**Installing the Solar Panel**

Unpack the Kit

Unpack the Battery Box and the Solar Panel and inspect them for any damage in transit.

Mount the Solar Panel

a. Determine a mounting point for the solar panel as close as possible to the intended opener. The length of cable from solar panel to solar charger must not exceed 5m.

b. The solar panel should be faced to the North for maximum effect. Solar panel output is directly proportional to the amount of sunlight to which it is exposed. Thus, the panel should be positioned to the north due to Australia’s southern location.

c. The angle to tilt the solar panel for maximum exposure to the sun is determined by the following equation: 
   \[ \alpha = L^\circ + 15^\circ \]

Where “\( \alpha \)” is panel’s tilt angle from the horizontal, and “\( L^\circ \)” is the latitude of the mounting location. Refer to table, for a list of pre-calculated panel angles for major centres in Australia.
Swing Gate Opener Set Up
DCB-05, SGO-1 Elite™, SGO-4 SecureSwing™ & SGO-4 SecureSwing S™

Mount the Charger Board
a. Unplug the Control Box from mains power.
b. Remove the Control Box's cover, then remove the transformer, EMC board (if fitted) and mains power cable.
c. Mount the Charger Board inside the cover using four (4) M4x8 screws.
d. Plug the Charger Board's three wire harness (red/yellow/black) into the DCB-05 board's “SBY-3” connector.
e. Plug the Charger Board's one wire harness (white) into the “24vac in” connector on DCB-05 control board.

Connect the Solar Panel
a. Feed the Solar Panel's cable through black grommet on the chassis.
b. Connect the red wire to the Charger Board's “SOLAR+” connector, and the black wire to the “-SOLAR” connector.

WARNING!
Do not connect the batteries until you have connected wiring on the charger board.

Mount & Connect the Battery
a. Drill a 16.0mm hole in the Battery Pack enclosure (recommend at the bottom) and fit nylon gland.
b. Mount the Battery Pack using the mounting lugs and screws close to the opener.
c. Feed the 2-core 18awg gauge cable through the Battery Box's nylon gland.
d. Connect the red wire to the Battery Box's “+” terminal, and the black wire to the “-” terminal.
e. Feed the other end of the 2-core 18awg gauge cable through the drive unit's black grommet.
f. Connect the red wire to the Charger Board's “BAT+” connector, and the black wire to the “–BAT” connector.

WARNING!
The opener will become active during the following steps.

Re-setup and Test the Opener
a. Select Menu 7 on the DCB-05 control board, press “SET”, select Sub Menu 7 (“Battery/Solar”) and enable using the “OPEN” and “CLOSE” buttons.
b. Setup travel limits and transmitters as per the DCB-05 instruction manual.
c. Press either “OPEN” or “CLOSE” buttons, or use a transmitter to operate the gate.
d. Refit the Control Box's cover.

![Diagram of swing gate opener set up]
Sliding Gate Opener Set Up
NeoSlider™, ESV-24 EasySlider® & ESV-24MS EasySlider®

Mount the Charger Board
a. Unplug the drive unit from mains power.
b. Remove the main cover, then remove the transformer, EMC board (if fitted) and mains power cable.
c. Mount the Charger Board inside the cover using four (4) M4x8 screws.
d. Plug the Charger Board's three wire harness (red/yellow/black) into the control board’s “SBY-3” connector.
e. Plug the Charger Board’s one wire harness (white) into the “24vac in” connector on control board.

Connect the Solar Panel
a. Feed the Solar Panel’s 1 cable through black grommet on the chassis.
b. Connect the red wire to the Charger Board’s 3 “SOLAR+” connector, and the black wire to the “–SOLAR” connector.

WARNING! The opener will become active during the following steps.

Mount & Connect the Battery
a. Drill a 16.0mm hole in the Battery Pack enclosure (recommend at the bottom) and fit nylon gland.
b. Mount the Battery Pack 2 using the mounting lugs and screws close to the opener.
c. Feed the 2-core 18awg gauge cable 8 through the Battery Box’s nylon gland.
d. Connect the red wire to the Battery Box’s “+” terminal, and the black wire to the “–” terminal.
e. Feed the other end of the 2-core 18awg gauge cable 8 through the drive unit’s black grommet.
f. Connect the red wire to the Charger Board’s 3 “BAT+” connector, and the black wire to the “–BAT” connector.

Re-setup and Test the Opener
a. Select Menu 7 on the control board, press “SET”, select Sub Menu 7 (“Battery/Solar”) and enable using the “OPEN” and “CLOSE” buttons.
b. Setup travel limits and transmitters as per the slider instruction manual.
c. Press either “OPEN” or “CLOSE” buttons, or use a transmitter to operate the gate.
d. Refit the Control Box’s cover.

IMPORTANT WARNING!
Do not connect battery or solar panel polarity incorrectly - this will result in serious damage to components.

PLEASE NOTE: CB-11 firmware must be v0.65 or higher for SmartSolar™ compatibility.
Roll Up Door Opener Set Up
GDO-6 EasyRoller®, RDO-1

Mount the Charger Board
a. Unplug the drive unit from mains power.
c. Remove the main cover, timing cover and light diffuser, then remove the transformer, EMC board and mains power cable.
d. Fix the Charger Board 3 under the timing cover using 4 M4x8 screws 11.
e. Feed the four wire cable attached to the Charger board 3 through the opening, then connect the three wire harness (red/yellow/black) into the control board’s “SBY-3” connector.
f. Plug the one wire harness (white) into the control board’s “24vac in” connector.
g. Plug the solar shunt 5 onto the control board’s “J13” connector.

Connect the Solar Panel
a. Feed the Solar Panel’s 1 cable through black grommet on the chassis.
b. Connect the red wire to the Charger Board’s 3 “SOLAR+” connector, and the black wire to the “-SOLAR” connector.

WARNING! Do not connect the batteries until you have connected wiring on the charger board.

WARNING! The opener will become active during the following steps.

Mount & Connect the Battery
a. Drill a 16.0mm hole in the Battery Pack enclosure (recommend at the bottom) and fit nylon gland 9.
b. Mount the Battery Pack 2 using the mounting lugs 6 and screws 7 close to the opener.
c. Feed the 2-core 18awg gauge cable 8 through the Battery Box’s nylon gland 9.
d. Connect the red wire to the Battery Box’s “+” terminal, and the black wire to the “-” terminal.
e. Feed the other end of the 2-core 18awg gauge cable 8 through the drive unit’s black grommet.
f. Connect the red wire to the Charger Board’s 3 “BAT+” connector, and the black wire to the “-BAT” connector.
g. Refit the timing cover, main cover and light diffuser.

Re-setup and Test the Opener
a. Setup travel limits and code transmitters as per the openers instruction manual.
b. Press either the Operate button on the opener or use a programmed transmitter to test the opener.

IMPORTANT WARNING!
Do not connect battery or solar panel polarity incorrectly - this will result in serious damage to components.
Roll Up Door Opener Set Up
GDO-8 EasyRoller®

Insert the Solar Panel's Wires
a. Unplug the drive unit from mains power.
b. Remove the controls cover and chassis enclosure, then remove the transformer and EMC board.
c. Remove the mains power cable, then fit a nylon gland 13 to its hole in the chassis. Feed the Solar Panel’s 1 cable through this gland.
d. Fill the transformer’s screw hole by using the rubber washer 16, metal washer 15 and M6x10 screw 14.

WARNING! Do not connect the batteries until you have connected wiring on the charger board.

Mount the Battery Box
a. Drill a 12.5mm hole in the chassis enclosure as shown above.
b. Fit a nylon gland 13 to this hole.
a. Drill a 16.0mm hole in the Battery Pack enclosure (recommend at the bottom) and fit nylon gland 9.
b. Mount the Battery Pack 2 using the mounting lugs 6 and screws 7 close to the opener.
c. Feed the 2-core 18awg gauge cable 8 through the Battery Box’s nylon gland 9 and the nylon gland 13 in the openers chassis.
d. DO NOT CONNECT THE WIRES to the Charger Board or battery terminals.

WARNING! The opener will become active during the following steps.

Mount & Wire the Charger Board
a. Secure the adhesive mounts 17 to the Charger Board with cable ties 18. Affix the Charger Board 3 inside the chassis enclosure above the 12.5mm drilled hole.
b. Unscrew and remove the four-wire harness from the Charger Board. Replace with the two-wire (red/yellow) harness 12, connecting wires as shown.
c. Plug the two wire (red/yellow) harness 12 into the control board’s “24vac supply” connector.
d. Connect the red wire to the Charger Board’s “SOLAR+” connector, and the black wire to the “–SOLAR” connector.
e. Connect the 2 core cable to the battery by; connecting the red wire to the Battery Box’s “+” terminal, and the black wire to the “–” terminal.
f. Refit covers and chassis enclosures to the opener.

Re-setup and Test the Opener
a. Setup travel limits and code transmitters as per the GDO-8 instruction manual.
b. Press either the Operate button on the opener or use a programmed transmitter to test the opener.
Overhead Door Opener Set Up
GDO-9 SecuraLift®, GDO-9 Dynamo, SDO-2 P Diamond, SDO-3 CAD S

Mount the Charger Board
a. Unplug the drive unit from mains power.
b. Remove the screws and swing open the main cover and remove the light diffuser.
c. Remove the transformer, EMC board (if fitted) and mains power cable.
d. Fit the PCB Support 22 to the base plate under the timing assembly using the two (2) M4 x 8 screws 20.
e. Fix the Charger Board 3 onto the PCB Support using three (3) Taptite M4x8 screws 21.
f. Feed the four wire cable attached to the Charger board 3 through the opening, then connect the three wire harness (red/yellow/black) into the control board’s “SBY-3” connector.
g. Plug the one wire harness (white) into the control board’s “24vac in” connector.
h. Plug the solar shunt 5 onto the control board’s “J13” connector.

Connect the Solar Panel
a. Feed the Solar Panel’s 1 cable through black grommet on the chassis.
b. Connect the red wire to the Charger Board’s “SOLAR+” connector, and the black wire to the “–SOLAR” connector.

WARNING! Do not connect the batteries until you have connected wiring on the charger board.

Mount & Connect the Battery
a. Drill a 16.0mm hole in the Battery Pack enclosure (recommend at the bottom) and fit nylon gland 9.
b. Mount the Battery Pack 2 using the mounting lugs 6 and screws 7 close to the opener.
c. Feed the 2-core 18awg gauge cable 8 through the Battery Box’s nylon gland 9.
d. Connect the red wire to the Battery Box’s “+” terminal, and the black wire to the “–” terminal.
e. Feed the other end of the 2-core 18awg gauge cable 8 through the drive unit’s black grommet.
f. Connect the red wire to the Charger Board’s “BAT+” connector, and the black wire to the “–BAT” connector.
g. Refit the main cover and light diffuser.

Re-setup and Test the Opener
a. Setup travel limits and code transmitters as per the openers instruction manual.
b. Press either the Operate button on the opener or use a programmed transmitter to test the opener.

WARNING! The opener will become active during the following steps.
## Specifications

<table>
<thead>
<tr>
<th>SmartSolar™ Technical Specifications*</th>
<th>Garage Door</th>
<th>Slider</th>
<th>Swing Gate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Voltage</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Load Continuous Current</td>
<td>3 - 5A</td>
<td>5A</td>
<td>5 - 10A</td>
</tr>
<tr>
<td>Number of Cycles per Day</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Average Cycle Time (Opening and Closing)</td>
<td>40 seconds</td>
<td>90 seconds</td>
<td>72 seconds</td>
</tr>
<tr>
<td>Max. Standby Current</td>
<td>- Without P.E. Beams 100mA</td>
<td>100mA</td>
<td>100mA</td>
</tr>
<tr>
<td></td>
<td>- With P.E. Beams 180mA</td>
<td>180mA</td>
<td>180mA</td>
</tr>
<tr>
<td></td>
<td>- With 2 x P.E. Beams 260mA</td>
<td>260mA</td>
<td>260mA</td>
</tr>
<tr>
<td>Average total consumption current per day</td>
<td>- Without P.E. Beams 2.75 - 3Ah</td>
<td>3.7Ah</td>
<td>3.4 - 4.4Ah</td>
</tr>
<tr>
<td></td>
<td>- With P.E. Beams 4.66 - 4.8Ah</td>
<td>5.55Ah</td>
<td>5.31 - 6.3Ah</td>
</tr>
<tr>
<td></td>
<td>- With 2 x P.E. Beams 7.23 - 8.23Ah</td>
<td>7.23 - 8.23Ah</td>
<td>7.23 - 8.23Ah</td>
</tr>
<tr>
<td>Average total consumption current per hour</td>
<td>- Without P.E. Beams 0.11 - 0.13A</td>
<td>0.16A</td>
<td>0.14 - 0.18A</td>
</tr>
<tr>
<td></td>
<td>- With P.E. Beams 0.194 - 0.2A</td>
<td>0.23A</td>
<td>0.22 - 0.26A</td>
</tr>
<tr>
<td></td>
<td>- With 2 x P.E. Beams 0.3 - 0.343A</td>
<td>0.3 - 0.343A</td>
<td>0.3 - 0.343A</td>
</tr>
<tr>
<td>Recommended storage battery capacity / voltage</td>
<td>10.5Ah/24v</td>
<td>12Ah/24V</td>
<td>12 - 18Ah/24V</td>
</tr>
<tr>
<td>Wire Gauge and Length from Battery to Charger board (max)</td>
<td>18AWG, 3m</td>
<td>18AWG, 3m</td>
<td>18AWG, 3m</td>
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<tr>
<td>Solar panel average rated output generation time per day (winter months)</td>
<td>4 hours</td>
<td>4 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td>Solar Panel Output voltage / current</td>
<td>18V / 1.19A</td>
<td>18V / 1.75A</td>
<td>18V / 1.75A</td>
</tr>
</tbody>
</table>
Warranty and Exclusion of Liability

1. This warranty is an addition to any non-excludable conditions or warranties that are implied into this contract by relevant statute, including the Trade Practices Act 1974 (Cwlth).

2. Subject to all of the matters set out below, Automatic Technology Australia Pty Ltd ("ATA") warrants:

   a. immediately notifies ATA or the retailer of the alleged defect;
   b. returns the product to the retailer; and
   c. presents the relevant sales docket and this warranty document to the retailer to confirm the date of purchase.

3. Except for this warranty, ATA gives no warranties of any kind whatsoever (whether express or implied), in relation to the product, and all warranties of whatsoever kind relating to the product are, to the extent permissible by statute, hereby excluded.

4. To the extent permissible by statute, ATA disclaims any liability of whatsoever nature in respect of any claim or demand for loss or damage which arises out of:
   a. accidental damage to or normal wear and tear to the product or to the product's components;
   b. any cost relating to damage resulting from wear and tear;
   c. loss or damage due to theft, fire, flood, rain, water, lightning, storms or any other acts of God;
   d. maximum operating force exceeding 15kg (150N) when moving the door or gate manually to the open or closed position;
   e. door surface area and/or weight exceeding 16.5m² and 100kg respectively;
   f. residential gate weight exceeding 160kg;
   g. door or gate not in safe and correct working order and condition;
   h. evidence of unauthorised repairs;
   i. any cost relating to damage caused by misuse, negligence or failure to maintain the equipment in a proper working order as per clauses (d) through (i);
   j. installation, adjustment or use which is not in accordance with the instructions set out in installation instruction manual;
   k. attempted or complete modification or repairs to the product carried out by a person who is not authorised or has not been trained by ATA to carry out such modification or repairs;
   l. faulty or unsuitable wiring of structure to which the product is fixed or connected;
   m. damage caused by insects;
   n. loss or damage to any property whatsoever or any loss or expense whatsoever resulting or arising from or any consequential loss;
   o. any cost or expense arising due to manufacturer recall of any product;
   p. any cost or expense due to negligence of the approved service provider;
   q. installation of a residential garage door or gate opener in a commercial or industrial situation or a non-single residential dwelling.

6. ATAs liability under this warranty is limited, at ATAs absolute option, to repairing the product which ATA, in its unfettered opinion, considers to be defective.

7. This warranty does not extend to cover labour for installation.

8. This warranty is limited to Return-to-Base (RTB) repair and does not cover labour for on-site attendance.

9. This warranty is void if the Product is not returned to the manufacturer in original or suitably secure packaging.

10. This warranty is only applicable for repairs to the product which ATA, in its unfettered opinion, considers to be defective.

11. This warranty does not cover consumable items including globes, batteries and fuses.

12. This warranty is not transferable.

13. Where the Product is returned by any person other than ATA, except for the warranty set out above, such person has no authority from ATA to give any warranty or guarantee on ATAs behalf in addition to the warranty set out above.