



# Sealed Lead-Acid Batteries (Valve Regulated)

## TECHNICAL FEATURES: "DO NOT LEAK!"

- Sealed Construction:** BB unique construction and sealing technique ensures that no electrolyte leakage should occur from the terminals or case. They are classified as "Non-Spillable" and meet all requirements of the International Air Transport Association (I.A.T.A.) and D.O.T.
- Electrolyte Suspension System:** All BB batteries utilize an electrolyte suspension system consisting of a glass fibre separator material. This suspension system helps to achieve maximum service life, by fully retaining the electrolyte and preventing its escape from the separator material. No silica gels or other contaminants are used.
- Maintenance Free Operation:** During the life of BB batteries, there is no need to check their specific gravity or add water etc. In fact, there are no provisions for such maintenance functions to be carried out.
- Operation in any Orientation:** The combination of sealed construction and BB's electrolyte suspension system permits operation of BB batteries in any orientation, but upside-down charging should be avoided. Battery will not lose its capacity, electrolyte, or service life under any orientation.
- Low Pressure Venting System:** BB batteries are equipped with a safe, low pressure venting system, which is designed to release excess gas and reseat automatically

in the event of the internal gas pressure rising to an unacceptable level. This low pressure venting system, coupled with the significantly high recombination efficiency, make BB batteries one of the safest valve regulated lead acid batteries available.

**Heavy Duty Grids:** The heavy duty lead calcium alloy grids in BB batteries provide an extra margin of performance and service life in both float and cyclic applications, even in conditions of deep discharge. The manufacturer suggests peak charging all sealed lead acid batteries before use and intermittently during storage.

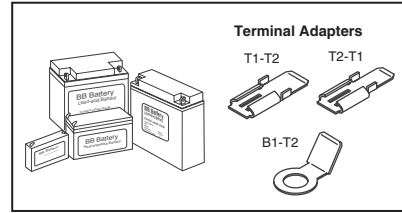
**U.L. Component Recognition:** U.L. Component Recognition under UL1989, requires that the battery safely vent when overcharged. It further requires that the equipment and battery be submitted together for formal UL approval.

**Note: Recycling information available on Digi-Key website.**

**Digi-Key® is not approved by any state or federal agency as an authorized supplier of product for medical, life support or life sustaining devices or systems.**

### CROSS REFERENCE ABBREVIATIONS:

EP = Eagle-Picher; YU = Yuasa; PS = Power Sonic; CS = CSB; PA = Panasonic; UP = Universal Power



## Terminal Adapters

Description	Digi-Key Part No.	Price Each	BB Part No.
0.187 Terminal - 0.250 Terminal	522-1019-ND	.50	T1-T2
0.250 Terminal - 0.187 Terminal	522-1020-ND	.50	T2-T1
Nut/Bolt Terminal - 0.250 Terminal	522-1021-ND	.50	B1-T2

Cap. Rate (V)	20h (Ah)	Dimensions - Inch (mm) L x W x H	Terminal Type (Inch)	Weight* lbs. (kg)	Digi-Key Part No.	Pricing			BB Part No.	BB Replacement Battery Cross Reference (see above for mfg. abbreviations)
						1	10	Carton		
<b>BP Series - General Use</b>										
6	1.2	3.82 x 0.98 x 2.01 (97 x 25 x 51)	.187 spade	0.66 (.30)	522-1000-ND	11.70	104.00	500.50/55	BP1-2-6-T1	EP: CF-6V1.3; YU: NP1-2-6; PS: PS-612; CS: GP612; PA: LC-R061R3P, LCR6V1.3P
	3.0	5.28 x 1.34 x 2.36 (134 x 34 x 60)	.187 spade	1.43 (.65)	522-1001-ND	12.65	—	202.32/18	BP3-6-T1	EP: CF-6V3.4; YU: NP3-6; PS: PS-630; CS: GP630; PA: LC-R063R4P, LCR6V3.4P
	5.0	2.76 x 1.89 x 4.02 (70 x 48 x 102)	.187 spade	2.09 (.95)	522-1002-ND	14.56	—	191.51/16	BP5-6-T1	EP: CF-6V4.5; YU: NP4-6; PS: PS-640; CS: GP645; PA: LC-R064R2P, LCR6V4.5P
	7.0	5.94 x 1.34 x 3.70 (151 x 34 x 94)	.187 spade	2.87 (1.3)	522-1003-ND	20.07	—	198.02/12	BP7-6-T1	EP: CF-6V7(A); YU: NP7-6(A); PS: PS-670F1; CS: GP672F1; PA: LC-R067R2P, LCR6V7.2P
	7.0	5.94 x 1.34 x 3.70 (151 x 34 x 94)	.250 spade	2.87 (1.3)	522-1004-ND	20.07	—	198.02/12	BP7-6-T2	EP: CF-6V7(C); YU: NP7-6(D); PS: PS-670F2; CS: GP672F2; PA: LC-R067R2P1, LCR6V7.2P1
	12.0	5.94 x 1.97 x 3.70 (151 x 50 x 94)	.187 spade	4.52 (2.05)	522-1005-ND	26.30	—	173.01/8	BP12-6-T1	EP: CF-6V12(A); YU: NP12-6(A); PS: PS-6100F1; CS: GP6120F1; PA: LC-R0612P, LCR6V12P
12.0	5.94 x 1.97 x 3.70 (151 x 50 x 94)	.250 spade	4.52 (2.05)	522-1006-ND	26.30	—	173.01/8	BP12-6-T2	EP: CF-6V12(C); YU: NP12-6(D); PS: PS-6100F2; CS: GP6120F2; PA: LC-R0612P1, LCR6V12P1	
13.0	4.25 x 2.80 x 5.51 (108 x 71 x 140)	H connector	5.51 (2.5)	522-1029-ND	34.85	—	229.25/8	BP13-6-WH	—	
12	1.2	3.82 x 1.77 x 2.09 (97 x 45 x 53)	.187 spade	1.30 (.59)	522-1007-ND	17.93	147.45	418.43/30	BP1-2-12-T1	EP: CF-12V1.3; YU: NP1-2-12; PS: PS-1212; CS: GP1212; PA: LC-R121R3P, LCR12V1.3P
	2.3	7.01 x 1.34 x 2.36 (178 x 34 x 60)	.187 spade	2.07 (.94)	522-1008-ND	20.70	—	306.36/18	BP2-3-12-T1	EP: CF-12V2; YU: NP2-3-12; PS: PS-1220; CS: GP1222; PA: LC-R122R2P, LCR12V2.2P
	3.0	5.28 x 2.64 x 2.36 (134 x 67 x 60)	.187 spade	2.87 (1.30)	522-1009-ND	25.09	—	206.28/10	BP3-12-T1	EP: CF-12V3; YU: NP2-6-12; PS: PS-1230; CS: GP1234; PA: LC-R123R4P, LCR12V3.4P
	5.0	3.54 x 2.76 x 4.02 (90 x 70 x 102)	.187 spade	4.10 (1.86)	522-1022-ND	25.97	—	170.79/8	BP5-12-T1	EP: CF-12V4.5(A); YU: NP5-12(A); PS: PS-1250F1; CS: GP1245F1; PA: LC-R125P, LCR12V5P
	5.0	3.54 x 2.76 x 4.02 (90 x 70 x 102)	.250 spade	4.10 (1.86)	522-1010-ND	25.97	—	170.79/8	BP5-12-T2	EP: CF-12V4.5(C); YU: NP5-12(D); PS: PS-1250F2; CS: GP1245F2; PA: LC-R125P1, LCR12V5P1
	7.0	5.94 x 2.56 x 3.66 (151 x 65 x 93)	.187 spade	5.73 (2.60)	522-1011-ND	32.92	—	162.39/6	BP7-12-T1	EP: CF-12V7.2(A); YU: NP7-12(A); PS: PS-1270F1; CS: GP1272F1; PA: LC-R127R2P, LCR12V7.2P
7.0	5.94 x 2.56 x 3.66 (151 x 65 x 93)	.250 spade	5.73 (2.60)	522-1012-ND	32.92	—	162.39/6	BP7-12-T2	EP: CF-12V7.2(C); YU: NP7-12(D); PS: PS-1270F2; CS: GP1272F2; PA: LC-R127R2P1, LCR12V7.2P1	
12	5.94 x 2.56 x 4.57 (151 x 65 x 116)	.250 spade	7.28 (3.3)	522-1030-ND	42.50	—	209.68/6	BP10-12-T2	UP: UB12100; PA: LCR12V10P; PS: PS-12100; YU: NP10-12; CS: GP12100	
12	5.94 x 3.86 x 3.70 (151 x 98 x 94)	.250 spade	8.89 (4.03)	522-1013-ND	48.29	—	158.80/4	BP12-12-T2	EP: CF-12V12; YU: NP12-12; PS: PS-12120; CS: GP12120; PA: LC-RA1212P1, LCR12V12PF	
20	7.13 x 2.99 x 6.54 (181 x 76 x 166)	nut/bolt	13.6 (6.15)	522-1014-ND	54.92	470.70	—	BP17-12-B1	EP: CF-12V17; YU: NP18-12; PS: PS-12180; CS: GP12170; PA: LC-RD1217P, LCR12V17P	
20	7.13 x 2.99 x 6.54 (181 x 76 x 166)	nut/bolt	14.0 (6.35)	522-1026-ND	61.95	531.00	—	BP20-12-B1	CS: GP12200; PS: PSH-12180	
28	6.89 x 6.54 x 4.92 (175 x 166 x 125)	nut/bolt	21.2 (9.6)	522-1015-ND	82.51	707.25	—	BP28-12-B1	EP: CF-12V26; YU: NP24-12; PS: PS-12260; CS: GP12260	
33	7.68 x 5.08 x 7.05 (195 x 129 x 179)	nut/bolt	24.8 (11.3)	522-1016-ND	108.54	930.30	—	BP33-12S-B7	EP: CF-12V33U1; PS: PS-12330; CS: GP12340; PA: LC-R1233P, LCR12V33	
40	7.76 x 6.50 x 6.73 (197 x 165 x 171)	nut/bolt	31.5 (14.3)	522-1017-ND	127.16	1089.90	—	BP40-12-B2	EP: CFR-12V38; YU: NP38-12; PS: PS-12400; CS: GP12400; PA: LC-X1242P	
65	13.78 x 6.54 x 6.85 (350 x 166 x 174)	nut/bolt	54.0 (24.5)	522-1018-ND	204.30	1751.10	—	BP65-12-B2-2	EP: CFR-12V65; YU: NP65-12; PS: PS-12750; CS: GP12650; PA: LC-X1265P, LCR12V65P	
<b>EB Series - Mobility Use</b>										
12	50.0	7.76 x 6.50 x 6.73 (197 x 165 x 171)	nut/post	36.38 (16.5)	522-1028-ND	210.28	1802.40	—	EB50-12-12	—
<b>HR Series - High Rate Use</b>										
8.0†	5.94 x 2.56 x 3.70 (151 x 65 x 94)	.250 spade	6.06 (2.75)	522-1023-ND	52.25	—	257.74/6	—	HR Series	YU: NPX-L35; PS: PSH-1280F2; CS: HR1234WF2; PA: UP-RW1245P1, LC-R129P1, LCR129CH1
13.0†	5.94 x 3.86 x 3.86 (151 x 98 x 98)	.250 spade	9.25 (4.20)	522-1025-ND	73.20	627.45	—	HR15-12-T2	CS: HR1251W	—
20.0†	7.13 x 2.99 x 6.54 (181 x 76 x 166)	nut/bolt	14.33 (6.50)	522-1027-ND	97.35	834.45	—	HR22-12-B1	—	—
<b>MPL Series - High Rate, Long Life Standby Use</b>										
12	53†	8.98 x 5.47 x 8.82 (228 x 139 x 224)	nut/bolt	39.2 (17.8)	522-1024-ND	203.75	1746.45	—	MPL55-12-B5	CS: GPL12520; PS: PG-12V55

\* See "Ordering Information" for note on shipping charges on prepaid orders. † Capacity at 10h rate (Ah)



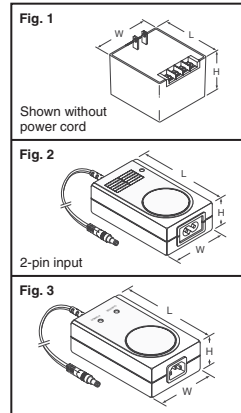
# Lead Acid Battery Chargers



- Features: • 100 - 240VAC • Switching DC Battery Chargers • Automatic Fast/Float Function • LED Indicator • Optimizes Battery Life • Meets Safety Agency Requirements
- Complies with EMI-RFI Regulations • Impact Resistant Polycarbonate Enclosures • Three Year Warranty • Note: IEC320 AC Power cords not included

Fig.	Output VDC	mA	Max. Power (W)	Dim. - Inch (mm) L x W x H	AC Input Cord	Mating Connectors			Digi-Key Part No.	Price Each			Ault Part No.
						Panel Mount	PCB Mount	Harness Mount		1	10	25	
1	6	400	3	1.88 x 2.20 x 1.96	—	—	—	—	271-2377-ND	22.28	18.16	17.05	3VA0603007
	12	300	4.47	(48 x 56 x 50)	—	—	—	—	271-2378-ND	22.28	18.16	17.05	3VA1202507
1	6	400	3.73	2.95 x 2.72 x 1.93	—	—	—	—	271-2379-ND	22.28	18.16	17.05	5VA0606007
	12	500	7.45	(75 x 69 x 49)	—	—	—	—	271-2380-ND	22.28	18.16	17.05	5VA1205007
1	12	500	7.35	3.75 x 2.10 x 1.25	—	—	—	—	271-2381-ND†	31.83	27.31	25.13	BA500120500003BK
				(95 x 53 x 32)	SC1048-ND	SC1050-ND	CP-0248-ND						
2	12	500	7.35	3.75 x 2.10 x 1.25	Q348-ND	SC1048-ND	SC1050-ND	CP-0248-ND	271-2382-ND	31.82	28.04	25.80	BA500120500003NK
				(95 x 53 x 32)									
3	6	1000	7.35	—	—	—	—	—	271-2383-ND	50.80	45.00	42.10	BVL061000003N
	6	2000	14.70	—	—	—	—	—	271-2384-ND	50.80	45.00	42.10	BVL062000003N
	12	600	8.82	4.20 x 2.60 x 1.46	Q102-ND	SC1048-ND	SC1050-ND	CP-0248-ND	271-2385-ND	50.80	45.00	42.10	BVL120600003N
	12	1200	17.64	(107 x 66 x 37)					271-2386-ND	50.80	45.00	42.10	BVL121200003N
	24	300	8.82	—	—	—	—	—	271-2387-ND	53.71	44.42	42.10	BVL240300003N
3	6	3800	28	5.08 x 3.05 x 1.59	Q102-ND	SC1048-ND	SC1050-ND	CP-0248-ND	271-2388-ND	49.69	41.10	38.95	BVL240600003N
	24	1250	37	(129 x 77 x 40)					271-2389-ND	79.73	70.35	65.66	BWV063800003A
3	12	2250	33	—	—	—	—	—	271-2390-ND	79.73	70.35	65.66	BWV122250003A
	24	1250	37	—	—	—	—	—	271-2391-ND	79.73	70.35	65.66	BWV241250003A

† With power cord

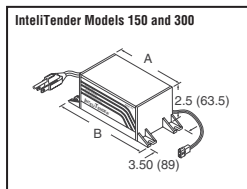


## PATCO

### Battery Charger/Maintainer

The IntelliTender brings the battery to full optimum charge. Then, under the control of its computer, monitors the batteries voltage, supplying only what is needed to maintain the ideal charge.

Model 300 charges 2 batteries.



Volt	Amp	Model	Dim. - Inch (mm)		Digi-Key Part No.	Price Each
			A	B		
<b>Battery Chargers</b>						
6	.75	150	—	—	PATC-02-ND‡	69.93
6	1.5	150	—	—	PATC-01-ND‡	69.93
12	.75	150	5.0 (127)	5.75 (146)	PATC-04-ND‡	69.93
12	1.5	150	—	—	PATC-03-ND‡	69.93
12 x 2	1.5 x 2	300	7.0 (178)	7.75 (197)	PATC-08-ND†	124.88

‡ Recommended for 2.0 to 3.4 Ah batteries.  
† Recommended for 4.0 Ah and above batteries.

Description	Digi-Key Part No.	Price Each
<b>Cable (Must Order Separately)</b>		
Battery Hook-up, Spring Clamp	PATC-07-ND	7.49
Motorcycle Hook-up, Ring Lugs	PATC-06-ND	5.00
Marine Hook-up, Ring Lugs	PATC-05-ND	5.00

More Product Available Online: [www.digkey.com](http://www.digkey.com)

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