



RS48 Smart Charging Activation Guide

V2.3

 **IMPORTANT:** This guide covers smart charging activation and network configuration only. For physical installation instructions, refer to the RS48 Installation Manual.

Table of Contents

- 1) Setting Maximum Current Limit
- 2) Smart Charging Benefits
- 3) Home Network Connection Options
- 4) RS48 Configuration
- 5) Confirming Home Network Connection
- 6) Confirming VarianCLOUD Connection
- 7) Support Information
- 8) Variablegrid Mobile App

1) Setting Maximum Current Limit

The RS48 is initially configured for 48A maximum current. If installed on a 60A circuit breaker, no physical adjustment is required. If installed on a lower-rated circuit breaker, set the internal DIP switch using these steps:

- 1) With power off, remove the RS48 front cover by removing the rear screws
- 2) Use a non-conductive tool to adjust the DIP switches as follows:

NOTE: The red DIP switch is easily visible on the long edge of the main PCB board.

Circuit Breaker Rating	RS48 Maximum Current	DIP Switch 1 Setting	DIP Switch 2 Setting
60A (Default)	48A	OFF	OFF
50A	40A	ON	OFF
40A	32A	OFF	ON
20A	16A	ON	ON

- 3) Reattach the RS48 front cover

2) Smart Charging Benefits

Activating smart charging through VarianCLOUD enables:

- 1) Use of the free Variablegrid Mobile App for iOS and Android to:
 - a. Monitor and control charging
 - b. Setup access control
 - c. Take advantage of time-of-use pricing
- 2) Support for Utility Demand-Response initiatives
- 3) Participation in Carbon Credit initiatives

The remainder of this manual outlines the required steps.

3) Home Network Connection Options

Chose one of the following methods to connect the RS48 to the internet:

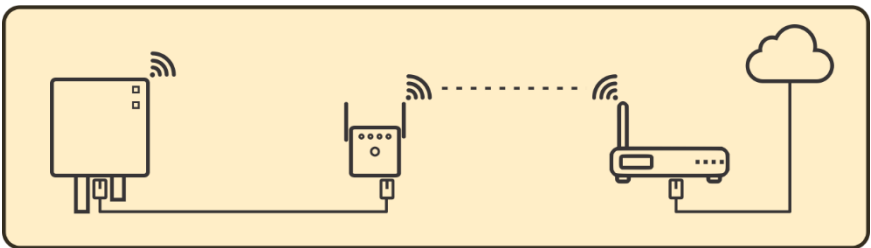
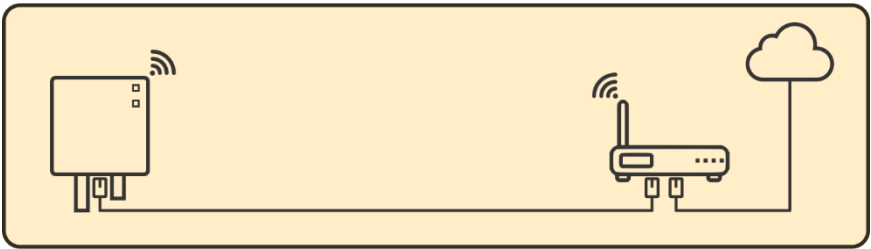
Method 1: Direct cable connection

For best performance, it is strongly recommended to install an Ethernet cable between the EV Charger and either (a) the home network router or (b) the provided Wi-Fi extender.

NOTE: Running the Ethernet cable to the extender is easiest if done at the same time as the electrical circuit for the EV Charger is installed.

Plug the Ethernet cable between the bottom of EV Charger and home network router or Wi-Fi extender.

NOTE: The Wi-Fi interface remains active for EV Charger configuration but is not used for connectivity to the VarianCLOUD network.

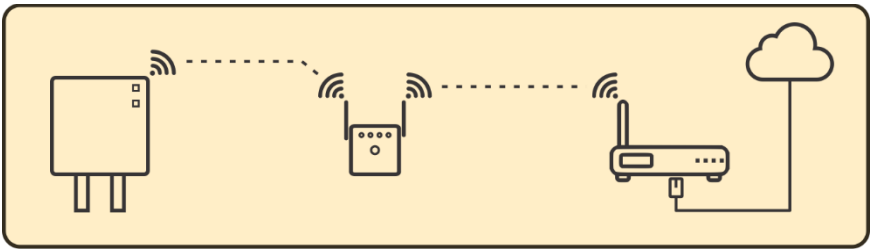


Method 2: Wi-Fi connection

Requirements: - 2.4 GHz Wi-Fi network (5 GHz not supported) -
Network name (SSID) and password - Signal strength at charger location

When the distance between the EV Charger and either (a) the home network router or (b) the Wi-Fi extender is short, the signal strength of one or both SSIDs may be adequate for a Wi-Fi connection.

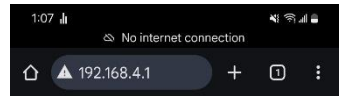
NOTE: Standing by the EV charger, use a phone or tablet to identify the strongest SSID on the home network. Use this SSID to configure the EV Charger in Section 4.



4) RS48 Configuration

The EV Charger connects to the home network using Ethernet or Wi-Fi. With no Ethernet cable inserted, access the RS48 configuration form:

- 1) Using a notebook, tablet or phone, search for the open SSID **EVC-XXXXXXX** (where XXXXXXXX is the last 8 digits of the EV Charger's serial number).
- 2) Connect to the SSID (no password is required), open a browser and go to **192.168.4.1**



- 3) When the configuration form loads, enter **admin** and **admin** and press Login

A screenshot of a login form titled "Login to Manage Account". It has a green header. Below the title, there are two input fields: the first contains "admin" and the second contains ".....". At the bottom, there are two green buttons: "Login" and "Reset".

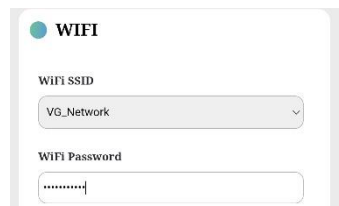
NOTE: It may take up to two minutes until the Login page is responsive.

- 4) If necessary, update the OCPP URL to **ws://cloud.vargrid.com:8887** and press Submit

A screenshot of the "OCPP" configuration page. It has a blue header with a circular icon. Below the header, there are two sections. The first section is "OCPP Name" with an input field containing "21128000" and a green "Submit" button. The second section is "OCPP URL" with an input field containing "ws://cloud.vargrid.com:8887" and a green "Submit" button.

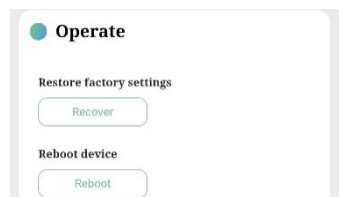
NOTE: Do not change the OCPP Name, which is the last 8 digits of the serial number printed on the case.

- 5) If using Wi-Fi, choose the home Wi-Fi SSID with the strongest signal from the dropdown, enter the Wi-Fi Password and press Submit

A screenshot of the "WIFI" configuration page. It has a blue header with a circular icon. Below the header, there are two sections. The first section is "WIFI SSID" with a dropdown menu showing "VG_Network". The second section is "WIFI Password" with an input field containing ".....".

NOTE: Do not change any other fields on the Device page unless instructed by Variablegrid tech support.

- 6) Power the RS48 off and on, or select the Operate page and press Reboot

A screenshot of the "Operate" page. It has a blue header with a circular icon. Below the header, there are two sections. The first section is "Restore factory settings" with a green "Recover" button. The second section is "Reboot device" with a green "Reboot" button.

5) Confirming Home Network Connection

The upper LED on the EV Charger will initially blink Blue as the EV Charger attempts to connect to the home router or the Wi-Fi network. If it turns from Blue to Red, the connection has failed.

NOTE: If a Wi-Fi extender is used, the LED is only confirming a connection to the extender. LEDs on the extender confirm connection to the home router.

6) Confirming VarianCLOUD Connection

The EV Charger requires a connection to the VarianCLOUD to enable smart charging features.

Once connected to the home network the upper LED will blink Green, indicating the EV Charger is attempting to connect to the VarianCLOUD.

Once the EV Charger successfully connects to the VarianCLOUD the upper LED will turn Green, indicating activation of Smart Charging features.

If the connection fails, check the Ethernet cable or Wi-Fi settings and power cycle the EV Charger.

7) Support Information

Variablegrid tech support is available to provide priority telephone support to installers Monday to Friday from 6 am to 6 pm PT (9 am to 9 pm ET) at 800-645-2314. If not answered immediately, leave a voicemail and your call will be returned as soon as possible.

Support resources are also available at support@variablegrid.com and online at <https://support.variablegrid.com>.

8) Variablegrid Mobile App

After successful activation, install the free Variablegrid Mobile App by following these steps:

- 1) Using a tablet or phone, search the Apple App Store or the Google Play Store for Variablegrid
- 2) Install and open the Variablegrid app
- 3) Click Allow Notifications if asked
- 4) Click Sign up at the bottom of the screen
- 5) Complete the Create Account form and press Sign-up
- 6) Enter the chosen email and password and press Login

Contact Information



Address

Variablegrid Adaptive Power Inc.
211B-276 Carlaw Ave
Toronto, ON M4M 3L1



Phone

1-800-645-2314



Support Email

support@variablegrid.com



Website

www.variablegrid.com