

Converting SlideSmart DC from AC Power to Solar Power

These instructions are provided to enable converting a factory configured AC powered **SlideSmart DC** Operator to one powered by a solar panel using the parts in the table below. The conversion is done in four major steps:

- Remove AC power components and transformer harness
- Install solar power components and harnesses
- Wire the solar panel into the power section and change the AC Power Switch label to DC label.
- Change the operator charging type to Solar, using ether the SmartTouch controls or the START software.

Kit contents are below, instructions start on next page, and the wiring schematic is on page 8.

NOTICE

The conversion of SlideSmart DC models to solar power is not covered under the Nice|HySecurity UL 325 Listing. Although the design conforms to the standards of UL 325, it has not been examined and certified by an independent lab.

Slidesmart DC: AC to Solar Conversion Kit						
	Item Part Number QTY Description		Description			
ĺ	1	MX001760	1	Circuit Breaker, 15A		
[2	MX001892	1	Wire Harness, Solar		
	3	MX001891	1	Wire Harness, 2 to 1, Red		
	4	MX001890	1	Wire, Red, 12 AWG, Female Spade on Stripped End, 11"		
	5	generic	2	Wire Nut		
	6	MX001832	1	Label, DC Power (2 labels per part)		
	1) 15A Circuit Breaker MX001760 2) Solar Harness MX001892 C to THamess MX001891 C to Thamess MX001891					
PC O	DC DWER DFF		5) Wire Nut	t (x2)		
C Po (MXC	wer Lab 001832)	pel				





Turn Off AC Power & Prepare Unit

DANGER!

- To reduce risk of severe injury and death follow all safety procedures!
- Remove AC electrical power downstream of the unit before attempting to continue these instructions!



FIG-1: Accessing Power Components and Wiring (Chassis Cover Removed)

- 1. Remove AC power source to the operator.
- 2. Remove the cover of the SlideSmart DC operator and set aside.
- 3. Turn OFF AC and DC power switches on left side of the SDC compartment (FIG-1).
- 4. Remove the transparent cover of the SDC compartment (**FIG-1**) by sliding sideways and out.
- 5. Refer to **FIG-1**, **Detail A**, and remove lower and upper junction boxes covers as shown (x2 screws each). Set aside covers and screws for later reassembly.

Disconnect AC Power Components

- 6. Unplug all wires from the AC power switch and unplug main harness from the AC power board (**FIG-2**) and place out of the way.
- 7. Disconnect AC input ground lead from ground lug, leaving other ground lead connected if leaving the AUX output connector installed (**FIG-2A**).
- 8. Disconnect AC input power cable from lower junction box (remove wire nuts if necessary) (FIG-2B).
- 9. Remove 5A circuit breaker (and connected wires) and replace with 15A Breaker, P/N MX001760 (FIG-2A).
- 10. If desired, the now non-functional Auxilliary AC Outlet and AC Power Board (and x4 screws/standoffs) may be removed, or left in place for later re-conversion back to AC power.



Technical Instructions



Replace AC Transformer Harness with Solar Harness

Remove Transformer Harness (Yellow-Blue-Yellow) from SDC board (upper right).



FIG-3: Removing AC Transformer Harness

11. Unplug Transformer Harness (Yellow-Blue-Yellow) from 3-pin connector on the upper right of the SDC board (**FIG-3**). Place out of the way or remove.



12. Insert 3-pin connector of Solar Harness (P/N MX001892) into connector at upper right of tSDC board (**FIG-4**), and route as shown to power section at lower left.



FIG-4: Installing Solar Harness



Wire Harnesses to Power Components

- 13. Connect the two spade red wires of Solar Harness to two top tabs of AC power switch and route black wire out of junction box through input conduit (**FIG-5A**). AC switch now functions as Solar switch.
- 14. Connect 11" wire MX001890 to upper tab of 15A breaker and route red wire down and out of upper junction box through conduit hole into the lower junction box (see **FIG-5B**).
- 15. Connect 2-to-1 harness (MX001891) between lower two tabs of power switch & lower tab of 15A breaker (**FIG-5**).

NOTICE

The following images show the unit with Auxilliary AC Outlet and AC Power Board removed (see Step 10), but these components may be left in place (i.e. for later reconversion back to AC power).



Plug red wires of Solar Harness into two upper tabs of Power Switch. Route Black wire down and out through Junction Box inlet into lower junction box.

FIG-5A: Installing Solar Harness to Power Switch



FIG-5B: Installing Other Harnesses to Power Components



Wire Solar Panel to Operator

- 16. Open one of the knockout holes in the lower junction box (FIG-6).
- 17. Use a wire nut to connect the solar panel positive lead to the red 11" wire (MX001890), then use a wire nut to connect the solar panel negative lead to the black wire of solar harness (MX001892) (**FIG-6**).
- 18. Place the DC Power Label (MX001892) from kit over the AC label.
- 19. Reassemble lower and upper Junction Box covers and SDC transparent cover (**FIG-1**), then turn upper and lower DC Power switches to ON.



FIG-6: Connectiong Solar Panel Cable Leads

IMPORTANT NOTICE!

The charging type must be set in the operator to "Solar" using either the controls on the SmartTouch controller or using the START software.

Instructions for both are provided on the following pages.

NOTICE

It is only necessary to use one of two following methods for changing the charging type in the operator.

Change Charging Type to Solar: SmartTouch Controller Buttons



FIG-7: SmartTOUCH Controller: Buttons and Menu Operation

To access the User Menu, referv to **FIG-7** and take the following steps:

- 1. At a gate status display, press the MENU button twice.
- 2. With CLOSE TIMER on the display, press the OPEN and RESET buttons at the same time, and release to enter the Installer Menu.
- 3. Press the NEXT button to cycle through the available menu items.
- 4. Cycle to "CHARGER TYPE" menu (shown below) and select "1" for Solar charger type.
- 5. Press SELECT button once to configure the Solar setting, and a second time to accept the setting.



0 = AC powered charger 1 = Solar

Assigns charger type usually set at factory. If set to solar at factory then this menu item is hidden.

6. Assemble chassis cover to operator and return to service.



Change Charging Type to Solar: S.T.A.R.T. Software

Setting the charger type affects operator performance. Ensure proper charger type for the gate operator used.



NOTICE

The instructions below show how to set the charger type using the START softeware (Smart Touch Analyze and Retrieve Tool), but not how to install or use the software. The START software and documentation may be downloaded from <u>https://support.hysecurity.com/hc/en-us/sections/360007580273-HySecurity-S-T-A-R-T-software-for-Smart-Touch-and-SmartDC</u>.

- 1. Navigate in the START software to the Part 2 tab of the Installer Menu (FIG-8).
- 2. Set the **Charger Type** to **Solar**.
- 3. Save the menu settings, exit, and disconnect from the operator.
- 4. Assemble chassis cover to operator and return to service.

		Charger Type > Solar /
Time and Date	User Menu	Installer Menu
Installer Settings (Part 2) Fd - Factory Defaults Custom Settin tL - Maximum Gate Open Time 45 Lt - Loitering Time Sg - Sequenced Gate	ngs v Ot - Oper. Type SlideSmart D Ch - Charger Type BT - Battery Type	C15 (0T15) EL 4 - Exit Det. Ld - Inside Obs. Det. Ld - Inside Obs. Det. Solar CLd - Center/Shadow D(1 4 Lng PH
Help (Click an Option Item In Installer	Settings For Help)	Cancel
Load Menu Settings Settings	Administrator:	Cancel Done Exit

FIG-8: START Software - Installation Menu Power Settings

----- END ------



Technical Instructions



FIG-9: SlideSmart Solar Schematic, Rev-B

Contact Information: Visit <u>https://support.hysecurity.com/hc/en-us</u> for installation manuals, replacement part instructions, part diagrams and more. Qualified HySecurity distributors are experienced and trained to assist in resolving installation problems. For the name of a qualified distributor near you, call HySecurity at 800-321-9947. *Before contacting your distributor or HySecurity Technical Support, obtain the serial number of your operator.

NOTE: DRAWING IS NOT TO SCALE.