InHome™ Wireless Contact Relay Installation Guide

Supported Models and Requirements
This documentation applies to the following Card Access products:
WCS10-R Card Access InHome™ Wireless Contact Relay (Internal Antenna)
WCS10-R-EXT Card Access InHome™ Wireless Contact Relay (External Antenna)

Accessories
The following optional accessories are available for use with the Card Access InHome Wireless Contact Relay. You can purchase them on the Internet at www.cardaccess-inc.com/ihome.
IEP10A 12V International External Low Power Supply (“Wall Wart”)
ECM10A External Contact Magnet for Internal Reed Switch

New applications are constantly developed for the InHome Wireless Contact Relay, so please see our web site for the latest in accessories by going to www.cardaccess-inc.com/ihome/accessories.

Important Safety Instructions
WARNING! You should install this device in accordance with all national and local electrical codes.

IMPORTANT! This product is not intended for direct connections to AC mains (120V/220V). Refer to specifications.

IMPORTANT! Improper use or installation of this device can result in LOSS OF DAMAGE TO PROPERTY.

IMPORTANT! You must operate this device in accordance with the instructions and specifications in this Card Access InHome™ Wireless Contact Relay Installation Guide.

IMPORTANT! Using this product in any manner other than outlined in this document voids your warranty. Also, Card Access is NOT responsible or otherwise liable in any way for any damage resulting from the misuse of this product. See the section of this document entitled WARRANTY for details.

Features
The Card Access InHome™ Wireless Contact Relay works with your Control4™ system and combines the features of two remote relays, a remote magnetic contact switch, and a remote thermometer into one single device. The product allows wireless control of garage door openers, window coverings, fireplaces, and pumps (along with other relay control applications you integrate or devise) in locations inside or outside the home. It integrates into Control4’s home automation functions as standard relays which can be opened, closed, or pulsed. The InHome Wireless Contact Relay also operates as a ZigBee™ (IEEE 802.15.4) router/repeater.

The InHome Wireless Contact Relay easily integrates into the Control4 system as standard relay outputs. The Wireless Contact Relay also includes its own internal magnetic reed switch and temperature sensor for ‘turn-key’ installation. LEDs provide you with indicators to confirm you have successfully connected the product to the Control4 system. Additional LED feedback and diagnostics are also available for confirming the alignment of an external magnet and proper ZigBee network operation and connectivity.

With the InHome Wireless Contact Relay, you can extend home automation control for the most remote of locations and applications inside or outside the home, reducing the need to run control wires over long distances (or where you can’t run any wires at all).

The InHome Wireless Contact Relay enables wireless control of any device controllable by one or two low-voltage SPST relays or one simulated SPDT relay, such as:
- Garage door openers
- Motorized blinds
- Projector screens
- Fireplaces
- And any other control application you can devise and safely integrate

When paired with an external contact magnet, the integrated magnetic switch also allows wireless monitoring of doors.

These functions appear in a Control4 system as relay outputs (relays) and contact inputs (magnetic switch) in Control4’s Composer software application.

The InHome Wireless Contact Relay does this all without the wire. Or, as we say: “Wires Not Included.”

What Is Included
You will find the following items inside the InHome Wireless Contact Relay package:
- Bubble bag containing one (1) InHome Wireless Contact Relay
  - Tray assembly (the part you mount to the wall or other flat surface)
  - Cover assembly (the actual device) and attached radio/logic board (the part you connect to the Tray Assembly)
  - Installation Guide / Product Warranty / Product Registration document
  - Wiring Insert / LED Operation Instructions Card
  - Four (4) wall mounting screws
  - Four (4) plastic dry wall anchors
  - Power Supply (North American models only)

Specifications
The specifications for the Card Access InHome Wireless Contact Relay are as follows:

Recommended Wiring: Terminals accept AWG 16-28 wiring
Power Source: External power 9 to 24 volts DC or AC
Power Usage: -100mA fully active
Relay Terminal Ratings: 0.5A @ 50V, 1A @ 24V or less
Device Temperature Range: Operational -20°F to 158°F (-28°C to 70°C)
Humidity 5% to 95% Non-Condensing Storage -20°F to 158°F (-28°C to 70°C)

Internal Thermistor
Measurement Range: -20°F to 158°F (-28°C to 70°C)
Dimensions (LxWxD): 3.1” x 2.6” x 1.05” (78.7mm x 65.7mm x 26.6mm)
Rain Resistance: Cover Assembly properly connected to Tray Assembly is rain resistant. The InHome Wireless Contact Relay is NOT waterproof and must be kept out of direct contact with water. The product must NOT be immersed.
Paintable Enclosure: The Card Access InHome Wireless Contact Relay Cover Assembly plastics are paintable with any water-based

Communications:
ZigBee (IEEE 802.15.4) 2.4 GHz, 15-channel, spread spectrum radio

Installation
1. Place the InHome Wireless Contact Relay in a location which ensures the following:
   - Easy access to any externally connected wires
   - ZigBee mesh networking efficiency
   - Away from direct sunlight, drafts, doorways, skylights, windows, and exterior walls (for best accuracy if the internal thermistor will be used)

   (NOTE: Make sure the InHome Wireless Contact Relay is positioned for good ZigBee wireless reception by (1) ensuring it is within 150 feet of another ZigBee device and (2) avoiding other electrical equipment that may cause interference with the ZigBee signal (such as cordless telephones that operate on the 2.4 GHz frequency).

   IMPORTANT! Do not place the InHome Wireless Contact Relay in direct sunlight.

2. Using a small, flat screwdriver, detach the Tray Assembly from the Cover Assembly by inserting the screwdriver into the Opening Slot in the side of the InHome Wireless Contact Relay’s Cover Assembly and pushing in gently while at the same time pulling the Cover Assembly out and away from the Tray Assembly.

   The Cover Assembly holds the radio logic board (the actual device) and connects to the Tray Assembly. The Tray Assembly is mounted to a wall or flat surface, and contains the wiring terminals.

3. Thread external relay control wires, and power supply wires from the wall through the large rectangular opening in the Tray Assembly (refer to Tray Assembly figure), and position the Tray Assembly against the wall or other flat installation surface, making sure it sits flush and level (for aesthetics only).

   If mounting the unit to drywall, remove the Tray Assembly from the wall and drill four (4) 3/16-inch-mounting holes at the four screw hole locations previously marked on the wall or surface. Press the plastic wall anchors (included) into the drilled holes.

4. Insert and tighten the mounting screws.

   (NOTE: You may optionally choose to use robust two-sided tape to mount the Tray Assembly to the wall or other flat surface, as long as the tape won’t prevent the back of the Tray Assembly from sitting flush against the mounting surface.)

5. Connect the wires to the screw terminals in the Tray Assembly,
Complete the device installation by attaching the Cover Assembly to the Tray Assembly:

1. Align the Cover Assembly with the side of the Tray Assembly, engaging the plastic hooks with the corresponding holes. Rock the Cover Assembly into place, snapping it to the Tray Assembly.

2. Close the Cover Assembly by rocking it toward the other end of the Tray Assembly. The radio/logic board pins will engage with the terminal pin block on the Tray Assembly.

3. Press firmly on the center edge of the Cover Assembly until it snaps and locks into place with the Tray Assembly.

Add the InHome Wireless Contact Relay to your Composer project. When prompted to identify the unit, use a paper clip or similar object inserted through the small hole on the face of the Cover Assembly to push the internal button four times. The InHome Wireless Contact Relay LED will blink the green LED twice to confirm the ID has been sent to the Controlled system. To set up the relay outputs, the magnetic contact switch and the thermistor in the Composer project, refer to your system setup documentation.

The button is located through the Configuration Access hole on the Cover Assembly.

Troubleshooting

If the InHome Wireless Contact Relay is not working:

- Reboot the Wireless Contact Relay by removing power from it and then re-connecting power.

- Check for proper wiring. See the “Wiring Configuration” diagram (or the Wiring/LED Operation Guide Card).

- For help on the installation or operation of this product, email or call Card Access Product Support. Please provide your exact model number and the MAC ID/Serial Number for the device. You may contact Product Support by phone (801-748-4900, extension 15), by e-mail (inhomesupport@cardaccess-inc.com) or on the Internet at www.cardaccess-inc.com/inhome/support.

Regulatory Compliance

The Card Access InHome Wireless Contact Relay complies with standards established by the following regulatory bodies: Federal Communications Commission (FCC), Conformité Européenne (CE), and Restriction of Hazardous Substances (RoHS).

FCC

FCC ID: MHIWCS10

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.

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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, 84026 USA, declare under our sole responsibility that the Card Access InHome Wireless Contact Relay, Model Numbers WCS10-R and WCS10-R-EXT, to which this declaration relates, are in conformity with the following standards and / or other normative documents:

- EN60950, EN61000-4-3, 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(5) and detailed in Annex II of Directive 1999/5/EC has been followed.

Restriction of Hazardous Substances (RoHS)

All parts in the Card Access InHome Wireless Contact Relay meet the material restrictions of RoHS, as proposed by the RoHS Technical Adaptation Committee. This is based on information provided by suppliers of the raw materials used by Card Access, Inc. to manufacture these products. As such, Card Access, Inc. makes no independent representations or warranties, expressed or implied, and assumes no liability in connection with the use of this information.

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 Wireless Contact Relay)
- Model Number (WCS10-R or WCS10-R-EXT)
- Date of Purchase
- Place of Purchase
- Serial Number (this is the “MAC ID” located on the sticker attached to the radio/logic board inside the Cover Assembly)

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

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 identically communicated to Card Access within the one-year period described above. Card Access is not responsible for removal or reinstatement 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 support@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.

IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED. EXCEPT WHERE SUCH DISCLAIMER IS PROHIBITED BY APPLICABLE LAW, CARD ACCESS AND/OR THE SELLER DISCLAIMS ANY AND ALL LIABILITY FOR SPECIAL, INCIDENTAL AND CONSEQUENTIAL DAMAGE IN ANY WAY ASSOCIATED WITH OR RELATED TO THE PURCHASE, INSTALLATION AND/OR USE OF THIS PRODUCT.

Some states/provinces do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of special, incidental or consequential damages, so these limitations and exclusions may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state/province to state/province.

This is Card Access’ exclusive written warranty.

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