



# MPD

MEMORY PROTECTION DEVICES


## Battery Holders & More

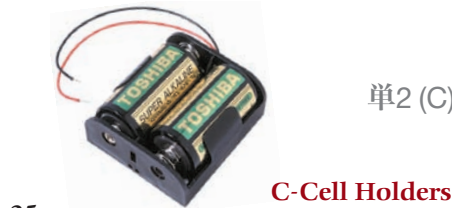


*Award winning components uniquely designed to meet the challenges of today and fulfill the dreams of tomorrow.*

# Index

## 索引 インデックス

<p>3</p>  <p>鈕扣電池座 コイン電池ホルダー <b>Snap Dragons</b></p>	<p>9</p>  <p>ボタン/コインタイプ電池用ホルダー持具 固定器 <b>Battery Retainers</b></p>	<p>17</p>  <p><b>6 Volt Holders</b> <b>12 Volt Holders</b></p>
<p>4</p>  <p>Minis コイン電池ホルダー 迷你鈕扣電池座 <b>Minis</b></p>	<p>10</p>  <p>Gliders コイン電池ホルダー 滑动式系列鈕扣電池座 <b>Gliders</b></p>	<p>18</p>  <p>単4 (AAA) <b>AAA-Cell Holders</b></p>
<p>5</p>  <p><b>CR2032 Holders</b></p>	<p>13</p>  <p><b>Surface Mount Retainer Contacts</b></p>	<p>18</p>  <p><b>AAA-Cell Covered Holders</b></p>
<p>5</p>  <p>ボタン/コインタイプ電池用ホルダー 鈕扣電池 <b>Coin Cell Holders</b></p>	<p>15</p>  <p><b>Retainer Contacts w. PC Pins</b></p>	<p>18</p>  <p>単6 (AAAA) <b>AAAA-Cell Holders</b></p>
<p>6</p>  <p><b>Press to Eject Holders</b></p>	<p>17</p>  <p>1/2サイズ単3 (1/2AA) <b>1/2AA-Cell Holders</b></p>	<p>19</p>  <p>18650リチウムイオン電池ホルダー 锂离子18650 <b>18650-Cell Holders</b></p>
<p>6</p>  <p><b>Push Button Holders</b></p>	<p>17</p>  <p>2/3サイズ単3 (2/3AA) <b>2/3A-Cell Holders</b></p>	<p>21</p>  <p><b>A-Cell Holders</b></p>
<p>8</p>  <p>Verticals コイン電池ホルダー 直立式鈕扣電池座 <b>Verticals</b></p>	<p>17</p>  <p>単5 (N) <b>N-Cell Holders</b></p>	<p>22</p>  <p>単3 (AA) <b>AA-Cell Holders</b></p>



**RoHS Compliance**

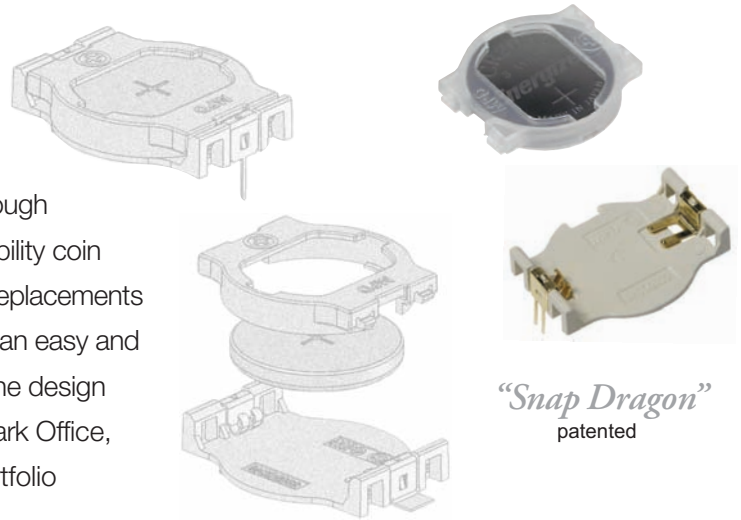
RoHS compliance information is available online on our detailed part pages and individual part datasheets for each of our products.

<b>Termination options:</b>	PC- printed circuit pins	L- solder lugs	SF- male/female snap fasteners	W- 6" wire leads	B- bump plates
终端	PC 插针	接线片焊接	9V 按钮	引线	挡板
終了		はんだラグ	9V スナップ	リード線	バンプレート

*We're dedicated to reinventing coin cell holders  
to meet the unending demands of an ever evolving world.*

### Snap Dragon

The Snap Dragon is the newest style, which drastically increases the reliability of open top coin cell holders through the use of a snap-on cover piece. While other high reliability coin cell holder solutions can make battery installations and replacements difficult or impossible for end users, Snap Dragons offer an easy and intuitive battery installation and replacement process. The design currently has a patent from the U.S. Patent and Trademark Office, and is the newest addition to MPD's robust patent portfolio of battery holder technologies.



### Snap Dragon 纽扣电池座

自MPD发明首个纽扣电池座以来，我们一直在用越来越新的设计对它进行改造，以满足不断发展的电子行业的需求。Snap Dragon就是其中的最新设计，它所具备的新功能可以满足更多的需求。扣上电池盖后，纽扣电池完全被锁定，并被Snap Dragon牢固地连接得很好。撞击、震动和摔落几乎都不会使电池松开，或使连接中断。但电池盖还是能轻松打开的，便于对电池进行快速简单的更换。LCP（液晶聚合物）底座完全能承受高温回流焊接工艺，聚丙烯电池盖也很坚固，并且具有足够的柔软性，实现对很多电池的顺利更换。更妙的是，Snap Dragon电池座不仅具有这些优点，尺寸还很小，整体高度仅比印刷电路板（PCB）上的纽扣电池高出了1毫米。



组装好的 Snap Dragon 包含 CR2032

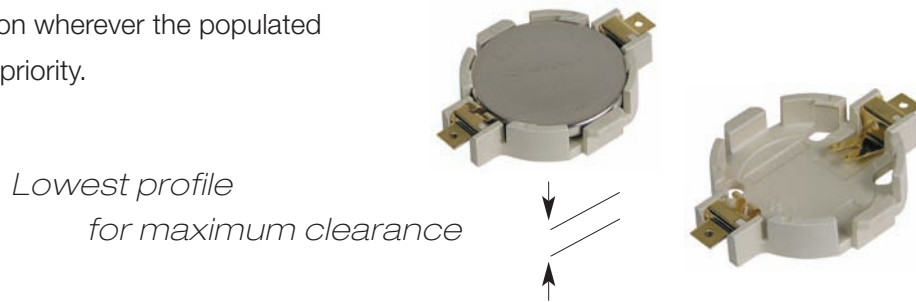
CR2032 電池が入った状態の組立後の Snap Dragon。

### Snap Dragon コイン電池ホルダー

MPDは初のコイン電池ホルダーを開発して以来、たえず進化するエレクトロニクス産業の需要に応えるために、より新しい設計を進めることによって、その再開発を続けてきました。Snap Dragonは、需要の高まりに応えるために数々の新機能を搭載した当社の最新型の製品です。カバーをはめ込むとコイン電池が完全に固定されるSnap Dragonは、高い信頼性を持ち卓越した接続を実現します。衝撃、振動、落下によって電池がずれるどころか、接続が瞬断することさえほとんどありません。一方、カバーはスナップ内で簡単に取り外せるので、電池交換が迅速かつ容易にできます。LCPベースは高温リフローはんだ付け工程への完全な耐性を持つ一方、ポリプロピレン製カバーは強靱かつ柔軟ですから、何度でも問題なく電池を交換することができます。驚くことに、非常に薄型のSnap Dragon電池ホルダーを使っても、コイン電池全体のPCBからの高さは平均で1mm増えるだけで、これらの利点をすべて実現することができます。

**Minis**

Minis reduce the profile of battery holders to nearly nothing. By drilling a small hole into the surface of the PCB, a mini coin cell holder can be placed partially in the circuit board. This drastically lowers the profile of the battery holder, making Minis the perfect solution wherever the populated board's height is a top priority.



*Lowest profile  
for maximum clearance*

**迷你纽扣电池座**

迷你 (Minis) 系列纽扣电池座将电池座的尺寸缩减至几乎可以忽略。通过在印刷电路板的表面钻小孔，迷你纽扣电池座能部分置于电路板上。这大大缩小了电池座的尺寸，使迷你系列纽扣电池座成为了优先考虑满载电路板高度时的完美解决方案。高压内弯触点保证了与电池安全紧密的连接，同时还使其能轻松进行更换。迷你系列纽扣电池座是尺寸最小的纽扣电池座，而 CR2032 型号 (BU2032SM-JJ-MINI-GTR) 距电路板的高度仅1.95毫米。与市面上高度最低的普通 CR2032 电池座相比，电路板高度节约了几乎3毫米。



迷你系列拥有所有纽扣电池座中最小的尺寸。

Minisはあらゆるコイン電池ホルダーの中で基板からの高さが最小です。

**Minis コイン電池ホルダー**

Minisは、電池ホルダーの基板からの高さをほぼゼロにまで小さくします。PCB表面に小さな穴を開けることによって、小型コイン電池ホルダーを回路基板の一部に取り付けることができます。これによって電池ホルダーの基板からの高さは劇的に小さくなりますので、Minis は実装基板の高さが最も重視される用途に完全なソリューションを提供します。高圧湾曲接点の採用により、電池の安全かつ緊密な接触を確保しながら、交換時の着脱作業も簡単にできます。Minisは基板からの高さが最も小さいコイン電池ホルダーで、CR2032用 (BU2032SM-JJ-MINI-GTR) の高さは基板表面からわずか1.95 mmです。これによって、市販されている従来型のCR2032用電池ホルダーと比べて、基板からの高さを約3 mmも抑えることができます。

Individual drawings of our products are available online at [www.batteryholders.com](http://www.batteryholders.com)

## CR2032 Holders

Surface Mount

表面贴装

表面实装



SnapDragon-SM  
*patented*



BHSD-2032-SM  
*low profile*



BHSD-2032-COVER



BHSD-2032-L  
SnapDragon-L  
*patented*



BU2032SM-HD-G  
*high retention*



BU2032SM-JJ-GTR  
*high retention*



BU2032SM-BT-GTR



BU2032SM-G



BU2032SM-JJ-MINI-GTR  
*recessed into pcb*



BU2032SM-FH-GTR



BLP2032SM-GTR  
*low profile*



LP2032SM-JJ-GTR  
*low profile*



BA2032SM  
*press to eject*



BC2032-F1



BH-20H-1T

SMD Holder Part Number	Lead-free Solder Process Compatible	Typical (20mm) Cell Number	SMD Holder Part Number	Lead-free Solder Process Compatible	Typical (20mm) Cell Number
BHSD-2032-SM	✓	CR2032	BU2032SM-BT-GTR	✓	CR2032
BHSD-2032-L	✓	CR2032	BU2032SM-FH-GTR	✓	CR2032
BU2032SM-HD-G	✓	CR2032	BLP2032SM-GTR	✓	CR2032
BU2032SM-JJ-GTR	✓	CR2032	LP2032SM-JJ-GTR	✓	CR2032
BU2032SM-G	✓	CR2032	BA2032SM		CR2032
BU2032SM-JJ-MINI-GTR	✓	CR2032	BC2032-F1	✓	CR2032
BK-5058-SM	✓	CR2032	BH-20H-1T	✓	CR2032

## Coin Cell Holders

Surface Mount

表面贴装

表面实装



BC501SM  
Diameter: 12 mm



SnapDragon-SM  
*patented*



BHSD-1225-SM  
Diameter: 12 mm



BHSD-1225-COVER



BLP2016SM-GTR  
*low profile*



BU1632SM-JJ-GTR  
Diameter: 16 mm



BU2450SM-JJ-G  
Diameter: 24 mm



Part Number	Battery Diameter	Lead-free Solder Process Compatible	SMD	Typical Battery Part Number
BC501SM	12 mm	✓	✓	CR1220
BHSD-1225-SM	12 mm	✓	✓	CR1225
BU1632SM-JJ-GTR	16 mm	✓	✓	CR1632
BLP2016SM-GTR	20 mm	✓	✓	CR2016
BU2450SM-JJ-G	24 mm	✓	✓	CR2450
BK2477-SM-JJ-GTR	24 mm	✓	✓	CR2450

## CR2032 Holders

### Thru-hole Mount 通孔 スルーホール



BA2032



BU2032-1



BU2032-1-G



BU2032-1-HD-G  
high retention



BC2032-E2



SnapDragon-PC  
patented



BHSD-2032-PC



BHSD-2032-COVER



BH800S



BS-3



BH32T-C



BH32T-C-G



BH32T-C-HITE



BS-7

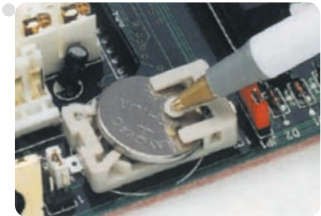


Thru-hole Mount Part Number	Lead-free Solder Process Compatible	Typical (20mm) Cell Part Number
BA2032		CR2032
BU2032-1		CR2032
BU2032-1-G	✓	CR2032
BU2032-1-HD-G		CR2032
BC2032-E2		CR2032
BHSD-2032-PC	✓	CR2032
BH800S		BR/CR/DL (2) 2025, 2032, 6V w. 2 batteries

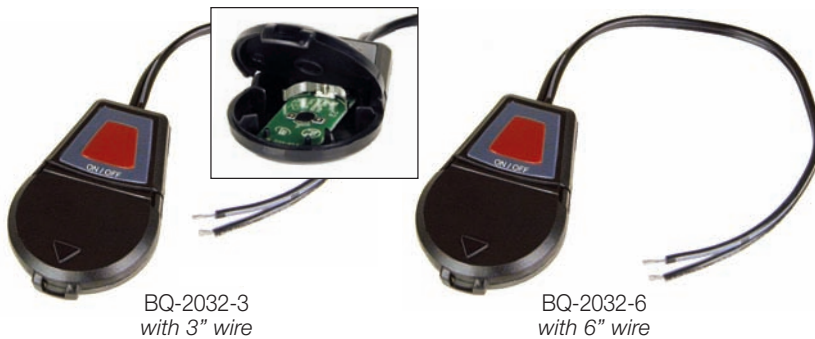
Thru-hole Mount Part Number	Lead-free Solder Process Compatible	Typical (20mm) Cell Part Number
BS-3		CR2032
BH32T-C		BR/CR/DL 2016, 2020, 2032, 2040
BH32T-C-HITE	✓	BR/CR/DL 2016, 2020, 2032, 2040
BH32T-C-G		BR/CR/DL 2016, 2020, 2032, 2040
BS-7		CR2032
BVSD-2032-PC	✓	CR2032 Vertical holder
BK-5058		CR2032 Vertical holder
BS-5		CR2032 Vertical holder

## Press to Eject CR2032 Coin Cell Holders (PTE)

MPD offers extremely reliable, corrosion resistant, press to eject (PTE) CR2032 coin cell holders. When a coin cell is pushed into the coin cell holder, it snaps into place. To remove the CR2032 battery simply press the plastic tab and the battery pops up. BA2032 and BA2032SM holders have low electrical resistance and offer redundancy.



## Push Button Holders



BQ-2032-3  
with 3" wire

BQ-2032-6  
with 6" wire

Programmable PCB available upon request as a custom order.

New enclosed BQ2032-3 and BQ2032-6 are batteryholders for lithium CR2032 cells. These holders also accept the ever-popular BR2032, ML2032, LIR2032 batteries and are suitable for both consumer and industrial products. BQ2032-3 features a tact switch "on-off" button. The cover is safely kept closed with a snap-on feature over the battery and comes standard with 24 awg wire leads in 3" length.

# Coin Cell Holders

## Thru-hole Mount

通孔 スルーホール



BH401  
Diameter: 10 mm



BH501  
Diameter: 12 mm



BS-1225-PC  
Diameter: 12 mm



SnapDragon-PC  
BHSD-1225-PC  
Diameter: 12 mm



BHSD-1225-COVER



BV-1632-G  
Diameter: 16 mm



BH600-G  
Diameter: 16 mm



BH600  
Diameter: 16 mm



BH600-5.8-G  
Diameter: 16 mm



BH600-5.8  
Diameter: 16 mm



BU1632-JJ-1-G  
Diameter: 16 mm



BH906S  
Diameter: 23 mm



BH908T-C  
Diameter: 23 mm



BH908T-C-HITE  
Diameter: 23 mm



BH1000G  
Diameter: 24 mm



BH1000S  
Diameter: 24 mm



BH2430T-C  
Diameter: 24 mm



BH2450T-C  
Diameter: 24 mm



BS-2450  
Diameter: 24 mm



BH3000  
Diameter: 30 mm

Part Number	Battery Diameter	Lead-free Solder Process Compatible	SMD	Typical Battery Part Number
BH401	6-10 mm			CR1025, 317, 319, 321, 361, 362, 364, 370, 371, 373, 377, 395, 396, 397, 399 <b>Types:</b> N, S, T, V, W, X, Z, BA, CA, DA, HA, LA
BH501	12 mm			BR/CR/DL 1216, 1220, 1225
BS-1225-PC	12 mm			CR1225
BHSD-1225-PC	12 mm	✓		CR1225
BV-1632-G	16 mm			CR1632 Vertical holder
BH600-G	16 mm			BR/CR/DL 1620, 1632
BH600	16 mm			BR/CR/DL 1620, 1632
BH600-HITE	16 mm			BR/CR/DL 1620, 1632
BH600-5.8-G	16 mm			16 mm diameter by 5.4 to 6.0 mm Cells, Varta V80H, 625, EPX13, A76
BH600-5.8	16 mm			16 mm diameter by 5.4 to 6.0 mm Cells, Varta V80H, 625, EPX13, A76
BU1632-JJ-1-G	16 mm	✓		CR1632
BH906S	23 mm			BR/CR/DL (2) 2320, 2325 or (1) 2354, 6 volts with two batteries
BH908T-C	23 mm			BR/CR/DL 2320, 2325, 2330, 2335
BH908T-C-HITE	23 mm	✓		BR/CR/DL 2320, 2325, 2330, 2335
BH1000G	24 mm			BR/CR/DL 2477
BH1000S	24 mm			BR/CR/DL (2) 2420, 2430 or (1) 2450, 6 volts with two batteries
BH2430T-C	24 mm			BR/CR/DL 2420, 2430
BH2430T-C-HITE	24 mm	✓		BR/CR/DL 2420, 2430
BH2450T-C	24 mm			BR/CR/DL/LIR 2450
BS-2450	24 mm			CR2450
BV-2450-PC	24 mm			CR2450
BH3000	30 mm			BR/CR 3032



## Vertical Coin Cell Holders

### Vertical Mount



### Verticals

Although electronic devices continue to shrink in size, they are still just as thirsty for power. Coin cell batteries are not shrinking in size or increasing in capacity as quickly, and fitting them into designs is requiring more innovations than ever before. Vertical coin cell holders minimize the footprint of coin cells, however at the cost of having a much higher profile. Newer Verticals are calling for a small hole to be cut into the PCB to allow for the holder to sit partially in the board, similar to the Minis family. This minimizes the increase in height, usually saving approximately a full centimeter. When footprints are your chief concern, think vertically!

### 直立式纽扣电池座

虽然电子设备的尺寸在不断缩小，但它们对供电的要求依然很高。纽扣电池无法以同样的速度实现尺寸的缩小和容量的增大，将这些因素融入到设计中需要空前多的创新。直立式纽扣电池座可将纽扣电池的尺寸减到最小，但是这样就不可能有很高的性能。较新式的直立式系列 (Verticals) 纽扣电池座需要在印刷电路板上开一个小孔，以便让电池座可以有一部分置于电路板上，比如迷你系列纽扣电池座产品系列。这样可以最大限度地减少高度的增加，通常可以节省一厘米左右的高度。如果尺寸是您关心的主要问题，那就考虑一下直立式的吧！

直立式系列是拥挤的电路板  
的最佳解决方案。

Verticalsは密集した  
基板にとって優れたソリ  
ューションです。

Verticals are an excellent solution on cramped boards.



BK-5058-SM 是 MPD 推出的  
最新直立式纽扣电池座。

BK-5058-SMはMPD 製の  
垂直型コイン電池ホルダー  
最新製品です。

The BK-5058-SM is our newest vertical coin cell holder.



### Verticals コイン電池ホルダー

電子デバイスのサイズの小型化は進んでいますが、その消費電力の多さは今もほとんど変わりません。コイン電池ではそれと同じように速くサイズの小型化または容量の拡大が進むことはありませんが、それを設計に合わせるには、これまででない技術革新が求められます。垂直型コイン電池ホルダーを使えば、コイン電池の設置面積は小さくなりますが、そのためには基板からの高さがずっと大きくなるという犠牲を払わなければなりません。新型のVerticalsの部品は、PCBに小さな穴を切り込むことによって、Minis製品ファミリーのように、ホルダーを部分的に基板上の一部に据え付ける必要があります。こうすることによって、高さの増加が最小限に抑えられ、普通は1cm近く小さくすることができます。設置面積が大きな問題になる場合は、垂直思考でいきましょう。

### Coin Cell Retainers

Coin cell retainers offer a cost-saving alternative versus traditional battery holders. Stripped of their plastic carriers, coin cell retainers require fewer raw materials and manufacturing steps to manufacture than standard coin cell holders. This creates the potential for a highly simplified power management solution that is extremely lightweight, low profile, and very cost efficient. Elimination of the plastic carrier reduces profile by allowing the battery to rest directly on the PCB surface, where dual beam contacts create two distinct points of contact with one of the battery's two terminals. They deliver a redundant electrical connection that is unlikely to be broken even if the battery shifts its position due to shock or vibration.

MPD's high quality coin cell retainers are constructed of nickel-plated phosphor bronze, which provides continuous battery contact even under dynamic conditions. Phosphor Bronze offers superb spring qualities with good elasticity, high fatigue and corrosion resistance, wide temperature range, is non magnetic (Nickel is magnetic) and excellent solderability.

Coin cell retainers also require a conductive pad located on the PC board surface directly beneath the battery to create a contact point for the battery's opposite terminal.

コインセルリテイナーは、通常のバッテリーホルダーに対するコストの低い代用品です。プラスチック製のキャリアのないコインセルリテイナーを製造するには、標準のコインセルホルダーを製造するよりも少ない原料と製造過程で済みます。これにより、大変簡潔化された電力管理ソリューションが可能になり、非常に軽量薄型でコスト効率の高い製品が製造できるようになります。プラスチック製キャリアを取り払うと、バッテリーを直接PCBの表面に設置することができるので、厚みが薄くなります。デュアルビームコンタクトは、バッテリーターミナル二個の内的一個に二つの接点を作ります。電気が十分に接続されるので、衝撃や振動でバッテリーの位置が動いても、壊れることはありません。

MPDの高品質コインセルリテイナーは、ニッケルメッキを施したリン青銅製なので、動的条件の下でも継続的にバッテリー接点を作ることができます。リン青銅は優れた弾力性を有し、疲労抵抗と耐食性が高く、温度範囲が広く、非磁性があり(ニッケルは磁気を帯びています)、はんだぬれ性に優れています。

コインセルリテイナーは、PCボードの表面のバッテリーの真下に伝導パッドをつけて、バッテリーの反対側のターミナルに接点を作る必要があります。

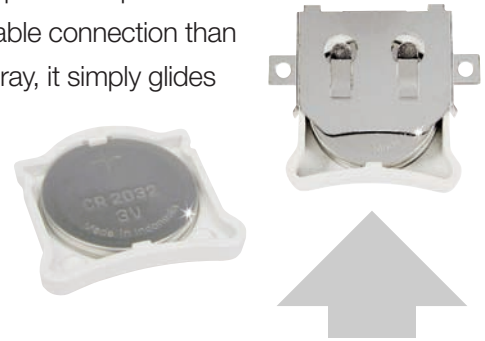
与传统电池座相比，纽扣电池座提供了一种高性价比备选方案。移除塑料载体后，相比于标准纽扣电池座，纽扣电池座需要的原材料和制造步骤更少。这为高度简化的电源管理解决方案创造了可能性，该解决方案非常轻便，剖面低且更具性价比。除去塑料载体后，电池直接放置在PCB表面上，减少了抛面，其上的双梁接触件与电池的两个端子之一形成两个不同触点。触点提供冗余电气连接，即使电池由于冲击或振动而改变其位置，连接也不会中断。

MPD的高品质纽扣电池座由镀镍磷青铜制成，即使在动态条件下也能提供连续的电池接触。磷青铜具有极高弹力，弹性好，耐疲劳和耐腐蚀，温度范围宽，无磁性（镍是磁性的）和焊锡性良好。

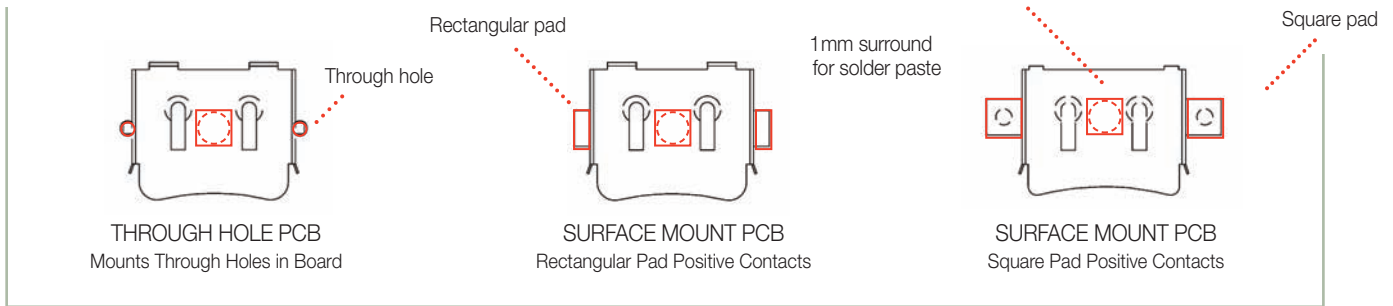
纽扣电池座还需要位于电池正下方的PC板表面上的导电垫，以便为电池的相对端子创建接触点。

## Gliders

Gliders are a hybrid between a coin cell retainer and a holder, offering the price competitiveness of a coin cell retainer, while at the same time giving a better and more reliable connection than the standard battery holder. Once the battery has been installed into the tray, it simply glides into the retainer and clicks into place to provide a secure connection. The intuitive design allows for quick and tool-less battery replacements, while the built-in polarity protection ensures that the coin cell will not make contact when improperly inserted.



### Solder paste locations for mounting retainers



## Thru-hole Mounting Gliders

### MPD P/N Cell Dia. Height Range Typical Button-coin Cell Part Numbers

MPD P/N	Cell Dia.	Height Range	Typical Button-coin Cell Part Numbers
BHX1-LR44-PC	11.5 mm	4.9 - 5.4 mm	LR44, SR44, A76, AG13 and 303
BHX1-1025-PC	10 mm	2.2 - 2.5 mm	BR1025, CR1025 and MS920SE
BHX1-1225-PC	12 mm	2.0 - 2.5 mm	BR1220, BR1225, CR1220, CR1225, DL1225, ECR1220, ECR1225, ML1220 and VL1220
BHX1-1620-PC	16 mm	2.0 - 3.2 mm	BR1620, BR1632, CR1620, CR1632, DL1620, DL1632, ECR1620, ECR1632, LIR1620 and LIR1632
BHX1-1632-PC	16 mm	2.0 - 3.2 mm	BR1620, BR1632, CR1620, CR1632, DL1620, DL1632, ECR1620, ECR1632, LIR1620 and LIR1632
BHX1-5.8-PC	16 mm	5.4 - 6.0 mm	V80H or CP1654 and F5 ibutton
BHX1-2032-PC	20 mm	2.0 - 3.2 mm	BR2032, CR2032, DL2032, ECR2032, LIR2032 and most 2025 cells
BHX2-2032-PC	20 mm	5.4 - 6.4 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032
BHX1-2325-PC	23 mm	2.0 - 3.2 mm	BR2320, BR2325, BR2330, CR2320, CR2325, CR2330, LIR2320, LIR2325, LIR2330, VL-2320, VL-2325 and VL-2330
BHX1-2430-PC	24 mm	2.0 - 3.2 mm	CR2430, DL2430, ECR2430 and LIR2430
BHX1-2450-PC	24 mm	4.7 - 5.3 mm	BR2450, CR2450, DL2450 ECR2450 and LIR2450



Individual drawings of our products are available online at [www.batteryholders.com](http://www.batteryholders.com)

### 滑动式系列纽扣电池座

滑动式纽扣电池座 (Gliders) 系列是电池扣和电池座的混合体，不仅具备纽扣电池扣的价格竞争优势，同时还比标准的电池座连接得更好更牢固。一旦电池装入托盘就会轻松滑入电池扣，咔嚓一声到位，形成牢固的连接。直观的设计能实现快速的电池更换，无需借助工具，同时内置正负极防护功能可确保纽扣电池只有在装入正确时才会连接成功。滑动托盘的另外一个好处是能隔离电池，允许多个纽扣电池的串联式连接，适用于更高电压的设备。滑动式系列的纽扣电池座正迅速受到医疗和射频识别 (RFID) 产品的欢迎，其可靠性和易用性对医疗和 RFID 产品而言都极其重要。



滑动式系列纽扣电池座是具有滑动托盘的电池扣，用以固定电池。

### Gliders コイン電池ホルダー

Gliders は、コイン電池リテーナー並みの価格競争力を実現すると同時に、標準的な電池ホルダーよりも優れた高い信頼性を持つ、リテーナーとホルダーのハイブリッド型の製品です。トレーに取り付けられた電池は、リテーナーに滑り込むように入って所定の位置にカチッと収まり、確実な接続を実現します。直感的に使える設計により、工具がなくても簡単に電池を交換することができる上に、逆極性保護機構を内蔵しているのので、電池を誤った向きに入れようとするとう電気接続ができないようになっています。もうひとつの利点は、グライディングトレーが電池を絶縁することによって、複数のコイン電池を直列に接続できるので、より電圧が高い用途にも使えます。この Gliders コイン電池ホルダー製品ファミリーは、信頼性と使いやすさが最も重視される医療用や無線ICタグ (RFID) 製品の間で急速に普及しています。

Gliders コイン電池ホルダーは、リテーナーにグライディングトレーに組み合わせた部品で、両者が一体となってコイン電池を保持します。

### Surface Mount Glider Tape Reels



#### Surface Mount Glider

Surface Mount Glider Tape and Reel Part Number	Accepts Coin Cell Number	Glider Tray Separate Part Number
BRX1-1632-SM (retainer only)	BR1632, CR1632	BRX1-0005
BRX1-2032-SM (retainer only)	BR2032, CR2032, DL2032	BRX1-0003, Tray for BRX1-2032-SM
BRX1-2450-SM (retainer only)	BR2450, CR2450, DL2450	BRX1-0002, Tray for BRX1-2450-SM
BRX1-2477-SM (retainer only)	BR2477, CR2477, DL2477	BRX1-0001, Tray for BRX1-2477-SM



BRX1-1632-SM



BRX1-2032-SM



BRX1-2450-SM



BRX1-2477-SM



BRX1-0005



BRX1-0003



BRX1-2450-SM  
w. BRX1-0002



BRX1-2477-SM  
w. BRX1-0001

Individual drawings of our products are available online at [www.batteryholders.com](http://www.batteryholders.com)

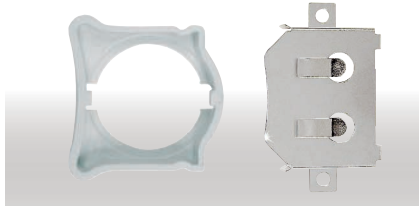
## Gliders

*Quick and Simple Coin Cell Replacement . . .  
 . . . that Locks Securely*



### Gliders

Coin Cell Retainer Trays



**Shock and Vibration Resistance**

### Load



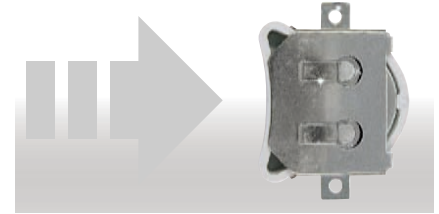
**Load Coin Cell into the Tray**

### Glide



**Glide the Tray into Retainer**

### Lock



**Securely Lock in Retainer**

*Easy-to-solder, nickel-plated, retainers are designed with PC pins or for surface mounting.*

## Surface Mounting Gliders

**MPD P/N Cell Dia. Height Range Typical Button-coin Cell Part Numbers**

MPD P/N	Cell Dia.	Height Range	Typical Button-coin Cell Part Numbers
BHX1-LR44-SM	11.5 mm	4.9 - 5.4 mm	LR44, SR44, A76, AG13 and 303
BHX1-1025-SM	10 mm	2.2 - 2.5 mm	BR1025, CR1025 and MS920SE
BHX1-1225-SM	12 mm	2.0 - 2.5 mm	BR1220, BR1225, CR1220, CR1225, DL1225, ECR1220, ECR1225, ML1220 and VL1220
BHX1-1620-SM	16 mm	2.0 - 3.2 mm	BR1620, BR1632, CR1620, CR1632, DL1620, DL1632, ECR1620, ECR1632, LIR1620 and LIR1632
BHX1-1632-SM	16 mm	2.0 - 3.2 mm	BR1620, BR1632, CR1620, CR1632, DL1620, DL1632, ECR1620, ECR1632, LIR1620 and LIR1632
BHX1-F3-SM	16 mm	4.9 - 5.4 mm	F3 Ibutton and A76
BHX1-5.8-SM	16 mm	5.4 - 6.0 mm	V80H or CP1654 and F5 Ibutton
BHX1-2032-SM	20 mm	2.0 - 3.2 mm	BR2032, CR2032, DL2032, ECR2032, LIR2032 and most 2025 cells
BHX2-2032-SM	20 mm	5.4 - 6.4 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032
BHX1-2325-SM	23 mm	2.0 - 3.2 mm	BR2320, BR2325, BR2330, CR2320, CR2325, CR2330, LIR2320, LIR2325, LIR2330, VL-2320, VL-2325 and VL-2330
BHX1-2430-SM	24 mm	2.0 - 3.2 mm	CR2430, DL2430, ECR2430 and LIR2430
BHX1-2450-SM	24 mm	4.7 - 5.3 mm	BR2450, CR2450, DL2450, ECR2450 and LIR2450
BRX1-2477-SM	24 mm	7.0 - 7.7 mm	BR2477, CR2477



BHX1-1025-SM



BHX1-2032-SM  
with Glider Tray



BHX1-2032-SM



BHX1-2325-SM  
with Glider Tray

# Surface Mounting Battery Retainer Contacts

表面贴装  
表面实装

## Straps

## Slim Profile

## Performance

## Additional

12 mm  
CR1220



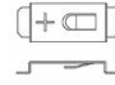
BC-2009



BK-916



BK-885



BC-2017



BK-940

16 mm  
CR1620



BK-868

20 mm  
CR2025



BC-2018



BK-6219



BK-920

20 mm  
CR2032



BC-2003



BC-2003-FH-TR



BK-912-TR



BK-883



BC-2600



BC-2003-2



BC-2003-G



BK-912-G



Top Loading

24 mm  
CR2450



BC-2005



BC-2013



BK-877-G



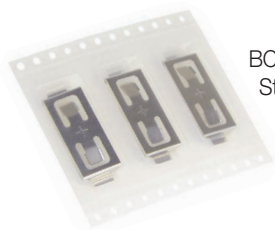
BK-877



BK-950



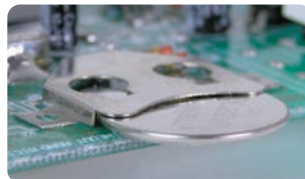
BK-883-TR



BC-2003-TR  
Strip

### Low Profile Design

(Ultra-thin profile)  
offers practical mounting solutions



### Intelligently Engineered

to hold coin cell securely in place  
while offering better access for  
battery replacement.

## Surface Mounting Battery Retainer Contacts

### MPD P/N Cell Dia. Height Range Typical Button-coin Cell Part Numbers

MPD P/N	Cell Dia.	Height Range	Typical Button-coin Cell Part Numbers
BK-414-TR	4.8 mm	1.4 mm	ML414, MS412FE, MS414GE
BK-335-TR	5.8 mm	1.2 mm	335, SR512SW
BK-879	6.8 mm	1.6-2.2 mm	MC621, V364, SC621, 379, V321, SR65, V364, SR60, V377, SR66, V379, and SR63
BK-870	10 mm	2.5 mm	BR1025, CR1025, and MS920SE
BK-1120-SM	11.6 mm	1.6-2.1 mm	LR1120, SR1120W, 391
BC-2009	12 mm	1.6-2.5 mm	BR1220, BR1225, CR1216, CR1220, CR1225, DL1225, ECR1220, ECR1225, ML1220 and VL1220
BC-2017	12 mm		BR2016, CR2016, 12 mm SM retainer strap
BK-885	12 mm	2.0-2.5 mm	BR1220, BR1225, CR1220, CR1225, DL1225, ECR1220, ECR1225, ML1220 and VL1220
BK-916	12 mm	1.6-2.5 mm	BR1220, BR1225, CR1216, CR1220, CR1225, DL1225, ECR1220, ECR1225, ML1220 and VL1220
BK-940	12 mm	1.6-2.5 mm	BR1225, CR1225, DL1225, LIR1225 and ML1220
BK-868	16 mm	4.0 mm	BR1620, BR1632, CR1620, CR1632, DL1620, DL1632, ECR1620, ECR1632, LIR1620 and LIR1632
BK-5009	16 mm	5.2-6.0 mm	V80H, V675H, A76, 357 and I-Buttons
BK-5067	20 mm	1.2-1.6 mm	BR2016, CR2012, CR2016, DL2016, ECR2016 and LIR2016
BC-2018	20 mm	2.5 mm	BR2025, CR2025, DL2025 and LIR2025
BK-6219	20 mm	2.5 mm	BR2025, CR2025, DL2025 and LIR2025
BK-883	20 mm	2.5-3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BC-2003	20 mm	2.5-3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BC-2003-FH-TR	20 mm	2.5-3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BC-2003-G	20 mm	2.5-3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BC-2003-2	20 mm	2.5-3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BK-912-TR	20 mm	2.5-3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BK-912-G	20 mm	2.5-3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BK-920	20 mm	2.5-3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BC-2600	20 mm	2.5-3.2 mm	CR2032, DL2032, ECR2032 and LIR2032
BK-884	23 mm	2.0-3.0 mm	BR2320, BR2325, BR2330, CR2320, CR2325, CR2330, LIR2320, LIR2325, LIR2330, VL-2320, VL-2325 and VL-2330
BK-878	23 mm	5.4 mm	CR2354
BK-886	24 mm	2.0-3.0 mm	CR2430, DL2430, ECR2430 and LIR2430
BK-950	24 mm	5.0 mm	BR2450, CR2450, DL2450 and LIR2450
BC-2013	24 mm	2.0-3.0 mm	CR2430, DL2430, ECR2430 and LIR2430
BK-877-G	24 mm	5.0 mm	BR2450, CR2450, DL2450 ECR2450, and LIR2450
BK-877	24 mm	5.0 mm	BR2450, CR2450, DL2450 ECR2450, and LIR2450
BC-2005	24 mm	5.0 mm	BR2450, CR2450, DL2450 ECR2450, and LIR2450

## Lithium Coin Cell Negative Contacts



BC-2019



BC-2020



BK-2982

Individual drawings of our products are available online at [www.battery-contacts.com](http://www.battery-contacts.com)

# Battery Retainer Contacts with PC Pins

PC 插针

Straps

Slim Profile

Performance

Additional

12 mm  
CR1220



BC-2011



BK-917



BK-890



BK-941

16 mm  
CR1632



BK-869

20 mm  
CR2032



BC-2400



BK-913



BK-888



BK-888-G



BK-915



BK-921

24 mm  
CR2450



BC-2007



BC-2015



BK-5033



BK-880

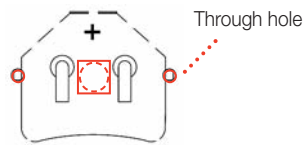


BK-951

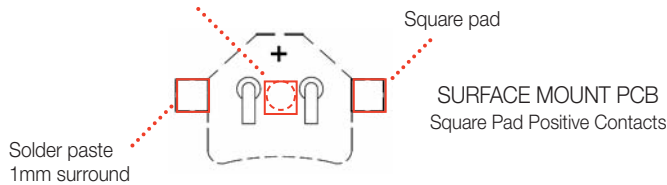
## Solder paste locations for mounting retainers

1 mm surround for solder paste

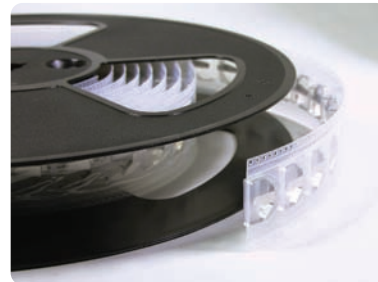
THROUGH HOLE PCB  
Mounts Through Holes in Board



Square or round pad  
Negative contact: Nickel or gold-plated  
Battery physically sits on the pad



SURFACE MOUNT PCB  
Square Pad Positive Contacts

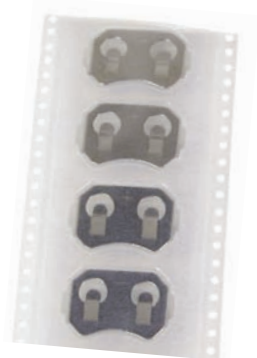


BK-915-TR

## Tape Reels

Battery retainer contacts, as well as, many of our other product lines, are available in strips on tape reels.

Manageable and easy-to-use TR strips are a convenient and practical way to order small and delicate parts.



BK-913-TR Strip

Individual drawings of our products are available online at [www.battery-contacts.com](http://www.battery-contacts.com)




## Battery Retainer Contacts with PC Pins

### MPD P/N Cell Dia. Height Range Typical Button-coin Cell Part Numbers

MPD P/N	Cell Dia.	Height Range	Typical Button-coin Cell Part Numbers
BK-5091	11.6 mm	5.4 mm	LR44, SR44, AG13, A76, 303, and 357 batteries
BK-890	12 mm	1.6 - 2.5 mm	BR1220, BR1225, CR1220, CR1225, DL1225, ECR1220, ECR1225, ML1220 and VL1220
BC-2011	12 mm	2.0 - 2.5 mm	BR1220, BR1225, CR1216, CR1220, CR1225, DL1225, ECR1220, ECR1225, ML1220 and VL1220
BK-917	12 mm	1.6 - 2.5 mm	BR1220, BR1225, CR1216, CR1220, CR1225, DL1225, ECR1220, ECR1225, ML1220 and VL1220
BK-941	12 mm	1.6 - 2.5 mm	BR1225, CR1225, DL1225, LIR1225 and ML1220
BK-869	16 mm	2.0 - 3.2 mm	BR1620, BR1632, CR1620, CR1632, DL1620, DL1632, ECR1620, ECR1632, LIR1620 and LIR1632
BK-5010	16 mm	5.2 - 6.0 mm	V80H, V675H, A76, 357 and I-Buttons
BK-888	20 mm	2.5 - 3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BK-888-G	20 mm	2.5 - 3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BK-913	20 mm	2.0 - 3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BK-913-5	20 mm	5.5 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BK-915	20 mm	2.5 - 3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BK-921	20 mm	2.5 - 3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BC-2400	20 mm	2.5 - 3.2 mm	BR2032, CR2032, DL2032, ECR2032 and LIR2032 and most 2025 cells
BK-889	23 mm	2.0 - 3.0 mm	BR2320, BR2325, BR2330, CR2320, CR2325, CR2330, LIR2320, LIR2325, LIR2330, VL-2320, VL-2325 and VL-2330
BK-881	23 mm	5.4 mm	CR2354, DL2354
BK-887	24 mm	2.0 - 3.0 mm	CR2430, DL2430, ECR2430 and LIR2430
BK-6171	24 mm	2.0 - 3.0 mm	CR2430, DL2430, ECR2430 and LIR2430
BK-880	24 mm	5.0 mm	BR2450, CR2450, DL2450 ECR2450, and LIR2450
BK-951	24 mm	5.0 mm	BR2450, CR2450, DL2450 and LIR2450
BC-2007	24 mm	5.0 mm	BR2450, CR2450, DL2450 ECR2450, and LIR2450
BC-2015	24 mm	2.0 - 3.0 mm	CR2430, DL2430, ECR2430 and LIR2430
BK-5033	24 mm	5.0 mm	BR2450, CR2450, DL2450 ECR2450, and LIR2450

## Recent Additions to Our 12V-Parts Product Lines

**SALES@12V-PARTS.COM**






**AE602-15**



**AP-113**



**AS212-G**




**BF308**



**BF308-C**



**BF357  
BF357S**



**AS216**

## 1/2AA-Cell Holders



BH1/2AA-3



6S-1/2AA



ABH1/2AA  
with cover



815-0931  
without cover



BH1/2AA-SM

## 2/3A or 123A-Cell Holders



BH2/3A-SM



BH2/3A



BH2/3A-3



BC2/3AE  
w. BI-UM-3-4



6S-2/3A



BH123A



BH-CR2-PC



2/3A  
Retainer Strap

BC2/3AC

## N-Cell Holders



BC1/3N



BC1/3N-C-SM



BHNW



BH2NL



BH12NW



BH4NL  
w. BI-UM-3-4

## 6 Volt Holders



BH223-L  
CR223A Holder



BH23AL  
23A-Cell Holder

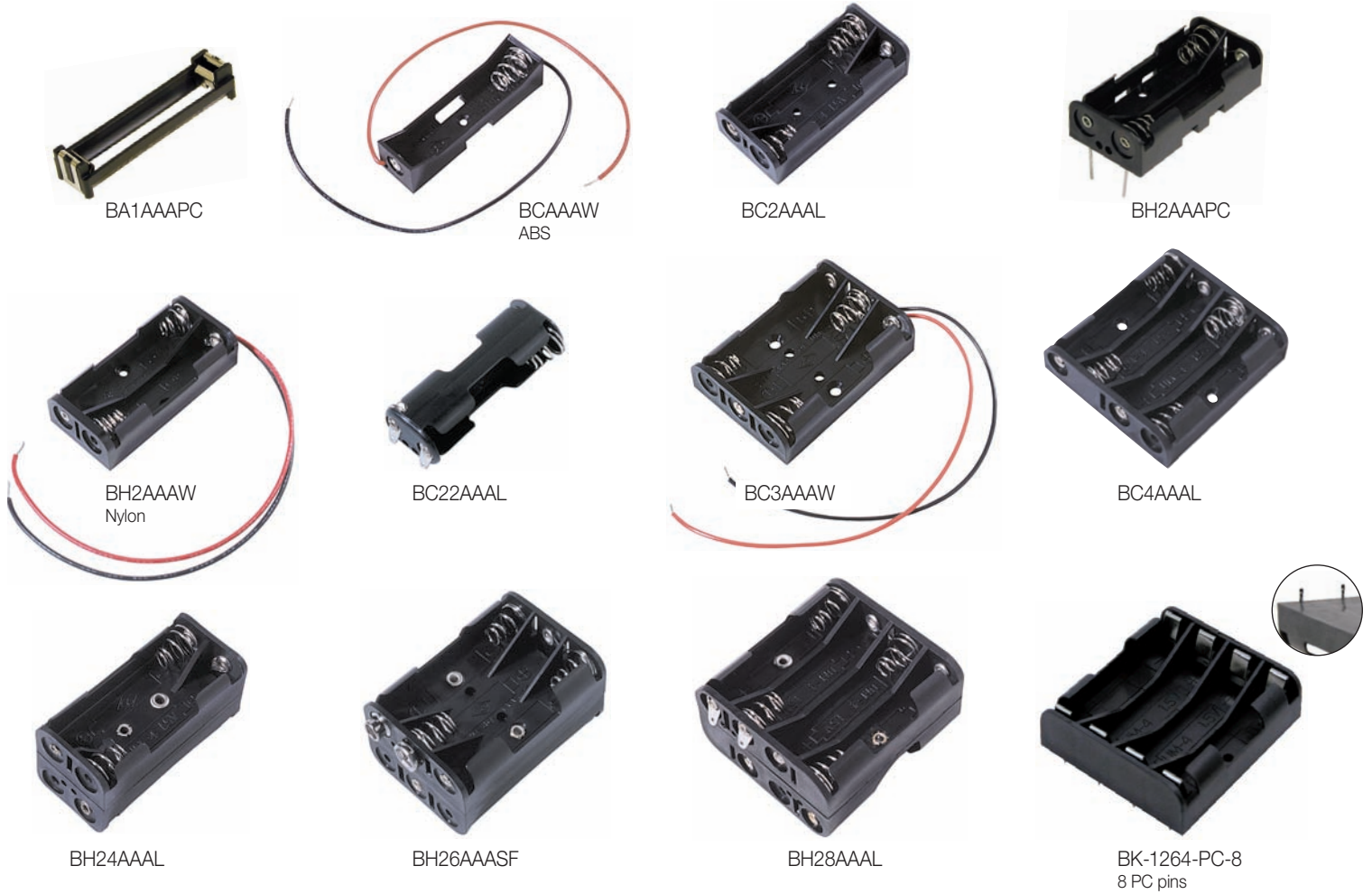


BH223AW  
23A-Cell Holder w/ Wire Lead

## 12 Volt Holders

**Termination options:** PC- printed circuit pins L- solder lugs SF- male/female snap fasteners W- 6" wire leads B- bump plates

## AAA-Cell Holders



## AAA Covered Battery Holders

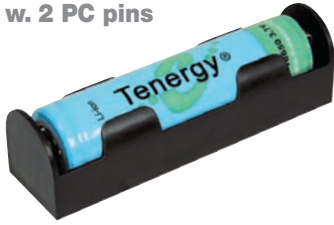


## AAAA Battery Holders



# Lithium-ion Cell Holders

w. 2 PC pins



BK-18650-PC2



BH-18650-PC

w. wires



BH-18650-W



BH-14250-PC



w. 4 PC pins



BK-18650-PC4



w. 6 PC pins



BK-18650-PC6



w. 8 PC pins



BK-18650-PC8



Our lithium-ion 18650 holders and our 14250 holders are designed for cells with built-in protection circuit modules (PCMs). Standard lithium-ion 18650 and 14250 cells are typically only used by manufacturers of battery packs because of concerns that the batteries could overcharge or over-discharge, potentially causing burns, or even an explosion or fire. This is why most device manufacturers choose to use lithium-ion cells with built-in PCMs, which are available from several well-known companies.

## 锂离子“18650”电池盒：

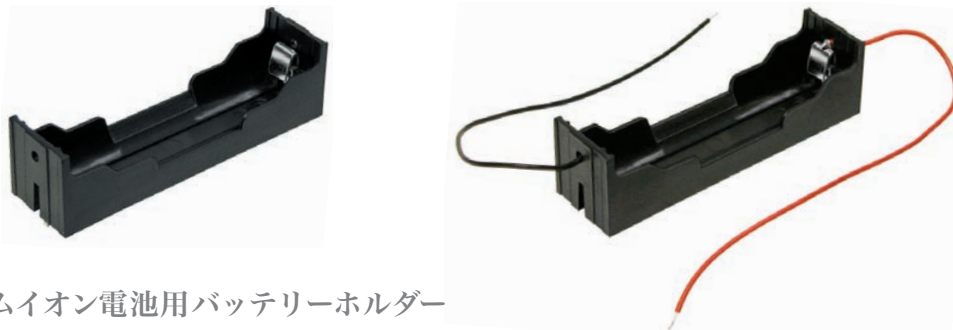
MPD为18650保护电池推出其新系列的锂离子电池盒。这些电池盒可容纳1到4个3.7伏电池，适用于消费或工业产品。首款上市的为零件号BK-18650-PC2，它可适用有嵌入式电路保护的新锂离子充电电池。

BK-18650-PC2 具有大型镀镍不锈钢压力接点，pc引脚尾部宽为1.5mm。这些接点具有低的电阻，并且在电池和电池盒之间提供紧密的连接，从而确保长期无故障连接。

UL94V-0 塑料外壳质量很轻，但强度很高，在电子设备所处的自然条件下具有长时间的使用寿命。电池盒长77mm、宽21mm，高22mm。该电池盒具有两个用于硬安装(hard mounting)的掛載點，也可以用粘合剂或双面胶帶黏合。

嵌入式电路保护消除了标准LI-ION 18650 电池的缺陷。由于担心电池过热、可能导致灼伤、爆炸或火灾，标准的18650电池仅提供给电池组制造商。带保护18650电池容量有2400至3000mAh由几家知名的公司供应。

1000件的单价为1.57美元，大量购买还可享受折扣。通常产品可以从经销商库存交货或经过短暂的等待时间。



## 18650型リチウムイオン電池用バッテリーホルダー

保護機構付きの18650型リチウムイオン電池用バッテリーホルダーがMPDから発売されます。このホルダーは3.7ボルトの電池を1個ないし4個格納できて、消費者向け製品または業務用製品のどちらにも適しています。今回発売される新製品（部品番号BK-18650-PC2）は、回路保護機構を内蔵したリチウムイオン充電電池を格納できる同社初の市販品です。

BK-18650-PC2は、ニッケルめっきを施したステンレス鋼製の大型圧力接点に1.5mm幅のpcピンテールがついています。低抵抗を実現するとともに、電池との密な接触を維持する設計によって、長期間にわたって接触不良を起こしません。

UL94V-0認定のプラスチック筐体は、軽量化を実現しながら、電子装置に通見られる使用条件で長期間にわたって耐えられる高い強度があります。ホルダーの大きさは77×21mm（長さ×幅）、厚さは22mm足らずです。ハードマウント用に2つのマウント用ホールがついていますが、粘着テープ（または両面テープ）で接着することもできます。

標準品の18650型リチウムイオン電池は、それに起因する故障を防ぐために回路保護機構を内蔵しています。18650型電池は、そのままでは電池が加熱して燃焼、爆発もしくは火災事故を引き起こすおそれがあるため、バッテリーパックメーカーにのみ供給されています。保護機構のついた18650型電池は2400～3000mAh仕様で、有名メーカー数社から発売されています。

1,000個の量産単価は1.57ドルで、大量受注割引も用意しています。通常は販売店在庫から納品できますが、場合によっては多少お待ちいただくこともあります。

Individual drawings of our products are available online at [www.batteryholders.com](http://www.batteryholders.com)

## A-Cell Holders



BK-6210



BK-6211

## AA-Cell Holders



BA1AAPC



BCAAL



BHAA-3  
PBT



BC2AAW



BC22AAW



BC32AAL



BC12AAL



BK-6100-PC4  
4 PC pins  
Springless



BA2AAW  
w. ABG-44  
Springless



BC3AAPC



BA3AAPC  
w. ABG-47  
Springless



BC3AAGW



BC3AAL



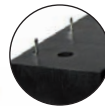
BA3AAW  
Springless



BH3AAW  
Nylon



BK1280-PC6  
6 PC pins  
Springless



BK1279-PC8  
8 PC pins  
Springless



BA4AAPC  
Springless



BA4AAW  
w. ABG-43  
Springless

**Termination options:** PC- printed circuit pins L- solder lugs SF- male/female snap fasteners W- 6" wire leads B- bump plates

## AA-Cell Holders



BC4AAL



BH14AAL



BH24AAL



BH44AAW



BH34AAL



BH26AAL



BH16AAL



BH362A



BH36AAW  
ABS



BH48AAL



BH28AAW



BH10AAL



BH310AAL

## AA-Cell Holders with Covers

with 6" wire leads



SBH321AS



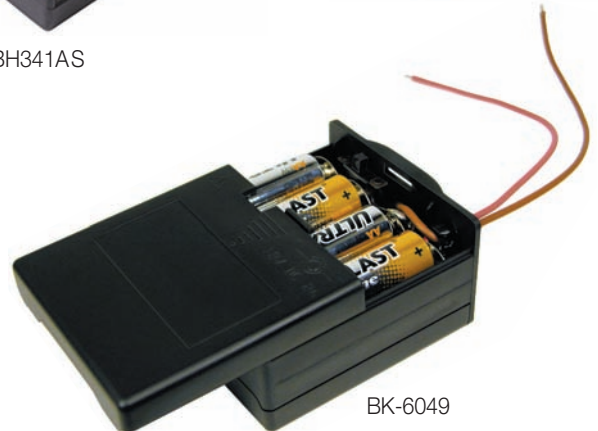
SBH331AS



SBH341AS



SBH361A



BK-6049

## AA Spring-Less Holders



BHAA-3  
PBT



BHAA-3-G  
Gold Contacts



BHAA-POL-G  
Gold Contacts



BHAA-POL



6S-AA

w. 2 PC pins



BA2AAPC

w. 2 PC pins



BA2AAW  
w. ABG-44

BK-6100-PC4

w. 4 PC pins

ABG-44



BA3AAPC  
w. ABG-47

w. 2 PC pins



BA3AAW

w. 6 PC pins



BK-1280-PC6



BA4AAPC

w. 2 PC pins



BA4AAW  
w. ABG-43

w. 8 PC pins



BK-1279-PC8  
w. BK1279-04

## AA Retainer Straps



ABG-43



ABG-44



ABG-47



BK1279-04

Individual drawings of our products are available online at [www.batteryholders.com](http://www.batteryholders.com)



## Ultra-reliable Holders with Dual Pressure Contacts



BK-6100-PC4  
4 PC pins  
Springless

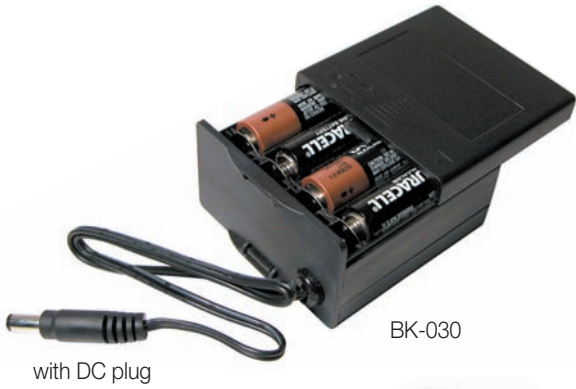


BK-1280-PC6  
6 PC pins  
Springless



BK-1279-PC8  
8 PC pins  
Springless

## 8 AA Battery Pack



BK-030

with DC plug



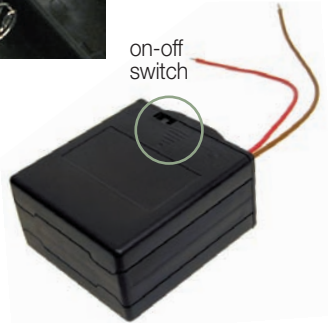
BK-0002  
8AA Cylndric  
6V Output



BK-6049



on-off  
switch



on-off  
switch



BK-6042  
8AA SMAE  
12V Output

## Mylar Battery Insulators

*General-purpose and for batteries.*

Place the mylar insulator between the battery and the contacts on the battery holder to interrupt the connection.



BI-2032



BI-UM-3-4



BI-UM-1-2

**Termination options:** PC- printed circuit pins L- solder lugs SF- male/female snap fasteners W- 6" wire leads B- bump plates

## C-Cell Holders



### Accessory

Mylar Battery Insulator

電池绝缘体

電池絶縁材

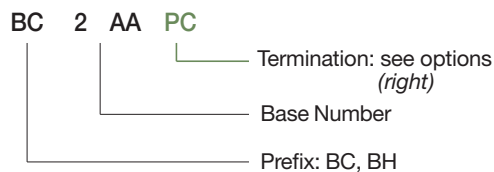


BI-UM-1-2

Place the mylar insulator between the battery and contacts on the battery holder to interrupt the connection.

## Part No. Ordering Information

**Example:** BC2AAPC  
2AA Holder, PC pins



### Termination options:

- PC- printed circuit pins
- L- solder lugs
- SF- 9 volt terminals
- W- 6" wire leads
- B- bump plates

Individual drawings of our products are available online at [www.batteryholders.com](http://www.batteryholders.com)

# D-Cell Holders



BHDL



BHD-2  
2 PC pins  
Springless



BH2DW



BH13DL



BH3DL



BA4D-S  
Lantern Battery Replacement



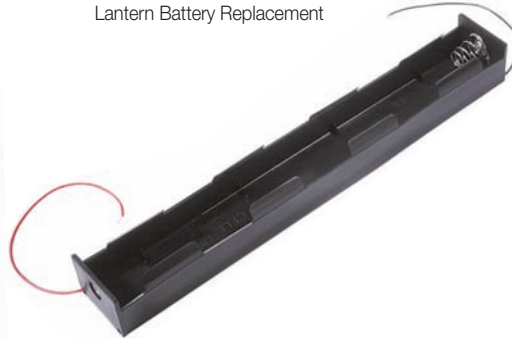
BH4DL



BC24DL



BH24DL



BH14DW



BH26DL



BH36DL



BH28DL



BH428DL



BH48DW



BH510DW



BH212DL

## 9 Volt Holders



BH9VPC



BA9VPC



BA9VPC



BC9VPC



BH9VL



BH9VW



BK-6172

## BS Covers



BS-COVER

Fit all standard  
9V batteries  
and snaps.

**Termination options:** PC- printed circuit pins L- solder lugs SF- male/female snap fasteners W- 6" wire leads B- bump plates

## 9 Volt Snaps

### 9 Volt Snaps

MPD's 9V snaps are a full line of connectors for use with 9V batteries. They come in both the "I style" and "T style", which determine whether the battery contacts are parallel ("I") or perpendicular ("T") to the wire leads. There are also variants of the snaps, with available suffixes of -HD for heavy duty female contacts, or -MC for molded plastic covers, among others. The wide variety of 9V snaps that we produce should help in finding the right 9V snap connectors for your application.

### Printed Circuit Snaps



BS-PCF



BS-PCM

### 9 Volt Snaps



BSF



BSM



BSR

### Heavy Duty 9 Volt Snap



BSF-HD

**Snap Options:** MC- 2 piece molded case, PE  
HD- Heavy duty

### T-style Snaps

T Style



T Style-2pc molded



T Style-Heavy Duty

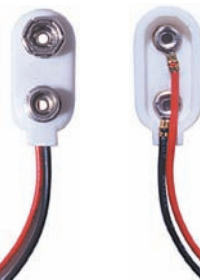


### I-style Snaps

I Style



I Style-2pc molded



I Style-Heavy Duty



## Battery Contact Leaf (spring)

Available in TR format on tape reels.



BK-110  
20 mm  
battery contact



BK-112  
20 mm  
battery contact



BK-118  
12 to 16 mm  
battery contact



BK-120  
height above  
PCB 32mm



BK-122  
battery contact

## Battery Contacts

### Generic Contacts



ABG-96 POS



ABG-96 NEG



BK-6175



1144-06-01-G



1116-1



ABG-02



ABG-147



ABG-165

### AAAA cell Contacts



BK-6112



BK-6113



BK-6223-TR

surface mounting- off board

表面贴装 表面実装

### AAA cell Contacts



SN-T7-01A



SN-T7-01B



SN-T7-02A



BK-5003



BK-82



BK-6178



BK-6179



SN-T7-05A



SN-T7-06A



BK-202



BK-204



BK-6180



BK-6181

### AA cell Contacts



BK-57-TR



BK-209



BK-228



SN-T5-1



SN-T5-2



SN-T5-3



SN-T5-4



BK-595



BK-628



BK-53



BK-92

## Battery Contacts

### C cell Contacts



### D cell Contacts



### Contact Springs



### 18650 Battery Clips



## Fuse Clips and Fuse Holders

### 2AG and 5mm Fuse Clips

Low-profile, snap-in design, PC retention for wave soldering, available with legs for critical alignment during PC installation, available with or without stops. Rated 6.3 to 30 Amps.



### 3AG (.250") Fuse Clips and PC Fuse Holders

Low-profile, snap-in design, PC retention for wave soldering, available with legs for critical alignment during PC installation, available with or without stops. Rated 6.3 to 30 Amps.



### Fuse Clips and Fuse Holders

BK-6001	Snap-in 3AG, PC clip for 1/4" diameter fuse
BK-6002	Snap-in 2AG, PC clip for 5mm diameter fuse
BK-6003	Traditional 3AG, PC clip for 1/4" diameter fuse
BK-6004	3AG, PC fuse holder
BK-6005	Traditional 2AG, PC clip for 5mm diameter fuse
BK-6007	Traditional 3AG, PC clip for 1/4" diameter fuse
BK-6009	PC clip for 5mm diameter fuse



## Automotive Blade Fuse Clips and Holders

### PC Automotive Blade Fuse Clips

Low-profile, snap-in design, PC retention for wave soldering, available with legs for critical alignment during PC installation, available with or without stops. Rated 6.3 to 30 Amps.



BK-6006



BK-6008



BK-6011



BK-6012

### 15 Amp PC Automotive Blade Fuse Holders

Thru-hole PC mountable, maintains position during wave soldering. Holder design prevents solder wicking. Shock and vibration resistant. Durable grip, even after multiple uses.



BK-6010



BK-6013

### Automotive Blade Fuse Clips and Holders

BK-6006	Auto fuse clip for .205" x .025" standard blade fuses
BK-6008	Auto fuse clip for .110" x .032" mini blade fuses
BK-6010	Auto fuse holder for .205" x .025" standard blade fuses
BK-6011	Auto fuse vertical holder for .10" x .032" mini vertical blade
BK-6012	Auto fuse clip for .205" x .025" standard blade fuses
BK-6013	Auto fuse holder for .110" x .032" mini blade fuses

## In-line Fuse Holders



BF308

16A- 18AWG wire  
AGC/JMC fuses



BF308-C

16A- 18AWG wire  
AGC/JMC fuses  
water resistance  
for wire only

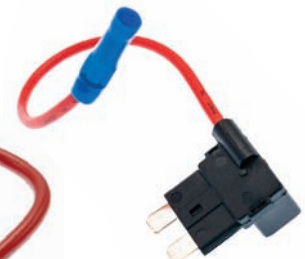
### In-line Fuse Holders

BF301	In-line fuse holder, 10A-16AWG wire, add your own 6.35 x 30mm fuses
BF302	In-line fuse holder, 25A-12AWG wire, AGC/ATE/JMC/JTG
BF303	In-line fuse holder, 15A-16AWG wire, add your own 5 x 20mm fuses
BF308	In-line fuse holder, 16A-18AWG wire, AGC/JMC fuses
BF308-C	In-line fuse holder, 16A-18AWG wire, AGC/JMC fuses
BF309	In-line fuse holder, 20A-14AWG wire, AGC/JMC fuses
BF310	In-line fuse holder, 10A-18AWG wire, AGC/JMC fuses
BF357	In-line fuse holder, 14A-18AWG wire, AGC/JMC fuses, dbl. output
BF357S	In-line fuse holder, 14A-18AWG wire, AGC/JMC fuses, dbl. output



BF357

14A- 18AWG wire  
AGC/JMC fuses



BF357S

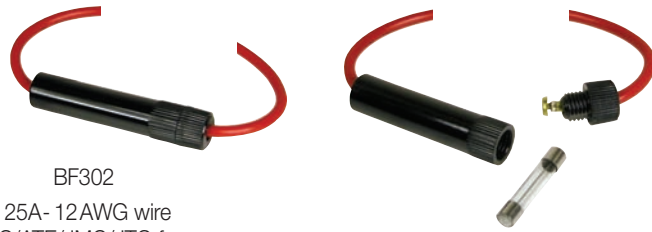
14A- 18AWG wire  
AGC/JMC fuses

2 fuse holder with 1 common source input and 2 output

## In-line Fuse Holders



BF301  
10A- 16AWG wire  
6.3mm x 32mm



BF302  
25A- 12AWG wire  
AGC/ATE/JMC/JTG fuses



BF303  
5mm x 20mm  
15A GMA/GTE fuses  
16AWG



BF309  
20A- 14AWG wire  
AGC/JMC fuses

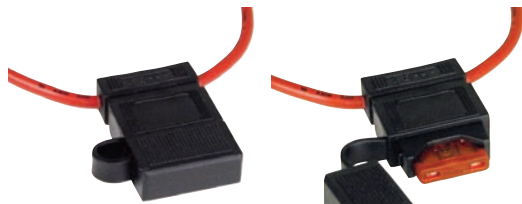


BF310  
10A- 18AWG wire  
AGC/JMC fuses

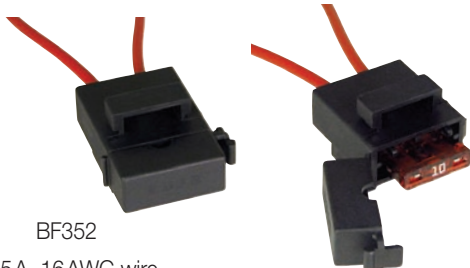
## In-line Blade Fuse Holders

### Automotive and Marine Fuse Holders

Blade fuse holders are a reliable and cost-effective solution to protect equipment and electrical applications from damage caused by blown circuits. Fuses are an ideal alternative to circuit breakers because of their small size and ability to protect multiple circuits within a small space. MPD has a wide variety of automotive and marine fuse holders that you can choose from.



BF351  
25A- 12AWG wire  
water resistant  
ATP/ATC/ATO fuses



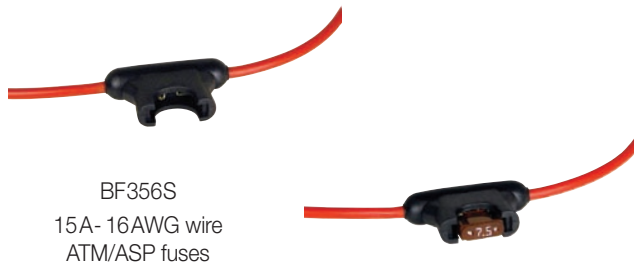
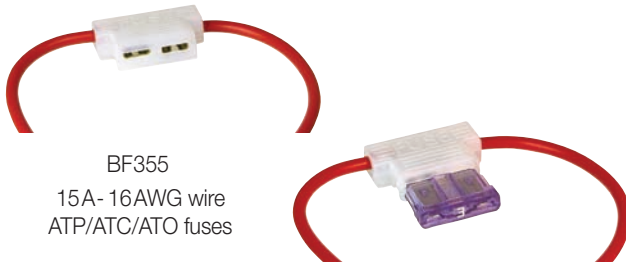
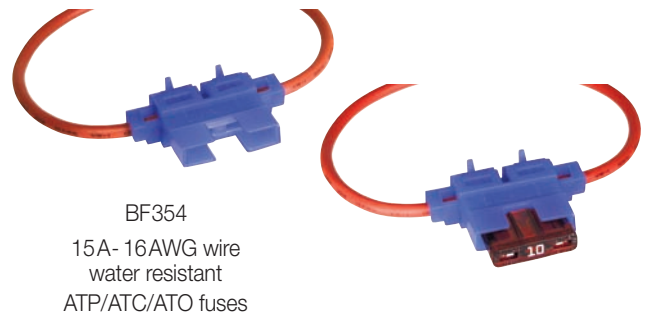
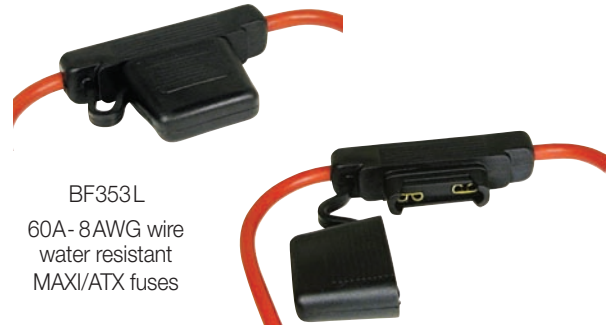
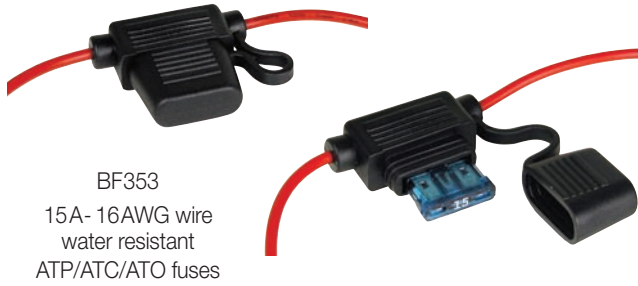
BF352  
15A- 16AWG wire  
ATP/ATC/ATO fuses

### In-line Blade Fuse Holders

BF351	25A-12AWG wire- water resistant- ATP/ATC/ATO fuses
BF352	15A-16AWG wire- ATP/ATC/ATO fuses
BF353	15A-16AWG wire- water resistant- ATP/ATC/ATO fuses
BF353L	60A-8AWG wire- water resistant- MAXI/ATX fuses
BF353S	15A-16AWG wire- water resistant- ATM/ASP fuses
BF354	15A-16AWG wire- water resistant- ATP/ATC/ATO fuses
BF355	15A-16AWG wire- ATP/ATC/ATO fuses
BF356	15A-16AWG wire- ATP/ATC/ATO fuses
BF356S	15A-16AWG wire- ATM/ASP fuses



## In-line Blade Fuse Holders



Individual drawings of our products are available online at [www.fuseholders.com](http://www.fuseholders.com)



Development Kits

MPD was the original patentee and inventor of holders for lithium coin cell batteries back in 1980. Now with over 30 years of experience behind us we have introduced Snap Dragon, Mini's, Gliders, Retainers, and Ultra Low Profile holders all of which have dramatically increase the reliability of coin cell holders. Our designs have advanced battery holder technologies and are widely used in thousands of everyday products.



MPD offers typical sets of battery holders and battery retainers as development tools that assists OEMs in their ability to create new products over a wide variety of industries. Our holders, with their advanced functionalities, enrich the possibilities to design products that need to function in other than normal conditions, such as, within constricted spaces or under adverse environmental conditions. The kits provide the hardware that you need to speed up prototyping and time to evaluate your new product design allowing the opportunity to flush out features that conflict with, or detract from, your product's intended purpose.



P/N BK-DEVKIT-SM  
Surface Mount Contacts Sample Kit

The mixed assortment of batteryholders and retainers shown here, are a couple of MPD's typical evaluation kits that we've created to expand your product design possibilities.



P/N BK-DEVKIT-PC  
Thru-Hole Contacts Sample Kit

MPD continues to provide innovative solutions in response to the ever-increasing demand to meet the evolving needs of industry. Take advantage and see how our new designs can benefit you in the development of your new products. Call us to receive your development kit.

MPD P/N	Sample Kit Description
BK-DEVKIT-SM	SMD batteryholders and contacts sample kit
BK-DEVKIT-PC	Thru-hole batteryholders and contacts sample kit

# Distributors

## Asian Distributors

Digi-Key	Worldwide	(800) 344-4539	<a href="http://www.digikey.com/us/en/International/global.html">www.digikey.com/us/en/International/global.html</a>
Online Components	Online	(888) 906-8217	<a href="http://www.onlinecomponents.com">www.onlinecomponents.com</a>
AddCom	China (Shanghai)	(86) 2154357506	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
AddCom	China (Shenzhen)	(86) 75583864328	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
AddCom	China (Hong Kong)	(852) 29470728	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
Gagner	China (Shanghai)	(86) 2154315716	<a href="http://www.gagnerproducts.com">www.gagnerproducts.com</a>
Gagner	China (Shen Zhen City)	(86) 75583662671	<a href="http://www.gagnerproducts.com">www.gagnerproducts.com</a>
QuadRep	China (Beijing)	(86) 1062123833	<a href="http://www.quadrep.com.cn">www.quadrep.com.cn</a>
QuadRep	China (Shanghai)	(86) 2163175445	<a href="http://www.quadrep.com.cn">www.quadrep.com.cn</a>
QuadRep	China (Beijing)	(86) 2425621468	<a href="http://www.quadrep.com.cn">www.quadrep.com.cn</a>
Gagner	Hong Kong (Hong Kong)	(852) 28927311	<a href="http://www.gagnerproducts.com">www.gagnerproducts.com</a>
Master Electronics	HongKong (Tsuen Wan)	(852) 35911701	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
AddCom	Indonesia (Singapore)	(65) 68442788	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
AddCom	India (Faridabad)	(91) 01294000408	<a href="http://addcom.com.sg">addcom.com.sg</a>
Tamuz Electronics Ltd.	Israel (Kfar-Saba)	(972) 97633000	<a href="http://www.tamuz-ele.com">www.tamuz-ele.com</a>
AddCom	Japan	(65) 68442788	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
Kaztech	Japan (Tokyo)	(81) 0333877611	<a href="http://www.kaztech.co.jp">www.kaztech.co.jp</a>
AddCom	South Korea (Seoul)	(65) 68442788	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
AddCom	Malaysia (Bayan Lepas Penang)	(60) 46469223	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
Gagner	Malaysia (Puchong, Selangor)	(60) 45075088	<a href="http://www.gagnerproducts.com">www.gagnerproducts.com</a>
Master Electronics	Malaysia (Penang)	(604) 530-1128	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
QuadRep	Malaysia (Penang)	(60) 46581771	<a href="http://www.quadrep.com.sg">www.quadrep.com.sg</a>
AddCom	Philippines (Singapore)	(65) 68442788	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
QuadRep	Philippines (Las Piñas City)	(63) 28052879	<a href="http://www.quadrep.com.sg">www.quadrep.com.sg</a>
AddCom	Singapore (Singapore)	(65) 68442788	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
Gagner	Singapore (TechPark)	(65) 68489430	<a href="http://www.gagnerproducts.com">www.gagnerproducts.com</a>
QuadRep	Singapore (Singapore)	(65) 63461933	<a href="http://www.quadrep.com.cn">www.quadrep.com.cn</a>
AddCom	Thailand (Laksi Bangkok)	(66) 25761988	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
Gagner	Thailand (Bangkok)	(66) 267548146	<a href="http://www.gagnerproducts.com">www.gagnerproducts.com</a>
AddCom	Taiwan (New Taipei City)	(886) 921128259	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
QuadRep	Taiwan (Bangkok)	(886) 226989933	<a href="http://www.quadrep.com.cn">www.quadrep.com.cn</a>
QuadRep Electronics (Hsinchu office)	Taiwan (Taipei)	(886) 35737853	<a href="http://www.quadrep.com.tw">www.quadrep.com.tw</a>
AddCom	Vietnam (Ho Chi Minh City)	(08) 38107677	<a href="http://www.addcom.com.sg">www.addcom.com.sg</a>
Quadrep Vietnam (Ho Chi Minh)	Vietnam (Ho Chi Minh City)	(84) 87262981	<a href="http://www.quadrep.com.sg">www.quadrep.com.sg</a>
Quadrep Vietnam Office Hanoi	Vietnam (Hanoi)	(84) 0936484282	<a href="http://www.quadrep.com.sg">www.quadrep.com.sg</a>

## Australian/Oceanic Distributors

Digi-Key	Worldwide	(800) 344-4539	<a href="http://www.digikey.com/us/en/International/global.html">www.digikey.com/us/en/International/global.html</a>
Online Components	Online	(888) 906-8217	<a href="http://www.onlinecomponents.com">www.onlinecomponents.com</a>
Master Instruments	Australia (Sydney)	(61) 295191200	<a href="http://www.master-instruments.com.au">www.master-instruments.com.au</a>
Active Components	New Zealand (Auckland)	(64) 94439500	<a href="http://www.activecomponents.com">www.activecomponents.com</a>

## Africa

Brabek PTY	South Africa (Cape Town)	(27) 021 706-3162	<a href="http://www.brabek.co.za">www.brabek.co.za</a>
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Our list of distributors continues on the following page.



# Distributors (continued from previous page)

## Global Catalog Distributors

Digi-Key	Worldwide	(800) 344-4539	<a href="http://www.digikey.com/us/en/International/global.html">www.digikey.com/us/en/International/global.html</a>
Online Components	Online	(888) 906-8217	<a href="http://www.onlinecomponents.com">www.onlinecomponents.com</a>

## North American Distributors

ElectroSonic	Canada (Montreal QC)	514-748-7942	<a href="http://www.e-sonic.com">www.e-sonic.com</a>
ElectroSonic	Canada (Markham, ON)	905-946-0500	<a href="http://www.e-sonic.com">www.e-sonic.com</a>
ElectroSonic	Canada (Vancouver, BC)	604-273-2911	<a href="http://www.e-sonic.com">www.e-sonic.com</a>
Inventus Power	Mexico (Tijuana)	(52) 6642314832	<a href="http://www.inventuspower.com">www.inventuspower.com</a>
Master Electronics	Mexico (Zapopan)	(33) 21534181	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
Custom Power LLC	USA (Fountain Valley, CA)	1-800-432-3385	<a href="http://www.custompower.com">www.custompower.com</a>
Excel Components & Supply	USA (Holtsville, NY)	1-631-475-1100	<a href="http://www.excelcomp.com">www.excelcomp.com</a>
Inventus Power	USA (Woodridge IL)	1-630-410-7900	<a href="http://www.inventuspower.com">www.inventuspower.com</a>
Master Electronics	USA (Phoenix AZ)	1-602-267-1111	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
Master Electronics	USA (Eden Prairie, MN)	1-952-944-2151	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
Master Electronics	USA (Tampa, FL)	1-813-814-2900	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
Master Electronics	USA (Santa Clara, CA)	1-408-970-8090	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
Master Electronics	USA (Bohemia, NY)	1-631-434-9394	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
Master Electronics	USA (Redmond, WA)	1-425-821-5454	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
Master Electronics	USA (Santa Monica, CA)	1-310-452-1229	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
Master Electronics	USA (Miami, FL)	1-305-638-2000	<a href="http://www.masterelectronics.com">www.masterelectronics.com</a>
Source Research	USA (Schaumburg, IL)	1-800-356-0259	<a href="http://www.sourceresearch.com">www.sourceresearch.com</a>
Taylor/Master Electronics	USA (Germantown, WI)	1-414-365-6335	<a href="http://www.taylorwisconsin.com">www.taylorwisconsin.com</a>

## European Distributors

Digi-Key	Worldwide	(800) 344-4539	<a href="http://www.digikey.com/us/en/International/global.html">www.digikey.com/us/en/International/global.html</a>
Online Components	Online	(888) 906-8217	<a href="http://www.onlinecomponents.com">www.onlinecomponents.com</a>
Ineltro	Austria (Wien)	(43) 0161062136	<a href="http://www.ineltro.eu">www.ineltro.eu</a>
Ineltro	Switzerland (Regensdorf)	(41) 433437300	<a href="http://www.ineltro.ch">www.ineltro.ch</a>
Rossmann Electronic	Germany (Dießen am Ammersee)	(49) 8807949940	<a href="http://www.rossmannweb.de/index.php?lang=de">www.rossmannweb.de/index.php?lang=de</a>
RC Microelectronica	Spain (Barcelona)	(34) 932602166	<a href="http://www.rcmicro.es">www.rcmicro.es</a>
Sorelec Electronics	France (Cesson-Sevigne)	(33) 299837854	<a href="http://www.sorelec.com/l-actu/87-sorelec-distribue-les-solutions-mpd.html">www.sorelec.com/l-actu/87-sorelec-distribue-les-solutions-mpd.html</a>
Dissios SA Batteries	Greece (Paiania)	(30) 2106647333	<a href="http://www.batteries.gr/en/rechargeable/accessories/holders.html">www.batteries.gr/en/rechargeable/accessories/holders.html</a>
HT Componenti Elettronici srl	Italy (Firenze)	(39) 055430310	<a href="http://it.kompass.com/c/ht-componenti-elettronici-srl/it0179298/">it.kompass.com/c/ht-componenti-elettronici-srl/it0179298/</a>
Nedelko	Netherlands (Barendrecht)	(31) 180645400	<a href="http://www.nedelko.nl">www.nedelko.nl</a>
OEM Electronics AB	Denmark (Allerød)	(46) 087328560	<a href="http://www.oemelectronics.se/leverantorer/mpd">www.oemelectronics.se/leverantorer/mpd</a>
OEM Electronics AB	Norway (Drammen)	(46) 087328560	<a href="http://www.oemelectronics.se/leverantorer/mpd">www.oemelectronics.se/leverantorer/mpd</a>
OEM Electronics Poland	Poland (Warszawa)	(48) 22-86 32 722	<a href="http://www.oemelectronics.pl/">www.oemelectronics.pl/</a>
OEM Electronics AB	Sweden (TRANÅS)	(46) 087328560	<a href="http://www.oemelectronics.se/leverantorer/mpd">www.oemelectronics.se/leverantorer/mpd</a>

## South American Distributors

Inventus Power	Brazil (Manus)	(55) 92 2126 6400	<a href="http://www.inventuspower.com">www.inventuspower.com</a>
Power Circuit EletrônicaLtda.	Brazil (São Paulo)	(55) 11-3981-3965	<a href="http://www.powercircuit.com.br">www.powercircuit.com.br</a>



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[www.memoryprotectiondevices.com](http://www.memoryprotectiondevices.com)  
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