Control Programming LLC

Release Notes

CPLLC Logic Motion Buffer

Version 5.00 · November 24, 2026

Product	CPLLC Logic Motion Buffer (Crestron Home extension)
Version	5.00
Release date	November 24, 2026
Where to find it	Drivers › Logic › Control Programming LLC › Motion Buffer
Requires	Crestron Home OS 4.12 or later, and an occupancy sensor (or anything else that can run a quick action)
Licensing	A Motion Buffer license key (cpllc.net/product/motion-buffer), a CPLLC Toolkit license key (cpllc.net/product/toolkit-license) or a CPLLC site license key (cpllc.net/product/site-license), entered in the extension's Enter License Key, or a Toolkit or site license key once in the CPLLC License Manager

Overview

The CPLLC Logic Motion Buffer sits between an occupancy sensor and the things the sensor is meant to control. The sensor reports Occupied and Vacant to the Motion Buffer; while the Motion Buffer is enabled it passes each report on as its own Occupied or Vacant event, whose sequences turn the lights (or anything else) on and off. While it is disabled, it passes nothing on, so the room ignores the sensor. Crestron Home lets a sensor's events run only a quick action, not a sequence, so two small quick actions per sensor, one for Occupied and one for Vacant, carry its reports to the Motion Buffer.

That makes motion control something you can switch off and on. The classic use: someone turns the lights on or off by hand at a keypad, and the motion sensor should stop fighting them until they are done. A keypad press disables the Motion Buffer, the sensor is ignored, and another press (or a schedule, or any sequence) enables it again. Touching the Motion Buffer's tile in the Crestron Home app does the same.

> **Why quick actions? Crestron Home only lets a sensor run a quick action**

> In Crestron Home, an occupancy sensor's Occupancy and Vacancy events, and a keypad button's press, can only run a quick action: they cannot run a sequence directly. So a sensor cannot call the Motion Buffer's Occupancy and Vacancy actions by itself. For each sensor you create two quick actions, one for Occupied (running the Motion Buffer's Occupancy action) and one for Vacant (running its Vacancy action), and point the sensor's events at them. The Motion Buffer's own Occupied and Vacant events are not limited this way: they run full sequences. "Setting It Up, Step by Step" below walks through it.

How It Works

A report from the sensor travels through four links. Only the last one, the Motion Buffer's event, does real work; the rest carry the report to it.

Link	Where it is set up	What it does
1. The sensor's event	The occupancy sensor's Occupancy / Vacancy event, Mode Quick Actions	Runs the quick action you picked: Motion Occupied or Motion Vacant.
2. The quick action	Quick Actions › Motion Occupied / Motion Vacant, Mode Sequence	Runs one step: the Motion Buffer's Occupancy (or Vacancy) action.
3. The Motion Buffer	Nothing to set up	Enabled: raises its Occupied (or Vacant) event and shows Occupied (or Vacant) on its tile. Disabled: does nothing.
4. The Motion Buffer's event	The Motion Buffer's Occupied / Vacant event, Mode Sequence	Your sequence: lights on, lights off, a scene, shades, music, anything a sequence can do.

Enabling and disabling decide whether link 3 passes the report on. They are switched by touching the tile, or by the Extension Enable and Extension Disable actions from any sequence or quick action (a keypad button, a schedule, a scene, another driver's event). The choice is saved, so after a restart the Motion Buffer comes back enabled or disabled as it was.

Capabilities

Capability	What it does
Passes motion on while enabled	Each Occupancy and Vacancy it receives runs its Occupied or Vacant event at once, every time, including repeats.
Blocks motion while disabled	Occupancy and Vacancy are ignored: no event runs, so the lights stay as they are.

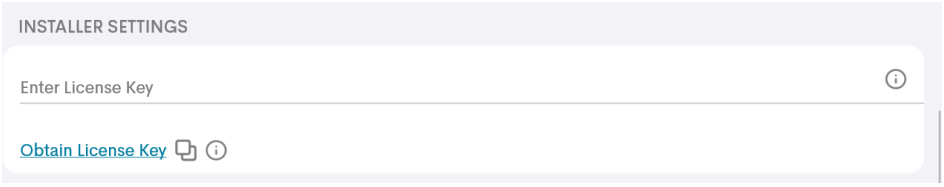
Capability	What it does
Enable and disable from anywhere	Extension Enable and Extension Disable are sequence actions (keypads, schedules, scenes, other drivers' events), and Extension Enabled and Extension Disabled are events, so other sequences can follow it.
Tile on and off	Touching the tile switches between enabled and disabled. The tile has no control page.
Shows what it is doing	Enabled, the tile shows a green icon and the sensor's last report (Occupied or Vacant; Enabled before the first). Disabled, it shows a red icon and Disabled, so a glance tells whether the sensor is in charge.
Remembers its state	Enabled or disabled is saved and comes back after the processor or the extension restarts.
Any number of sensors	Every sensor whose quick actions point at it feeds the same Motion Buffer; add a second Motion Buffer for an area that must be switched on its own.

What's New in 5.00

- A sequence's If (Conditional) step can now test this state: Extension Is Enabled. Crestron Home also lists a "Changed" event for each, raised whenever it changes.
- A CPLLC Toolkit license key, one key per processor for every CPLLC toolkit product, now licenses this extension too, entered in its Enter License Key or once in the CPLLC License Manager.
- Installing asks one page fewer: the closing "CPLLC License Manager" page is gone, since the License Manager is not required. A copy that is already installed keeps the page in its settings; nothing else changes on an upgrade.
- Rewritten for Crestron Home's current driver framework on the CPLLC 5.0 shared libraries; the same Occupancy and Vacancy actions and Occupied and Vacant events as the earlier (2.00) Motion Buffer.
- Enable and Disable are now the Extension Enable and Extension Disable actions, with the Extension Enabled and Extension Disabled events, the same as every other CPLLC extension.
- The tile shows a green icon and the sensor's last report (Occupied or Vacant) while enabled, and a red icon and Disabled while disabled.
- Its own license key, or a CPLLC site license key, licenses the extension by itself, so the CPLLC License Manager is no longer required; it is still the convenient place to enter a site license key once for every CPLLC driver.
- Invert Signal is gone: it only showed the opposite of the Motion Buffer's state on the tile, and never changed what the Motion Buffer did.
- Show on Home Page is gone: Crestron Home does not let a Home screen tile be touched, and touching the tile is how it is switched on and off. The tile is on the Room screen.
- Its actions and events are new to Crestron Home, so quick actions and sequences set up for the earlier Motion Buffer have to be set up again (see "Setting It Up, Step by Step").

Installing

Add it from Drivers › Logic › Control Programming LLC › Motion Buffer to the room whose sensor it buffers, give it a name, and enter its license key (or leave it blank on a site with a CPLLC site license). The CPLLC License Manager is not required. A new Motion Buffer starts enabled.



The Motion Buffer's installer options

Installer Options

Option	Description
Obtain License Key	Opens the Motion Buffer's page on CPLLC.net, where license keys and site licenses can be purchased.
Enter License Key	The Motion Buffer license key. Leave blank when the site has a CPLLC Toolkit or site license.

That is all: the Motion Buffer has no other settings. What it controls is decided by the sequences on its events.

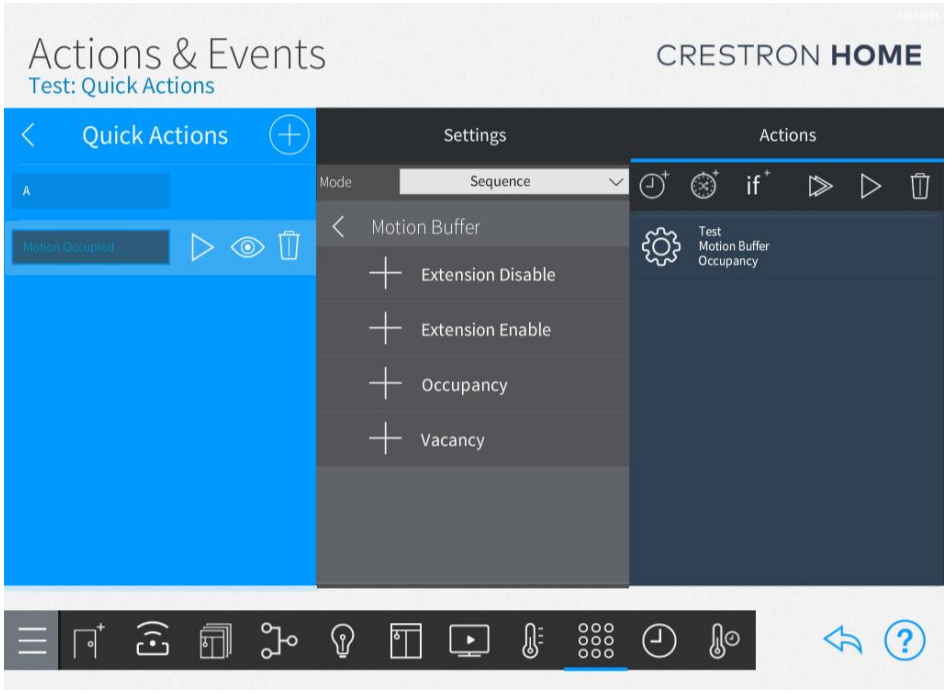
Setting It Up, Step by Step

The example below is the most common set-up: a room's occupancy sensor turns the lights on and off, and a keypad's ON and OFF buttons take over by hand. Everything is on Configure Pro's Actions page, under the room. Names such as "Motion Occupied" are only suggestions; use any names you like.

Step	What to do
1. Add the Motion Buffer	Add it to the room (see Installing). Its tile reads Enabled.
2. Quick action for Occupied	Quick Actions › + › name it "Motion Occupied" › Mode Sequence › the room › Motion Buffer › + on Occupancy. Its only step is "Motion Buffer Occupancy".
3. Quick action for Vacant	Quick Actions › + › "Motion Vacant" › Mode Sequence › the room › Motion Buffer › + on Vacancy. Its only step is "Motion Buffer Vacancy".
4. Hide both	Touch the eye beside each in the Quick Actions list, so they don't show as buttons in the app's Actions: they are only there to carry the sensor's reports.
5. Point the sensor at them	Open the occupancy sensor's events. Occupancy › Mode Quick Actions › the room › Motion Occupied. Vacancy › Mode Quick Actions › Motion Vacant. If the sensor has Grace Occupancy, point it at Motion Occupied too (or leave it None).

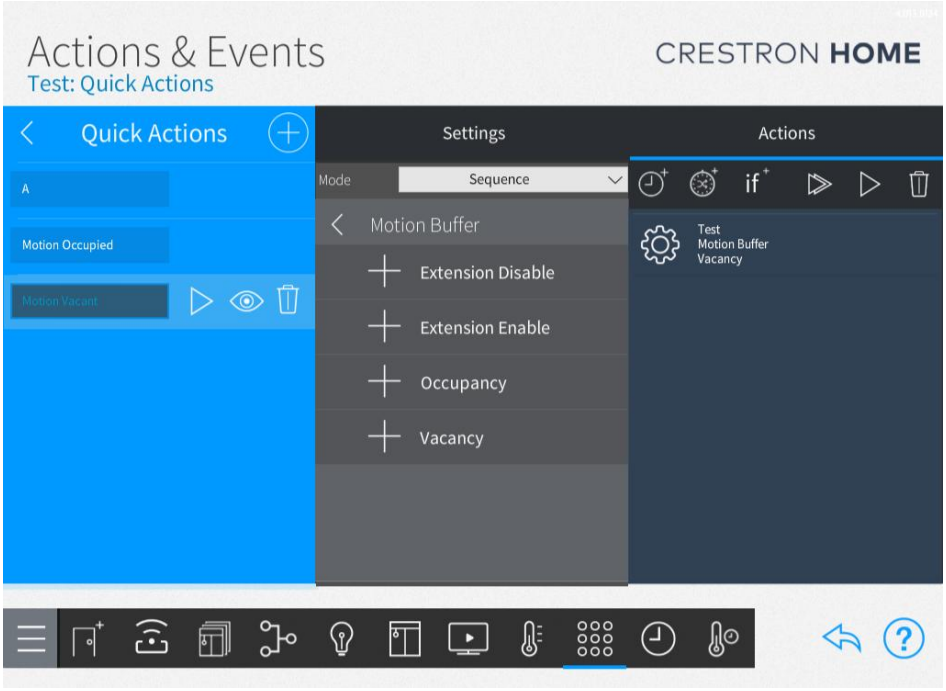
Step	What to do
6. Do the work on the Motion Buffer's events	Open the Motion Buffer's events. Occupied › Mode Sequence › the steps for someone arriving (lights on, a scene …). Vacant › Mode Sequence › the steps for the room emptying (lights off …).
7. Decide what switches it	Keypad buttons can only run quick actions too, so make "Motion Enable" (one step, Motion Buffer Extension Enable) and "Motion Disable" (Extension Disable), hide them, and give them to the keypad: in this example ON runs Motion Disable (the person has taken over) and OFF runs Motion Enable (the sensor takes over again). Add the light steps you want the buttons to do in the same quick actions.
8. Test it	Walk in: the lights follow the sensor and the tile shows Occupied. Press ON: the tile turns red and shows Disabled, and the sensor no longer touches the lights. Press OFF: the tile turns green, and the sensor is back in charge.

Step 2: the quick action that carries Occupied to the Motion Buffer.



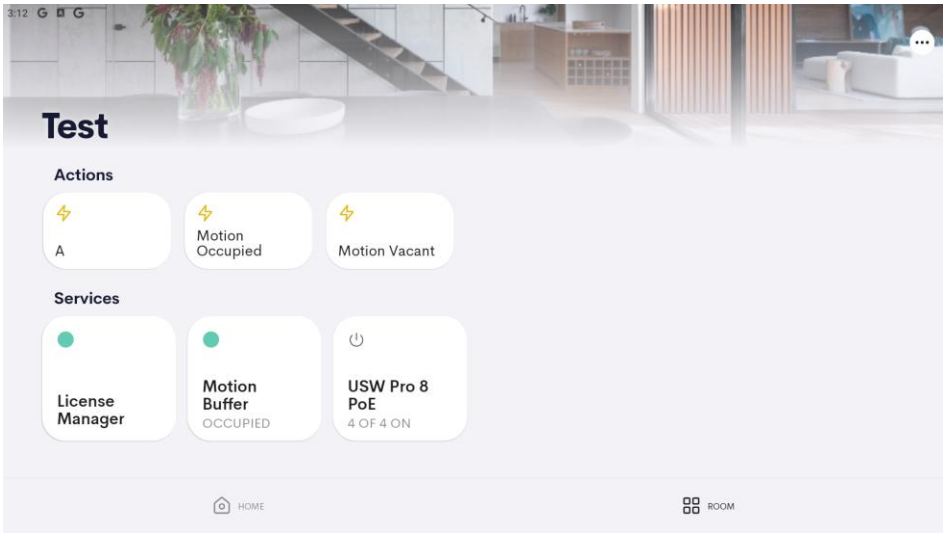
"Motion Occupied": Mode Sequence, one step, Motion Buffer Occupancy

Step 3: the same for Vacant.



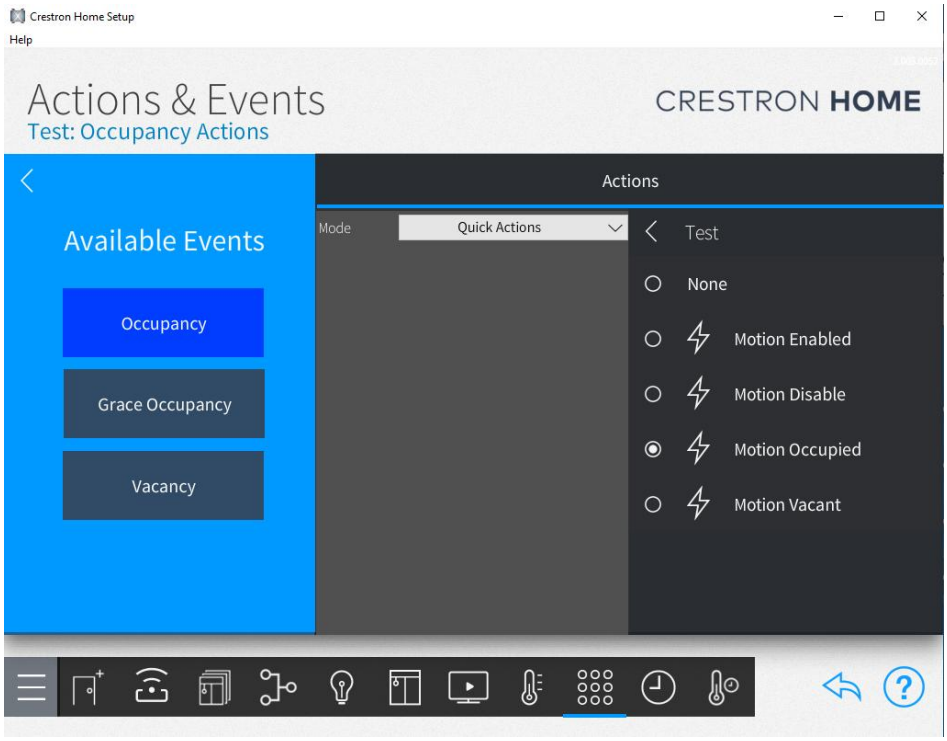
"Motion Vacant": Mode Sequence, one step, Motion Buffer Vacancy

Step 4: until they are hidden, quick actions show as buttons in the room's Actions in the app, where a touch would act as if the sensor had reported. Hide them with the eye beside each in Setup's Quick Actions list.



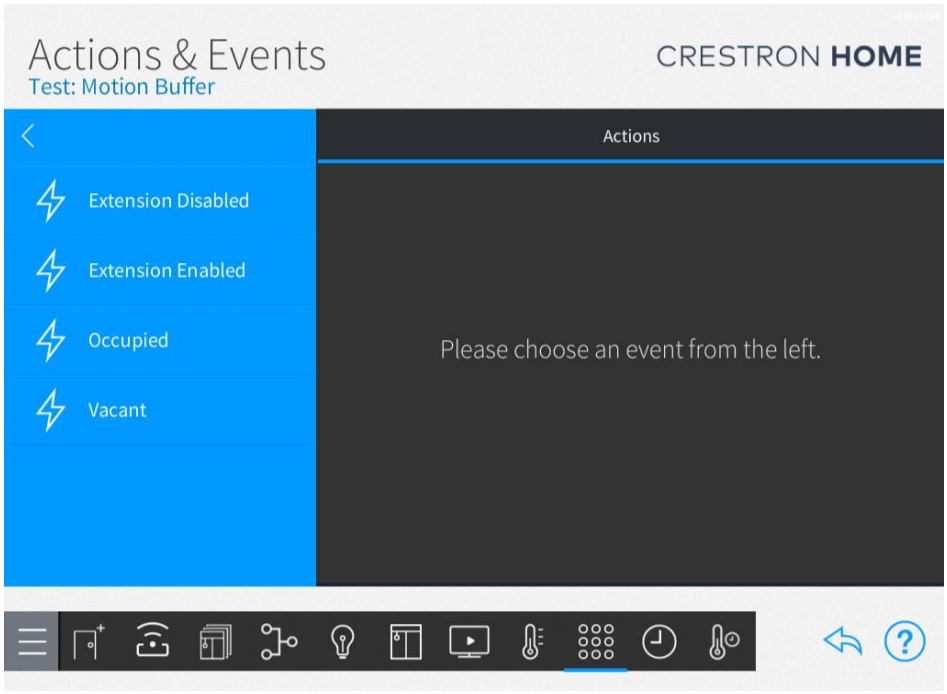
Motion Occupied and Motion Vacant not hidden yet: they show under Actions

Step 5: the sensor's Occupancy event can only pick a quick action (Mode Quick Actions). Pick Motion Occupied; its Vacancy event gets Motion Vacant. (Shown from an earlier version of Setup; the screen is the same.)



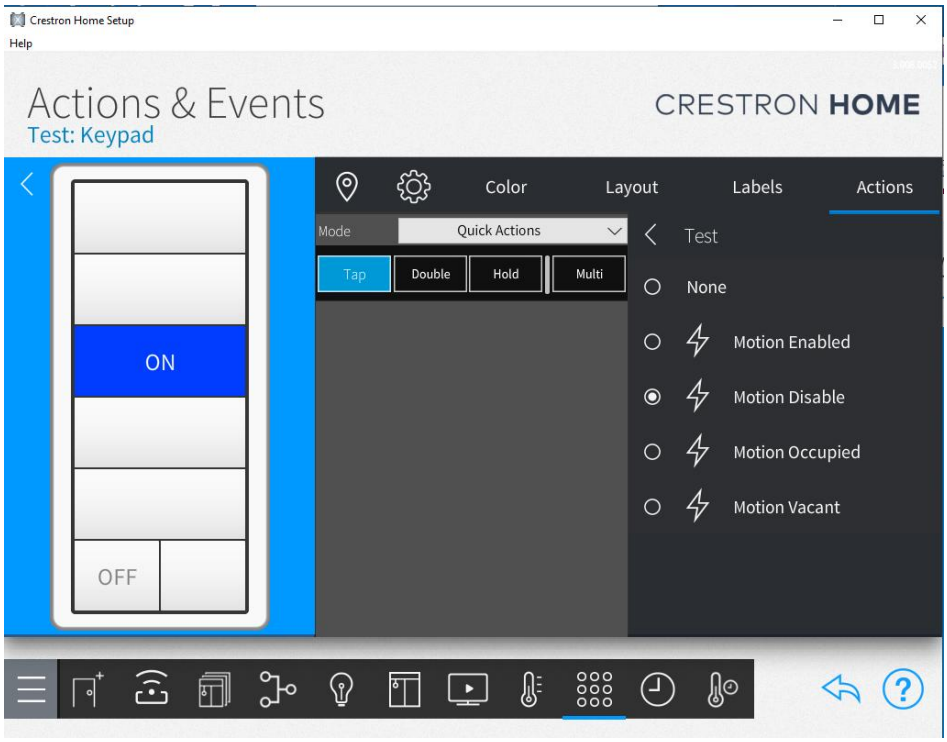
An occupancy sensor's Occupancy event, pointed at the Motion Occupied quick action

Step 6: the Motion Buffer's own events run sequences, so the real work goes here.



The Motion Buffer's events: put a sequence on Occupied and on Vacant

Step 7: a keypad button, like the sensor, can only run a quick action. Here ON runs a quick action holding Motion Buffer Extension Disable. (Shown from an earlier version, where the quick actions were named Motion Enabled and Motion Disable.)



A keypad's ON button running the quick action that disables the Motion Buffer

More Ways to Use It

Situation	Set-up
Manual override at a keypad	The example above: ON disables the Motion Buffer and turns the lights on, OFF turns them off and enables it, so the sensor takes over again once the person has left.
Movie night or a party	A scene or quick action that dims the lights also runs Extension Disable, so moving around doesn't change them; the "all off" at the end runs Extension Enable.
Only at night (or only by day)	Two scheduled events: Extension Enable at sunset and Extension Disable at sunrise (or the other way round).
Cleaners or guests	A button in the app (a visible quick action) or a touch on the tile disables it while they are there.
Several sensors, one area	Point every sensor's events at the same two quick actions; one Motion Buffer switches all of them.
Lights follow the sensor only while someone is home	Your security or away sequences run Extension Disable on leaving and Extension Enable on returning.

Sequences

The Motion Buffer adds these actions to Crestron Home sequences and quick actions.

Action	Description
Occupancy	The sensor saw someone. Enabled, the Motion Buffer runs its Occupied event and shows Occupied; disabled, it does nothing.
Vacancy	The sensor reports the room empty. Enabled, the Motion Buffer runs its Vacant event and shows Vacant; disabled, it does nothing.
Extension Enable	Enables the Motion Buffer: Occupancy and Vacancy are passed on again. Does nothing when it is already enabled.
Extension Disable	Disables the Motion Buffer: Occupancy and Vacancy are ignored until it is enabled. Does nothing when it is already disabled.

It reports these events, under its name in Customize Actions & Events.

Event	Description
Occupied	Occupancy arrived while the Motion Buffer was enabled. Put the sequence for someone arriving here.
Vacant	Vacancy arrived while the Motion Buffer was enabled. Put the sequence for the room emptying here.
Extension Enabled / Extension Disabled	The Motion Buffer was enabled or disabled, from the tile or an action. Each also runs once when the extension starts, for the state it comes back in.
Extension Is Enabled Changed	Crestron Home's own event for each of the states a sequence can test, raised whenever that state changes.

A sequence's If (Conditional) step can test these states:

State	Description
Extension Is Enabled	True while the extension is enabled, False while it is disabled.

End-User Experience

While the Motion Buffer is enabled, the tile shows a green icon and the sensor's last report as its status (Enabled until the first report since it started). While it is disabled, it shows a red icon and Disabled. Touching it switches between the two. It has no control page.



Enabled *Occupied* *Vacant* *Disabled* *License Expired*

Without a valid license key or a CPLLC site license, the extension runs for a two-hour grace period after it starts; then it shows License Expired with an alert icon, and ignores Occupancy, Vacancy and touches on the tile. Entering a valid key, or adding a site license, clears it without a restart.

Known Limitations

- Crestron Home lets an occupancy sensor's events and a keypad button run only a quick action, not a sequence, so each sensor needs its own pair of quick actions (Occupied and Vacant), and each keypad button that switches the Motion Buffer needs one too.
- The Motion Buffer reads and controls no hardware by itself: it only passes reports on. What happens is up to the sequences on its events.
- Enabling it does not replay the sensor's last report: the lights stay as they are until the sensor next reports. Add the steps you want to the quick action that enables it (for example, lights off when the keypad's OFF enables it).
- With several sensors feeding one Motion Buffer, every report is passed on: one sensor's Vacancy runs Vacant even while another still sees someone. Use the sensors' own grouping in Crestron Home, or one Motion Buffer per sensor, when that matters.
- The tile is not shown on the Home screen: Crestron Home does not allow a Home screen tile to be touched to switch it.
- The sensor's last report shown on the tile is not saved: after a restart the tile reads Enabled until the next report.

Test Environment

Crestron Home 4.013.0134 on a DIN-AP4-R, set up with Configure Pro 4.12 and used from the Crestron Home app on Android. Adding the extension from Drivers › Logic, the Motion Occupied and Motion Vacant quick actions, Occupied and Vacant passed on while enabled and ignored while disabled, enabling and disabling from the tile, the saved state after an upgrade and a reload, License Expired (reports and tile touches ignored) and licensing again without a restart were checked on the processor. The occupancy sensor and keypad set-up screens are

from the earlier version's notes; the lab processor has no occupancy sensor, so the sensor's reports were sent by running the quick actions.

Version History

Date	Version	Changes
2026-11-21	5.00	States for a sequence's If (Conditional) step, each with a Changed event
2026-11-17	5.00	Licensed by a CPLLC Toolkit license key too
2026-11-12	5.00	Installing no longer shows the closing CPLLC License Manager page
2026-11-08	5.00	Rewritten for the current Crestron Home driver framework on the CPLLC 5.0 shared libraries; Extension Enable / Disable; the tile shows the sensor's last report, with a green icon while enabled and a red one while disabled; the License Manager is no longer required; Invert Signal and Show on Home Page removed
2023-04-04	2.00	Added required Crestron driver JSON fields
2022-07-27	2.00	Converted to the License Manager
2021-04-05	1.01	Saved the enable / disable state across reboots and power failures
2021-03-27	1.01	Initial release

Support

CPLLC Site License

A CPLLC site license is one key per processor, entered in the License Manager, that licenses every CPLLC extension and platform on that processor, current and future, so no product needs a key of its own. See the Site License page. Customers who already own CPLLC license keys can upgrade to a site license on the CPLLC website for the difference.

CPLLC Toolkit License

A CPLLC Toolkit license is one key per processor that licenses every CPLLC toolkit product on that processor (the UI tiles and lists, virtual devices, Wildcards, Logic and the other toolkit products), entered once in the License Manager or in any one of them. See the Toolkit License page. A site license already includes it, and a Toolkit license can be upgraded to a site license on the CPLLC website for the difference.

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Product page	https://cpllc.net/product/motion-buffer/

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