



# AmpCharge EV Charger Bolt 7kW Installation Manual Australia

This document is used for the installation of AmpCharge EV Charger Bolt 7kW models.

**Please note:**

A licensed electrician is required to install this device and register it on <https://ampcharge.com.au/commissioning> to complete installation. If you have any questions, please call **13 14 04** 9am to 6pm, Monday to Friday Sydney Time.

**AMPOL**

**AMPCHARGE**



# AmpCharge EV Charger Bolt 7kW - Installation Manual Australia

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# Warnings

## Safety Warning

- Upstream protection must be installed for safe operation.
- AmpCharge EV Charger Bolt 7kW installation must be performed by a licensed electrician.
- The AmpCharge EV Charger Bolt 7kW is designed to only be connected to a dedicated AC supply.
- The AmpCharge EV Charger Bolt 7kW requires only Type A RCD + MCB upstream protection.
- The use of adapters or conversion adapters is not permitted with AmpCharge EV Charger Bolt 7kW.
- The use of cord extensions is not permitted with AmpCharge EV Charger Bolt 7kW.
- AmpCharge EV Charger Bolt 7kW must be installed according to local regulations (AS/NZS 3000:2018 Electrical Installations (Australian Wiring Rules).
- Upstream power must be isolated before insertion or removal of the charging cable from the charging unit (only relevant if cable is being swapped out of unit).
- Service / replacement must be performed by a licensed electrician.

## Installation Warning

- The AmpCharge EV Charger Bolt 7kW must be installed by a licensed electrician.
- Please ensure there are no other safety concerns in and around the area of work prior to commencing installation.



# Product Specification

|                                            |                                                                 |
|--------------------------------------------|-----------------------------------------------------------------|
| <b>Communication</b>                       |                                                                 |
| <b>Charging Mode</b>                       | 3                                                               |
| <b>Protocol</b>                            | OCPP 1.6j                                                       |
| <b>Wireless</b>                            | Wi-Fi: 2.4GHz IEEE 802.11.b/g/n<br>Bluetooth: 4.1               |
| <b>Compliance</b>                          |                                                                 |
| <b>Certification</b>                       | CE Certified, AS/NZS 3820:2009, AS/NZ 4417.2:2012               |
| <b>Protection Class</b>                    | I                                                               |
| <b>Standards</b>                           | IEC 61851-1, IEC 61851-21-2<br>EU RoHS Directive Compliant      |
| <b>Connector</b>                           |                                                                 |
| <b>Charging Cable length</b>               | 5m                                                              |
| <b>Charging Connector Type</b>             | Type 2 (IEC 62196 Type 2)                                       |
| <b>Electrical</b>                          |                                                                 |
| <b>Charging Power</b>                      | 7.4kW (1P max)                                                  |
| <b>Connection Method</b>                   | Permanently connected                                           |
| <b>Ground</b>                              | PE Cable                                                        |
| <b>Input power supply characteristics</b>  | EV supply equipment connected to AC supply network              |
| <b>Input voltage (L-N)</b>                 | 110 to 230 V AC                                                 |
| <b>Maximum Input Current</b>               | 32 Amps                                                         |
| <b>Nominal AC Frequency</b>                | 50 Hz / 60 Hz                                                   |
| <b>Output power supply characteristics</b> | AC EV supply equipment                                          |
| <b>Protection</b>                          | 6mA DC RCD - Only Type A RCD + MCB upstream protection required |
| <b>Environmental</b>                       |                                                                 |
| <b>Access Condition</b>                    | Unrestricted Access                                             |
| <b>Altitude</b>                            | Up to 2000M                                                     |
| <b>Impact Protection</b>                   | IK08                                                            |
| <b>Ingress Protection</b>                  | IP65                                                            |
| <b>Operating temperature</b>               | -30 °C to 50 °C                                                 |
| <b>Relative humidity</b>                   | Max. 95% non-condensing                                         |
| <b>Logistics</b>                           |                                                                 |
| <b>Storage temperature</b>                 | From -40°C to 85°C                                              |
| <b>Packing weight</b>                      | 3.3kg                                                           |
| <b>Packing Dimensions (L x W x H)</b>      | 380x380x100mm                                                   |
| <b>Physical</b>                            |                                                                 |
| <b>Colour</b>                              | - White/Blue fascia<br>- Black connector and enclosure          |
| <b>Dimensions (W circular x H)</b>         | 320mm x 83mm                                                    |
| <b>HMI</b>                                 | LED                                                             |
| <b>Mounting Height</b>                     | Minimum 900mm from lowest edge to floor level                   |
| <b>Mounting Type</b>                       | Wall mount                                                      |
| <b>Weight (including cable)</b>            | 3.3kg                                                           |



# Installation Preparation

- Ensure that the charging cable is positioned so it will not be stepped or tripped on, driven over or subjected to damage or stress.
- Be careful not to damage the circuit boards or components during installation.
- Use a cable sheath or protective conduit to cover the supply cables. The colour black is recommended.

## Installation Checklist

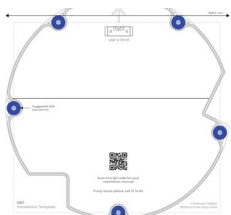
**INSTALLATION WARNING: This must be completed by a licensed electrician.**

Please use this checklist to ensure the charging unit is installed safely.

| Item                                                            | Yes | Comment |
|-----------------------------------------------------------------|-----|---------|
| Charging unit and charging cable are not damaged                |     |         |
| Charging unit mounted position is easy to access                |     |         |
| Charging unit mounted position is protected from vehicle damage |     |         |
| Charging unit's lower edge above 900mm above ground level       |     |         |
| Upstream type A RCD installed                                   |     |         |
| Upstream C curve MCB installed                                  |     |         |
| Charging unit base is mounted securely to surface               |     |         |
| Circuit amperage limit has been set                             |     |         |

### In the Box

AmpCharge EV Charger Bolt 7kW charging unit with attached type 2 charging cable, installation template, adoption key and M20 cable gland. Note: Input power cable is not included and will be provided by the installing licensed electrician.

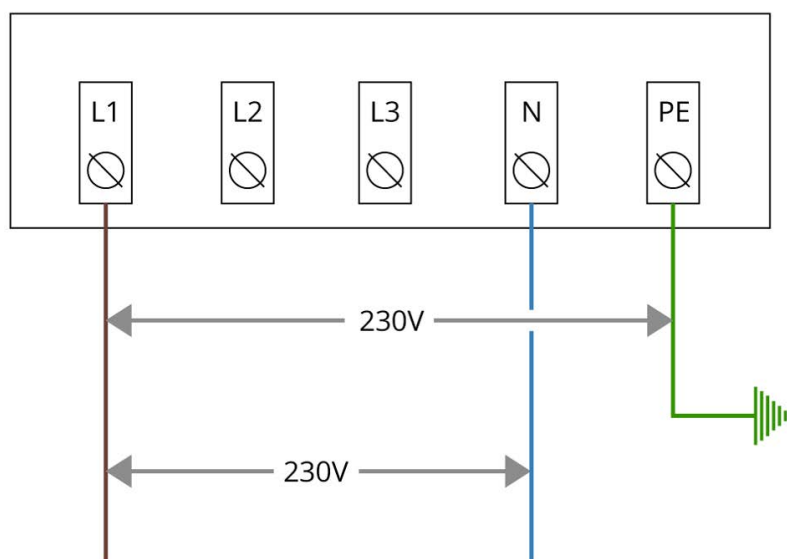
|                                                                                                       |                                                                                                              |                                                                                                              |                                                                                                                              |                                                                                                          |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <br>AmpCharge Unit | <br>Type 2 Charging Cable | <br>Installation Template | <br>AmpCharge Driver Portal Adoption Key | <br>M20 Cable Gland |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|

### IP 65 – Ingress protection

Ingress protection for the AmpCharge EV Charger Bolt 7kW must be maintained on installation of the input power cable. Use the correct cable gland for the size of supply cable, hole size is M20. Either use the cable gland supplied or an equivalent sized conduit plain-to-screwed adaptor with lock ring.



## Supply Wiring



### 1 Phase Installation

Only one phase may be connected to L1 designation on input connector.

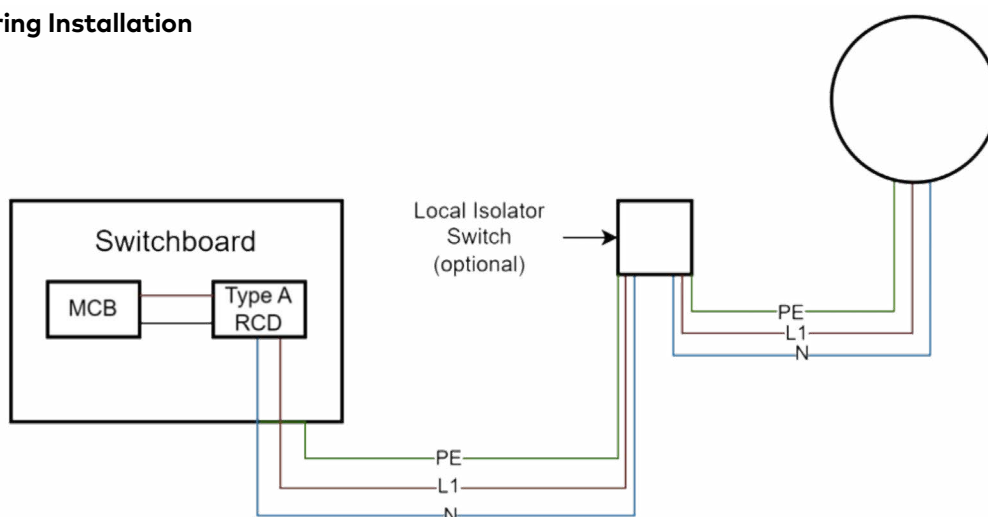
Neutral (N) and Protective Earth (PE) must be connected to designation on input connector.

The phase voltage must measure ~230V to neutral.

⚠ L2 or L3 designation on input connector cannot be used for AmpCharge EV Charger Bolt 7kW installation

## Typical Installation example

### Typical Wiring Installation



# Installation

## Tools Required

1 x 3mm Post Hex Security Bit   
1 x Power Drill  
1 x M5 Drill Bit  
1 x Phillips Head Screw Bit  
1 x ¼" Drive Ratchet  
1 x 90mm Extension Bit  
1 x Standard Electrical Test Equipment 1 x Level  
1 x Mobile Phone or Laptop with Wi-Fi  
1 x test adaptor such as a Metrel A1532, Fluke FEV300,  
or HT EV-TEST100 is required in order to complete mandatory  
test requirements of AS/NZS 3000

## Installation Location

Before installation, check the preferred installation location has these features

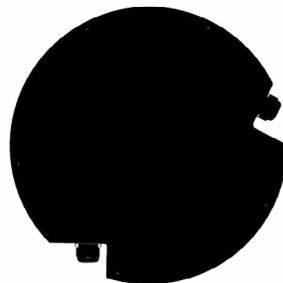
1. Installation surface must be flat to remain compliant with IP65 Rating
2. Easy access by driver.
3. Easy stowage of charging cord (prevent wheel crush damage).
4. Easy to plug in vehicle without straining cable.
5. Charger is protected from vehicle damage.
6. Station lower edge mounting height is minimum 900mm from floor level.
7. No obstructions to left and right of the charger. Please keep in mind cable management (wrap around unit or cable hook required and space needed to ensure ease of use).

## Maximise Wi-Fi signal reception:

Avoid installing AmpCharge EV Charger Bolt 7kW on opposite sides of concrete, masonry, metal studs, and other physical obstructions that could impede Wi-Fi signal reception.

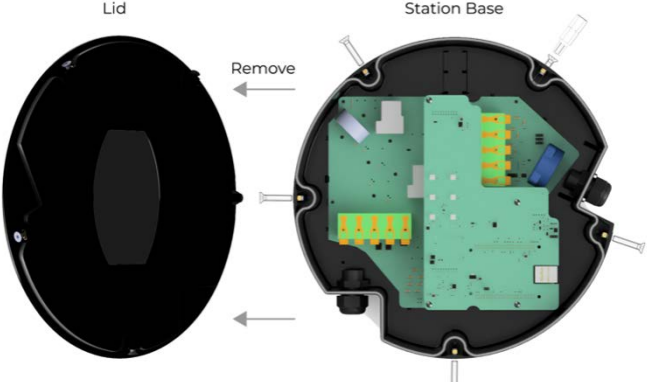
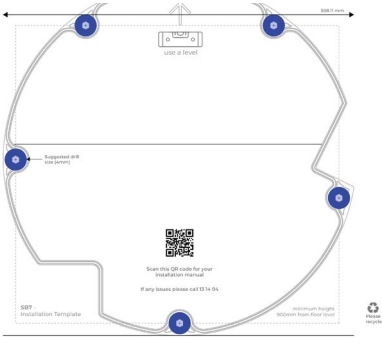
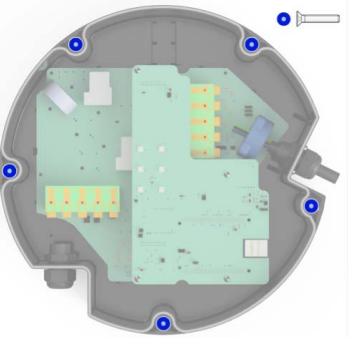
## Component Guide

### Tethered Charging Cable with Type 2 Connector



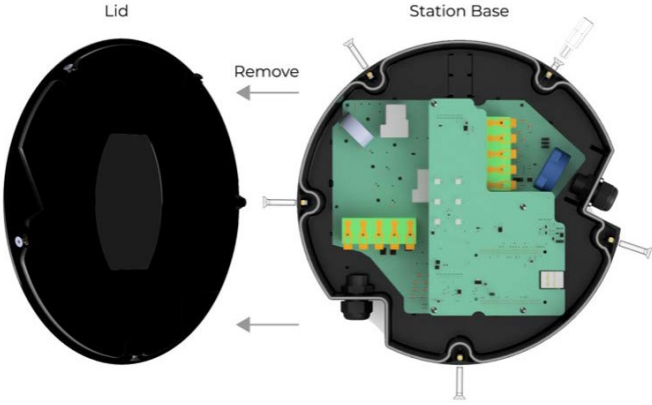
## Installation Steps

Please check off the items on the checklist located on the last page of this document.

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <h3>1 Remove lid</h3>         | <ol style="list-style-type: none"> <li>1. Using a 3mm Post Hex Security Bit, remove the charger housing fasteners and place them aside carefully for re-installation.</li> <li>2. Remove the lid.</li> </ol>  <ol style="list-style-type: none"> <li>3. Place on a flat surface where it will not be marked or damaged.</li> </ol> |
| <h3>2 Mark fixing point</h3>  | <p>Use a level and the provided marking template to drill holes to ensure that the charger is properly aligned.</p> <ul style="list-style-type: none"> <li>• Minimum height of the lower edge is 900mm from floor level.</li> </ul>  <p>Installation Template</p>                                                                 |
| <h3>3 Mount station base</h3> | <p>Use fasteners to fix the station to mounting surface.</p>  <p>Connect the input power cable in accordance with the Supply Wiring diagram on Page 5.</p>                                                                                                                                                                        |





|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>4 Re-install lid</b></p>                     | <p>Use the charger housing fasteners and re-install the lid. Torque rating for lid M5 security screws 0.5Nm.</p>  <p>Ensure the gasket is fitting correctly, and press firmly on the cover at each fastener location to ensure alignment of the fixing screw with the embedded female thread whilst installing each screw.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p><b>5 Register and configure (mandatory)</b></p> | <ol style="list-style-type: none"> <li>1. Connect to the Ampol Installation Commissioning Form by using this URL: <a href="https://ampcharge.com.au/commissioning">https://ampcharge.com.au/commissioning</a>.</li> <li>2. Follow the steps to register your charger. If you need assistance please call 13 14 04 (9am –6pm, Mon-Fri Sydney time).</li> </ol> <p><b>Commission Charger</b></p> <p>At the install screen, please enter:</p> <ol style="list-style-type: none"> <li>1. The charger serial number (located on a barcode on the side of the charging unit).</li> <li>2. The address where the station is installed.</li> <li>3. The "Circuit Amperage Limit".<br/>This value represents the maximum continuous amperage the station may draw from the local circuit.</li> </ol> <p><b>⚠ NOTE. The default circuit amperage limit is set to 32A. This value MUST be verified / adjusted by the installation electrician at the time of installation.</b></p> <ol style="list-style-type: none"> <li>4. Take/upload 3 photos of the installation that show:<br/>The Charger,<br/>Compliance label, Residual-current device.</li> </ol> |



|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>6 Electrical Tests</b>    | <ol style="list-style-type: none"> <li>1. Inspect and verify installation meets local requirements before placing into service.</li> <li>2. AS/NZS 3000 requires a number of mandatory tests to be conducted upon installation. These must be conducted.</li> </ol>                                                                                                                                                                                                                                                       |
| <b>7 Power ON</b>            | Enable the upstream power.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>8 Test Charge</b>         | AS/NZS 3000 requires a number of mandatory tests to be conducted upon installation as per the testing equipment required, please ensure you can use a specialised RCD test instrument capable of 6mA smooth DC testing is required for testing of the built-in RDC-DD function. Recommended to use a thermal camera to verify there are no hot spots on the input connector.                                                                                                                                              |
| <b>9 Remove plastic film</b> | Remove plastic film from the lid.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>10 Charge Light</b>       | <p>To indicate your job is complete, the charger will be flashing white and cyan to indicate that it is ready to charge and also looking for a Wi-Fi connection.</p> <p>If the charger's Circuit Amperage Limit is set below 32A, it is advisable to connect the charger to Wi-Fi to ensure that this setting is uploaded to the device.</p> <p>The next steps including Wi-Fi setup are for the homeowner to complete.</p> <p>Please note that this charger will charge at full capacity without a Wi-Fi connection.</p> |

**\*\*Please provide the customer with the Completed Certificate of Compliance for this Installation\*\***

**Installation complete.**



# Home Owners Guide - AmpCharge EV Charger Bolt 7kW

**(This section is for the Homeowner to follow)**

## Charging a Vehicle

1. Check AmpCharge EV Charger Bolt 7kW status LED is White or White and Cyan (if charger is not connected to internet) – both modes will allow you to charge your vehicle.
2. Follow vehicle preparation instructions for starting a charging session (unlock inlet / open door / remove inlet cover).
3. Remove the protective cap from the charging cable.
4. Check the charging cable for damage or contamination.
5. Insert the Type 2 charging cable into the vehicle inlet. Check the charging cable is fully inserted.
6. The vehicle inlet will lock the charging cable.
7. Start of charging session
8. When the charging session ends, follow the vehicle instructions to unlock the vehicle inlet.
9. Remove the charging from the vehicle inlet.  
Never use force to remove the charging cable.
10. Loop the cable once anti-clockwise around the shield and replace the connector protective cap immediately.
11. Check AmpCharge EV Charger Bolt 7kW status LED is White (if connected to Wi-Fi) or White and Cyan (if not connected to Wi-Fi)
12. Follow vehicle instructions after charging session (install covers / close door).



# Charger Status Information

The LEDs on the AmpCharge EV Charger Bolt 7kW convey the state of the station as listed below.

|                                                                                    |                                                                                    |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|   |   |   |
| White – Ready to charge                                                            | Blue – Charger is charging                                                         | Green – Check car is ready for charge                                                |
|  |  |  |
| Red – Charger has a fault<br>Contact 13 14 04                                      | Cyan and White Flashing<br>Looking for internet connection                         | Purple – downloading update                                                          |



# Customer Connecting Wi-Fi Setup

Connect your charger to your home Wi-Fi network to access the AmpCharge Driver Portal and to allow firmware updates to be installed remotely as needed.

- 1 Connect to your home Wi-Fi using your mobile device:
  - a. Go to your mobile device settings.
  - b. Select Wi-Fi.
  - c. From the network list, select your Charger Serial Number (this will be a six-digit number located on the side of the charger).

**Note: It may take a moment to appear on the network list. Repeat this step if your serial number does not appear after a few minutes.**

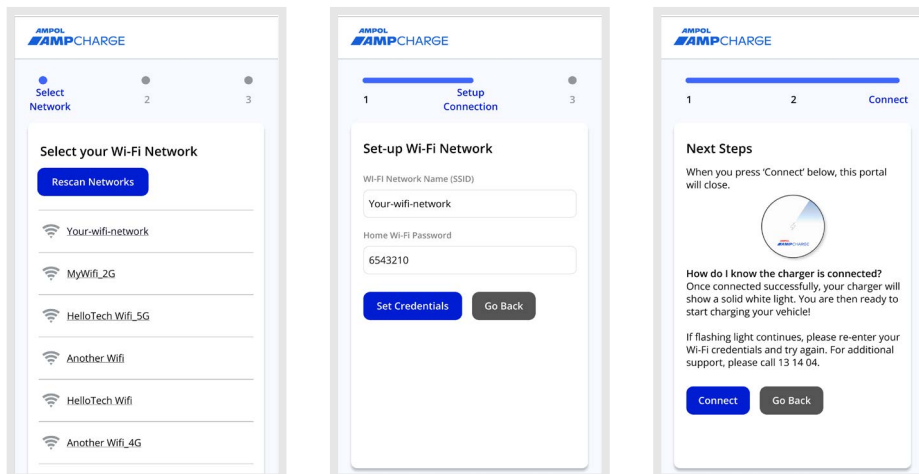
- d. Once selected, follow the below screen shots to connect.

**Note: Repeat this step if you find the connection drops off or incorrect credentials were entered or if you need to change Wi-Fi credentials in the future.**

- 2 A pop-up will appear with the following screens and steps – please follow the prompts to successfully connect.

**Note: Please ensure your network name does not contain spaces or special characters.**

Also, if the charger has been powered on for over 10 minutes without the step above being complete, please turn off and on again to restart the Wi-Fi signalling.



**Setup Completed – Enjoy using your new AmpCharge Home EV Charger.**

## Maintenance of your AmpCharge Home EV Charger

- 1 Regular Cleaning: Please do not hose or spray with water. Ensure to clean the charger's connectors and the surrounding area regularly by using a soft, dry cloth or a mild cleaning solution to remove any grime or debris.
- 2 Check for Physical Damage: Inspect the charging cable and device for signs of damage.
- 3 Monitor Charging Speed: Keep an eye on your EV's charging speed.

**If you notice any damage, decrease in charging speed or any issues with connections, please turn off at the isolator and contact 13 14 04.**

