

Battery Retainer Guide



Product Overview:

Coin cell retainers are simple metal contacts that both electrically connect coin cells and hold them in place, while taking up minimal additional space on the PCB. They feature nickel-plating, and since most coin cells have nickel shells this helps to prevent galvanic corrosion, an electrochemical process that can damage dissimilar metals that are in electrical contact. Our retainers are always designed with automation in mind, and can be easily picked and placed, with both through hole and surface mount retainers available for most coin cell sizes. Combining the ease of automation with the low cost of MPD's retainers, it is no wonder they are such a popular product.

In a typical application the pcb acts as the negative contact. Offering a lower height, reducing piece count, saving the cost of the negative terminal and its assembly are just a few of the designs advantages in favor of retainers. The negative pads shape and size are not critical but the plating is. Never use tin or solder paste for the surface material. MPD Recommends that nickel or gold are very suitable to act as the negative contact on your pcb.

Soldering:

One of the most frequent questions MPD receives about coin cell retainers is soldering them. Retainers are nickel plated over a phosphor bronze body and the lithium batteries are nickel plate over a stainless steel body.

Nickel usually requires a more active solder paste and MPD recommends working with your paste supplier in picking the one most suitable for your design.

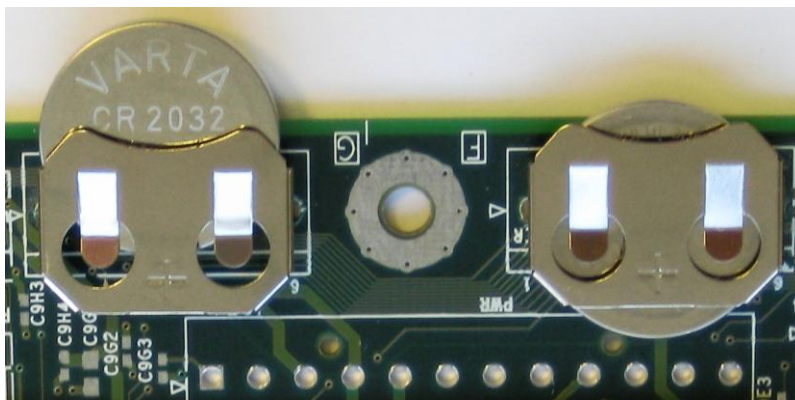
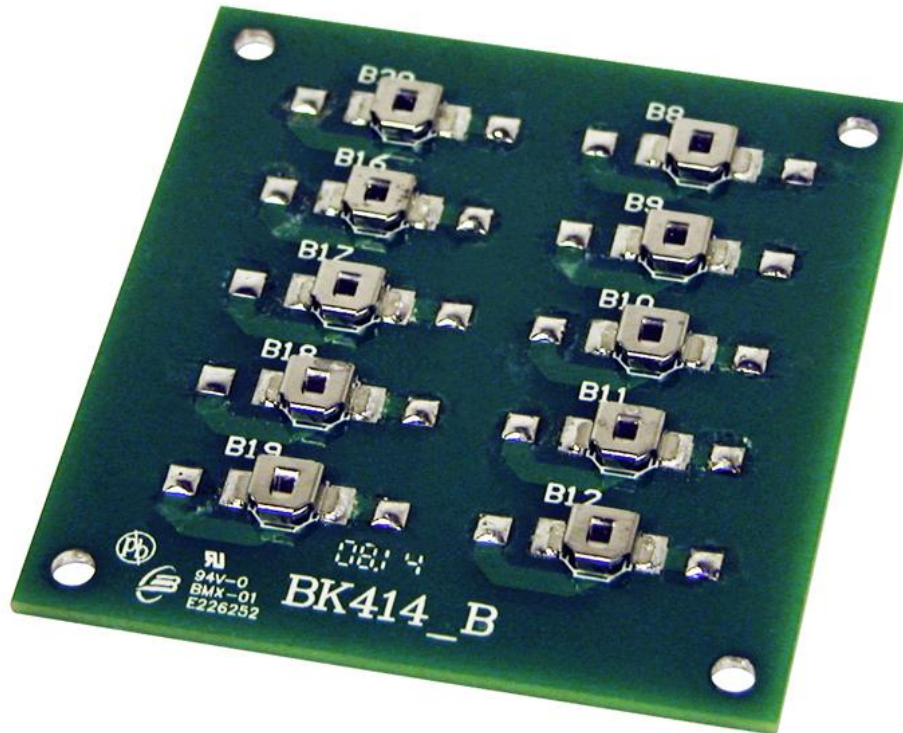
Comments:

- If you have a battery access door, grow ribs or other features to keep the battery securely in place (hand held or portable products).
- Passes MPD's standard shock and vibration testing requirements.
- RoHS compliant.
- Passes 24 hour salt spray test



MEMORY PROTECTION DEVICES, INC.

an ISO 9001:2000 company



- For more information about lithium batteries visit: cr2032.co
- For more information about solder paste visit: kester.com
- The full selection of coin cell retainers currently available can be viewed online at Battery-Contacts.com/coin-cell-retainers.php



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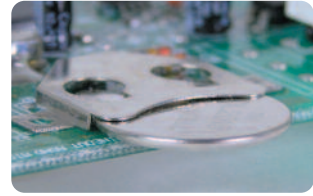
WEBSITE: memoryprotectiondevices.com TEL: 631-249-0001 FAX: 631-249-0002



BK-883-TR

Low Profile Design

Ultra-thin profile offers practical mounting solutions.



Surface Mounting



BK-885
Diameter: 12 mm



BK-868
Diameter: 16 mm



BK-883
Diameter: 20 mm



BK-912-TR
Diameter: 20 mm



BK-5067
Diameter: 20 mm
Low Profile



BK-884
Diameter: 23 mm



BK-886
Diameter: 24 mm

PC Pins



BK-890
Diameter: 12 mm



BK-869
Diameter: 16 mm



BK-888
Diameter: 20 mm



BK-913
Diameter: 20 mm



BK-889
Diameter: 23 mm

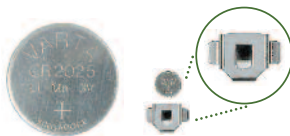


BK-887
Diameter: 24 mm



BK-5033
Diameter: 24 mm

Micro diameters



BK-414-TR
ML414 Retainer



Actual Size



BK-5091
LR44 Retainer

Customized Retainer Contacts

We can custom manufacture our coin cell retainer contacts to fit into confined and problematic spaces.

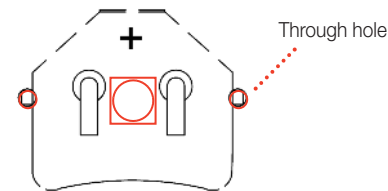


P/N with SMD	Coin Cell Diameter	Typical Part Number for Lithium Coin Batteries and Many Standard Zinc Air, Silver Oxide, and Other Rechargeable Lithium Batteries
BK-414	4.8 mm	ML414 batteries
BK-335-TR	5.8 mm	335 batteries
BK-879	6.8 mm	MC621, V364, SC621, 379, V321, SR65, V364, SR60, V377, SR66, V379, and SR63
BK-885	12 mm	BR/CR/DL 1216, 1220, 1225, 379, 371, 381, 391, 389, RW80, LR55 batteries V8GA, G8 or 1.6 to 2.5 mm thick by 12 mm maximum diameter batteries
BK-868	16 mm	BR/CR/DL 1616, 1620, 1632 or 1.6 to 3.2 mm thick by 16 mm diameter batteries
BK-5009	16 mm	V80H, V675H, A76, 357, I-Buttons, or 5.2 to 6 mm thick by 16 mm diameter batteries
BK-5067	20 mm	BR/CR/DL 2016 or 1.2 to 1.6 mm thick batteries
BK-883	20 mm	BR/CR/DL 2016, 2020, 2025, 2032 or 1.6 to 3.2 mm thick by 20 mm diameter batteries
BK-912TR	20 mm	BR/CR/DL 2032 or 3.2 mm thick by 20 mm diameter batteries
BK-884	23 mm	BR/CR/DL 2320, 2325, 2330 or 2.0 to 3.0 mm thick by 23 mm diameter batteries
BK-878	23 mm	BR/CR/DL 2354 or 5.4 mm by 2.3 mm diameter batteries
BK-886	24 mm	BR/CR/DL 2430 or 2.0 to 3.0 mm thick by 24 mm diameter batteries
BK-877	24 mm	BR/CR/DL 2450 or 5.0 mm thick by 24 mm diameter batteries

P/N with PC Pins	Coin Cell Diameter	Typical Part Number for Lithium Coin Batteries and Many Standard Zinc Air, Silver Oxide, and Other Rechargeable Lithium Batteries
BK-5091	11.6 mm	LR44, SR44, AG13, A76, 303, and 357 batteries
BK-890	12 mm	BR/CR/DL 1216, 1220, 1225, 379, 371, 381, 391, 389, RW80, LR55 batteries V8GA, G8 or 1.6 to 2.5 mm thick by 12 mm maximum diameter batteries
BK-869	16 mm	BR/CR/DL 1616, 1620, 1632 or 1.6 to 3.2 mm thick by 16 mm diameter batteries
BK-5010	16 mm	V80H, V675H, A76, 357, I-Buttons, or 5.2 to 6 mm thick by 16 mm diameter batteries
BK-888	20 mm	BR/CR/DL 2016, 2020, 2025, 2032 or 1.6 to 3.2 mm thick by 20 mm diameter batteries
BK-913	20 mm	BR/CR/DL 2032 or 3.2 mm thick by 20 mm diameter batteries
BK-889	23 mm	BR/CR/DL 2320, 2325, 2330 or 2.0 to 3.0 mm thick by 23 mm diameter batteries
BK-881	23 mm	BR/CR/DL 2354 or 5.4 mm by 2.3 mm diameter batteries
BK-887	24 mm	BR/CR/DL 2430 or 2.0 to 3.0 mm thick by 24 mm diameter batteries
BK-5033	24 mm	BR/CR/DL 2450 batteries
BK-880	24 mm	BR/CR/DL 2450 or 5.0 mm thick by 24 mm diameter batteries

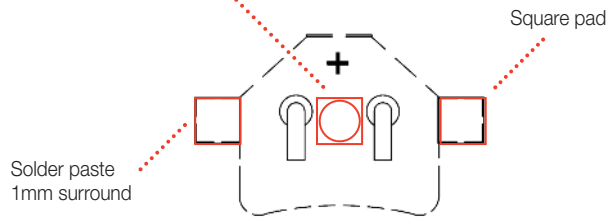
Solder paste locations for mounting retainers

1mm 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

Individual drawings of our products are available online at www.battery-contacts.com

