ZENTURA HOME

Ratgdo Garage Door Driver

Crestron Home Quick Start & Help Guide

LAN / HTTP Platform Driver | Version 2.0000.0013

DRIVER TYPE	PRODUCT FAMILY	INTEGRATION
Crestron Home Platform Driver	Ratgdo Garage Door	ESPHome HTTP REST + SSE

Prepared for dealers, integrators, and Crestron Home commissioning teams.

Zentura Home | https://zenturahome.com | support@zenturahome.com

SMART HOME DRIVER DOCUMENTATION

About Ratgdo

What it is

Ratgdo is a WiFi control board manufactured by **ratCloud LLC** that wires directly to a residential garage door opener's terminal strip and communicates over the home's local network — no cloud account or subscription required.

LOCAL NETWORK	BROAD OPENER SUPPORT	DRY-CONTACT OPTION
Live control runs on the home LAN, not through a third-party cloud service.	Compatible with virtually all residential Chamberlain and LiftMaster openers using Security+ 2.0 or Security+ 1.0 protocols.	Supports other opener brands through dry-contact control where available.

Hardware Variants

Board	Notes
Ratgdo32 DISCO	Current ESP32-based board with integrated distance sensor for discrete motion and vehicle detection. Primary validated model for this driver.
Ratgdo32	Current ESP32-based board without the DISCO sensor array.
Ratgdo v2.5	Earlier ESP8266/ESP32 board. Expected to work with this driver; not formally certified.

Boards are available at https://ratcloud.llc

Firmware Requirement

This driver requires the **ESPHome Ratgdo** firmware. It communicates with the board using the ESPHome HTTP REST API and Server-Sent Events (SSE) stream. The older MQTT-only and HomeKit firmware builds are **not** compatible — re-flash the board using the ESPHome Ratgdo web installer before pairing.

Ratgdo Resources

Resource	Link
Purchase	https://ratcloud.llc
Firmware & documentation	https://ratcloud.llc/pages/firmware
ESPHome Ratgdo web installer	https://ratgdo.github.io/esphome-ratgdo/
ESPHome Ratgdo GitHub	https://github.com/ratgdo/esphome-ratgdo
Original project site	https://paulwieland.github.io/ratgdo/

Third-Party Product Notice

Ratgdo and ESPHome Ratgdo are products of ratCloud LLC and are not affiliated with Zentura Home.

Quick Start at a Glance

1. DOWNLOAD Download the Ratgdo Garage Door driver package from https://zenturahome.com.	**2. SIDE-LOAD** Copy the .pkg to /user/ThirdPartyDrivers/Import on the processor.	**3. PAIR** In Crestron Home Setup, go to Pair Devices -> Drivers -> Platform -> Ratgdo.
4. CONFIGURE Enter license, Ratgdo IP/hostname, HTTP port, device name, polling interval, advanced tile, and logging settings.	**5. VERIFY** Save, confirm the driver connects to the Ratgdo SSE event stream, then assign the Garage Door device to the correct room.	**6. FINISH** Disable verbose/debug logging after commissioning and activate the Zentura Home license.

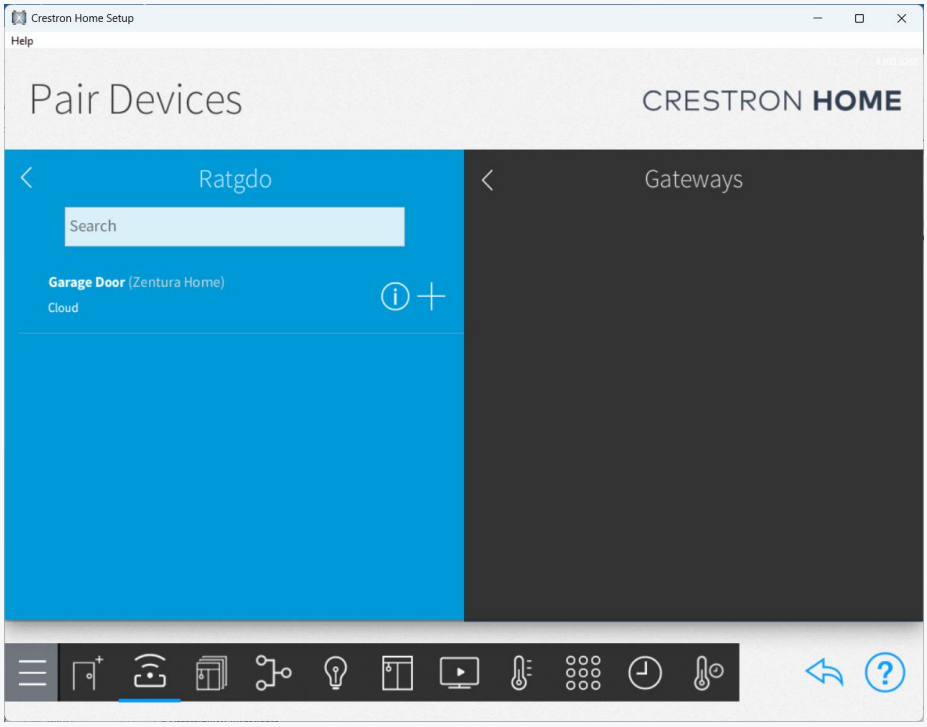
Local LAN Integration

The processor communicates directly with the Ratgdo board over the home network using HTTP REST and the SSE event stream. No cloud service is in the live control path.

Advanced Tile Layout Note

If Show Advanced Tile is enabled after the Garage Door device is already assigned to a room, remove the device from the room and re-add it so Crestron Home refreshes the tile inventory.

Driver Selection in Crestron Home Setup



Quick Reference

This summary highlights the driver behavior most likely to affect installation, commissioning, and support.

LOCAL LAN CONTROL Processor-to-Ratgdo control uses the local network over TCP/80 with HTTP REST and SSE updates.	**LICENSE REQUIRED** A 2-hour free trial starts on first run so the dealer can validate before purchasing.
REAL-TIME UPDATES Door, light, lock-remotes, obstruction, and optional sensor state arrive through the SSE event stream.	**ADVANCED TILE OPTION** A secondary gear-icon tile can expose opener Light and Lock Remotes controls when enabled before room assignment.

Version 2.0000.0013

Driver

The **Zentura Home Ratgdo Garage Door Platform Driver** is a Crestron Home **Platform** driver that integrates **Ratgdo32 / Ratgdo32 DISCO** ESP32 add-on boards running the **ESPHome Ratgdo** firmware into Crestron Home. Built on the **Crestron Drivers SDK V2 (Entity Model)**, it connects to a single Ratgdo board over the local network using the ESPHome HTTP REST API and Server-Sent Events stream, and exposes the attached garage door as a native Crestron Home **Garage Door** device with real-time state, open/close/stop control, light and lock-remotes toggles, obstruction reporting, and motion / vehicle / door-position sensors.

Notes and Recommendations

- **Local LAN integration.** The processor talks to the Ratgdo board directly over the home network — no cloud or third-party service is in the live control path.
- **Zentura Home license required.** A **2-hour free trial** starts on first run so the dealer can validate before purchasing.
- After commissioning, **disable** *Enable Debug Log File* and *Enable Verbose Logging* to avoid unnecessary writes to processor storage.
- The Ratgdo board should have a **DHCP reservation** or a static IP so the driver can reliably reconnect after power loss.
- Default polling interval is **30 seconds**; live updates arrive instantly via the Ratgdo SSE event stream, so polling exists only as a heartbeat / reconciliation fallback.
- All garage-door properties, sensors, and commands are programmable in Crestron Home **Sequences**.
- Toggling **Show Advanced Tile** after the device has been added to a room may not refresh the room layout. If the new tile does not appear, **remove the device from the room and re-add it** — Crestron Home caches the room's tile inventory at first add.

System Requirements and Dependencies

- Crestron Home processor with **Crestron Drivers SDK V2** runtime **21.0000.0000** or newer.
- A **Ratgdo32** or **Ratgdo32 DISCO** ESP32 board flashed with the **ESPHome Ratgdo** firmware, wired to a supported residential garage door opener and connected to the home's LAN.
- Local IP reachability between the processor and the Ratgdo board over TCP/80 (HTTP REST + SSE).
- Outbound **HTTPS** from the processor to `https://license.zenturahome.com` for license activation and re-check.

Validation Note

Validated on CP4-R / Crestron Home OS 4.9 with a Ratgdo32 DISCO on ESPHome Ratgdo firmware against a Chamberlain LiftMaster Security+ 2.0 opener. Expected to run on any compatible processor; configurations outside the tested environment are not certified.

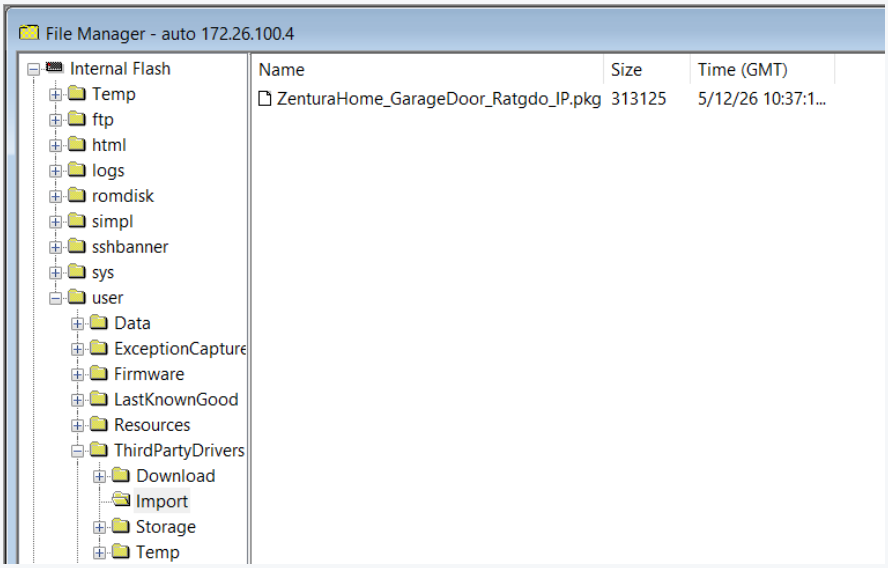
Installation/Upgrade Instructions

1. Obtain the driver package

Download `ZenturaHome_GarageDoor_Ratgdo_IP.pkg` from https://zenturahome.com.

2. Side-load the driver onto the processor

Side-Loading the .pkg File



Copy the `.pkg` file directly to `/user/ThirdPartyDrivers/Import` on the processor using Crestron Toolbox or any SFTP client.

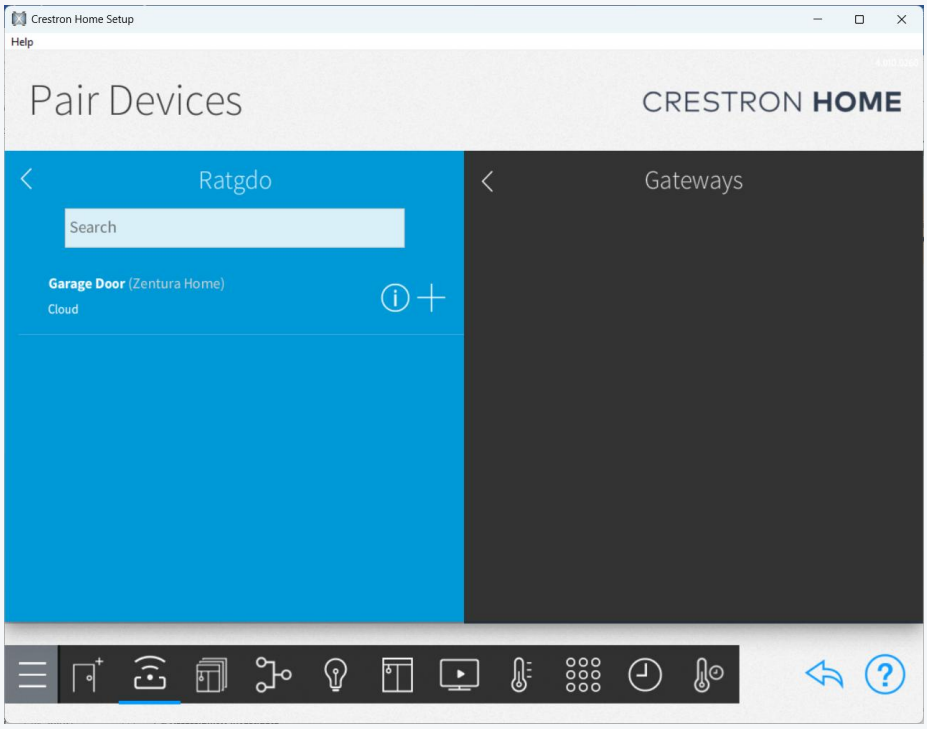
Important Note

If this is the first custom driver on the processor, refer to the current Crestron Home documentation for the exact path, or contact support@zenturahome.com.

For step-by-step side-loading instructions, see How to Install a Custom Driver on the Zentura Home support page.

3. Pair the driver in Crestron Home Setup

Pairing the Platform Driver

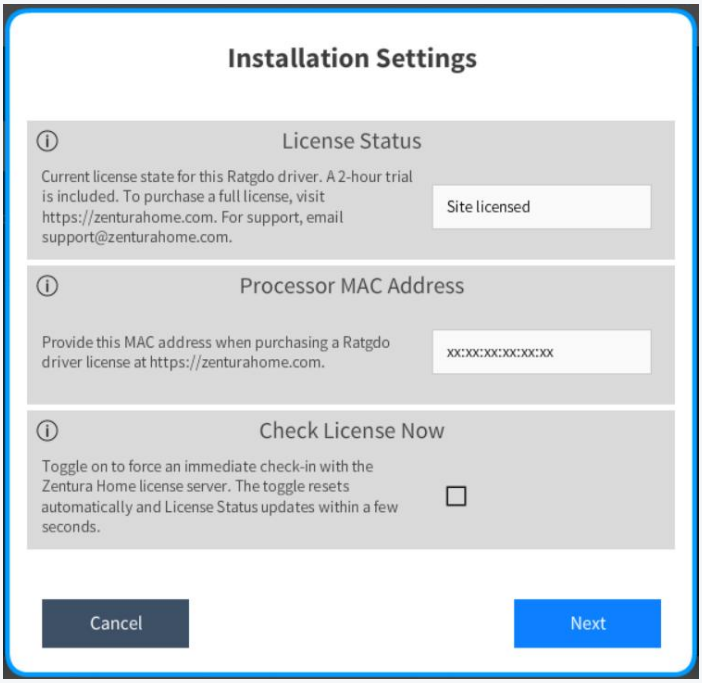


1. Open the **Crestron Home Setup** app and connect to the processor.
2. Go to **Pair Devices → Drivers → Platform → Ratgdo** and tap **+ / Add Device**.
3. Select the **Ratgdo Garage Door** driver published by **Zentura Home**.
4. Complete the three-step configuration wizard below.

4. Complete the configuration wizard

Step 1 — License

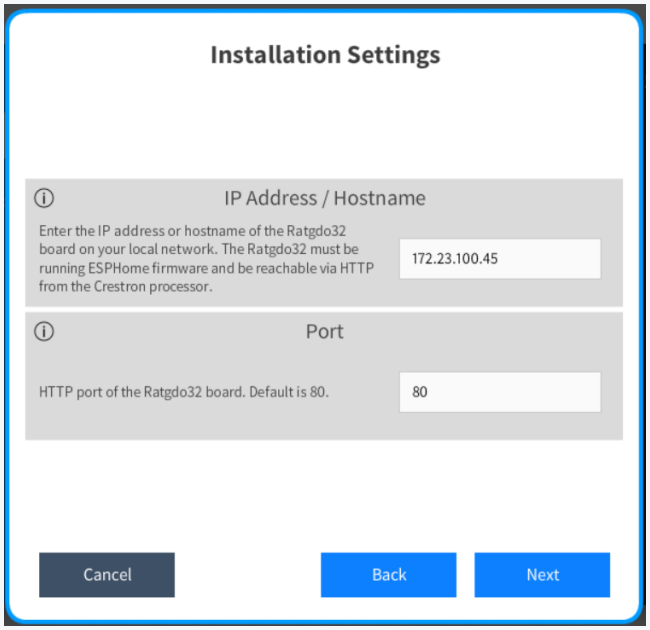
Configuration Wizard - License



Field	Action
License Status	Read-only. Shows current license state (*Trial — 1h 45m remaining*, *Licensed*, *Expired*, *Revoked*).
Processor MAC Address	Read-only. Copy this value — required when purchasing at https://zenturahome.com.
Check License Now	Toggle on to force an immediate license re-check. Resets automatically; *License Status* refreshes within seconds.

Step 2 — Connection

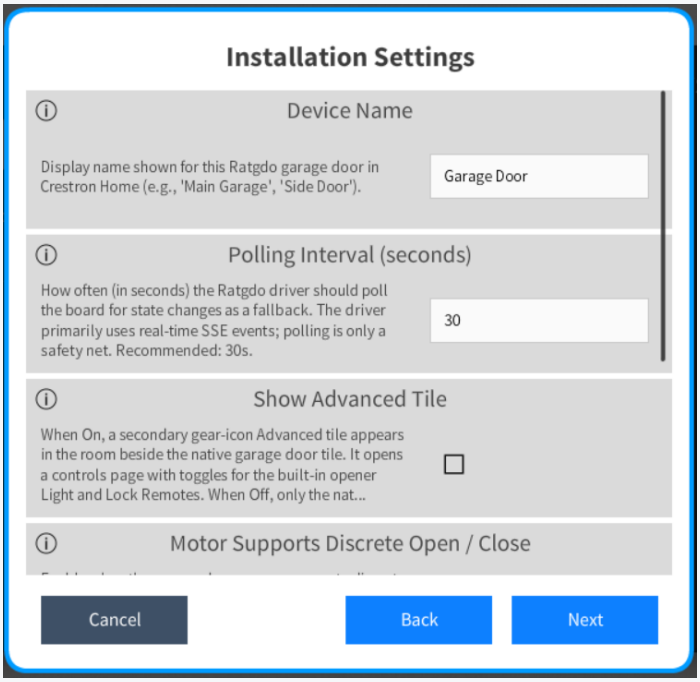
Configuration Wizard - Connection



Field	Action
Ratgdo IP Address or Hostname	Required. LAN address of the Ratgdo board (e.g. `192.168.1.42` or `ratgdo.local`).
HTTP Port	Default **80**. Change only if the Ratgdo firmware has been configured to listen on a non-standard port.

Step 3 — Settings

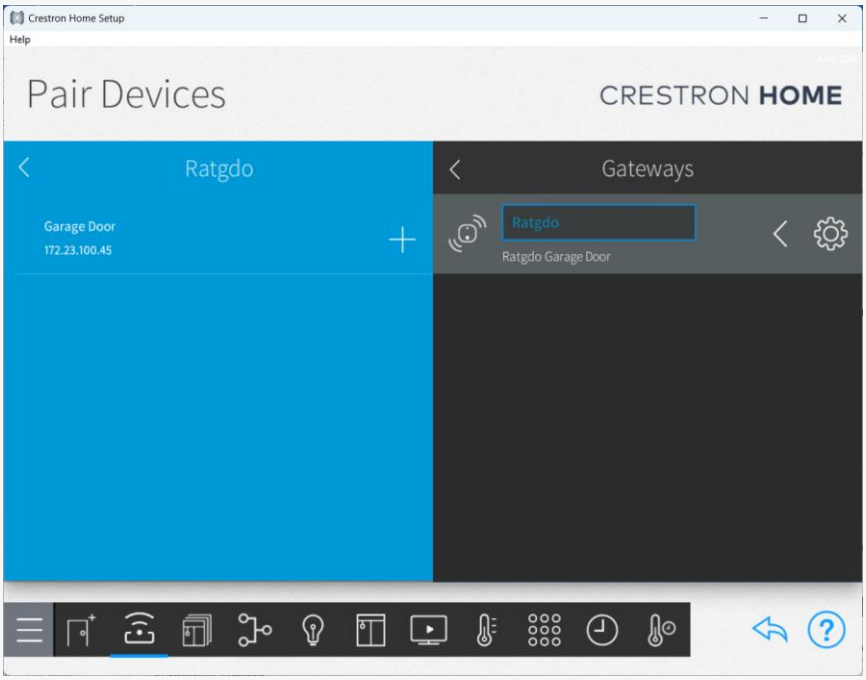
Configuration Wizard - Settings



Field	Action
Device Name	Friendly name shown in Crestron Home. Default *Garage Door*.
Polling Interval	Seconds between background state reconciliation polls. Default **30**, min **5**, max **300**.
Show Advanced Tile	When On, a secondary gear-icon tile appears beside the native garage door tile and opens a controls page for the opener Light and Lock Remotes. Default **off**.
Motor Supports Discrete Open/Close	Enable for openers that support discrete Open and Close commands (most Chamberlain / LiftMaster Security+ 2.0). When off, the driver uses Toggle.
Enable Verbose Logging	Writes detailed diagnostic messages to the Crestron error log. Use only while troubleshooting. Default **off**.
Enable Debug Log File	Writes log output to `/user/Data/ThirdParty/ZenturaHome/ratgdo-driver/debug.log`. Auto-rotates at 512 KB. Default **off**.

5. Save and verify

Garage Door Device Discovery



After saving, the driver connects to the Ratgdo board, subscribes to its SSE event stream, and registers the garage door as a child **Garage Door** device ready to be assigned to a room. The first event burst populates door state, light, lock remotes, obstruction, and any optional sensors (motion / vehicle / door position).

Upgrading from an earlier version

1. Download the new `.pkg` from https://zenturahome.com.
2. Overwrite the existing `.pkg` in `/user/ThirdPartyDrivers/Import`.
3. Existing configuration and license activation are preserved.
4. Reboot the processor if Crestron Home does not pick up the new version automatically.

Licensing and Trial

The driver requires an active Zentura Home license tied to the **Crestron Home processor's MAC address**.

Trial period

- **Duration:** 2 hours of full functionality from first run.
- **During trial:** all features work — open / close / stop, light, lock remotes, sensors, Sequences.
- **After expiry:** state monitoring continues, but all write/control commands are blocked until a license is activated. *License Status* shows *Expired*.

License tiers

Tier	What it covers
Individual License	This driver on **one** processor. One-time purchase, lifetime updates.
Site License	**All Zentura Home drivers** (current and future) on **one** processor. One-time purchase, lifetime updates. Recommended when multiple Zentura Home drivers are in use.

Both tiers are per-processor and non-transferable. Multi-processor projects require one license per processor. See https://zenturahome.com/terms-of-service.

How to purchase and activate

1. Copy the **Processor MAC Address** from the *License* wizard step.
2. Go to https://zenturahome.com/drivers and complete checkout. The License Key is activated immediately.
3. The driver picks up the activation automatically within 24 hours. For an immediate refresh, toggle **Check License Now** — *License Status* changes to *Licensed*.

Dealer-Facing Programmability

The garage door exposes the following as **conditions**, **triggers**, and **actions** in Crestron Home Sequences:

- **Door** — `Door State` (Closed / Opening / Open / Closing / Stopped), `Open`, `Close`, `Stop`
- **Light** — `Light Is On`, `Turn Light On`, `Turn Light Off`
- **Lock Remotes** — `Lock Is Locked`, `Lock Remotes`, `Unlock Remotes` (disables the wireless remotes / wall buttons)
- **Obstruction** — `Obstruction Detected` (True / False)
- **Motion Sensor** — `Motion Detected` (when the Ratgdo board exposes it)
- **Vehicle Sensor** — `Vehicle Present`, `Vehicle Arriving`, `Vehicle Leaving` (DISCO models only)
- **Door Position** — `Door Position %` (0–100, when supported by the opener)
- **Status** — `Is Online`, connectivity warnings

Example uses: turn on driveway lighting on *Opening*; alert when door remains *Open* longer than X minutes; lock remotes overnight on a schedule.

End-User Experience

The garage door appears as a native Crestron Home **Garage Door** device in its assigned room. The consumer app and touch panels show the standard garage door tile with:

- **Open / Close / Stop** action
- **Door state** (Closed / Opening / Open / Closing / Stopped), updated in real time
- **Obstruction warning** when the opener reports an obstruction

When *Show Advanced Tile* is enabled, a secondary gear-icon tile appears in the room. Opening it presents an *Advanced* controls page with toggles for the opener **Light** and **Lock Remotes**. The native garage door tile is a fixed Crestron Home surface; light and lock-remote controls are only accessible through the Advanced tile or Sequences.

Note

Adding or removing the Advanced tile after the device is already in a room may require re-pairing — Crestron Home builds the room's tile inventory when the device is first added.

Limitations / Known Issues

- **Single garage door per driver instance.** Add one driver per Ratgdo board. Multi-door installations require multiple driver instances.
- **LAN-only.** Loss of LAN connectivity between the processor and the Ratgdo board prevents control. The opener continues to work via its native wall button and wireless remotes.
- **Real-time updates depend on SSE.** If the SSE stream drops, state is reconciled at the polling interval until the stream reconnects.
- **Show Advanced Tile is evaluated at room-add time.** Toggling after the device is placed in a room may not refresh the room layout — remove and re-add the device if the new tile does not appear.
- **Door-position percentage** is only reported when the Ratgdo firmware and opener combination supports it. Otherwise only discrete door states are reported.
- **Native garage door tile is fixed.** Light, lock-remotes, and sensor surfaces cannot be added to the native consumer-app garage door tile by any Garage Door-category driver — they live on the optional Advanced tile or in Sequences.
- **No sync-rolling-codes button.** Initial pairing of the Ratgdo board to the opener is handled outside the driver, via the Ratgdo board's own physical button or its ESPHome web UI.

Supported Features

- **Real-time state** over Server-Sent Events: door, light, lock remotes, obstruction, motion, vehicle, door position
- **Garage door control** — Open / Close / Stop (discrete or toggle, configurable)
- **Light control** — On / Off
- **Lock Remotes control** — Lock / Unlock (disables / re-enables the opener's wireless remotes and wall buttons)
- **Obstruction reporting** — surfaced as a native Garage Door property
- **Optional sensors** — motion, vehicle (DISCO), door position percentage
- **Device rename** — name changes flow into Crestron Home
- **Device info** — manufacturer, model, firmware version reported by the Ratgdo board
- **Online / Offline** — based on SSE stream health and HTTP reachability
- **Background polling** — 5–300 s, default 30 s
- **Optional Advanced tile** — secondary in-room tile for Light and Lock Remotes (default off)
- **Sequences** — all door, light, lock, obstruction, and sensor properties available as triggers, conditions, and actions
- **Licensing** — 2-hour trial, cloud activation, Check License Now
- **Diagnostics** — verbose logging to the Crestron error log + optional debug log file (auto-rotates at 512 KB)

Test Environment

- **Crestron Home OS** 4.9
- **Crestron CP4-R**
- **Crestron Drivers SDK V2** v26.0000.0025
- **Ratgdo32 DISCO** board with ESPHome Ratgdo firmware
- **Chamberlain LiftMaster** Security+ 2.0 opener
- **Zentura Home** license server (`https://license.zenturahome.com`)
- **.NET Framework 4.7.2**

Supported Models

Model	Product	Notes
Ratgdo32 DISCO	ESP32 add-on board with discrete sensors	Primary validated model
Ratgdo32	ESP32 add-on board	Supported
Ratgdo v2.5	ESP8266 board	Expected to work via ESPHome Ratgdo firmware; not certified

Note

The driver targets the **ESPHome Ratgdo** firmware HTTP REST + SSE API. Boards running the older `ratgdo-esphome` Home Assistant-only firmware build are not supported — re-flash with the ESPHome Ratgdo build first.

Contact Information

Zentura Home

Website: https://zenturahome.com

Support: support@zenturahome.com

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https://zenturahome.com | support@zenturahome.com