Wattstopper®

Low Voltage Card Key Switch

No: 24777 – 06/24 rev. 2

Installation Instructions • Instructions d'Installation • Instrucciones de Instalación

Catalog Number • Numéro de Catalogue • Número de Catálogo: HS-100

Country of Origin: Made in China • Pays d'origine: Fabriqué en Chine • País de origen: Hecho en China

SPECIFICATIONS

Voltage ..... 24VDC/24VAC (Class 2)
Current Consumption
DC ..... Max. 25mA
AC ..... Max. 90mA
Outputs ..... Isolated relay (N.O./N.C.), 1A/30VDC/VAC SPDT
Egress Time Delay ..... 30 seconds
Environment ..... Indoor use only
Operating Temperature ..... 32° to 104°F (0° to 40°C)
Humidity ..... 95% RH, non-condensing
Card Slot accepts standard size hotel card keys with dimensions
.....2.125"W x 3.375"H x 0.034"D
..... (53.975mm x 85.725mm x 0.8636mm)
Tools Needed
Insulated Screwdriver
Wire Strippers

DESCRIPTION AND OPERATION

The HS-100 is a low voltage card key switch that enables or disables power to electric circuits and loads in a hotel guest room or similar site. When a hotel door entry card key (or the key fob HS-FOB) is inserted in the HS-100 card slot the controlled circuits are energized. When the hotel door entry card key (or HS-FOB) is removed, the controlled circuits will remain energized for 30 seconds more to allow safe egress from the hotel room. After this time delay elapses, they will be de-energized. To restore power to the room (that is, to the controlled circuits and loads), the occupant will need to reinsert the hotel door entry card key into the HS-100 card slot.

Lighted Card Slot

To help you locate the HS-100 in a dark room, two green LEDs illuminate the card slot where the hotel door entry card key or the key fob HS-FOB should be inserted. When the card or HS-FOB is in the slot, the green LEDs are **OFF**.

INSTALLATION AND WIRING

1. Make sure the insulation is stripped off the wires to expose their copper cores to the length indicated by the "Strip Gauge" shown in Figure 1 (approx. 3/8").
2. Insert wires into the terminals on the HS-100 as indicated in these instructions for either power pack wiring (Figure 2) or building control system wiring (Figure 3). Make sure they are securely clamped.
3. Mount the HS-100 in the wall box with the mounting screws provided.
4. Attach the cover plate then turn the power **ON**.

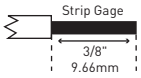


Figure 1: Strip Gauge

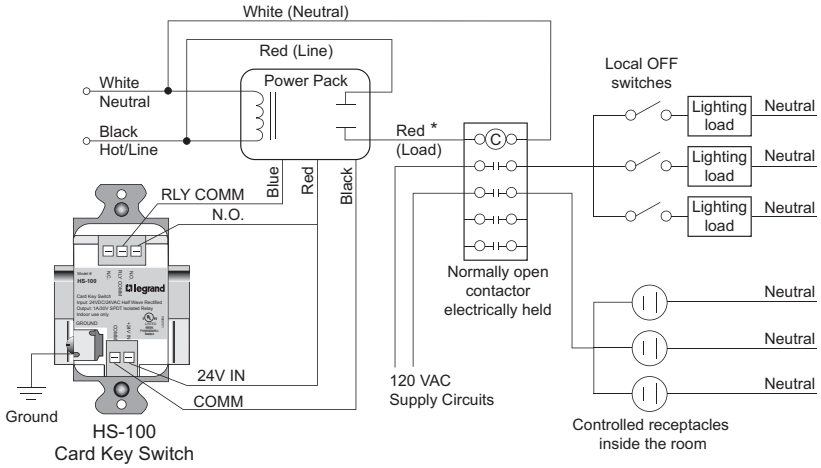
WARNING: TURN THE POWER OFF AT THE CIRCUIT BREAKER BEFORE WIRING.

Power Pack Wiring:

1. Install the power pack according to its instructions.
2. Connect the power pack wires:

   BLUE wire to isolated relay common (RLY COMM) terminal on the HS-100.

   RED wire (+24VDC) to the normally open relay (N.O.) terminal and to the +24V IN terminal on the HS-100. Building Control System Wiring:



Do not wire receptacles directly to HS-100; device is not rated to control receptacles.

* Do not exceed the power pack's maximum load rating.

Figure 2: Wiring to power pack

Building Control System Wiring:

The HS-100's Isolated Relay allows integration with a lighting control panel, a building automation system (BAS), an energy management system (EMS), or any other building control system that accepts a dry contact closure as an input signal. Connect the wires coming from the building control system as follows:

- +24VDC or +24VAC Class 2 supply to the +24V IN terminal on the HS-100.
- Supply common to COMM terminal on the HS-100.
- Wire the Isolated Relay according to the building control system requirements. The isolated relay is rated for 1A @ 30VAC/VDC:
  - Normally Closed (N.C.) - Open when card key is in card slot.
  - Normally Open (N.O.) - Closed when card key is in card slot.
  - Isolated Relay Common (RLY COMM) must be used for proper operation.

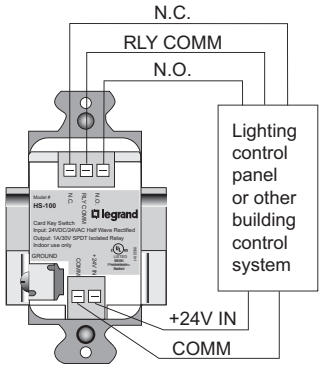


Figure 3: Class 2 wiring to building control system

TROUBLESHOOTING

Lighted card slot is OFF; no response from controlled loads in the guest room when card is inserted in slot.

- Make sure the circuit breaker that feeds the controlled guest room loads is on and functioning.
- If the guest room loads are still not energized, turn power **OFF** and verify that the HS-100 is wired correctly and that all wires are tightly secured inside the wiring terminals.
- If loads still do not respond properly after following troubleshooting, turn **OFF** power to the circuit and call Technical Support at 1.800.879.8585.

Lighted card slot is ON; no response from controlled loads in the guest room when card is inserted in slot or removed from it.

- If using a power pack, a direct connection between the Red (+24VDC) and the Blue thin wires on the power pack should close the power pack's relay and the controlled loads in the guest room should be energized.
- Turn power **OFF**, make this test connection and turn power back **ON**.
  The controlled loads should be energized.
- If they are, turn power **OFF** and correctly rewire the HS-100, making sure that all wires are tightly secured inside the wiring terminals.

If the controlled loads do not energize using the test connection, call Technical Support.

ORDERING INFORMATION

Catalog Number	Description
HS-100-W	Low Voltage Card Key Switch; 24VDC/VAC
HS-150-W	Line Voltage Card Key Switch; 120/277VAC, 50/60Hz
HS-FOB-W*	Key Fob accessory for use when room access uses a standard key entry or other system without standard size hotel card key
HS-WP-W**	Cover plate for single-gang box
HS-WPR-W	Cover plate for triple-gang box with decorator switch option (card slot on the right)
HS-WPL-W	Cover plate for triple-gang box with decorator switch option (card slot on the left)

Hotel Card Key Switches, Key Fobs and Cover Plates are available in White

* Not needed when hotel uses card key entry system.

** One HS-WP-W included with each switch.

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