Box Contents

The following items are included in the HC-800 box:

- Control4 HC-800 Controller
- AC to DC power adapter with power cord
- Six (6) IR emitters
- Three (3) antennas: One (1) for ZigBee and two (2) dipole antennas for wireless (WiFi).
- Two (2) pluggable Contact/Relay connectors
- Warranty card

Accessories for Purchase

- Rack Ear Kit (C4-1UREK-B)
- 10’ Antenna Kit (C4-AK-3M)

Warnings

WARNING! 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.

WARNUNG! Um das Risiko des elektrischen Schlages zu verringern, setzen Sie diesen Apparat nicht Regen oder Feuchtigkeit aus.

WARNING! This CLASS I apparatus must be connected to an AC mains socket outlet that has a protective earthing connection (e.g., third-prong ground conductor). DO NOT DEFEAT THE PROTECTIVE EARTHING CONNECTION!

AVERTISSEMENT! Cette appareil de classe I doit être raccordé à une prise de courant qui a une connexion Mise à la terre (par exemple, conducteur avec troisième broche). NE PAS DÉFAIRE LA CONNEXION DE MISE À LA TERRE!

For general information about the product, see the Product pages at http://www.control4.com.
Requirements and Specifications

Prior to installing the HC-800, ensure that Ethernet network wiring is in place. If you’re using WiFi, see “Antenna Considerations.”

HC-800 Specifications

<table>
<thead>
<tr>
<th>Model Number</th>
<th>C4-HC800-BL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td>- Ethernet—required</td>
</tr>
<tr>
<td></td>
<td>- WiFi (only supported when the device is used as a Secondary Controller)</td>
</tr>
<tr>
<td>Media Recognition</td>
<td>Online CD/DVD/Blu-ray recognition and media information service</td>
</tr>
<tr>
<td>Audio Playback Formats</td>
<td>MP3: 32kbps to 320kbps, CBR, VBR, AAC, and FLAC</td>
</tr>
<tr>
<td>Display</td>
<td>LED indicators</td>
</tr>
<tr>
<td>Power Requirements</td>
<td>100-240 VAC, 60/50 Hz, 0.4 A MAX</td>
</tr>
<tr>
<td>Dimensions</td>
<td>H x W x D: 2.80” (71 mm) x 11.98” (304 mm) x 7.24” (184 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>6.1 pounds (2.766 kg)</td>
</tr>
<tr>
<td>Shipping Weight</td>
<td>7.95 pounds (3.606 kg)</td>
</tr>
</tbody>
</table>

Additional Resources

The following resources are available for additional support:

- Control4 Knowledgebase or Forums
- Control4 Technical Support
- Control4 website: http://www.control4.com
- Composer documentation in online help or PDF format available on the Dealer portal

NOTE: If you run ZigBee, use the external antenna (provided).

Front View

Figure 1. Front View

1 WiFi LED. This LED blinks Orange and then Blue during the boot process. When the operating system starts running, the WiFi driver changes the LED color depending on the signal strength of its connection to its associated access point. Colors for signal strength: Orange=Fair to Good, Blue=Excellent, and No Light=No connection or not enabled.

2 Data LED. The Blue LED indicates that streaming audio is received.

3 Link LED. The Blue LED indicates that the Controller has been identified into a project.

4 Power LED. The Blue LED indicates that AC power is present. The LED blinks during the boot process.

5 IR Window/IR Blaster—Captures third-party IR codes from hand-held devices (such as remote controls) or blasting IR codes.

Back View

Connect all applicable devices to the HC-800 using the connection options described next.

Figure 2. Back View

1 ZigBee. The antenna for the ZigBee radio.

2 Power Plug Port. AC to DC power adapter for the
power cord.

3 Factory Restore Button. A recessed button that restores or resets the Controller to the factory defaults. See “Troubleshooting” for details.

4 Identification Button. An easily-pressed button used to identify this device in Composer Pro to revert the device back to Ethernet with its default settings.

5 RS-232 Serial. DB9 connectors for two (2) serial devices, such as a receiver or disc changer. See “Connect the Serial Ports” for information.

6 IR Out. 3.5 mm jacks for up to six (6) IR output transmitters. See “Set Up IR Emitters or IR Blaster” for information.

7 HDMI Out (Audio/Video). HDMI port for displaying navigation menus on a monitor or TV.

NOTE: HDMI and Component cords can be connected at the same time, but only one is active.

8 Video Out (Component). Component jack used for displaying navigation menus on a monitor or TV.

9 WiFi 1. Reverse SMA connector to attach a WiFi antenna. Supports 802.11 b/g/n.

NOTES: (1) WiFi cannot be used for Primary Controllers; use WiFi for Secondary Controllers only. See “Antenna Considerations” below. (2) For best results, we recommend that you use 802.11 n.

10 Digital Audio Out. Digital audio output jack for stereo line output for amplifiers or audio switches.

11 Audio Out. RCA jacks for stereo channel line output (line level) for amplifiers or audio switches.

12 Audio In. (One (1) pair). RCA jacks for stereo channel input (line level) for one (1) stereo analog source.

13 eSATA. External serial ATA port for connecting a hard drive on which to store media. See “Setting up External Storage Devices” for information. For information about eSATA storage limitations, see eSATA Installation Guide in the Knowledgebase.

14 Ethernet. RJ-45 jack for a 10/100/1000 BaseT Ethernet connection.

15 USB. For external storage device with USB support. See “Setting up External Storage Devices” for information. For information about USB storage limitations, see the eSATA Installation Guide in the Knowledgebase.

16 Relays. Pluggable terminal block connector for four (4) switchable connections, such as a blind, a fireplace, or a projector screen. The connectors are for Normally Opened (NO), Normally Closed (NC), and Common (COM).

17 Power. For troubleshooting purposes only. After plugging in the HC-800, if it does not power on, insert a paper clip into the pinhole to power it on.

18 Contacts. Pluggable terminal block connector for four (4) Normally Closed or Normally Opened switchable connections. Provides power for small devices (12V), signal input (SIG), and return path (GND).

19 WiFi 2. Reverse SMA Connector to attach a WiFi antenna.

NOTES: (1) WiFi cannot be used for Primary Controllers; use WiFi for Secondary Controllers only. See “Antenna Considerations” below. (2) For best results, we recommend that you use 802.11 n.

Installation Instructions

To install this Controller:

1 Ensure that your home network is in place before starting your system setup. The HC-800 requires a network connection (wired or WiFi) to use all features as designed. When connected, the Controller can connect to other IP devices on the home network and access web-based media databases and Control4 system updates.

2 Mount options. The HC-800 is designed to be stackable with other AV equipment or mounted in a rack or on a shelf using the optional Rack Ear Kit (C4-1UREK-B, sold separately).

3 Connect the HC-800 to the network. 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.

4 Power up the Controller. Plug the HC-800 power cord (provided) into the Controller’s power plug port and an electrical outlet.
NOTES: (1) Only use the power supply included in this box. (2) The HC-800 may take several minutes to boot up and become operational. Please allow sufficient time for bootup.

5 Connect system devices. Attach the devices as described in “Connect the Devices” below.

6 Set up any external storage devices as described in “Setting up External Storage Devices.”

Connect the Devices

NOTE: Use Composer Pro to step through the connection process before or after the Controller is physically connected.

The following section provides more information about other connection options.

Pluggable Terminal Block Connectors

For the Contact and Relay ports, the HC-800 makes use of a pluggable terminal block connector—a removable plastic part that locks in individual wires (included).

To connect a device to the pluggable terminal block:

1 Insert one of the wires required for your device into the appropriate opening in the pluggable terminal block you reserved for that device (refer to Figures 3 through 7).

For example, if you add a motion sensor (see Figure 3), connect its wires to the following Contact openings:

a Power input to +12V
b Output signal to SIG
c Ground connector to GND

See the following sections for instructions about connecting the various protocols.

2 Repeat Step 1 for all wires required for your device.

NOTE: When you connect dry contact closure devices, such as door switches, connect the switch between +12V (Power) and SIG (Signal).

Connect to the Contact Port

The HC-800 provides four (4) contact ports for the pluggable terminal block provided.

See Figures 3 through 5 to learn how to connect the device to a contact port.

Figure 3. Contact Port for Voltage Source (e.g., Motion Sensor)

Figure 4. Contact for Dry Contact (e.g., Door Contact Sensor)

Figure 5. Contact for Self-Powered Voltage Source Device

Connect to the Relay Port

The HC-800 provides four (4) relay ports for the pluggable terminal block provided. With most applications, attach one (1) wire to the common terminal and the other to the Normally Opened terminal. The relay switches close when the relay is activated.

The HC-800 can support applications that require a Normally Closed contact.
Connect the Serial Ports

The HC-800 has two (2) DB9-style serial ports. Connect a device, for example, a receiver or disc changer, to the HC-800 by aligning the pins and tightening the screws. See the next table for serial communication values.

<table>
<thead>
<tr>
<th></th>
<th>Hardware Flow Control</th>
<th>Odd Parity</th>
<th>Even Parity</th>
<th>No Parity</th>
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<tbody>
<tr>
<td>Serial Port 1</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Serial Port 2</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Set Up IR Emitters or IR Blaster

The system may contain third-party products that are controlled with IR commands (usually through remote controls). To provide a way for the Controller to control a device that only recognizes IR commands, complete one of these setups for

- IR Emitters
- IR Blaster

NOTE: All IR ports deliver the same amount of power.

IR Emitters

1. Plug the 3.5 mm connector end of one of the six (6) IR stick-on emitters provided into an IR Out port on the HC-800.
2. Place the stick-on emitter end over the IR receiver on the Blu-ray Disc player, TV, or other target device to drive IR signals from the HC-800 to the target.

IR Blaster

In addition to IR emitters, the HC-800 is also equipped with an IR blaster located just left of the front LEDs.

To use the blaster rather than an IR emitter:

1. In Composer, connect the Front IR Blaster Out on the Controller to the IR In for the device you want to control.
2. Test and verify that the HC-800 is positioned in such a way that the blaster can reach the device you want to control.

Antenna Considerations

Depending on the location of the HC-800 and the network setup, you’ll need to consider which, if any, antennas to connect to the HC-800.

Not Using as a ZigBee Access Point (ZAP)

In this case, the standard CAT5 Ethernet cable works well with the HC-800 installed on a rack. No ZigBee antenna is required.

Using as a ZigBee Access Point (ZAP)

Attach one (1) of the antennas provided to the HC-800 RSMA connector labeled ‘ZigBee’ as needed. If the HC-800 is mounted in a metal rack, use the optional 10’ Antenna Kit (C4-AK3M, sold separately).

Using with a WiFi Connection

NOTES: (1) This option is not recommended if the HC-800 is mounted in a rack. (2) WiFi is not supported on HC-800s as Primary Controllers.
In this case, you’re stacking the HC-800 with other devices and you’re connecting wirelessly.

Use the WiFi antenna when you don’t have an Ethernet connection and if you’re using the HC-800 as a Secondary Controller.

NOTE: For best results, we recommend that you use 802.11 n.

Install in a Rack (Optional)

To install the Controller in a rack:

1. Turn the Controller over and remove the four (4) screws that secure the feet (each corner on the Controller).
2. Remove the rubber feet.
3. Use the same screws to attach the rack ears (Rack Ear Kit, C4-1UREK-B, sold separately) into the screw holes.
4. Attach the Controller to the rack.

Setting Up External Storage Devices

You can store and access media from an external storage device, for example, a NAS or eSATA drive, or USB memory device by plugging the USB drive into the USB port and then configuring and scanning the media (if required) in Composer Pro. For information about adding storage devices, see eSATA Installation Guide in the Knowledgebase.

NOTE: When using eSATA or USB storage devices on an HC-800, you can only use one (1) partition with a 2TB maximum size. This limitation applies to the USB storage on all other Controllers also.

Composer Information

- Driver. Choose the Home Controller HC-800 driver in Composer (OS 2.2 and later) and add it to your project. See Composer Pro Getting Started for details.
- Properties. There is a special section for configuring the video resolution. Select the video output you are using from the Connections view (HDMI or Component), and then select the preferred video mode. The default is 720p @ 60 Hz for Component and HDMI. HDMI also uses auto configuration to select the best possible resolution for the display device. After making the selection, click Set Resolution. If the video resolution has to change, the Controller will reboot; this is normal. See “Configuring an HC-Class Controller” in the Composer Pro User Guide on the Dealer website for more details.

Troubleshooting

Factory Restore Button

- Pull out the power cord and push it back in.
- Press and hold the Factory Restore button until the UI on the HDMI or component indicates that the recovery is in progress. Release the button.

IMPORTANT: The Factory Restore process will remove the Composer project.

During the recovery process, the WiFi LED blinks Blue, and the LED bootup sequence starts.

At the end of the restore, the Power LED is solid Blue, and the WiFi LED blinks.

Factory Resets

- Press the Factory Restore button, but do not hold it down. The Controller will reset.

Identification Button

- Identify. Press the Identification button to identify the device to the system.
- Network and Password Resets. To reset the HC-800 to the network and password defaults, hold the ID button and apply power to the unit. Wait for either a prompt on the display/monitor or wait for the Power, Link, and Data LEDs to all turn on (solid) at the same time. Immediately release the button and the network and password will be reset.
- Boots/Reboots. Press and hold the Identification button for five (5) seconds to initiate a Controller reboot. This sequence of LEDs follows:
- The Power LED blinks briefly, and then turns solid Blue.
- The Link LED blinks Blue briefly, and then turns off.
- The Data LED blinks once, and then turns off.
- The WiFi LED blinks Orange, blinks Blue until the system reboots, and then turns off.

If the device is configured for WiFi, the WiFi LED reports the status (Red=Bad; Orange=OK; Blue=Good).

**Regulatory/Safety Information**

To review regulatory information for your particular Control4 products, see the information located on the Control4 website at: http://www.control4.com/regulatory/.

**Warranty**


**About This Document**

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