



Record 8000/8100/8200 Series
Swing Door Operator
Installation Manual



8000/8100/8200 Series Swing Door Operator Installation Instructions

The Record 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 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.

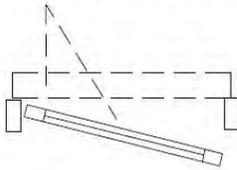
Special attention needs to be given to installations with parallel and slide arms when an adjacent wall is perpendicular to the door frame.

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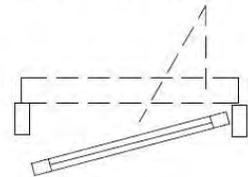
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OPERATOR HANDING IDENTIFICATION

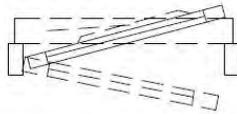
LHR STD. ARM



RHR STD. ARM



**LH TRACK ARM
W/PANIC**



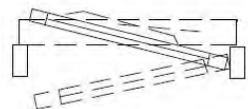
LH TRACK ARM



RH TRACK ARM

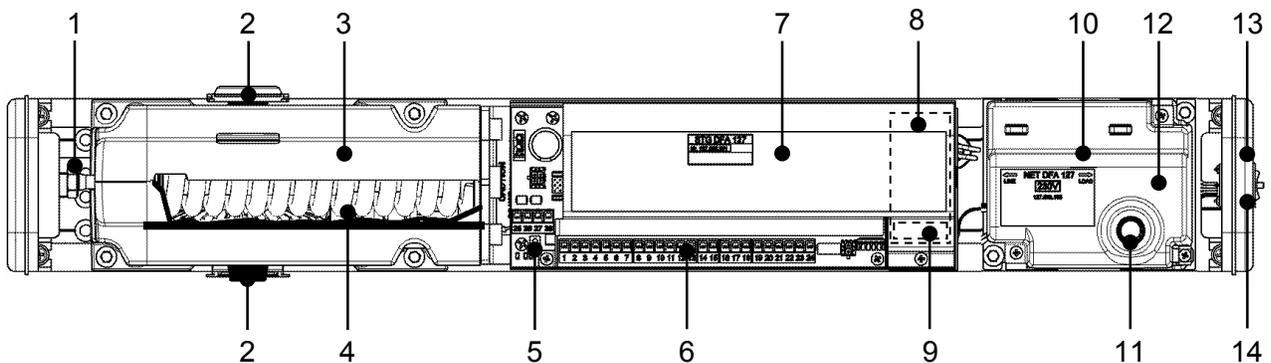


**RH TRACK ARM
W/PANIC**



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 | 8 Motor Drive Circuit Board |
| 2 Output Shafts for Arms & Stop | 9 Slide switch S1 (rotating direction) |
| 3 Drive Unit | 10 Power Supply |
| 4 Closing Spring | 11 Fuse (2.0A, 5X20mm, Slo-Blo) |
| 5 Multifunction Pushbutton / Control | 12 Power Supply Circuit Board |
| 6 Terminal Blocks for I/O | 13 On / Off / Open Rocker Switch |
| 7 Microprocessor Control | 14 Status LED and Reset Pushbutton |

Drive Arms

Three types of drive arms are available:

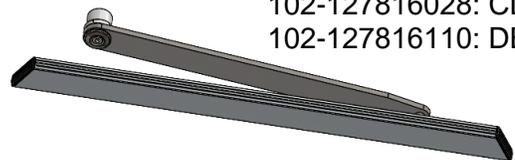
The Standard Arm provides the most flexibility –
Outswing (push) reveals to 12"
Inswing (pull) reveals up to 6"

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

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



102-127815969: CL
102-127816107: DB



102-127816028: CL
102-127816110: DB

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-rabbit 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 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 –

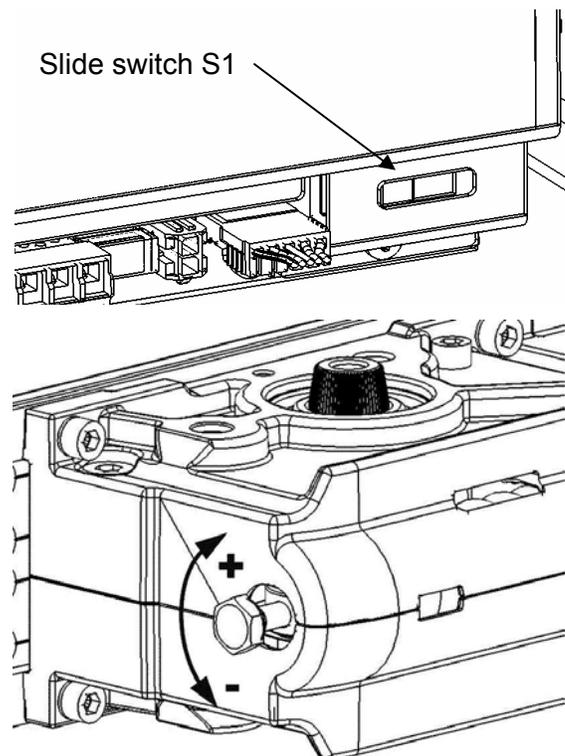
With no power applied, the operator should be capable of being easily pushed open and when released, will close the door at a controlled speed.

Closing Spring Adjustment

The closing force provided by the spring is adjustable.

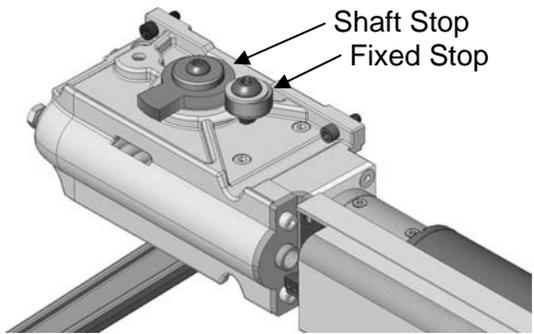
Do not adjust the force so low that the door will not consistently close under spring power.

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

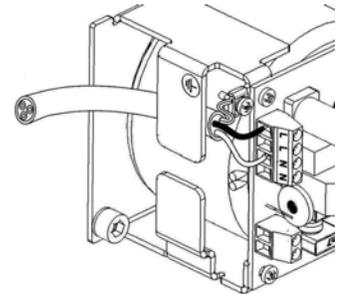
Connect 115VAC, 60 Hz, 10A, to Power Supply terminal strip

- 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:

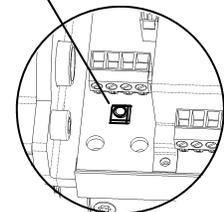
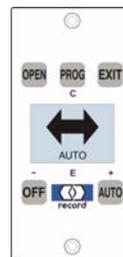
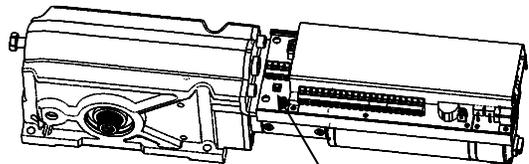
1 flash of the red LED will actuate a standard open cycle (if the rocker switch is on).

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.

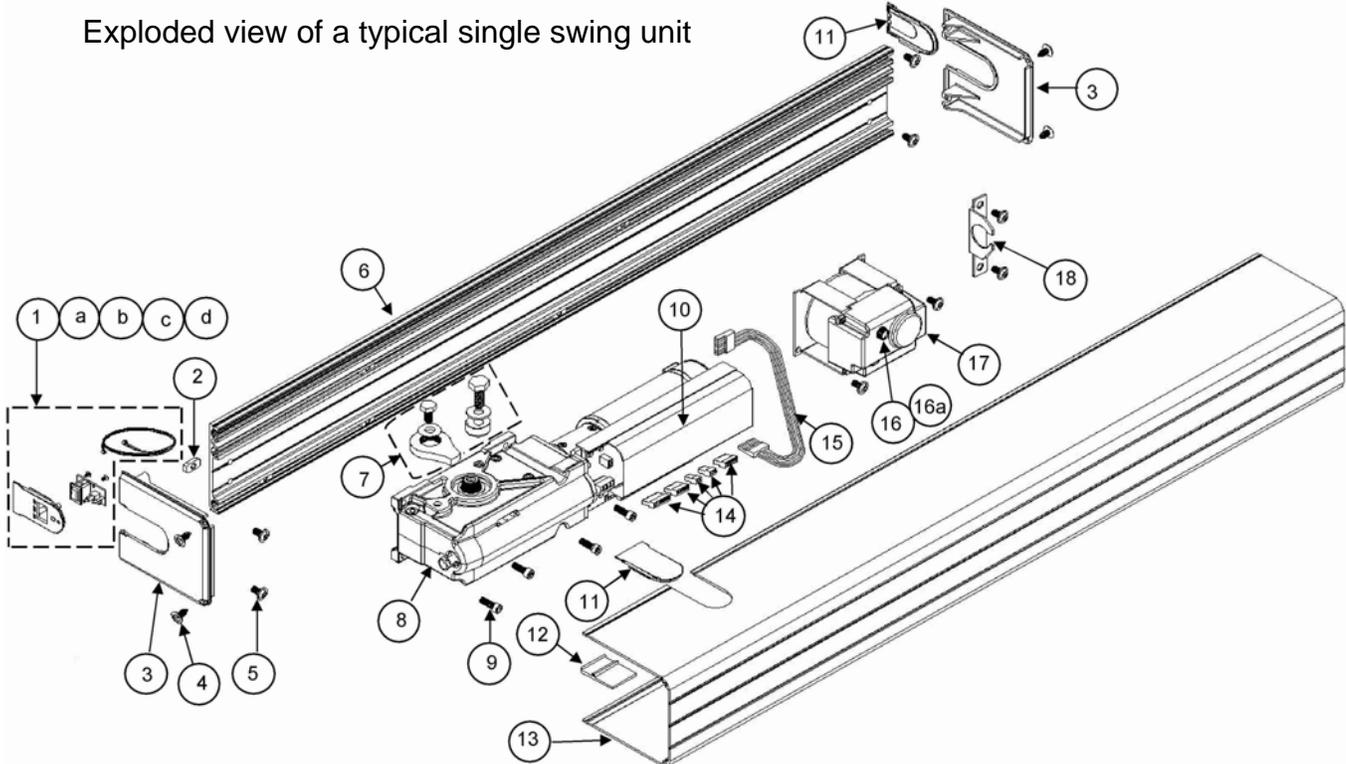
15-17 flashes will cause the unit to reset without affecting any of the field set parameters.



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

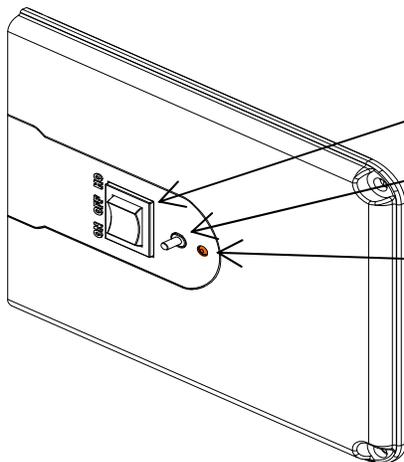
After completion of the mechanical installation and prior to adjusting the parameters, always initiate a calibration run by pressing and holding the pushbutton for 3 flashes of the red LED. This will insure proper door operation by calibrating the unit to the installation conditions.

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.

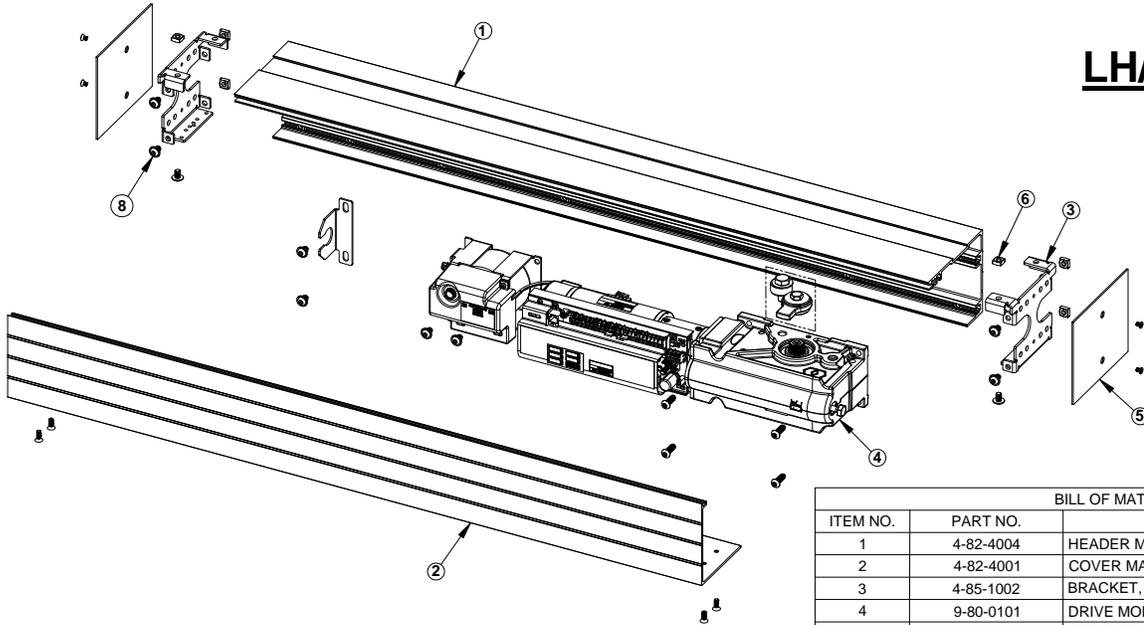
To clear an error, press & hold the pushbutton for approximately 8 seconds, or until the LED turns off.



8000/8100/8200 Series Swing Door Operator Installation Instructions

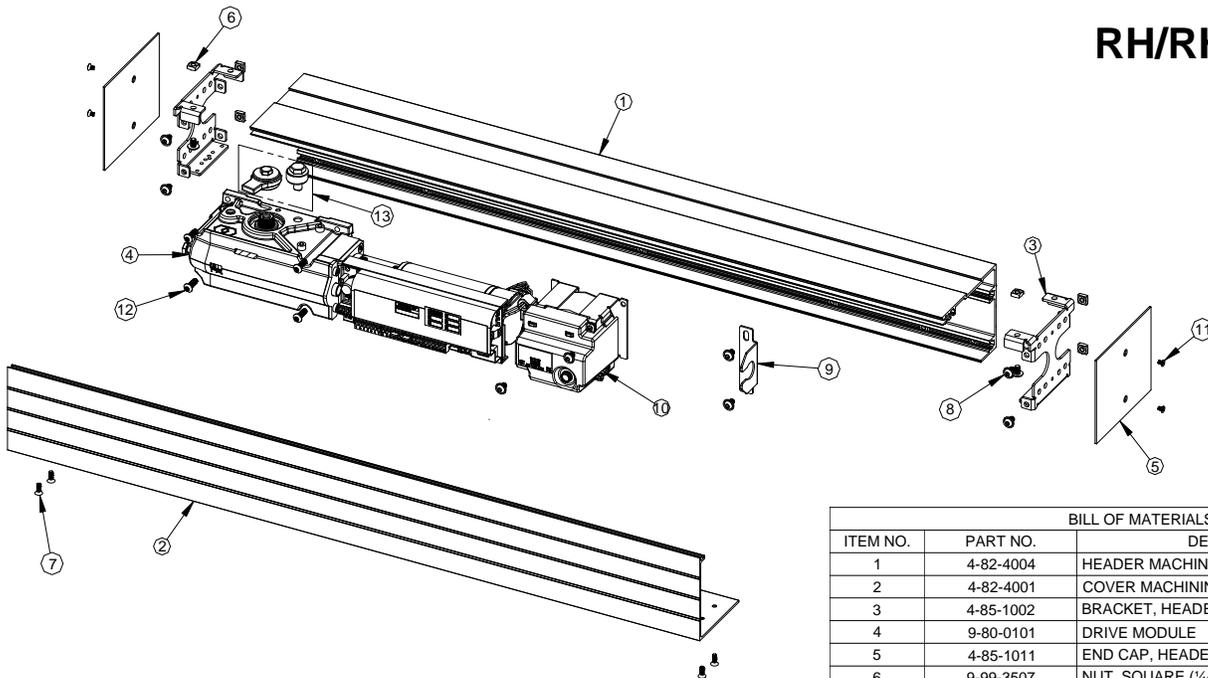
8200 SINGLE UNITS

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 (1/4-20)	14

RH/RHR



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 (1/4-20)	14

Servicing the Series 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.

```
AKKU      PASS
FLASH    PASS
EEPROM   PASS
RTC       PASS
CAN      PASS
```

```
FPC902
Version 2.12
Feb 22 2010
13:30:19
```

```
FPC902
Service STG >
Service STG Slave >
Service sensor >
Flash-Programmer >
Setup
```

Press "OK", or scroll down to STG Slave and press "OK"

```
Connect with STG ...
■■■■■■■■□□□□□□
```

```
Accept all parameter
from the STG?

Offline Yes
```

Press "OK"

```
Parameter download
from STG ...
■■■■■■■■□□□□□□

DFA127 V1.47
```



STATUS SCREEN

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.

```
USA Low Energy
Manual
0 Errorless

Continue
```

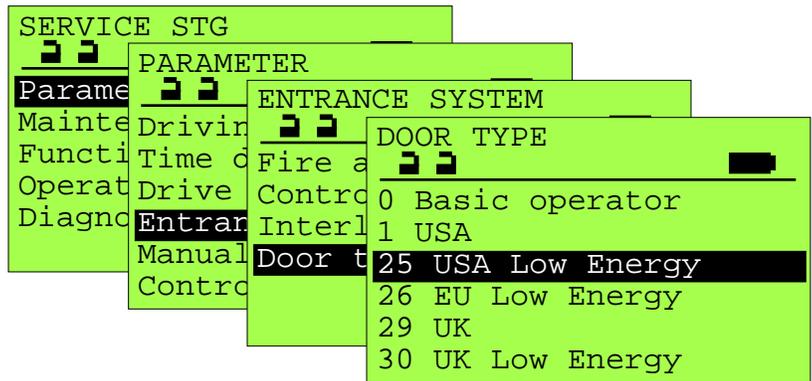
Press "OK"

```
SERVICE STG
Parameter >
Maintenance >
Functions >
Operation mode >
Diagnostics >
```

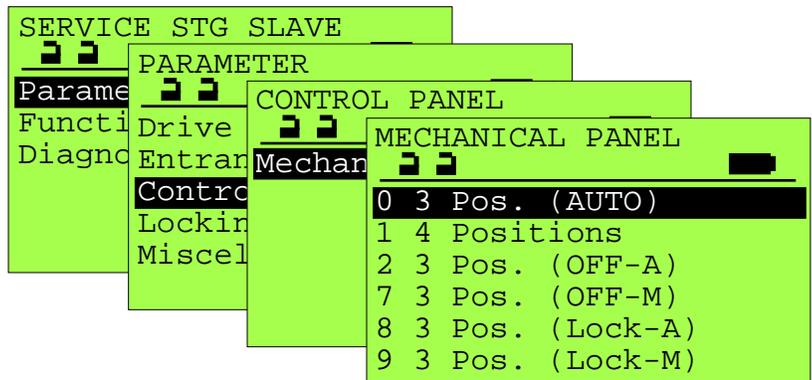
The following page indicates suggested parameter configurations for a typical installation. For a detailed description of all parameters, consult the instructions provided with the FPC902.

The following documents the suggested sequence of programming the operator:

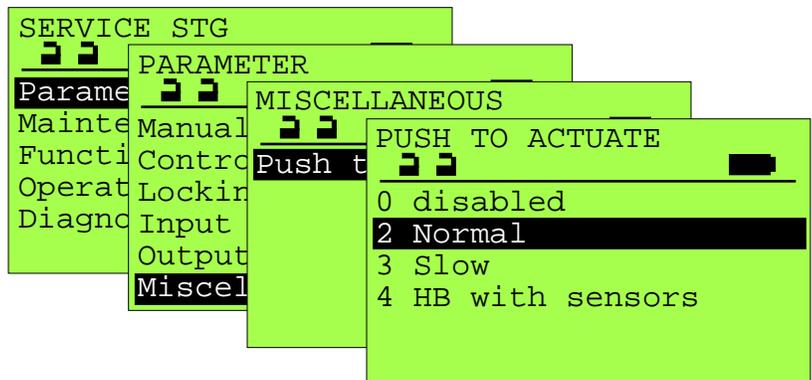
The Series 8000 is shipped configured for a combination operation designated as "USA Low Energy". If manual operation of the door is not desired (with 120VAC power present), this should be changed to "USA", as shown in the sequence at right.



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.

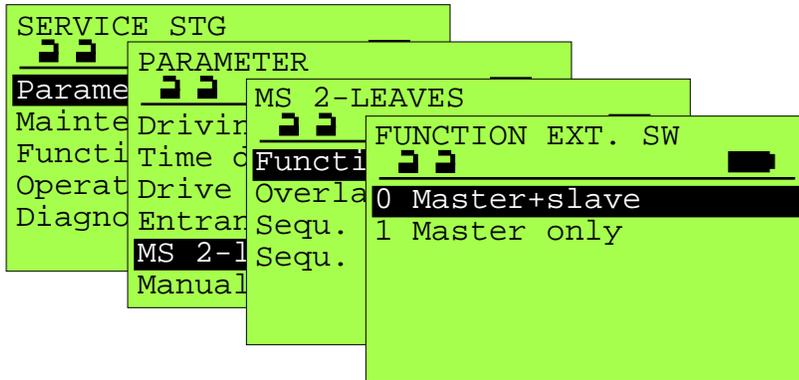


The unit(s) are now ready to be placed into operation. Turn the control panel "on", press and hold the Control Button on the door control for 3 blinks of the adjacent LED. This will initiate a calibration cycle of the operator. After a few seconds the operator should open slowly, with a short pulse during 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 8000 Instructions included with the FPC-902 Terminal will have a complete listing of the screens, options, and adjustments available for this operator.

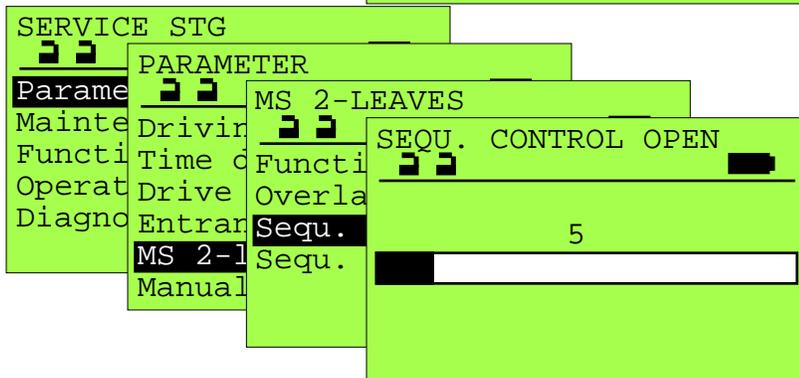
Screens Available when synchronizing two operators Both Simultaneous Pairs and Double Egress



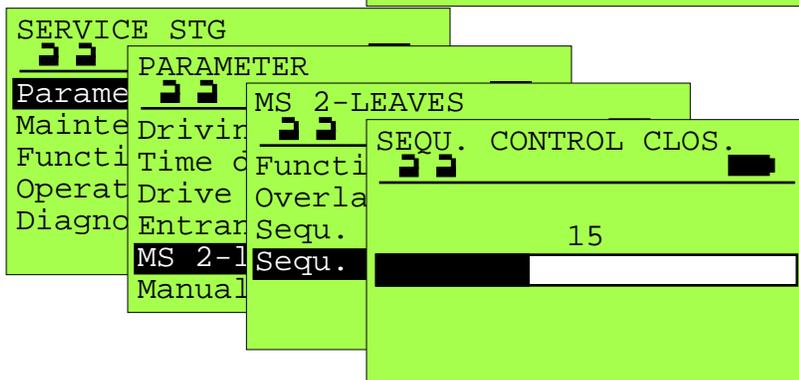
This is automatically set by the controls upon reading the Master / Slave jumper block (J13) on the controls.



This sets the lead time and lag time between operation of the master and slave operators, useful with an overlapping 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



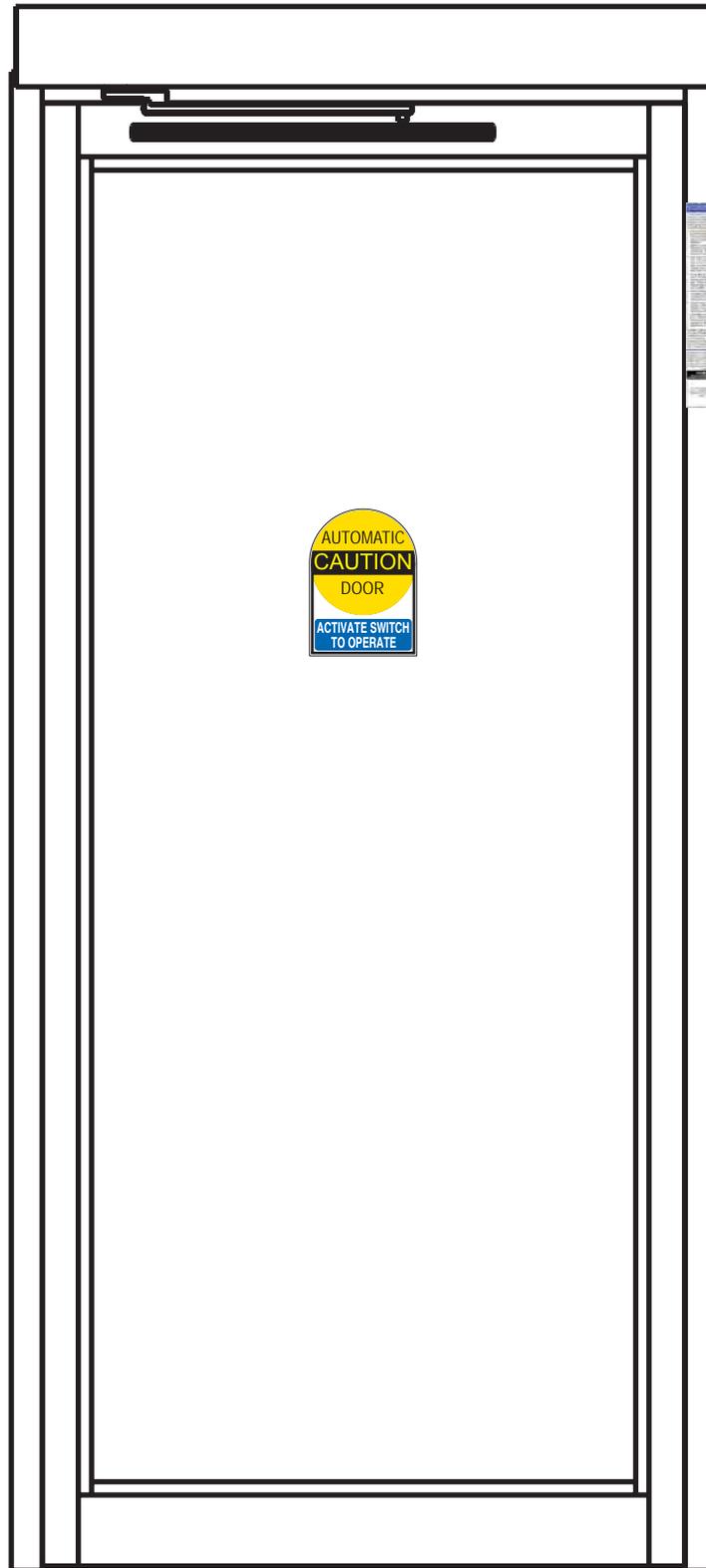
Full Power - Swing
Side, 2-Way Traffic;
Low Energy - Sensor
Activation



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

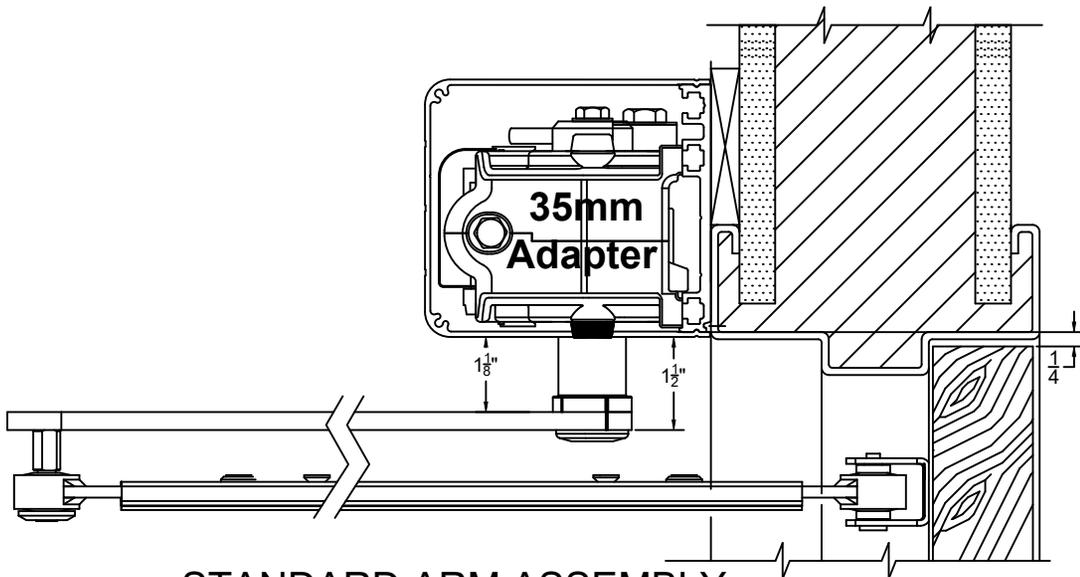


record

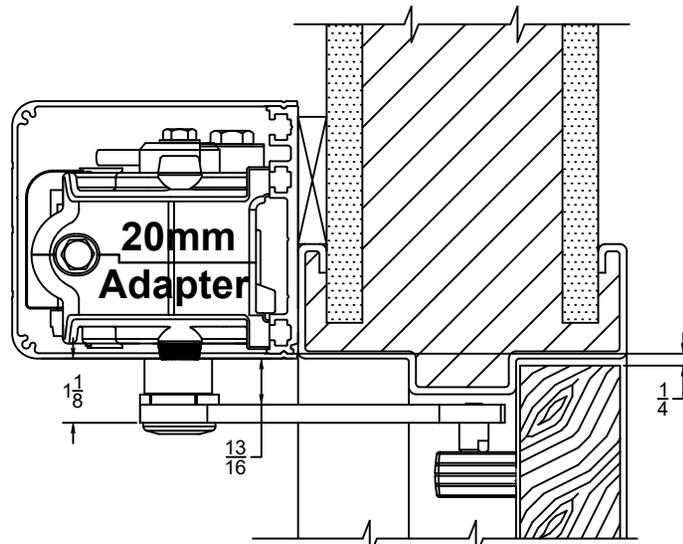
record-USA
4324 Phil Hargett Ct.
Monroe, NC 28110
(704) 289 - 9212

SERIES 6100 / 8100 ARM CONFIGURATIONS
VERTICAL LOCATIONS AND DIMENSIONS

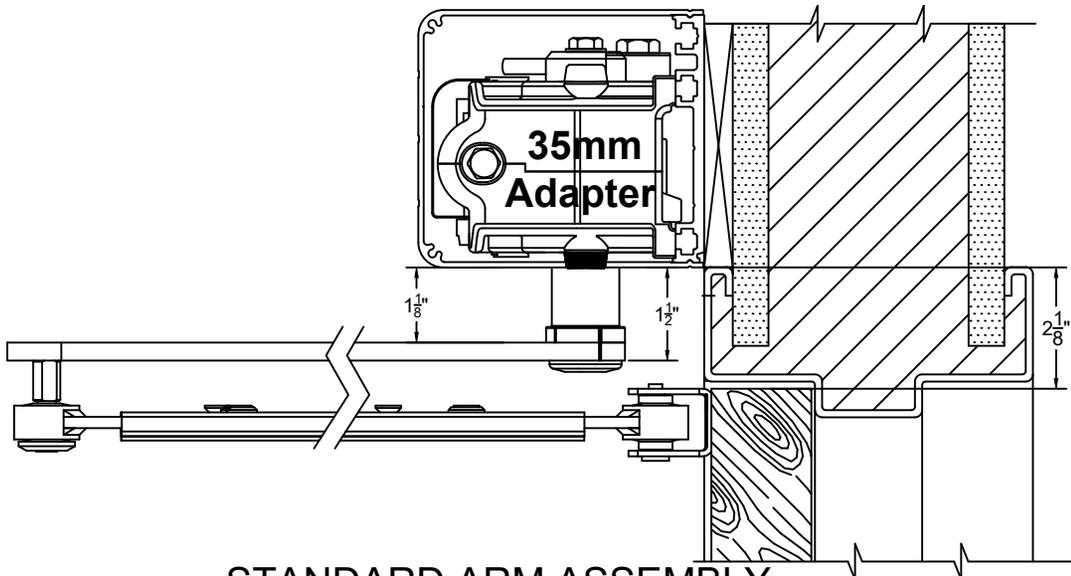
MAR'22



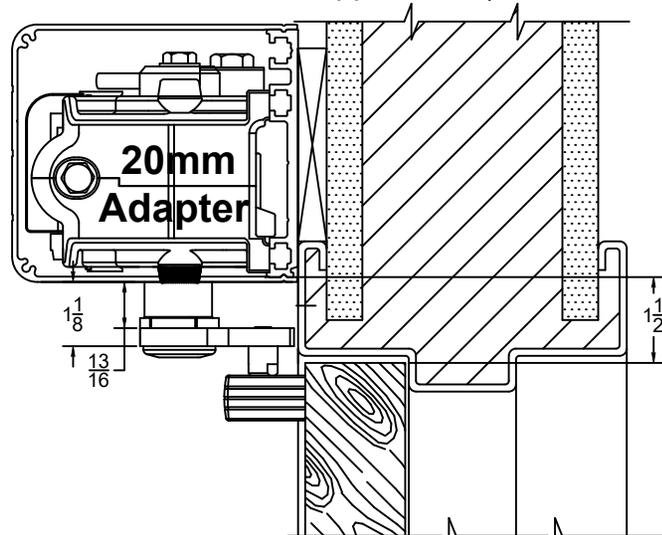
**STANDARD ARM ASSEMBLY
OUTSWING CONFIGURATION**



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



**STANDARD ARM ASSEMBLY
INSWING CONFIGURATION**

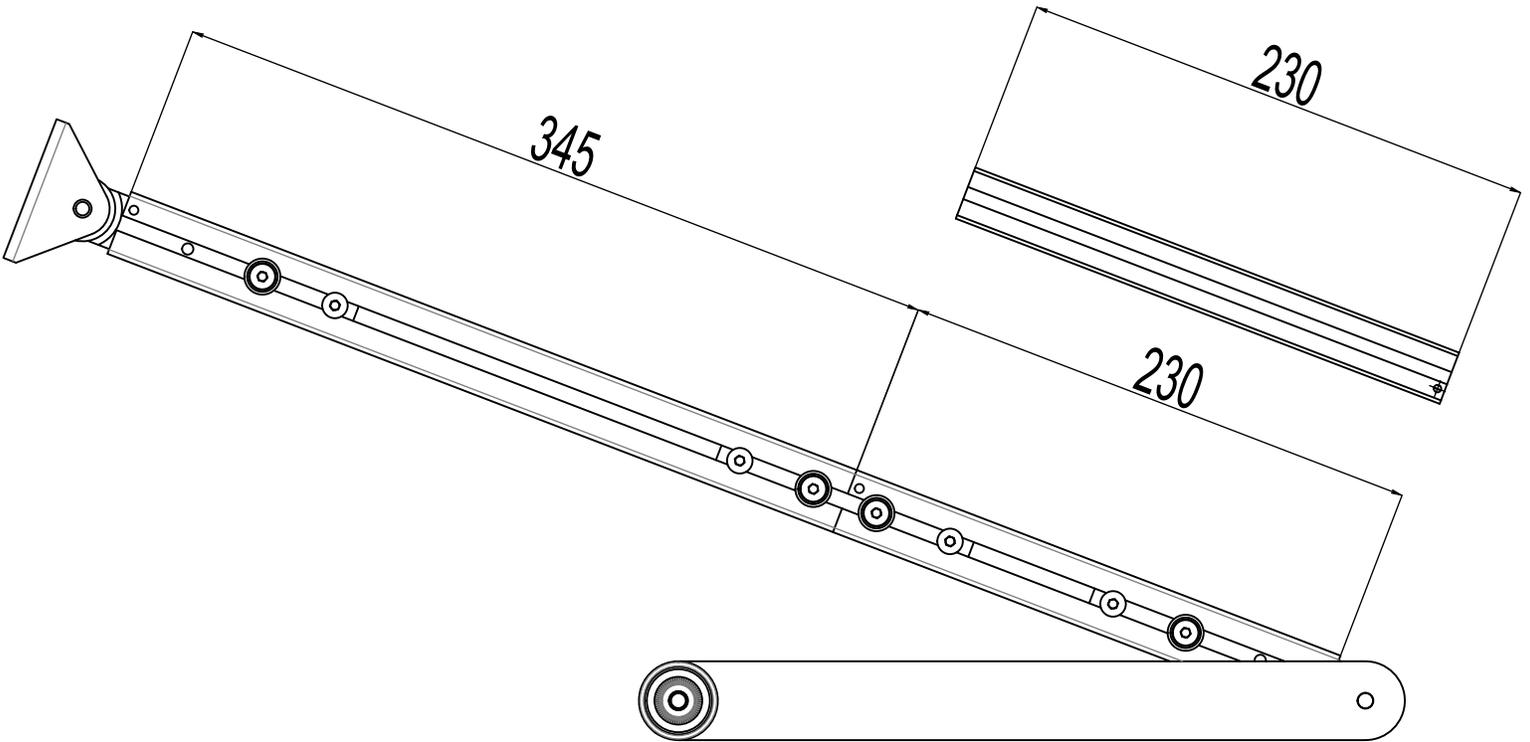


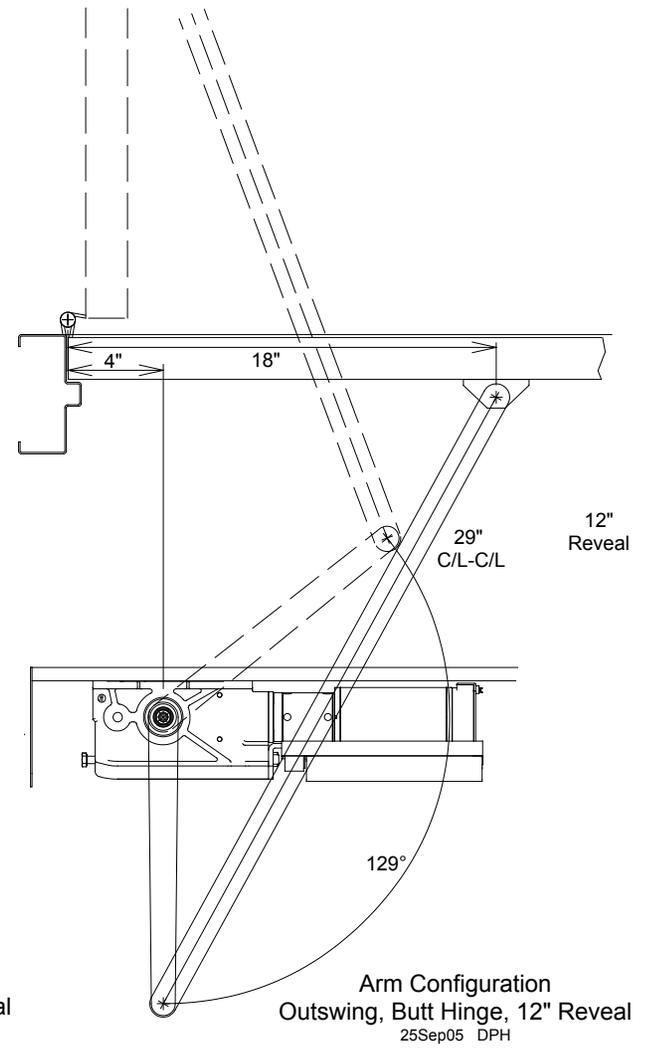
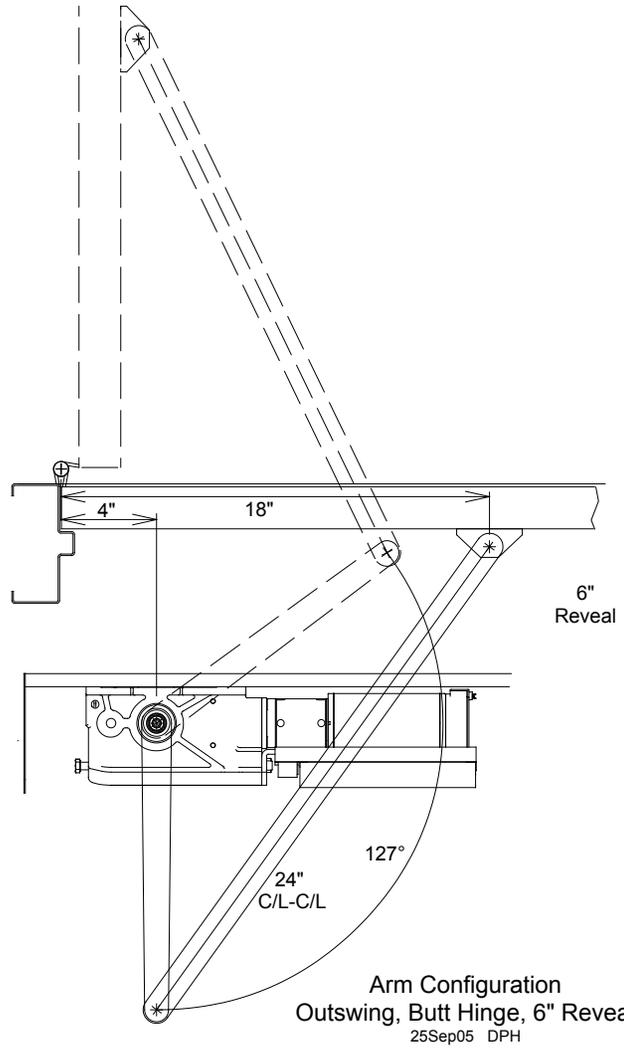
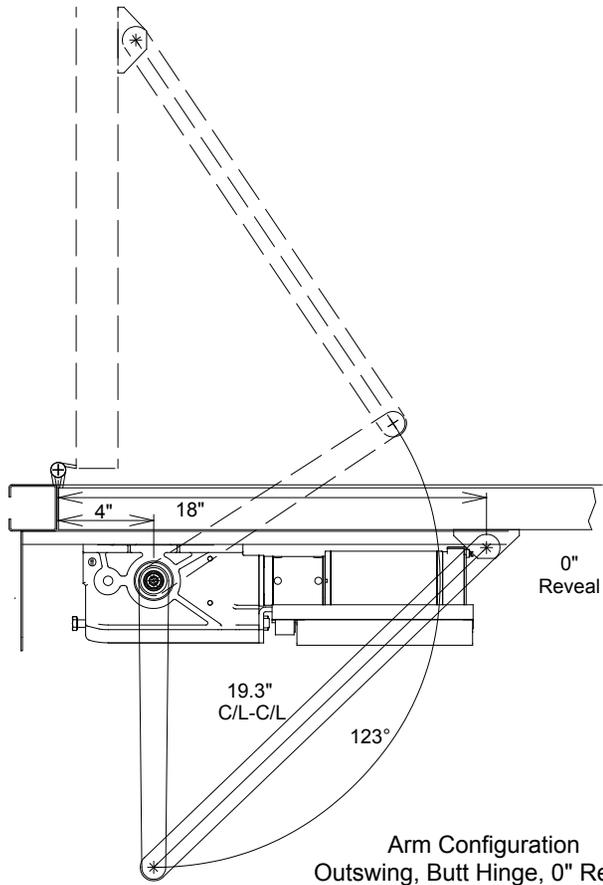
**SLIDE TRACK ARM ASSEMBLY
INSWING CONFIGURATION**

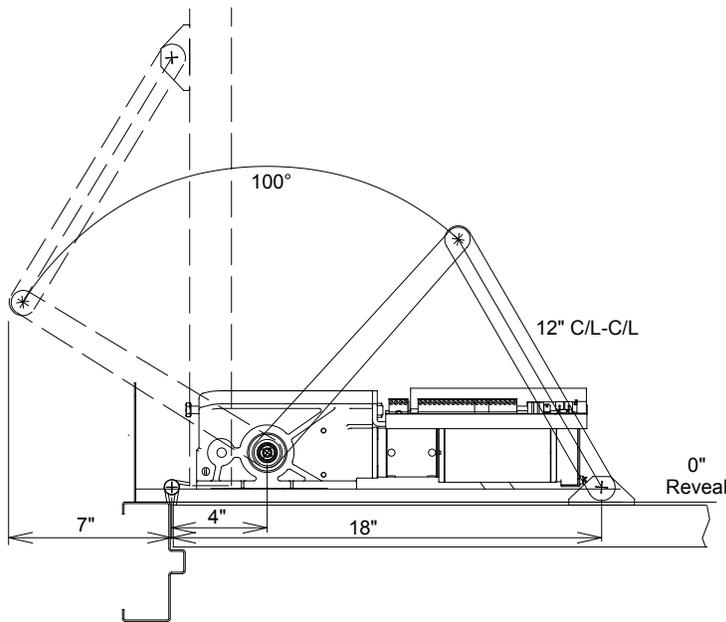
FOR DOUBLE-EGRESS INSTALLATIONS, CONSULT PAGE 20 OF THE INSTALLATION MANUAL

Standard Arm Extension Configurations

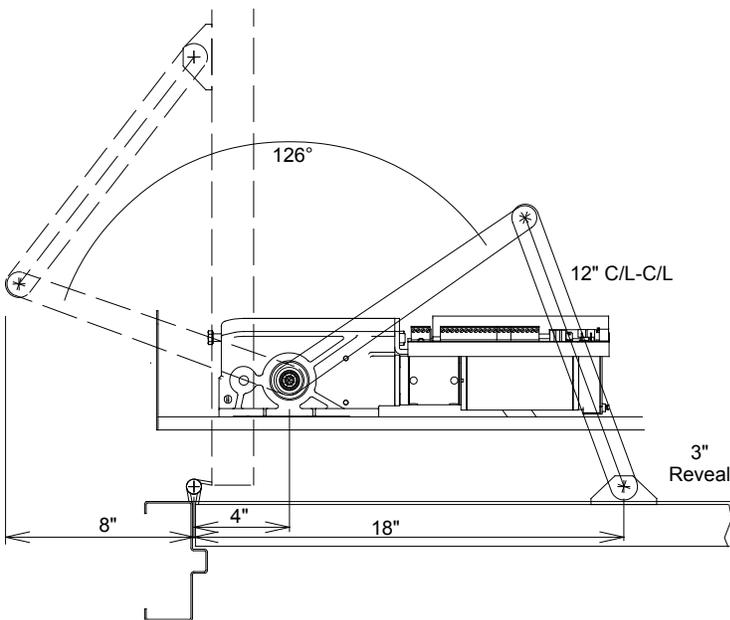
Standard Arms (CL/BL)	Extensions (230/345 mm)	Reveal Min. [in./mm]	Reveal Max. [in./mm]	Reveal Range [in./mm]
Standard Arm (102-127815969/102-127816107)	345	0	0.86 / 22	0.86 / 22
	230 + 230	0.86 / 22	6.65 / 169	5.78 / 147
	230 + 345	6.6 / 169	11.9 / 303	5.2 / 134



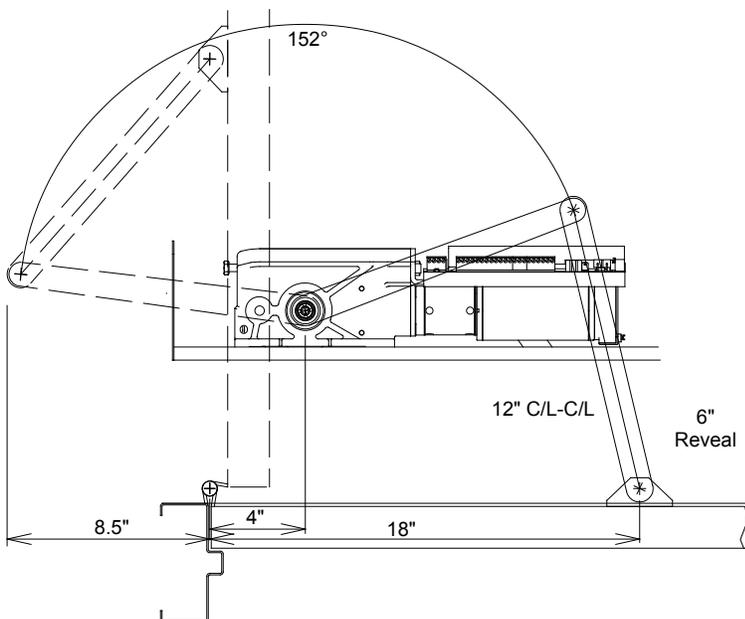




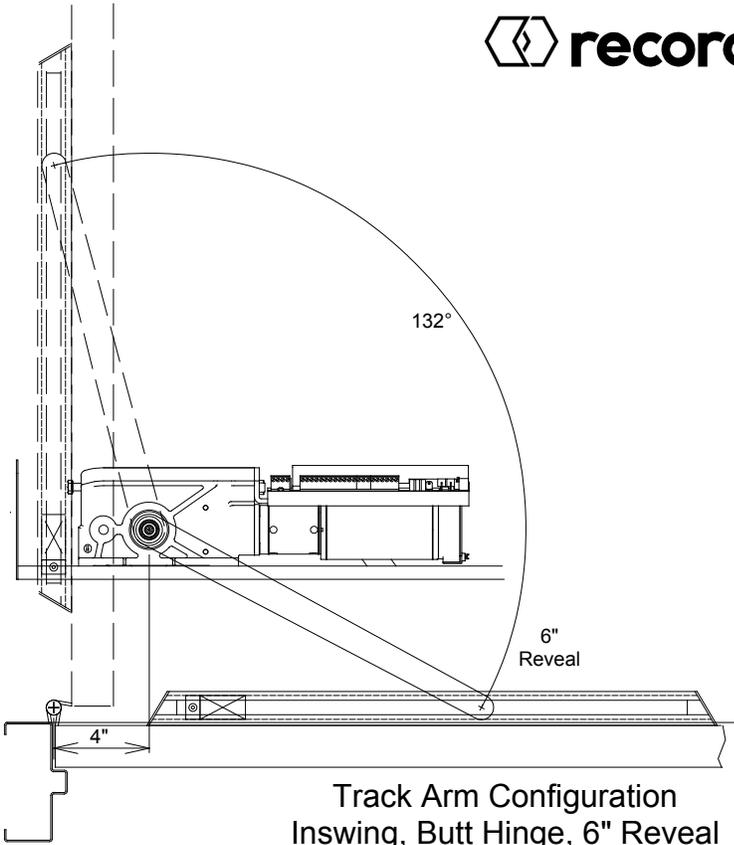
Arm Configuration
 Inswing, Butt Hinge, 0" Reveal
 25Sep05 DPH



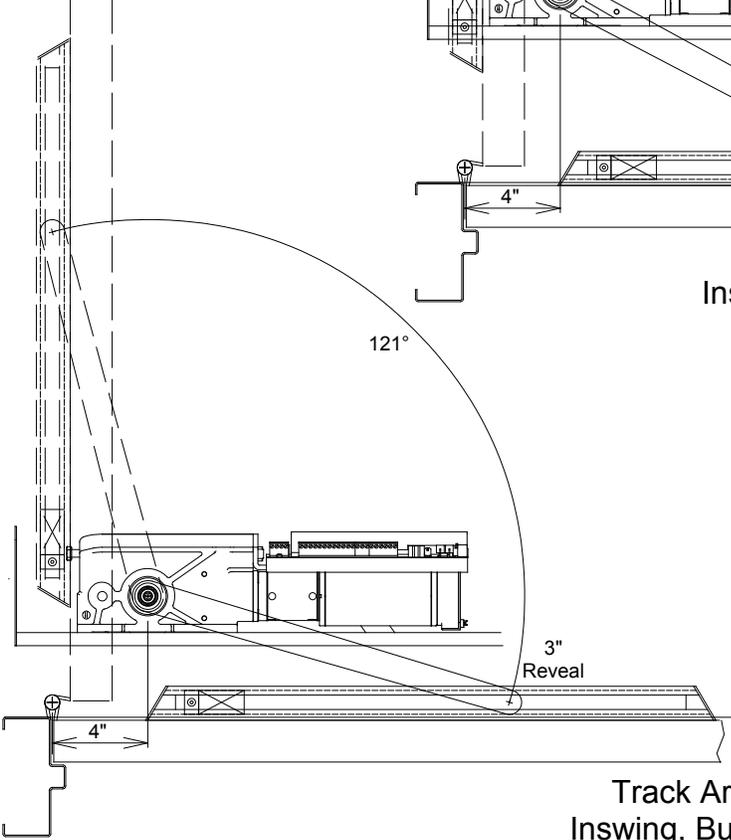
Arm Configuration
 Inswing, Butt Hinge, 3" Reveal
 25Sep05 DPH



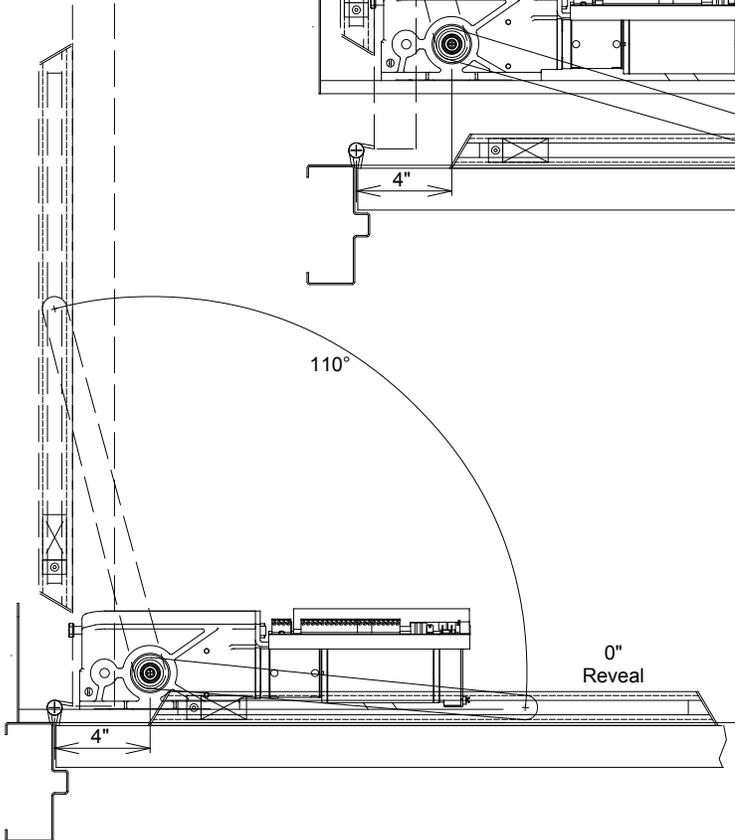
Arm Configuration
 Inswing, Butt Hinge, 6" Reveal
 25Sep05 DPH



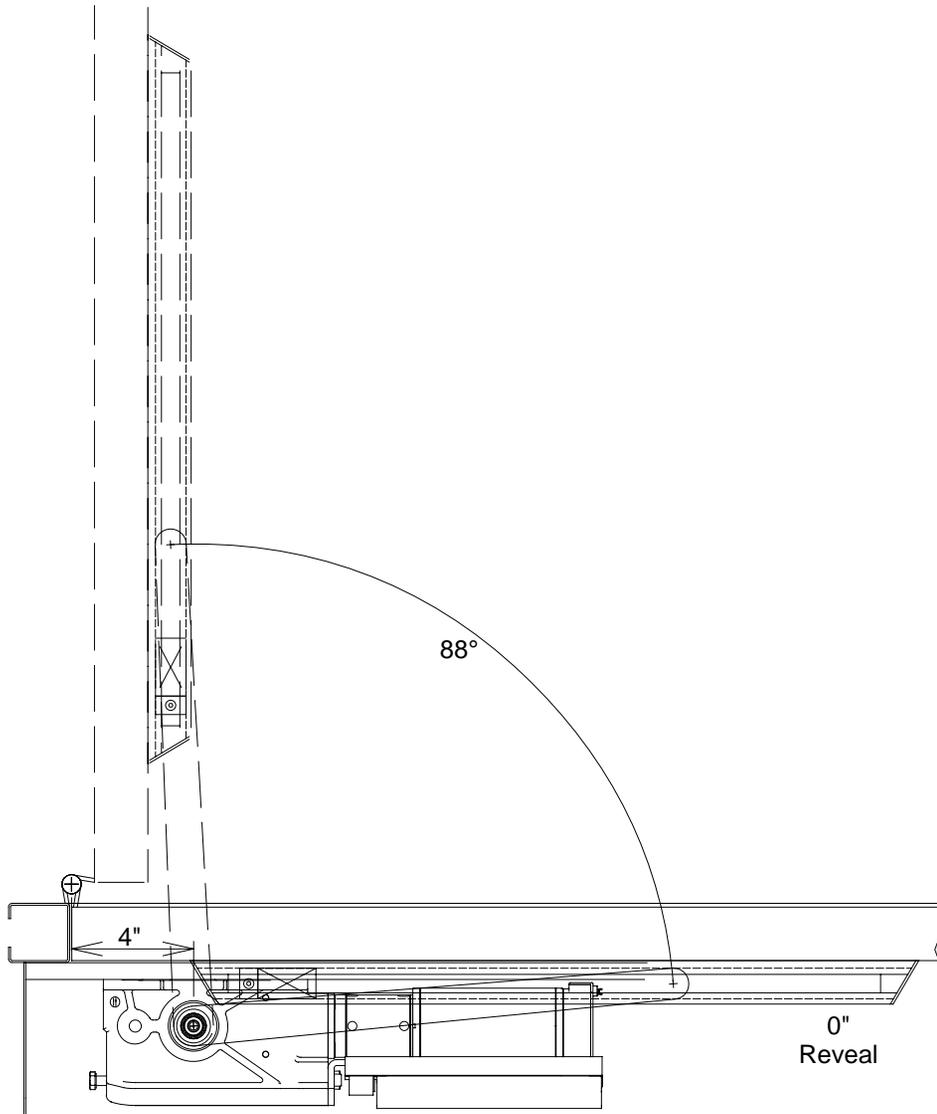
Track Arm Configuration
Inswing, Butt Hinge, 6" Reveal
25Sep05 DPH



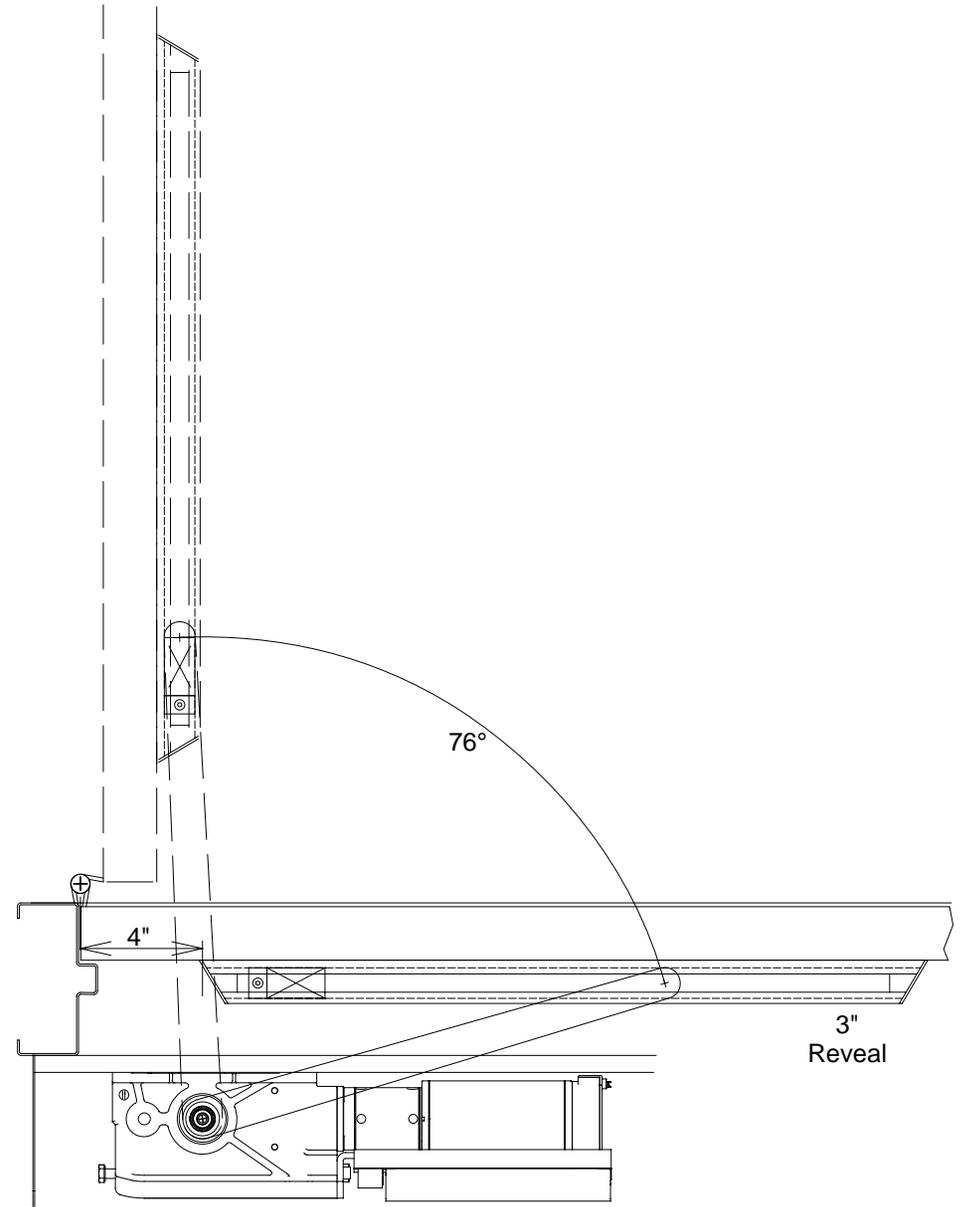
Track Arm Configuration
Inswing, Butt Hinge, 3" Reveal
25Sep05 DPH



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

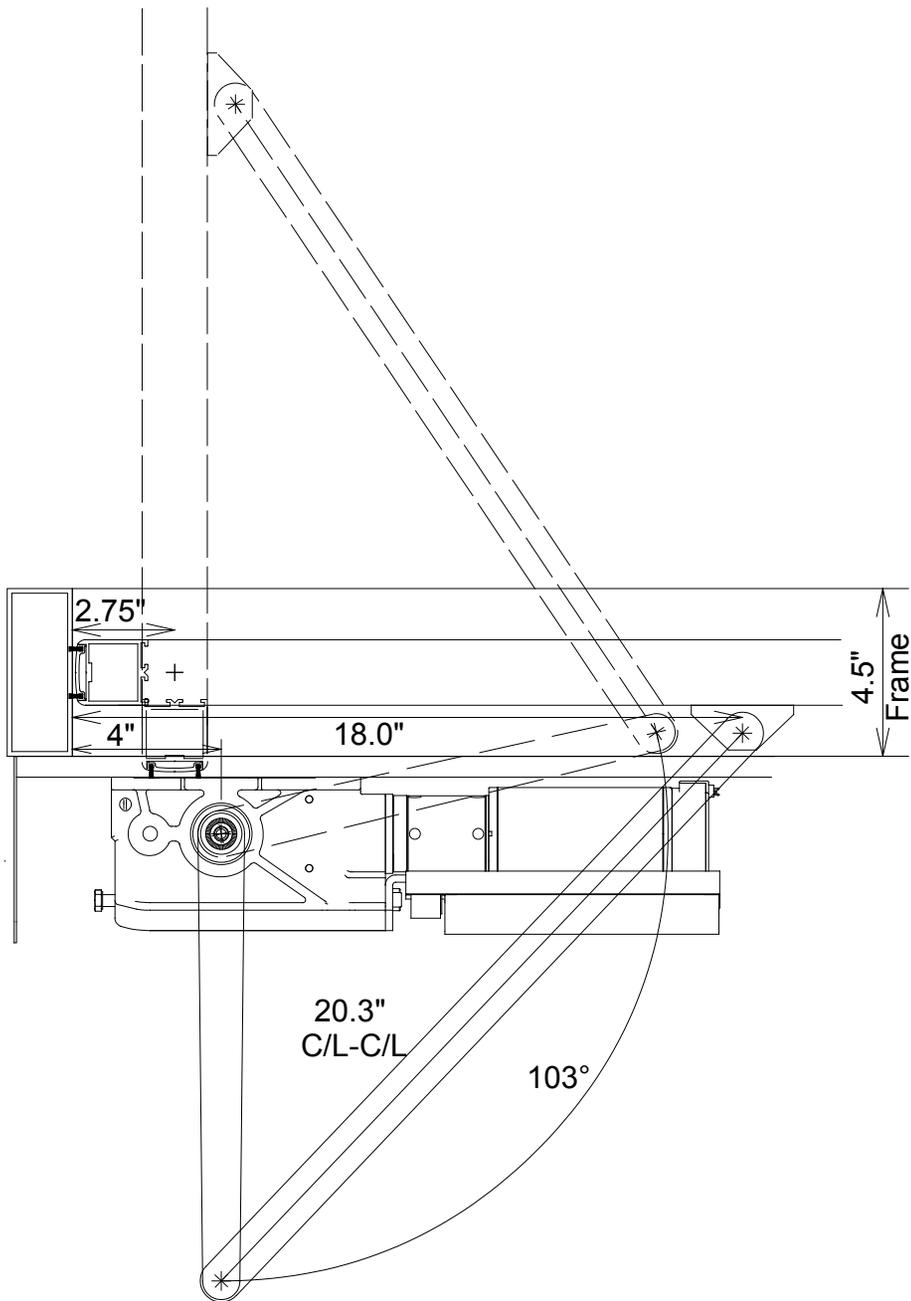


Track Arm Configuration
Outswing, Butt Hinge, 0" Reveal
25Sep05 DPH

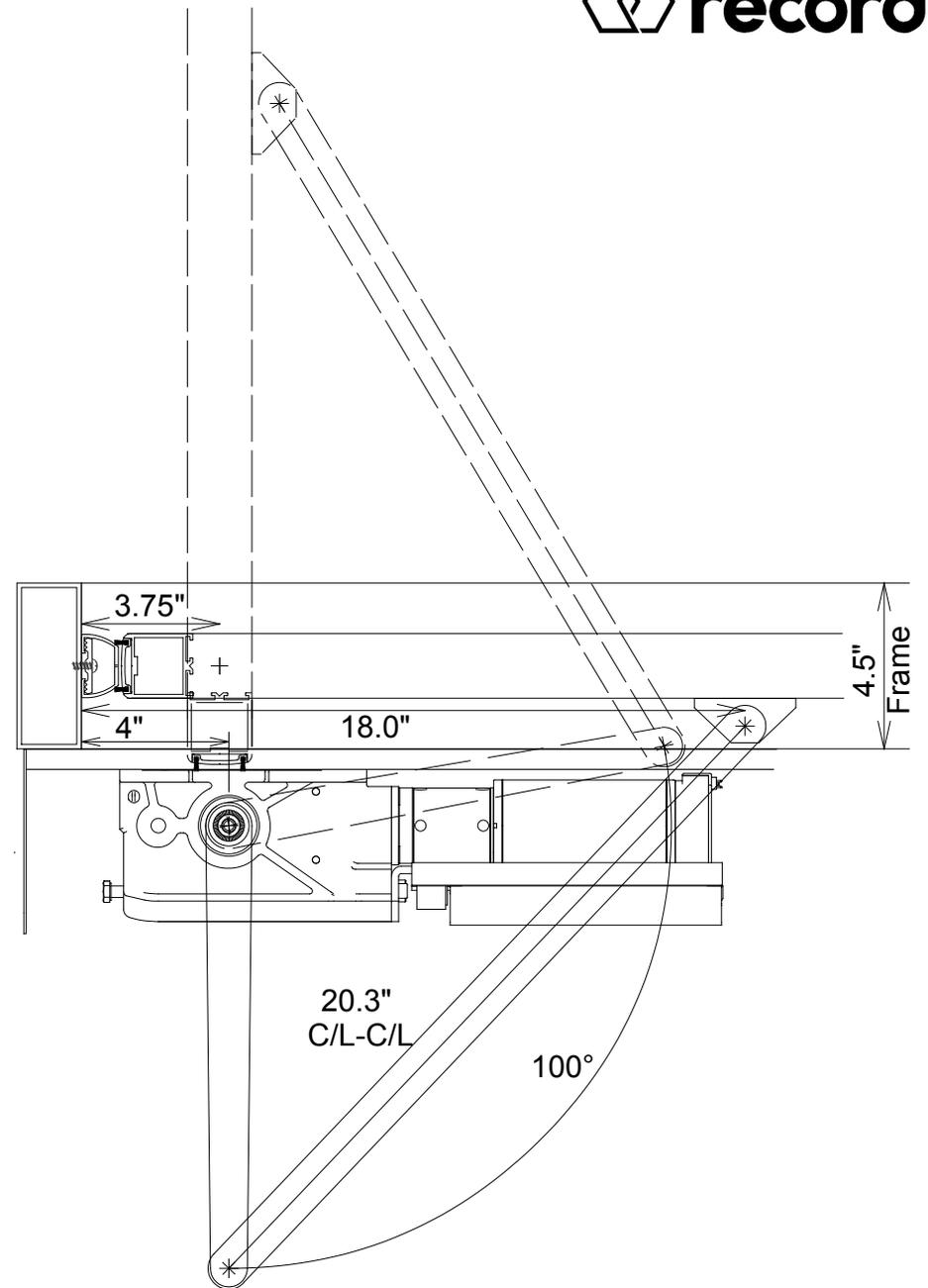


Track Arm Configuration
Outswing, Butt Hinge, 3" Reveal
25Sep05 DPH

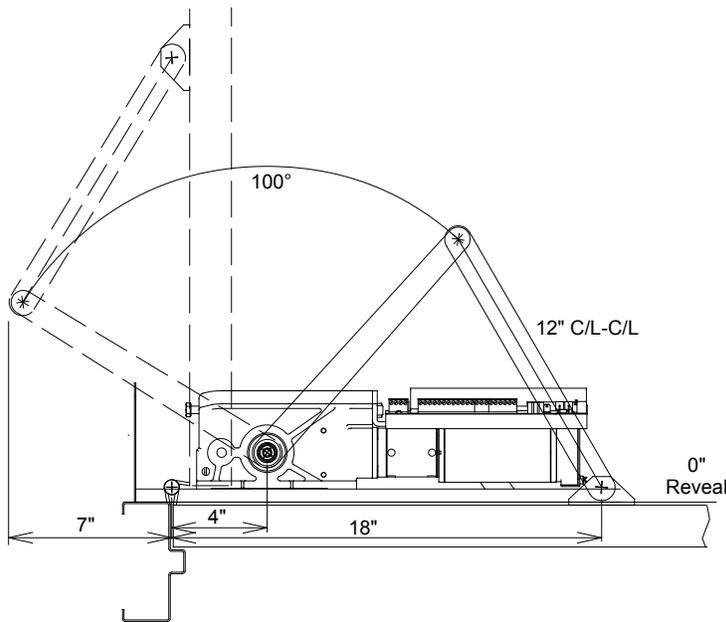
Not recommended for heavy doors and/or abusive installations



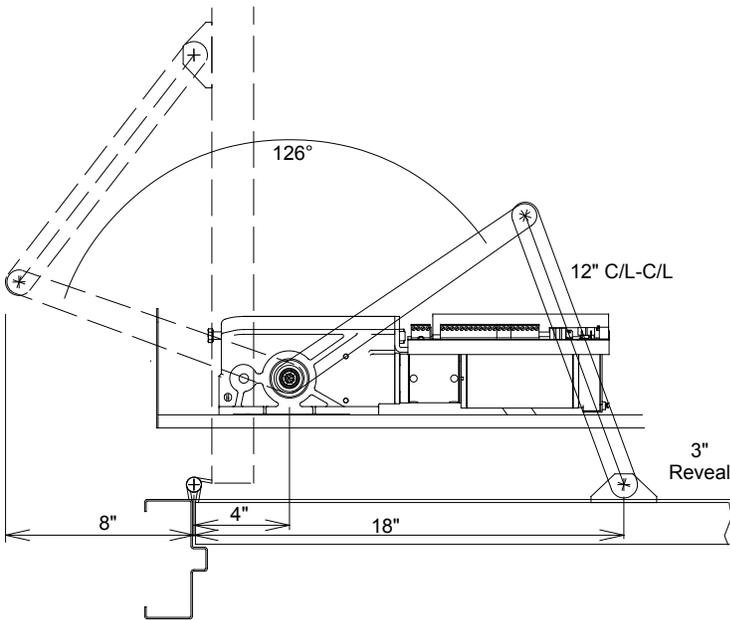
Arm Configuration
Outswing, 2.75"CenterPivot, 4.5"Frame
 25Sep05 DPH



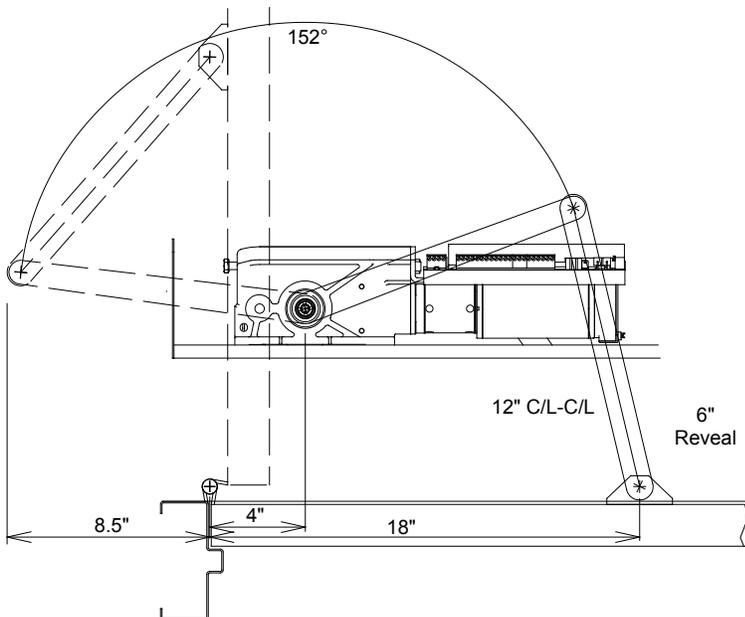
Arm Configuration
Outswing, 3.75"CenterPivot, 4.5"Frame
 25Sep05 DPH



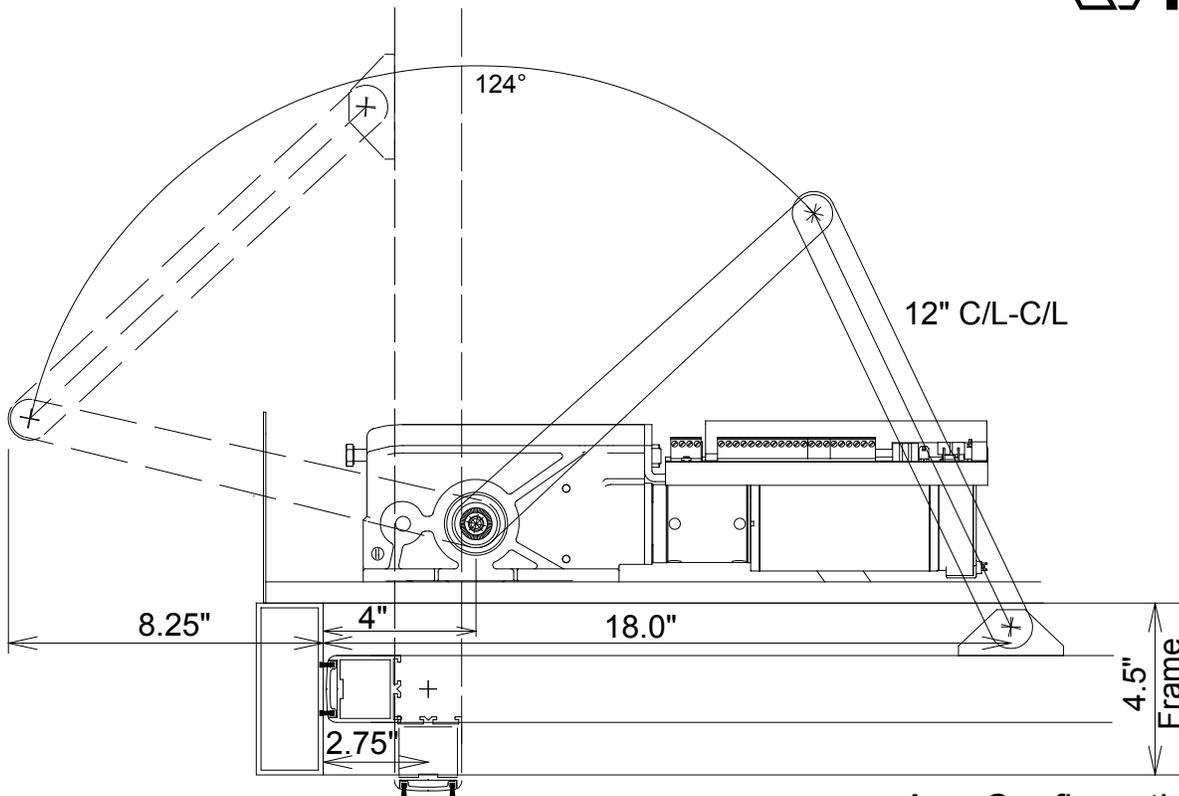
Arm Configuration
Inswing, Butt Hinge, 0" Reveal
 25Sep05 DPH



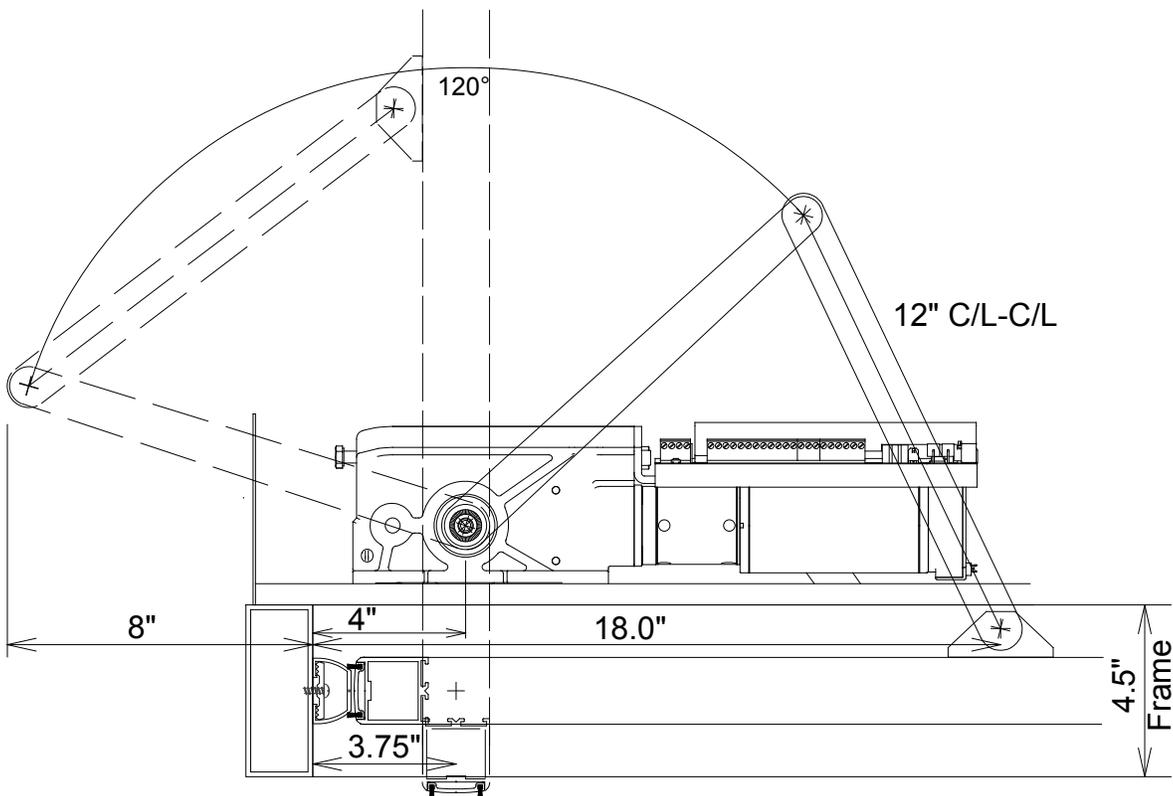
Arm Configuration
Inswing, Butt Hinge, 3" Reveal
 25Sep05 DPH



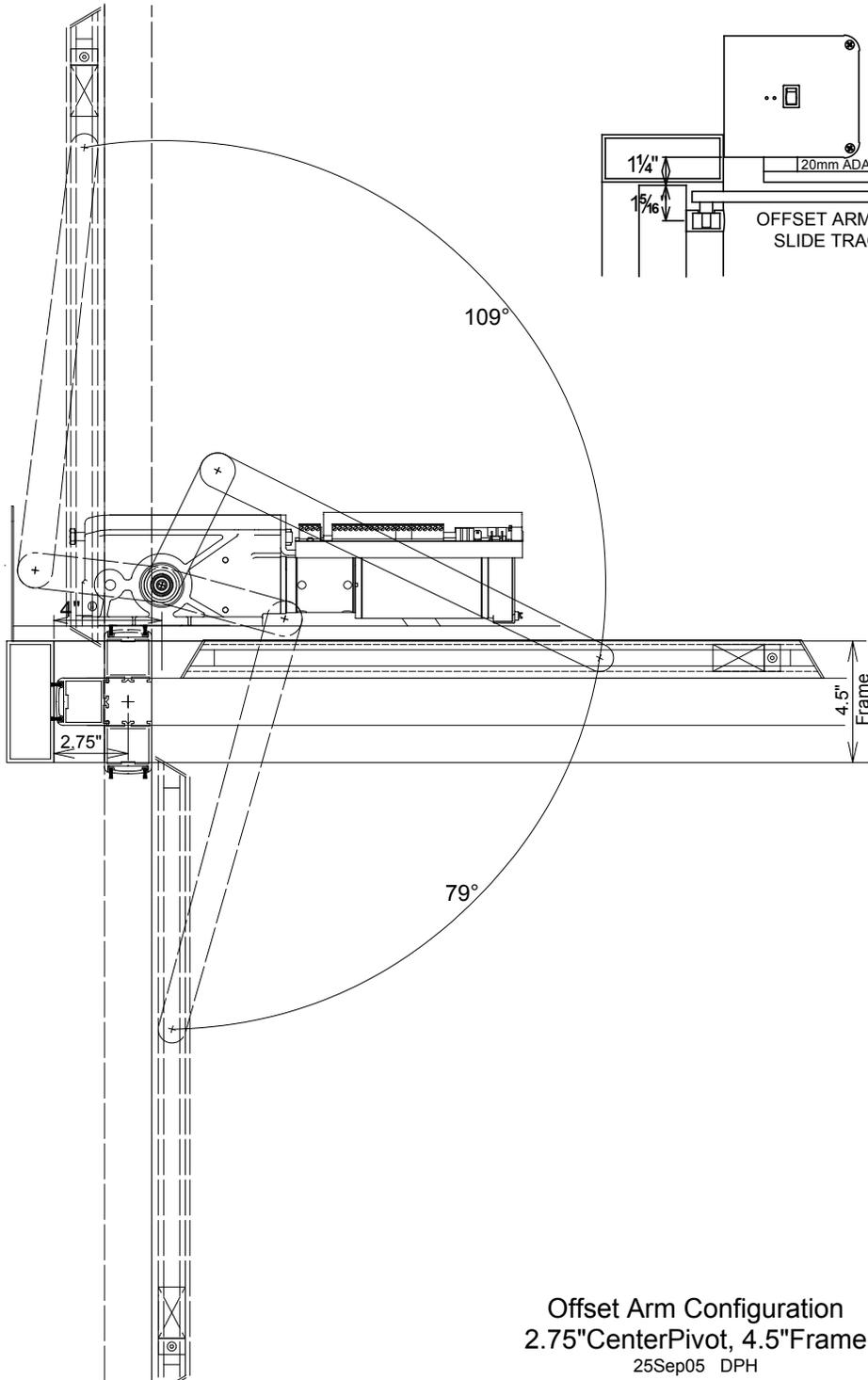
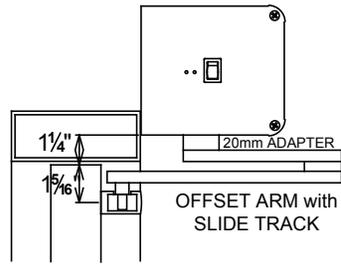
Arm Configuration
Inswing, Butt Hinge, 6" Reveal
 25Sep05 DPH



Arm Configuration
 Inswing, 2.75" Center Pivot, 4.5" Frame
 25Sep05 DPH

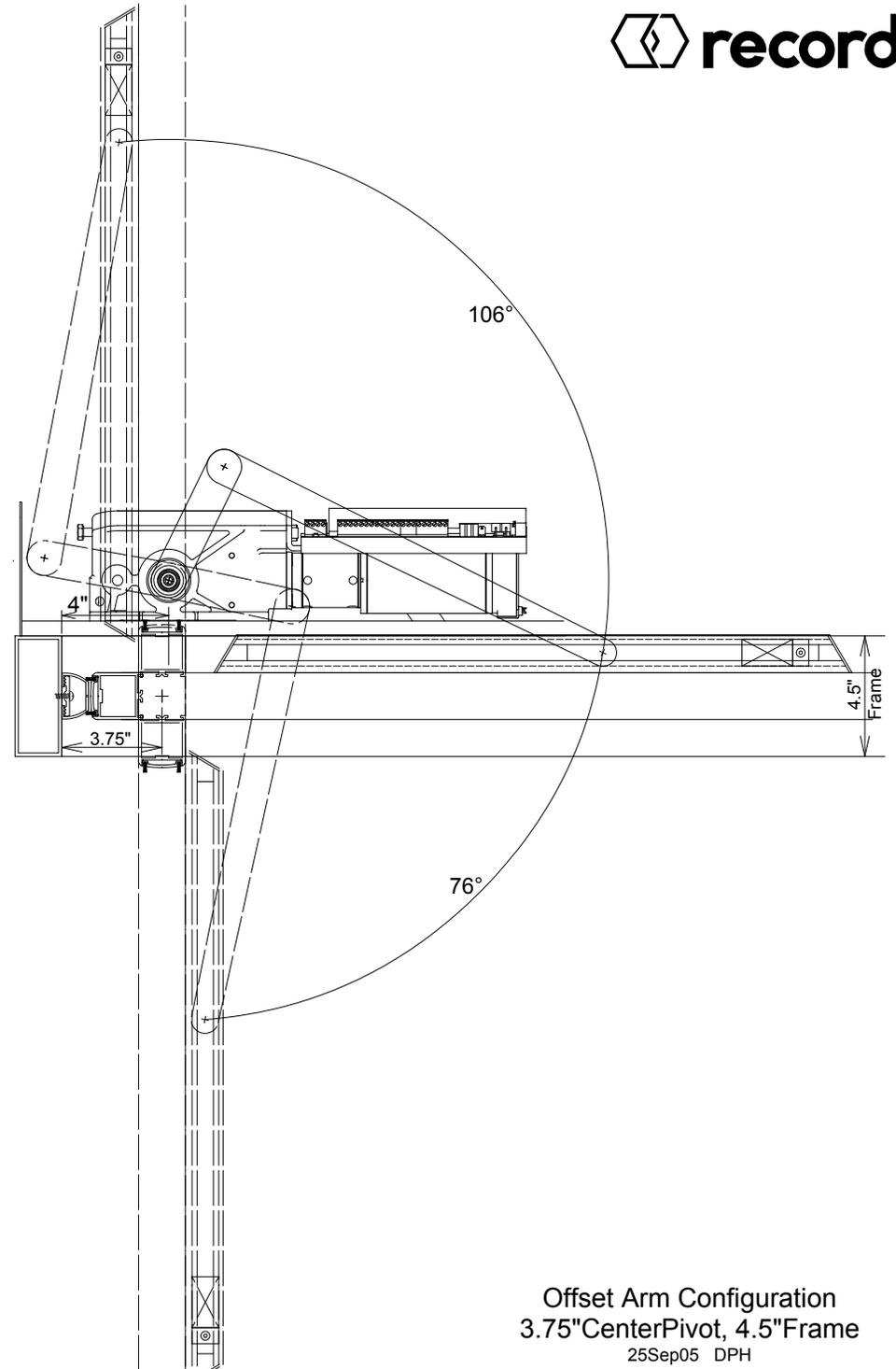


Arm Configuration
 Inswing, 3.75" Center Pivot, 4.5" Frame
 25Sep05 DPH

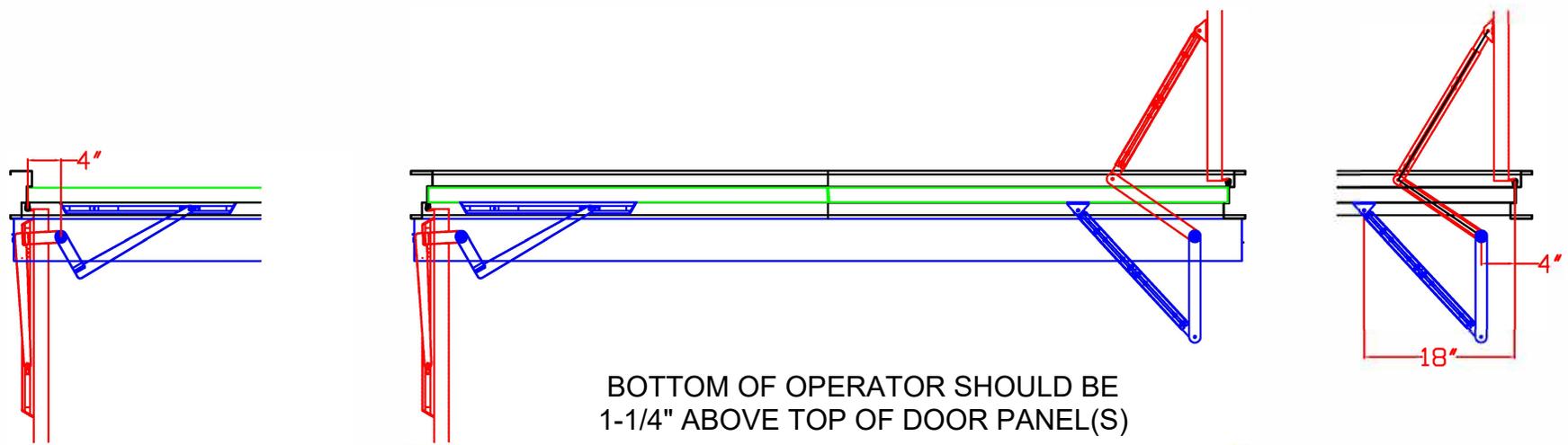


Offset Arm Configuration
2.75" CenterPivot, 4.5" Frame
25Sep05 DPH

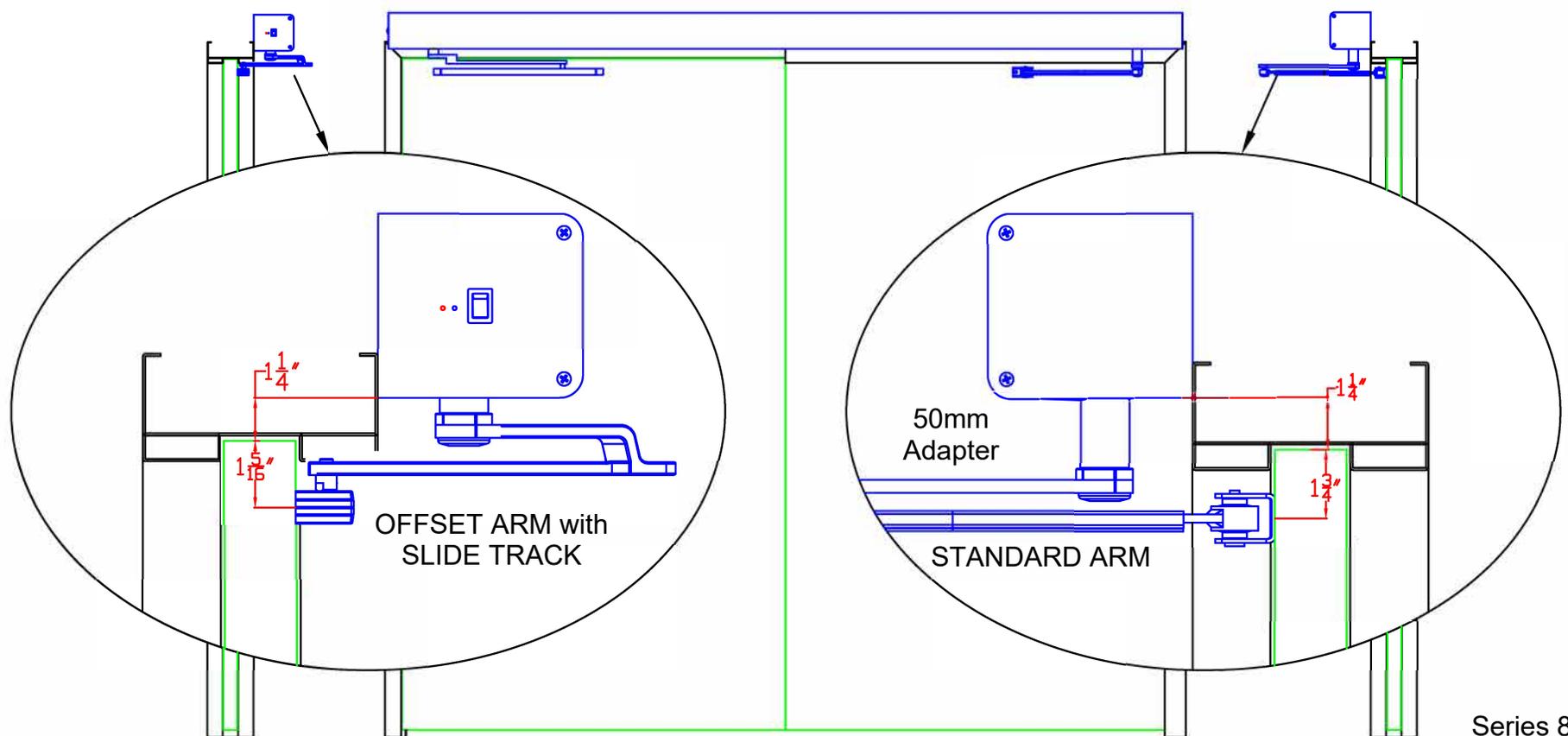
Record 8000 Series



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



BOTTOM OF OPERATOR SHOULD BE 1-1/4" ABOVE TOP OF DOOR PANEL(S)



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

11 Abbreviations

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

Rev. C

Manual Record 19 STA

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. <u>Repeat unlocking attempt after changing the BDF operating mode.</u>
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 <u>door not locked. Reset Control settings.</u>
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. <u>SIO might possibly be active or motion be mechanically hindered (e.g. dirt in floor track).</u>
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“, <u>opening time + 400 ms.</u>
18	VAK closed automatic		X	Adjust locking device. 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	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 I.		X	Locking device does not work properly. On BDE-D change operating mode to Automatic and again to Locked. <u>Wrong locked position or VRR faulty.</u>
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. <u>Door might work sluggishly. Check for presence of mechanical hindrance.</u>
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. <u>Connection cable might be missing or is not properly plugged in. Check locking settings.</u>
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 performed.
55	Power failure			No mains supply. Door works in battery service provided that there is a battery and <u>„Basic escape route“ has been configured.</u>
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 <u>extremely dirty.</u>
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 <u>function.</u>
61	SSK > 60 sec. active			Key-operated contact stays active. Door remains open. <u>Check Remote Switch (SSK) wiring connections and switch.</u>
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. <u>Inform after-sales service and have installation serviced. Set Targets to 0 to avoid alert.</u>
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. <u>Inform after-sales service and have installation serviced. Set Targets to 0 to avoid alert.</u>
112	Batt. not charged complet.			Battery is not fully charged. Message disappears from display in case of full charge.
2132	FPC Can blocked ***** BDE Can blocked ***** 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

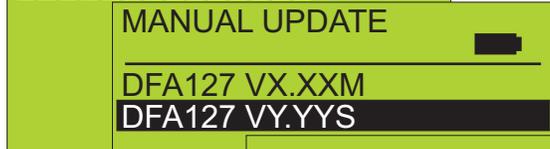
First the software of the 2 operators must match. To see if that is true, please go to FLASHPROGRAMMER and open to find Automatic or Manual Update. The preferred would be Manual Update for it will allow going forward and backward with software. Please see screens below.



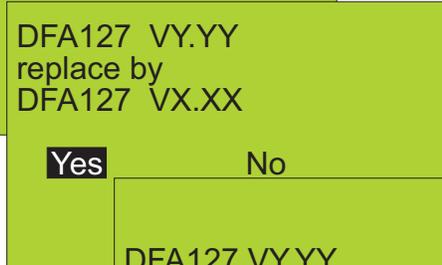
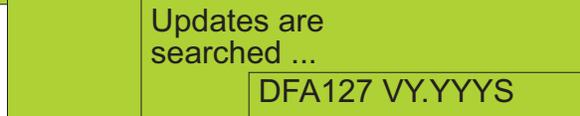
The Master operator software is indicated with an “M” at the end of version and an “S” for the slave. If one of the operators is not shown press the corresponding operator blue multifunction button on the circuit board for it to appear.



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.

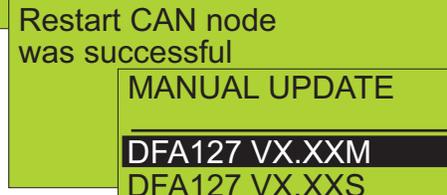


After matching the software, please refer to the 6100/8100 Installation Manual to page 10 or to the FPC Booklet servicing the 6100/8100 to page 18 for configuring and synchronizing a pair of operators for dual operation.



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. Obviously, if you have the newer software onboard, you would simply be sure to make both operators match with the newest software.

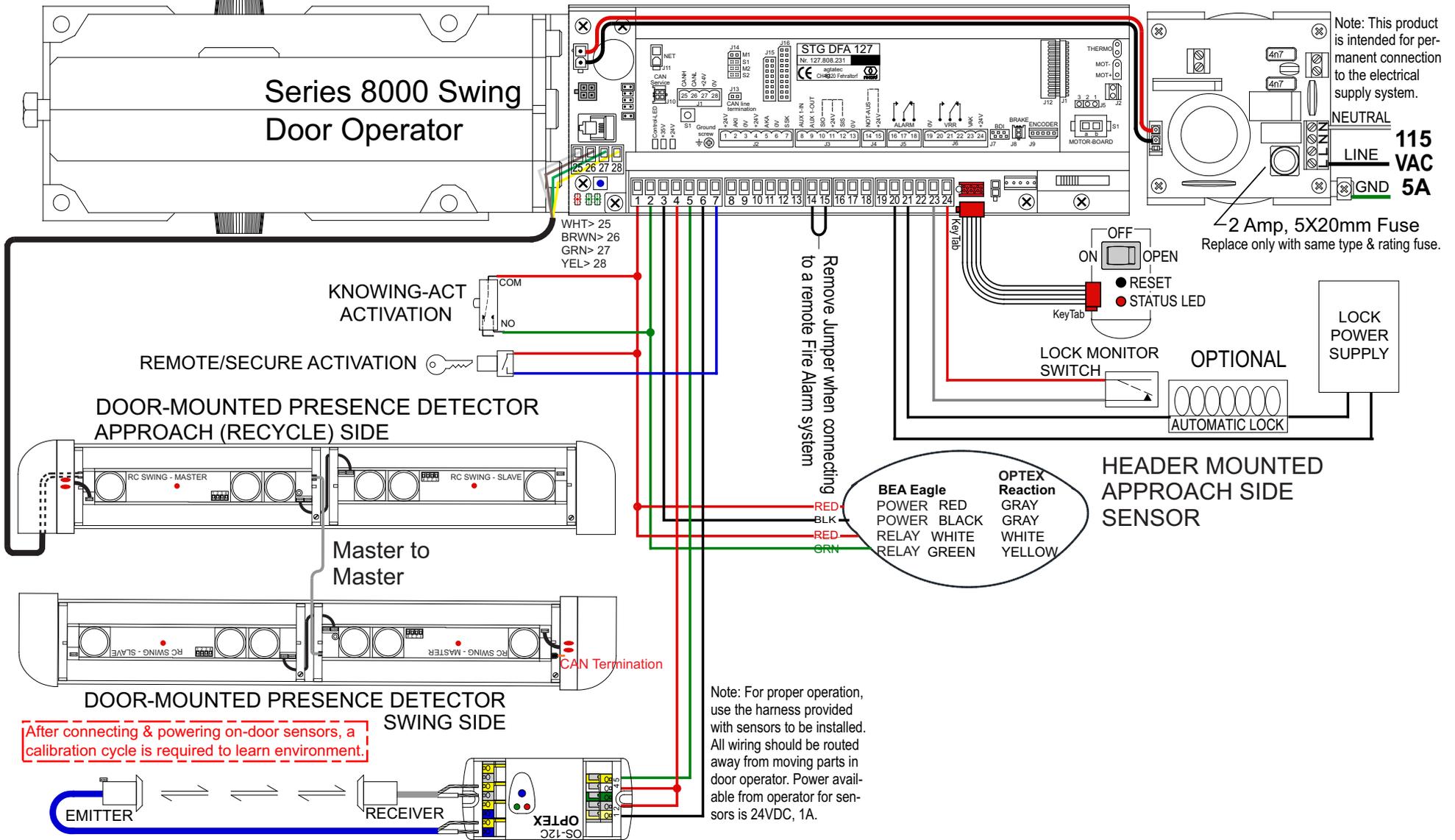


For assistance please consult the factory tech support @ 844-366-7526(DOORJAM)

CONTROL TERMINAL BLOCK CONNECTIONS

- | | | |
|---|---|--|
| 1 - Approach Sensor - Power/Signal - +24V | 9 - BodyGuard Data Line - Data + | 17 - Door Alarm Relay - COM |
| 2 - Approach Sensor - Signal | 10 - Door Mounted Swing Side Safety - Signal | 18 - Door Alarm Relay - N.C. |
| 3 - Approach Sensor - Power - 0V | 11 - Door Mounted Sensors - Power/Signal - +24V | 19 - Automatic Lock Power - 0V (0.5A Max.) |
| 4 - Guide Rail Beam - Power/Signal - +24V | 12 - Door Mounted Approach Side Recycle - Signal | 20 - Automatic Lock Control Relay - N.O. |
| 5 - Guide Rail Beam - Signal | 13 - Door Mounted Sensors - Power - 0V | 21 - Automatic Lock Control Relay - COM |
| 6 - Guide Rail Beam - Power - 0V | 14 - Fire Alarm Signal (Jumper to 15 if not used) | 22 - Automatic Lock Control Relay - N.C. |
| 7 - Remote Switch - Signal | 15 - Fire Alarm - +24V | 23 - Automatic Lock Monitor Signal |
| 8 - Header Mounted Swing Side Safety - Signal | 16 - Door Alarm Relay - N.O. | 24 - Automatic Lock Power/Signal - +24V |

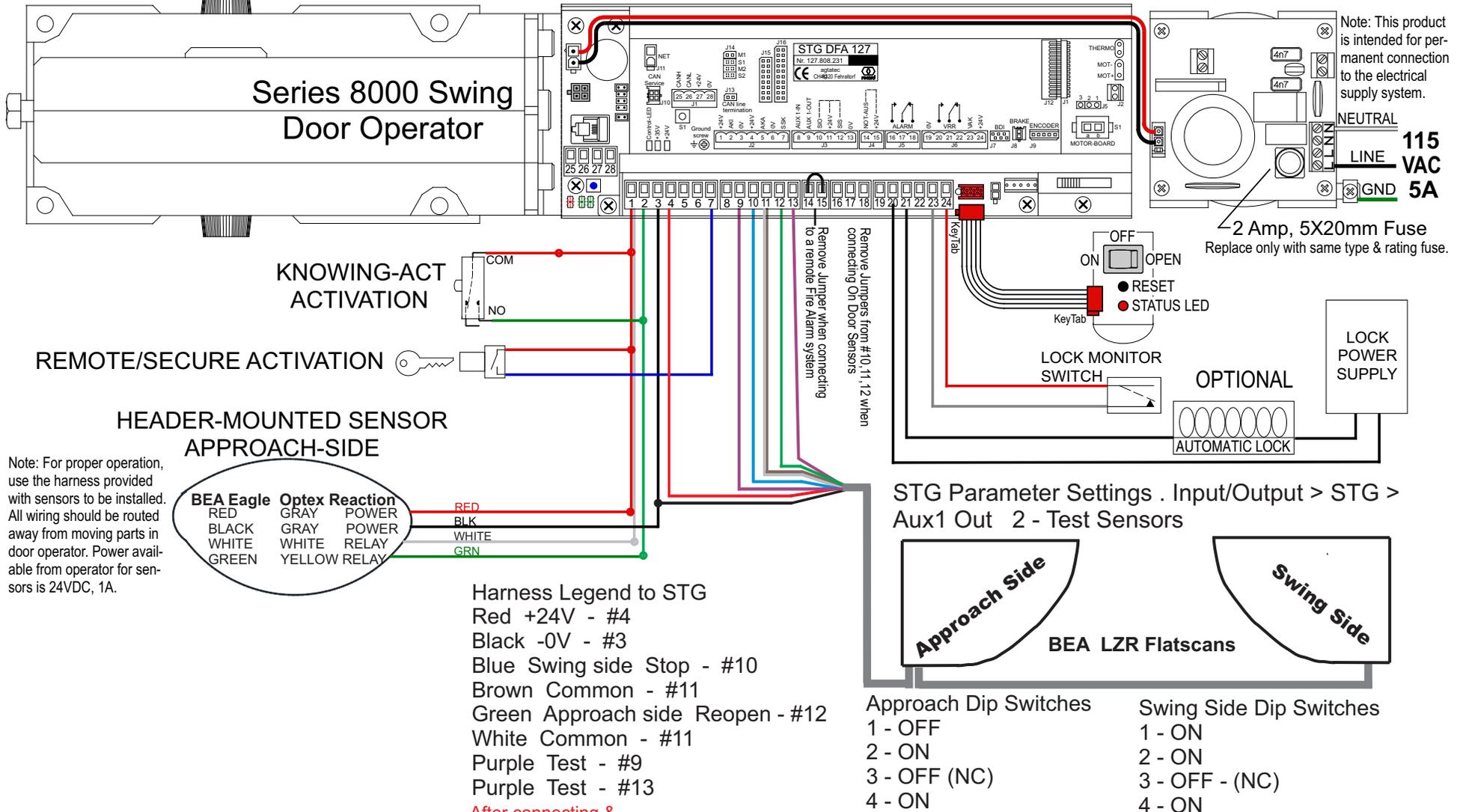
There are three levels of resetting an operator. To reset without changing any operating parameters, press & hold the black reset button (next to the ON/OFF rocker switch) for 6 seconds, until relay "clicks" occur. To reset and restore typical operating parameters (speed, master/slave, etc.), press & 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

- | | | |
|---|---|--|
| 1 - Approach Sensor - Power/Signal - +24V | 9 - BodyGuard Data Line - Data + | 17 - Door Alarm Relay - COM |
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| 3 - Approach Sensor - Power - 0V | 11 - Door Mounted Sensors - Power/Signal - +24V | 19 - Automatic Lock Power - 0V (0.5A Max.) |
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| 5 - Guide Rail Beam - Signal | 13 - Door Mounted Sensors - Power - 0V | 21 - Automatic Lock Control Relay - COM |
| 6 - Guide Rail Beam - Power - 0V | 14 - Fire Alarm Signal (Jumper to 15 if not used) | 22 - Automatic Lock Control Relay - N.C. |
| 7 - Remote Switch - Signal | 15 - Fire Alarm - +24V | 23 - Automatic Lock Monitor Signal |
| 8 - Header Mounted Swing Side Safety - Signal | 16 - Door Alarm Relay - N.O. | 24 - Automatic Lock Power/Signal - +24V |

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BEA LZR FLATCANS WIRING DIAGRAM SERIES 8000 SWING

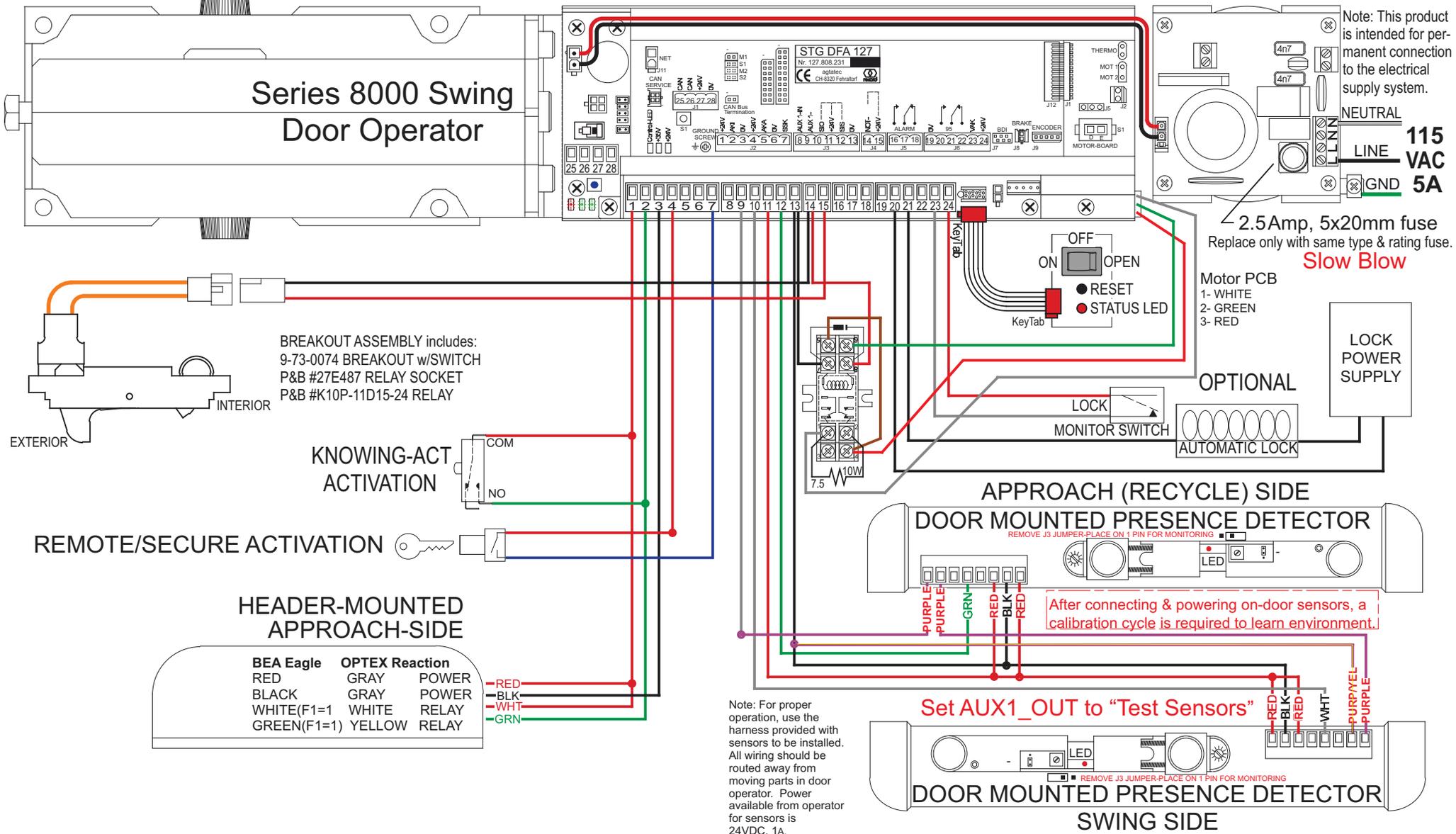
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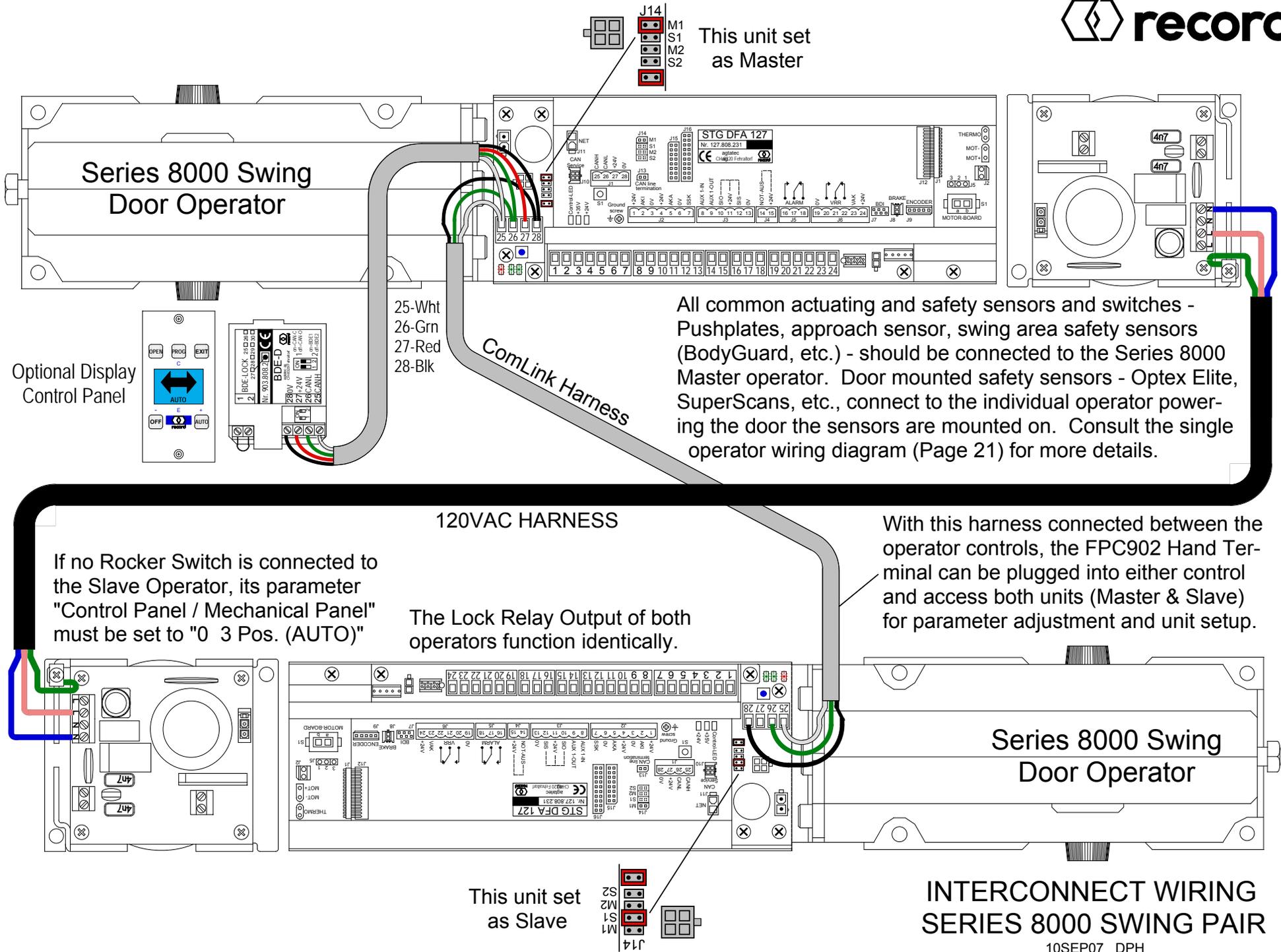
- 1 - Approach Sensor - Power/Signal - +24V
- 2 - Approach Sensor - Signal
- 3 - Approach Sensor - Power - 0V
- 4 - Guide Rail Beam - Power/Signal - +24V
- 5 - Guide Rail Beam - Signal
- 6 - Guide Rail Beam - Power - 0V
- 7 - Remote Switch - Signal
- 8 - Header Mounted Swing Side Safety - Signal
- 9 - 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
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- 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.



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





J14
M1
S1
M2
S2

This unit set as Master

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.

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.

J14
S2
M2
S1
M1

This unit set as Slave