

# OpenGarage Firmware 1.0.4 API Document

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## 1. Overview

This document describes OpenGarage (OG) Firmware 1.0.4 API.

- In the following, when device key is required, it is referred to as **dkey=xxx**. The default device key at factory reset settings is opendoor.
- The device IP address is referred to as **devip**
- For most commands, parameters are optional and the order of parameters does not matter.
- **Return values** are all formatted in JSON, for example: `{"result":1}`
- **Return error code:**
  - 1 Success
  - 2 Unauthorized (e.g. missing password or password is incorrect)
  - 3 Mismatch (e.g. new password and confirmation password do not match)
  - 16 Data Missing (e.g. missing required parameters)
  - 17 Out of Range (e.g. value exceeds the acceptable range)
  - 18 Data Format Error (e.g. provided data does not match required format)
  - 32 Page Not Found (e.g. page not found or requested file missing)
  - 48 Not Permitted (e.g. cannot operate on the requested station)

## 2. Get Controller Variables: <http://devip/jc>

Returned JSON variables:

- dist: distance sensor value (unit: cm)
- door: door status (binary, 1 means open, 0 means closed)
- rcnt: read count (increments every time distance sensor is read)
- fwv: firmware version
- name: device name
- mac: MAC address
- cid: WiFi chip ID

## 3. Change Controller Variables:

<http://devip/cc?dkey=xxx&click=1&reboot=1>

Parameters:

- dkey: device key (factory default device key is opendoor)
- click: trigger relay click (the timing is set by the **cdt** option)
- reboot: reboot device

Examples:

- <http://devip/cc?dkey=xxx&click=1> trigger relay click
- <http://devip/cc?dkey=xxx&reboot=1> reboot device

#### 4. Get Options: <http://devip/jo>

Returned JSON variables: (factory default values indicated in bold font)

- fwv: firmware version
- acc: access mode (**0: direct IP only**; 1: direct + cloud; 2: cloud only)
- mnt: mounting type (**0: ceiling mount**; 1: side mount)
- dth: distance threshold (unit: cm, default **50**)
- riv: read interval (unit: second, default **3**)
- alm: alarm (0: no alarm; **1: 5-second alarm**; 2: 10-second alarm)
- http: http port (default **80**)
- cdt: click delay time (unit: ms, default **1000**)
- mod: controller mode (AP: 0xA9; STA: 0x2A)
- ssid: WiFi SSID
- pass: WiFi password
- auth: cloud authorization token
- dkey: device key (default **opendoor**)
- name: device name (default **"My OpenGarage"**)

#### 5. Change Options:

<http://devip/co?dkey=xxx&nkey=xxx&ckey=xxx&opname=opvalue...>

Options:

- For the list of option names (opnames), refer to Section 4 above.
- Some option are cannot be modified through the /co command: including fwv, mod, ssid, pass, dkey. These are either read-only options, or should be set in a different way.
- To change device key, use the nkey and ckey pairs (new key, and confirm key).

Examples:

- [devip/cc?dkey=xxx&nkey=abc&ckey=abc](http://devip/cc?dkey=xxx&nkey=abc&ckey=abc) set device key to 'abc'
- [devip/cc?dkey=xxx&dth=75](http://devip/cc?dkey=xxx&dth=75) set distance threshold to 75cm
- [devip/cc?dkey=xxx&cdt=500](http://devip/cc?dkey=xxx&cdt=500) set click delay time to 500ms
- [devip/cc?dkey=xxx&auth=0123456789abcdef](http://devip/cc?dkey=xxx&auth=0123456789abcdef) set cloud authorization token
- [devip/cc?dkey=xxx&http=8080&riv=5](http://devip/cc?dkey=xxx&http=8080&riv=5) set http port to 8080 and read interval to 5 seconds

#### 6. Get Log Data: <http://devip/jl>

Returned JSON variables:

- name: device name
- time: device time (UTC epoch time)
- logs: log data - an array of log entries, each entry in the form of [time\_stamp, door\_status, distance\_value]