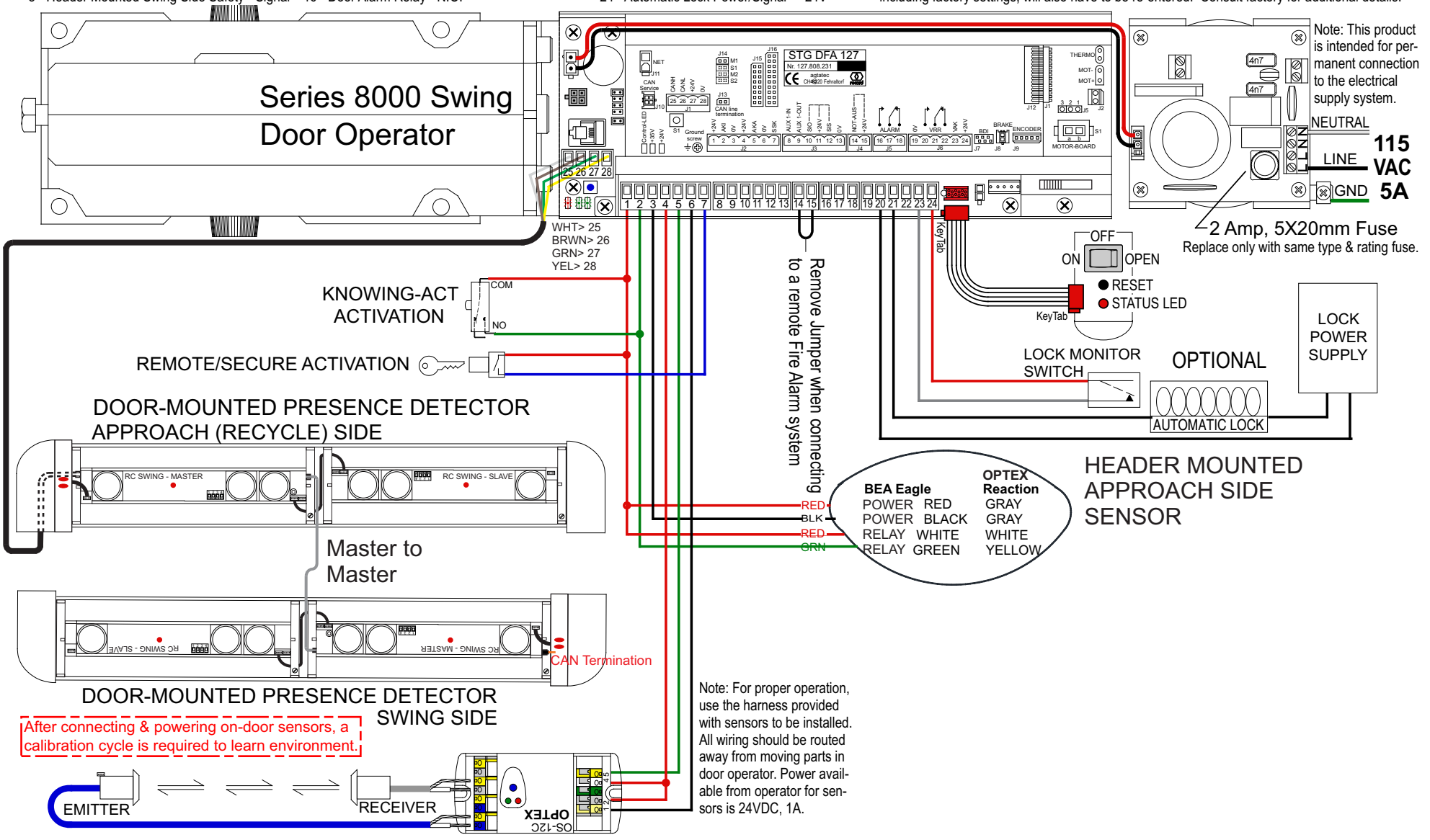
If your programmer does not contain the newer software for example, you would have to take the newer software operator back to V1.49 and the older existing operator forward to the V1.49 also. Obviuosly, if you have the newer software onboard, you would simply be sure to make both operators match with the newest software.

For assistance please consult the factory tech support @ 844-366-7526(DOORJAM)

## CONTROL TERMINAL BLOCK CONNECTIONS

1 - Approach Sensor - Power/Signal - +24V
2 - 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 - 0V
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 - 0V
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 - 0V (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.




GUIDE RAIL MOUNTED PHOTOELECTRIC BEAM

# SERIES 8000 WIRING DIAGRAM with RC SWING CANbus On Door Sensors

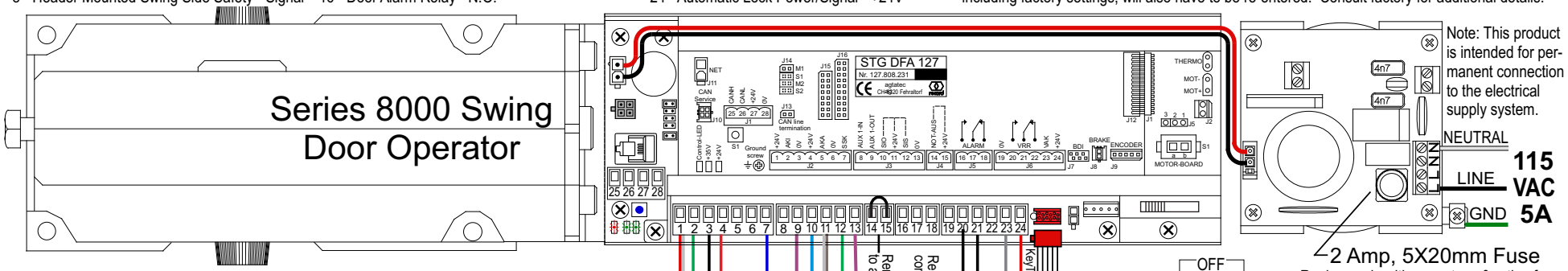
Dec 2018 BG

record

## CONTROL TERMINAL BLOCK CONNECTIONS

1 - Approach Sensor - Power/Signal - +24V
2 - 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 - 0V
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 - 0V
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 - 0V (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: This product is intended for permanent connection to the electrical supply system.

2 Amp, 5X20mm Fuse
Replace only with same type & rating fuse.

KNOWING-ACT ACTIVATION

COM

NO

REMOTE/SECURE ACTIVATION

HEADER-MOUNTED SENSOR APPROACH-SIDE

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.

| BEA Eagle | Optex Reaction | |
|---|---|---|
| RED | GRAY | POWER |
| BLACK | GRAY | POWER |
| WHITE | WHITE | RELAY |
| GREEN | YELLOW | RELAY |

RED
BLK
WHITE
GRN

Remove Jumper when connecting to a remote Fire Alarm system

Remove Jumpers from #10,11,12 when connecting On Door Sensors

KeyTab

OFF
ON
OPEN
RESET
STATUS LED
KeyTab

LOCK MONITOR SWITCH

OPTIONAL

AUTOMATIC LOCK

LOCK POWER SUPPLY

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.

Approach Dip Switches
1 - OFF
2 - ON
3 - OFF (NC)
4 - ON

Swing Side Dip Switches
1 - ON
2 - ON
3 - OFF - (NC)
4 - ON

# BEA LZR FLATCANS WIRING DIAGRAM SERIES 8000 SWING

AUG 2018 BG

record

## CONTROL TERMINAL BLOCK CONNECTIONS

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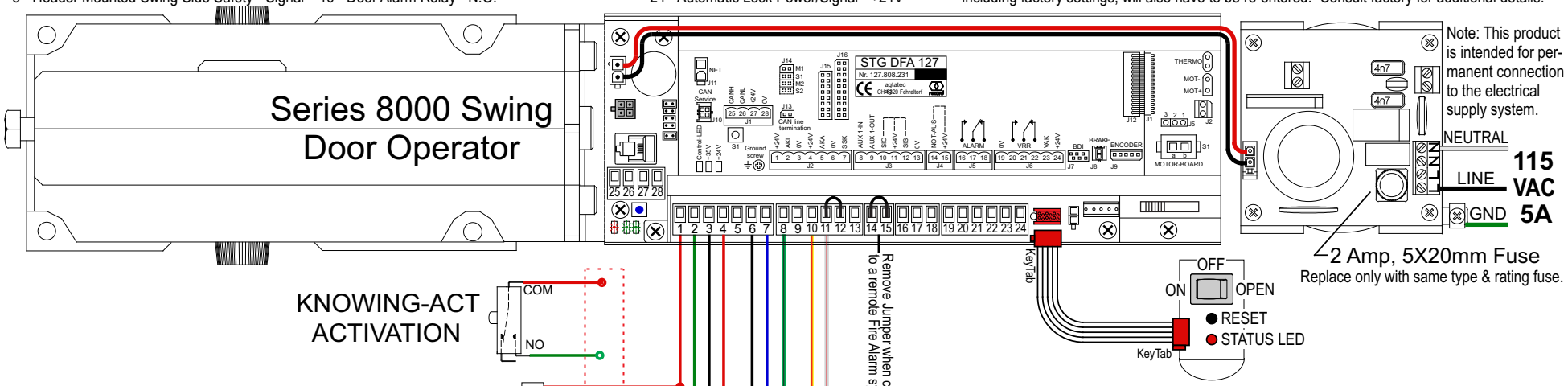



## KNOWING-ACT ACTIVATION



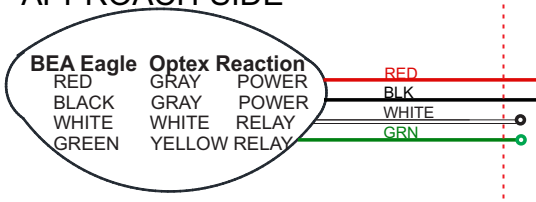

## REMOTE/SECURE ACTIVATION

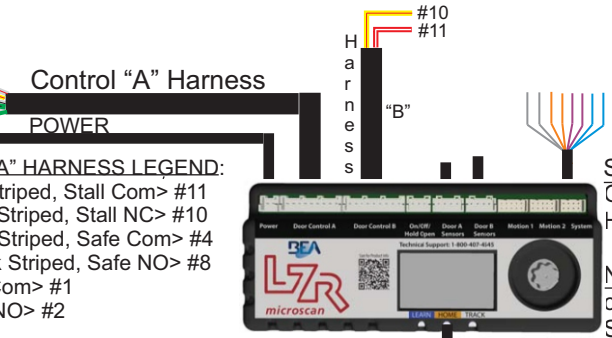
## DUAL UNIT

Control "B" Harness for 2nd operator: Connect Yellow/Red striped wire to Terminal 10 and White/Red striped wire to Terminal 11 for stall.

## HEADER-MOUNTED SENSOR APPROACH-SIDE

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.



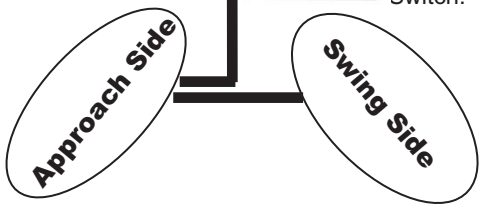




CONTROL "A" HARNESS LEGEND:
White/Red Striped, Stall Com> #11
Yellow/ Red Striped, Stall NC> #10
White/Black Striped, Safe Com> #4
Green/ Black Striped, Safe NO> #8
White, Act. Com> #1
Green, Act. NO> #2

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

Note: Orange wires connect to Door Position Switch.




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

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.

# LZR MICROSCAN WIRING DIAGRAM SERIES 8000 SWING

Jan2020 BG

record

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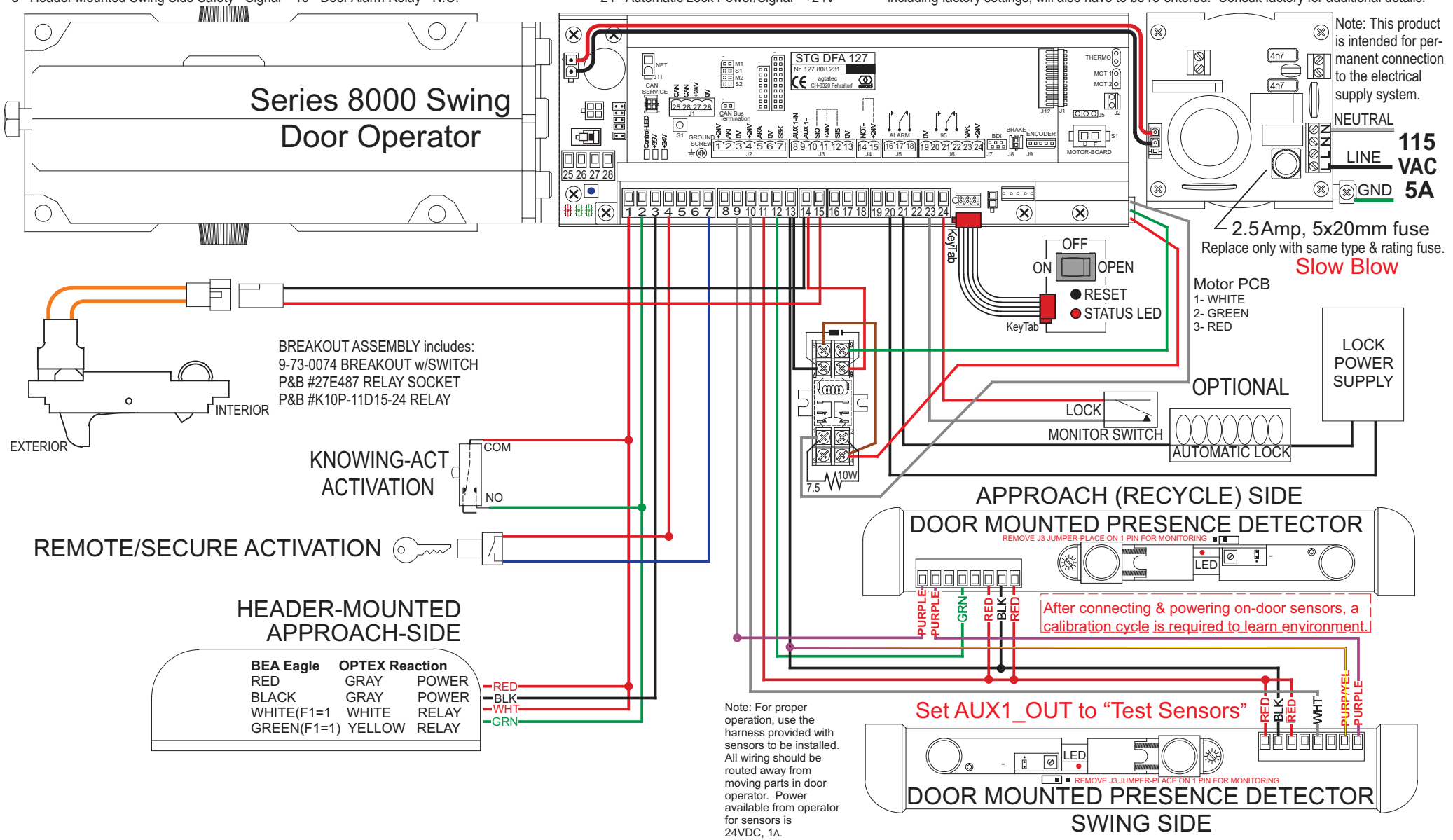
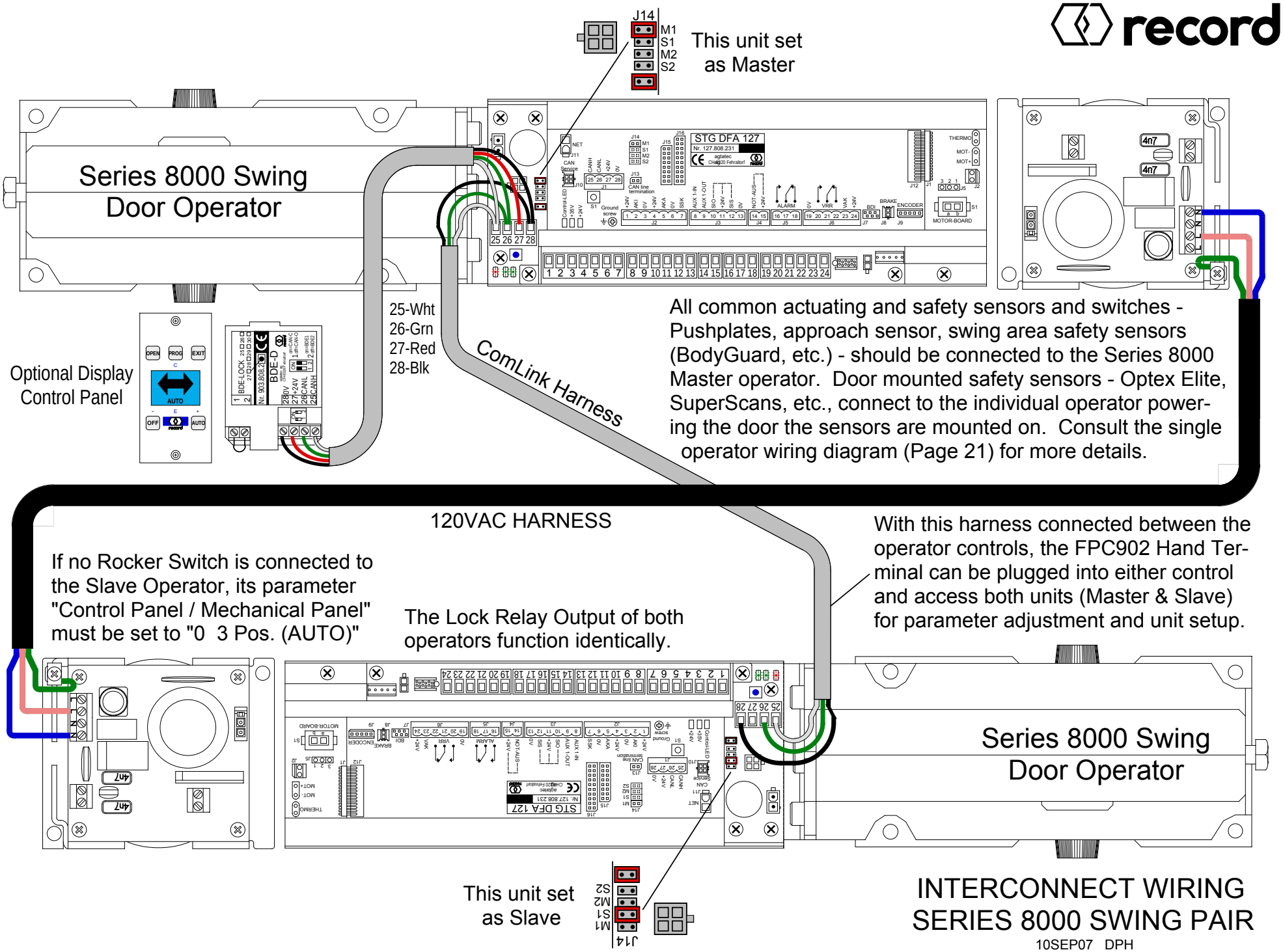



# INSWING Series 8000/8500 Wiring Diagram w/Frame Mounted Breakout & BEA SSTII (Mon.)

Dec2018 BG

record


record
J14
M1
S1
M2
S2
This unit set as Master
Series 8000 Swing Door Operator
STG DFA 127
Nr. 127.808.231
agtatec
Optional Display Control Panel
OPEN
PROG
EXIT
AUTO
OFF
AUTO
BDE-LOCK
BDE-D
Nr. 903808.2
25-Wht
26-Grn
27-Red
28-Blk
ComLink Harness
All common actuating and safety sensors and switches - Pushplates, approach sensor, swing area safety sensors (BodyGuard, etc.) - should be connected to the Series 8000 Master operator. Door mounted safety sensors - Optex Elite, SuperScans, etc., connect to the individual operator powering the door the sensors are mounted on. Consult the single operator wiring diagram (Page 21) for more details.
120VAC HARNESS
If no Rocker Switch is connected to the Slave Operator, its parameter "Control Panel / Mechanical Panel" must be set to "0 3 Pos. (AUTO)"
The Lock Relay Output of both operators function identically.
With this harness connected between the operator controls, the FPC902 Hand Terminal can be plugged into either control and access both units (Master & Slave) for parameter adjustment and unit setup.
Series 8000 Swing Door Operator
This unit set as Slave
INTERCONNECT WIRING
SERIES 8000 SWING PAIR
10SEP07 DPH