

BEQ TECHNOLOGY EVSE CHARGING STATIONS **INSTALLATION AND USER GUIDE**

FOR MODELS R40 AND R48



BEQ[™]
TECHNOLOGY
CONNECTING ONE CHARGING STATION AT A TIME

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INTRODUCTION

DOCUMENT OBJECTIVE

This guide aims to provide a complete, clear, and structured technical reference for professional installers, maintenance technicians, and end users of BEQ Technology EVSE charging stations, specifically the R40 and R48 models.

It outlines the procedures to ensure compliant installation, safe use, and optimal maintenance. All recommendations align with the CSA C22.2 No. 280-22 standard.

With this guide, stakeholders can apply standardized methods and significantly reduce installation errors, ensuring better equipment performance and higher user satisfaction.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS.

CAUTION – To reduce the risk of fire, connect only to a circuit provided with overcurrent protection for the branch circuit as specified under “Circuit Consideration,” in accordance with the Canadian Electrical Code CSA C22.1 and the National Electrical Code ANSI/NFPA 70.

NOTE: The symbols in the table above apply to all items listed below.



- A)** Read all instructions before using this product.
- B)** This device should not be left unattended if used near children.
- C)** Do not put fingers into the electric vehicle connector.
- D)** Do not use this product if the flexible cord or the EV cable is frayed, if the insulation is damaged, or if it shows any other sign of damage.
- E)** Do not use this product if the enclosure or the EV connector is damaged, cracked, open, or shows any other sign of damage.
- F)** Do not use the device outside the operating temperature range: -22 °F to 104 °F (-40 °C to 40 °C).
- G)** Installation, removal, and handling activities must be carried out by qualified personnel in accordance with applicable local regulations. Modification, disassembly, or repair must be performed by the manufacturer and the manufacturer only.
- H)** Contact a licensed electrician to ensure compliance with local building code, regulations, safety standards, and weather conditions.
- I)** Check with local authorities that the location where the charging station will be installed does not contain underground piping or electrical equipment, or you may seriously injure yourself or others.
- J)** Do not install the charging station above combustible surfaces.
- K)** Be sure to follow grounding instructions. Refer to the INSTALLATION INSTRUCTIONS.
- L)** Do not install the charging station in a hazardous location.

IMPORTANT SAFETY INSTRUCTIONS.

KEEP THESE INSTRUCTIONS.

Read all instructions before using this product.

NOTE: The symbols in the table above apply to all the items in the list below.

- A)** Perform a risk assessment before undertaking any activity and use appropriate personal protective equipment.
- B)** Before installing the charging station, read this guide carefully and consult a licensed electrician to ensure compliance with local legislation, safety standards, and applicable codes.
- C)** Compliance with the information in this manual does not in any way relieve the user of the responsibility to comply with all applicable codes or safety standards.
- D)** BEQ cannot be held responsible for any damage that may result from custom installations not described in this document.
- E)** The warranty will be voided if the charging station has been modified, disassembled, or repaired by anyone other than the manufacturer.
- F)** Handle parts carefully. Always wear protective glasses and gloves when unpacking and installing the charging station.
- G)** Avoid installing the charging station in adverse weather conditions to prevent the ingress of moisture or debris.
- H)** During service or maintenance, make sure that the upstream disconnecting device is in the open position and follow electrical workplace safety procedures.
- I)** This charging station is designed to be wall-mounted or pedestal-mounted.
- J)** The input cable strain relief, conduits or armored cable glands, and adapter must:
 - 1.** Be certified for Canada and the United States.
 - 2.** Be weatherproof (Type 3R enclosure).
 - 3.** Be suitable for the selected cable's outer diameter.
- K)** Safety instructions for hardwired models
Follow the safety instructions below for the hardwired units below:
 - 1.** Connect the charging station with appropriately sized conductors. Refer to the Wiring Connection section. Contact a licensed electrician to ensure that all existing or future installations comply with local building codes, regulations, and safety standards.
 - 2. GROUNDING INSTRUCTIONS** – This product must be connected to a grounded, metallic or permanent wiring system, or an equipment grounding conductor must be added to the circuit and connected to the equipment's ground terminal and installed by a licensed electrician.
 - 3.** The charging station power cables must be at least FT2-rated.
 - 4.** The input cable strain relief, conduits, armored cable glands, or adapter must be certified for Canada and the United States.
- L)** Safety instructions for models equipped with NEMA plugs

Incorrect connection of the power cord may result in a risk of electric shock. The charging station used with a NEMA receptacle must follow the safety instructions below:
 - 1.** Contact a licensed electrician to ensure that all existing or future installations comply with local building codes, regulations, and safety standards.
 - 2. GROUNDING INSTRUCTIONS** – This product must be connected to a grounded, metallic or permanent wiring system, or an equipment grounding conductor must be added to the circuit and connected to the equipment's ground terminal and installed by a licensed electrician.

3. Do not modify the NEMA plug provided with the charging station.
4. Do not unplug the charging station during charging.
5. Always disconnect the power supply to the charging station before performing maintenance.

SAFETY SYMBOLS ON YOUR PRODUCT

The symbols in the table below may be present on your charging station and in this guide.

Please refer to the table below for symbol information.

Symbol – Description



CAUTION: This symbol is used to draw attention to important safety information contained in these instructions.



WARNING: This symbol is used to warn of the presence of dangerous voltage and the possibility of electric shock.



GROUNDING TERMINAL



PROTECTIVE EARTH (GROUND)



ALTERNATING CURRENT



PHASE

1-PRODUCT OVERVIEW

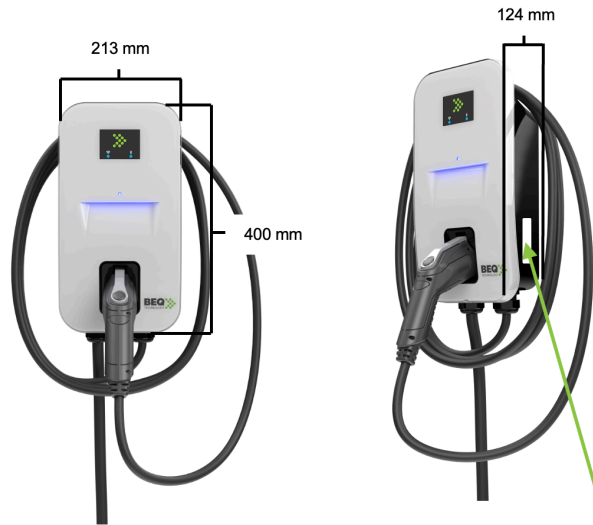
AVAILABLE MODELS

MODEL	MAXIMUM POWER	RECOMMENDED USAGE
R40	9.6 kW	Residential
R48	11.5 kW	Residential

All models are available in wall-mounted and pedestal versions. Each unit is designed for optimal performance in outdoor and indoor environments, featuring a NEMA 3R protection rating and an operating temperature range of -40 °C to +40 °C.

GENERAL TECHNICAL SPECIFICATIONS

Serial Number Location and Option Identification



Options and parts Numbers

R 40 - R L J O P XXXXX

R: Residential Series
M: Multi-Unit Series
C: Commercial Series

Maximum Operating Amperage

RFID Option
R=YES
O=NO

LTE Option
L=YES
O=NO

Screen Option
S : YES
O : NO

Unique Serial
Number

Gun Type
J : J1772
N : NACS

Connection Type
P : NEMA 14/50
W: Câblé

OVERVIEW OF THE CHARGING STATION



PEDESTALS

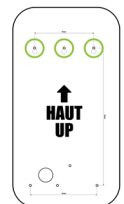
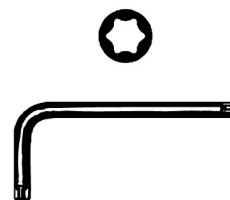
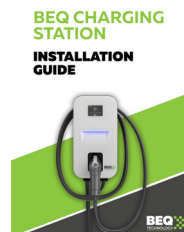
(OPTIONAL)



2. BOX CONTENTS AND REQUIRED TOOLS

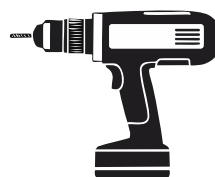
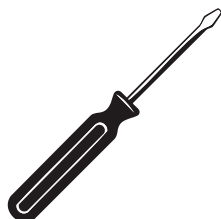
2.1 INCLUDED ITEMS

- Charging station
- Installation manual
- 2 mm Torx key
- Drilling template



2.2 REQUIRED INSTALLATION TOOLS

- Screwdriver
- Drill
- Level
- Pliers

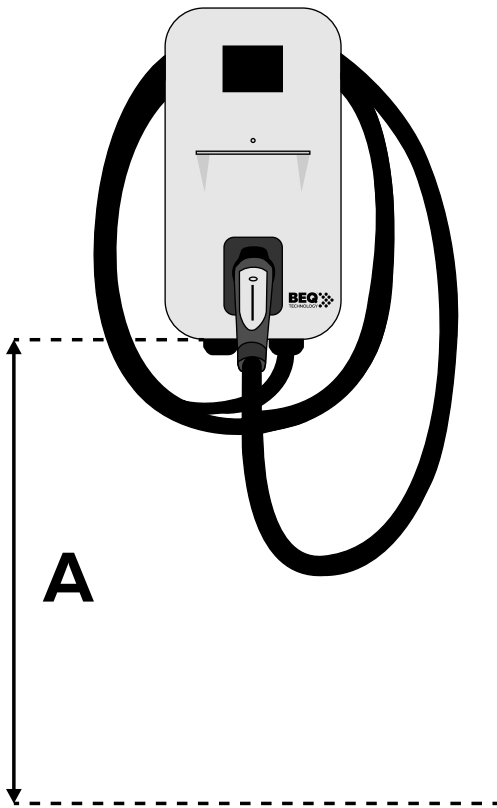


2.3 EVSE UNIT COMPONENTS

- Power distribution box
- Integrated display (Model C only)
- Multicolor LED indicator
- J1772 or NACS charging connector
- Charging cable
- Configuration interface (Wi-Fi/Ethernet/Cellular)

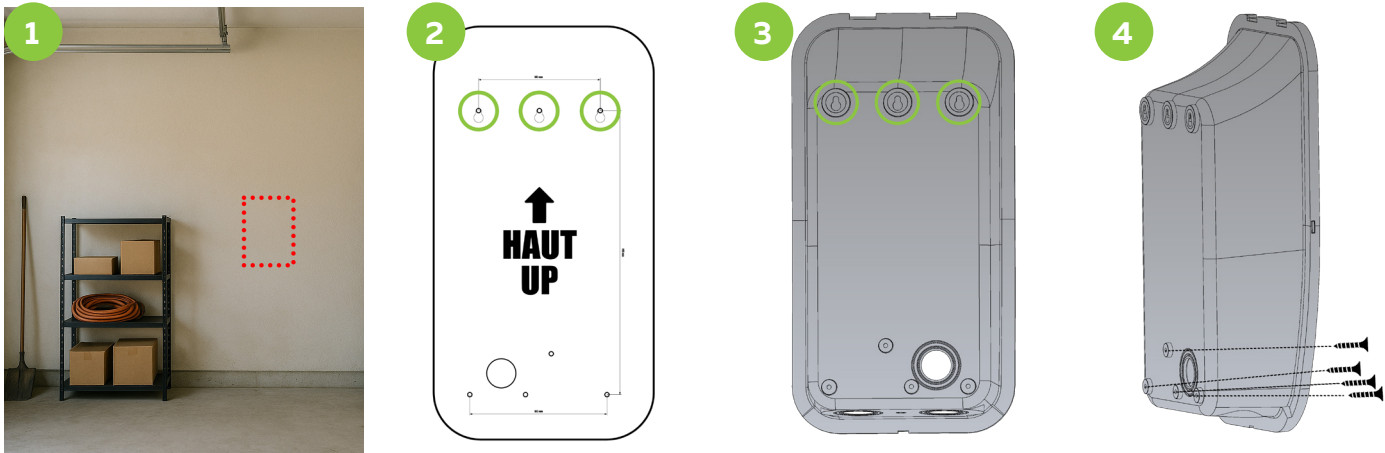
3. POSITIONING AND ACCESSIBILITY

- Installation height (A): 1 m to 1.2 m (40 to 48 in) based on use.
- Clearance: minimum 1 m in front of the unit for safe access, 150 mm on the sides.
- The charging cable must never touch the ground to avoid wear, dirt, and hazards.
- Displays and indicators must be visible and positioned at eye level.
- Do not install behind obstacles or deep recesses.
- For pedestal installation, ensure the pedestal is anchored on a stable, leveled concrete slab.
- Ensure accessibility for all users, including those with reduced mobility, as
- Wi-Fi signal range can be assessed by examining the Wi-Fi signal strength of a smartphone connected to the network that will be used by the charging station. The signal should preferably be at full strength at the desired charging station location.



4. INSTALLING THE CHARGING STATION

- 1- Choose the location where you want to install the charging station.
- 2- Position the drilling template on the wall at the chosen location and insert the upper screws.
- 3- Hang the charging station on the wall using the designated mounting points.
- 4- Secure the unit by screwing the lower part of the station. The use of number 8 screws, pan or round head, 1-1/2" long is recommended for typical wall installation. For pedestal installation, use the screws provided with the pedestal.



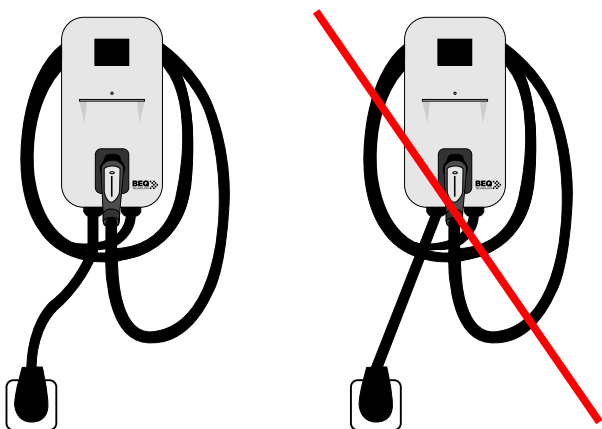
5. POWER CABLE CONNECTION

MODEL WITH 14/50 POWER OUTLET

- Use the plug included with the charging station.
- Then, connect the plug to a compatible power outlet.

INSTALLATION ON A 14-50 OUTLET (Plug-in charging stations)

The charging station must be positioned to allow easy connection of an 18 inch (457.2 mm) power cord. Once connected, the cable should remain slightly slack to prevent any strain or tension at the outlet.



DIRECT OR PERMANENT CONNECTION

- 1- Use copper conductors only rated AWG 60°C or 75°C, in accordance with local electrical codes.
- 2- Prepare and connect the power cables according to the configuration table provided (see appendix).
- 3- Secure the cover with the charging gun holder.
- 4- Secure the front panel of the charging station.

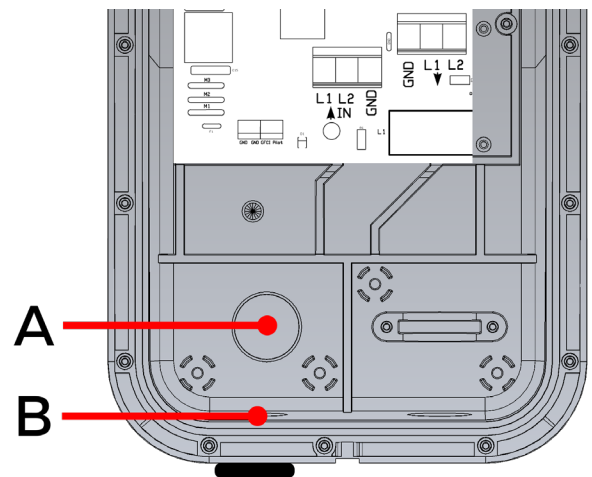


- 1- The rear and bottom entries are designed to accommodate conduits of various sizes with tapered NPT threading, ranging from 3/4" (19 mm) to 1 1/4", depending on the power rating of the installed charger.

These openings can be adjusted using a suitable cutting tool, based on the requirements of the selected conduit.

NOTE: The required cable gland for the rear or bottom power entry must be provided by the certified electrician performing the installation, as specifications may vary depending on site conditions.

- 2- Environmental conditions: install in a location protected from direct water jets or corrosive agents.
- 3- Grounding: mandatory per Canadian Electrical Code, using the terminal inside the unit.
- 4- Voltage drop: wiring must avoid exceeding 3% voltage drop between the panel and the unit.
- 5- All power components must respect CSA-defined spacing for thermal dissipation.



APPENDIX

WIRE GAUGE AND TORQUE SPECIFICATIONS BY MODEL					
Charging Station Model	Rated Current (A)	Recommended Protection (A)	L1-L2 Copper Wire	Ground Copper Wire	Torque (N·m) (lbf/in)
R40	40	50	8	10	2.15 (19)
R48	48	60	6	8	2.15 (19)

Figure 1: Three-Phase 120/208 VAC

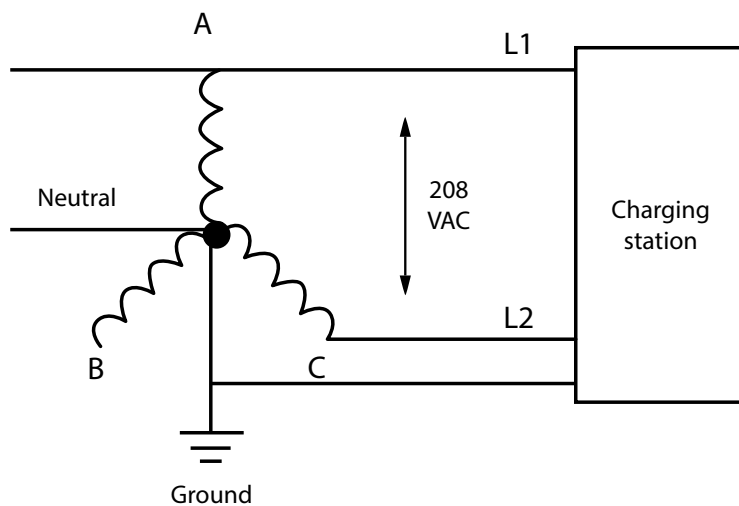
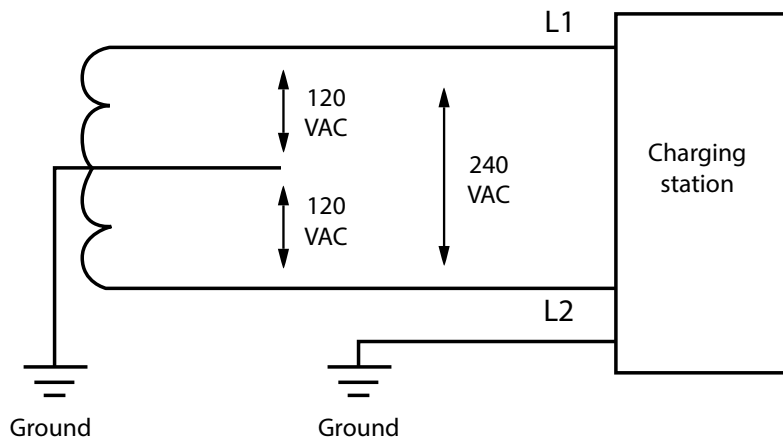


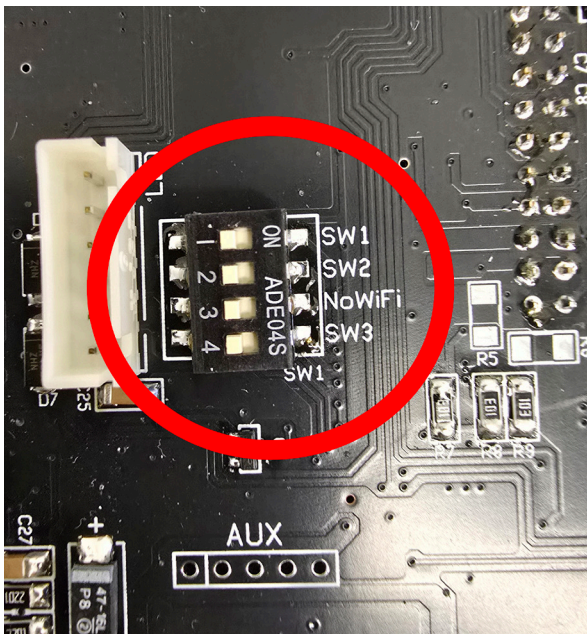
Figure 2: Single Phase 120/240 VAC



6. INITIAL CONFIGURATION AND CONNECTIVITY

- Advanced activation is done via the local access point interface.
- DIP switch adjusts current limit and Wi-Fi settings.
- Supports identification via RFID card or mobile app.
- OCPP communication allows integration with third-party platforms.

		Model R		
Switch	Position	40	48	80
1	ON	No Wi-Fi	No Wi-Fi	No Wi-Fi
2	ON	12A	16A	32A
3+4	ON	16A	24A	40A
4	ON	24A	32A	48A
3	ON	32A	40A	64A
All other switches not mentioned must be in the OFF position				



6.5 RFID CARD READER – USER INSTRUCTIONS

Purpose

The RFID reader enables secure and easy access control to the charging station using contactless authentication.

How It Works

- Authorized users are assigned RFID cards configured with the station's system.
- Presenting a valid card triggers the station to authenticate and initiate the charging process.
- Card access can be managed locally or through an OCPP-compatible backend.

Using the RFID Reader

1. Hold the RFID card within 3–5 cm (1–2 in) of the reader zone.
2. A visual or audio confirmation will indicate whether access is granted or denied.
3. If accepted, charging starts or the connector is unlocked.

Troubleshooting

- No response: Ensure the station is powered.
- Access denied: The card may be unassigned or revoked – check with your administrator.

Administrator Notes

- Up to 500 RFID cards can be linked to one station.
- Card access is configurable via the configuration interface or backend system.
- Cards can be added, removed, or replaced as needed.

ELECTRICAL SPECIFICATIONS	CATEGORY	
	R40	R48
MAXIMUM POWER	9.6 kW	11.5 kW
MAXIMUM OUTPUT CURRENT	40 A	48 A
ADJUSTABLE AMPERAGE SETTINGS	20-24-32-40	24-32-40-48
VOLTAGE	208V-240V @ 60 Hz	208V-240V @ 60 Hz
CONNECTION OPTIONS	Hardwired or NEMA 14/50	Hardwired
CONNECTION POINT	Bottom or rear of the unit	Bottom or rear of the unit
COMPATIBLE WIRING TYPE	Copper only	Copper only

PHYSICAL CHARACTERISTICS	R40	R48
DIMENSIONS (H x W x D)	400mm X 213mm X 124mm	400mm X 213mm X 124mm
WEIGHT	25 LBS	27 LBS
CABLE LENGTH	7,62 m (25')	7,62 m (25')
CONNECTOR TYPE	NACS, SAE J1772	NACS, SAE J1772
ENCLOSURE MATERIAL	Industrial-grade thermoplastic	Industrial-grade thermoplastic
WEATHER RESISTANCE	Type 3R	Type 3R
INSTALLATION	Wall-mounted or pedestal-mounted	Wall-mounted or pedestal-mounted

USER INTERFACE & CONTROL	R40	R48
MOBILE APP	Yes	Yes
USER AUTHENTICATION	App, automatic start, RFID (optional)	App, automatic start, RFID (optional)
STATUS DISPLAY	LED and app	LED and app
CARD READER (OPTIONAL)	ISO 15693, ISO 14443	ISO 15693, ISO 14443
UPDATE	Via Wi-Fi through web portal	Via Wi-Fi through web portal

PROTECTION	R40	R48
	Integrated 20mA Ground Fault Circuit Interrupter (GFCI)	Integrated 20mA Ground Fault Circuit Interrupter (GFCI)

CERTIFICATIONS	R40	R48
	Complies with safety standards UL2594 / CSA C22.2 No 280 (Certificate #E522576) ENERGY STAR certified	Complies with safety standards UL2594 / CSA C22.2 No 280 (Certificate #E522576) ENERGY STAR certified
	NEC 2023 Article 625 / CSA C22.1 FCC 47 CFR Part 15 / CAN ICES-003(B); NMB-003(B)	NEC 2023 Article 625 / CSA C22.1 FCC 47 CFR Part 15 / CAN ICES-003(B); NMB-003(B)
	EMC COMPLIANCE: FCC Part 15 Class B	EMC COMPLIANCE: FCC Part 15 Class B

WARRANTY	R40	R48
STANDARD WARRANTY	Parts only	Parts only
	7 years on the charging station, 3 years on the cable and the gun.	7 years on the charging station, 3 years on the cable and the gun.

COMMUNICATION PROTOCOLS	R40	R48
	Wi-Fi	Wi-Fi
	Bluetooth	Bluetooth
	OCPP 1,6J, LoRa	OCPP 1,6J, LoRa
	Ethernet	Ethernet
	LTE (optional)	LTE (optional)

ENVIRONMENT	R40	R48
NOMINAL TEMPERATURE RANGE	-40 °C to +40 °C	-40 °C to +40 °C
STORAGE TEMPERATURE	-40°C to 60°C (-40°F to 140°F)	-40°C to 60°C (-40°F to 140°F)
HUMIDITY	5% ~ 95% HR, without condensation	5% ~ 95% HR, without condensation
	RAIN-PROOF ENCLOSURE IN TYPE 3R THERMOPLASTIC	

7. LED INDICATORS – MEANING

LED COLOR	Status	Wi-Fi LED	Status	Bluetooth LED	Status
Solid Green	Ready	Flashing Green	Searching Network	Solid Blue	Connect to Bluetooth
Solid Yellow	Connect	Solid Green	Connect to Network		
Flashing Blue	Charging				
Red	Unit Error				

8. USE OF THE CHARGING STATION

Before use, ensure that the charging station has been installed according to the guidelines in the installation manual. Once the installation is complete, follow the instructions below to charge your electric vehicle (EV) using the BEQ charging station.



9. PREVENTIVE MAINTENANCE AND INSPECTION

- No scheduled maintenance required.
- Monthly visual inspection recommended:
 - Check condition of housing, cable, and connector.
- Clean with a dry or lightly damp cloth only. Do not use solvents.

10. COMMON TROUBLESHOOTING

Icon	Error message	Description	Suggested solutions
	Vent	<i>Vehicle charge controller overheating</i>	Unplug the gun and wait for the temperature to regulate. If the problem persists, contact the manufacturer.
	Diode check	<i>Overvoltage on charging/pilot cable or damaged charging cable</i>	If the problem persists, contact the manufacturer.
	GFCI fail	<i>Ground leak</i>	Check the charging station cable for damage.
	Bad ground	<i>Your unit is not properly grounded</i>	Have your electrician check your charging station's power supply wiring. Check that the ground connection is secure. The electrician will also need to ensure that your panel or electrical distribution is properly grounded.
	Stuck relay	<i>High-voltage in charging gun</i>	Unplug the gun and contact the manufacturer.
	GFCI Test	<i>Problem with GFCI circuit</i>	Contact the manufacturer.
	Overheating	<i>Temperature above normal operating range</i>	Unplug the gun and wait for the temperature to regulate. If the problem persists, contact the manufacturer.
	Overload	<i>Vehicle requires more energy than the charging station can supply</i>	If the problem persists, contact your dealer.
	Current SensorFault	<i>Internal fault</i>	Contact the manufacturer.
	Unit Error	<i>Charger does not work immediately</i>	The error usually rectifies itself within a few minutes. Restart the terminal if the error persists.

11. WARRANTY AND SUPPORT

A) Introduction

This Limited Warranty (the "Warranty") is provided by **BEQ Technology Inc.**, with its head office located at [Company Address], and applies to electric vehicle charging products sold under the BEQ brand (hereinafter referred to as the "Product" or "Products").

B) Covered Products

This Warranty applies to the following products:

Residential Products (7-year warranty)

- Models R40, R48, and R80 from the BEQ Residential Series

Commercial Products (3-year warranty)

- Models M40 and M48 from the BEQ Multi Series
- Models C48 and C80 from the BEQ Pro Series

C) Warranty Period

- Residential products are covered under this Warranty for a period of seven (7) years from the original date of purchase.
- Commercial products are covered for a period of three (3) years from the original date of purchase.

Important note: While the complete charging station is covered for the applicable warranty period (depending on residential or commercial classification), the charging connector (gun) is covered for a maximum period of three (3) years, regardless of the product category.

This Warranty applies only to the original purchaser as indicated on the purchase invoice and is non-transferable.

D) Warranty Coverage

Subject to the exclusions described below, BEQ warrants that its Products:

- Are free from defects in materials and workmanship;
- Operate in accordance with BEQ's technical specifications at the time of purchase, including applicable user manuals, data sheets, and technical documentation.

If a defect arises during the applicable warranty period, BEQ's sole obligation will be, at its discretion, to:

1. Repair the Product; or
2. Replace the Product with a new or refurbished unit of equivalent specifications.

All replaced components or products become the exclusive property of BEQ. The warranty coverage for repaired or replaced products will continue only for the remaining period of the original warranty.

E) Warranty Claim Procedure

To submit a warranty claim, the purchaser must:

- Contact BEQ's customer service by email at service@beqtechnology.com
- Provide a valid proof of purchase, the product serial number, and a clear description of the issue encountered

BEQ will issue a Return Material Authorization (RMA) number after reviewing the claim.

All transportation costs are the responsibility of the product owner, including:

- Shipping the product to BEQ for evaluation or repair;
- Returning the repaired or replaced product to the customer's address.

Products must be returned in their original packaging or in equivalent protective packaging. BEQ will not be liable for damage caused during shipping due to improper packaging, and such damage may void the Warranty.

F) Warranty Exclusions

This Warranty does not apply to:

- Products that have been installed, repaired, handled, or altered by unauthorized personnel;
- Damage resulting from improper installation, poor maintenance, abuse, misuse (e.g., vehicle collision), or acts of vandalism;
- Normal wear and tear, cosmetic damage, discoloration, or other non-functional physical damage;
- Events outside BEQ's control, including fire, flood, lightning, electrical surges, extreme weather, or natural disasters;
- Products with missing, altered, or unreadable serial numbers.

G) Limitation of Liability

EXCEPT AS EXPRESSLY STATED HEREIN, BEQ MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

In no event shall BEQ be liable for any indirect, incidental, consequential, special, or

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