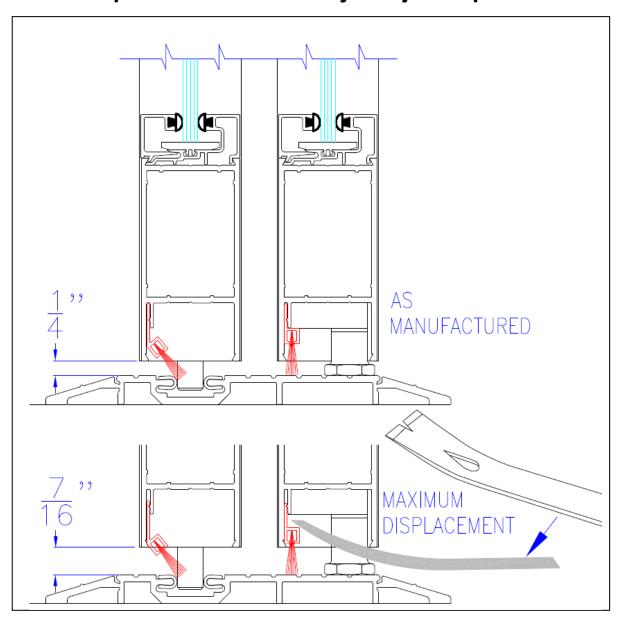


From the office of: Waylin McMillen

DATE: <u>12-15-08</u> NUMBER: TB-08-008

Adjustment of 5100 Bottom Weatherstrip A crowbar may be used to adjust the maximum Displacement of the weatherstrip. The sweep is set for ¼ inch and may be adjusted up to 7/16 inch.



record-usa



From the office of: Waylin McMillen

DATE: <u>10-17-08</u> NUMBER: <u>TB-08-007</u>

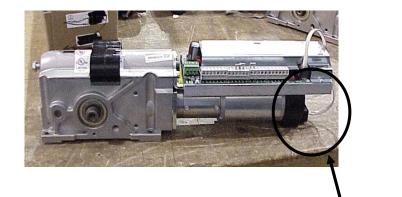
There is still some confusion on the physical differences between the 8100 (Low power or full power up to 350 pound doors) and the 6100 (Low power only up to 175 pound doors) swing door operators.

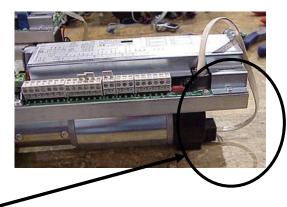
The only physical difference is that the 8100 operator has a longer motor.



8100 Motor

Notice the distance from the end of the control board.





6100 Motor

record-usa



From the office of: Waylin McMillen

DATE: <u>9-26-08</u> NUMBER: <u>TB-08-006</u>

This is a copy of the sticker of default parameters for a 6100/8100 operator. The italicized numbers are the default settings. There is space available next to the default settings so you can mark what the individual settings for each door are going to be.

The sticker is located inside the header cover.

SERIES 6100 / 8000 DEFAULT PARAMETER VALUES

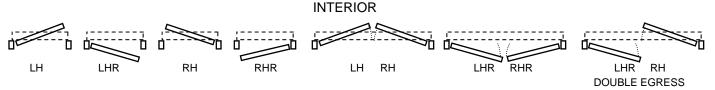
record-usa



From the office of: Waylin McMillen

DATE: <u>8-15-08</u> NUMBER: TB-08-005

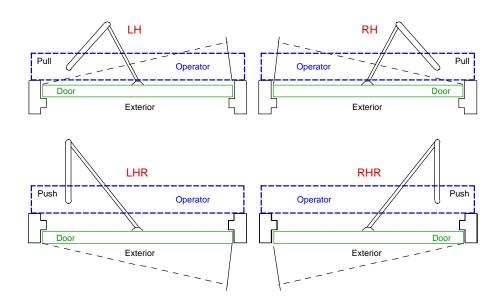
When identifying what hand a door is, you always identify from the outside of the building with the operator on the inside of the building.



EXTERIOR



The covers above are shown as you would get them out of the box and are positioned this way during manufacturing to identify handing. The opposite pinion cutout has been removed for representation only



record-usa

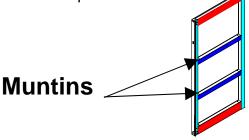


From the office of: Waylin McMillen

DATE: <u>18 July 2008</u> NUMBER: TB-08-004

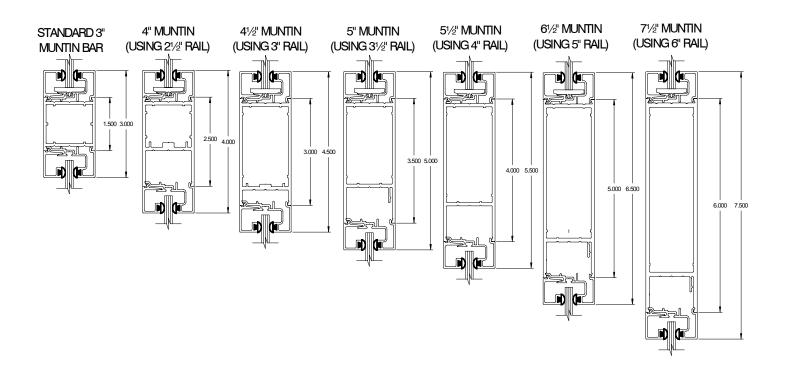
Doors / Sidelites ordered with multiple muntins must include dimensions from the bottom of the panel to the centerline of each muntin. If dimensions are not supplied record will locate the muntins evenly spaced

so as to provide equal glass sizes whenever possible.



Shown below are the standard 3" muntin and 6 additional custom muntin sizes.

sizes. Contact record-usa for



record-usa

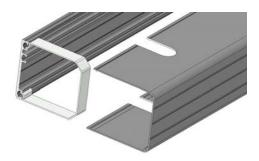


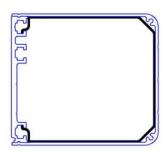
From the office of: Mike White

DATE: <u>5-18-08</u> NUMBER: TB-08-003

6100 / 8100 Cover Mounting / Support Bracket

The 6100 / 8100 swing door systems now offer a mounting / support bracket for cover installation and attachment. This bracket allows the cover to be secured on all three sides in the event the ends of the cover are not accessible due to an adjacent wall or obstruction.

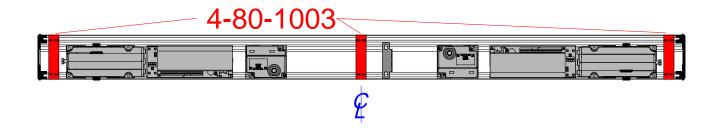






All dual operators will be supplied with three brackets mounted as shown below, one in the middle and one at each end. These brackets will make cover installation and removal easier.

Single units will not be shipped with the brackets as standard but can be purchased upon request if noted on the order.



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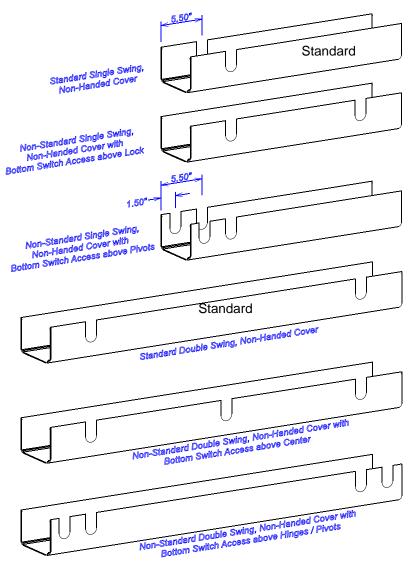
From the office of: Mike White

DATE: <u>3-3-08</u> NUMBER: TB-08-002

Series 6100 / 8100 alternate ON / OFF / HOLD OPEN switch locations

The standard location for the on/off/hold open switch is in the end cap which in some instances isn't accessible due to adjacent walls. A typical example of this situation is hospital corridor installations. To accommodate these applications record-usa can offer alternate switch locations as detailed below for a \$100.00 net add for single or dual, just provide us the desired switch location when placing your order.

SERIES 6100/8100 HEADER COVERS



record-usa

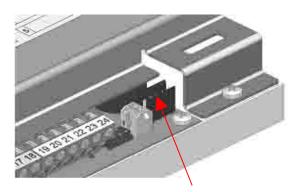


From the office of: Mike White

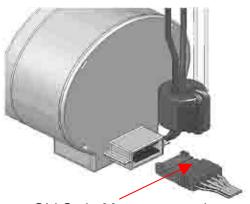
DATE: <u>1-18-2008</u> NUMBER: TB-08-001

ENCODER HARNESS & CONNECTOR CHANGES

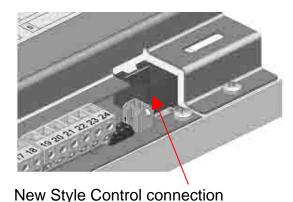
The Series 6100 and 8100 Swing Door Operator Systems now incorporate a more rugged connector configuration which should reduce the number of damaged control and encoder circuit boards. Additionally, an adaptor harness is available so that either the new control will connect to the old motor or a new motor will connect to the old control.



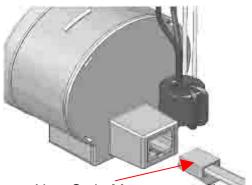
Old Style Control connection



Old Style Motor connection



9-80-0016 Encoder Adaptor Harness



New Style Motor connection



record-usa



From the office of: **Mike White**

DATE: <u>12-21-07</u> NUMBER: TB-07-009

6100 / 8100 Shipping Damage Issues

The 6100 / 8100 series operator drive modules may need to be sent out as replacement parts orders and could require our dealers to return the suspected defective operators to record-usa for evaluation. Should this situation arise, do not discard the packaging for the drive module unless it has significant damage. Note: If this packaging, or equal, is not used, and damage occurs when returned, that damage will not be covered by the product warranty.

The typical damage being identified is to the encoder which occurs when the connector is hit, pushing it into the black encoder housing and damaging the internal components. To reduce the chances of damage remove the connector shown in figure "A" below and place it across the control as shown in figure "B".

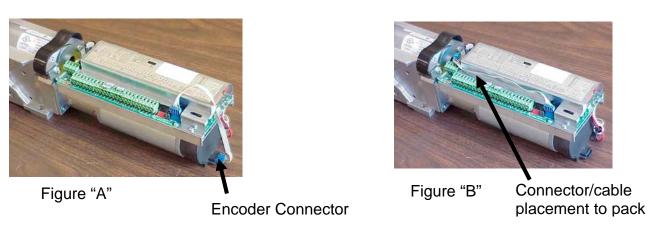


Figure "C" shows the operator properly packed for reshipment with packing at each end of the operator drive module to protect against damage.



Figure "C"

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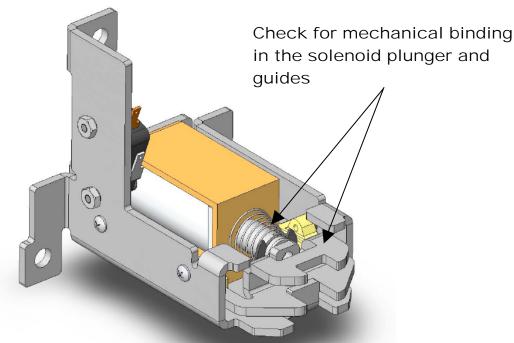


From the office of: Mike White

DATE: <u>11-16-07</u> NUMBER: TB-07-008

5100 Electric Lock Software Enhancement

The 5100 electric lock system consists of the lock mechanism and the software that allows the lock to work in different modes. Some circumstances may cause the lock mechanism to bind producing a locking error which will cause the door to open approximately six inches and shut down. Perform an inspection of the lock and make sure the mechanical action works smooth and free.



If the lock is in proper working condition and the lock is still binding when activated, make sure the 5100 slider software has been updated to version 1.50 or later. This latest software contains enhancements to the energy applied to the lock that may eliminate the need for replacement of the lock mechanism.

record-usa



From the office of: Mike White

DATE: <u>7-27-07</u> NUMBER: <u>TB-07-007</u>

SERIES 5100 AUTOMATIC SLIDING DOOR SYSTEM AUXILIARY POWER OPTIONS

The Series 5100 sliding door system has available two auxiliary power options for limited operation when building mains power is lost. Both options can be concealed within the head section of the door, or remotely mounted for ease of access.

The Nicad Battery Pack is used to operate the door in one of four actions immediately upon loss of 120VAC mains power. The operator remains in this position until power is restored, then resumes the operating mode (Automatic, Off, Exit Only, etc.) in place at the time of power failure. The four actions are

Unlock and open

Open, if not locked

Close, do not lock

Close and lock

Nicad Battery Pack 4-1/2" x 3" x 2-3/4"



Uninterruptible Power Supply 20-1/2" x 4" x 2-3/4"

If the door is in the closed position and mains power is lost, it can be opened automatically by providing a signal to the "Remote Switch" input of the door control.

The Series 5100 door control maintains a full charge in the battery module and monitors its status. If an abnormal condition occurs with the battery module, such as a disconnection from the operator or a low voltage status, the control will indicate the specific issue on the door's digital control panel. An alarm contact is available from the door control that will also provide indication to an independent monitor of the abnormal condition.

The Uninterruptible Power Supply is used to maintain full operation of the automatic door for a period of time and/or number of cycles. Typical standby operation is approximately 30 minutes, or 100 cycles of continuous operation.

An audible annunciator will "beep" when the unit is operating on standby power. The frequency of annunciations increases as the remaining standby time is reduced.

As with the NiCad Battery Module above, the door can be programmed to perform one of four actions, or continue functioning in the current operating mode.

The module is self-monitoring and will annunciate if an abnormal condition is discovered.

The nominal power rating for the module is 200 VA.

Both modules can be retro-fitted to existing Series 5100 installations.

Consult your local record-USA representative for additional information.

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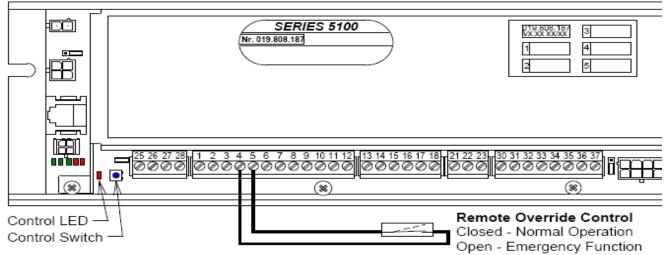


From the office of: Mike White

DATE: <u>7-2-07</u> NUMBER: TB-07-006

SERIES 5100 / 5200 REMOTE OVERRIDE OF DOOR OPERATION

An Auxiliary Input is available for a remote switch to override the normal function of the door. This input (Terminals 4 and 5) is normally disabled and is enabled in the Parameter configuration menu as documented below. When enabled, a closed contact will restore normal door operation. When the contact opens, the configured emergency operation will be performed.



Press and hold the blue Control Switch for 4 flashes of the red Control LED, then release. The first screen below should appear on the jamb-mounted Display Control Panel. Scroll down (using the AUTO/+ key) to "Input" and select it using the open key; scroll to "Emerg Opn/CIs" and select (using the key). The panel should then display the current setup, which should be "disabled". Scroll to & select (using the key) the desired door function to be initiated in response to the **Remote Override Control** contact opening -

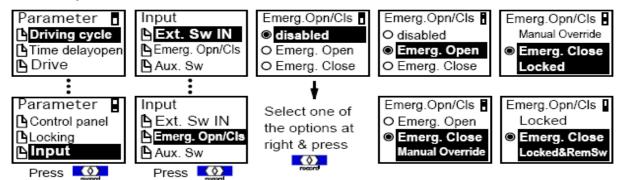
"Emerg. Open" will cause the door to immediately open;

"Emerg. Close Manual Overide" will close the door but allow manual opening & closing;

"Emerg. Close Locked" will close & lock the door (if equipped with an automatic lock);

"Emerg. Close Locked&RemSw" will also close & lock the door, and allow powered operation in response to a contact switch closure between terminals 13 & 14.

Note: During emergency closing, <u>ALL</u> sensor inputs, including safety beams, are ignored. Normal operation is restored when contact closure re-occurs between terminals 4 & 5.



record-usa



From the office of: **Mike White**

DATE: <u>6-13-07</u> NUMBER: T<u>B-07-005</u>

INTERCHANGING SERIES 6100 AND 8100 CONTROLS

The Series 6100 and 8100 operators both utilize the same control and software.

Upon initial operation of the unit in the plant, the motor type (6100 or 8100) is determined and the speed / force parameters are set accordingly.

If the control is then removed from the operator and installed in an operator of the same type, a calibration run (press & hold Control button for 3 flashes) is all that is required to properly set up the control for the new installation.

If, however, the control is installed on a different series operator (from a 6100 to an 8100, or vice versa), it must be reset to factory initial run status to re-learn the operator / motor type.

An alarm code "38 Motor 1 overheat" will occur if the control is set up for one series operator and subsequently connected to the other series.

The following steps must be followed to reset the unit -

- 1. Verify V1.26 or later software is in the FPC902, and V1.31 or later in the operator; if not, they must be updated. Consult the instructions provided with the FPC902 for updating.
- 2. Connect FPC902 to the control and proceed to the "Parameter / Maintenance / Functions / Operation mode / Diagnostics.
- 3. Select "Functions" and press "OK"
- 4. Select "Factory settings", press "OK", select "Yes" to "Are you sure?", & press "OK".
- 5. Select "Default settings", press "OK", select "Yes" to "Are you sure?", & press "OK".

The unit should initiate a complete re-boot, indicated by several relay clicks and the FPC902 resetting.

After the operator restarts, the status screen on the FPC902 will indicate the unit is now set up as a "0 Basic operator" and "52 No running parameter".

The "38 Motor 1 overheat" alarm code should now be cleared.

The Parameter "Entrance system" / "Door type" should be selected and set to either "1 USA" or "25 USA Low Energy" for operation compliant with ANSI A156.10 and A156.19 standards. Again, several relay clicks will be heard, indicating the unit has restarted in the new configuration.

Follow the configuration steps provided in the operator's installation instructions to complete the commissioning.

Note: The motor select sequence can also be initiated by pressing and holding the Control button for 9 flashes of the red LED, then momentarily removing the jumper between terminals 14 and 15. This will also clear the "38 Motor 1 overheat" code.

Additional Note: A Series 6100 operator can be connected to a Series 8100 for coordinated operation (bi-swing pair &/or double-egress); however, the opening speeds may not be synchronized.

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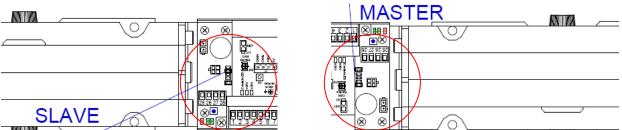
From the office of: Mike White

DATE: <u>4-27-07</u> NUMBER: <u>TB-07-004</u>

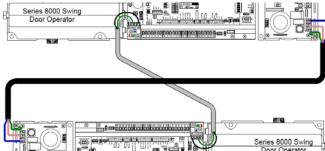
Setting up 6100/8100 Dual Simultaneous from two singles

Caution: Proper working knowledge of the 6100/8100, FPC 902, Hand held Display, and appropriate ANSI Standard is required when setting up this and all configurations.

- Step 1. Determine size and order backplate, cover, and arms for opening.
- Step 2. Confirm operators being used have same date software and update if required.
- Step 3. Check for correct handing locate and mount operators and power supply onto backplate. (use cover to assist w/output shaft location)
- Step 4. Set Jumpers on Left Hand operator for Slave and Right Hand operator for Master as shown below and on page 21 of installation manual.



Step 5. Wire Master to Slave power and communication connections as shown below and on page 22 of installation instructions.



- Step 6. Install arms and set door open stops.
- Step 7. Apply power to the dual and do the following sequence.
 - 1. Press and hold control button on Master for 8 flashes
 - 2. Press and hold control button on Slave for 8 flashes
 - 3. Press and hold control button on Master for 3 flashes (operator will calibrate)
 - 4. Press and hold control button on Slave for 3 flashes (operator will calibrate)
 - 5. With hand held display or FPC 902 Set "Mechanical Panel" in Slave operator to "0" for 3 pos. (Auto), this setting is in "Service STG Slave-Parameters-Control Panel-Mechanical Panel".
 - 6. With hand held display or FPC 902 go to "Parameters-MS 2-Leaves and set the "Overlap", "Sequ. Control Open", and "Seq. Control Clos." To "0" for simultaneous operation.
- Step 8. Set time delay as required for particular application.

Note: 1. If door mounted sensors are being used, the sensors must be connected to the operator/control of that door panel, i.e. Slave operator/control or Master operator/control.

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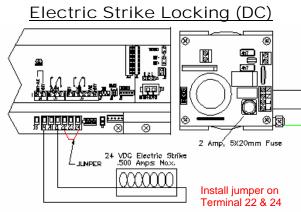
Post Office Box 3099 Monroe NC 28110-3099



From the office of: Mike White

DATE: 3-19-07 NUMBER: TB-07-003

6100 / 8100 Common Locking Options



Lock Type: 24VDC Electric Strike (by others) Lock Operation: Fail Secure - Always Locked

Lock Current: .500 Amps or less

6100 / 8100 Operator Display / FPC902 Screen Settings:

Lock Function: "3 Always Locked" "1 Standard" Lock Type: "7 3 Pos. (OFF-M)" Mechanical Panel:

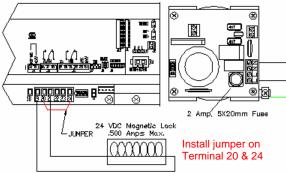
Description of Operation:

The door will be unlocked when an activation signal is applied to 1&2 or 1&7 The operator will pulse the door closed to release any binding in the strike Power to the strike will then occur and unlock to allow a door open cycle Once the door closes the operator will drive the door in the closed direction to overcome any mechanical binding in the lock and/or door frame

Note: For applications where the door is to be unlocked during the day for normal automation and locked when the on/off/hold switch is in the off position, the following settings are required.

Lock Function: "1 Night Locked" "9 3 POS. (Lock-M)" Mechanical Panel:

Magnetic lock (Mag Lock) Locking



Lock Type: 24VDC Magnetic Lock (by others)

Lock Operation: Fail Safe – Always Locked (If power is applied to door)

Lock Current: .500 Amps or less

6100 / 8100 Operator Display / FPC902 Screen Settings:

"3 Always Locked" Lock Function:

Lock Type: "6 Magnet"

Mechanical Panel: "7 3 Pos. (OFF-M)"

Description of Operation:

The door will be unlocked when an activation signal is applied to 1&2 or 1&7 Power to the lock will be removed and unlock to allow a door open cycle

Note: For applications where the door is to be unlocked during the day for normal automation and locked when the on/off/hold switch is in the off position, the following settings are required.

Lock Function: "1 Night Locked" "9 3 POS. (Lock-M)" Mechanical Panel:

Caution! The maximum current draw for accessories such as electric lock or sensor systems is .500 amps, do not attempt to power both systems from this power supply at the same time.

Additional locking functions such as Bolt locking with bolt position monitoring as shown on the 6100/8100 wiring diagram and "Pulsed" AC electric strike are also possible. For more information please contact record-usa.

record-usa

Post Office Box 3099 Monroe NC 28110-3099



From the office of: **Mike White**

DATE: <u>1-24-07</u> NUMBER: TB-07-002

8100 Arm Adaptor Damage

The 8100 series arm adaptor can become damaged if it is subjected to excessive loads. This damage is *not* due to a design flaw, but is the result of forces applied to the door such as wind load, forced open rotation while at the 90 degree stop, and aggressive manual misuse.



For applications that might be subjected to this high level of abuse, consider one of the following to minimize the chance of damage.

- 1. Install a door stop on the floor.
- 2. Setup the operator stop so that the operator calibrates past 90 degrees and adjust the "**opening angle**" limit back to 90 degrees with the FPC 902 or handheld display. This setting is located in *Parameters Drive Opening angle.*

For replacement adaptors, please call customer service at 1-800-438-1937 and specify which adaptor is required.



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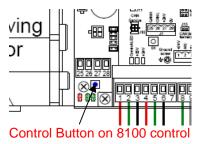


From the office of: Mike White

DATE: <u>1-10-07</u> NUMBER: TB-07-001

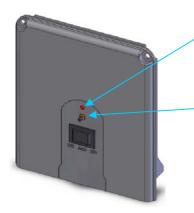
8100 Quick Hints

1. The calibration cycle of the 8100 is initiated by pressing and holding the "Control Button" for three flashes.



The "Calibration Cycle" begins after approximately 5 seconds whether the switch is in the "Off" or "Automatic" position. If the operator is in "Hold Open" it will have to be switched to either "Off" or Auto" in order to allow the door to close and a calibration to occur. An activate signal from the door mounted and/or header mounted approach sensor will also keep the door open once the calibration has started.

2. That "Blinking Red Light" on the endcap.



The Red LED will blink when the operator needs to do a calibration run or if an error has occurred such as any activation or safety input lasting longer than 60 seconds.

Press and hold this button for 8 seconds or until the LED turns off to clear errors and reset the operator.

- 3. The "Locking Function" located in "parameters / Locking" may be set on either "Night Locked" (1) or "Always locked" (3). If after activation the operator appears to push closed slightly before the door starts to move, the setting is in "Always Locked". To eliminate this delay, select "Night Locked" (1).
- 4. In order to have manual push and latch check with a USA Low Energy operator, the options in "MANUAL CONTROL" under "PARAMETERS" need to be set as follows:

During Closing = 1, When Locked = 1, When auto = 1, Supp. Dur. Clos. = 1

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From the office of: Mike White

DATE: <u>12-13-06</u> NUMBER: TB-06-004

5100/5200/5900 Transom Assembly

The record-usa transom system for all sliding door frames requires mechanical assembly at the time of field installation. Suggested fastening points for standard ¼" flush glazing is illustrated below in figure 1 and will require #10 minimum size fasteners (not Included) at all points indicated by screws for the top and bottom of vertical mullions and transom tube ends. Glazing sizes other than ¼" will require additional fasteners as shown in figure 2 due to the Glass stop adapter and sash and gutter.

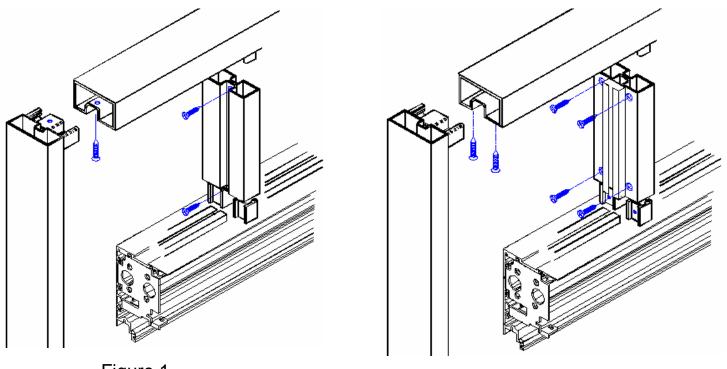


Figure 1

Figure 2

record-usa



From the office of: **Mike White**

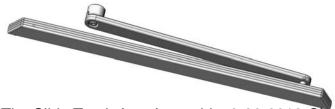
DATE: <u>11-27-06</u> NUMBER: TB-06-003

8100 Series Arms & Configurations



The Standard Arm Assembly, 9-80-0010-CL, will work in outswing (push) applications up to a 12" reveal, and inswing (pull) applications up to a 6" reveal. A 50mm Adapter is included.

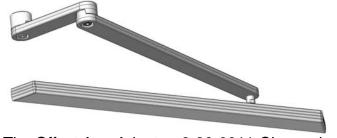
Secondary Arm Lengths for Outswing applications		
Depth of Reveal	Total Arm Length ¢ to ¢	Channel Dimension
0"	19"	18"
1"	19-13/16"	18"
2"	20-5/8"	19"
3"	21-7/16"	19"
4"	22-1/4"	20"
5"	23"	21"
6"	24"	22"
7"	24-13/16"	No Cut
8"	25-5/8"	No Cut
9"	26-7/16"	No Cut
10"	27-1/4"	No Cut
11"	28"	No Cut
12"	29"	No Cut



The Slide Track Arm Assembly, 9-80-0012-CL, will work in outswing (push) applications up to a 3" reveal, and inswing (pull) applications up to a 6" reveal. A 20mm Adapter is included.







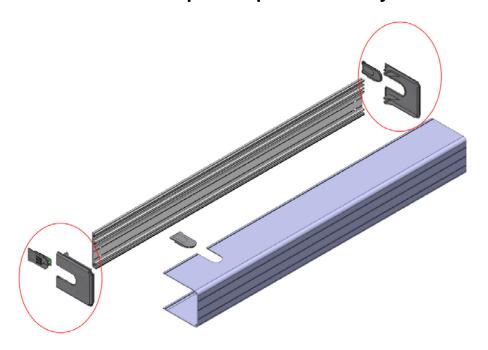
The Offset Arm Adapter, 9-80-0011-CL, can be used with the above Slide Track Arm Assembly to provide a solution for special applications, such as center-pivoted doors with breakout capability, or double-egress installations using a continuous header. No additional Adapter is provided; the 20mm unit provided with the Slide Track Arm is used.

<u>Please note that all 8100 series operators will be sent with clear finish arms. Contact customer service for additional information on optional finishes.</u>

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Technical Bulletin continued

8100 endcap / backplate assembly



There have been reports that the endcaps on the 8100 series operator are being damaged during shipping and handling; record-usa is aggressively pursuing alternate methods of packaging and freight forwarder options to minimize damages. Until these issues are resolved, there will be an additional set of endcaps sent with each unit in the event there is damage upon arrival to its destination. We appreciate your patience in this matter and assure that there will be a solution as soon as possible.



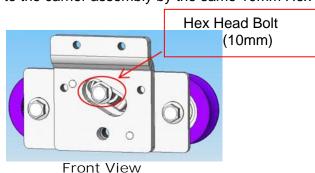
From the office of: Mike White

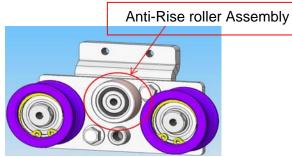
DATE: <u>11-1-06</u> NUMBER: TB-06-002

Series 5100 Anti-rise / Anti-derail

Roller Assembly Upgrade

The Series 5100 upper carrier assemblies include an Anti-rise / Anti-derail roller assembly highlighted in the illustrations below. The 9-51-0003 roller assembly, identified by a black plastic "tire", has been replaced by the 4-51-0021 assembly, identified by the white plastic roller. The rollers are directly interchangeable and mounted to the carrier assembly by the same 10mm Hex Washer Head bolt.





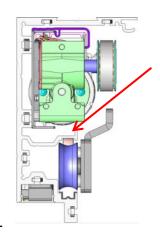
Rear View

Door Carrier Roller Assembly (2 per door)





4-51-0021



To replace the rollers, the suggested procedure is as follows:

- Remove power to the door by disconnecting the black 120VAC plug and cable on the righthand end of the power supply.
- 2. Remove the sliding door panel(s) from the carrier assemblies.
- 3. Loosen the 10mm Hex Washer Head bolt (shown above) in the diagonal slot and slide to the bottom of the slot.
- 4. Lift the carrier assembly up and off of the track (removal of the belt clamp is not necessary).
- 5. Remove the 9-51-0003 assembly (black tire) and replace with the 4-51-0021 assembly (white roller). Note the flat chamfers on the roller axle should fit in the slot on the carrier assembly plate.
- 6. Re-install the carrier assembly on the track and adjust the new roller assembly toward the upper end of the slot such that the wheel lightly rolls against the aluminum header extrusion. Tighten the 10mm bolt securely in place.
- 7. Re-attach the door panel(s) and manually slide the doors fully open and closed, checking for mechanical binds.
- 8. Restore 120VAC power to the power supply and verify proper operation of the door. (Pedestrian doors should be adjusted in conformance to ANSI A156.10).

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From the office of: Mike White

DATE: 10-18-06 NUMBER: <u>TB-06-001</u>

SOFTWARE UPDATES FROM record-usa WEBSITE

The following procedure is required to download software updates for:

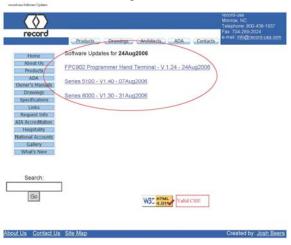
- FPC902 Programmer Hand Terminal
- Series 5100 Slide Door System
- Series 8100 Swing Door Operator

YOU WILL NEED A MEMORY CARD READER FOR MMC MEMORY CARDS FOR YOUR COMPUTER

- Go to www.record-usa.com Home page and check the date of the latest software with what is in your MMC Memory card located in the top of the FPC902 next to the cable plug.
- 2. To check the date of the software in your FPC902 press the blue "BAT" button in the lower left hand corner of the FPC and the version and date will be displayed.
 - 3. Compare this date with the date in the lower left corner of the home page directly under the search window shown below.



4. If the date is more recent on the Home page than the date displayed on the FPC902 in step 2 above, click on the date on the Home Page and you will be linked to the software update site; the following choices exist.



Technical Bulletin Continued

- 5. Create a folder on your computer for each of the files and download the .zip files to those folders.
- 6. Once downloaded you will have to unzip the files before they will work in the FPC902.
- After the files are unzipped there will be three .pdf instruction documents and the FPC folder (FPC902 MMC VX.XX) containing the two folders that need to be copied to the MMC Memory card.
- 8. Open the file called "FPC902 Update Instructions.pdf" and follow the instructions. (Shown below)
- The two remaining files "S5100FPCinstructionsSep06.pdf" and "S8000FPCinstructionsSep06.pdf" provide individual instructions and screens for setting up the 5100 Slide Door System and 8100 Swing Door Operator with the FPC902.



The file called Series 5100-V1.40-07Aug2006 and Series 8000-V1.30-31Aug2006 contain specific wiring diagrams, owners manuals, installation instructions and special application diagrams for the 5100 Slide Door System and 8100 Swing Door Operator and should be printed and supplied to all technical personnel.

Just click on the desired link and download as described above.

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