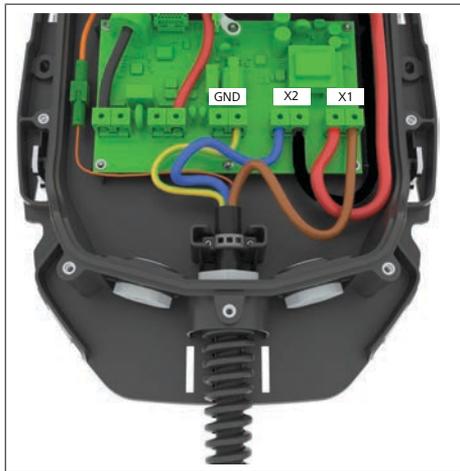
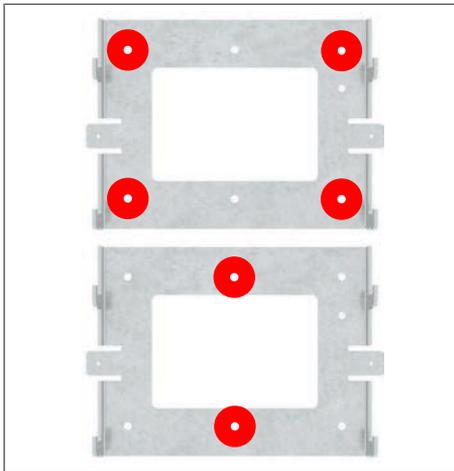




Ford Connected Charge Station
Installation manual
48A Single Phase



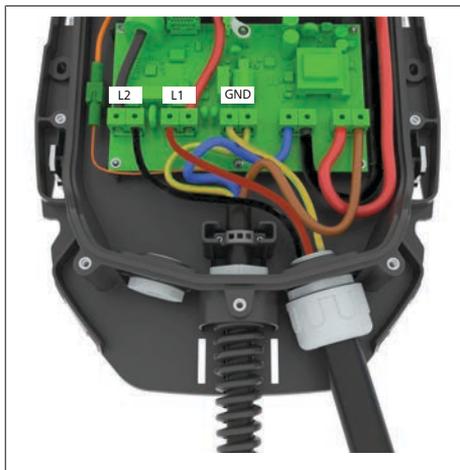
1



3



5



2



4



6



7



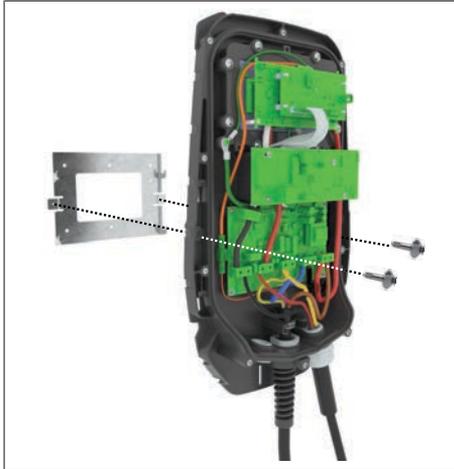
9



11



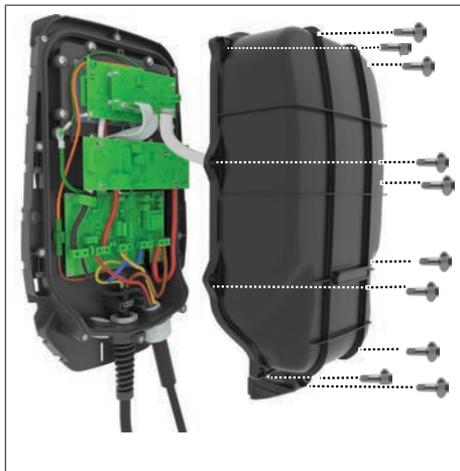
8



10



12



13



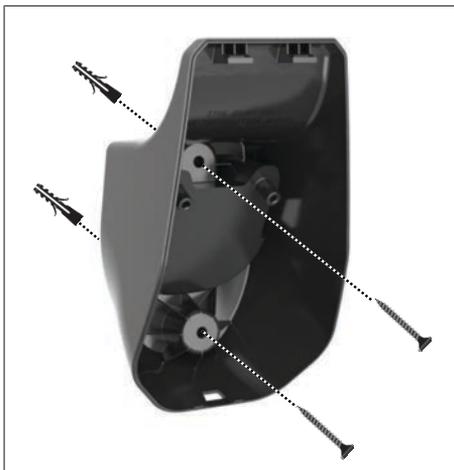
15



17



14



16



18



A



B



AA



AB



AC



0.5 x 3.5 mm

AD



C



D



29 mm, 36 mm,
40 mm

AE



T(x)6, T(x)20, T(x)25

AF



E



F



3 mm (1/8 Inch), 8 mm (3/8 Inch)

AG



G



H

Table of Contents

| | | | | |
|----------|---|----------|-----------|---|
| 1 | General Information..... | 1 | | |
| 1.1 | Purpose of this document..... | 1 | 5.3.4 | Installing the blind plugs and conduit fitting..... |
| 1.2 | Using this document..... | 1 | 5.3.5 | Installing the charging cable..... |
| 1.3 | Intended use..... | 1 | 5.3.6 | Mounting the rear housing..... |
| 1.4 | Use of symbols and highlighting..... | 1 | 5.3.7 | Connecting the grid cable..... |
| 1.5 | Software licenses..... | 1 | 5.3.8 | Connecting the HMI cable..... |
| | | | 5.3.9 | Mounting the front cover..... |
| | | | 5.3.10 | Preparing the design cover..... |
| | | | 5.3.11 | Mounting the design cover onto the housing..... |
| | | | 5.3.12 | Installing the remote dock..... |
| 2 | Important Safety Information..... | 1 | 5.4 | Safety check..... |
| 2.1 | General information..... | 1 | 6 | Commissioning the product..... |
| 2.2 | General safety information..... | 1 | 6.1 | Preparing to setup the product..... |
| 2.3 | Safety information for installation..... | 2 | 6.2 | Setting up the product..... |
| 2.4 | Safety information for electrical connection..... | 2 | 6.3 | Displaying software license information..... |
| 2.5 | Safety information for initial start up..... | 2 | 7 | Decommissioning the product..... |
| 3 | Unit description..... | 3 | 8 | Maintenance, cleaning, and repair..... |
| 3.1 | In the box..... | 3 | 8.1 | Maintenance..... |
| 3.2 | Wireless interface connections..... | 3 | 8.2 | Cleaning..... |
| 3.2.1 | Bluetooth..... | 3 | 8.3 | Repair..... |
| 3.2.2 | Wi-Fi..... | 4 | 9 | Declaration of Conformity..... |
| 4 | Power supply interface connections..... | 4 | 10 | Installation checklist..... |
| 5 | Installation..... | 4 | | |
| 5.1 | Product location considerations..... | 4 | | |
| 5.2 | Criteria for electrical connection..... | 4 | | |
| 5.2.1 | DIP switch settings..... | 4 | | |
| 5.2.2 | Power supply isolation device..... | 4 | | |
| 5.2.3 | Dimensioning the lead's cross-section..... | 4 | | |
| 5.3 | Step-by-step installation..... | 5 | | |
| 5.3.1 | Required tools..... | 5 | | |
| 5.3.2 | Installing the mounting bracket..... | 5 | | |
| 5.3.3 | Removing the front cover..... | 5 | | |

1 General information

1.1 Purpose of this document

This document is part of the product and contains information for electricians to carry out safe installation in accordance with local regulations, standards, and requirements.

NOTICE

In addition to this document, follow and comply with local regulations and standards relating to operation, installation and environmental protection.

1.2 Using this document

- ▶ Read this document carefully before installing and starting the Ford Connected Charge Station.
- ▶ Keep these instructions ready to hand.
- ▶ Keep these instructions for future reference.
- ▶ Pass this manual on to the next owner or user of the Ford Connected Charge Station.

1.3 Intended use

The Ford Connected Charge Station is designed for charging electric vehicles in accordance with SAE J1772, charge Level 2. In this mode, the charge station ensures that:

- The voltage is not applied before the vehicle has been properly connected.
- The maximum power is calibrated.
- The AC/DC converter is in the vehicle.

1.4 Use of symbols and highlighting

DANGER

This signal word denotes a hazard with a high degree of risk which, if not avoided, will lead to death or serious injury.

WARNING

This signal word denotes a hazard with a moderate degree of risk which, if not avoided, may lead to minor or moderate injury.

CAUTION

This signal word denotes a hazard with a low degree of risk which, if not avoided, will lead to minor or moderate injury.

NOTICE

This image denotes a special technical feature, or (if not observed) potential damage to the product.

1.5 Software licenses

This product uses open-source software. Further information, such as disclaimers, written offers, and license information, is available through the Ford Connected Charge Station setup app. See also chapter 6.3, "Displaying software license information" on page 7.

2 Important Safety Information

2.1 General information

The Ford Connected Charge Station has been developed, produced, tested, and documented according to the relevant safety regulations and environmental requirements that apply to your geographical area.

You must only use the charge station in a technically faultless condition. Any malfunctions that adversely affect the safety of persons or of the device must be immediately rectified by a qualified electrician in accordance with applicable regulations and warranty conditions. You are strictly prohibited from modifying, changing, or manipulating the device.

NOTICE

Signaling in your vehicle may differ from that described in this guide. Always read and observe the vehicle manufacturer's user manual.

2.2 General safety information

WARNING

- You must comply with the locally applicable requirements regarding electrical installations, fire protection, safety regulations, and escape routes at the intended installation location.
- Hazardous voltages are present within the casing.
- The Ford Connected Charge Station does not have its own power ON/OFF switch. The protective devices installed in the power supply system are therefore also used to disconnect the power supply.
- Inspect the charge station for visual damage before installation and use. Do not use the charge station if it appears to be damaged.
- Installation, electrical connection, and initial operation of the charge station must be carried out by a qualified electrician.
- The screw-mounted unit cover may only be removed by qualified electricians.
- Do not remove markings, warning symbols, or the type-label from the charge station.
- The charging cable may only be replaced by qualified electricians and in accordance with the installation manual.
- You are strictly prohibited from connecting other equipment/devices to the charge station than those for which the charge station was designed and intended.
- When not in use, store the charging cable in the designated holder and lock the charging coupling in the remote dock. Loosely wind the charging cable around the remote dock making sure the cable does not touch the floor.
- You must make sure that the charging cable and coupling cannot be driven over, trapped, and are protected from all other hazards.

⚠ WARNING

- Immediately notify Customer Service if the charge station, charging cable or the charging coupling are damaged. Do not continue to use the charge station.
- Prevent the charging cable and coupling from coming into contact with external heat sources, water, dirt, and chemicals.
- Switch off power at the circuit breaker before installing or cleaning.
- Do not attach extension cables or adapters to the charging cable.
- Never clean the charge station with a high-pressure cleaner or similar.
- Switch off the power supply before cleaning the charging sockets.
- The charging cable must not be subjected to any strain during use.
- You must make sure that no one has access to the charge station without reading this user manual first.
- Make sure that the charge station temperature is within its storage temperature limits when moving, transporting, or storing it.
- You are strictly prohibited from pulling the charge station by its cable.

⚠ WARNING

When transporting the Ford Connected Charge Station, handle with care. Do not subject it to strong force or impact, also do not pull, twist, tangle, drag, or step on the Ford Connected Charge Station to prevent damaging it or any of its components.

📄 NOTICE

In addition to the safety instructions in this document, also observe further safety instructions in any other enclosed documents.

2.3 Safety information for installation**⚠ WARNING**

- Only use the supplied or other appropriate installation material.
- When the charge station is open, ESD (electrostatic discharge) precautions must be taken properly to avoid electrostatic discharge.
- When handling electrostatically sensitive boards, wear grounded antistatic wrist straps and properly observe ESD safety precautions. (To be used only for mounting and connecting the loading unit. The wrist strap must not be worn under a live charge station.)
- Electricians must be properly grounded during installation of the charge station.
- Do not install the charge station in an explosion sensitive area (EX zone).
- Install the charge station in such a way that the charging cable does not block any passageways.
- Do not install the charge station in areas subject to ammonia, or air containing ammonia.
- Do not install the charge station in a location where falling objects may damage it.
- The charge station is suitable for indoor and outdoor use.
- Do not install the charge station in the vicinity of water jets, such as car wash installations, high-pressure cleaners, or garden hoses.
- Protect the charge station against damage caused by sub-zero temperatures, hail, and similar.
- The charge station is suitable for use in areas without access restrictions.
- Protect the charge station from direct sunlight. The charging current may be reduced at high temperatures, or charging may be disabled completely. The operating temperature range is -40°F to +140°F (-40 °C to +60°C).
- The installation location of the charge station should be such that vehicles cannot inadvertently collide with it. Protective measures must be implemented if the possibility of damage cannot be ruled out.

⚠ WARNING

- Do not put the charge station into operation if it has been damaged during installation. A replacement will be required instead.
- Do not touch the electronics during the installation process.

2.4 Safety information for electrical connection**⚠ WARNING**

- You must protect each charge station with its own line circuit breaker and residual current circuit breaker.
- A qualified electrician must make sure that all electrical connections are de-energized before connecting the charge station to the power supply.
- A qualified electrician must make sure that a properly sized supply cable is used for the power connection.
- Do not leave the charge station unattended with the cover open.
- Register the installation of your charge station with your power supply company if this is required by law or by any agreement.

2.5 Safety information for initial start up**⚠ WARNING**

- The initial startup of the charge station must be carried out by a qualified electrician.
- Before initial start-up, the qualified electrician must verify that the charge station has been connected correctly.
- Do not connect a vehicle to the charge station during its initial startup.
- Before starting up the charge station, inspect the charging cable, charging coupler, and the charge station for visible damage. The device must not be started up if it has been damaged, or if the charging cable / charging coupler has been damaged.

3 Unit description

This document describes the Ford Connected Charge Station. You can find the exact device details on the type label of the Ford Connected Charge Station.

| Electrical characteristics | SAE |
|--|---|
| Nominal current (A) (configurable connected load values) | 48A |
| Line voltage (VAC) (nominal) | 240 V (Line-to-line voltage) |
| Grid frequency (Hz) (nominal) | 60 Hz |
| Overvoltage category | II |
| Protection class | I |
| Residual current device | See table 4. |
| Integrated power meter | Accuracy +/- 5% |
| Connections | |
| Cable feed | Mounted on-wall, or in-wall |
| Connection cross-section (wire dimension) | 2x 6 AWG (L1/L2) 1x 8 AWG (GND) (follow local codes/regulations) |
| Charging cable (including coupler) | Charging cable with Type 1 coupler according to SAE J1772 Cable length 20 ft / approximately 6 m |
| Output voltage (V AC) | 240 V |
| Maximal charging capacity (kW) | 11 kW |
| Communication & features | |

| Electrical characteristics | SAE |
|--|---|
| Vehicle-charger Communication Protocol (CP) | SAE J1772 |
| Authentication | Bluetooth (BLE 4.2) – Setup App |
| Display | 9 RGB-LEDs |
| Network interfaces | Wi-Fi 802.11n - 150 Mbit/s |
| Authentication and mobile communications | Bluetooth (BLE 4.2) - Setup-App |
| OCCP | Version 1.6 |
| Mechanical data | |
| Dimensions (W x H x D) | 10.2 x 17.7 x 5.5 Inches 258 x 450 x 141 mm |
| Weight (including wall mount bracket & charging cable) | 17.53 lbs 7.95 kg |
| Installation height | Minimally 35 inches above floor level (regarding to the bottom of the device) Minimally 900 mm above floor level (regarding to the bottom of the device) |
| IP protection class | NEMA Type 3S, IP65 |
| Protection against mechanical impact | UL2994 |
| Ambient conditions | |
| Operating temperature range | -40°F to +140°F -40°C to +60°C |
| Storage temperature range (°C) | -40°F to +185°F -40°C to +85°C |
| Altitude (m) | Max. 9,842 ft above sea level Max. 3,000 m above sea level |
| Certification compatibility | |

| Electrical characteristics | SAE |
|--------------------------------|---|
| Other standards and guidelines | ANSI/UL2594:2016 / CAN/CSA C22.2 No. 280-16 ANSI/UL2231-1:2012 / CAN/CSA C22.2 No. 281.1-12 ANSI/UL2231-2:2012 / CAN/CSA C22.2 No. 281.2-12 FCC Part 15, Subpart B / ICES003 FCC Part 15, Subpart C / RSS.2010 / RSS-GEN NEC Article 625 compliant |
| Tested OCPP back-ends | Ford OCPP (Open Charge Point Protocol) server |

NOTICE

A shutdown, or a reduction in charging current, may occur to prevent the charge station overheating.

3.1 In the box

Scope of delivery for the Ford Connected Charge Station. See Fig. 19 on the inside of the back cover.

| | |
|---|--|
| A | Main unit |
| B | Design cover |
| C | Charging cable with coupler |
| D | Blind plugs |
| E | Wall mount bracket |
| F | Dock rear holder, dock front cover & dock insert |
| G | Screw M5 x 12 mm |
| H | Screw M4 x 16 mm |

See also chapter 5.3.1, "Required tools" on page 5.

3.2 Wireless interface connections

3.2.1 Bluetooth

The Bluetooth connection is used to set up the Wi-Fi AP (access point) when starting up the charge station. Note that you cannot control the charging charge station through Bluetooth.

3.2.2 Wi-Fi

You can use Wi-Fi communication to connect the charge station to the charging backend. This enables you to configure the charger remotely through the FordPass™ app.

4 Power supply interface connections

The terminals on the **right**, marked **GND, X2, X1**, must be connected to the charging cable.

Fig. 1

The terminals on the **left**, marked **L2, L1, GND**, must be connected to the mains.

Fig. 2

⚠ CAUTION

The wire colors shown in the illustrations are for example purposes only.

Please follow the National Electrical Code (NEC) for the appropriate wire color-coding.

5 Installation

Observe the safety information provided in section Important Safety Information.

ⓘ NOTICE

In addition to the user manual and installation manual, follow and comply with the local regulations relating to operation, installation, and environmental protection.

5.1 Product location considerations

When choosing the installation location for the Ford Connected Charge Station, make sure that the location allows the charging cable to reach the vehicle charge port without straining the cable.

See Fig.19 on the inside of the back page.

You must also make sure that:

- If you are installing more than one Ford Connected Charge Station, then you must minimally leave 200 mm (7.9 inches) in between.
- The Ford Connected Charge Station is installed at least 900 mm (35.5 inches) above floor level.
- The mounting surface is solid and strong.
- The mounting surface is completely flat.

- The mounting surface does not have any flammable substances.
- The pavements and escape routes are not obstructed.
- You have fault-free Wi-Fi reception if you want to remote control the charger through the Ford backend.
- The Ford Connected Charge Station is outdoor-rated; however, for locations in intense climates, you may want to shield the unit from intense direct sunlight and spray to extend its useful life and fault-free operation.

5.2 Criteria for electrical connection

The Ford Connected Charge Station type label indicates the maximum charging current that you can configure. The type label on the Ford Connected Charge Station is located on the right.

The power availability at the service connection determines the maximum permitted charging current. A qualified electrician must make the necessary settings in the configuration. They must also verify the prerequisites for connection. The installation must comply with the nationally applicable regulations of authorities and power supply companies, such as the registration of the installation of a charge station. All protective devices specified must be designed in such a way that every power supply pole of the Ford Connected Charge Station is disconnected if a fault occurs. You must meet national installation regulations and standards when selecting the protective device.

ⓘ NOTICE

Do **not** install a GFCI (Ground Fault Circuit Interrupter).

5.2.1 DIP switch settings

⚠ WARNING

High voltages

Danger of fatal electric shock.

| D1 | D2 | D3 | D4 | [A] | Comment |
|----|----|----|----|--------------|------------------------------|
| 0 | 0 | 0 | 0 | | Invalid, default 48A, 60A CB |
| 0 | 0 | 0 | 1 | | Invalid, default 48A, 60A CB |
| 0 | 0 | 1 | 0 | 12 A, 15A CB | |

| D1 | D2 | D3 | D4 | [A] | Comment |
|----|----|----|----|--------------|---------|
| 0 | 0 | 1 | 1 | 16 A, 20A CB | |
| 0 | 1 | 0 | 0 | 20 A, 25A CB | |
| 0 | 1 | 0 | 1 | 24 A, 30A CB | |
| 0 | 1 | 1 | 0 | 32 A, 40A CB | |
| 0 | 1 | 1 | 1 | 40 A, 50A CB | |
| 1 | 0 | 0 | 0 | 48 A, 60A CB | |
| 1 | 0 | 0 | 1 | 48 A, 60A CB | |
| 1 | 0 | 1 | 0 | 48 A, 60A CB | |
| 1 | 0 | 1 | 1 | 48 A, 60A CB | |
| 1 | 1 | 0 | 0 | 48 A, 60A CB | |
| 1 | 1 | 0 | 1 | 48 A, 60A CB | |
| 1 | 1 | 1 | 0 | 48 A, 60A CB | |
| 1 | 1 | 1 | 1 | 48 A, 60A CB | |

| D5 | Comment |
|----|------------------------------|
| 0 | |
| 1 | Invalid, default 48A, 60A CB |

5.2.2 Power supply isolation device

The Ford Connected Charge Station does not have its own power **ON/OFF** switch. The protective devices installed in the power supply system are therefore also used to disconnect the Ford Connected Charge Station.

5.2.3 Dimensioning the lead's cross-section

A qualified electrician must determine the conductor's cross-section / wire gauge size.

The conductor cross-section of the lead depends on:

- The maximum power availability from the service connection
- The cable length

5.3 Step-by-step installation

Before starting the step-by-step installation process, please read:

- chapter 3.1, "In the box" on page 3 and
- chapter 5.3.1, "Required tools" on page 5.

5.3.1 Required tools

You need the tools in the following table to install the Ford Connected Charge Station. Also see Fig. 19 on the inside back cover.

| | |
|----|-----------------------------|
| AA | Measuring tape |
| AB | Pliers |
| AC | Power drill |
| AD | Slot-head screwdriver |
| AE | Boxed-end & open-end wrench |
| AF | Torx screwdriver |
| AG | Hexagon Allen wrench |

5.3.2 Installing the mounting bracket

See the below figure reference for the applicable drill hole positions. The top figure applies to wall mounting, the bottom figure applies to pole-mounting.

Fig. 3

The following paragraphs offer alternative installation paths:

- chapter 5.3.2.1, "Attaching the bracket to a wall" on page 5
- chapter 5.3.2.2, "Attaching the bracket to a pole" on page 5

5.3.2.1 Attaching the bracket to a wall

NOTICE

You must install the wall mount bracket in such a way that the lower end of the bracket is at least 1030 mm (40.5 inches) off the floor.

NOTICE

You must make sure that the drill holes are at least 95 mm (4 inches) deep.

To mount the bracket on the wall:

1. Remove the wall mount bracket from its box.
2. Mark the **four** drill hole positions on the wall using the bracket as a template.
3. Drill **four** drill holes (8 mm / $\frac{5}{16}$ inch) in the marked positions.
4. Push the **four** wall plugs (8 x 50 mm) ($\frac{5}{16}$ x 2 inch) firmly into the drill holes.
5. Use a Torx T25 screwdriver and **four** screws (6 x 90 mm) ($\frac{1}{4}$ x $3\frac{1}{2}$ inch) to secure the bracket.

5.3.2.2 Attaching the bracket to a pole

To mount the bracket on a pole:

1. Remove the wall mount bracket from its box.
2. Mark the **two** drill hole positions on the pole.
3. Drill **two** holes (8-mm / $\frac{5}{16}$ inch) in the marked positions.
4. Push the **two** wall plugs (8 x 50 mm) ($\frac{5}{16}$ x 2 inch) firmly into the drill holes.
5. Use a Torx T25 screwdriver and **two** screws (6 x 90 mm) ($\frac{1}{4}$ x $3\frac{1}{2}$ inch) to mount the bracket on the pole.

5.3.3 Removing the front cover

Use a Torx T25 screwdriver to remove the **three** transport safety screws (M4 x 16 mm ($\frac{5}{8}$ inch)) from the front cover, as shown in Fig. 4, and make sure to keep these for later installation.

Fig. 4

5.3.4 Installing the blind plugs and conduit fitting

1. Choose the appropriate conduit, in accordance with all applicable state, local, and national electrical codes and standards.
2. Choose the grid cable entry position, and then mount the conduit fitting in the required position. There are:
 - two floor-facing entry positions at the bottom of the enclosure (performed $\frac{3}{4}$ " NPT (National Pipe Tapered)), **and**

– two rear-facing entry positions at the back of the enclosure (drill templates for $\frac{3}{4}$ " to 1" conduit cutouts). See superimposed markings in Fig. 5.

Fig. 5

CAUTION

For rear-facing installations, use an appropriate cord grip which meets the NEMA 3S standard. For floor-facing installations of the grid cable, use a $\frac{3}{4}$ " NPT cord grip. (NPT = American National Standard Pipe Thread standards, also known as national pipe thread.)

CAUTION

1. When opting for rear-facing positions, you must make sure that you drill the conduit entry hole very carefully to prevent damage to internal components. Any damage caused is entirely your risk. If parts of the charge station, except the removed cutout area, are damaged during installation, you must not use the product after it has been damaged.
2. Mount the conduit in accordance with all applicable state, local, and national electrical codes and standards. If necessary, use flexible liquidtight conduit to facilitate mounting the charge station onto the wall.
3. Using an S8 hex Allen wrench or a 29 mm wrench, mount the enclosed blind plugs in any unused cable entry positions. Make sure that the sealing ring is properly seated on the blind plug before screwing the plug into the enclosure (torque setting: 5 Nm / 3.7 lb-ft). After mounting the plugs, visually verify tight assembly.

NOTICE

You can use flexible or regular conduits for installing your charge station.

5.3.5 Installing the charging cable

1. Insert cable clamp (shown in light-gray for illustration purposes) into the slot (1) on the enclosure base as shown in Fig. 8.

Fig. 6

2. Insert the charging cable (shown in light-gray for illustration purposes) into through the cable bend relief and cable gland in the center of the enclosure as shown in the figure referenced below.

Fig. 7

3. Insert the second cable clamp (shown in light-gray for illustration purposes) into the slot as shown in Fig Installing_the_charging_cable_3. Secure the clamp with the screws supplied using a Torx 6 screwdriver with a torque setting of 0.4 Nm / 0.3 lb-ft.

Fig. 8

Fig. 9

NOTICE

Position the cable in such a way that the cable clamp area is fully covered by the cable jacket.

1. Secure the bend-relief by using a socket wrench SW29 (torque: 4 Nm / 3 lb-ft).
2. Connect the power cables as illustrated in chapter 4, "Power supply interface connections" on page 4, and then fasten the Allen screws with a hex Allen key 3 (½ Inch) (torque: 4 Nm / 3 lb-ft).
3. Connect the plug of the (orange) communications protocol (CP) wire to the snap-in socket on the left side of the box.

CAUTION

Make sure that the enclosure type rating NEMA (National Electrical Manufacturers Association) 3S is maintained after installation of the conduit and the charging cable.

Verify that conduit entry accessories, such as blind plugs and cable glands, etc. have been fitted properly. This also applies to sealing rings.
Do not overtighten the terminal's Allen screws (5 Nm max.).

The strain relief clamp is screwed to the charging cable and fixed in a holder in the housing. This gives the charging cable its strain relief. The charging cable is sealed by an additional PG gland with bend protection (middle cable bushing at the bottom of the charge station).

CAUTION

The two small, near semi-circular, plastic parts of the strain relief clamp differ slightly:
The lower part has smaller screw holes in which the screws grip.
The upper part has larger screw holes and recesses in which the screws can move freely.

5.3.6 Mounting the rear housing

Use a Torx T20 screwdriver and **two** screws (M4 x 16 mm) to mount the rear housing onto the mount bracket (torque: 4Nm / 3 ft-lb).

Fig. 10

5.3.7 Connecting the grid cable

To connect the grid cable to the Ford Connected Charge Station:

1. Remove any debris, such as insulation trimmings, from the connection area.
2. Make sure and verify that the lead is tension-free and that you have taken measures to secure against the power being switched on.
3. If you are using a rigid lead, then bend the individual wires, while observing minimum bend radiuses, so that you can connect the wires to the terminals without significant mechanical stress.
4. Make sure you connect the cable ends in the correct sequence for a clockwise rotation field.
5. Connect the power cables by pushing them into the correct terminals as shown in Fig. 11, and then fasten the Allen screws using a hex Allen key 3 (½ inch") (torque: 4.5 Nm / 3.3 lb-ft).
See also chapter 4, "Power supply interface connections" on page 4.

6. Finally, re-check that you have secured all wires firmly in corresponding terminals.

Fig. 11

WARNING

Verify that the ferrules have been placed in the terminals correctly, and that the terminal screws have been tightened correctly after.

WARNING

The wall connector must be installed in a 1-phase system using **line-to-line** connection. The connection from Line 1 to Line 2 has 240 volts AC, the connection from Line 1 to ground has 120 volts AC, and Line 2 to ground also has 120 volts AC.

WARNING

Make sure that the lead is tension-free, and that measures have been taken to prevent the unit being switched on.

WARNING

If you are using a rigid lead, then bend the individual wires, while observing the minimum bend radiuses to connect the wires to the terminals without significant mechanical stress.

CAUTION

Remove any waste, such as insulation trimmings, from the connection area.
Use an appropriate cord grip for backside installation which meets the IP65 and NEMA 3S standard.
For a bottom side installation of the grid cable, use a NPT ¾" cord grip.

CAUTION

Do not overtighten the terminal's Allen screws (5 Nm / 3.7 ft-lb max.).

5.3.8 Connecting the HMI cable

1. Connect the HMI (Human Machine Interface) flat ribbon cable, which is attached to the inside of the front cover, to the main printed circuit board (PCB) as shown in the figure referenced below.

Fig. 12

⚠ CAUTION

Make sure that you secure the front cover in such a way that it cannot fall while you are fixing the screws. Dropping the cover may damage the product.

5.3.9 Mounting the front cover

1. Use a Torx T20 screwdriver and **ten** screws (M4 x 16 mm (5/8 inch)) to tightly mount the front cover (torque setting: 5 Nm / 3.7 lb-ft).

Fig. 13

⚠ WARNING

Make sure that the front cover seal is correctly seated in the sealing groove and has not been damaged. Do not use the unit if the sealing has been damaged or has not been fully placed into the groove. When mounting the front cover onto the housing, make sure that the HMI ribbon cable is placed fully inside the enclosure, and that the cable cannot get pinched between the housing and front cover during assembly.

5.3.10 Preparing the design cover

If you want a floor-facing cable entry position, then carefully break out the correct knock-out segment for cable entrance in the trim cover using pliers or a similar tool. To get the best result, turn the design cover on its back, take a pair of pliers and place them on the outermost edge, as shown in the image below, and then press down carefully.

⚠ CAUTION

Wear protective gloves and safety glasses when breaking out the cable entry area at the predefined position to avoid injury by edges or burrs.

Fig. 14

5.3.11 Mounting the design cover onto the housing

Clip the design cover onto the enclosure. When properly seated, its parts will visibly and audibly snap on.

Fig. 15

5.3.12 Installing the remote dock

⚠ NOTICE

You must mount the dock holder so that the lowest point of the vehicle connector is between 500 mm (20 inches) and 1500 mm (60 inches) above floor level when stored.

⚠ NOTICE

You must make sure that the drill holes are at least 95 mm (4 inches) deep.

1. Take the mount dock rear holder out of the box.
2. Mark the drill holes by using the rear part of the dock holder as a template.
3. Drill **two** holes (8 mm / 5/16 inch) in the marked positions.
4. Push the **two** dowels (8 x 50 mm / 5/16 x 2 Inches) firmly into the drill holes.
5. Use a Torx T20 screwdriver and **two** screws (6 x 90 mm / 3/4 x 3.5 inches) to mount the dock's rear holder on the wall.

Fig. 16

6. Carefully clip the dock front cover onto dock's rear holder.

Fig. 17

7. To mount the dock-insert onto the dock's front cover, use **two** screws (5 x 12 mm / 1/5 x 4.5 inches) and a Torx T25 screwdriver (torque: 1.8 Nm / 1.3 lb-ft). (Picture 22)

Fig. 18

5.4 Safety check

Document the results of the checks and measurements carried out during initial startup, in accordance with the applicable installation requirements, and standards. Local regulations relating to operation, installation, and environmental protection also apply.

⚠ DANGER

High voltages.

Danger of fatal electric shock.

6 Commissioning the product

6.1 Preparing to setup the product

1. Download the FordPass™ app, this will be used to connect your Ford Connected Charge Station to your FordPass account.
2. Download the Ford Connected Charge Station Setup app, this will be used to configure the charge station to your home Wi-Fi.
3. Locate the **Station ID** and **Access Code** on the front of this booklet. You will require these during the setup process.
4. Make sure that you have a Wi-Fi signal (for the network on which you want to use the charge station) at the charge station location.

6.2 Setting up the product

1. Stand near to your charge station and turn on Bluetooth on your smartphone.
2. Start the FordPass™ app.
3. Select **More** from the FordPass™ navigation bar.
4. Select **Your Charge Station**.
5. Follow the in-app instructions to complete the setup.
6. Select your **Station ID** from listed charge stations.
7. Enter your **Access Code**.
8. Locate, and connect to your Wi-Fi network.

6.3 Displaying software license information

You can view the open-source software license information under the **About** option in the Ford Connected Charge Station setup App. You must be logged into the same Wi-Fi network as the Ford Connected Charge Station. Both devices need to be connected.

7 Decommissioning the product

The Ford Connected Charge Station must be decommissioned by a qualified electrician.

The following steps apply:

1. Switch off the charge station circuit breaker.
2. Electrically disconnect the charge station.
3. Dispose of the Ford Connected Charge Station in accordance with local and national rules and regulations.

8 Maintenance, cleaning, and repair

8.1 Maintenance

Maintenance should only be carried out by a qualified electrician and must be in accordance with local regulations, standards, and requirements.

8.2 Cleaning

⚠ DANGER

High voltages.

Danger of fatal electric shock. Never clean the charge station with a high-pressure cleaner or similar device.

- ▶ Only clean the Ford Connected Charge Station with a dry cloth. Never use aggressive cleaning agents, solvents, fuel, or wax.

8.3 Repair

Unauthorized repair of the Ford Connected Charge Station is not permitted. In case of failure, the entire unit must be replaced. Ford Motor Company Limited (Ford) reserves the exclusive right to perform repairs to the charge station. The only serviceable components are the design cover and the charging cable. The charging cable must be replaced by a qualified electrician.

← NOTICE

You can replace the charging cable a maximum of four times over the lifetime of the charge station.

9 Declaration of Conformity

Ford Motor Company Limited (Ford) hereby declares that the radio equipment type "Ford Connected Charge Station" conforms to UL2594 and to CAN/CSA-C22.2 No. 280-16, No. 281.1-12 and No. 281.2-12 applied for general use of power supplies.

The Ford Connected Charge Station also conforms to the following standards and regulations:

- UL2594

- FCC Part 15, Subpart B and C UL2231-1,2
- NEC Article 625 compliant

The Ford Connected Charge Station was developed, manufactured, tested, and supplied in accordance with the above-mentioned standards and regulations, and in accordance with the relevant standards for safety, electromagnetic compatibility (EMC), and environmental compatibility. To download the User Manual / Installation Manual for the Ford Connected Charge Station, browse to <https://owner.ford.com/> or www.ford.ca/owners.

Published October 20, 2020

5110776 CLI: WALLBOX FORD INSTALLATION MANUAL SAE

10 Installation checklist

Please complete the Ford Connected Charge Station installation checklist

| | | |
|---|--------------------------|---|
| Variant: | 1-phase | |
| Serial number: | | |
| Material number: | | |
| General preconditions: | | ✓ |
| Installation, electrical connection, and initial operation of the charge station has been carried out by a qualified electrician. | <input type="checkbox"/> | |
| The charge station has been inspected for visual damage before installation and use. | <input type="checkbox"/> | |
| Local installation conditions: | | |
| The charge station has not been installed in an explosion sensitive area (Ex Zone). | <input type="checkbox"/> | |
| To achieve optimal performance of the charge station, areas with direct sunlight have been avoided. | <input type="checkbox"/> | |
| The charge station has been installed in a location where falling objects cannot damage the charge station. | <input type="checkbox"/> | |

| | |
|--|--------------------------|
| The location of the charge station has been selected in such a way that vehicles cannot inadvertently collide with it. | <input type="checkbox"/> |
| The legal requirements for electrical installations, fire protection, safety regulations, and escape routes have been met. | <input type="checkbox"/> |
| The use of the correct residual current circuit breaker (RDB) and the correct residual current device (RCD) have been ensured. | <input type="checkbox"/> |
| The charging cable does not obstruct any passages. | <input type="checkbox"/> |
| The charging cable and coupling has been protected against coming into contact with external heat sources, water, dirt, and chemicals. | <input type="checkbox"/> |
| The charging cable and coupling has been protected against being driven over, trapped, or any other mechanical hazards. | <input type="checkbox"/> |
| Charging station installation requirements: | |
| Tools and installation materials have been removed from the charge station before closing the cover. | <input type="checkbox"/> |
| A suitable charging cable has been installed in the charge station (as per the type label) during installation. | <input type="checkbox"/> |
| The charging cable has been connected as per installation instructions. | <input type="checkbox"/> |
| The customer has been instructed on how to use the charge station correctly. | <input type="checkbox"/> |
| The installer has checked correct operation of the charge station using an EV-simulator / tester. | <input type="checkbox"/> |
| Customer/client: | Date: |
| Electrician/contractor: | Date: |