



BRIGHTBLU

JOLT BUSINESS

22 kW
Smart AC Charger



INSTALLATION MANUAL ➤➤➤







TAKE CHARGE OF POWER





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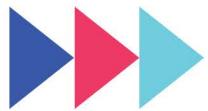
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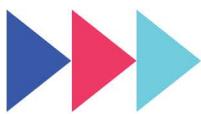
INTRODUCTION

Thank you for choosing **BRIGHTBLU**. This manual aims to provide easy to use installation & operational instructions.

For a safe installation and smooth operation, we recommend reading this manual carefully. While we strive to make it comprehensive, please note that it may receive occasional updates and enhancements. For the latest information, visit our website: www.brightblu.com.

We're here to empower your EV charging experience as we aim to make EV charging Affordable, Accessible and Easy to use.

Best regards,
The BRIGHTBLU Team



1 IMPORTANT SAFETY INSTRUCTIONS

IMPORTANT: Safety instructions to be followed for JOLT Business are mentioned below:

Before setting up, ensure the MAINS are switched OFF.



DANGER: Turn off mains to 240/415V outlet. Do not restore power until setup is complete, otherwise it may result in electrocution.

- Read and follow all warnings and instructions before installing and operating the JOLT Business charger. Install and operate only as instructed to avoid property damage, injury, or death. Not following the instructions will also void the Limited Warranty.
- Connect the charger to a grounded, metal wiring system which is permanent, or use an equipment grounding conductor with circuit conductors connected to the grounding terminal.
- Keep the charger away from flammable, explosive, or combustible materials as it's not safe for use in hazardous locations.
- **Operating Temperature:** Do not use the charger outside its operating range of -30°C to 55°C. The charger has no user-serviceable parts, so do not attempt to repair any other parts of the unit yourself.

- Servicing: If the unit requires servicing, contact BRIGHTBLU. Ensure that the charging cable is positioned such that it will not be stepped on, tripped over, or subjected to damage or stress.

Safety: Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.

Damages: BRIGHTBLU INDIA PVT LTD is not responsible for damages due to custom installations or failure to follow recommended installation guidelines.

Warranty: Please send the commissioning report to in.support@brightblu.com to validate the warranty.

Storage: Store the charger indoors, in a clean, dry place between -10°C to 45°C.

1.1 SAFETY GUIDELINES

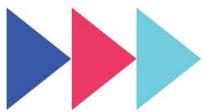
 **Danger - High potential danger:** Immediate action required to prevent death or serious injury.

 **Warning -** Failure to follow safety guidelines may result in overheating or fire.

 **Info -** Installation and usage info. Doesn't contain personal or equipment safety-related information.

 **High Voltage -** High voltage alert: Contact may cause death or serious injury.

 **Protective Earth -** Signifies a grounding or earthing connection for electrical safety.



1.2 WARRANTY PERIOD

This product comes with a 2-year warranty. The manufacturer warrants that the product is free from defects in material and workmanship under normal operating condition and use for a period of 24 months from the date of dispatch by the manufacturer or date of invoice whichever is earlier.

Exclusion of Warranty:

Warranty will void under the following conditions:

- **Warranty expired.**
- **Unauthorized disassembly, repair or modification.**
- **Improper installation.**
- **Man-made faults.**
- **Product damage due to natural disasters.**

Notes:

- This manual is only for the installation, commissioning, and maintenance of **JOLT Business 22 kW AC Charger**.
- Please read this manual carefully before using this product and keep this manual easily accessible to the person taking care of the installation, operation, and maintenance.
- This manual is the copyrighted property of BRIGHTBLU, and all rights are reserved. The content is subject to modification without prior notice.



1.3 JOLT BUSINESS – PRODUCT SPECIFICATIONS

| INPUT PARAMETERS | |
|----------------------------------|---|
| AC Supply System | 415V (+-10%) , 3 Phase 5 Wire |
| Input Frequency | 50Hz (+- 3%) |
| OUTPUT PARAMETERS | |
| Output Voltage AC | 415V (+-10%) |
| Output Current | 32 A max Output current limit is configurable from 6A to 32A |
| Output Power | 22 kW max |
| Output connector compatibility | IEC 61851-1 / IEC 62196 – Type 2 AC EV connector |
| Power Lines | L1, L2, L3, N, PE |
| Control Lines | CP, PP |
| Length of charging cable | 5 Meters |
| Vehicle Connector protective cap | Yes |
| EMI/EMC for EVSE | Compliance as per IEC 61851-21-2 |
| Error codes | Defined in user manual |
| Overvoltage protection | Above 275V AC, Protection with auto recovery |
| Overcurrent protection | Software controlled protection enabled in the charger. External MCB to be installed externally during installation. |

| | |
|--|---|
| Leakage current protection | Type B RCD protection 30mA AC and 6mA DC current detection |
| Continuous Earth wire monitoring | Yes |
| CP diode detection | Yes |
| GENERAL | |
| Insulation Resistance | Greater than 1 M Ohm |
| Dielectric Withstand Voltage | Test voltage of 1615V AC compliance as per IEC 60664-1 |
| EFT | +/- 4kV |
| Surge protection | Differential mode : +/- 3kV Common mode : +/- 6kV |
| ESD | Air discharge : +/- 8kV Contact discharge : +/- 4kV |
| Operating temperature | -35C to +55C |
| Storage temperature | -40C to +80C |
| Certified energy meter | Class 1 certified |
| RS485 Port | Yes |
| Dynamic Power Management capability | Yes |
| Energy Management Services | Yes |
| Power Backup | Optional |
| MECHANICAL | |
| Cooling | Air cooled |
| Mechanical Strength | IK08 according to IEC62262 |
| IP Rating | IP65 |
| Dimension (mm) | 390*277*110 |

| | |
|------------------------------------|--|
| Weight (Kg) | 10 |
| Mounting | Wall mount / Pole mount |
| USER INTERFACE AND SOFTWARE | |
| Visual Indicators | LED panel |
| Messages displayed LED | Vehicle plugged in / plugged out Charger available/charging Fault conditions |
| Emergency Switch | Optional |
| User authentication | RFID/ Mobile app |
| Connectivity options | Wi-Fi, BLE and SIM |
| SD card storage | Yes |
| OCPP | OCPP 1.6J |
| Backoffice Connectivity | Yes |





PRODUCT INSTALLATION

2

2.1 INSTALLATION ENVIRONMENT

JOLT Business has an IP65 protection rating for safety. To ensure safe and efficient operation, follow these guidelines when choosing the installation environment:

- Install in a level, dry area that is easily accessible for operation and maintenance.
- Avoid areas with water accumulation, moisture, flammable gases, flammable liquids, or corrosive substances.

2.2 INSTALLATION TOOLS NEEDED:

- | | | |
|--------------------|------------------|------------------|
| - T25 Allen Key | - Clamp Meter | - Crimping Plier |
| - Screw Driver Set | - Measuring Tape | - Spanner Set |
| - Drilling Machine | - Cable Stripper | - Hammer |
| - Multimeter | | |



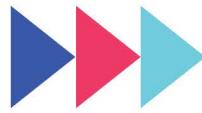
2.3 WHAT'S INSIDE THE BOX

Inside the JOLT Business box, you'll find:

- 1 JOLT 22kW charger unit.
- 1 Metal bracket for wall mounting.
- 2 Metal brackets for the back of the charger.
- 1 holder for cable and connector placement.
- A set of screws & nail grippers for installation.



Note: If there's any part missing, please contact BRIGHTBLU.



INSTALLATION PROCEDURE

3.1 HOW TO INSTALL THE CHARGER

Setting up your JOLT Business is easy! Here's how:

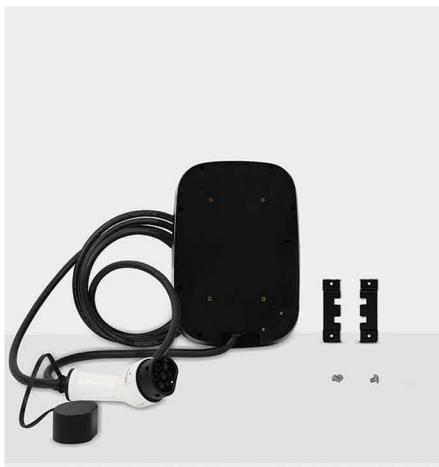
1. Unbox the charger and place it on a clean surface. Check and ensure if any parts of the charger show signs of physical damage caused by knocks, lacerations or abrasions. If damage is detected, installation must be paused immediately and reported to the seller.



2. Align the wall mounting bracket, ensuring it is at the correct level, and mark 4 drilling points. Drill holes at the marked points. Secure the bracket in place using the screws provided. (As shown below)



3. Mount the other two metal brackets on the back of the charger using the screws provided in the box. (As shown below)



4. After mounting the metal brackets, slide the charger into the clamps of the wall bracket to lock it's position on the wall.



5. To ensure proper alignment, secure both the wall bracket and the metal brackets using screws. (As shown below)

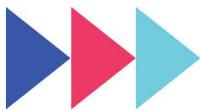


6. Install the holder under or next to the charger using the screws provided.



7. Use the holder to place the charging connector and wrap the cable around it, ensuring it doesn't touch the ground when not in use.





3.2 HOW TO POWER ON THE DEVICE

1. Select the cable & and circuit breaker rating as per the reference data given below:

| Power | Wire | Material Type | Input Wire Cross Section | Lug Size | Circuit Breaker Rating |
|-------|-------------------|---------------|--------------------------------|---------------------------|------------------------|
| 22kW | L1, L2, L3, N, PE | Copper | 6 or 10 mm ² 5C* | 6 or 10 mm ² * | MCB (40 A 4 Pole) |

* According to installation distance.

2. Before connecting the charger, install a 40A MCB (Miniature Circuit Breaker) in the circuit. This helps protect the charger and the circuit from overloading.

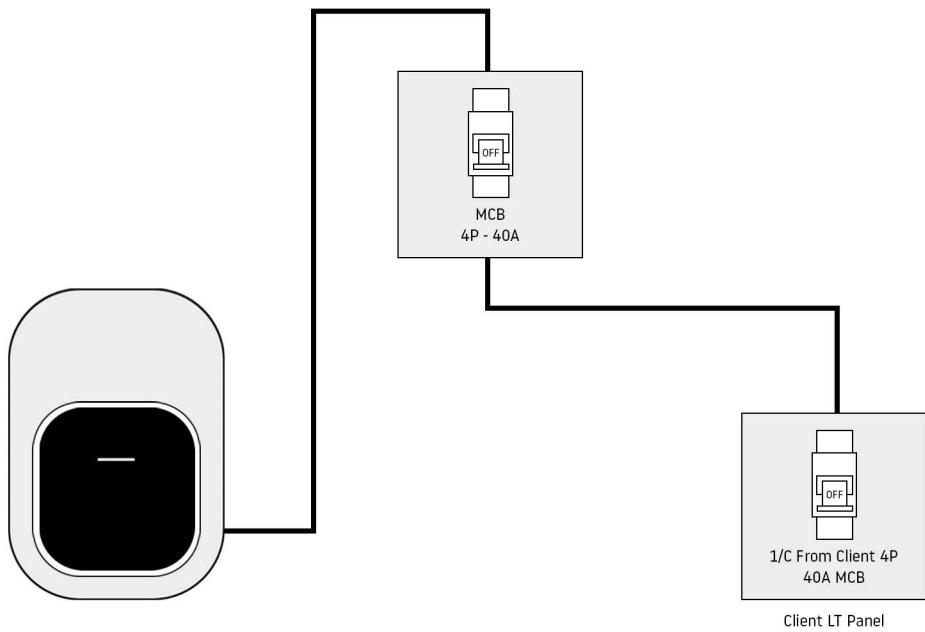
3.3 INSTALLATION INSPECTION

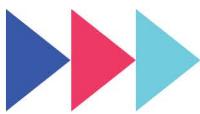
Before powering on, check for the following:

- Check the input cable is correctly connected.
- Ensure all charger components are intact and wires are connected properly.
- Confirm the grounding is secure and correct.



3.4 PICTORIAL DEPICTION OF SITE





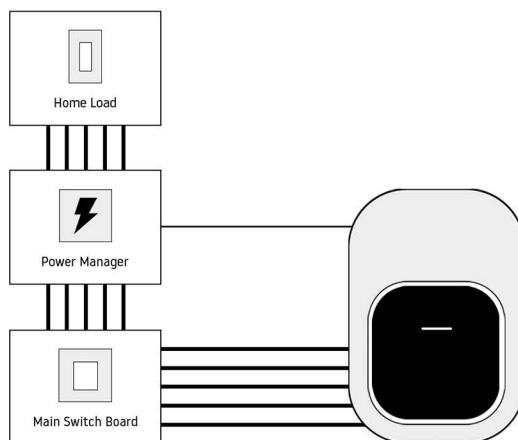
DYNAMIC POWER MANAGEMENT

This section is to introduce the BRIGHTBLU charger's Dynamic Power Management functionality and to provide an overview for the installation of the BRIGHTBLU Power Manager.

Note: Please check if your JOLT Business charger has provision for Dynamic Power Management.

Due to limits on the allotted power capacity, there is a risk of an electrical overload if the sum of the electrical power used by home appliances and the charging power for the electrical vehicle exceeds the sanctioned power limit. This may lead to frequent tripping of the breaker or damage to the main fuse.

With Dynamic Power Management, the charger unlocks the full potential of the power supply to charge the vehicle as fast as possible while also protecting against any possible overload scenarios. Using the BRIGHTBLU power manager, the charging current of the electric vehicle is dynamically reduced during times of high residential power usage and automatically increased again during low residential power usage.





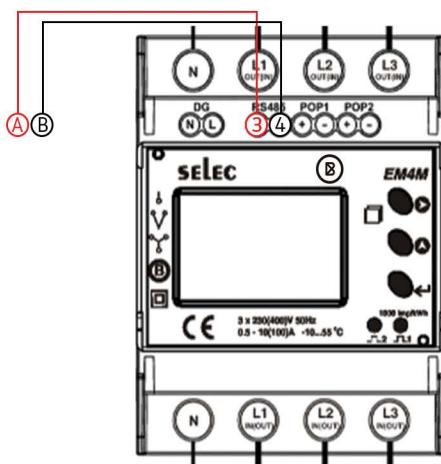
4.1 MATERIALS NEEDED

- BRIGHTBLU Power Manager
- Wire connectors and crimps
- Data cable : Length according to installation distance

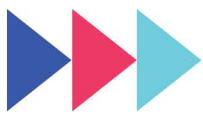
Note: It is recommended to use a data cable with at least a single/foil shielded data cable.

4.2 INSTALLATION

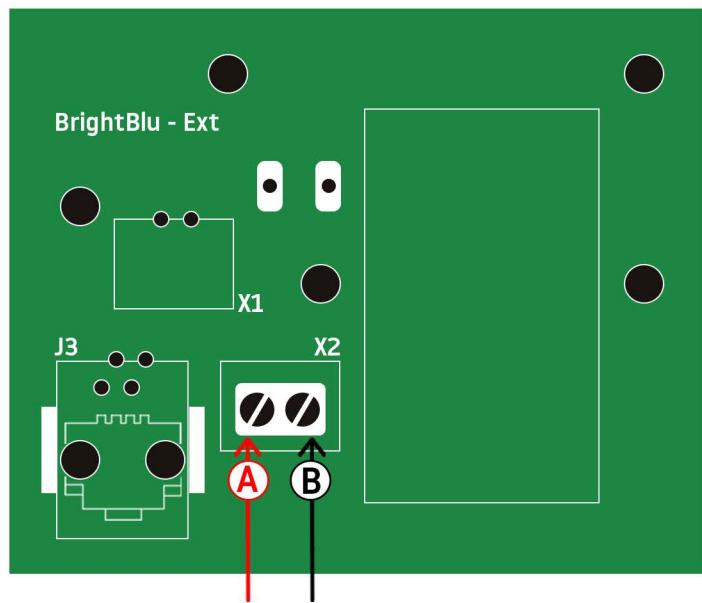
- 1) Install the Power Manager through the input of the charging station switchboard.
- 2) Prepare one end of the data cable and connect it to the Power Manager as shown in the figure below.



- 3) Open the side panel of the charger.



4) Prepare the other end of the data cable and connect to the charger as shown in the image.



Note: Please consult a qualified electrician when planning the installation of the Power Manager and configuring Dynamic Power Management settings on the mobile application.



SETTING UP THE EMERGENCY BUTTON

5.1 HOW TO SET UP THE EMERGENCY BUTTON

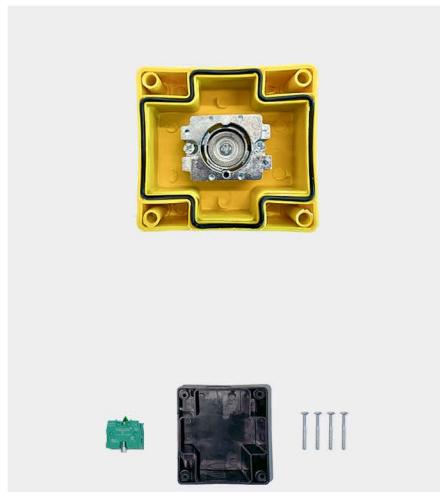
Setting up the Emergency Button is easy! Here's how:

1. Unbox the contents of the emergency button provided with your Jolt business charger. (as shown below)

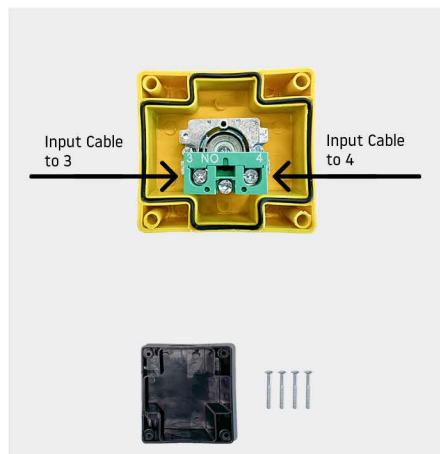


Check and ensure if any parts show signs of physical damage caused by knocks, lacerations or abrasions. If damage is detected, please contact BRIGHTBLU.

- 2. Place the mushroom button through the hole on the top of the enclosure and attach the metallic holder from the other side. Affix the screws to the holder. (as shown below)**



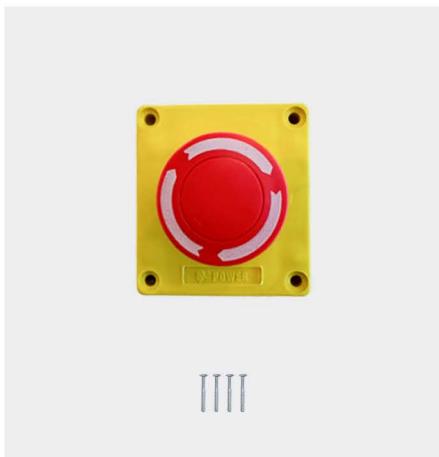
- 3. Affix the NO element to the metallic holder. Insert 0.5sqmm wire to the terminals 3 and 4 of the element. (as shown below)**



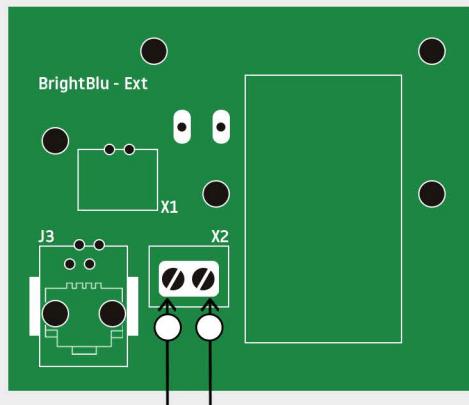
4. Install the back portion of the enclosure to the wall or pole. (as shown below)



5. Remove the wires from the provision in the bottom part of the enclosure and use the screws provided to close the enclosure. (as shown below)



6. Open the side panel of the Jolt charger and connect the wires from the emergency button. (as shown below)



7. Power on the charger and press the emergency button. Check if the charger shows a fault and release the button. The fault should get reset.



LED & ERROR CODE INDICATIONS

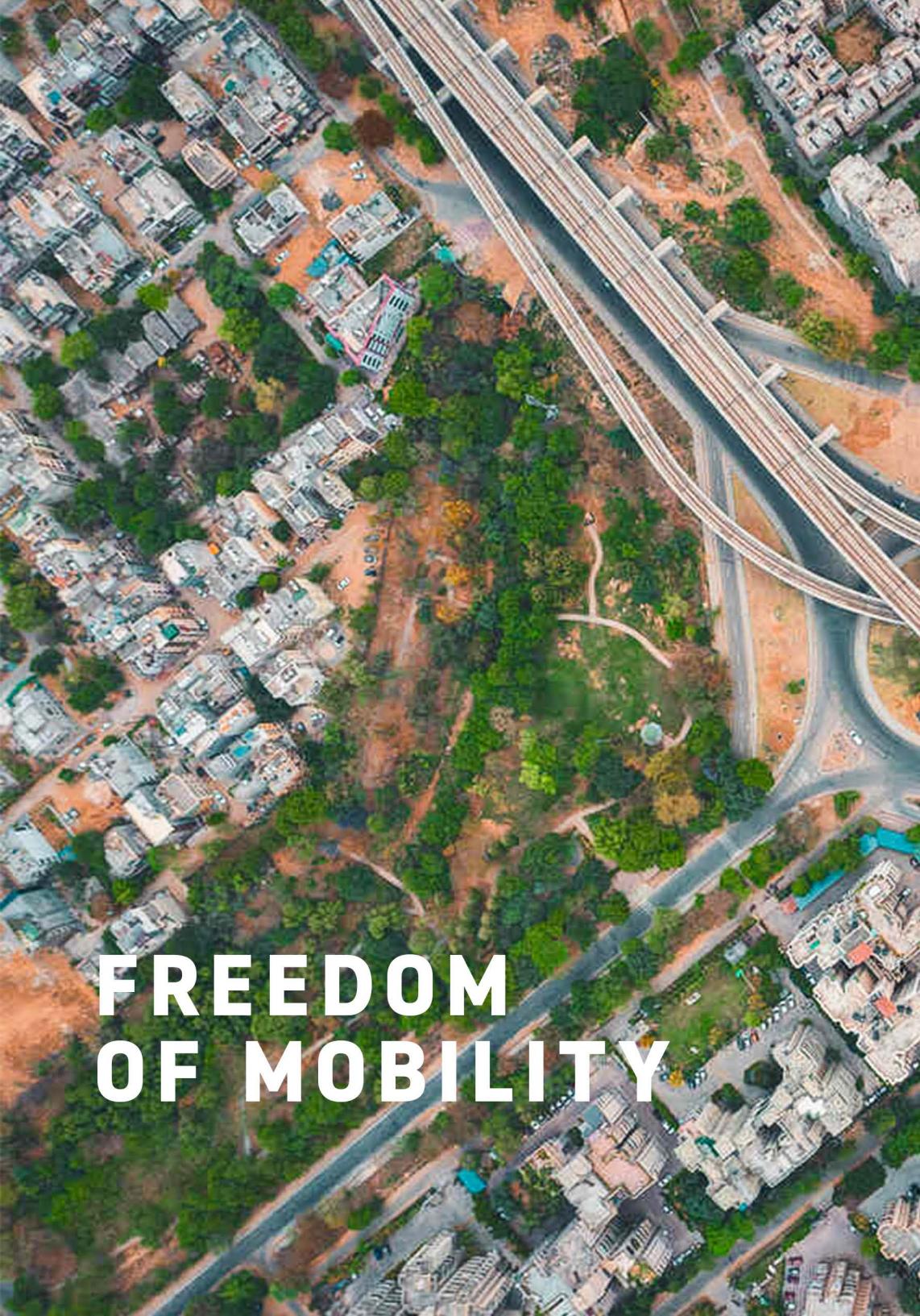


6.1 CHARGER STATUS LED INDICATIONS

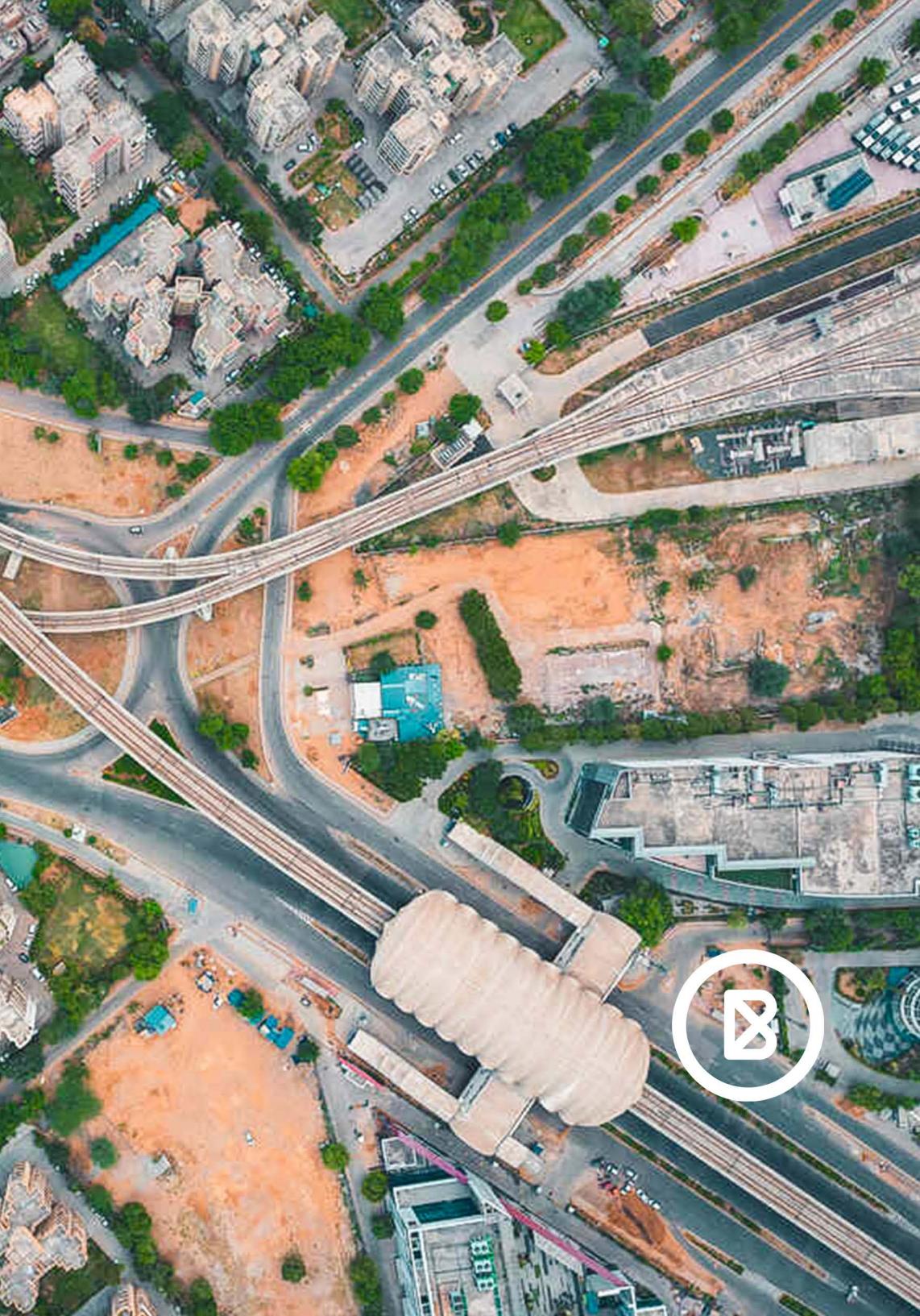
| Charger Status | LED Indicators | General Info |
|----------------|----------------|--|
| Configuring | Fading Red | The charger has been initialised and is powering ON. The fading red will stop once the initialisation process is finished. |
| Available | Solid Green | The charger is powered on and is ready to use. The LED will remain solid green until you connect your vehicle or turn your charger off. |
| Plugged In | Fading Green | Your vehicle is connected to the charger and communication between both is established. While waiting to start the charging process, the LED remains in this state. This LED state is also displayed when charging is stopped remotely. |
| Free Mode | Turquoise Blue | The charger is powered on and is ready to use. Authentication is not required and charging will start once your vehicle is plugged in. |
| Charging | Solid Blue | Charging is in progress. |
| Preparing | Solid Yellow | The charger is ready to deliver power but is waiting for the vehicle to start the session. This LED state is also displayed when your vehicle was in a charging session and is now fully charged or the charging session has been paused. |
| Error | Red | The charger is in fault mode. Do not try to charge in this condition. The detected problem could be caused by the charger, your electric vehicle, or the electric grid system. Contact BRIGHTBLU service so our team can advise you on the best follow-up procedure. |
| Unavailable | Purple | The charger has lost online network connectivity and charging may not be possible. Contact BRIGHTBLU service so our team can advise you on the best follow-up procedure. |

6.2 JOLT BUSINESS ERROR CODE INDICATIONS

| No. of Flashes | Cause of Error |
|----------------|---|
| 2 | Grounding is improper or has been removed |
| 3 | Emergency Button Pressed |
| 4 | Leakage of Current Detected |
| 5 | Voltage Protection Device Triggered |
| 6 | Over Temperature Detected |
| 7 | Over Current Error |
| 8 | Input Frequency Error |

An aerial photograph of a city showing a complex network of elevated roads and a modern metro rail system. The city is densely packed with buildings, mostly residential houses, interspersed with patches of greenery and dirt. The elevated infrastructure cuts through the urban landscape, highlighting the contrast between traditional and modern modes of transport.

**FREEDOM
OF MOBILITY**





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THANK YOU

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