

Battery Voltage Chart

Full, partly used and empty readings, from the makers' own sheets. See the page for how each is read.

BATTERY	FULL	PARTLY USED	EMPTY	READ
AA/AAA alkaline	1.5 V	1.1 V, 20% left	0.8 V	Under load
AA/AAA lithium	1.79-1.83 V	Over 1.74 V	Under 1.70 V	At rest
AA/AAA NiMH	1.4 V at rest	1.2 V, flat	0.9-1.0 V	Under load
9V alkaline	Not given	Not given	4.8 V	Under load
9V lithium	Not given	Not given	5.4 V	Under load
9V NiMH	Not given	Not given	Not given	

BATTERY	FULL	PARTLY USED	EMPTY	READ
CR2032	Not given	Not given	2.0 V	Under load
LR44	1.55 V	1.33 V (40%)	0.9 V	Under load
357/SR44	1.55 V	1.40 V (40%)	1.3 V	Under load

BATTERY	FULL	PARTLY USED	EMPTY	READ
18650 (P28A)	4.2 V	Not given	2.5 V	Maker limits
12V flooded	12.73 V	12.10 V (50%)	11.66 V (20%)	Rest 6-24 h
12V AGM	12.84 V	12.24 V (50%)	11.94 V (25%)	Rest 6-24 h
12V LiFePO4	13.6 V	13.3-12.9 V	11.2-10.0 V	Full at rest

Sources: Energizer datasheets and handbooks; Molicel P28A datasheet; Trojan user's guide; Victron LiFePO4 Smart datasheet; Renogy voltage chart blog. Read October 27, 2026.

Alkaline: test under load. Lead-acid and AGM: measure after 6 to 24 hours at rest. Never charge a battery not marked rechargeable.

