



Series 5100 – Remote Control of Door Operating Mode

Enter the *parameter adjust* mode at the operator control module and, using the Display control panel, scroll down to and select the “**Control Panel**” parameter. Select “**Mech. Panel**”, scroll down to and select “**Standard 1Way**” (factory default is “**disabled**”). Exit *parameter adjust* mode. The *door operational* mode will now be “**Off**” until a jumper is placed between terminals 15 and 16 on the operator control module.

Remote Control of Automatic / Exit Only modes only –

A single set of dry contacts (rated 0.2A minimum) is required and connected between terminals 15 and 17 on the operator control module. When the contact is open, the door will be in “**Automatic**” mode; when the contact is closed, the door will be in “**Exit**” only mode, and the exterior sensor (connected to terminal 3) is disabled when the door is fully closed. As required by code, the exterior sensor will be active when the door is open &/or closing.

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



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

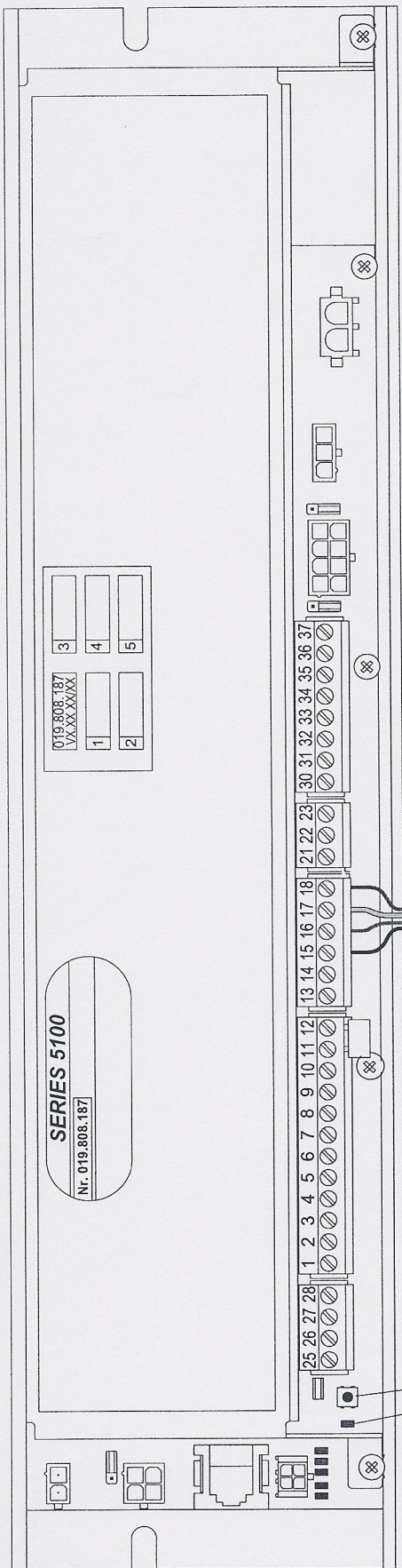
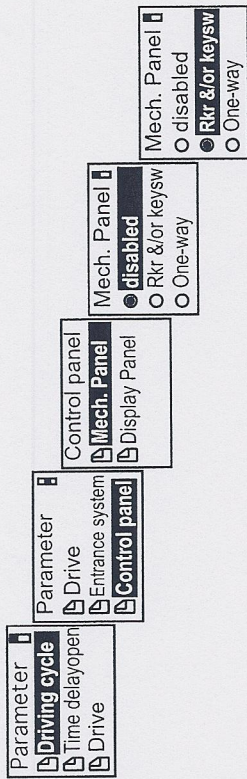
Mode	Contact 15/16	Contact 15/17
Off	Open	Open
Automatic	Closed	Open
Exit Only	Closed	Closed
Full Open	Open	Closed

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

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

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

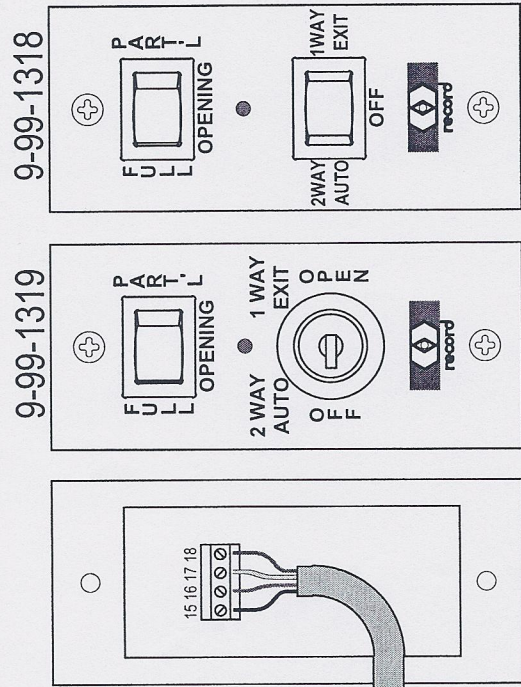
Press and hold the blue Control Switch for 4 flashes of the red Control LED, then release. The first screen at right should appear on the jamb-mounted Display Control Panel. Scroll down (using the AUTO/+ key) to "Control panel" and select it using the  key; select "Mech. Panel", then scroll down and select "Rkr &/or keysw". Press the "PROG" key multiple times until the panel displays "Quit Menu?"; then press the  key.



Control LED
Control Switch

Connect the mechanical switch control panel (either the Rocker switch or combination Rocker/Keyswitch) as shown at right.

Note when used in combination with the Display Control panel, when either panel is turned OFF, the door will be off. In other operation modes (AUTO, EXIT, OPEN, PARTIAL OPEN), the mode is set by the mechanical switch assembly, and will be shown on the Display Control panel.



Series 5100 - Mechanical Control Panels

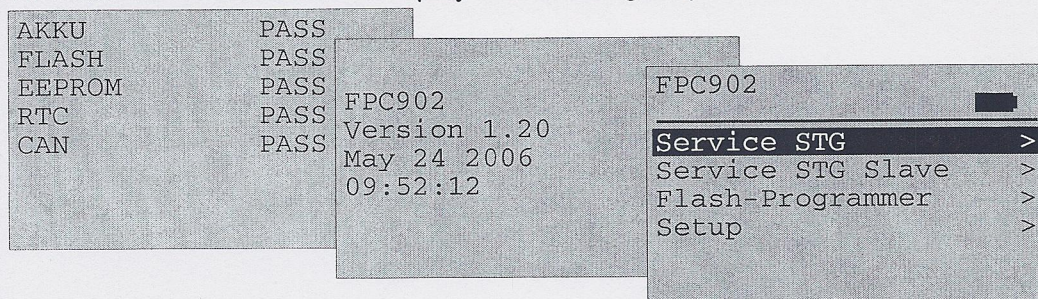


1. Remove the SD card from the FPC902 by pushing it into the unit until a click occurs (approx. 1/16").
2. Release the card, it should protrude from the terminal approximately 1/8".
3. Remove the SD card and insert in the reader attached to the computer.
4. A window should appear with two folders - RecordFPC and RecordSW.
5. Click and drag the two folders on the desktop with the same name into the window.
6. If asked to replace files with same names, click **yes**.
7. When complete, remove SD card and re-install in FPC902; again push into unit until a click is heard, then release. The top of the card should be flush with top of terminal.
8. Connect the FPC902 to either a powered Series 5100 module or a Series 8000 operator.
9. The screen should display

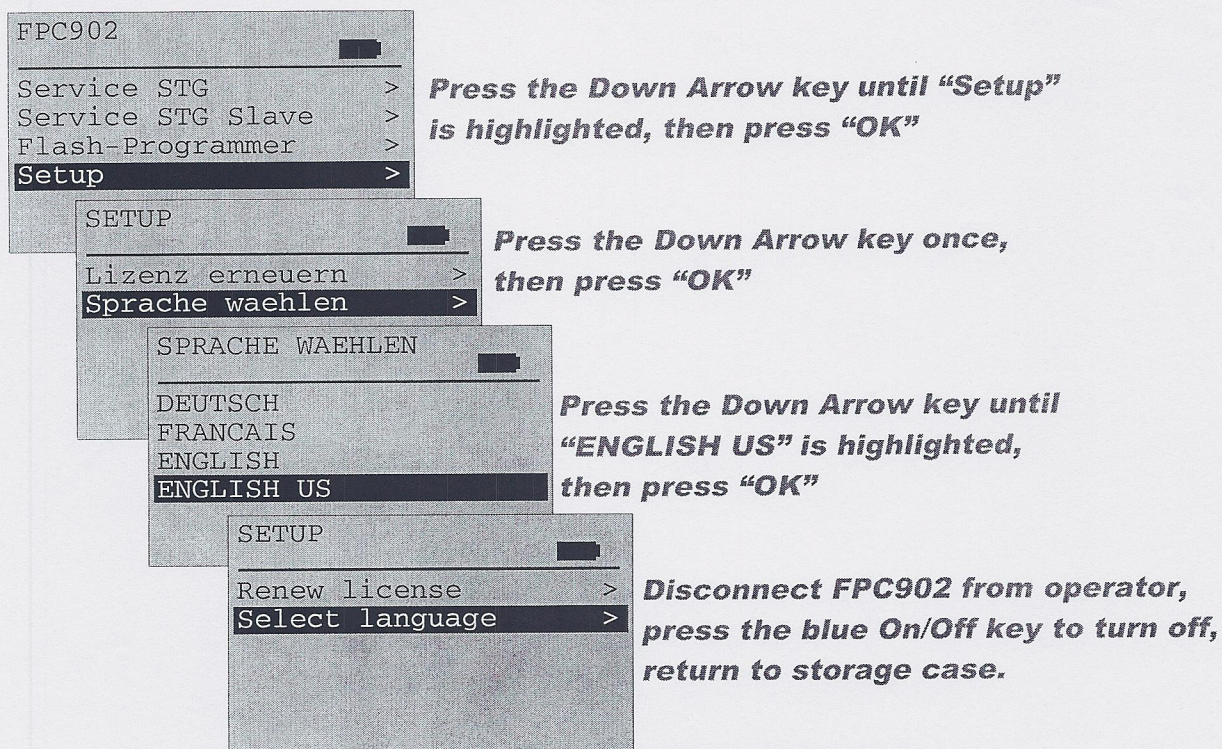
	AKKU	PASS
then	FLASH	PASS
then	UPDATE1	* (animated)
then	UPDATE2	* (animated)
then	UPDATE3	* (animated)

NOTE: If the unit displays "AKKU FAIL", connect the AC power supply and recharge.

10. The FPC902 screen should then display the following sequence



11. Follow the sequence below to complete the FPC902 setup:





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

Parameter 1

Driving cycle

Time delay/open

Drive

Parameter 2

Control panel

Locking

Input

Input

Ext. Sw

Emerg Opn/Cls

Aux. Sw

Input

Ext. Sw IN

Emerg Opn/Cls

Aux. Sw

Aux. Sw

disabled

Safety Beam

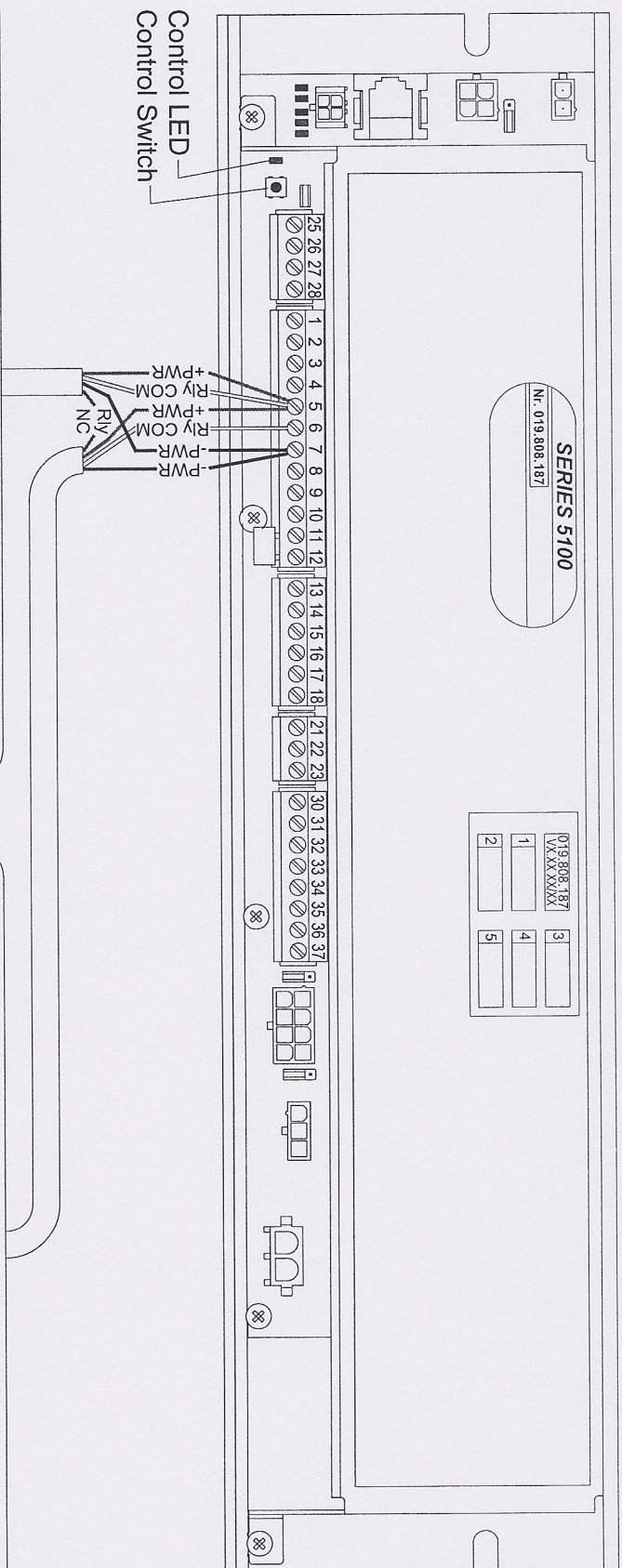
Sidescm sensr

Aux. Sw

disabled

Safety Beam

Sidescm sensr



Safety Sensor #1

Safety Sensor #2

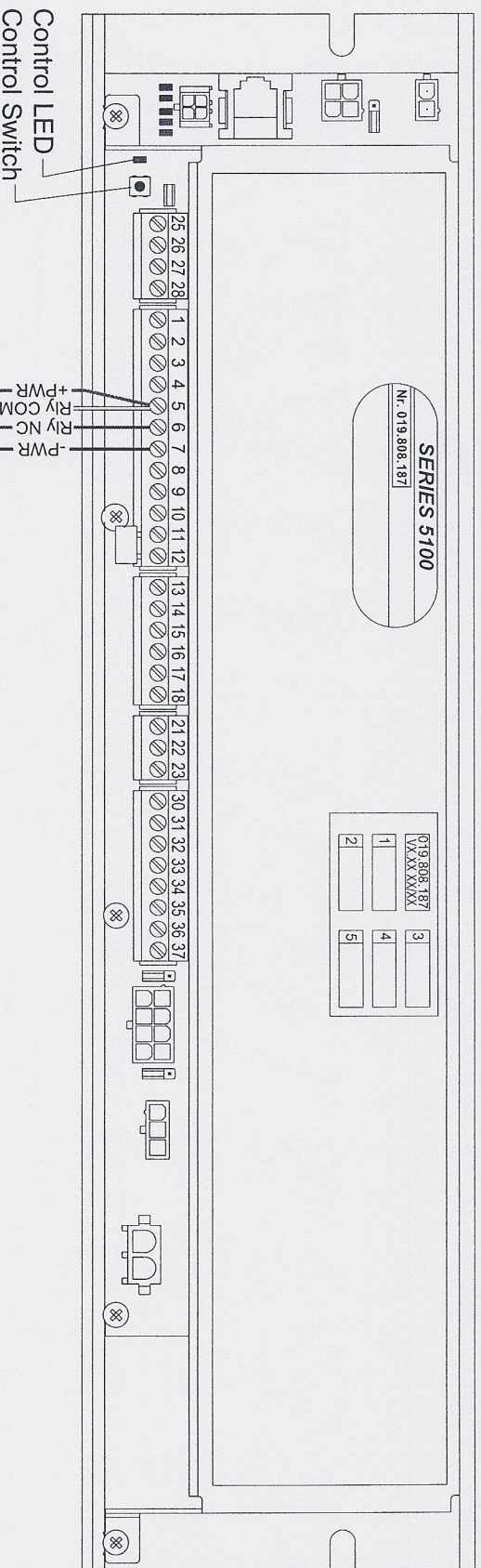
Control Term.#	Description	Sensor Connections	BEA IRIS	BEA Wizard	MS Sedco DH94 & DH100	Optex OA-Presence & i-One
#5	Power Supply +24V	+24V Power #1 & #2, Relay#1 COM	Red#1, Brn#1, Red#2	Red#1, Wh#1, Red#2	Red#1, Wh#1, Red#2	Gry#1, Wh#1, Gry#2
#6	Aux. Sensor Input	Relay#2 COM	Brn#2	Wh#2	Wh#2	Wh#2
#7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

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



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

Parameter 1	Parameter 1	Input	Aux. Sw	Aux. Sw
Driving cycle	Control panel	Ext. Sw	disabled	disabled
Time delay/open	Locking	Ext. Sw IN	Safety Beam	Safety Beam
Drive	Input	Emerg. Opn/Cls	Sidescrn sensr	Sidescrn sensr
		Aux. Sw		



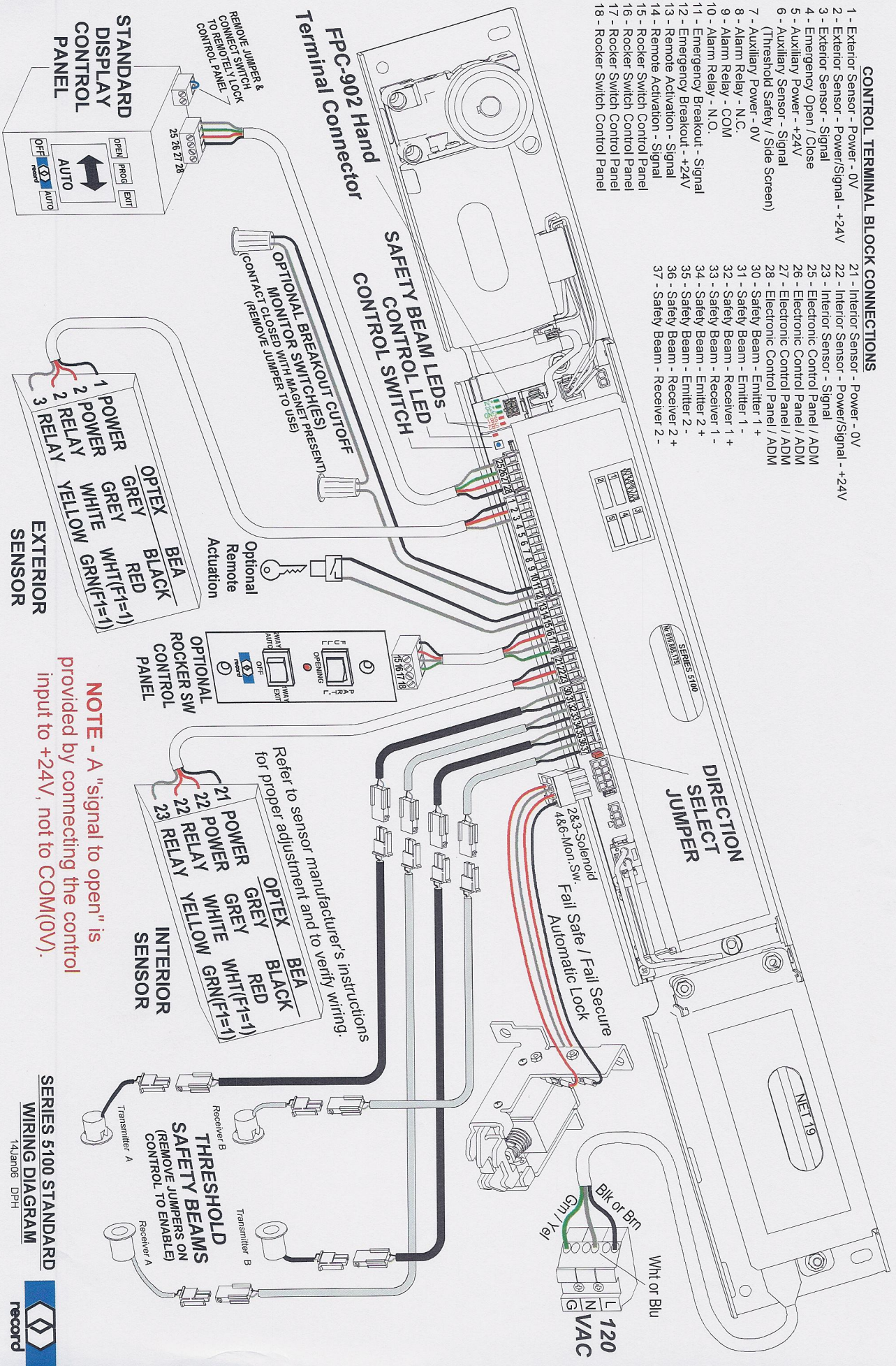
Control Term.#	Description	Sensor Connections	BEA IRIS	BEA Wizard	MS Sedco DH94 & DH100	Optex OA-Presence & i-One
#5	Power Supply +24V	+24V Power & Relay COM	Red & Brn	Red & Wht	Red & Wht	Gry & Wht
#6	Aux. Sensor Input	Relay NC	Blu	Gm	Gm	Gm
#7	Power Supply - 0V	0V Power	Blk	Blk	Blk	Gry

Set Parameter F1 = 3	Set Parameter F1 = 3
Set Parameter F1 = 1	Set Parameter F1 = 1

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

CONTROL TERMINAL BLOCK CONNECTIONS

- 1 - Exterior Sensor - Power - 0V
- 2 - Exterior Sensor - Power/Signal - +24V
- 3 - Exterior Sensor - Signal
- 4 - Emergency Open / Close
- 5 - Auxiliary Power - +24V
- 6 - Auxiliary Sensor - Signal (Threshold Safety / Side Screen)
- 7 - Auxiliary Power - 0V
- 8 - Alarm Relay - N.O.
- 9 - Alarm Relay - C.O.M.
- 10 - Alarm Relay - N.O.
- 11 - Emergency Breakout - Signal
- 12 - Emergency Breakout - +24V
- 13 - Remote Activation - Signal
- 14 - Remote Activation - +24V
- 15 - Rocker Switch Control Panel
- 16 - Rocker Switch Control Panel
- 17 - Rocker Switch Control Panel
- 18 - Rocker Switch Control Panel
- 21 - Interior Sensor - Power - 0V
- 22 - Interior Sensor - Power/Signal - +24V
- 23 - Interior Sensor - Signal
- 25 - Electronic Control Panel / ADM
- 26 - Electronic Control Panel / ADM
- 27 - Electronic Control Panel / ADM
- 28 - Electronic Control Panel / ADM
- 30 - Safety Beam - Emitter 1 +
- 31 - Safety Beam - Emitter 1 -
- 32 - Safety Beam - Receiver 1 +
- 33 - Safety Beam - Receiver 1 -
- 34 - Safety Beam - Emitter 2 +
- 35 - Safety Beam - Emitter 2 -
- 36 - Safety Beam - Receiver 2 +
- 37 - Safety Beam - Receiver 2 -



SERIES 5100 STANDARD
WIRING DIAGRAM
14Jan06 DPH





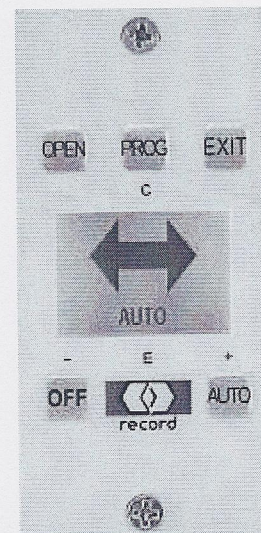
Commissioning the Series 5100 using the Display Control Panel

Dec'05

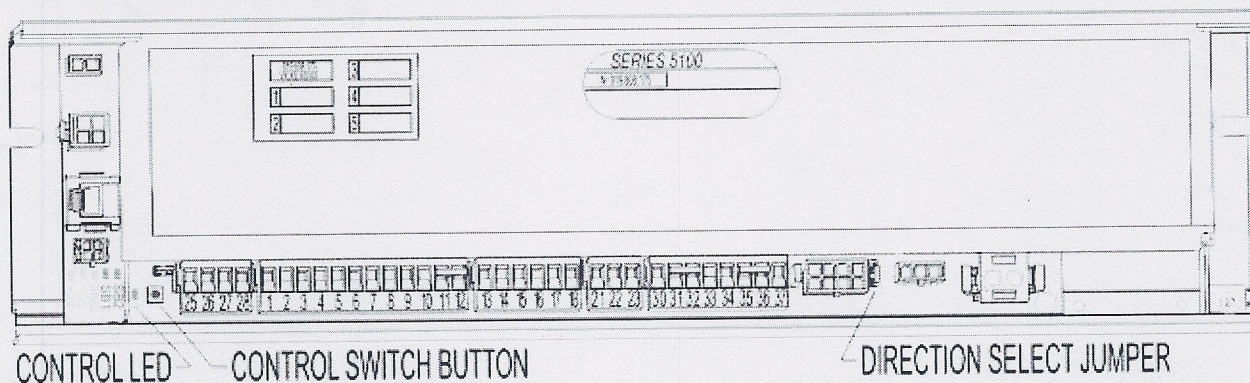
The Display Control Panel is a convenient input and output unit for the door system and programming of control units in record door openers. Logically arranged pushbuttons permit an intuitive operation of the door and navigation through the drive-specific menu structure. The backlit LCD display provides data and information regarding the status of the door using symbols and plain text messages. The connection to the door control is via the CAN bus built into the record products.

The technical specifications are:

Supply voltage: 24 VDC from CAN bus
Connected load: < 2 W
Dimensions: 1.74" X 3.63"
Temperature range: -20°C to + 50°C
LCD display: 112 x 64 pixels (0.84" X 1.18"), with white backlight



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



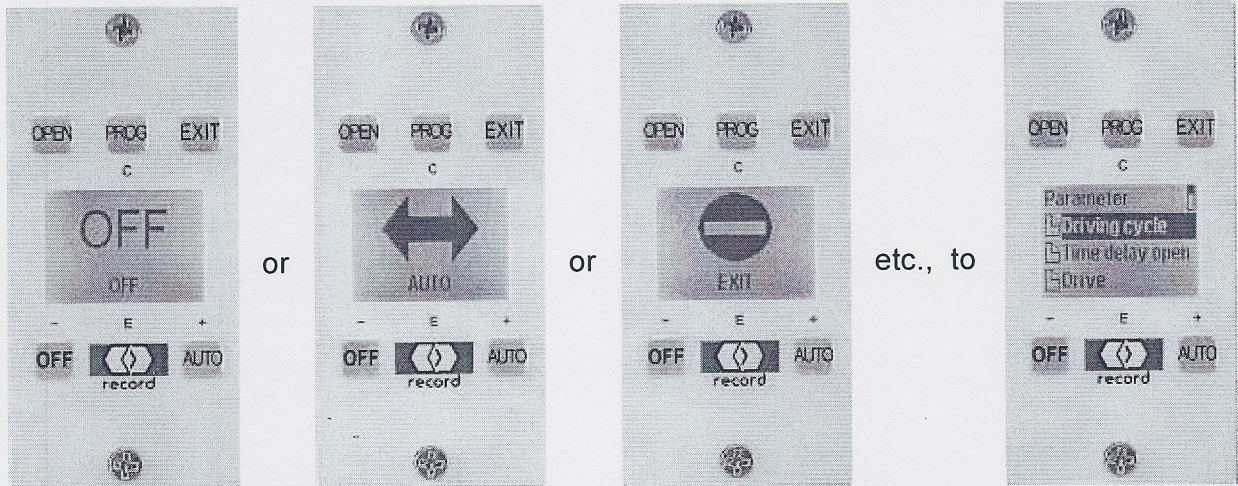
Pressing and holding the button causes the adjacent red Control LED to pulse "on" approximately once per second. The number of pulses determines the resulting effect:

- 1 pulse simulates the actuation of the interior sensor and initiates a door cycle.
- 3 pulses initiates a door learn mode where the door weight and friction are learned.
- 4 pulses initiates a configuration mode where the Display Control Panel has access to the microprocessor control parameters.
- 8 pulses resets the microprocessor parameters to the factory defaults.
- 12+ pulses performs a complete hardware reset.

Typically, during a new installation, the microprocessor will have already been set at the factory for the door opening, but the particular requirements for the installation will require a learn mode initiated by holding the pushbutton down for three LED pulses. If additional changes to the door operation are desired, then proceed to the next section.

Parameter Configurations

Press and hold the blue Control Switch button for 4 pulses of the adjacent red Control LED. The Control Panel Display will change from current operator mode to configuration mode –



In this mode, the top center “PROG” switch and bottom three switches are used to select and modify the door parameters. Note the small blue legends next to each switch indicates its use in the configuration mode –

Use the “+” (AUTO) switch to scroll down menus, or increase individual parameter values.
Use the “-” (OFF) switch to scroll up menus, or decrease parameter values.
Use the “E” (record) switch to select the currently selected parameter or parameter value.
Use the “C” (PROG) switch to revert to the previous screen.

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

Driving Cycle –

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

Time Delay Open – 60 seconds maximum

- TD Open (for sensor actuation)
- TD Remote Switch

Drive –

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

Entrance System –

- Door Type (always select Breakout-USA)

Control Panel –

Mechanical Panel (typically disabled), and Display Panel

Note several options are available for the Display Panel –

Language (English US), Keyboard, Contrast, and Time Delay – Backlite
(TD Backlite=0 turns off the backlight; TD Backlite=40 is always on)

Locking –

Locking Function – Manual, Night locked, 1-Way locked, Always locked

Lock Type – Without lock, Motor powered, BiStable, MPU, Magnet,
Fail Secure, and Fail Safe (North American options underlined)

Input –

Exterior Switch Input – always select “Ext. Sw IN”

Emergency Open / Close – typically disabled

Auxiliary Switch – disabled, Safety Beam (other than builtin unit), Sidescreen
Sensor, CO48 (North American options underlined)

Output –

Alarm – will actuate auxiliary relay contacts when an alarm mode occurs

Gong – will actuate auxiliary relay contacts when safety beam is interrupted

Miscellaneous –

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

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

The following is a list of Alarm screens that may appear, indicating an abnormal door status:

Obstruction

Emergency Stop / Breakout

Safety Beam active > 60 sec.

Exterior Sensor active > 60 sec.

Interior Sensor active > 60 sec.

Remote Switch active > 60 sec.

Aux. Sensor active > 60 sec.

Encoder Fault

Motor Current

Locking Error

Unlocking Error

ALOK Mon(itor) Sw(itch) Fault

Manual Locked

Control Panel can't Override

Control Malfunction

Control Panel Malfunction