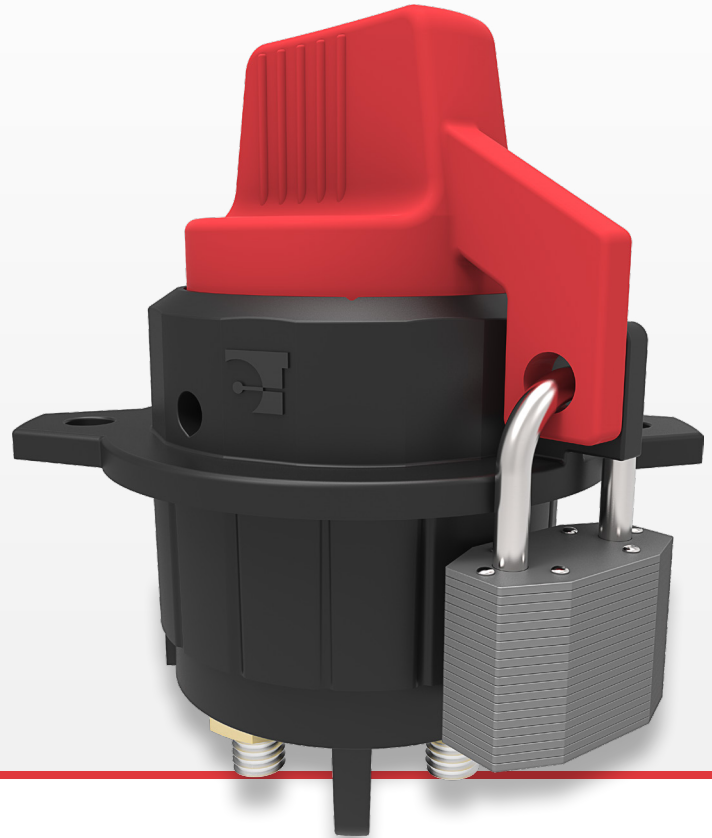


BD-Series

Battery Disconnect Power Switch

[PRODUCT WEBPAGE](#)

request sample, configure part, watch video



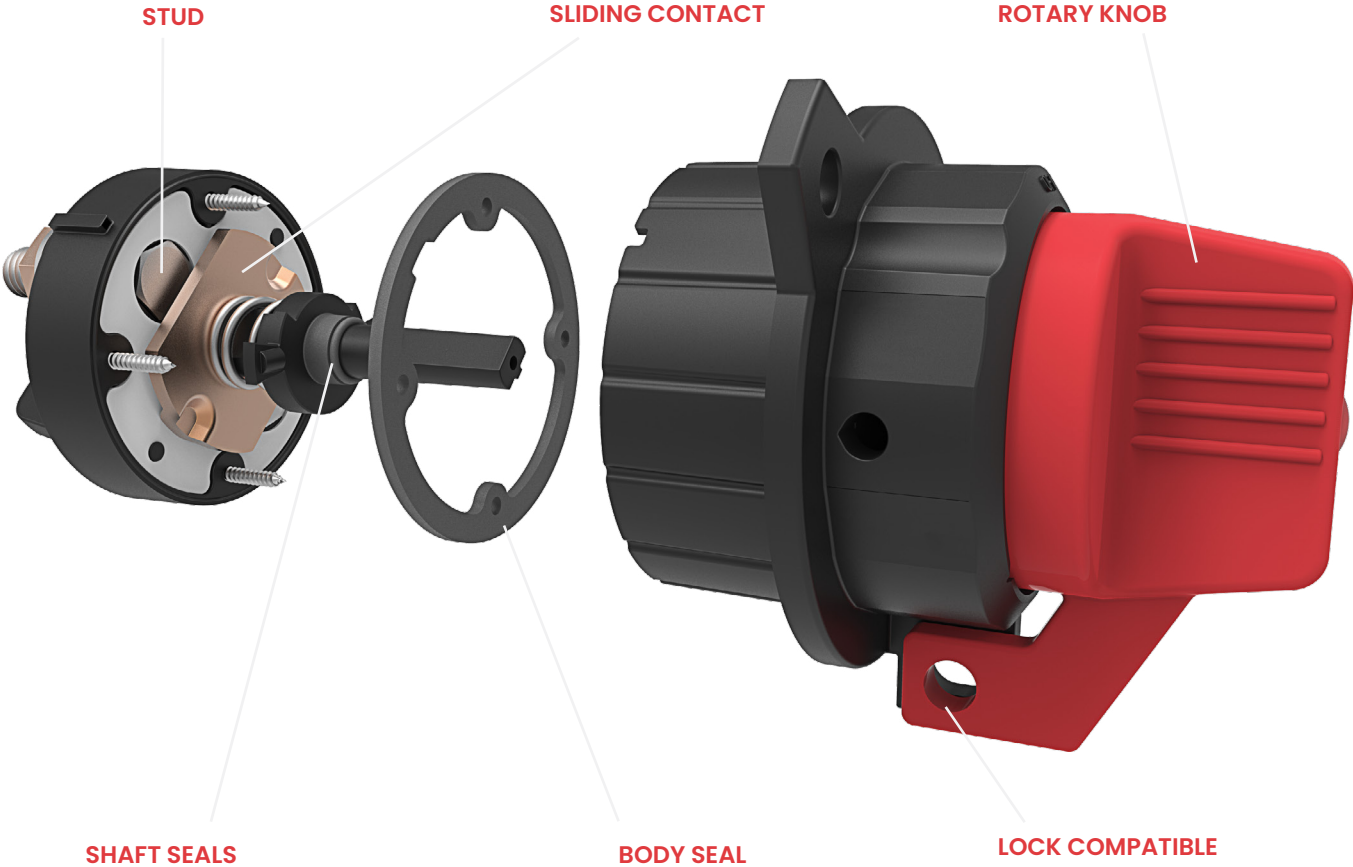
The BD-Series battery disconnect switch is designed to minimize battery drain, ensure maintenance personnel safety, and when used in conjunction with a padlock, provides vehicle theft protection.

1 **100-300** **12-24** **IP67 Sealing**
Pole Amps VDC Above-Panel

Typical Applications

- On/Off-Highway Equipment
- Military
- Marine

Design Features



Tech Specs

Electrical

| | |
|-----------------------|---|
| Application Voltage | DC Rated voltage: 12VDC / 24VDC Range of operating voltage: 12VDC: min 9VDC, max 16VDC; 24VDC: min 18VDC, max 32VDC |
| Current Ratings | 12VDC/24VDC: rated 100A, max 300A (M10 Studs); 12VDC/24VDC: rated 300A (M14 Studs) |
| Intermittent Current | 24VDC/1500A, 3 seconds on, 60 seconds off, 10 cycles: voltage drop should not exceed 400mV between main terminals. 28V/1500A/30 seconds: voltage drop should not exceed 400mV 28V/2000A/5 seconds followed by 28V/750A/30 seconds followed by 28V/250A/24 hours: voltage drop should not exceed 100mV |
| Dielectric Strength | 50HZ, 550VAC for 1 minute between electrically / isolated terminals in main circuit; between terminals of main circuit, knob and enclosure. |
| Insulation Resistance | Minimum of 100 Megohms 1 min @ 500VDC |
| Temperature Rise | Terminal should not exceed 60°C above ambient. |
| Endurance | For M10 Studs: 2 seconds ON and 2 seconds OFF per operation, load with rated current & voltage. 12V test @14V±0.1V; 24V test @28V±0.2V. 50,000 cycles: 100A current; 20,000 cycles: 200A current; 3,000 cycles: 250A current 2 seconds ON and 6 seconds OFF per operation, load with rated current & voltage. 12V test @14V±0.1V; 24V test @28V±0.2V 3,000 cycles: 300A current For M14 Studs: 2 seconds ON and 6 seconds OFF per operation, load with rated current & voltage. 12V test @14V±0.1V; 24V test @28V±0.2V 3,000 cycles: 300A current |

Mechanical

| | |
|----------------|---|
| Handling Shock | Fully functional after 3 drops from 1000 mm height. Surface damage may occur. |
|----------------|---|

Environmental

| | |
|---------------------|---|
| Operating Temp. | -40 °C to +85 °C. |
| Moisture Resistance | IEC 60068-2-38 or G/T 2423.34, Test Z/AD: Composite temperature/humidity cycle test, ten 24-hour cycles @ -10°C to +65°C, ≤80-96% RH. |
| Thermal Cycling | IEC 60068-2-14 or GB/T 2423.22, Test Nb, 25 Cycles -40°C to +85°C |
| Thermal Shock | IEC 60068-2-14 or GB/T 2423.22, Test Na (5 cycles @ -55°C to +25°C to +85°C to +25°C) |
| Thermal Resistance | IEC 60068-2-1 or GB/T 2423.1 Cold: Test A, operate 8 hours @ -40°C IEC 60068-2-2 or GB/T 2423.2 Heat: Test B, operate 8 hours @ +85°C |
| Vibration | IEC 60068-2-34 or GB/T 2423.11,10- 500 Hz, Random vibration test for 8 hours in each of the 3 mutually perpendicular axes. 25Gs @ Z axes, 12.5Gs @ X/Y axes. powered. |
| Salt Spray | IEC 60068-2-11 or GB/T 2423.17, 48 hours |
| Fire and Smoke | IEC 60695-11-10 or GB/T 2408, HB |
| Dust / Waterproof | IP67, for above and below-panel components of actual switch only |
| Chemical Splash | Gasoline, Diesel, Motor Oil, Brake Fluid, Ammonia, Armor All |
| UV Protection | ASTM G155-05a, cycle 11,300 hr Xenon Arc, 1.4W / (m ² Nm), wavelength 420 Nm |

Physical

| | |
|------------------|---|
| Number of Poles | 1 pole |
| Wiring Terminals | Line / Load terminal: M10 brass nuts Torque value: M10 (6-8 Nm); M14 (10-14 Nm) |
| Mounting | M8 Iron nut, torque value: (10-15 Nm) |
| Torque Operation | 1.0-3.0 Nm |
| Body Color | Black |
| Actuator Color | Handle color optional, with white color "Arrow" legends. |
| Weight | (M10 Studs): 340±10 g / set; (M14 Studs): 385±10 g / set |
| Material | Base (PBT glass filled), Bracket & Knob (nylon glass filled), Studs (Copper + Tin plating), Nuts (Brass) |

Ordering Scheme

Sample Part Number **BD A 10 - R A**

Selection 1 2 3 4 5

1. SERIES

BD Battery Disconnect Power Switch

2. RATING / CYCLES

A 100A @ 24VDC: 50,000 Cycles
 200A @ 24VDC: 20,000 Cycles
 250A @ 24VDC: 3,000 Cycles
B 300A @ 24VDC: 3,000 Cycles

Note: Refer to General Specifications for test parameters.

Notes:

1 Only available with code B from box 2.

[Configure Complete Part Number >](#)

[Browse Standard Parts >](#)

3. TERMINATION

10 M10 Stud
14¹ M14 Stud

4. KNOB COLOR

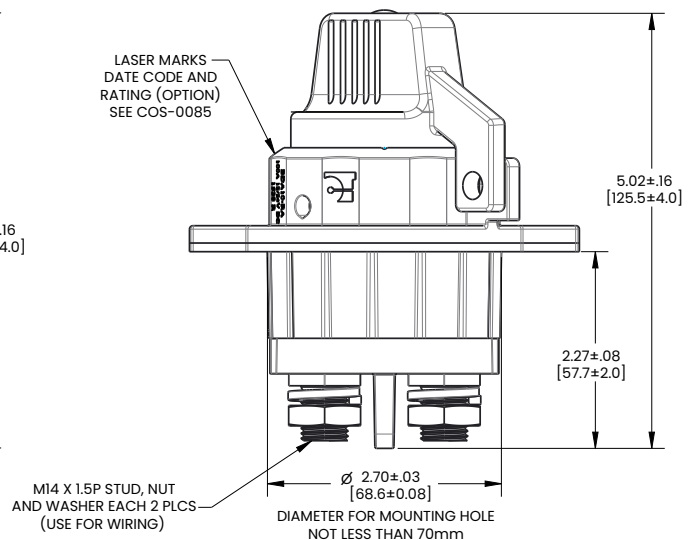
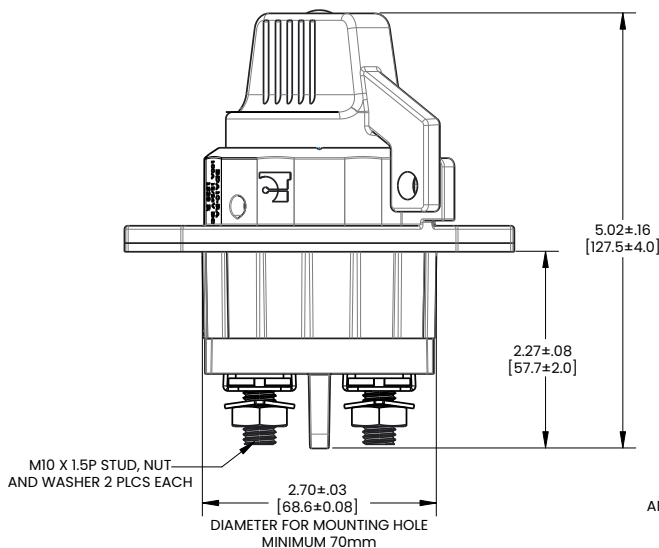
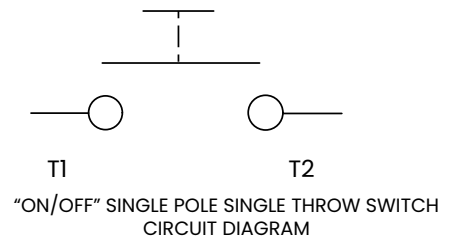
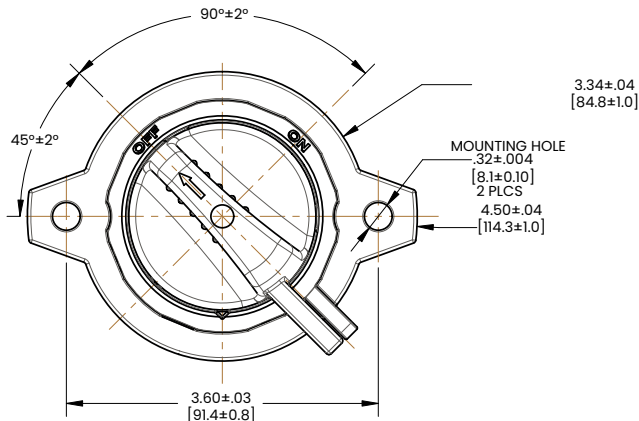
R Red
Y Yellow
B Black

5. LEGEND

A Arrow Legend, White Color

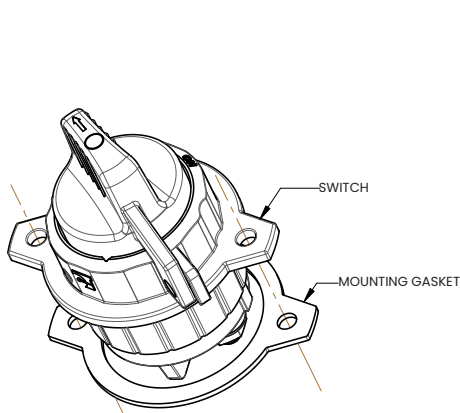
Dimensional Specs

inches [millimeters]

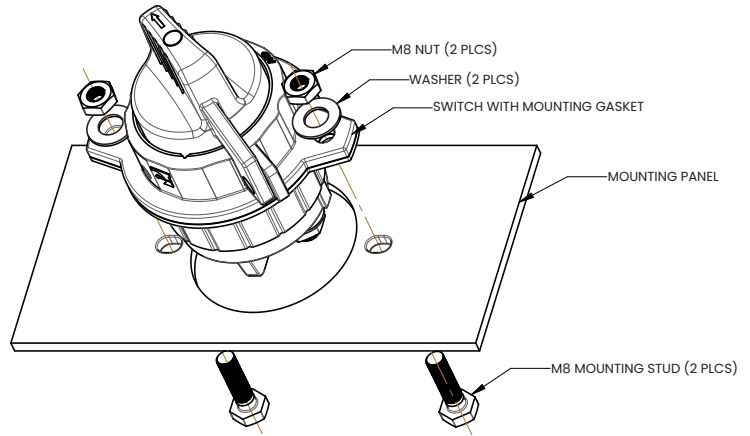


Mounting Method 1

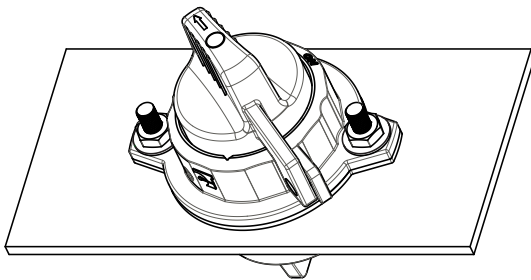
inches [millimeters]



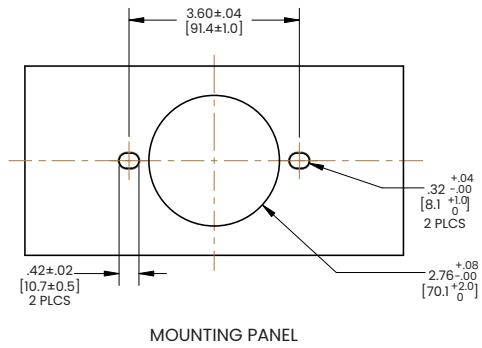
MOUNTING STEP 1: ATTACH MOUNTING GASKET WITH THE SWITCH ORIENTATION AS SHOWN



MOUNTING STEP 2: ORIENT AS SHOWN AND INSTALL THE SWITCH IN MOUNT PANEL HOLE; THEN INSERT STUDS AND WASHERS



MOUNTING STEP 3: TIGHTEN 2PLCS M8 NUTS (REC. TORQUE [10-5Nm])

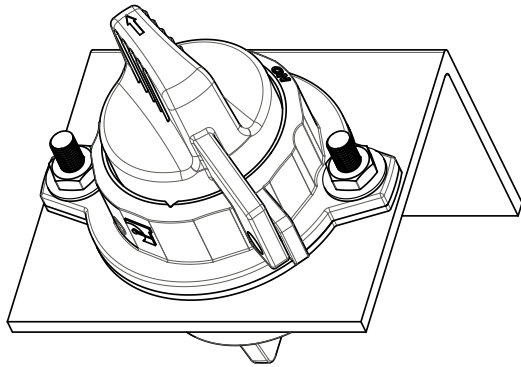


Notes:

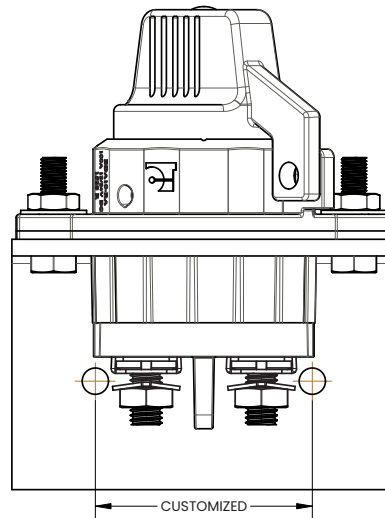
- 1 Switch can be mounted horizontally or vertically.

Mounting Method 2

inches [millimeters]



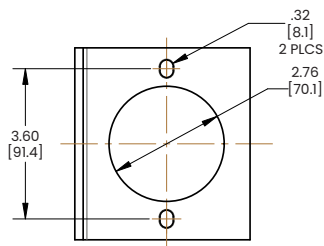
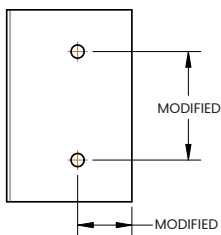
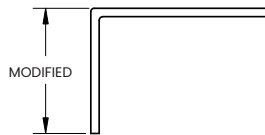
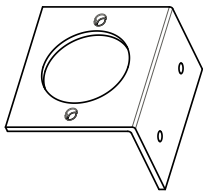
MOUNTING STEP 1: INSTALL SWITCH WITH MOUNTING BRACKET ORIENTATION AS SHOWN



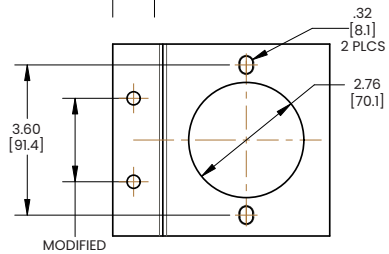
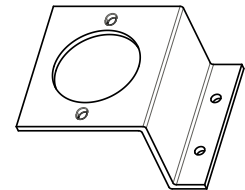
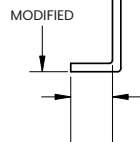
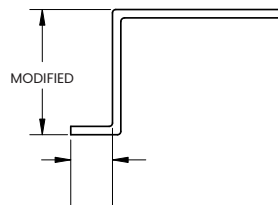
MOUNTING BRACKET CAN BE MODIFIED AS BELOW

MOUNTING STEP 2: ORIENT AS SHOWN AND INSTALL THE SWITCH IN CUSTOMER PANEL.

"L" SHAPED MOUNTING BRACKET



"Z" SHAPED MOUNTING BRACKET

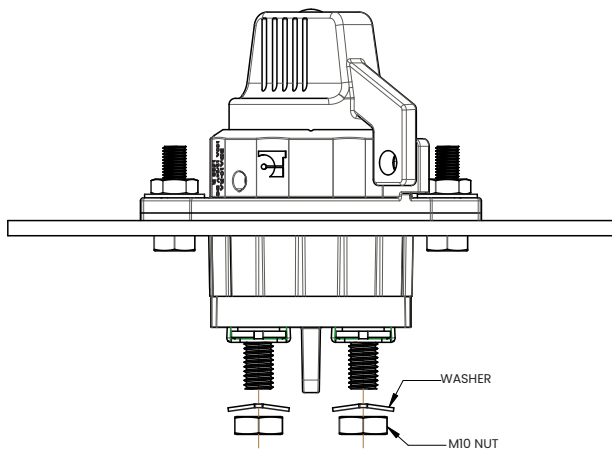


Notes:

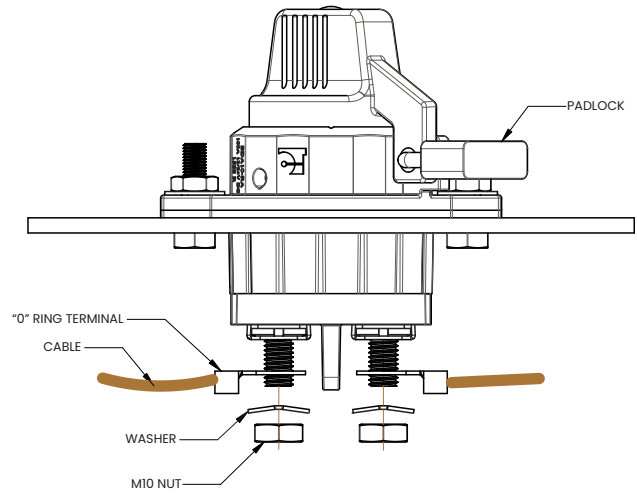
- 1 Switch can be mounted horizontally or vertically.

Wiring

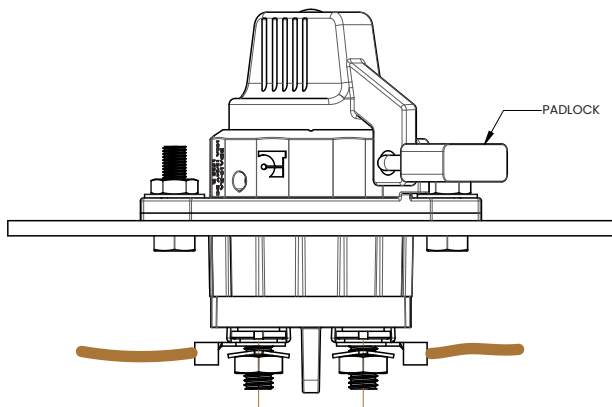
inches [millimeters]



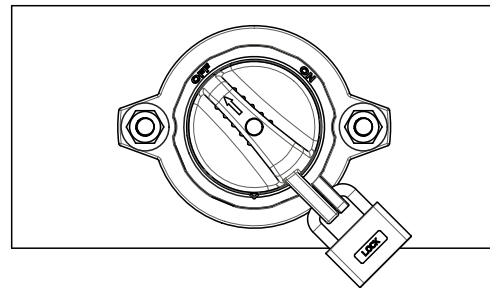
WIRING 1: DISCONNECT WASHERS AND NUTS



WIRING 2: ATTACH 2PLCS M10 "O" RING TERMINALS AS SHOWN, THEN RE-FASTEN WASHERS AND NUTS



WIRING 3: TIGHTEN 2PCS BRASS M10 NUTS (REC. TORQUE [6-8NM])



WHEN USED IN CONJUNCTION WITH A PAD LOCK, SWITCH CAN LOCKED IN THE "OFF" POSITION AS A SAFETY MEASURE

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[GS1AN11](#) [GS1DU3](#) [GS2GU3N](#) [GS2MU3N](#) [LK4DU3CN](#) [35-210-051-R-900](#) [TP15900-4](#) [VKA3160N](#)