



# InHome™ Heavy-Duty Power Controller

## *Expanded FAQ (Frequently Asked Questions)*

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## **Card Access™ InHome™ Heavy-Duty Power Controller**

### **Expanded FAQ (Frequently Asked Questions)**

#### **Introduction**

Automating high voltage systems is now possible with the new Card Access™ InHome™ Heavy-Duty Power Controller (HPC10A), a wireless, Control4®-certified power controller specifically designed for use with the Control4 home automation system.

Ideal for new construction and retrofitting existing homes, common applications for the product include controlling:

- electric water heaters
- high-voltage appliances (ovens, stovetops)
- switched high-wattage indoor light fixtures (chandeliers)
- spa and pool pumps
- switched sport court lighting
- US commercial voltage lighting
- heavy motorized perimeter gates

to mention just a few.

The product is designed to be permanently mounted in a fixed location. With the InHome Heavy-Duty Power Controller, homeowners can turn heavy-duty systems on or off using:

- Control4 LED keypads
- Control4 programming utilizing variables, various states, or the time of day
- Control4's 4Sight™ service from remote locations

Four low-voltage “dry contact” support manual override controls with hard-wired dry contact switches, allowing manually control independent of the Control4 system.

The product consists of two, high-voltage, 100-240VAC 30 Amp independently configurable relays that can control the following types of loads in residential or commercial applications:

- motors
- resistive loads
- ballast type loads

The InHome Heavy-Duty Power Controller also allows installers to setup up a stand-alone configuration that doesn't require integration with a Control4 home system.

The InHome Heavy-Duty Power Controller is powered by one of two methods:

1. Connecting a 100-240VAC line power to the High Voltage terminals of the device as illustrated below in the sample wiring diagrams; or,
2. Connecting a 12VDC power supply to the + - power inputs of the Low Voltage terminal connector.

The product must be installed into high-voltage systems by locally qualified and licensed electricians. Any qualified and trained Control4 dealer can then add the product to the project and configure the operation of the relays.

Housed in a metal enclosure and an external antenna to enable ZigBee™ control, the InHome Heavy-Duty Power Controller is designed for permanent mounting in a fixed location. It requires a safe, moisture-free location and in accordance with all local and national electrical codes. The product's fixed wiring must also include the appropriate accessible disconnect devices (circuit breaker). Power cables can be connected to the product using conduit or by connecting flexible power lines to the product with feed-through cable clamps.

## **Expanded FAQ List**

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- Q:** *Can I use the Heavy-Duty Power Controller in place of a Lutron Power Booster?*
- Q:** *Can I use the Heavy-Duty Power Controller in place of an AMX Universal Power Controller UPC20?*
- Q:** *Can I install this myself, or do I have to be an electrician to install the product?*
- Q:** *In what countries is the product safety approved?*
- Q:** *What safety approvals have been awarded?*
- Q:** *Is the product RoHS-compliant?*

## **Expanded FAQ – Questions and Answers**

**Q:** *What does the Card Access InHome Heavy-Duty Power Controller do?*

**A:** The Card Access InHome Heavy-Duty Power Controller is a Control4-Certified wirelessly controlled power controller specifically designed for use with the Control4 home automation system. This product automates turning high-voltage items on or off. The product consists of:

- two independently configurable high-voltage (100-240VAC) 30 Amp relays
- four low-voltage ‘dry contact’ inputs

These can control the multiple load types including:

- motor type – 1 Horsepower at 120VAC, 2 Horsepower at 240VAC
- resistive type (e.g. incandescent lighting) – 25-30 Amps per controlled device
- ballast type (e.g. fluorescent lighting) – Up to 10 Amps

in various residential and commercial applications in the United States, Canada, and the European Union (subject to country-specific regulatory requirements).

**Q:** *What are the key specifications for InHome Heavy-Duty Power Controller?*

**A:** The following table includes the key specifications for the InHome Heavy-Duty Power Controller:

### InHome Heavy-Duty Power Controller (Model No. HPC10A) Specifications

Dimensions	4.6" x 10.5" x 2.2" (117mm x 267mm x 56mm)																		
Weight	2.78 Lbs (1.26Kg)																		
Maximum Ambient Operational Temperature	140°F (60°C)																		
Power Input	100-240VAC at 50/60Hz, 0.1 A Or 12VDC, 200mA																		
Relay Contact Load Ratings (per relay)	<table border="1"> <thead> <tr> <th>Voltage</th> <th>Load Type</th> <th>Contact Rating</th> </tr> </thead> <tbody> <tr> <td>240VAC</td> <td>General Purpose</td> <td>30 Amps</td> </tr> <tr> <td>240VAC</td> <td>UL Resistive</td> <td>25 Amps</td> </tr> <tr> <td>120VAC</td> <td>Motor</td> <td>1 HP</td> </tr> <tr> <td>240VAC</td> <td>Motor</td> <td>2 HP</td> </tr> <tr> <td>277VAC</td> <td>Ballast</td> <td>10 Amps</td> </tr> </tbody> </table>	Voltage	Load Type	Contact Rating	240VAC	General Purpose	30 Amps	240VAC	UL Resistive	25 Amps	120VAC	Motor	1 HP	240VAC	Motor	2 HP	277VAC	Ballast	10 Amps
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277VAC	Ballast	10 Amps																	
High-Voltage Wiring	8—14 AWG gauge wiring depending on Load*  * An accessible disconnect device shall be installed into the fixed wiring. The device must be wired by an authorized electrician in accordance with the National Electrical Code, ANSI/NFPA 70. In the European Community, the unit must be wired by an authorized electrician in accordance with all applicable European codes.																		
Low-Voltage Wiring	20—28 AWG gauge wire— Dry Contact Only																		
Operational Environment	Type 1. Device shall be mounted in a dry, moisture-protected location in accordance with National Electrical Code. For use in pollution degree #2 environments.																		
Linked Mode	Default Motor Delay Time: 15 seconds Default Relay Delay Time: 500m seconds (0.5 sec)																		

**Q:** What electrical connections do I need for the InHome Heavy-Duty Power Controller?

**A:** The InHome Heavy-Duty Power Controller has both high-voltage and low-voltage connectors.

The high-voltage connector consists of eight (8), 30Amp, screw clamp-style, terminal lug capable of supporting up to 8-gauge copper wire. Four of the terminals are used for the two relay connectors, and four terminals are used to connect to power and to provide additional power connection points for the installer. For installer convenience, the PC board shows markings identifying the different high-voltage inputs.

The low-voltage connector consists of four (4) dry contact input pairs and two (2) inputs for a Class B 12VDC power supply input. These inputs are wire-screw, clamp-type connectors which require a small, flat blade screwdriver to loosen and tighten the connections. For installer convenience, the PC board shows markings identifying the different inputs.

**Q:** What are the location and mounting requirements for the InHome Heavy-Duty Power Controller?

**A:** The InHome Heavy-Duty Power Controller is designed for permanent mounting in a fixed location. Product placement requires a safe, moisture-free location as specified in accordance with all local and national electrical codes for a type 1 electrical device. The product's fixed wiring must also include the appropriate accessible disconnect devices (circuit breaker). The lid should fit securely on the enclosure. Power cables can be connected to the product using conduit or by

connecting flexible power lines to the product with feed-through cable clamps (the outer enclosure supports 1/2" or 3/4" Clamp or Conduit Connectors) supporting both high-voltage and low-voltage connectors.

Typically the product enclosure is vertically mounted (mounting holes on the top and bottom) with the antenna pointing up. Horizontal mounting of the product enclosure is also permitted. The antenna can be placed at angles or pointed downward to improve ZigBee communications performance.

**Q:** *Does the Card Access InHome Heavy-Duty Power Controller require a Control4 system to operate?*

**A:** Yes and No. The InHome Heavy-Duty Power Controller is designed for a high level of control and integration with Control4-automated systems. Using the product with the Control4 system takes maximum advantage of these automation features.

Note the product also supports a stand-alone configuration that requires no Control4 integration. This option depends on running "hard-wired" low-voltage dry contact switches to the product, and can be used in conjunction with any other home automation system supporting the integration of dry contact switches (including Control4).

**Q:** *How does the InHome Heavy-Duty Power Controller communicate with Control4 systems?*

**A:** The InHome Heavy-Duty Power Controller communicates with the Control4 system two ways:

1. Primarily through the wireless ZigBee (IEEE 802.15.4) communications interface. This interface is a required automated configuration, and provides the maximum automation control and flexibility.
2. The low-voltage connector can be "hard-wired" to Control4 (or other home automation suppliers') controllers for power control through operation of the dry-contacts in the on-board contact input interface.

**Q:** *How many devices does one InHome Heavy-Duty Power Controller control?*

**A:** Up to two devices.

**Q:** *How many watts can each relay handle?*

**A:** Up to 3,600 Watts per relay on each load at 120VAC and up to 7,200 Watts per relay on each load at 240VAC.

**Q:** *Does the InHome Heavy-Duty Power Controller have dimming capabilities?*

**A:** No it does not. It is just a switch.

**Q:** *What are some common applications for the InHome Heavy-Duty Power Supply?*

**A:** Common applications include controlling electric water heaters, high-voltage appliances (ovens, stovetops), high-wattage indoor light fixtures, chandeliers, spa and pool pumps, sport court lighting, US commercial voltage lighting, and heavy perimeter gates to mention just a few.

**Q:** *What are the Control4® compatibility requirements for the InHome Heavy-Duty Power Controller?*

**A:** The product is designed to work "out-of-the-box" with Control4 Software version 1.6 which is soon scheduled for release. All needed drivers and support files will be included in the release version. Some recent beta versions of version 1.6 also include support for the product.

The product can also be used with Control4 Software version 1.3.2; however, you will need to manually copy the necessary drivers and files to the correct locations in your Windows Composer software and on the target Controller. Instructions and the necessary files for doing this are located on the Card Access website at [<link here>](#). Do NOT attempt to use the 1.3.2 drivers with ANY beta or release versions of Control4 Software 1.6. They will **not work**.

**Q:** *Are there color options for the product?*

**A:** The product comes in black only.

**Q:** *Can I use the Heavy-Duty Power Controller in place of a Lutron Power Booster?*

**A:** In some cases. Yes if you only need to switch a 1000W+ light fixture on or off. The InHome Heavy-Duty Power Controller can be 100% configured and controlled through the Control4's ZigBee mesh communications, while the Lutron Power Booster cannot. Unlike the Lutron Power Booster, the InHome Heavy-Duty Power Controller does not have dimming capabilities.

**Q:** *Can I use the Heavy-Duty Power Controller in place of an AMX Universal Power Controller UPC20?*

**A:** The InHome Heavy-Duty Power Controller supports all of the power modes (with superior voltage and amperage ratings compared to the UPC20- see the specification table above for details) offered by the AMX UPC20 US/Canada and International models—all in a single product. In contrast, the UPC20 has multiple models.

In Control4 systems, the InHome Heavy-Duty Power Controller can be 100% configured and controlled through Control4's ZigBee mesh communications network, while the UPC20 cannot. RS-232-based control of the InHome Heavy-Duty Power Controller in Control4 systems may be supported in a future release. Please contact Card Access to discuss your requirements.

In AMX systems, the InHome Heavy-Duty Power Controller does NOT support the AMX serial protocols supported by the UPC20, nor does it support the proprietary RF controls supported by the UPC20+.

In non-Control4 home systems, the InHome Heavy-Duty Power Controller supports a stand-alone configuration by running "hard-wired" low-voltage dry contact switches to the product and in conjunction with any other home automation system supporting integration and control of dry contact switches.

**Q: Can I install this myself, or do I have to be an electrician to install the product?**

**A:** The product must be installed into high-voltage systems by locally qualified and licensed electricians. Any qualified and trained Control4 dealer can then add the product to the project and configure the operation of the relays.

**Q: In what countries is the product safety approved?**

**A:** has testing and application approvals to ship into the following countries:

- United States
- Canada
- European Union European Union (Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom)

**Q: What safety approvals have been awarded?**

**A:** The Card Access InHome Heavy-Duty Power Controller is a safety listed product with Intertek Corporation. Intertek is a Nationally Recognized Test Lab (NRTL) that owns and maintains the ETL mark which is legally equivalent to the UL and CSA Listing Marks for standards compliance. A representative sample of the Card Access InHome Heavy-Duty Power Controller (HPC10A) has been evaluated by Intertek Labs and found to comply with the applicable requirements of the Standard for Industrial Control Equipment, ANSI/UL 508-2005, 17th Edition with Revisions 2005 and per the Standard for Industrial Control Equipment, CSA C22.2 No. 14-05.

**Q: Is the product RoHS-compliant?**

**A:** All parts in the Card Access InHome Heavy-Duty Power Controller meet the material restrictions of RoHS (Restriction of Hazardous Substances) as proposed by the RoHS Technical Adaptation Committee.

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