Solar Battery Pack for Richmond Gate Motors GTR205

Suits the Following Richmond Gate Motors:
GTR061, GTR064, GTR207, GTR099 GTR058, GTR062, GTR078

Take your automatic gate off the grid – this solar battery pack contains almost everything you need to convert your automatic gate into a self-sufficient solar powered gate solution.

GTR205

Solar Panel (GTR049) Sold Separately

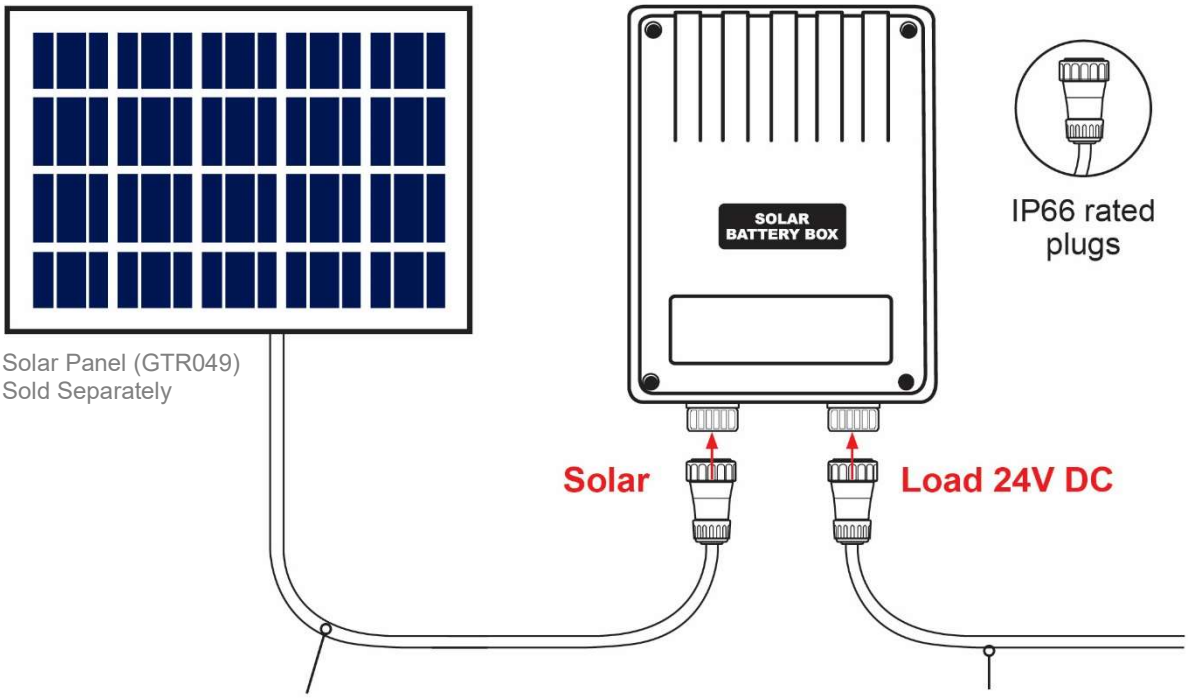
Instructions must be read before beginning installation. Please follow these instructions carefully, incorrect installation could affect gate operation. If you require more information, please contact your local Richmond Wheel & Castor Co branch.

AU: 1300 474 246 **NZ:** 0800 61 71 81 **International:** +613 9551 2233

For installation or troubleshooting assistance visit **gatesupport.richmondau.com**

GTR205 Solar Battery Pack: How it Works

The solar panel charges the batteries via the solar regulator, the batteries store the voltage generated from the solar panel to run your gate.



2 pin plug supplied with 5m of cable.
Red + (positive) and Black - (negative)
Connect to your solar panel.

2 pin plug supplied with
2m of 2-core cable.
Connect to the circuit board of your gate motor.
See following pages for instructions.

Supplied with this box is a red battery jumper cable.

This red cable is used to connect the positive and negative battery terminals contained inside the box.
See following page for instructions.

Installing the GTR205 Solar Battery Pack

CAUTION: The correct connection process listed below must be followed to avoid component damage during installation.

1. Mount the GTR205 solar battery pack within 1.5m of your gate opener.

2. Remove the plastic cover from the battery pack.

3. Connect the electrical components and cables in the order shown below.

   CAUTION!

   Not following these steps in order may result in shorting of wires and damage to components!

   Step 1 – Connect the Red and Black wires from the 2-metre cable to the correct + and - terminals on the gate motor PC board.

   Step 2 – Connect the LOAD plug into the labelled LOAD socket.

   Step 3 – Connect the Red battery jumper cable to the + and – battery terminals inside the solar battery pack (see fig 1 below)

   Step 4 – Connect the Red and Black wires from the 5-metre cable to the correct + and – terminals on the solar panel.

   Step 5 – Connect the SOLAR plug into the labelled SOLAR socket.

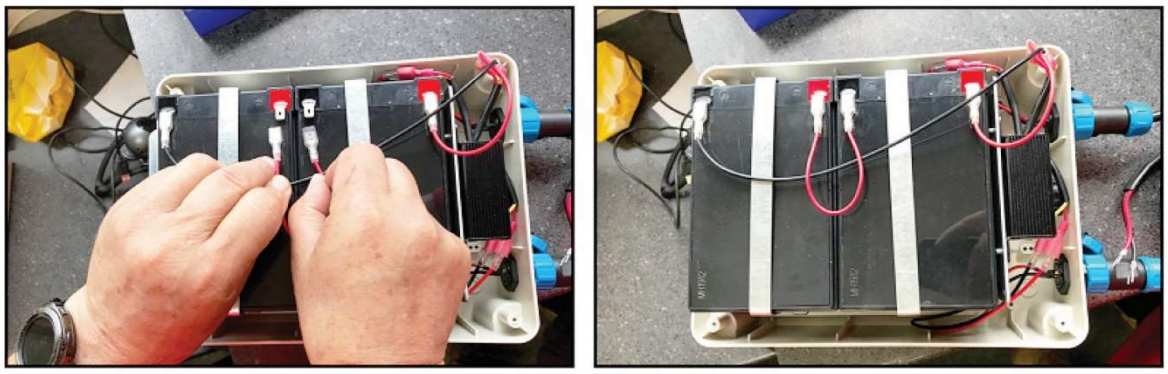


Fig 1

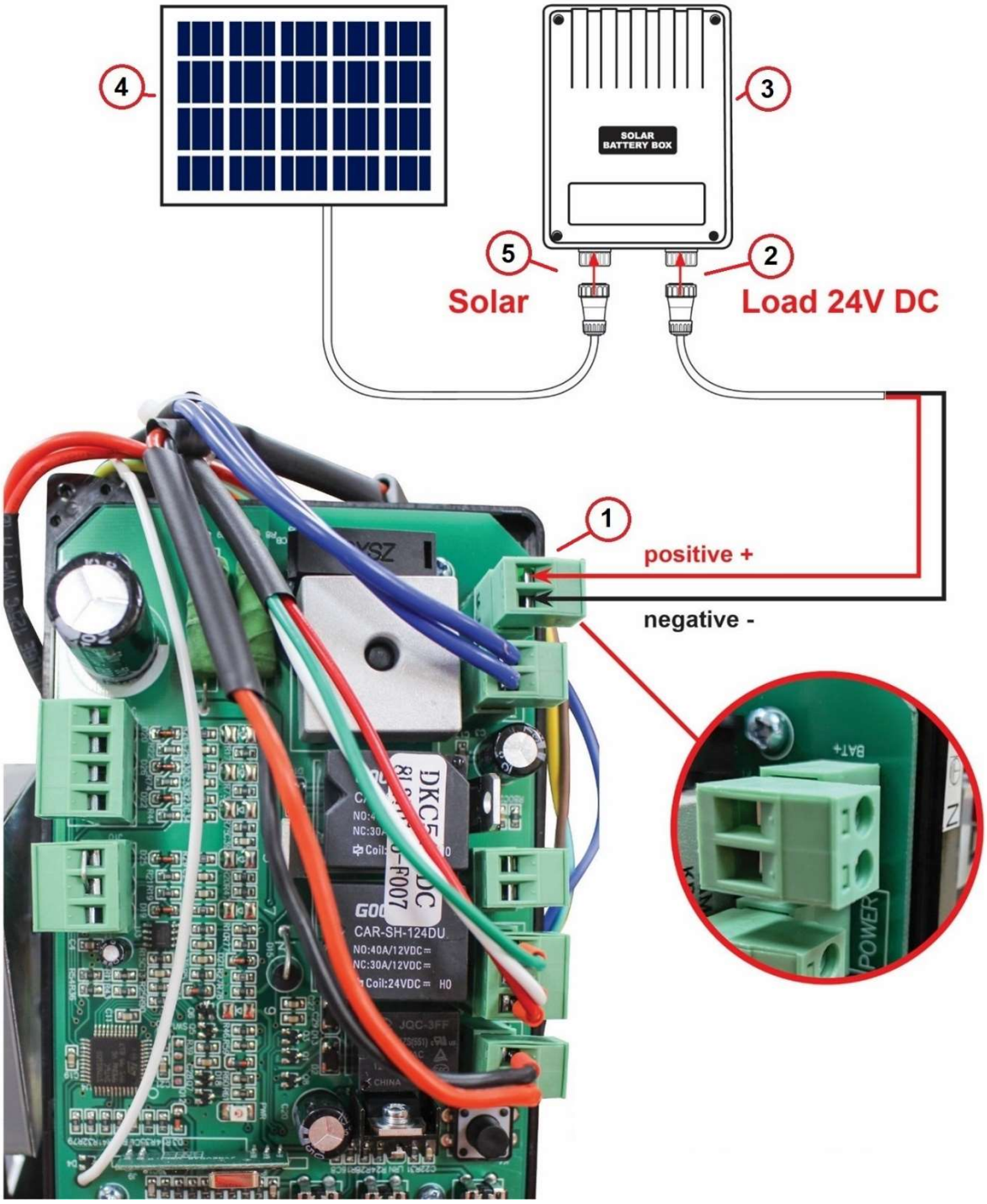
4. The voltage level on the digital display will show the current battery voltage.
   When charging is taking place you will see the digital battery icon filling up.

When the red jumper cable between the batteries is connected the digital display will power up to display the current charge.

When charging the battery icon on the display will start filling up

Instructions for connecting the GTR205 to the circuit board of each Richmond gate opener can be found in the following pages.

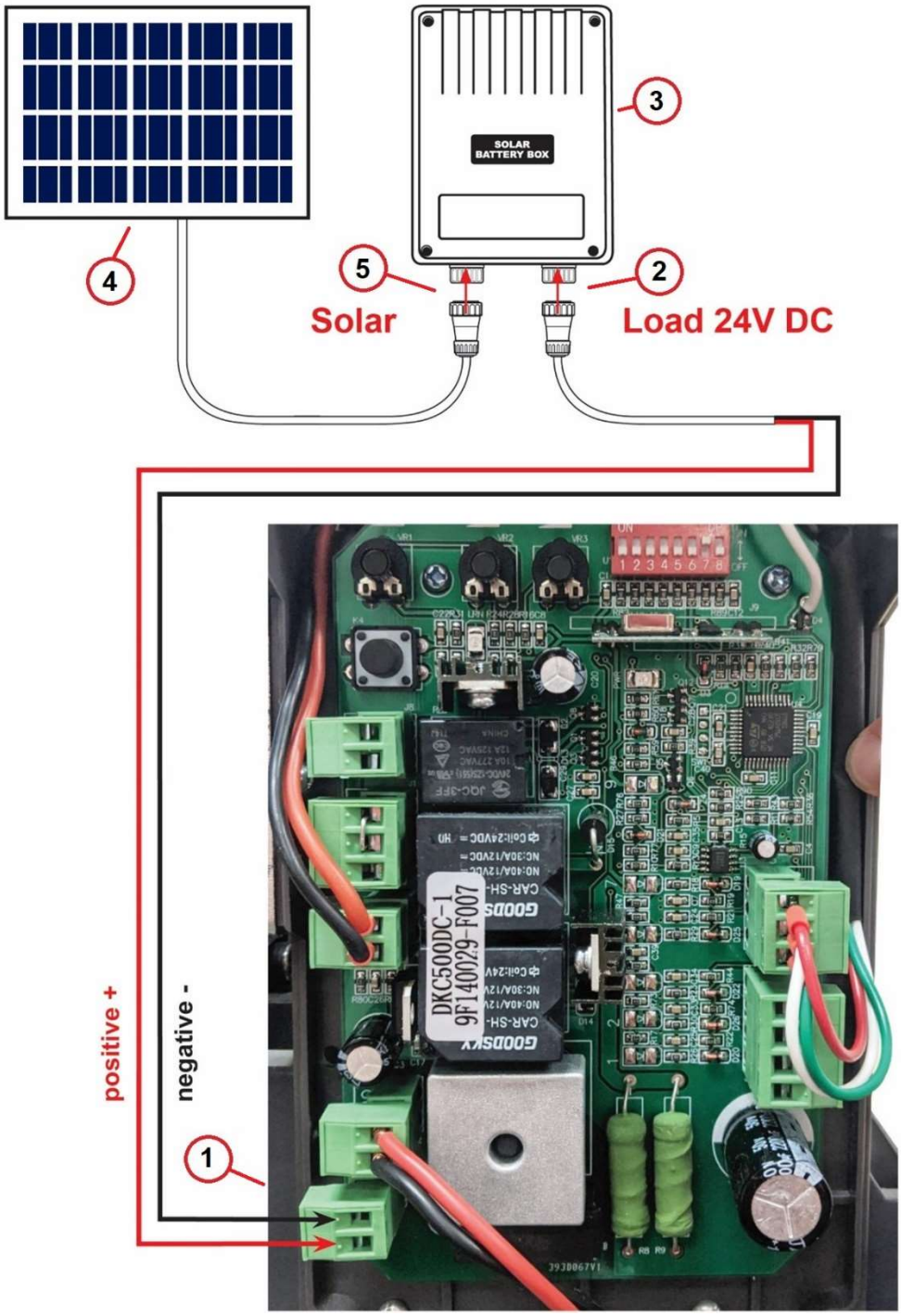
Connecting to the GTR064 Sliding Gate Motor



CAUTION: Follow this connection process to avoid component damage

Step 1 – Connect the 2-metre cable to the correct + and - terminals on the PC board.
Step 2 – Connect the LOAD plug into the labelled LOAD socket.
Step 3 – Connect the Red battery jumper cable
Step 4 – Connect the 5-metre solar cable to the correct solar panel terminals.
Step 5 – Connect the SOLAR plug into the labelled SOLAR socket.

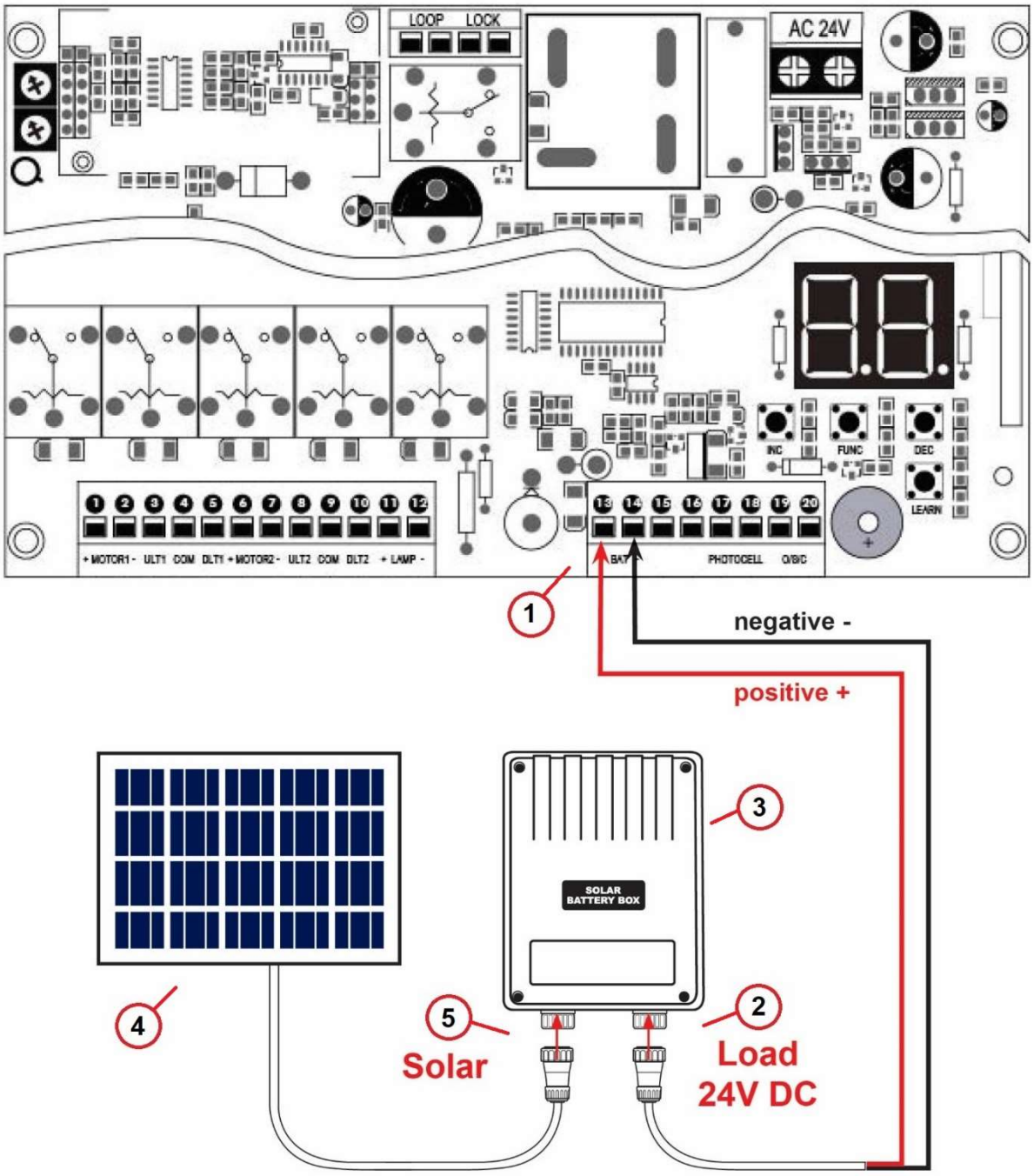
Connecting to the GTR207 & GTR061 Sliding Gate Motors



CAUTION: Follow this connection process to avoid component damage

Step 1 – Connect the 2-metre cable to the correct + and - terminals on the PC board.
Step 2 – Connect the LOAD plug into the labelled LOAD socket.
Step 3 – Connect the Red battery jumper cable
Step 4 – Connect the 5-metre solar cable to the correct solar panel terminals.
Step 5 – Connect the SOLAR plug into the labelled SOLAR socket.

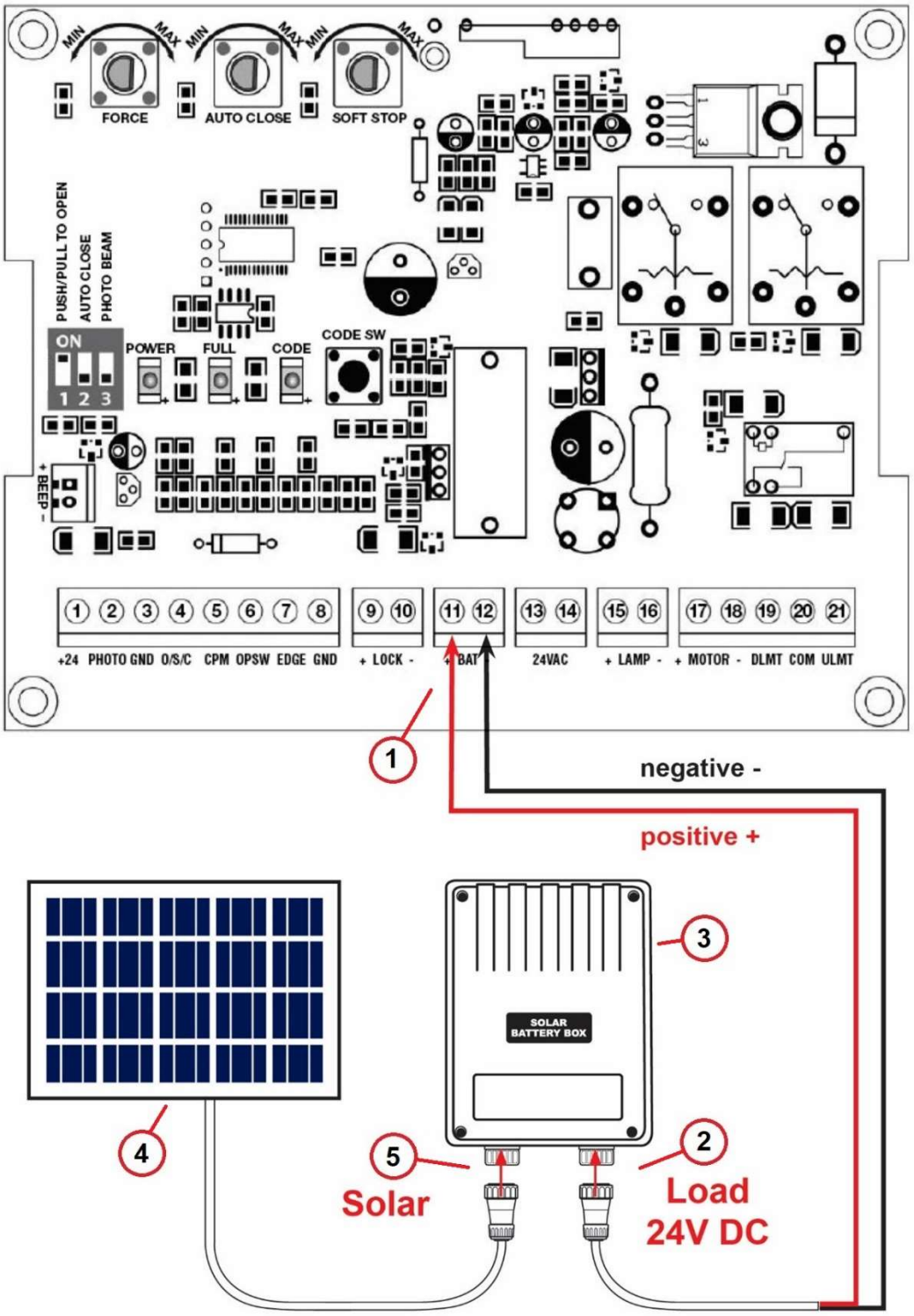
Connecting to the GTR058 Swing Gate Motor



CAUTION: Follow this connection process to avoid component damage

Step 1 – Connect the 2-metre cable to the correct + and - terminals on the PC board.
Step 2 – Connect the LOAD plug into the labelled LOAD socket.
Step 3 – Connect the Red battery jumper cable
Step 4 – Connect the 5-metre solar cable to the correct solar panel terminals.
Step 5 – Connect the SOLAR plug into the labelled SOLAR socket.

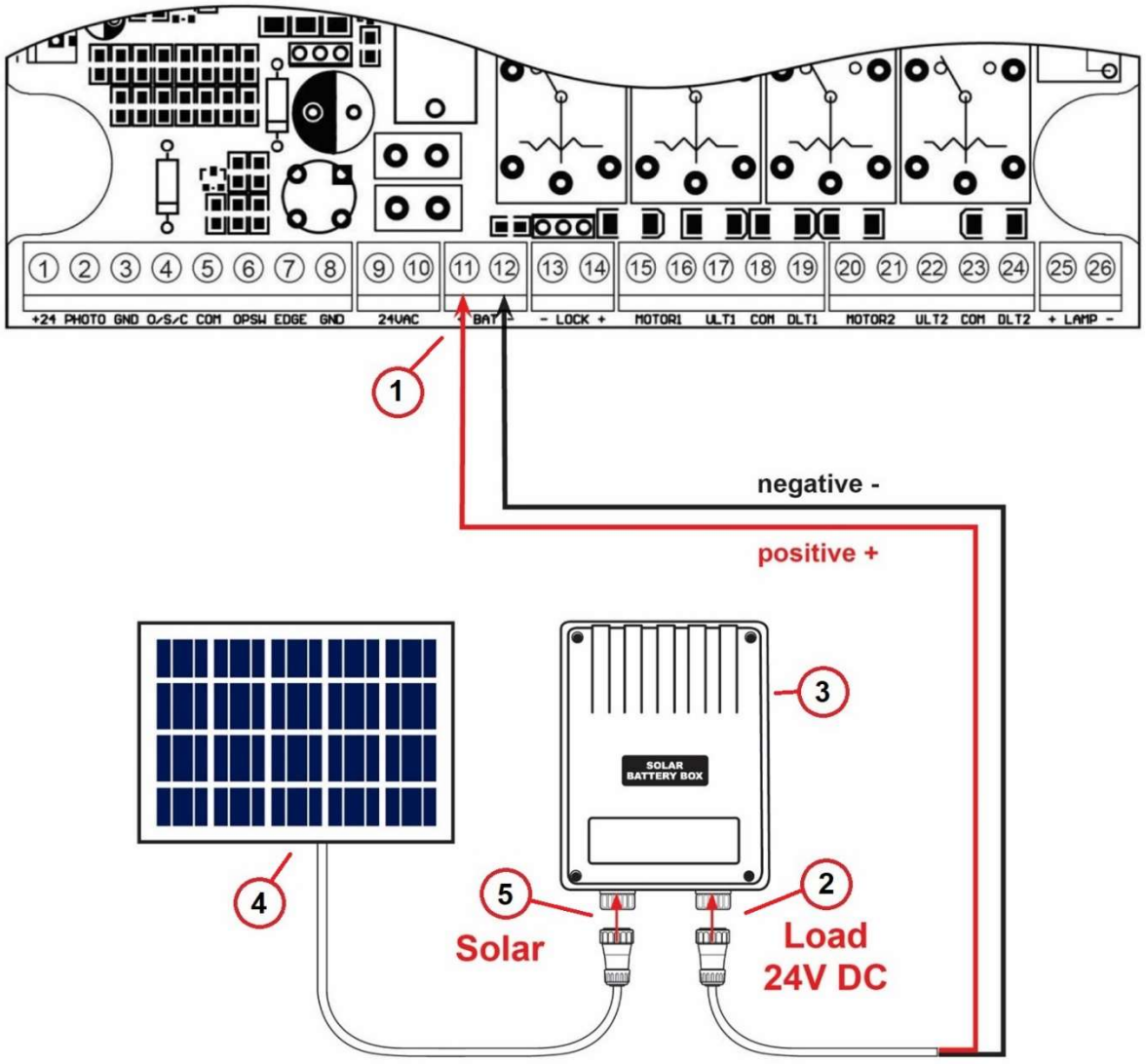
Connecting to the GTR099 Swing Gate Motor



CAUTION: Follow this connection process to avoid component damage

Step 1 – Connect the 2-metre cable to the correct + and - terminals on the PC board.
Step 2 – Connect the LOAD plug into the labelled LOAD socket.
Step 3 – Connect the Red battery jumper cable
Step 4 – Connect the 5-metre solar cable to the correct solar panel terminals.
Step 5 – Connect the SOLAR plug into the labelled SOLAR socket.

Connecting to the GTR062 or GTR078 Swing Gate Motors



CAUTION: Follow this connection process to avoid component damage

Step 1 – Connect the 2-metre cable to the correct + and - terminals on the PC board.
Step 2 – Connect the LOAD plug into the labelled LOAD socket.
Step 3 – Connect the Red battery jumper cable
Step 4 – Connect the 5-metre solar cable to the correct solar panel terminals.
Step 5 – Connect the SOLAR plug into the labelled SOLAR socket.

Battery Charging:

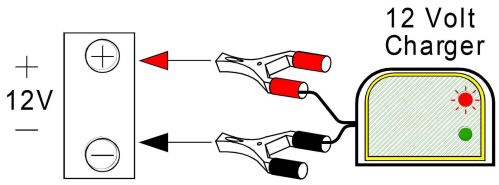
Important: Care is essential when handling your battery for charging. With incorrect handling and overcharging, shorting can occur.

Important: Protective glasses and gloves should be worn when charging a battery. To prevent shorting and damage to your battery, it is essential to avoid connection of the terminals with metallic or conductive materials. Prior to charging your battery, all electrical components must be switched off before connecting a charger. If the battery needs to be removed from its case for charging, care must be taken in the removal of the battery.

Important: The charger must be connected to the battery before the charger is connected to mains power.

How to connect a single battery for charge?

Richmond recommends connecting one 12v battery to one 12v charger to recharge your battery. When recharging your battery always remember to connect the positive charger (red) output to the positive (+) battery terminal. The negative charger output (black) connects to the negative battery (-) terminal. Once the battery is fully charged disconnect the charger from mains power first. Then disconnect the cables from the battery. Always ensure the charger and the battery have the same voltage when recharging the battery.



How to connect two batteries in a series for charge with one 24v battery charger?

To charge two 12v batteries in a series at the same time, connect a single 24v charger. This can only be done when the batteries in a series requiring charge have the same voltage output as the battery charger. As illustrated below. When recharging your batteries always remember to connect the positive charger (red) output to the positive (+) battery terminal. The negative charger output (black) connects to the negative (-) battery terminal. Once the batteries are fully charged disconnect the charger from mains power first. Then disconnect the cables from the battery. Always ensure the charger and the battery have the same voltage when recharging the battery.