BATTERY CONTACTS

Designers' Choice

keyelco.com

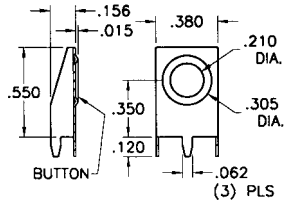
"A" • "AA" • "AAA" • "N" SIZE PC BUTTON & SPRING CONTACTS

- Ideal contacts for "A" • "AA" • "AAA" • "N" size batteries.
- Space saving design installs directly onto the PC board
- Contacts available for .062 and .093 thick PC boards
- Reliable spring and/or button assures low contact resistance
- Ideal for self-contained battery compartments

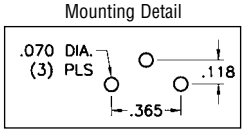
MATERIAL: **Frame:** .015 Steel, Tin Plate

MATERIAL: **Frame:** .015 Steel, Tin Plate
Uses Cat. No. 211 Spring Contact

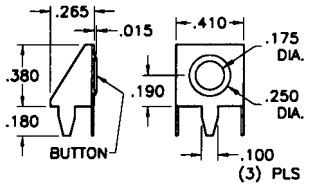
(+) Positive Button



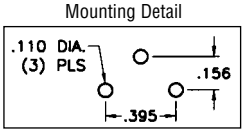
Mounting Detail



CAT. NO. 595 - For "A"

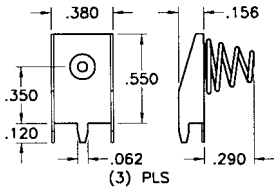


Mounting Detail

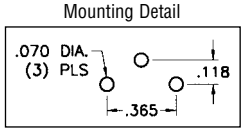


CAT. NO. 637 - For "AA" •"AAA" • "N"

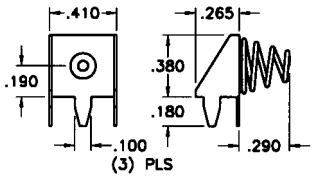
(-) Negative Spring



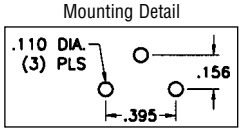
Mounting Detail



CAT. NO. 628 - For "A"



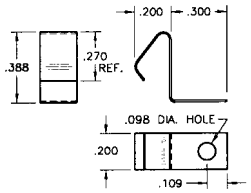
Mounting Detail



CAT. NO. 629 - For "AA" • "AAA" • "N"

SURFACE MOUNT BATTERY CONTACTS

For "AAA" • "AAAA"



CAT. NO. 5230
CAT. NO. 5230TR

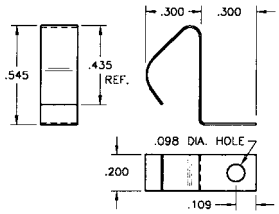
- Economical & reliable contacts are ideal for surface mount applications
- Unique spring tension contacts adjust to variations in battery length
- Reliable spring tension contacts assure low contact resistance
- SMT solder tail with "flow-hole" design for increased joint strength

MATERIAL: .010 Spring Steel, Nickel Plate

Tape and Reel Spec's: 24mm wide; 12mm pitch; 13 inch reel (400 pieces per reel)

CAT. NO. 5231
CAT. NO. 5231TR

For "A" • "AA" • "9V"

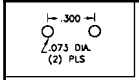


Tape and Reel Spec's:32mm wide; 12mm pitch; 13 inch reel (400 pieces per reel)

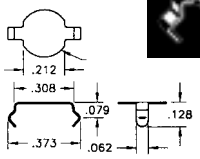
PC BATTERY CONTACTS

• ECONOMICAL • SPACE SAVING

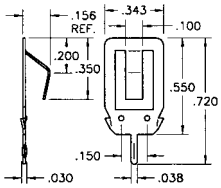
• Ideal for self-contained battery compartments
• Contact us for modifications and custom design



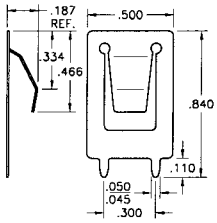
Mounting Detail



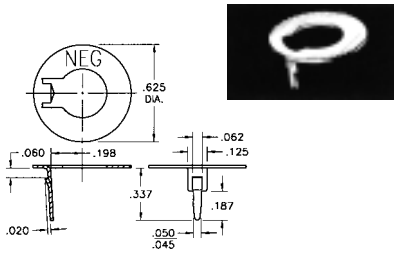
CAT. NO. 2990 .008 Thick, Phosphor Bronze, Nickel Plate



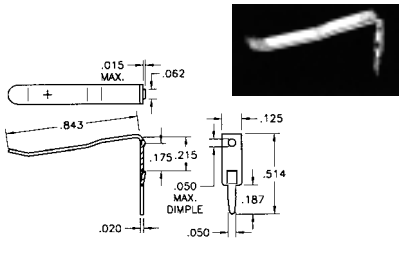
CAT. NO. 108-2 .012 Thick, Spring Steel, Nickel Plate



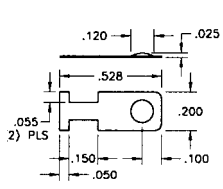
CAT. NO. 109-2 .012 Thick, Spring Steel, Nickel Plate



CAT. NO. 105-3 .020 Thick, Spring Steel, Nickel Plate



CAT. NO. 105-2 .020 Thick, Spring Steel, Nickel Plate



CAT. NO. 230-1 .008 Thick, Spring Steel, Nickel Plate

BATTERY CONTACTS

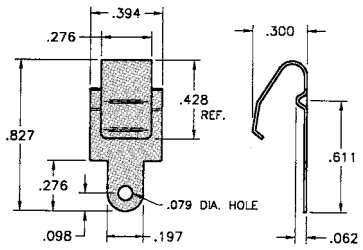
Designers' Choice

BATTERY SPRING & BUTTON CONTACTS

- Economical and reliable contacts are ideal for molded cases with self contained battery compartments
- Single and dual contact designs available for “A”, “AA”, “AAA”, “AAAA” & “N” size batteries
- ”Solder tab” design for either wire lead or PC mounting
- Unique spring contacts adjust to variations in battery lengths
- Reliable spring contacts assure low contact resistance and a dependable connection
- Space saving, economical, excellent mechanical construction

SPRING CONTACT FOR “A”•“AA”•“9V” SIZES

MATERIAL: .012 Phosphor Bronze, Nickel Plate

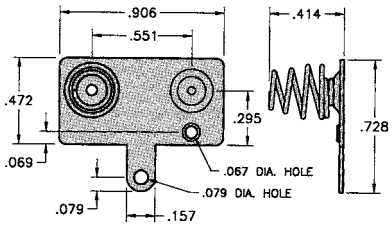


CAT. NO. 5209

BATTERY CONTACTS FOR “A” • “AA” SIZES

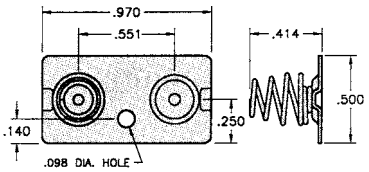
MATERIAL:
Plate: .020 Steel, Nickel Plate
Spring: Spring Steel, Nickel Plate

Dual Contact w/Tabs



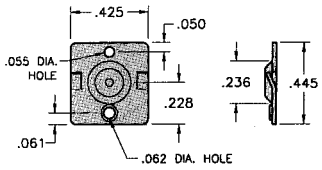
CAT. NO. 5211

Dual Contact



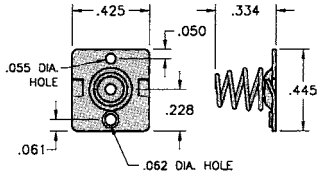
CAT. NO. 5212

(+) Positive Button



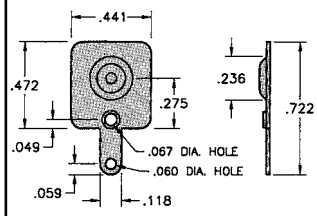
CAT. NO. 5224

(-) Negative Spring



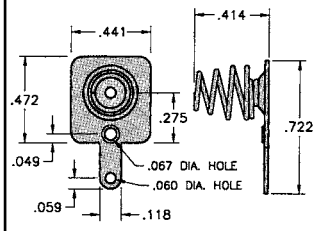
CAT. NO. 5202

(+) Positive Button w/Tabs



CAT. NO. 5223

(-) Negative Spring/w/Tabs

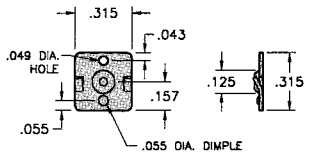


CAT. NO. 5201

BATTERY CONTACTS FOR “AAA” • “AAAA” • “N” SIZES

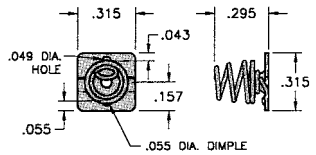
MATERIAL:
Plate: .020 Steel, Nickel Plate
Spring: Spring Steel, Nickel Plate

(+) Positive Button



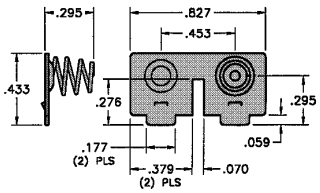
CAT. NO. 5225

(-) Negative Spring

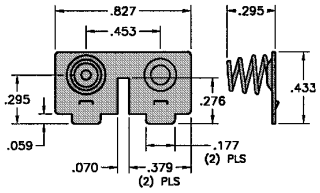


CAT. NO. 5203

Dual Contact

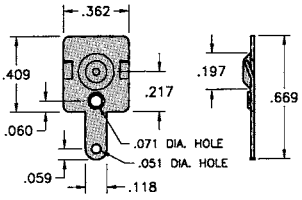


CAT. NO. 5214 (Left Side)



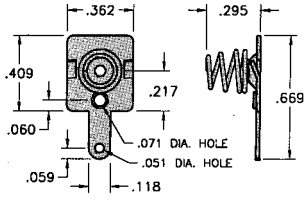
CAT. NO. 5213 (Right Side)

(+) Positive Button w/Tabs



CAT. NO. 5226

(-) Negative Spring w/Tabs



CAT. NO. 5204

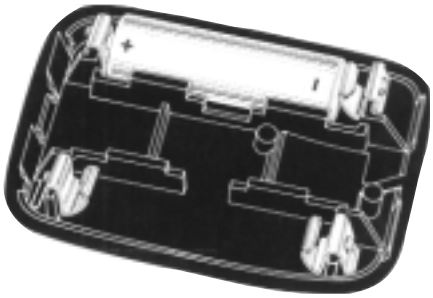
KEYSTONE
31-07 20th Road • Astoria, New York 11105-2017 • (718) 956-8900 • FAX (718) 956-9040
e-mail: kec@keyelco.com • WebSite: keyelco.com

BATTERY CONTACTS

Designers' Choice

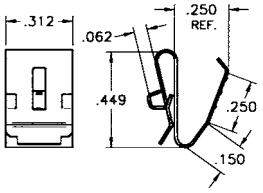
keyelco.com

SNAP-ON CONTACTS FOR "A" • "AA" • "AAA" • "AAAA" •"N" SIZES



- Economical and reliable contacts are ideal for molded cases with self contained battery compartments
- Single & dual contact designs available for "A" • "AA" • "AAA" • "AAAA" • "N" size batteries
- Solder "ear" to facilitate soldering of wire lead
- Unique spring tension contact adjusts to variations in battery length
- Reliable spring tension contacts assure low contact resistance
- Clips easily onto .060 to .070 thick panel edges
- Sharp barbs securely anchor contact in place

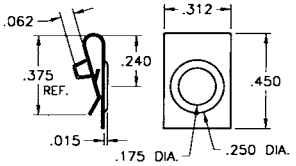
For "A" • "AA"



CAT. NO. 209

MATERIAL .012 Spring Steel, Nickel Plate

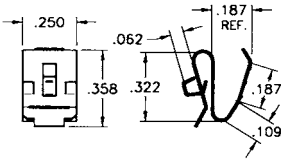
For "A" • "AA"



CAT. NO. 228

MATERIAL .010 Spring Steel, Nickel Plate

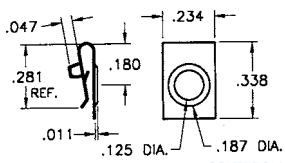
For "AAA" • "AAAA" • "N"



CAT. NO. 204

MATERIAL .010 Spring Steel, Nickel Plate

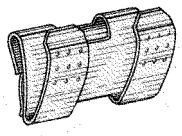
For "AAA" • "AAAA" • "N"

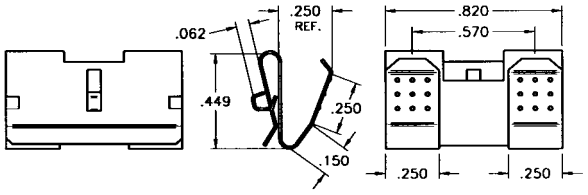


CAT. NO. 238

MATERIAL .010 Spring Steel, Nickel Plate

For "A" • "AA"

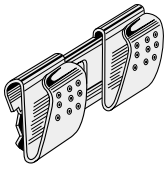


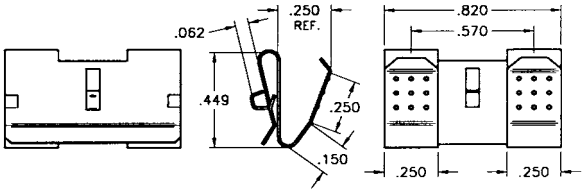


CAT. NO. 210

MATERIAL: .012 Spring Steel, Nickel Plate

For "A" • "AA"

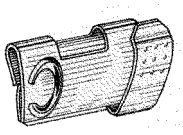


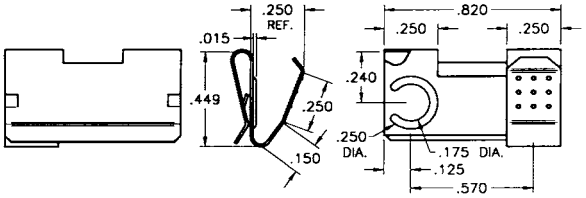


CAT. NO. 288

MATERIAL: .012 Spring Steel, Nickel Plate

For "A" • "AA"

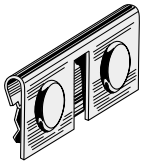


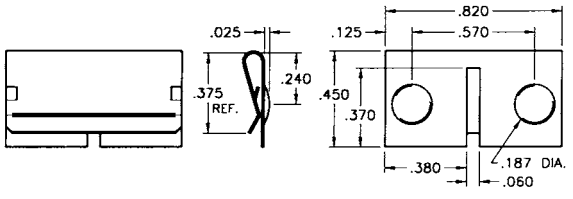


CAT. NO. 290 - Left (shown)
CAT. NO. 291 - Right

MATERIAL: .012 Spring Steel, Nickel Plate

For "A" • "AA"

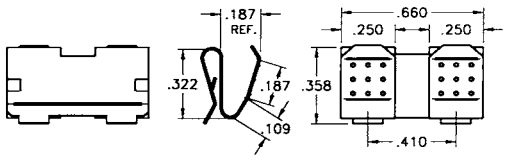




CAT. NO. 292

MATERIAL: .010 Spring Steel, Nickel Plate

For "AAA" • "AAAA" • "N"



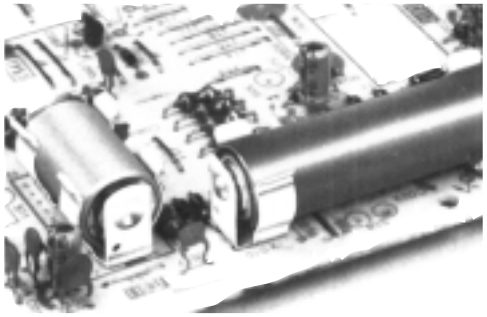
CAT. NO. 202

MATERIAL: .010 Spring Steel, Nickel Plate

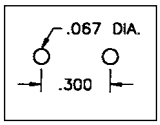
BATTERY CLIPS & CONTACTS

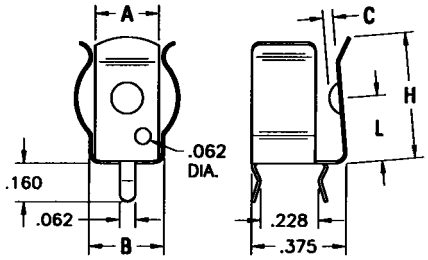
SNAP-IN PC BATTERY CLIPS FOR "A" • "AA" • "AAA" • "AAAA" • "N" SIZES

- Available for "A" • "AA" • "AAA" • "AAAA" • "N" size batteries
- Mounts securely to the PC board with advanced "Snap-In" design for thru hole mounting
- "Snap-In" clip holds firmly for wave soldering
- Reliable spring tension assures low contact resistance
- Low profile, economical design
- Retains battery securely to withstand shock and vibration



Mounting Detail





No Ears

MATERIAL: Spring Steel, Nickel Plate

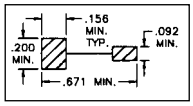
	CAT. NO.	BATTERY SIZE	BATTERY DIA.	A	B	C	H	L	MAT'L THICK
	52	"A" • "AA"	No Ears	.250	—	.040	.500	.260	.010
	92	"A" • "AA"	.531-.665	.312	.375	.060	.593	.359	.012
	2915	"A" • "AA"	.531-.665	.312	.375	.060	.593	.359	.015
	82	"AAA" • "N"	.375-.460	.250	.300	.040	.500	.260	.010
New	**51**	"AAAA"	.300-.350	See drawing below					.010

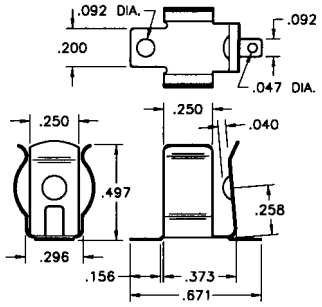
SURFACE MOUNT BATTERY CLIP

For "AAA" • "N"

- Low profile for densely packed PCBs
- "Flow-Hole" SMT solder tail design for increased joint strength
- Retains cell securely, withstands shock and vibration
- All conductive polystyrene carrier tape meets ANSI/EIA -481 standard

Pad Layout

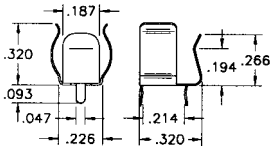




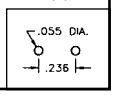
CAT. NO. 55 (Bulk)
CAT. NO. 55TR (Tape and Reel)

MATERIAL: .010 Spring Steel, Tin Plate
Tape & Reel Spec's: 32mm wide; 16mm pitch; 13 inch reel, (300 pieces per reel)

"AAAA"



Mounting Detail



MATERIAL: .010 Spring Steel, Nickel Plate

CAT. NO. 51

ECONOMY CLIPS FOR "AA" • "C" • "D" SIZES

Designed for mounting in self-contained, non-metallic battery compartments. Reliable spring tension assures low contact resistance. Recessed contact holds battery in place. All clips have anti-rotation tab.

MATERIAL: .016 Spring Steel, Nickel Plate

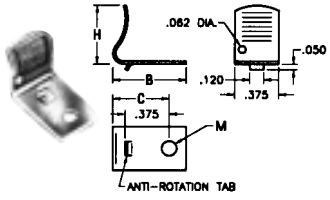


FIG. 1

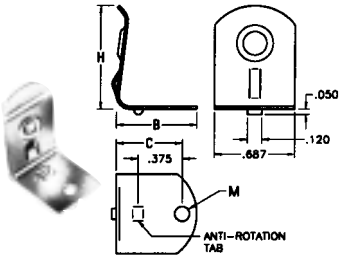
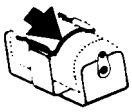


FIG. 2

CAT. NO.	FIG. NO.	B	C	H	M MTG. HOLE	CELL SIZE
206	1	.625	.480	.500	.128	AA
207	2	.687	.547	.875	.128	C
208	2	.750	.562	1.260	.128	D

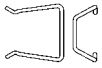
BATTERY RETAINER CLIPS



- Prevents battery from loosening in battery holder
- Retainer clip slips on the ears of the battery holder clip
- Manufactured from Spring Steel, Nickel plate

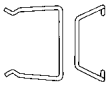
CAT. NO. 61

Retainer for "AA" or cells with diameters of .532" to .562". Used with Keystone Battery Clips Cat. No. 91, 92, 92-015, 95, 99 and 100.



CAT. NO. 62

Retainer for "C" cells or similar size batteries to 1.032" diameter. Used with Keystone Battery Clips Cat. No. 86, 87, 93 and 222.



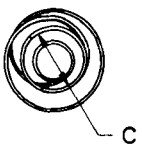
CAT. NO. 63

Retainer for "D" cells or similar size batteries to 1.343" diameter. Used with Keystone Battery Clips Cat. No. 88, 89 and 94.

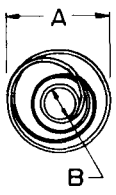
BATTERY SPRING CONTACTS

For "A" • "AA" • "C" • "D" Sizes

Easy to assemble with eyelets or rivets.



(FRONT) CONTACT



(BACK) CONTACT

CAT. NO.	H	A	B	C	MATERIAL
211 ("A" • "AA")	.290	.335	.100	.140	.025 Dia. Spring Steel, Nickel Plate
211-D ("C" • "D")	.850	.650	.162	.300	.040 Dia. Spring Steel, Nickel Plate

KEYSTONE
31-07 20th Road • Astoria, New York 11105-2017 • (718) 956-8900 • FAX (718) 956-9040
e-mail: kec@keyelco.com • WebSite: keyelco.com

BATTERY & COMPONENT CLIPS

Designers' Choice

keyelco.com

STEEL SPACE SAVER BATTERY CLIPS

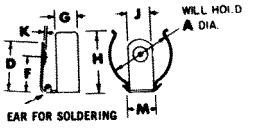
FOR "AA" • "C" • "D" SIZES

IDEAL FOR • CARBON ZINC • NiCd • NiMH • LITHIUM • ALKALINE BATTERIES

Available with insulated or non-insulated contact.
Positive contact grips battery securely.

SPECIFICATIONS
Clips: Spring Steel, Nickel Plate
Contact Eyelets: Brass, Nickel Plate
Insulating Washers: Moisture Proof, Resin Impregnated Fibre
Terminal Lugs: Brass, Tin Plate

86
89
99



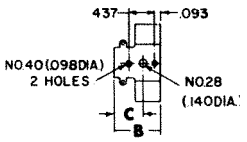
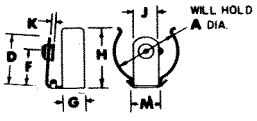


FIG. NO. 1 NON-INSULATED CONTACT — BOTTOM VIEW

87
88
100



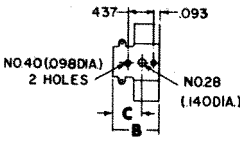


FIG. NO. 2 INSULATED CONTACT — BOTTOM VIEW

CAT. NO.	FIG. NO.	CONTACT	A DIA. MIN.- MAX.	FOR CELLS	± .015 B	± .010 C	± .015 D	± .015 F	± .005 G	± .020 H	± ..005 J	± .005 K	± .015 M	STEEL THICK-NESS
86	1	NON-INSULATED	.875 to 1.125	C	.703	.391	.812	.593	.375	.937	.500	.050	.605	.020
87	2	INSULATED	.875 to 1.125	C	.703	.391	.812	.593	.375	.937	.500	.070	.605	.020
88	2	INSULATED	1.187 to 1.350	D	.775	.463	1.075	.750	.437	1.187	.500	.070	.609	.020
89	1	NON-INSULATED	1.187 to 1.350	D	.775	.463	1.075	.750	.437	1.187	.500	.050	.609	.020
99	1	NON-INSULATED	.531 to .650	AA	.703	.391	.609	.375	.375	.609	.312	.050	.353	.015
100	2	INSULATED	.531 to .650	AA	.703	.391	.609	.375	.375	.609	.312	.070	.353	.015

ALUMINUM & STEEL COMPONENT CLIPS

90
91
93
222

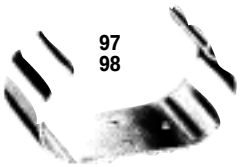
217
218
219
220
221

78

80
95

67 69 70 71 79

94



97
98

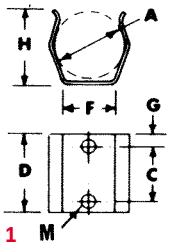


FIG. 1

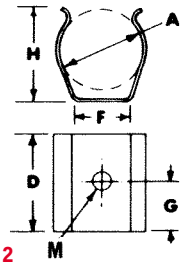


FIG. 2

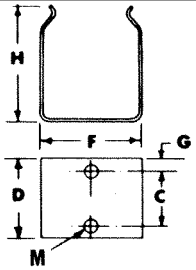


FIG.3

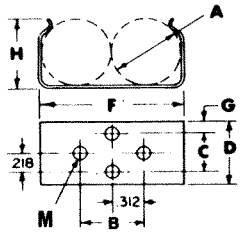


FIG.4

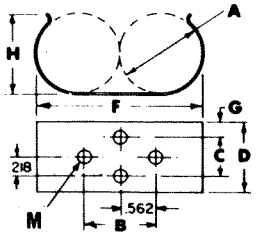


FIG.5

Precision made spring clips are available in a wide range of sizes. These clips will hold round, square and rectangular batteries or components with similar dimensions. Clips are manufactured from Aluminum or Spring Steel.

MATERIAL

Steel Clips: Spring Steel, Nickel Plate
Aluminum Clips: 2024-T3

*These clips will hold batteries or components of similar dimensions.

CAT. NO.	FIG. NO.	A MIN MAX DIA. OR SIZE	*FOR CELLS	± .005 B	± .005 C	± .005 D	± .005 F	± .010 G	± .015 H	± .003 M MTG HOLES.	MATERIAL
67	3	.375 × .125	CRYSTAL	—	.187	.375	.410	.093	.210	2#51(.067)	.016 Steel
69	4	.562 (2)	(2) AA	.625	.437	.625	1.125	.093	.562	4#40(.098)	.015 Steel
70	4	.656 (2)	(2) RM12	.625	.437	.625	1.343	.093	.740	4#40(.098)	.025 Alum.
71	3	.593 × 1.031	"9" VOLT	—	.437	.625	1.031	.093	.687	2#40(.098)	.015 Steel
78	2	1.187 to 1.350	D	—	—	.500	.562	.250	1.218	1#29(.136)	.020 Steel
79	4	.650 × 1.280	TR146X	.625	.437	.625	1.050	.093	.765	4#40(.098)	.015 Steel
80	3	.650 × 1.280	"9" VOLT	—	.437	.625	.675	.093	1.187	2#40(.098)	.015 Steel
90	1	.375 to .468	AAA	—	.437	.625	.312	.093	.453	2#40(.098)	.020 Alum.
91	1	.531 to .656	AA	—	.437	.625	.406	.093	.562	2#40(.098)	.020 Alum.
93	1	.875 to 1.125	C	—	.437	.625	.937	.093	.921	2#40(.098)	.020 Alum.
94	3	1.187 to 1.375	D	—	.437	.625	1.250	.093	1.218	2#40(.098)	.032 Alum.
95	3	.625 × 1.000	"9" VOLT	—	.437	.625	.656	.093	1.125	2#40(.098)	.020 Alum.
97	5	1.031 (2)	(2) C	—	.437	.625	2.062	.093	1.125	2#40(.098)	.020 Alum.
98	5	1.312 (2)	(2) D	1.125	.437	1.000	2.656	.281	1.437	4#40(.098)	.032 Alum.
217	2	1.375 to 1.500	NiCd	—	—	.812	1.218	.406	1.430	1#22(.157)	.025 Steel
218	2	1.437 to 1.687	NiCd	—	—	.812	1.375	.406	1.531	1#22(.157)	.025 Steel
219	2	2.000 to 2.500	NiCd	—	—	.812	1.687	.406	2.156	1#22(.157)	.025 Steel
220	2	.187 to .203	5mm	—	—	.315	.158	.157	.280	1#42(.093)	.010 Steel
221	2	.859 to .890	.875	—	—	.468	.828	.234	.906	1#22(.157)	.020 Steel
222	1	.875 to 1.125	C	—	.437	.625	.937	.093	.921	2#40(.098)	.020 Steel