Control4 EA-1 Controller
Installation Guide

Supported model

- C4-EA1   Entertainment and Automation Controller, 1 Zone

Introduction

Designed for an exceptional family room entertainment experience, the Control4 EA-1 Entertainment and Automation Controller does more than automate the gear around your TV; it is the ideal smart home starter system with entertainment built-in.

The EA-1 delivers a beautiful, intuitive, and responsive on-screen user interface with the ability to create and enhance the entertainment experience for any TV in the house. The EA-1 can orchestrate a wide range of entertainment devices comprising of Blu-ray players, satellite or cable boxes, game consoles, TVs, and virtually any product with infrared (IR) or serial (RS-232) control. It also features IP control for Apple TV, Roku, televisions, AVRs or other network connected devices, as well as secure wireless ZigBee control for lights, thermostats, smart locks, and more.

For entertainment, the EA-1 also includes a built-in music server that allows you to listen to your own music library, stream from a variety of leading music services or from your AirPlay-enabled devices using Control4 ShairBridge technology.

Box contents

The following items are included in the EA-1 Controller box:

- EA-1 Controller
- AC power cord
- IR emitters (4)
- Warranty card

Accessories available for purchase

- EA-1 Wall-Mount Bracket (C4-WMEA1)
- Rack Mount Kit (C4-EA1RMK1-BL or C4-EA1RMK2-BL)
- Control4 3.5 mm to DB9 Serial Cable (C4-CBL3.5-DB9B)

Warnings

⚠ **Caution!** To reduce the risk of electrical shock, do not expose this apparatus to rain or moisture.

AVERTISSEMENT ! Pour réduire le risque de choc électrique, n'exposez pas cet appareil à la pluie ou à l'humidité.

⚠ **Caution! I**n an over-current condition on USB, the software disables the output. If the attached USB device does not appear to power on, remove the USB device from the controller.

AVERTISSEMENT ! Dans une condition de surintensité sur USB ou sortie de contact le logiciel désactive sortie. Si le périphérique USB ou le capteur de contact connecté ne semble pas s'allumer, retirez le périphérique du contrôleur.

For more information, visit the Products pages at www.control4.com.

Requirements and specifications

📝 **Note:** We recommend using Ethernet instead of WiFi for the best network connectivity.

📝 **Note:** The Ethernet or WiFi network should be installed before starting the EA-1 Controller installation.

The software required to configure this device is Composer Pro. See the *Composer Pro User Guide* (ctrl4.co/cpro-ug) for details.
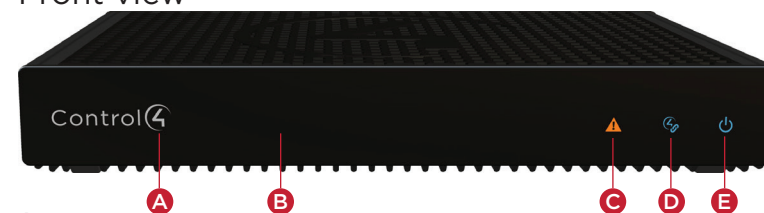
Specifications

Inputs / Outputs	
Video out	1 video out—1 HDMI
Video	HDMI 1.4 output; HD 1080p, 50-60 Hz
Audio out	1 audio out—1 HDMI
Audio playback formats	AAC, AIFF, ALAC, FLAC, M4A, MP2, MP3, MP4/M4A, Ogg Vorbis, PCM, WAV, WMA
High-resolution audio playback	Up to 192 kHz / 24 bit
Network	
Ethernet	10/100/1000BaseT compatible (required for controller setup).
Wireless	Wireless-N (2.4GHz, 802.11n/g/b)
Wireless security	WEP, WPA, and WPA2
Wireless antenna	External reverse SMA connector
ZigBee Pro	802.15.4
ZigBee antenna	External reverse SMA connector
USB port	1 USB 2.0 port—500mA
Control	
IR out	4 IR out—5V 27mA max output 1 IR blaster—front
IR capture	1 IR receiver—front; 20-60 KHz
Serial out	2 Serial out (shared with IR out 1 and 2)
Power	
Power requirements	100-240 VAC, 60/50Hz
Power consumption	Max: 18W, 61 BTUs/hour Idle: 9W, 30 BTUs/hour
Other	
Operating temperature	32˚ - 104˚ F (0˚ - 40˚ C)
Storage temperature	4˚ - 158˚ F (-20˚ - 70˚ C)
Fan dB level	Max: 35 dB
Dimensions (H x W x D)	1.13" (29 mm) x 7.5" (191 mm) x 5.0" (127 mm)
Weight	1.2 lbs (.54 kg)
Shipping weight	2.2 lbs (1.0 kg)

Additional resources
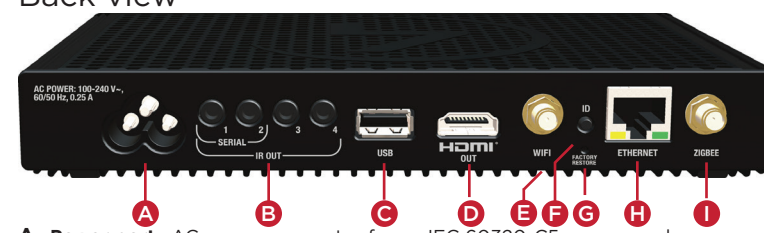
The following resources are available for more support.

- Control4 Knowledgebase: kb.control4.com and Dealer Forums: forums.control4.com
- Control4 Technical Support
- Control4 website: www.control4.com
- Composer Pro documentation in online help or PDF format available on the Dealer Portal: ctrl4.co/docs

Front view

A **Data LED**—The LED indicates that the controller is streaming audio.
B **IR window**—IR blaster and IR receiver for learning IR codes.
C **Caution LED**—This LED shows solid red, then blinks blue during the boot process.

📝 **Note:** The Caution LED blinks yellow during the factory restore process. See "Reset to factory settings" in this document.

D **Link LED**—The LED indicates that the controller has been identified in a Control4 Composer project and is communicating with Director.
E **Power LED**—The blue LED indicates that AC power is present. The controller turns on immediately after power is applied to it.

Back view

A **Power port**—AC power connector for an IEC 60320-C5 power cord.
B **SERIAL and IR OUT**—3.5 mm jacks for up to four IR emitters or for a combination of IR emitters and serial devices. Ports 1 and 2 can be configured independently for serial control (for controlling receivers or disc changers) or for IR control. See "Connecting the IR ports/serial ports" in this document for more information.
C **USB**—One port for an external USB drive (e.g., FAT32-formatted devices). See "Setting up external storage devices" in this document.
D **HDMI OUT**—An HDMI port to display navigation menus on a monitor or TV. Also an audio out over HDMI.
E **WIFI**—The antenna for the WiFi radio.
F **ID button**—Easily-pressed button to identify the device in Composer Pro.
G **FACTORY RESTORE**—Restores the controller to its factory defaults.
H **ETHERNET**—RJ-45 jack for a 10/100/1000 BaseT Ethernet connection.
I **ZIGBEE—**The antenna for the ZigBee radio.

Installation instructions

To install the controller:

1. Ensure that the home network is in place before starting system setup. The controller requires a network connection (Ethernet is recommended or WiFi) to use all of the features as designed. When connected, the controller can access web-based media databases, communicate with other IP devices in the home, and access Control4 system updates.

2. Mount options. The controller can be mounted or placed behind a TV, mounted on a wall, placed in a rack, or stacked on a shelf. The EA-1 Wall-Mount Bracket is sold separately and designed for easy installation of the EA-1 controller behind a TV or on the wall. See the *EA-1/EA-3 Wall-Mount Bracket Installation Guide* (ctrl4.co/ea-wmb) for more details.

3. Connect the controller to the network.

   - **Ethernet**—To connect using an Ethernet connection, plug the data cable from the home network connection into the controller's RJ-45 port (labeled "Ethernet") and the network port on the wall or at the network switch.

   - **WiFi**—To connect using WiFi, first connect the unit to Ethernet, and then use Composer Pro System Manager to reconfigure the unit for WiFi.

     ✓ **Important:** Do *not* install your EA controller on a 172.18.xxx.xxx subnet.

4. Connect system devices. Attach IR and serial devices as described in "Connecting the IR ports/Serial ports" and "Setting up IR emitters."

5. Set up any external storage devices as described in "Setting up external storage devices" in this document.

6. Connect the power cord to the controller's power port and then into an electrical outlet.

Connecting the IR ports/serial ports (optional)

The controller provides four IR ports, and ports 1 and 2 can be reconfigured independently for serial communication. If not used for serial, they can be used for IR. Connect a serial device to the controller using the Control4 3.5 mm-to-DB9 Serial Cable (C4-CBL3.5-DB9B, sold separately).

1. The serial ports support baud rates between 1200 to 115200 baud for odd and even parity. The serial ports do not support hardware flow control.

2. See Knowledgebase article #268 (dealer.control4.com/dealer/knowledgebase/article/268) for pinout diagrams.

3. To configure a port for serial or IR, make the appropriate connections in your project using Composer Pro. See the *Composer Pro User Guide* for details.

   📝 **Note:** The serial ports can be configured as straight-through or null with Composer Pro. Serial ports by default are configured straight-through and can be changed in Composer by selecting *Enable Null-Modem Serial Port (1 or 2)*.

Setting up IR emitters

Your system may contain third-party products that are controlled through IR commands.

1. Connect one of the included IR emitters to an **IR OUT** port on the controller.

2. Place the stick-on emitter end onto the IR receiver on the Blu-ray player, TV, or other target device to drive IR signals from the controller to the targets.

Setting up external storage devices

You can store and access media from an external storage device, for example, a network hard drive or USB memory device, by connecting the USB drive to the USB port and configuring or scanning the media in Composer Pro.

📝 **Note:** We support only externally-powered USB drives or solid state USB sticks. Self-powered USB drives are not supported.

📝 **Note:** When using USB storage devices on an EA-1 Controller you can only use one partition with a 2TB maximum size. This limitation applies to the USB storage on all other controllers also.

Composer Pro driver information

Use Auto Discovery and SDDP to add the driver to the Composer project. See the *Composer Pro User Guide* for details.

Troubleshooting

Reset to factory settings

⚠️ **Caution!** The factory restore process will remove the Composer project.

To restore the controller for system recovery to the factory default image, perform the following steps:

1 Insert one end of a paper clip into the small hole on the back of the controller labeled **FACTORY RESTORE**.

2 Press and hold the **FACTORY RESTORE** button, the controller will reset and the Caution LED will go solid red.

3 Hold the button until the Caution LED blinks double yellow. This should take five to seven seconds. The Caution LED will blink orange while the factory restore is running. When complete, the Caution LED will turn off and the device will reset to complete the factory restore process.

Power cycle the controller

Press and hold the **ID** button for five seconds. The controller will reset.

Reset the network settings

To reset the controller network settings to the default, follow these steps:

1 Disconnect power to the controller.

2 While pressing and holding the **ID** button on the back of the controller, power on the controller.

3 Hold the **ID** button until the Data, Link and Power LEDs are solid blue, then immediately release the button.

4 If during the boot sequence the Caution LED stays orange, press and hold the **ID** button until the LED blinks blue, and then release it.

LED status information

🔆 —*Flashing LED* 🟠 —*Solid LED*

🔵			🔵	Just powered on
🔵	🟠		🔵	Bootloader loaded
			🔵	Kernel loaded
🔴	🔵	🔵		Network reset check
	🔆			Factory restore underway
	🔆			Factory restore fail
		🔵	🔵	Connected to Director
🔴		🔵	🔵	Playing audio

Regulatory/Safety information

To review regulatory information for your particular Control4 products, see the information located on the Control4 website at ctrl4.co/reg.

Warranty

Visit ctrl4.co/warranty for details.

More help

For the latest version of this document and to view additional materials, open the URL below or scan the QR code on a device that can view PDFs.

MOST RECENT VERSION
ctrl4.co/ea1-ig

MORE INFO ON EA CONTROLLERS
ctrl4.co/ea

Control4®

control4.com | 888.400.4070