Post eVolve Series
Installation Manual
COPYRIGHT INFORMATION
This document is copyrighted, 2017 by Circontrol, S.A. All rights are reserved. Circontrol, S.A. reserves the right to make improvements to the products described in this manual at any time without notice.

No part of this manual can be reproduced, copied, translated or transmitted in any form or by any means without the prior written permission of the original manufacturer. Information provided in this manual is intended to be accurate and reliable. However, the original manufacturer assumes no responsibility for its use, or for any infringements upon the rights of third parties that may result from its use.

All other product names or trademarks are properties of their respective owners.
Here’s your guide to install eVolve.
This manual provides commissioning information, which has been designed and tested to allow electric vehicle charging, specified in IEC 61851.

This document has different sections such as step-by-step installation procedure and technical data.

THE FOLLOWING SYMBOLS ARE USED FOR IMPORTANT SAFETY INFORMATION IN THIS DOCUMENT

**ELECTRIC RISK**

Take precautions to make the electrical connection inside the unit.

Unit must be disconnected from any power source during commissioning.

**ATTENTION!**

Indicates that the damage to property can occur if appropriate precautions are not taken

- Complies with IEC 61851, Electric vehicle conductive charging system (IES 61851-1 and IEC 61851-22).
- Complies with IEC 62196, Plugs, socket-outlets, vehicle couplers and vehicle inlets (IEC 62196-1 and IEC 62196-2).
- Standards: 2014/35/UE, LVD;2014/30/UE, EMC.
- RFID complies with ISO 14443A/B
The charge point is designed for installation in indoor and outdoor areas. For each of the different conditions of installation, the unit must be installed safely and ensure adequate protection.

- Charge point must not be installed in areas where there is potential risk of explosions.
- Do not install the charge point where falling objects may damage the equipment.
- The surface where the charge point is placed must withstand the mechanical forces.
- Do not use this unit for anything other than electric vehicle charging modes are expected in IEC 61851.
- Do not modify this unit. If modified, CIRCONTROL will reject all responsibility and the warranty will be void.
- Comply strictly with electrical safety regulations according to your country.
- Do not make repairs or manipulations with the unit energised.
- Only trained and qualified personnel should have access to low-voltage electrical parts inside the unit.
- Check the installation annually by qualified technician.
- Remove from service any item that has a fault that could be dangerous for users (broken plugs, caps that don’t close...).
- Use only Circontrol supplied spare parts.
- Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.

Refer to TECHNICAL DATA section for more information about environmental installation conditions.
Before the installation

ELECTRICAL WIRING CONSIDERATIONS

Take into consideration this section before start wiring connections of the charge point.

1 — CHARGE POINT – INPUT POWER SUPPLY
Charge point may not include elements of electrical protection.

The input power supply line must be hardwired from a distribution board to the charge point under electrical safety regulations according to your country regulations.

2 — POWER SUPPLY LINE DIMENSIONING
The dimensioning of the input power supply line of the charge point must be checked by a qualified electrician. Note that various factors such as cable length between distribution board and charge point, maximum output current of the charge point may have influence of the selected cable.

In such cases, increasing the cable cross-section it is required to adapt the temperature resistance of the power supply line.

3 — CHARGE POINT – MAXIMUM CURRENT OUTPUT
Please refer to the TECHNICAL DATA section to consult the default factory settings from maximum output current of the charge point.

If the power supply is less than maximum output current and adjustment to a lower nominal current needs to be performed, please refer to the INSTRUCTION MANUAL.

Depending of the model this value may vary.
What's included:

Charge Point
Installation Manual
CirCarLife RFID Mifare Card

eVolve Post Key
Foundation Kit
Minimum Distances

When installing the unit, respect the minimum distances space for maintenance and safety reasons.

Please comply accordingly to your country specifications.

The next picture shows how it should be installed.

- Do not install near areas where water or fluids can penetrate into the unit.
- Do not install the unit in unstable terrain.

(*) If Bollard Impact Protector is installed, keep 500 mm as a minimum distance in order to give enough space to open the frontal door of the charge point for maintenance tasks.
Foundation Kit:

- 8x Nuts M16
- 1x Template
- 4x Foundation bolt
• Place the foundation bolts into the template using provided nuts with the help of a 24mm open-end wrench.

• Once the kit is assembled, it must be placed in the ground taking into consideration the following measures.

**Note:** In the event of any doubt about the terrain regarding the installation of this unit, due to the weight and dimensions, it will be necessary to define a final solution to install the unit. It must be confirmed by a specific technical project made for an architectural firm prior to its installation.
Measures in mm
Dimensions and Overview

1 — Hat
2 — LED Beacons
3 — Display & RFID Reader*
4 — Plugs**
5 — Key lock access
6 — Base

(*) Only Smart Series
(**) Plugs may vary depending on the model
Opening

Use provided key in order to open the unit:
Installation

Positioning

1. Remove the template nuts before proceeding.
2. Place the charge point through the four foundation bolts.
Fixation

Firmly tighten the 4 nuts using a 24mm open-end wrench.
- It is recommended to install a cable glands (not supplied) in pre-holes position.

- Assembly metal plate using the 4 supplied screws as shown below:
Wiring

SINGLE-PHASE CHARGE POINT
• Connect to the 230VAC.

THREE-PHASE CHARGE POINT
• Connect to the 400VAC.
• If the Power Supply is Single-Phase, connect L1 and N.

- Make sure all screws are securely tightened
- Do not forget to connect the ground cable to the ground terminal
- Terminal block maximum cross-section: 35mm²
Verification

1 — POWER INPUT
Before proceeding, make sure voltage is present in the terminal blocks.

⚠️ For Three-Phase models pay special attention to Neutral Cable.

2 — MAINTENANCE MODE
Pull outward the Tamper Switch located in the lower half of the Charge Point.

3 — CAREFUL WITH THE WIRES
When closing the unit, keep in mind all cables should remain inside.

4 — CHECK THE PLUGS
Plugs should be in good conditions before starting the unit.

5 — OPERATION
Check no abnormal noise appears while the unit is charging.

6 — CHECK THE BEACON INDICATORS
All beacon indicators should light properly. Here’s the reference:

<table>
<thead>
<tr>
<th>PLUG STATE</th>
<th>BEACON COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available</td>
<td>Green</td>
</tr>
<tr>
<td>Charging</td>
<td>Blue</td>
</tr>
<tr>
<td>Fault</td>
<td>Red</td>
</tr>
</tbody>
</table>
### GENERAL DATA

<table>
<thead>
<tr>
<th><strong>Display</strong>*</th>
<th>LCD Multi-language</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Light beacon</strong></td>
<td>RGB Colour indicator</td>
</tr>
<tr>
<td><strong>RFID reader</strong>*</td>
<td>ISO / IEC 14443A/B MIFARE Classic/Desfire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz</td>
</tr>
</tbody>
</table>

### MECHANICAL DATA

<table>
<thead>
<tr>
<th><strong>Enclosure rating</strong></th>
<th>IP54 / IK10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enclosure material</strong></td>
<td>Aluminium &amp; ABS</td>
</tr>
<tr>
<td><strong>Enclosure door</strong></td>
<td>Frontal key locked door</td>
</tr>
<tr>
<td><strong>Net weight</strong></td>
<td>55Kg</td>
</tr>
<tr>
<td><strong>Dimensions (W x H x D)</strong></td>
<td>450 x 1550 x 290 mm</td>
</tr>
</tbody>
</table>

### ENVIRONMENTAL CONDITIONS

<table>
<thead>
<tr>
<th><strong>Operating temperature</strong></th>
<th>-5°C to +45°C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating temperature with Low Temperature Kit</strong>*</td>
<td>-30°C to +45°C</td>
</tr>
<tr>
<td><strong>Storage temperature</strong></td>
<td>-20°C to +60°C</td>
</tr>
<tr>
<td><strong>Operating humidity</strong></td>
<td>5% to 95% Non-condensing</td>
</tr>
</tbody>
</table>

### CONNECTIVITY

<table>
<thead>
<tr>
<th><strong>Ethernet</strong>*</th>
<th>10/100BaseTX (TCP-IP)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cellular</strong>*</td>
<td>Modem 3G / GPRS / GSM</td>
</tr>
<tr>
<td><strong>Interface protocol</strong>*</td>
<td>OCPP</td>
</tr>
</tbody>
</table>
## Technical Data

### ELECTRICAL DATA

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>1P+N+PE / 3P+N+PE</td>
</tr>
<tr>
<td>Input voltage</td>
<td>230VAC+/-10% / 400VAC+/-10%</td>
</tr>
<tr>
<td>Frequency</td>
<td>50Hz / 60Hz</td>
</tr>
<tr>
<td>Overcurrent protection</td>
<td>MCB (curve C)</td>
</tr>
<tr>
<td>Safety protection</td>
<td>RCD Type A (30mA) / Type B*</td>
</tr>
<tr>
<td>Surge protection*</td>
<td>Transient surge protector IEC 61643-1 (Class II)</td>
</tr>
</tbody>
</table>

### MODEL** CONNECTORS

<table>
<thead>
<tr>
<th>Model</th>
<th>Connectors</th>
<th>Output Current</th>
<th>Output Power</th>
<th>Minimum Cable Cross-Section***</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Type 2 Socket</td>
<td>32A</td>
<td>7,4kW</td>
<td>25mm²</td>
</tr>
<tr>
<td></td>
<td>Type 2 Socket</td>
<td>32A</td>
<td>7,4kW</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>Type 2 Socket</td>
<td>32A</td>
<td>22kW</td>
<td>25mm²</td>
</tr>
<tr>
<td></td>
<td>Type 2 Socket</td>
<td>32A</td>
<td>22kW</td>
<td></td>
</tr>
<tr>
<td>S-one</td>
<td>Type 2 Socket</td>
<td>32A</td>
<td>7,4kW</td>
<td>10mm²</td>
</tr>
<tr>
<td>T-one</td>
<td>Type 2 Socket</td>
<td>32A</td>
<td>22kW</td>
<td>10mm²</td>
</tr>
<tr>
<td>SM</td>
<td>Type 2 Socket CEE 7/3</td>
<td>32A</td>
<td>7,4kW</td>
<td>16mm²</td>
</tr>
<tr>
<td></td>
<td>CEE 7/3</td>
<td>16A</td>
<td>3,6kW</td>
<td></td>
</tr>
<tr>
<td>TM</td>
<td>Type 2 Socket CEE 7/3</td>
<td>32A</td>
<td>22kW</td>
<td>16mm²</td>
</tr>
<tr>
<td></td>
<td>CEE 7/3</td>
<td>16A</td>
<td>3,6kW</td>
<td></td>
</tr>
<tr>
<td>SM4</td>
<td>Type 2 Socket / CEE 7/3</td>
<td>32A / 16A</td>
<td>7,4kW</td>
<td>25mm²</td>
</tr>
<tr>
<td></td>
<td>Type 2 Socket / CEE 7/3</td>
<td>32A / 16A</td>
<td>3,6kW</td>
<td></td>
</tr>
<tr>
<td>TM4</td>
<td>Type 2 Socket / CEE 7/3</td>
<td>32A / 16A</td>
<td>22kW</td>
<td>25mm²</td>
</tr>
<tr>
<td></td>
<td>Type 2 Socket / CEE 7/3</td>
<td>32A / 16A</td>
<td>22kW</td>
<td></td>
</tr>
</tbody>
</table>

[*] Depending on the model, some components may vary

[**] For availability of models, please consult your local supplier

[***] This is the minimum cable section recommended for the maximum AC input current, the final section must be calculated by a qualified technician taking into account the specific conditions of installation
Need help?

In case of any query or need further information, please contact our Post-Sales Department

ps-support@circontrol.com

circontrol.com

(+34) 937 362 940

(+34) 937 362 941
CIRCONTROL eVOLVE
INSTALLATION MANUAL
A comprehensive guide on how to install and verify your eVolve.

V2.1, August edition 2017
Rev.40