Control Programming LLC

Release Notes

CPLLC Serial Strings Display

Version 5.00 · November 17, 2026

Product	CPLLC Serial Strings Display (Crestron Home extension)
Version	5.00
Release date	November 17, 2026
Where to find it	Drivers → Flat Panel Display → Control Programming LLC → Serial Strings
Requires	Crestron Home OS 4.12 or later, and a processor COM port
Licensing	A Serial Strings Display license key (cpllc.net/product/serial-strings-display), 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 Serial Strings Display brings any RS-232 controlled display into Crestron Home as a Flat Panel Display. The installer types the display's own command for each function, and the driver sends it out of a processor COM port. Nothing is read back: the driver keeps the power, input, volume and mute it last sent.

It replaces the Serial Strings Display Dynamic Driver 1.00, with the same commands and installer option names.

Capabilities

Capability	What it does
Power	On, off and toggle from Crestron Home: sends the Power On or Power Off string.
Inputs	HDMI 1 to HDMI 4, each routable to the screen; selecting one sends the Input 1 to Input 4 string. It starts on HDMI 1.

Capability	What it does
Volume and mute	Volume up and down send the Volume Plus and Volume Minus strings: a tap sends one, a held button repeats it every quarter second until released. Mute and unmute send Mute On and Mute Off, toggle mute Mute Toggle. Volume up or down also clears mute.
Command strings	Each string is sent exactly as typed, with nothing added after it, so it includes the display's own line ending. Any byte can be typed as \xNN in hex: \x0D is a carriage return, \x0A a line feed, \x00 a zero byte. A string left blank sends nothing.
Serial port	Any COM port on the processor, at 9600 baud, 8 data bits, no parity, 1 stop bit.
Live debug	Debug output, every string sent in hex included, turns on and off while the processor runs.

What's New in 5.00

- 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.
- Rebuilt on the Crestron Home device model (Entity Model): Crestron Home 4.12 and later controls it with its own controls, scenes and sequences, and routes sources through it.
- Any byte can be typed in a command string as \xNN.
- The command defaults are in one style (POWER ON, INPUT 1, VOL PLUS, MUTE TOGGLE ...). They are placeholders: enter the display's own commands when the driver is added.
- A held volume button repeats Volume Plus or Volume Minus until it is released.
- Its own license key, or a CPLLC site license key, licenses the extension by itself; the CPLLC License Manager is not required, but is the convenient place to enter a site license key once for every CPLLC driver.

Installing

Load the package on the processor, then add it from Drivers → Flat Panel Display → Control Programming LLC → Serial Strings, name it and put it in a room. The first page asks for the COM port the display is cabled to; the next for its license key (leave it blank on a site with a CPLLC site license) and the display's command for each function, from its RS-232 protocol document.

Then wire it in Configure Pro's Routing as it is cabled: each HDMI input takes the source or receiver output plugged into it, and Room Video and Room Audio go to its room.

Installer Options

Option	Description
COM Port	The processor COM port the display is cabled to (9600 baud, 8 data bits, no parity, 1 stop bit).
Obtain License Key	Opens CPLLC.net, where license keys and site licenses can be purchased.
Enter License Key	The Serial Strings Display license key. Leave blank when the site has a CPLLC Toolkit or site license.
Power On	The string sent for Power On (default POWER ON). Leave blank to send nothing.
Power Off	The string sent for Power Off (default POWER OFF). Leave blank to send nothing.
Input 1	The string sent for Input 1 (default INPUT 1). Leave blank to send nothing.
Input 2	The string sent for Input 2 (default INPUT 2). Leave blank to send nothing.
Input 3	The string sent for Input 3 (default INPUT 3). Leave blank to send nothing.
Input 4	The string sent for Input 4 (default INPUT 4). Leave blank to send nothing.
Volume Minus	The string sent for Volume Minus (default VOL MINUS). Leave blank to send nothing.
Volume Plus	The string sent for Volume Plus (default VOL PLUS). Leave blank to send nothing.
Mute Toggle	The string sent for Mute Toggle (default MUTE TOGGLE). Leave blank to send nothing.
Mute On	The string sent for Mute On (default MUTE ON). Leave blank to send nothing.
Mute Off	The string sent for Mute Off (default MUTE OFF). Leave blank to send nothing.

Commands

Each command sends the string entered in its installer option. The defaults are placeholders: replace each with the display's own command, line ending included (for example POWR1\x0D).

Command	Default string	Sent when
Power On	POWER ON	Power on (or toggle while off)
Power Off	POWER OFF	Power off (or toggle while on)
Input 1	INPUT 1	HDMI 1 is selected

Command	Default string	Sent when
Input 2	INPUT 2	HDMI 2 is selected
Input 3	INPUT 3	HDMI 3 is selected
Input 4	INPUT 4	HDMI 4 is selected
Volume Minus	VOL MINUS	Volume down, repeated while held
Volume Plus	VOL PLUS	Volume up, repeated while held
Mute Toggle	MUTE TOGGLE	Toggle mute
Mute On	MUTE ON	Mute
Mute Off	MUTE OFF	Unmute

Crestron Home itself unmutes before every volume change, so each Volume Plus or Volume Minus is preceded by the Mute Off string (a held button gets one before its repeats). Leave Mute Off blank if the display would toggle mute on it. Crestron Home also sends an input change twice, so each Input string goes out twice in a row: a command that toggles rather than selects would undo itself.

Sequences

The Flat Panel Display uses Crestron Home’s own controls in sequences and scenes; it adds no actions or events of its own.

End-User Experience

It has no CPLLC tile or page of its own: Crestron Home’s own user interface draws it and controls everything, as it does for any Flat Panel Display, from its media controls in the room, scenes and sequences.

Without a valid license key or a CPLLC site license, it runs for a two-hour grace period after it starts; then it goes offline and sends nothing. Entering a valid key, or adding a site license, brings it back without a restart.

Known Limitations

- Needs Crestron Home 4.12 or later, the first version that draws a Flat Panel Display from a driver itself.
- The COM port runs at 9600 baud, 8 data bits, no parity, 1 stop bit only.
- Bytes are typed only as \xNN; other escapes such as \r or \u0000 are sent as typed.
- No feedback: the power, input, volume and mute Crestron Home shows are what the driver last sent, not what the display reports. The volume level is the driver’s own count of up and down presses.
- Its state is not kept across a restart: it starts off, on HDMI 1, at 30% volume.

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 4.13.0 on Android.

Version History

Date	Version	Changes
2026-11-17	5.00	Licensed by a CPLLC Toolkit license key too
2026-11-16	5.00	Rebuilt on the Crestron Home device model; \xNN bytes in command strings; held volume buttons repeat
2021-05-10	1.00	Dynamic Driver 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.

Company	Control Programming LLC
Contact	Randy Johnson
Email	randy@cpllc.net
Website	https://cpllc.net
Product page	https://cpllc.net/product/serial-strings-display/

© 2026 to the present, Control Programming LLC. All Rights Reserved.
Crestron and Crestron Home are trademarks of Crestron Electronics, Inc.