

CT2000-AUS Family

ChargePoint® Networked Charging Stations

CT2001-AUS Bollard Mount



CT2002-AUS Pole Mount



CT2003-AUS Wall Mount



Installation Guide



ChargePoint Australia
Level 2, 74 Mentmore Ave.
Rosebery, 2018 Australia
1300 300 885
info@chargepoint.com.au
support@chargepoint.com.au
www.mychargepoint.net

Part Number: 75-001058-01 Revision 1.0

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

This manual contains important instructions that must be followed during installation of a ChargePoint® Networked Charging Station.

Grounding instructions

The ChargePoint® Charging Station must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor is to be run with circuit conductors and connected to the equipment grounding terminal or lead on the Electric Vehicle Supply Equipment (EVSE). Connections to the EVSE shall comply with all local codes and ordinances.

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case, you will be required to correct the interference at your own expense.

Important: Changes or modifications to this product not authorized by Coulomb Technologies, Inc., could affect the EMC compliance and revoke your authority to operate this product.

Exposure to Radio Frequency Energy: The radiated power output of the Zigbee radio and cellular modem (optional) in this device is below the FCC radio frequency exposure limits for uncontrolled equipment. This device should be operated with a minimum distance of at least 20 cm between the Zigbee and Cellular antennas and a person's body and must not be co-located or operated with any other antenna or transmitter by the manufacturer, subject to the conditions of the FCC Grant.

Safety and compliance

This document provides instructions to install the ChargePoint® Charging Station and should not be used for any other product. Before installing the ChargePoint® Charging Station, you should review this manual carefully and consult with a licensed contractor, licensed electrician and trained installation expert to ensure compliance with local building practices, climate conditions, safety standards, and state and local codes.

The ChargePoint® Charging Station should be installed only by a licensed contractor and a licensed electrician and in accordance with all local and national codes and standards. The ChargePoint® Charging Station should be inspected by a qualified installer prior to the initial use. Under no circumstances will compliance with the information in this manual relieve the user of his/her responsibility to comply with all applicable codes or safety standards. This document describes the most commonly-used installation and mounting scenarios. If situations arise in which it is not possible to perform an installation following the procedures provided in this document, contact Coulomb Technologies. Coulomb Technologies is not responsible for any damages that may occur resulting from custom installations that are not described in this document.

No accuracy guarantee

Reasonable effort was made to ensure that the specifications and other information in this manual are accurate and complete at the time of its publication. However, the specifications and other information in this manual are subject to change at any time without prior notice.

Warranty information and disclaimer

Your use of, or modification to, the ChargePoint® Charging Station in a manner in which the ChargePoint® Charging Station is not intended to be used or modified will void the limited warranty. Other than any such limited warranty, the Coulomb products are provided "AS IS," and Coulomb and its distributors expressly disclaim all implied warranties, including any warranty of design, merchantability, fitness for a particular purposes and non-infringement, to the maximum extent permitted by law.

Limitation of liability

IN NO EVENT SHALL COULOMB TECHNOLOGIES, INC. OR ITS AUTHORIZED DISTRIBUTORS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST DATA, LOSS OF USE, COST OF COVER, OR LOSS OR DAMAGE TO THE CHARGEPOINT® CHARGING STATION, ARISING OUT OF OR RELATING TO THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF COULOMB TECHNOLOGIES, INC. OR ITS AUTHORIZED DISTRIBUTORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Copyright and trademarks

©2011 Coulomb Technologies, Inc. All rights reserved. This material is protected by the copyright laws of the United States and other countries. It may not be modified, reproduced or distributed without the prior, express written consent of Coulomb Technologies, Inc. CHARGEPOINT is a U.S. registered trademark and service mark of Coulomb Technologies, Inc. All other products or services mentioned are the trademarks, service marks, registered trademarks or registered service marks of their respective owners. Coulomb Technologies has filed several patent applications.

Contents

1 Introduction

Before installing stations.....	1-1
Specifications.....	1-2
Wiring information	1-3

2 Installing a Bollard Mount

Before you start.....	2-1
Overview of steps.....	2-1
Step 1 - Check box for correct contents.....	2-2
Step 2 - Remove front panel	2-3
Step 3 - Remove mounting pole and base plate from body	2-4
Step 4 - Install J-Bolts and conduit	2-5
Step 5 - Mount base plate/pole assembly.....	2-6
Step 6 - Install body	2-7
Step 7 - Connect wires to wiring terminals.....	2-8
Step 8 - Replace front panel	2-9

3 Installing a Pole Mount

Before you start.....	3-1
Overview of steps.....	3-1
Step 1 - Check the boxes for correct contents.....	3-2
Step 2 - Drill hole in pole	3-3
Step 3 - Mount bracket to pole	3-4
Step 4 - Prepare body assembly for mounting.....	3-5
Step 5 - Mount body to bracket	3-6
Step 6 - Connect wires to wiring terminals.....	3-7

4 Installing a Wall Mount

Before you start.....	4-1
Overview of steps.....	4-1
Step 1 - Check the boxes for correct contents.....	4-2
Step 2 - Attach bracket to wall	4-3
Step 3 - Remove terminal block from main body	4-5
Step 4 - Drill holes in body assembly.....	4-6
Step 5 - Attach body assembly to wall bracket.....	4-7
Step 6 - Attach coupler and connect conduit.....	4-8
Step 7 - Re-attach terminal block to main body	4-9
Step 8 - Connect wires to wiring terminals.....	4-10

5 Installing the holster and cable assembly

Before you start.....	5-1
Overview of steps.....	5-1
Step 1 - Check box for correct contents.....	5-2
Step 2 - Attach holster to body assembly.....	5-3
Step 3 - Install the cable assembly.....	5-4

6 Installing the head assembly

Before you start 6-1

Overview of steps 6-1

Step 1 - Check box for correct contents 6-2

Step 2 - Slide head assembly into body 6-3

Step 3 - Verify that the station operates correctly 6-4

Step 4 - Secure head assembly 6-5

Step 5 - Arrange for station provisioning 6-6

7 Troubleshooting

The station's display 7-1

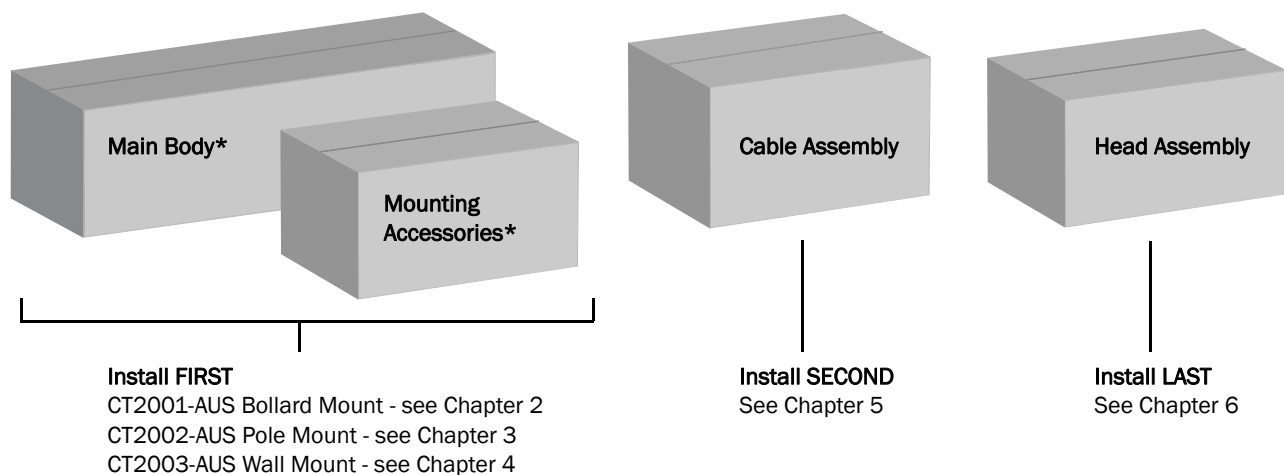
Understanding error messages 7-2

Checking voltages 7-6

Introduction

1

This document provides step-by-step instructions on how to install any ChargePoint® Charging Station in the CT2000-AUS family. Each model ships in three or four boxes, depending on the mounting option:



***NOTE:** The CT2001-AUS's main body and mounting accessories ship in the same box.

Before installing stations

The instructions provided in this guide assume that the appropriate wiring, circuit protection, and metering is in place at the installation location.

To assist in the process of preparing the installation site, thoroughly review the following documents:

- Wiring diagrams (see page 1-3 of this document)
- CT2000-AUS Charging Stations Data Sheet (available at www.coulombtech.com by clicking the "Products" link, then the "Library" link)
- Mounting template for Bollard Mount and Wall Mount stations (provided in this document and in the box containing the station's body)



IMPORTANT: If you are printing the PDF version of the Mounting Template, be sure to print at full scale using 11" x 17" paper. Verify at least one dimension before using a self-printed template.

NOTE: If you are installing a Bollard Mount charging station, prepare the site according to the instructions provided on page 2-5 of this document.

It is also recommended that before you begin installing charging stations, you thoroughly review the contents of this document to familiarize yourself with the required installation steps.

Specifications

Electrical Input

Input Power	7 kW
Input Voltage	230 VAC
Input Current	30 A (single phase)
Input Power Connections	Line, Neutral, Earth
Required Service Panel Breaker	RCBO rated at 32 A, Type B, 30 mA trip current
Standby Power	5 W typical

Electrical Output

Output Charging Power	7 kW
Output Voltage	230 VAC
Output Current	30 A (single phase)
Output Charging Connector	SAE J1772™ EV connector on 5.48 m (18') cable

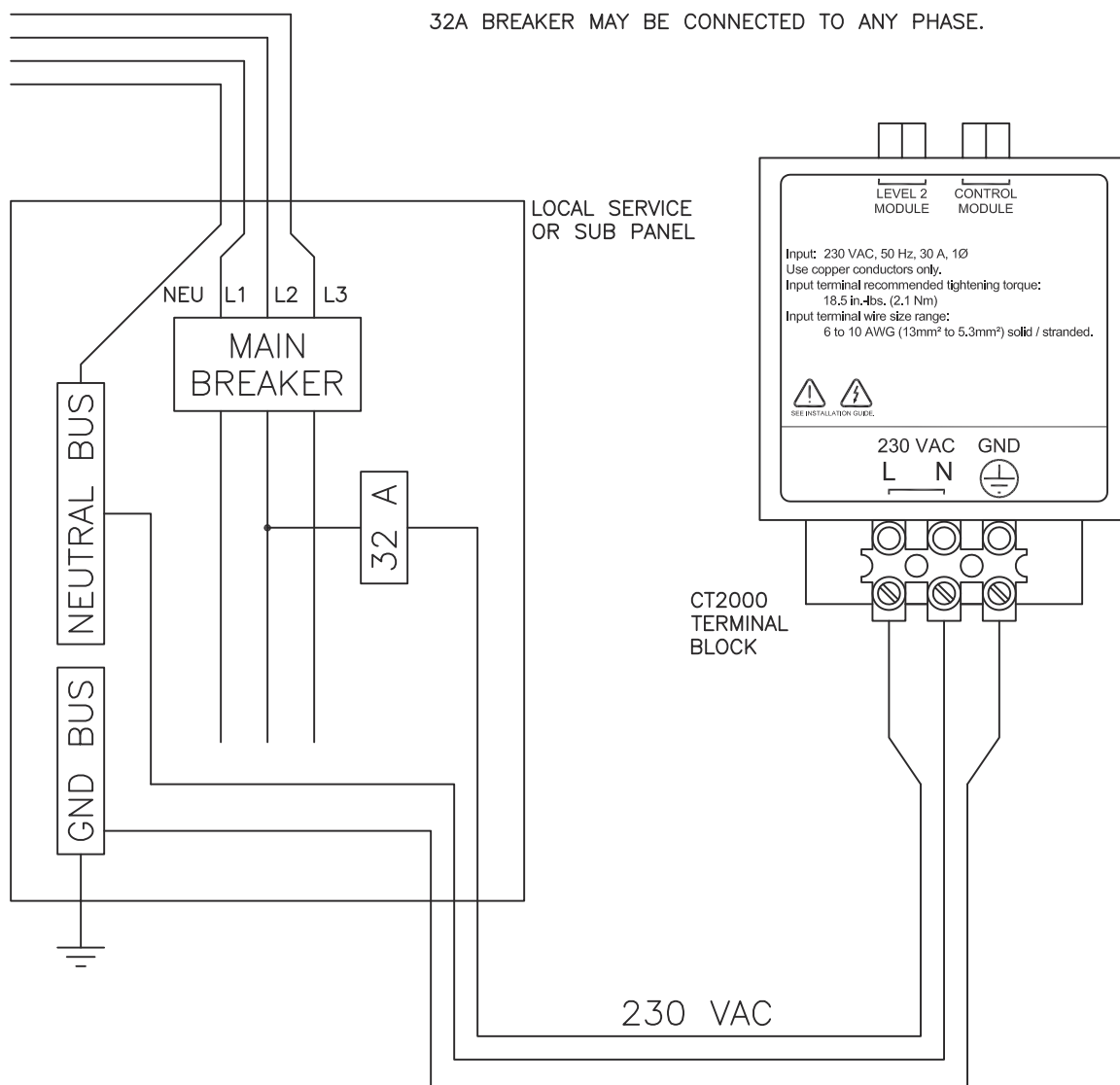
Functional Interfaces

Card Reader	ISO 15693, 14443
Plug-Out Detection	Power terminated per SAE J1772™ specification
Power Measurement	2% @ 15 minute intervals
Local Area Network	2.4 GHz 802.15.4 dynamic mesh network
Wide Area Network	Commercial GPRS cellular data network

Safety and Operational Ratings

Safety Compliance	IEC 61851-1, -21 -22; IEC 60529, Electric Vehicle Connector and Cable: UL 2251, UL 62
Surge Protection	6 kV @ 3000 A per IEC 1000-4-5. In geographic areas subject to frequent thunder storms, supplemental surge protection at the service panel is recommended.
EMC Compliance	EN55022 Class B
Operating Temperature	-30 °C to +50 °C (-22 °F to 122 °F)
Operating Humidity	Up to 95% non-condensing
Enclosure	IP44
Terminal Block Temperature Rating	100 °C (212 °F)
Maximum Charging Stations per 802.15.4 Radio Group	24. Each station must be within 150 feet "line of sight" of at least one other station.
Approximate Shipping Weights	Bollard (CT2001-AUS) 34 kg (77 lbs) Pole Mount (CT2002-AUS) 23 kg (52 lbs) Wall Mount (CT2003-AUS) 25 kg (55 lbs)

Wiring information



Installing a Bollard Mount

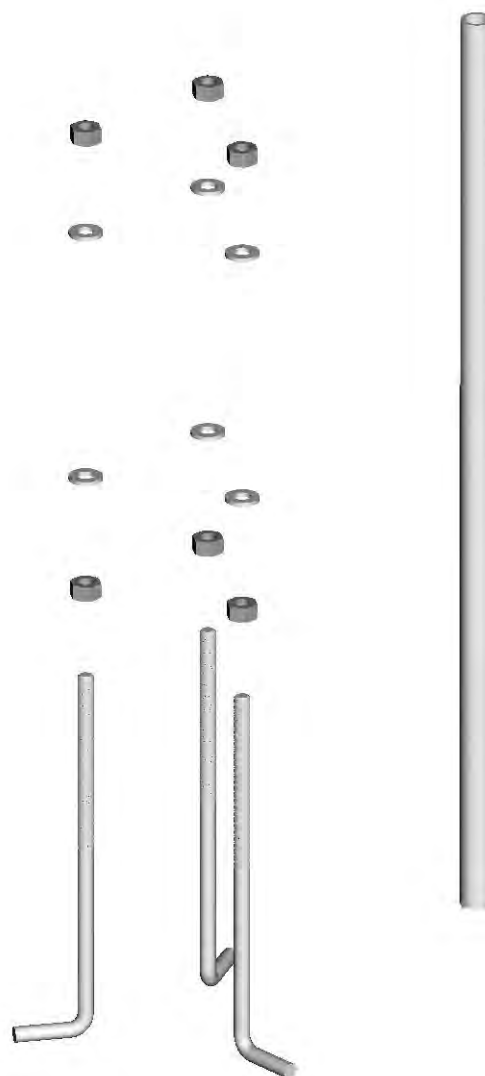
2

Before you start

You will need:

- CT2001-AUS ChargePoint® Charging Station body assembly
- Three galvanized J-Bolts with matching nuts and washers, 12.7 mm (½") thread diameter—length must comply with local codes but must be at least 29.2 cm (11.5")
- Conduit, minimum diameter of 38 mm (1 ½")—must comply with local codes
- #2 Phillips screwdriver
- #2 Slotted screwdriver

Installer-supplied components:



Overview of steps

Installing the CT2001-AUS ChargePoint® Charging Station's body assembly involves a few simple steps:

1. Check box for correct contents (see *page 2-2*)
2. Remove front panel (see *page 2-3*)
3. Remove mounting pole and base plate from body (see *page 2-4*)
4. Install J-Bolts and conduit (see *page 2-5*)
5. Mount base plate/pole assembly (see *page 2-6*)
6. Install body (see *page 2-7*)
7. Connect wires to wiring terminals (see *page 2-8*)
8. Replace front panel (see *page 2-9*)

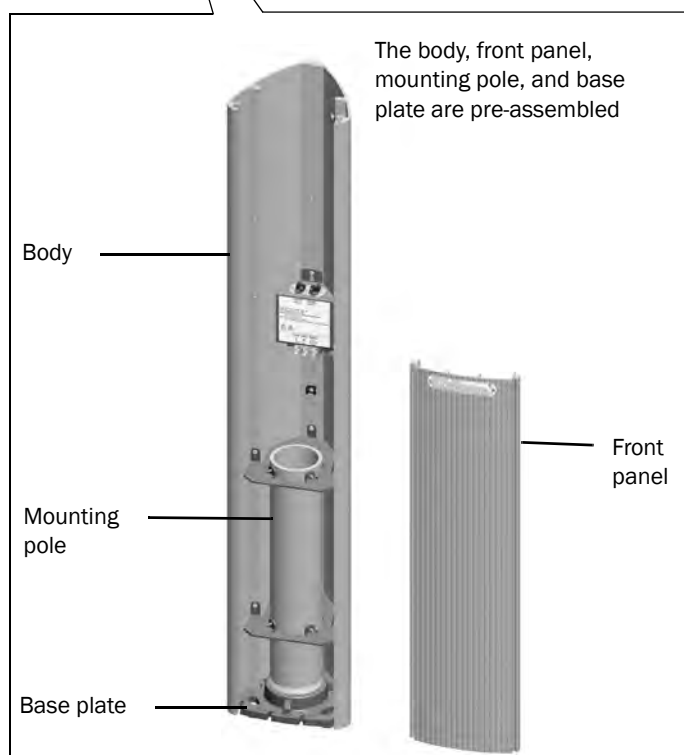
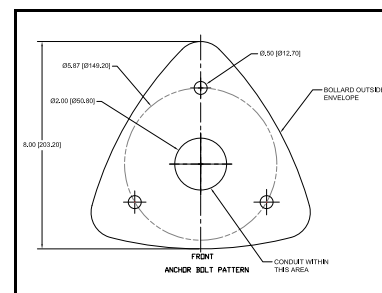
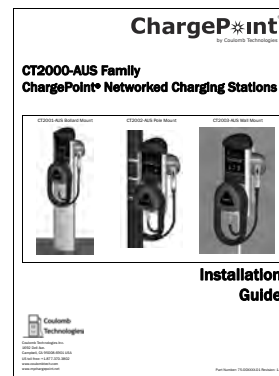
These steps are detailed in the remainder of this chapter. When you have completed these steps, you will be ready to install the holster and cable assembly as described in Chapter 5.

Step 1 - Check box for correct contents

Bollard Mount Assembly

The CT2001-AUS ChargePoint® Charging Station's body assembly ships in a box containing:

- Main body assembly (including body, front panel, mounting pole, and base plate)
- Base plate template
- Installation Guide
- 3/32" Allen wrench

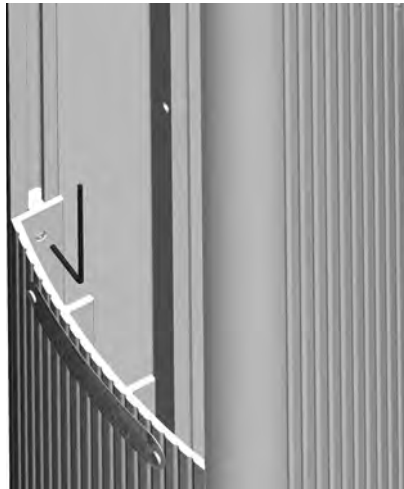


Step 2 - Remove front panel

To remove the front panel:

- Use the supplied allen wrench to loosen the two screws that fasten the panel to the body.
- Remove the ground wire connector from its tab.

Slide the front panel upward to remove.

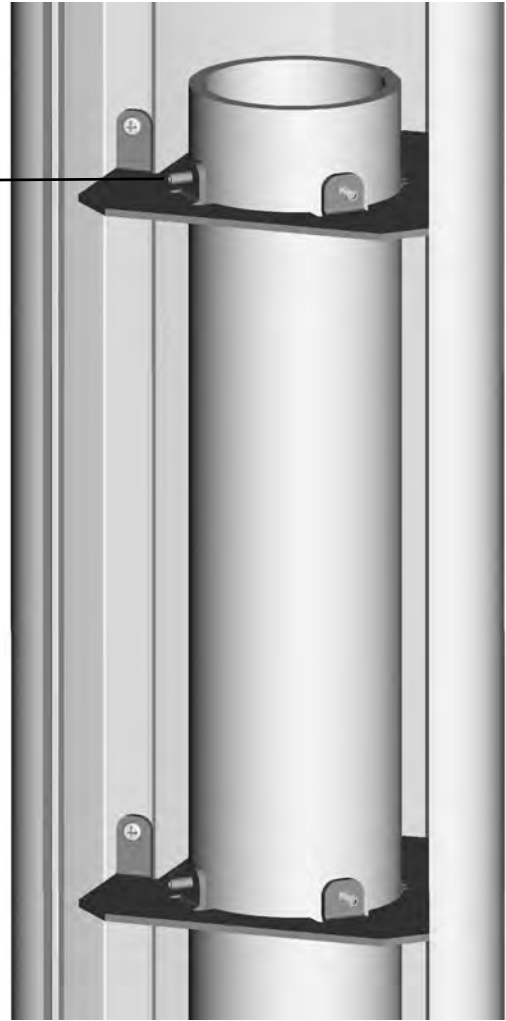


Step 3 - Remove mounting pole and base plate from body

To remove the body:

- Use the supplied allen wrench to loosen the four set screws (two on each bracket).
- Lift the body upward.

Loosen the four
set screws to
remove the pole



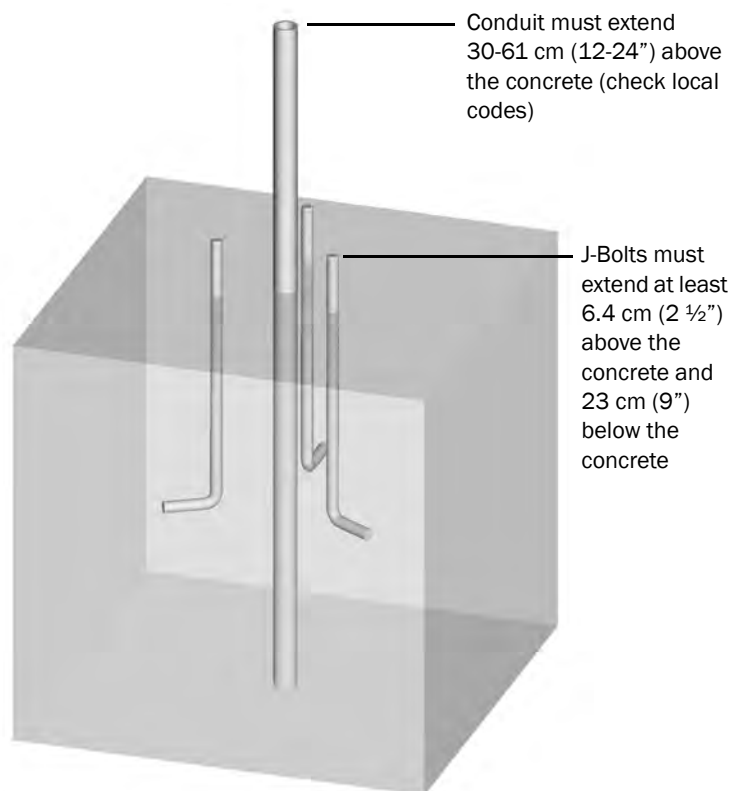
Step 4 - Install J-Bolts and conduit

Install J-Bolts and conduit into concrete as illustrated. Use the supplied base plate template to ensure correct alignment.

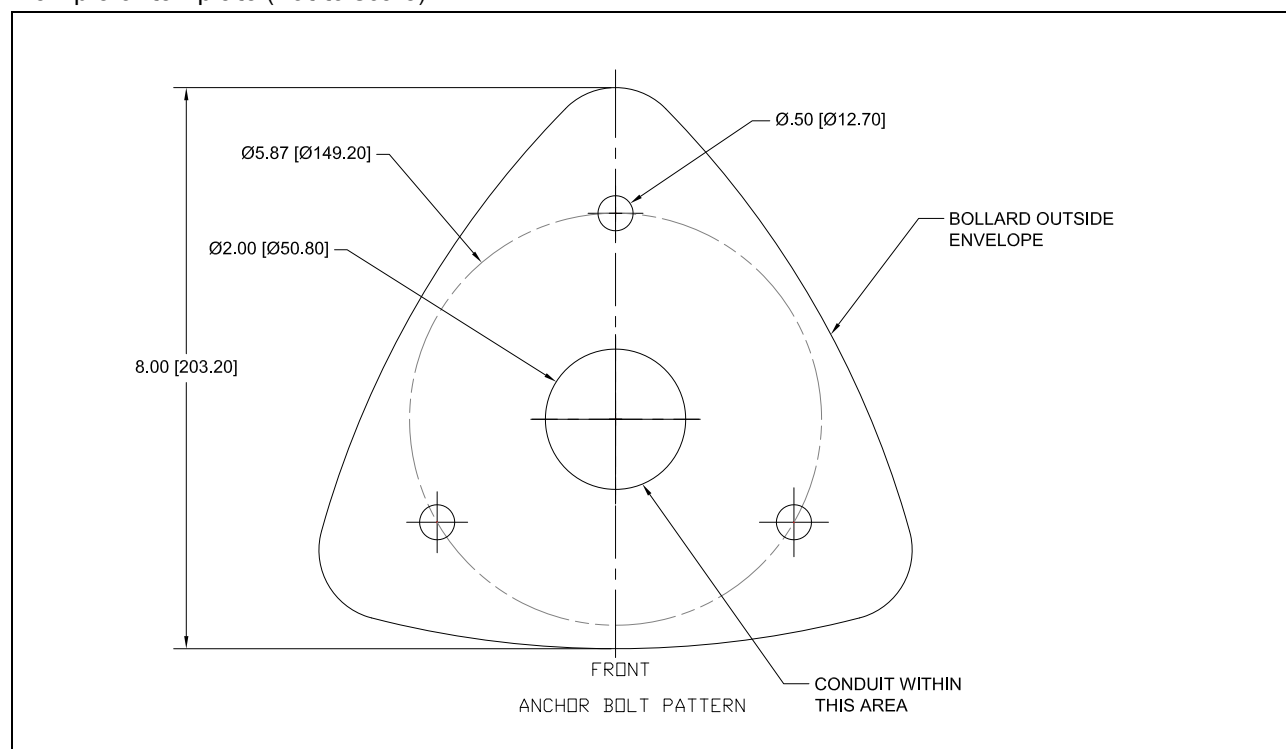


IMPORTANT:

- The concrete block must measure *at least* 46 cm (18") on all sides. **Check local codes to ensure compliance.**
- The J-Bolts must extend at least 6.4 cm (2 ½") above the concrete and 23 cm (9") below the concrete.
- The conduit must extend 30 to 61 cm (12" to 24") above the concrete, or according to local codes.



Example of template (not to scale):




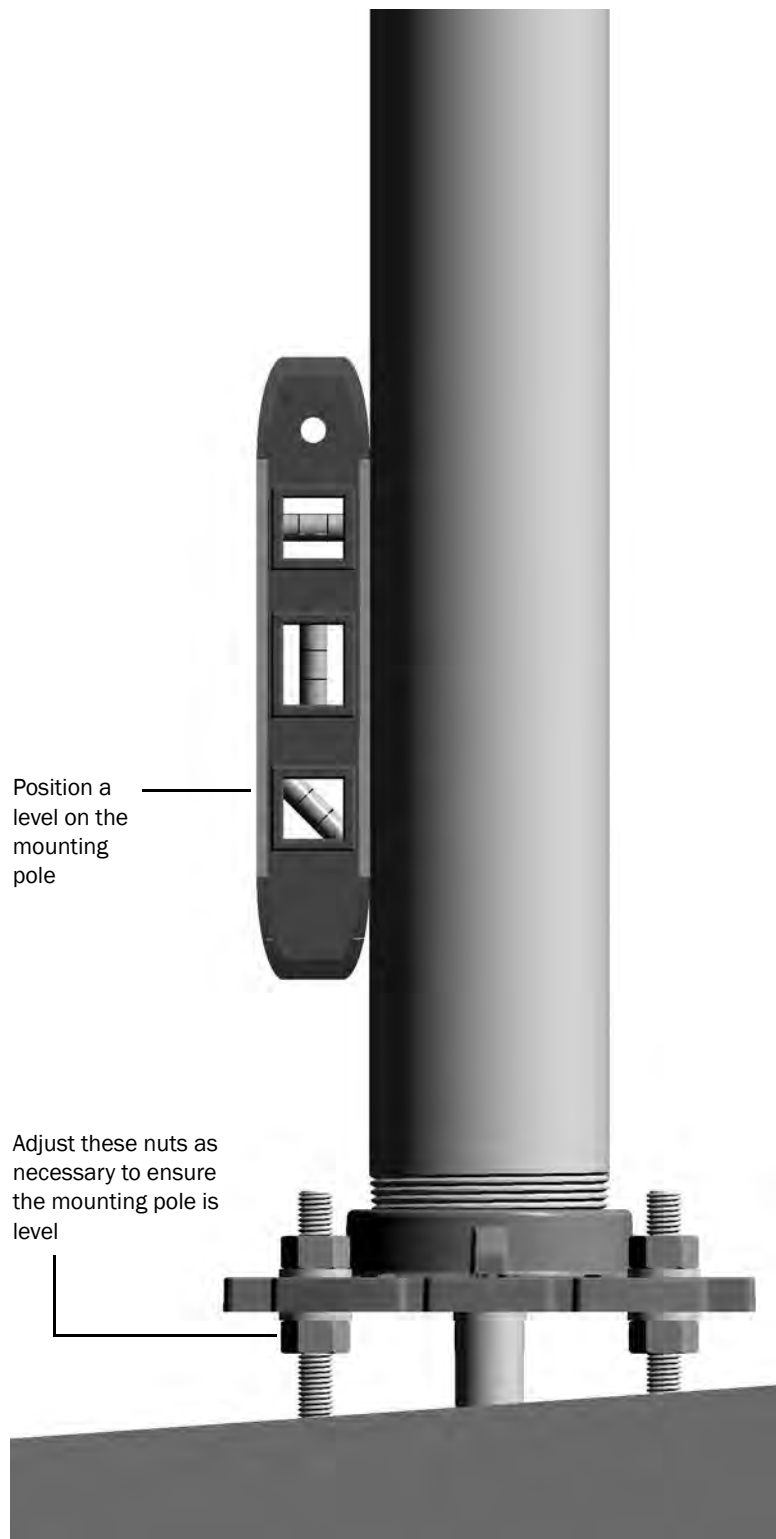
Step 5 - Mount base plate/pole assembly

Pull all three wires up through the conduit and the mounting pole.

Place the base plate/mounting pole assembly over the wiring conduit and attach the base plate to the J-Bolts using the installer-supplied nuts and washers as shown.

Adjust the nuts as necessary to ensure the mounting pole is level. When level, tighten the nuts securely.

 **IMPORTANT:** Ensure the base plate/pole assembly is level by adjusting the nuts underneath the base plate.




Step 6 - Install body

Slide the body over the mounting pole and base plate.

Ensure the body is level.

Secure the body to the mounting pole by tightening the four set screws using the supplied allen wrench.

 **IMPORTANT:** Ensure the body is firmly aligned to the bottom surface and that no movement (rocking) can take place, even when significant pressure is applied.



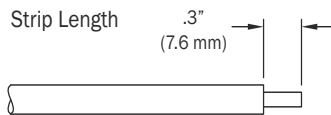
When level, tighten
all four set screws



Step 7 - Connect wires to wiring terminals

Pull the Ground wire, and the 230 VAC L and N wires, into the body assembly.

Strip wires 7.6 mm (.3"), insert in terminal block as shown, and tighten screws to 2.1 Nm (18 ½ inch-lbs).



IMPORTANT:



- Requires dedicated 32A RCBO breaker.
- Use copper conductors only.
- In areas with frequent thunder storms, add surge protection at the service panel for all circuits.

TIP ! To make it easier to connect the wires, you can remove and replace the terminal block. To do so, simply loosen the two mounting screws holding the terminal block to the body a few turns. Then slide the terminal block up and off the screws. Insert the wires and tighten the wiring screws as described above. Then, slide the terminal block back over its two mounting screws, and tighten the mounting screws.




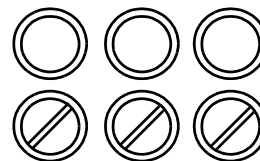
LEVEL 2
MODULE
CONTROL
MODULE

Input: 230 VAC, 50HZ, 30A, 1Ø
 Use copper conductors only.
 Input terminal recommended tightening torque:
 18.5 in.-lbs (2.1Nm)
 Input terminal wire size range:
 6 to 10 AWG (13mm² to 5.3mm²) solid / stranded.

SEE INSTALLATION GUIDE.

230 VAC GND
 L N 



Use these
three screws

Step 8 - Replace front panel

Slide the front panel into place. Use the supplied allen wrench to tighten the two set screws.

Re-attach the ground wire by pushing it onto its tab.



Tighten both set screws to secure the front panel



You have now finished installing the body assembly for the CT2001-AUS ChargePoint® Charging Station's body assembly. You are ready to install the holster and cable assembly. See Chapter 5.



Re-attach the ground wire to its tab

Installing a Pole Mount

3

Before you start

You will need:

- CT2002-AUS ChargePoint® Charging Station body assembly
- 20 mm (¾") .76 mm (0.030") stainless steel banding
- Banding tool(s)
- #2 Phillips screwdriver
- #2 Slotted screwdriver

Overview of steps

Installing the CT2002-AUS ChargePoint® Charging Station's body assembly involves a few simple steps:

1. Check the boxes for correct contents (*see page 3-2*)
2. Drill hole in pole (*see page 3-3*)
3. Mount bracket to pole (*see page 3-4*)
4. Prepare body assembly for mounting (*see page 3-5*)
5. Mount body to bracket (*see page 3-6*)
6. Connect wires to wiring terminals (*see page 3-7*)

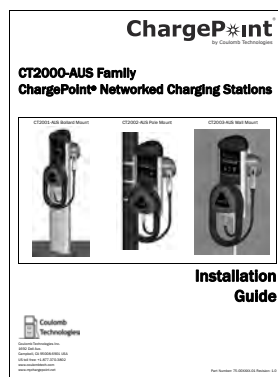
These steps are detailed in the remainder of this chapter. When you have completed these steps, you will be ready to install the holster and cable assembly as described in Chapter 5.

Step 1 - Check the boxes for correct contents

The CT2002-AUS ChargePoint® Charging Station ships in two boxes as shown below:

Main Assembly

- Main body
- Installation Guide



Mounting Accessories

- Pole bracket
- Screws (4) and washers (4)
- Pole conduit with gasket
- Pole conduit nuts (2)
- 3/32" Allen wrench

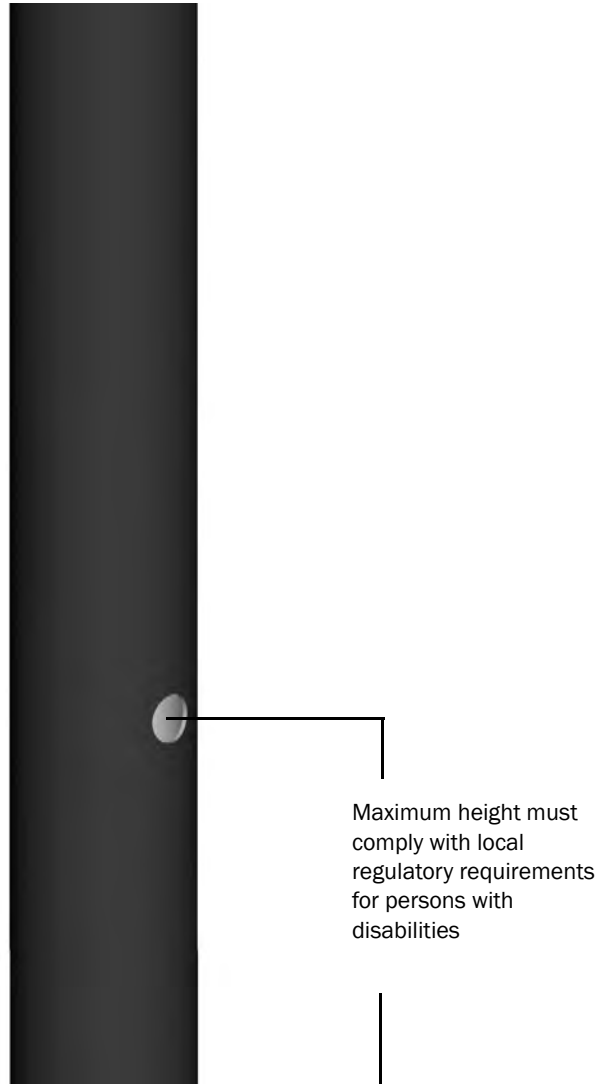


Step 2 - Drill hole in pole

Drill a 38 mm (1 ½") hole in the pole to accommodate the 32 mm (1 ¼") OD coupling.



IMPORTANT: To accommodate persons with disabilities, ensure that the maximum height above the surface complies with all local regulations.



Step 3 - Mount bracket to pole

Align the bracket to the pole, ensuring the coupler opening in the bracket is centered over the hole in the pole.

Strap the bracket to the pole using three 20 mm ($\frac{3}{4}$ ") by .76 mm (0.030") stainless steel bands capable of supporting at least 136 kgs (300 lbs).

NOTE: These instructions apply only when mounting to a round metal pole. To mount to other types of poles, the bracket must be mounted directly to the pole using three 10 mm ($\frac{3}{8}$ ") fasteners appropriate for the pole's material.



CAUTION: Never use hose clamps in place of bands.



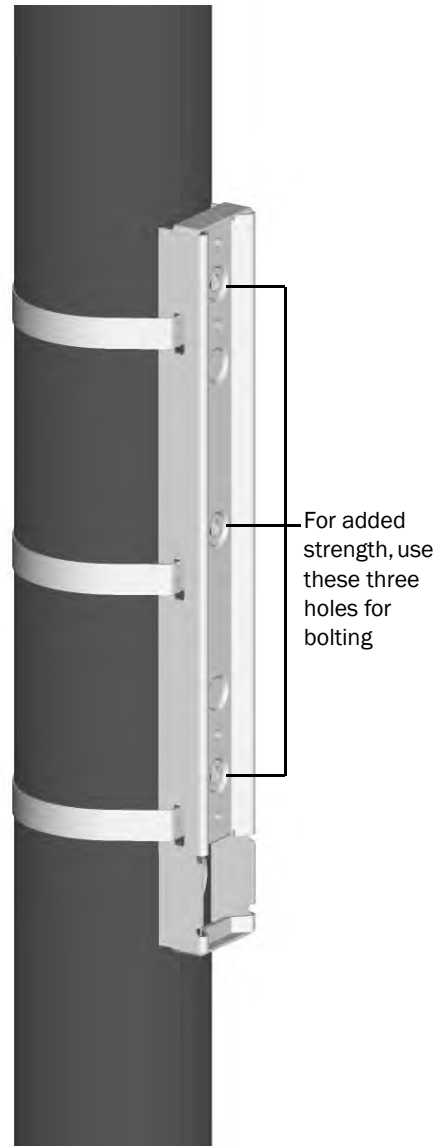
IMPORTANT: You must use a high tension banding tool to install bands.

TIP ! For added strength and security, secure the bracket with both bolts and straps. Using the mounting bracket as a template, drill and tap 10 mm x 1.5 ($\frac{3}{8}$ "- 16 tpi) holes into the pole.



Center the opening in the bracket over the hole in the pole

NOTE: Bracket may be temporarily held in place during strapping using tape, cable tie, or other means.



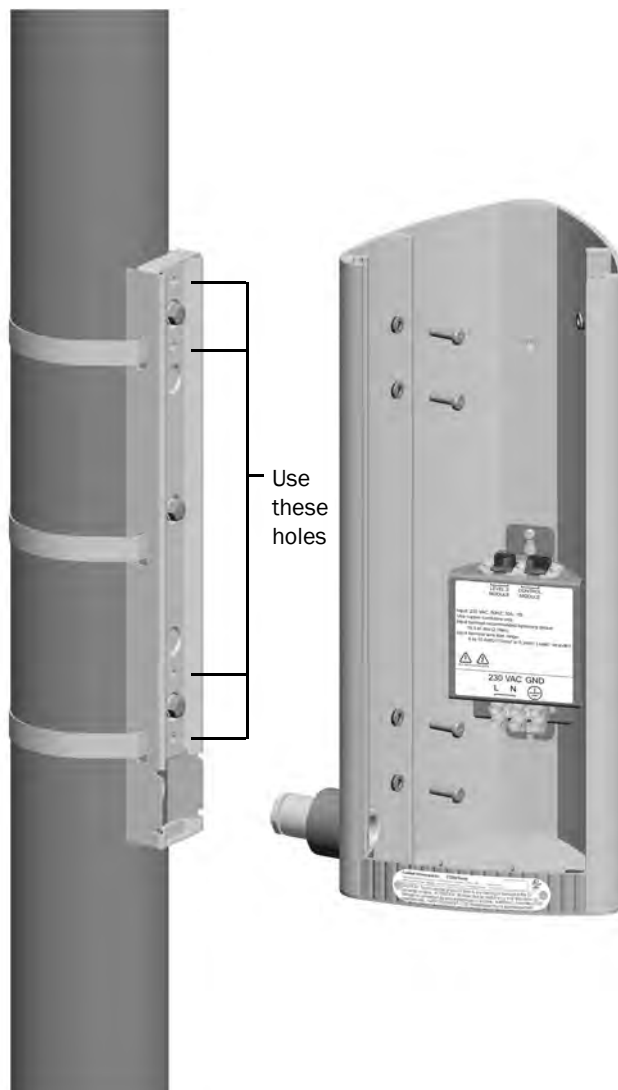
Step 4 - Prepare body assembly for mounting

Attach the pole conduit coupler to the body assembly as shown.



Step 5 - Mount body to bracket

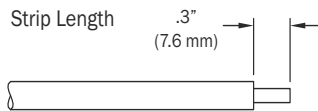
Insert the coupler into the hole and hold the body assembly to the pole bracket using the four supplied screws and washers.



Step 6 - Connect wires to wiring terminals

Pull the Ground wire, and the 230 VAC L and N wires, into the body assembly.

Strip wires 7.6 mm (.3"), insert in terminal block as shown, and tighten screws to 2.1 Nm (18 ½ inch-lbs).



IMPORTANT:

- Requires a dedicated 32 A RCBO breaker.
- Use copper conductors only.
- In areas with frequent thunder storms, add surge protection at the service panel for all circuits.

TIP ! To make it easier to connect the wires, you can remove and replace the terminal block. To do so, simply loosen the two mounting screws holding the terminal block to the body a few turns. Then slide the terminal block up and off the screws. Insert the wires and tighten the wiring screws as described above. Then, slide the terminal block back over its two mounting screws, and tighten the mounting screws.

You have now finished installing the body assembly for the CT2002-AUS ChargePoint® Charging Station. You are ready to install the holster and cable assembly. See Chapter 5.



LEVEL 2
MODULE

CONTROL
MODULE

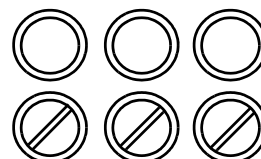
Input: 230 VAC, 50HZ, 30A, 1Ø
Use copper conductors only.
Input terminal recommended tightening torque:
18.5 in.-lbs (2.1Nm)
Input terminal wire size range:
6 to 10 AWG (13mm² to 5.3mm²) solid / stranded.



SEE INSTALLATION GUIDE.

230 VAC GND

L N



Use these
three screws

Installing a Wall Mount

4

Before you start

You will need:

- CT2003-AUS ChargePoint® Charging Station body assembly
- 20 mm (¾") coupling
- Conduit
- Water-tight sealing washer
- 6 mm x 39 mm (¼" x 1 ½") lag screws (6)
- Lag screw anchors (6)
- #2 Phillips screwdriver
- #2 Slotted screwdriver
- Drill and drill bits: one to drill 6 mm (¼") hole into aluminum and another to drill into masonry

Overview of steps

Installing the CT2003-AUS ChargePoint® Charging Station's body assembly involves a few simple steps:

1. Check the boxes for correct contents (see *page 4-2*)
2. Attach bracket to wall (see *page 4-3*)
3. Remove terminal block from main body (see *page 4-5*)
4. Drill holes in body assembly (see *page 4-6*)
5. Attach body assembly to wall bracket (see *page 4-7*)
6. Attach coupler and connect conduit (see *page 4-8*)
7. Re-attach terminal block to main body (see *page 4-9*)
8. Connect wires to wiring terminals (see *page 4-10*)

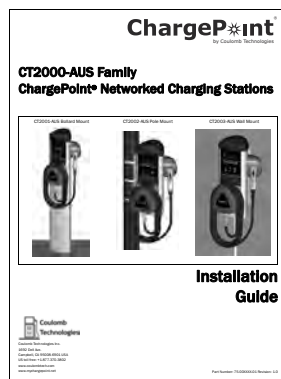
These steps are detailed in the remainder of this chapter. When you have completed these steps, you will be ready to install the holster and cable assembly as described in Chapter 5.

Step 1 - Check the boxes for correct contents

The CT2003-AUS ChargePoint® Charging Station ships in two boxes as shown below:

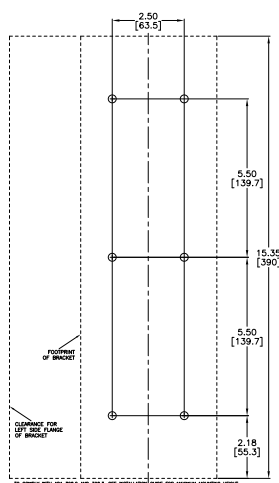
Main Assembly

- Main body
- Installation Guide



Mounting Accessories

- Wall mount bracket
- Screws and washers (6)
- Template for drilling wall holes
- 3/32" Allen wrench



Step 2 - Attach bracket to wall

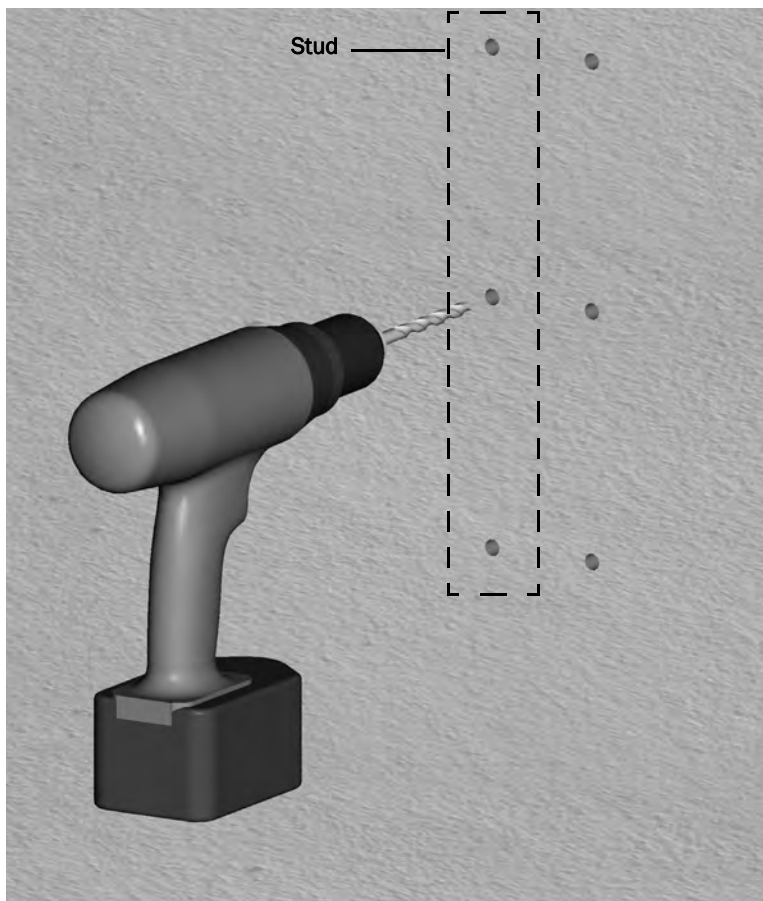
Drill six holes in the wall, as illustrated. Use the supplied template to ensure correct alignment.

NOTE:

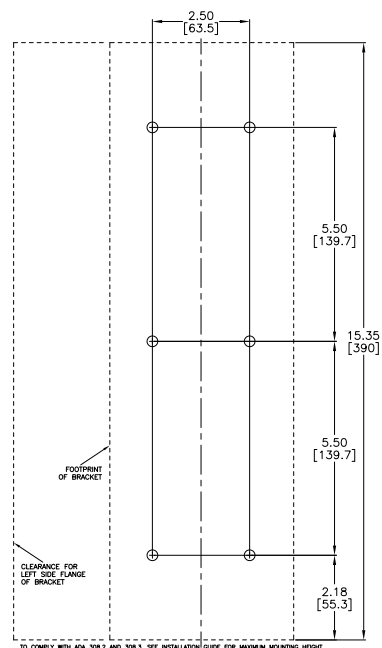
- If mounting to a hollow wall, mount the holes on the left to a stud using 6 mm ($\frac{1}{4}$ ") x 90 mm ($3\frac{1}{2}$ ") lag bolts, and use wall anchors for the holes on the right.
- If mounting to a masonry wall, use six 6 mm ($\frac{1}{4}$ ") expanding masonry fasteners.
- If mounting to a wood wall, use six 6 mm ($\frac{1}{4}$ ") x 32 mm ($1\frac{1}{4}$ ") lag bolts.



IMPORTANT: To accommodate persons with disabilities, ensure that the maximum height above the surface complies with all local regulations.

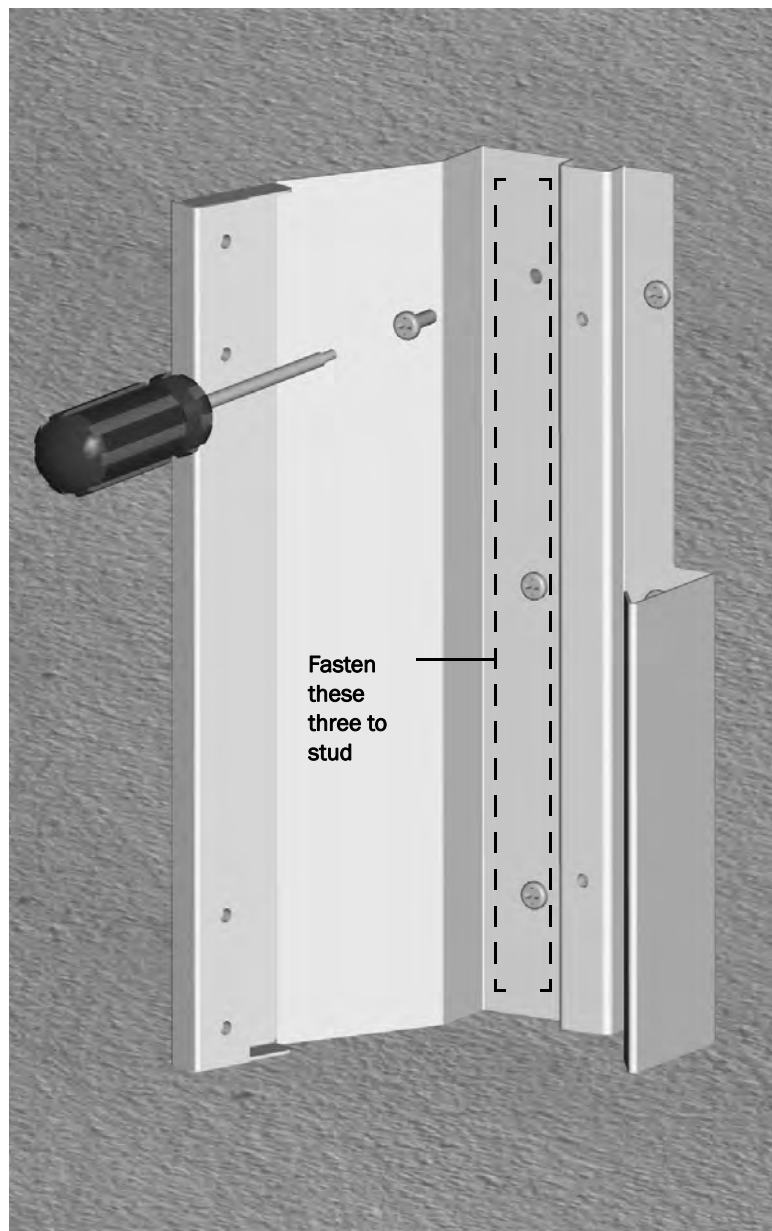


Template
(example only
- actual
template is
included in
both the
shipping box
and in this
manual)



Step 2 - cont'd

Using the fasteners appropriate for the type of wall material (see previous page), fasten the wall bracket to the wall.



Step 3 - Remove terminal block from main body

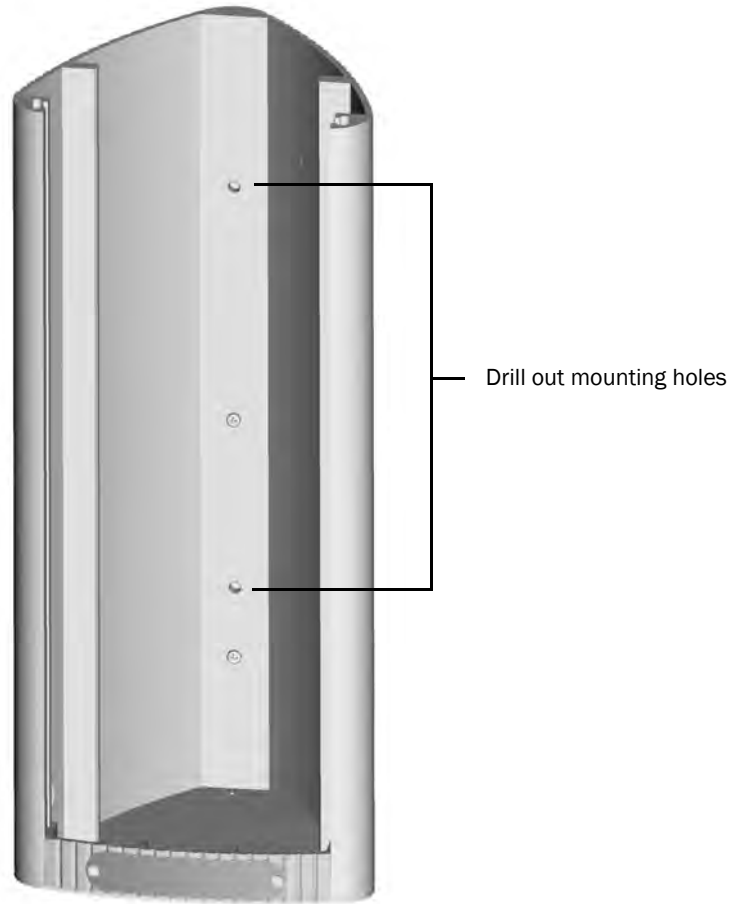
Loosen the two fastening screws enough to slide the terminal block upward and remove.

Loosen these two screws



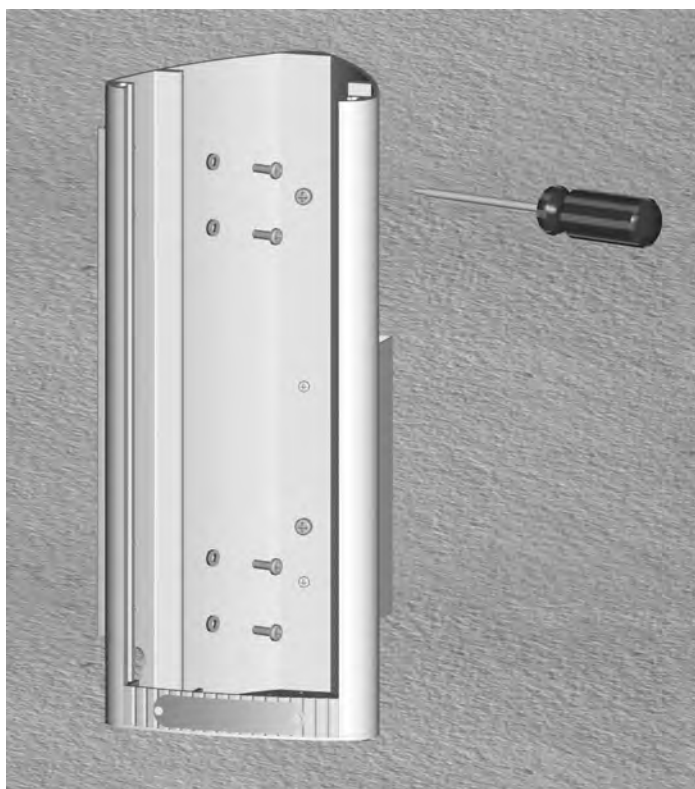
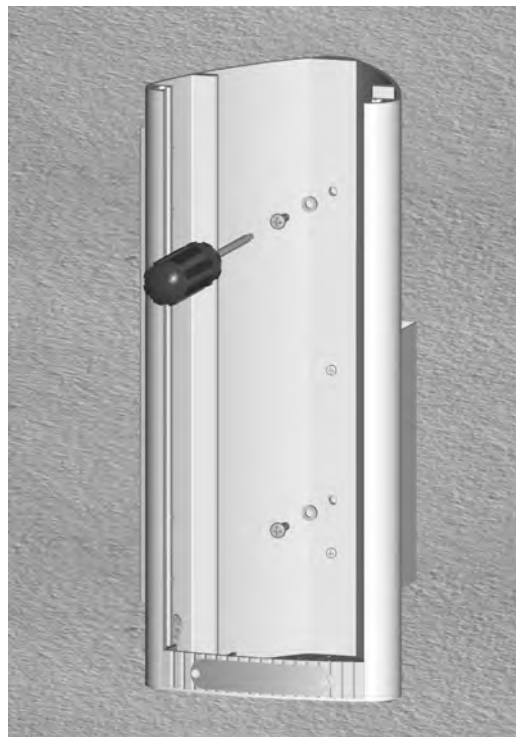
Step 4 - Drill holes in body assembly

Use a 6 mm ($\frac{1}{4}$ ") drill to drill out the two mounting holes in the back of the body assembly. These holes are partially pre-drilled.



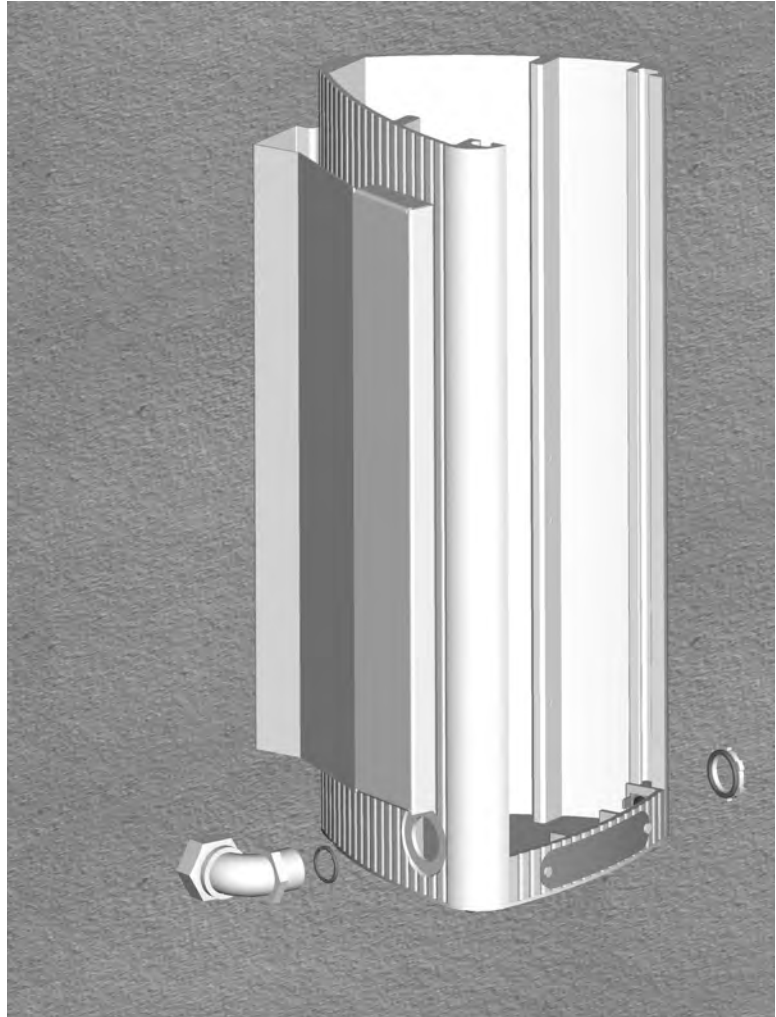
Step 5 - Attach body assembly to wall bracket

Attach the body assembly to the wall bracket using the six supplied screws and washers.



Step 6 - Attach coupler and connect conduit

Attach 20 mm ($\frac{3}{4}$ ") installer-supplied coupler and water-tight sealing washer to the body assembly, as shown, and connect the conduit.



Step 7 - Re-attach terminal block to main body

Slide the terminal block onto the two fastening screws then tighten the screws.

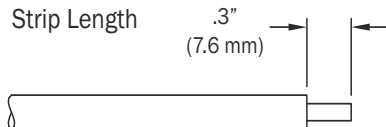
TIP ! You may find it easier to connect the wiring to the terminal block (as described in Step 8) before re-attaching the terminal block to the main body. See the following page for details.



Step 8 - Connect wires to wiring terminals

Pull the Ground wire, and the 230 VAC L and N wires, into the body assembly.

Strip wires 7.6 mm (.3"), insert in terminal block as shown, and tighten screws to 2.1 Nm (18 ½ inch-lbs).



IMPORTANT:

- Requires a dedicated 32 A RCBO breaker.
- Use copper conductors only.
- In areas with frequent thunder storms, add surge protection at the service panel for all circuits.



LEVEL 2
MODULE

CONTROL
MODULE

Input: 230 VAC, 50HZ, 30A, 1Ø

Use copper conductors only.

Input terminal recommended tightening torque:

18.5 in.-lbs (2.1Nm)

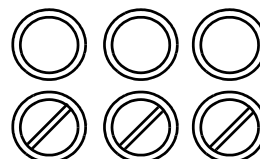
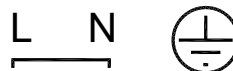
Input terminal wire size range:

6 to 10 AWG (13mm² to 5.3mm²) solid / stranded.



SEE INSTALLATION GUIDE.

230 VAC GND



Use these
three screws

You have now finished installing the body assembly for the CT2003-AUS ChargePoint® Charging Station. You are ready to install the holster and cable assembly. See Chapter 5.

Installing the holster and cable assembly

5

Before you start

The installation of the body assembly must be completed following the procedure described in a previous chapter.

Overview of steps

Installing the ChargePoint® Charging Station's holster and cable assembly involves a few simple steps:

1. Check box for correct contents (see *page 5-2*)
2. Attach holster to body assembly (see *page 5-3*)
3. Install the cable assembly (see *page 5-4*)

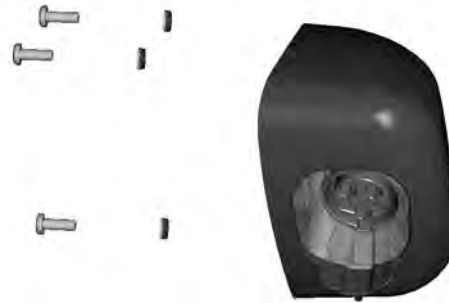
These steps are detailed in the remainder of this chapter. When you have completed these steps, you will be ready to install the head assembly, as described in Chapter 6.

Step 1 - Check box for correct contents

Holster and cable assembly

The ChargePoint® Charging Station's holster and cable assembly ships in a box containing:

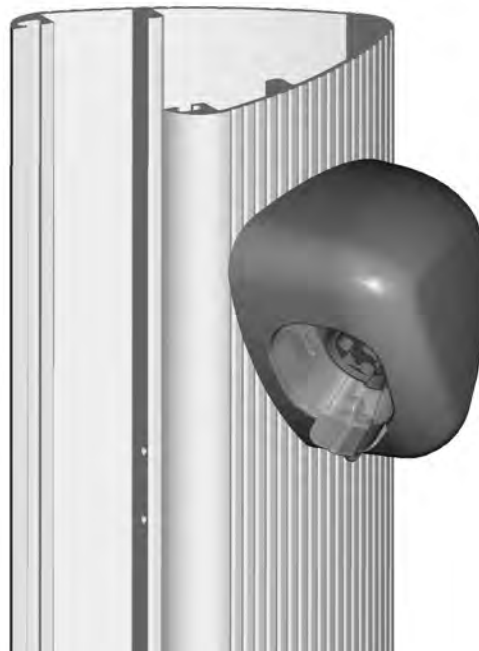
- Holster
- Bolts and washers (3)
- Cable assembly
- 5/32" Allen wrench



Step 2 - Attach holster to body assembly

Attach the holster to the body assembly using the three supplied bolts and washers. Use the supplied allen wrench to tighten.

TIP ! Retain the supplied 5/32" allen wrench in case you need to replace the holster in the future.



Step 3 - Install the cable assembly


Slide the cable assembly into the body all the way until it is flush with the top of the front panel.

NOTE: The CT2001-AUS is used for illustration purposes. The procedure is identical for the CT2002-AUS and CT2003-AUS.



Step 3 - cont'd

Plug the cable assembly's rectangular connector into the body assembly's terminal block.

 **IMPORTANT:** Do not insert the charging station's SAE J1772 connector into the holster until after installing the head assembly and powering up the charging station. If the station is equipped with a locking holster and you insert the connector into this type of holster before the station has powered up, it will not unlock!



You have now finished installing the ChargePoint® Charging Station's holster and cable assembly and are ready to install the head assembly. See Chapter 6.

Installing the head assembly

6

Before you start

You will need:

- Head assembly
- Torx Driver T25 - Tamper-Resistant

In addition, the installation of the body assembly, the holster, and the cable assembly, must be completed following the procedures described in the previous chapters.

Overview of steps

Installing the ChargePoint® Charging Station's head assembly involves a few simple steps:


1. Check box for correct contents (see *page 6-2*)
2. Slide head assembly into body (see *page 6-3*)
3. Verify that the station operates correctly (see *page 6-4*)
4. Secure head assembly (see *page 6-5*)
5. Arrange for station provisioning (see *page 6-6*)

Step 1 - Check box for correct contents

Head assembly

The ChargePoint® Charging Station's head assembly ships in a box containing:

- Head assembly
- Front panel
- Spare provisioning label (a duplicate label has been attached to the head assembly)

 **IMPORTANT:** Keep the spare provisioning label for future reference. It contains critical information that is needed for system provisioning (see page 6-6).



A provisioning label is attached to the head assembly under the front panel. A duplicate label is included to provide important information that is needed for system provisioning.

Step 2 - Slide head assembly into body

Slide the head assembly into body far enough to connect the wiring, then:

- Connect the rectangular connector to the terminal block, ensuring it is fully seated.
- Connect the Ground wire on the circulator connector to the vacant Ground tab on the cable assembly.
- Connect the circular connector to the cable assembly.

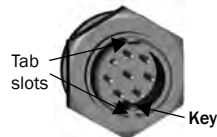
When the head assembly is connected (and the circuit is live), you should see a sequence of power-up message on the charging station's display

- Align semi-circular key with key slot.



- Align tabs with tab slot.

- Insert connector until fully seated.



- Rotate connector's outer ring clockwise until snug.

- Firmly slide the head assembly all the way into body.
- Check alignment of security screw holes.
- If necessary, press down on head assembly to seat gaskets.



Step 3 - Verify that the station operates correctly

Before securing the head assembly, follow these instructions to ensure that the charging station is fully operational:

- Turn on the main power to ensure that the head assembly powers up. When the circuit is live and the head assembly's wiring is connected, a sequence of power-up messages will be displayed. If this is not the case, check that the head assembly's rectangular connector is properly seated onto the terminal block.
- After powering up, insert the charging station's connector into the holster. If equipped with a locking holster, scan a valid and authorized ChargePass card to confirm that the holster unlocks. If it doesn't, contact Coulomb Customer Support at 1-888-758-4389.
- Ensure that none of the LEDs above the station's display are illuminated or blinking RED. This indicates that the station has detected an error and you'll need to read the station's display to troubleshoot the error. Refer to "Chapter 7, Troubleshooting" for a detailed description of error messages.
- Observe the display as it sequentially displays the station's name and the current state of the charging port. The port should be "AVAILABLE". If this is not the case, an error message will be displayed instead. Refer to "Chapter 7, Troubleshooting" for a detailed description of error messages.

Step 4 - Secure head assembly

Using a T25 Torx driver, secure the head assembly to the body using the two captive tamper-resistant security screws.



IMPORTANT: Do NOT overtighten. Snug fit only.

Tighten the two security screws



Align the protruding features on the front panel with the openings on the head assembly. Ensure the slot in the back of the panel is at the bottom. Snap into place, one side at a time.

Align the front panel and snap into place



You have now finished installing the ChargePoint® Charging Station.

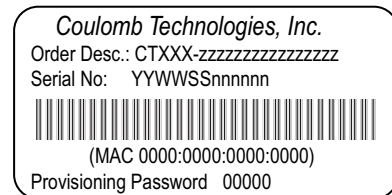
Step 5 - Arrange for station provisioning

After a charging station has been physically installed, it is ready to be provisioned. Provisioning is the act of connecting the charging station to the ChargePoint™ network and establishing its network identity. In other words, you provision a station to “go live” on the network.

To ensure the charging station is provisioned, provide your Coulomb distributor with the following information:

- Model number
- Serial number
- MAC address
- Provisioning password
- Location information (mailing address, and if possible, exact coordinates)

The station's model number, serial number, MAC address, and provisioning password is duplicated on two labels. One label is affixed to the head assembly (once installed, you can no longer see this label). A spare label is included in the shipping box. Use the spare label to keep a record of the charging station's exact installation location. To ensure data accuracy, the label has a bar code that you can scan.



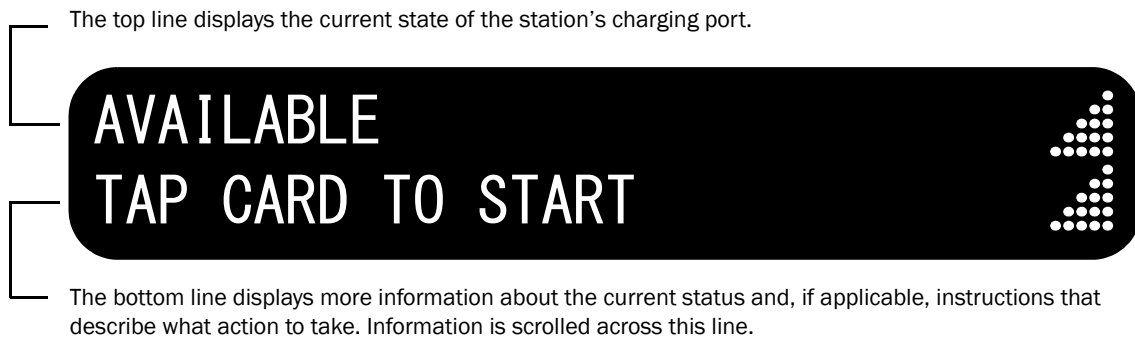
NOTE: A station's address and physical location may vary slightly. The goal is to make it easy to identify the station's location on a Google™ map. Therefore, you will need to be as accurate as possible when providing a station's location. This is especially important when you install multiple stations at the same mailing address. It is best to determine the exact coordinates of the parking space in which the charging station is located.

Troubleshooting

7

The station's display

To troubleshoot a CT2000-AUS, you'll need to pay attention to the messages that are displayed on the 2-line display. The display sequentially shows the name of the charging station and the current state of its charging port. The following example shows how a CT2000-AUS displays the state of its charging port under normal conditions when the port is ready for use:



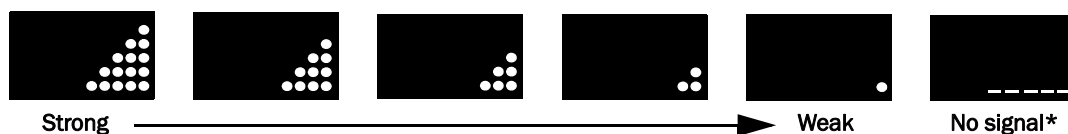
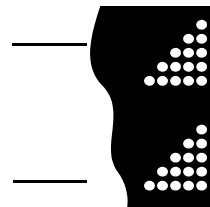
To determine the current strength of the communications signals, observe the small indicators on the rightmost side of the display:

LAN (802.15.4)

To top set of dots indicate the strength of the LAN connection. LAN is the local connection that stations use to communicate to each other. All ChargePoint charging stations have a LAN connection.

WAN (CELLULAR)

If the station is a Gateway, a bottom set of dots will indicate the strength of the WAN connection. Gateways use this connection to communicate to the NOC (Network Operations Center). If the station is a non-gateway, this signal indicator is not displayed.



**If a LAN signal is not available, the station may not be situated within 150' line of sight of at least one other station, or there may be an obstruction. If a WAN signal is not available, it may be necessary to install cellular repeaters at the installation site to boost the signal.*

Understanding error messages

The following pages describe the error messages that can occur on a CT2000-AUS charging station. If one of the LEDs above the charging station's display illuminates RED, read the display for information about the type of error that has occurred.

Power up errors

The follow messages can occur when the station powers up.

FAULT

L2 CORE OFFLINE / CHECK CONNECTOR / FOR ASSISTANCE CALL ...

Cause/Other Symptoms: Upon power up, the station detected that the head assembly is not properly connected. In most cases, this indicates that the circular connector that attaches the head assembly to the cable assembly is not correctly installed. The station will be unavailable until the head assembly is correctly attached to the cable assembly.

Solution/Action: Lift the head assembly and re-attach the circular connector. For details, refer to the installation instructions for the head assembly.

FAULT

GFCI TRIP / SELF-TEST FAILED

Cause/Other Symptoms: Upon power-up, the station detected a ground fault.

Solution/Action: Disconnect and reconnect power (by turning the power to the charging station off then back on again, or by unplugging the head assembly from the terminal block and plugging it back in). If the message continues to be displayed, it is possible that the head assembly will need to be replaced—call Coulomb Customer Support at 1-888-758-4389.

Ground fault errors

The following ground fault errors can occur during charging, or when attempting to begin a charging session:

SUSPENDED GROUND FAULT / AUTO RE-TRY IN 00:mm:ss

Cause/Other Symptoms: The station detected a ground fault during a charging session. The left or right LED will blink RED and the vehicle will not charge.

Solution/Action: The charging station will wait 15 minutes before attempting to restore power. If after three attempts, the station continues to detect a ground fault, it displays the message below (HALTED). Instead of waiting, you can try ending and restarting the charging session as described below.

HALTED GFCI HARD FAULT / RETURN PLUG TO HOLSTER

Cause/Other Symptoms: During charging, the station detected a ground fault (see message above) and made three unsuccessful attempts to continue charging. Or, the station detected a ground fault when attempting to begin a charging session. The left or right LED will illuminate solid RED and the station will not charge.

Solution/Action: End and restart the charging session. To do so, return the charging connector to its holster, then tap a valid and authorized ChargePass card on the station's front panel to begin a new session. If the message continues to be displayed, the charging station is out of service—call Coulomb Customer Support at 1-888-758-4389.

User errors

The following errors occur as a result of an inappropriate action that was performed by a person using the charging station.

DISABLED BREAKAWAY

Cause/Other Symptoms: The vehicle was driven away during a charging session. The station is out of service until the cable assembly is replaced.

Solution/Action: To replace the station's cable assembly, call Coulomb Customer Support at 1-888-758-4389.

SUSPENDED OVERCURRENT / AUTO RETRY IN 00:mm:ss / RETURN PLUG TO HOLSTER

Cause/Other Symptoms: During charging, this message is displayed if the vehicle is attempting to draw too much power (over 30 A). The vehicle will not charge.

Solution/Action: The charging station will wait 15 minutes before reattempting to charge. If after three attempts, the overcurrent fault continues to be detected, the station ends the charging session and displays the message below (ENDED). Instead of waiting, try ending and restarting the charging session. To do so, return the charging connector to its holster, then tap a valid and authorized ChargePass card on the station's front panel to begin a new session. If the message continues to be displayed, it may be possible to set and/or reduce the amount of current that your vehicle draws when charging. Refer to the vehicle's owner documentation for more information.

ENDED OVERCURRENT / RETURN PLUG TO HOLSTER

Cause/Other Symptoms: An overcurrent fault occurred (see message above) and, after three unsuccessful attempt to charge, the station continues to detect too much current being requested by the vehicle.

Solution/Action: End and restart the charging session. To do so, return the charging connector to its holster, then tap a valid and authorized ChargePass card on the station's front panel to begin a new session. If the message continues to be displayed, it may be possible to set and/or reduce the amount of current that your vehicle draws when charging. Refer to the vehicle's owner documentation for more information. For assistance, call Coulomb Customer Support at 1-888-758-4389.

Other errors

The following errors occur as a result of a potential equipment failure or utility failure.

FAULT RELAY STUCK OPEN / FOR ASSISTANCE CALL ...

Cause/Other Symptoms: When attempting to charge a vehicle, this message will be displayed if the relay is stuck open. When the relay is stuck open, the charging station can not provide power and therefore you can not charge a vehicle. You may also notice that the locking holster will not release the charge connector.

Solution/Action: End and restart the charging session. To do so, return the charging connector to its holster, then tap a valid and authorized ChargePass card on the station's front panel to begin a new session. If the message continues to be displayed, remove the head assembly and ensure that all wiring is properly connected as described in the installation instructions. Check the voltages under load as described on page 7-6. If the wiring is connected properly and the voltages are OK, it is possible that the head assembly needs to be replaced—call Coulomb Customer Support at 1-888-758-4389.

FAULT RELAY STUCK CLOSED / FOR ASSISTANCE CALL ...

Cause/Other Symptoms: When attempting to end a charging session, this message will be displayed if the relay is stuck closed. When the relay is stuck closed, the charging station can not end the charging session, although the user can return the connector to its holster. However, a new charging session can not be initiated until this error is resolved.

Solution/Action: End and restart the charging session. To do so, return the charging connector to its holster, then tap a valid and authorized ChargePass card on the station's front panel to begin a new session. If the message continues to be displayed, it is possible that the head assembly needs to be replaced—call Coulomb Customer Support at 1-888-758-4389.

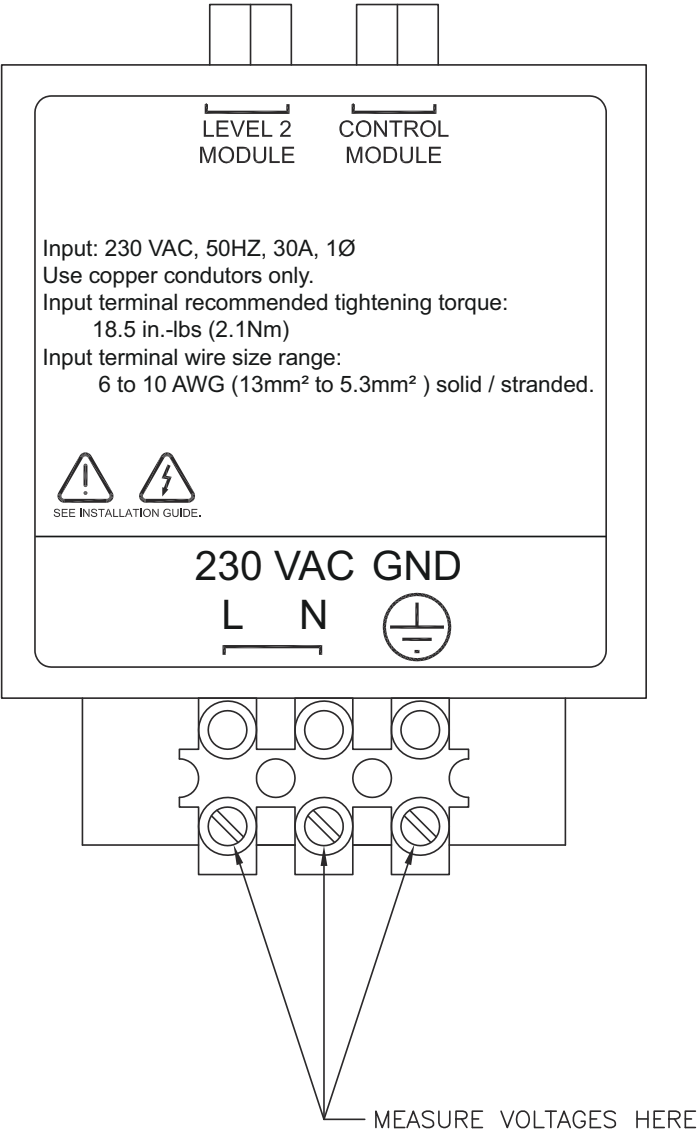
ENDED PWR RESTORED / RE-ENERGIZING AFTER RANDOM DELAY

Cause/Other Symptoms: A power outage occurred and power is being restored to the charging stations. For load balancing reasons, not all charging stations power up at the same time.

Solution/Action: No action required—charging will resume automatically after a brief delay of up to five minutes.

Checking voltages

A solenoid type voltage tester should be used to check the charging station’s voltages at the terminal block. This type of tester will draw sufficient current to expose a poor connection.



Measure Between	Volts
L and N	230
GND and L	230
GND and N	0



ChargePoint Australia
Level 2, 74 Mentmore Ave.
Rosebery, 2018 Australia
1300 300 885
info@chargepoint.com.au
support@chargepoint.com.au
www.mychargepoint.net