



InHome™

Heavy-Duty Power Controller

Model Number: HPC10A

Quick Start and Installation Guide



Directives 1999/5/EC,
2006/95/EC, 2004/108/EC



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CONFORMS TO
UL STD 508

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Card Access

InHome™ Heavy-Duty Power Controller Quick Start and Installation Guide

Enable Automation Events for High-Voltage Systems in the Control4® Automated Home

Welcome and congratulations on your purchase of the Card Access InHome™ Heavy-Duty Power Controller. This Quick Start Guide is designed as a reminder document. The guide assumes that device installers are locally qualified and licensed electricians. It also assumes that if the device is added to the Control4® home automation system that you are a qualified and trained Control4 dealer. A complete and more detailed Installation Manual and Reference on device setup, configuration, and operation is a separate document included with this product.

Introduction

The Card Access InHome™ Heavy-Duty Power Controller (HPC10A) is a Control4®-Certified wirelessly controlled power controller specifically designed for use with the Control4® home automation system. This device gives the Control4-automated homeowner the ability to turn high-voltage items on or off based on the time of day and device management from a remote location using Control4's 4Sight™ service.

The InHome Heavy-Duty Power Controller also allows installers to setup up a stand-alone configuration that doesn't require integration with the Control4 home automation system. This option requires "hard-wiring" low-voltage dry contact switches to the device.

The device 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 control and configuration of these relays can occur through the Control4 Composer application (Control4 Operating Mode) or directly on the device (Stand-Alone Operating Mode).

Setting the Operational Mode

The default operational mode of the device is set for Control4 Mode (default). In this mode, the 4 DIP switches on the board are all set to the OFF position. This mode indicates that the operation of the device is 100% configurable through the Card Access Driver installed in the Control4 Composer Project. If this driver is not included in your current Control4 Project, please contact Card Access for instructions on installing this driver into your project. Instructions can be found at: www.cardaccess-inc.com/support/inhome/hpc10a

For a summary of the operational mode settings, check inside the lid of the device. The Installation Manual and Reference provides a more detailed description of each operational mode. Please note that the positioning of the DIP Switches, in conjunction with the operation of the (4) dry contact switch inputs, determine the operation of the two Load-Switching Relays.

Control4 Operating Mode:

To operate in Control4 mode, the device must be identified in the project. Identification requires tapping the ID button (the method common to other devices in Control4 projects). After identifying the device, the four contact inputs and two independently controlled high-voltage relays are available within the Control4 project for configuration and control.

Device control is accomplished through one of two methods or a combination of the two:

- an IEEE 802.15.4 ZigBee-based wireless radio signal
- the four local dry contact switch inputs

A combination of both methods (Control4 ZigBee operation PLUS local operation through the dry contact switch inputs) provides home automation system control as well as local failsafe operation. For example, the Heavy-Duty Power Controller can control sports court lighting through a ZigBee signal from the home automation system or by completely bypassing the home automation system and using the local dry contact switch for on/off control.

The InHome Heavy-Duty Power Controller’s software driver supports complete device configuration and operation through user selected options. The device utilizes Control4’s proxies for control of blind motors, lift motors, screen motors, gate motors, fountain and pool pump motors, high current lighting loads, and appliance loads, etc. The device also includes several easy-to-use diagnostic modes to help installers set up the device for proper operation.

Stand-Alone Operating Mode:

In Stand-Alone Operating Mode, the device uses the four dry contact closure inputs to control the two high-voltage power relays in a one (1), two (2), or three (3) button control configuration. This mode allows for a wide variation of configurations and operation.

The InHome Heavy-Duty Power Controller’s onboard switches provide easy setup, diagnostics, and troubleshooting for installers while LEDs indicate relay status and radio functionality. A relay disable switch is provided to allow functional testing by the installer without sending power to connected high-power devices, allowing easy testing of the system.

Powering the Device:

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 in [Figure 2](#), [Figure 3](#), or [Figure 4](#) of the high-voltage sample wiring diagrams section;
- OR**
2. Connecting a 12VDC power supply to the + - power inputs of the Low Voltage terminal connector shown in [Figure 1](#).

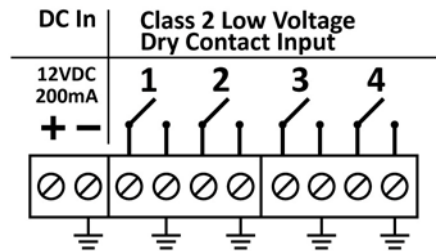


Figure 1 - Low-Voltage Wiring Diagram Option

No power jumpers or settings are required. Installers only need to connect **one OR the other** (line power or external DC power supply in).

The device is designed for permanent mounting in a fixed location. Power cables can be connected to the device using conduit or by connecting flexible power lines to the device with feed-through cable clamps. For purposes of mounting and installation, installers should treat the InHome Heavy-Duty Power Controller as a Type 1 electrical device.

Specifications

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 Ratings (per relay)	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
High Voltage Wiring	8–14 AWG gauge wiring depending on Load* * An accessible disconnect device shall be installed into the fixed wiring. 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.		

Site Requirements and Wiring Options

- Ensure that the device is placed in a safe, moisture-free location as specified in accordance with all local and national electrical codes for a Type 1 device.
- Ensure that appropriate, accessible disconnect devices (circuit breaker) are installed into the fixed wiring of the device.
- Ensure that the device cover is replaced securely after device setup and configuration.



!!! WARNING !!!: *An accessible disconnect device shall be installed into the fixed wiring. 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.*

High-Voltage Wiring Diagram Options:

- **Option 1:** Applicable where a single external breaker to the device is used and the load is powered from this power source:

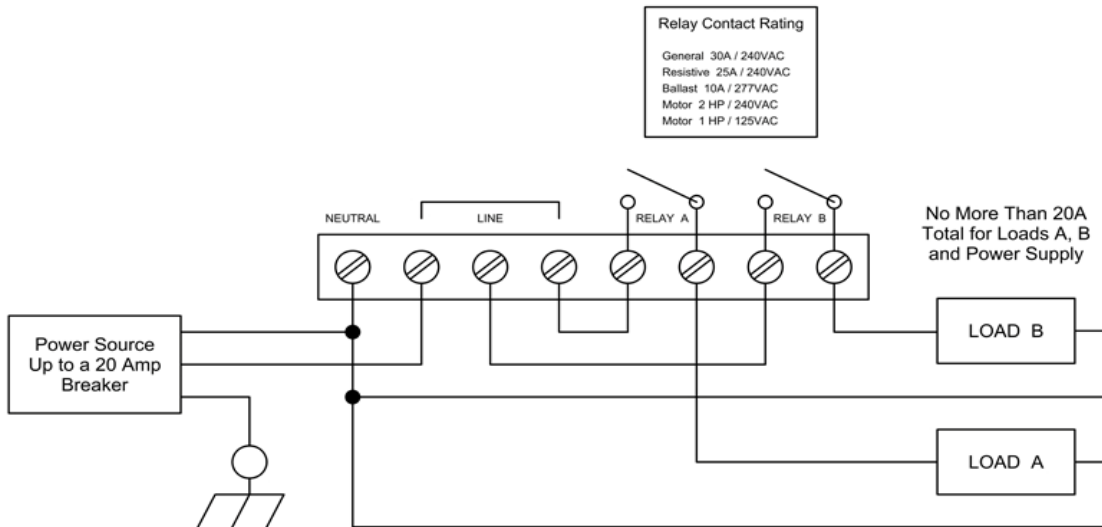


Figure 2 - High-Voltage Wiring Option 1

- **Option 2:** Applicable where each load uses its own external circuit breaker:

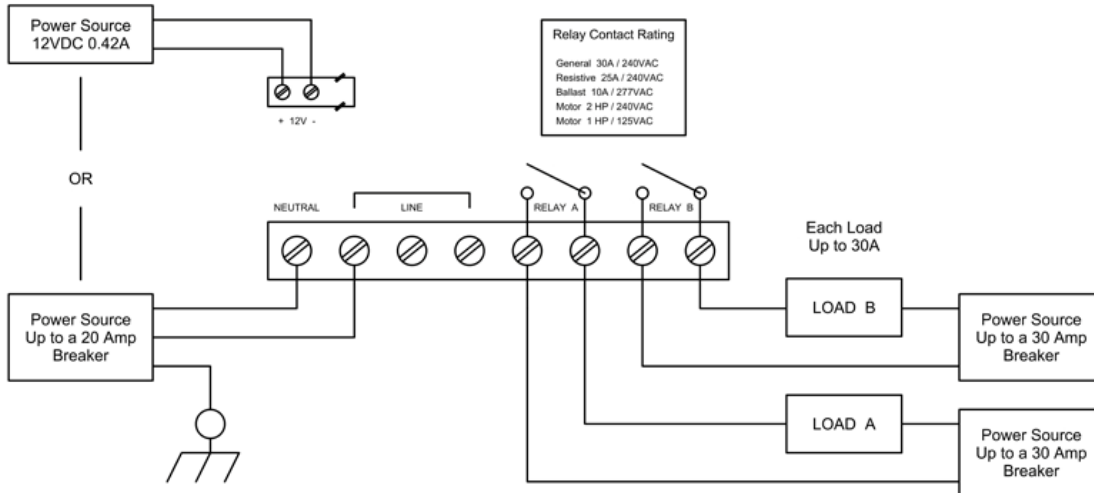


Figure 3 - High-Voltage Wiring Option 2

- **Option 3:** Applicable where a combination of power sources are used; load “A” is powered by an external breaker in the load path, and load “B” is powered by the device’s external breaker or power source:

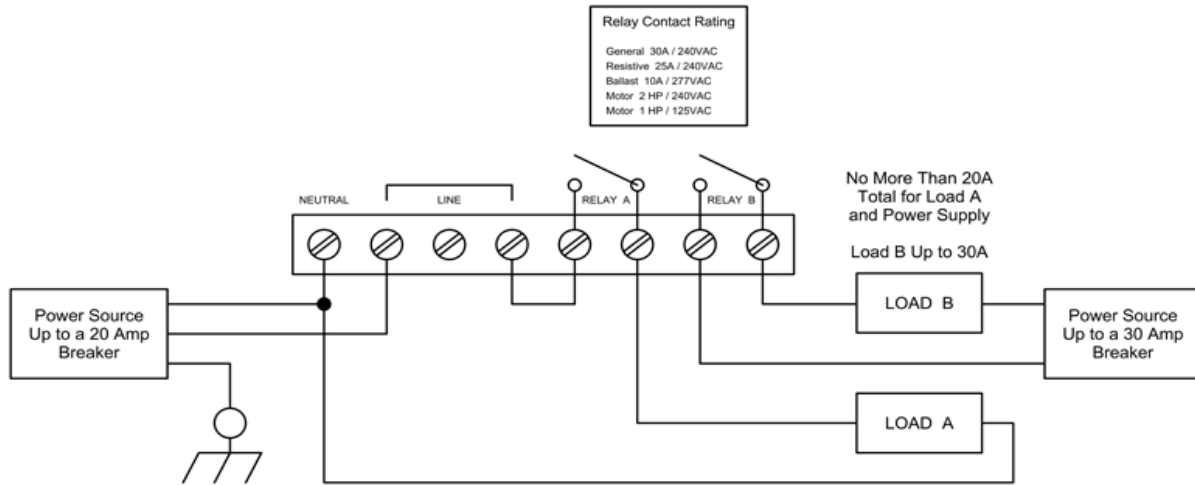


Figure 4 - High-Voltage Wiring Option 3



NOTE: Ensure that LOAD A and/or LOAD B do NOT exceed the Relay Contact Load Ratings.

Low-Voltage Wiring Diagram Options:

The low voltage input connector consists of four dry contact inputs. Connecting any type of dry contact switch into these inputs will be sufficient to control the device. Dry contact switch options include:

- magnetic reed switches
- relays
- or mechanical switch contacts, etc.

For installer convenience, the PC board also includes dry contact switches that correspond to the four dry contact inputs. Pressing these on-board switches can simulate the external switch activity.

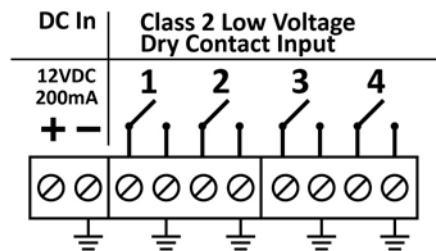


Figure 5 - Low-Voltage Wiring Diagram



NOTE: The Dry Contact Inputs should not have anything wired into them that contain an electrical source of any kind (battery or power supply). These inputs are meant for dry contact switches only

Control4 Software Installation / Operation Instructions

Installers can add the InHome Heavy-Duty Power Controller to a Composer project in a process similar to other Control4 devices. When prompted to identify the unit, press the ID button located on the PC board four times. The

InHome Wireless Contact Relay LED will blink the green LED twice to confirm sending the ID to the Control4 system. To set up the two relay outputs and the four contact inputs in the Composer project, refer to your system setup documentation.

If your current Control4 project does not include the InHome Heavy-Duty Power Controller Driver, please contact Card Access for instructions on installing this driver into your project. Below in [Figure 6](#) is a reference screen capture of the driver properties page. For a detailed description of how to configure the device in Composer, refer to the more detailed Installation Manual and Reference.

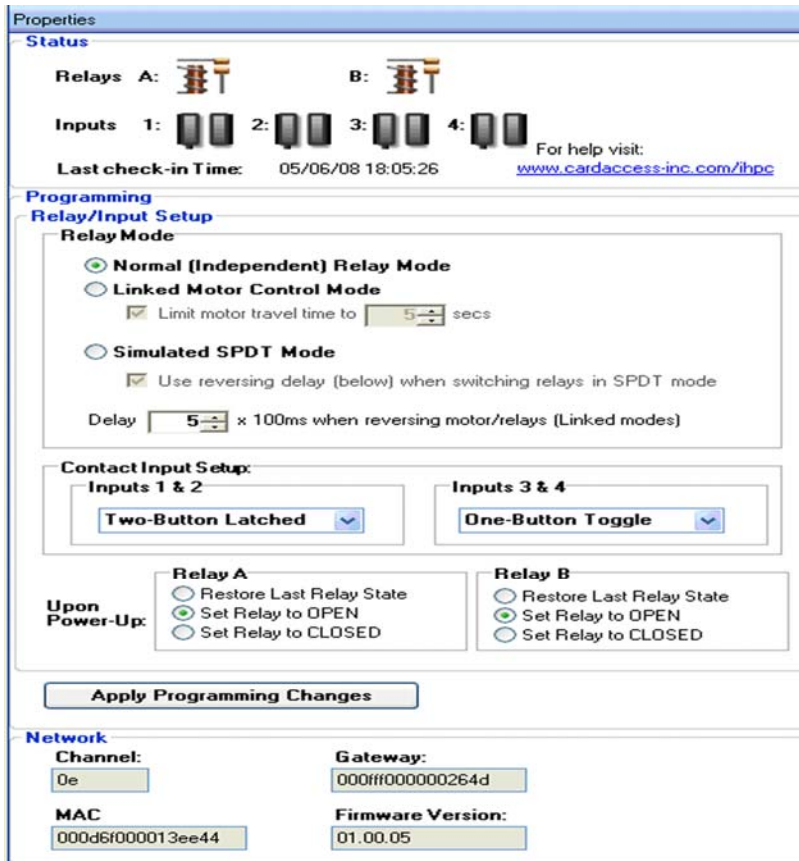


Figure 6 - Composer Driver Properties

Product Registration

Please visit www.cardaccess-inc.com/inhome/registration to register your new product. Along with your contact information, you must provide the following additional information:

- Product name (Card Access InHome Heavy-Duty Power Controller)
- Model number (HPC10A)
- Date of purchase
- Place of purchase
- Serial number (the “MAC ID” number located on the sticker attached to the radio/logic board inside the metal enclosure)

Please refer to the One-Year Limited Warranty for complete warranty information.

Regulatory Statements

The Card Access InHome Heavy-Duty Power Controller complies with standards established by the following regulatory bodies: Federal Communications Commission (FCC), Conformité Européene (CE), and Restriction of Hazardous Substances (RoHS).

FCC ID: MHIHPC10

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT! Changes or modifications not expressly approved by Card Access, Inc. void the user's authority to operate the equipment.

CE

We, Card Access, Inc. of 11778 South Election Road, Suite 260, Salt Lake City, Utah, 84020 USA, declare under our sole responsibility that the Card Access' InHome Heavy-Duty Controller, Model Number HPC10A, to which this declaration relates, are in conformity with the following standards and / or other normative documents:

EN60950, EN55022, EN55024

We hereby declare that the above named product is in conformity with the essential requirements and other relevant provisions of Directive 1999/5/EC. The conformity assessment procedure referred to in Article 10(3) and detailed in Annex II of Directive 1999/5/EC has been followed.

One-Year Limited Warranty

This product is warranted to be free of defects in material and workmanship for one year from date of original purchase from Card Access, Inc. ("Card Access").

Card Access will, at its election and as the purchaser's or end user's sole and exclusive remedy for any breach of the limited warranty set forth above, repair or replace this product if a defect in material or workmanship is identified and communicated to Card Access within the one-year period described above. Card Access is not responsible for removal or reinstallation costs. This warranty is not valid in cases where damage to this product is the result or arises out of misuse, abuse, incorrect repair or improper wiring or installation.

To notify Card Access of any breach of the foregoing limited warranty and to obtain warranty service, contact Card Access Customer Support by e-mail to inhomesupport@cardaccess-inc.com or by calling 801-748-4900, extension 15, to obtain a Return Materials Authorization ("RMA") number and instructions for returning your defective product to Card Access.

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This is Card Access' exclusive written warranty.

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