

# Photoethnography.com's Classic Camera DB

Notes on cameras that I have used and enjoyed over the decades -- from toy cameras, working classics, and professional units.

## Camera Batteries - a complete chart

Camera Batteries (mercury, silver-oxide, etc.)

This page describes various battery types for classic and contemporary cameras, including full specifications for various battery types (dimensions, voltage, common uses, etc.). For regular camera batteries, I also have pricing information below from several local and retail vendors. Battery prices vary greatly, it pays to shop around.

p.s. If you have noticed anywhere with lower prices, please e-mail me to let me know. p.p.s. Yes, I know that these things are really 'cells' and are only 'batteries' when there are more than one in series, but most people just call them 'batteries' so I'll used that terminology out of habit.

## Battery Technologies

**Mercuric Oxide:** Mercury batteries were commonly used in many classic cameras of the 1960s and 1970s for their CdS (cadmium sulfide) metering systems. Mercuric oxide batteries provide a constant and stable 1.35 volts over most of their life. This means that the camera does not have to have voltage regulation circuitry, considerably lowering the cost of production. Unfortunately, mercury batteries were outlawed in the U.S. in the 1980s and are not readily available anymore. However, all is not lost. There are several solutions below.

**Alkaline (zinc/manganese dioxide; Zn/MnO<sub>2</sub>):** This is the chemistry used in your standard alkaline battery (C, D, AA, AAA, etc.). New batteries give 1.5 volts which quickly declines over the life of the battery. Alkaline batteries have high internal resistance which means they will not discharge quickly. This reduces their usefulness in high-drain devices such as camera flashes or motor drives.

**Standard and Heavy-Duty (zinc/carbon and zinc-chloride):** This is the chemistry used in "standard" and "heavy-duty" batteries (C, D, AA, AAA, etc.). New cells give 1.5 volts which quickly declines over the life of the cell. Zinc-Carbon batteries have less than a third of the storage capacity of "Alkaline" (Zinc-Manganese dioxide) batteries and we do not recommend their use in any situation.

**Silver-Oxide:** Starting in the 1970s, camera manufacturers started to move to silver-oxide "button" batteries. Silver-oxide cells provide 1.55 volts fresh out of the can, but then the voltage slowly drops over the life - not as much as alkaline batteries, but more than mercuric-oxide. This means that cameras could not depend on the voltage being stable and started to use what are called "bridge circuits" to reduce the effect of the falling voltage.

**Lithium-Manganese-Dioxide (LiMnO<sub>2</sub>):** Into the late 1990s, even relatively simple mechanical cameras such as the Leica M7 were power-hungry as they had sophisticated CPU units drawing power. Camera manufacturers started to push the use of lithium cells with Lithium Manganese-Dioxide (LiMnO<sub>2</sub>). These cells have names that start with "CR" such as: CR2032, CR1/3N, or 2CR5. Based on light metal chemistry, lithium cells have incredible storage capacity for their size -- many times that of alkaline or silver-oxide batteries. They also have much better cold weather performance as well as a shelf-life of 10+ years. The only downside is that lithium is a pollutant, so dispose of your lithium batteries at an approved recycling center as LiMnO<sub>2</sub> cells are not rechargeable.

**Lithium-Iron-Disulfide (Li-FeS<sub>2</sub>):** The Li-FeS<sub>2</sub> lithium cells are a relatively new phenomena. They produce 1.5 volts, which allows them to be used to replace zinc-manganese batteries in common sizes like AA and AAAs. These lithium cells have longer shelf-life and better high-drain capacity which makes them suitable for use in flashunits and digital cameras. In fact, although on paper Li-FeS<sub>2</sub> doesn't have considerably more capacity than its alkaline equivalent, one manufacturer test noted that a consumer could get up to 10x the digital camera shots using their lithium replacement AA cells compared to using standard alkaline. The only downside? Li-FeS<sub>2</sub> cells are twice to three times the price of standard alkalines.

**Rechargeables:** Nickel-cadmium (NiCad) batteries are rapidly being eclipsed by newer **Nickel-Metal-Hydride (NiMH)** rechargeables. In addition, NiMH doesn't have the same toxic chemical (cadmium) found in NiCads. In the common AA size, NiMH batteries can store up to 2400 mAh. Unlike alkalines, NiMH have low internal resistance which makes them ideal for the fast refresh cycles of camera flashes (warning: not all flash units are compatible with NiCad/NiMH batteries). For digital cameras, NiMH itself is rapidly being replaced with Lithium-Polymer, Lithium-Ion, and other lithium chemistries.

## Classic Camera Batteries

### Discontinued Camera and Watch Batteries

Type	Used In	Solutions
PX-27 aka EPX27, V27PX, 4NR43		
5.6V Mercury Silver	Minox 35 GL and other Minox cameras	1) Four 1.5v SR44 batteries, a PX-28A or PX28S can be used for cameras that don't mind the voltage difference. 2) Minox used to sell an adapter for the Minox 35 that would allow SR44 batteries, you may be able to still obtain one at a camera store or ebay.
<b>Discontinued</b>		
PX-32 aka Eveready TR164, E164, Varta 164PX, National/Panasonic HM-4N, Rayovac RPX-32, ANSI 1404M, IBC 4NR52	Yashica GSN	1) Many cameras including the GSN can take a PX-28A 6V alkaline battery with a small spring inserted to take up slack (see <a href="#">Matt Denton's solution</a> ). Wrap the PX-28 in some cardboard to make it roughly the same diameter as the PX-32, then use the spring to take up the difference in length.

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5.6V  
Mercury Silver  
36g 17.0D x 44.5H mm.

**Discontinued**



Left to right: 25c spring, alkaline PX-28, and the original PX-32.  
Use the spring and a cardboard tube to approximate the size of the PX-32.

PX-400  
aka Energizer E400N, ANSI  
1116M, IBC MR42

1.35V  
Mercuric Oxide  
1.40g 11.6Dx3.60H mm.

**Discontinued**

Asahi Pentax Spotmatic SP, SP11, SP11a, etc.

PX-625  
aka Eveready E625, ANSI  
1123M, IBC MR9  
PX13, EPX13, H-D, 1124MP,  
EPX625

1.35V  
Mercuric Oxide  
450 mAh  
4.20g 16.0Dx6.2H mm.

**Discontinued**

Canon Canonet  
Miranda Sensorex  
Yashica Lynx 14  
Nikon F meter 14  
Yashica-Mat 124/124G



PX-640

1.35V  
Mercuric Oxide  
7.94g 15.9D x 11.2H mm.

**Discontinued**

Minolta Hi-Matic  
Yashica GX



PX-675  
aka EPX675, RPX675,  
KX675, HD675, MR44, H-C

1.35V  
Mercuric Oxide  
210mAh  
11.6D x 5.4H mm.

**Discontinued**

Eveready No. 504  
Neda 221, M504  
10F15, W10, W10E, V74PX

15V 88mAh  
Carbon Zinc  
also Alkaline  
15.9g 15.1D x 34.9H mm.

Still being manufactured

Eveready No. 505  
Neda 221, M505  
15F15, W15, MV15E

22.5V 84mAh  
Zinc Chloride

Zeiss, Canon, Minox, and Rollei 16S AG-1 flash units

Bolsey flash unit  
Ricoh 500 flash unit

2) Four 1.5v LR44 batteries can also be used, similar to solution #1.

3) Some stores (check [PhotoBattery.com](http://PhotoBattery.com)) still have the discontinued 6V alkaline PX-32A batteries, although these may be older stock. Check the expiration dates.

4) Some cameras (not the GSN) require adjustment to the metering circuitry for the difference between 5.6V and 6V batteries.

5) [Yashica Guy](http://Yashica Guy) adaptor or the [CRIS HM4N Adaptor](http://CRIS HM4N Adaptor) and alkaline PX28A batteries. These contain diodes to take the voltage down to 5.6V.

1) The 1.55v silver oxide Energizer E3875 is an exact fit. This is also sold as the Radio Shack 3875 (RSU #11608452), but is a special RSU order. [PhotoBattery.com](http://PhotoBattery.com) has the [S400PX](http://S400PX) as a replacement.

2) Both of the above are 1.55v silver oxide. They work with the Spotmatic which has voltage regulating bridge circuitry, but other older cameras may be more problematic.

3) [CRIS H-B Adaptor](http://CRIS H-B Adaptor) and silver 377 batteries. The CRIS adaptor has a diode to take it down to the proper voltage, although the Spotmatic doesn't need the lower voltage.

4) Wein zinc-air cells have a stable voltage over their life and are thus suited to many older cameras. The disadvantage is that these only last a few months. Sources for Wein cells noted below.

1) Many cameras can take a PX625A 1.5V alkaline (aka Energizer E625G) battery directly

2) Others can take a PX-625A with adjustments made to the metering circuitry. You can solder your own diode in directly, if you have the right skills (don't ask me, I don't). [PhotoBattery.com](http://PhotoBattery.com) has [PX625A](http://PX625A) replacements.

3) Wein zinc-air cell. The disadvantage is that these only last a few months. Sources for Wein cells noted below.

4) [CRIS MR 9 Adaptor](http://CRIS MR 9 Adaptor) and silver 386 batteries. The CHRIS adaptor has a diode to take it down to the proper voltage.

5) Paul Birkeland-Green has been making [custom adapters](http://custom adapters) for a while for the Nikon F meter

1) The Yashica GX can take a 1.5v SR44 silver cell with some tin foil wadding directly

2) Apparently the Hi-Matic can take a LR44 as well, but I have not tested this. Beware!

1) Some cameras can take a 1.5V SR44 silver-oxide battery instead. The height is the same but the diameter is slightly smaller.

1) These are still being manufactured. Most speciality stores should have them. This isn't a mercury cell, but still odd enough to note on this part of the page.

2) BatteriesPlus and [PhotoBattery.com](http://PhotoBattery.com) stock them regularly.

1) These are still being manufactured. Most speciality stores should have them. This isn't a mercury cell, but still odd enough to note on this page.

[Zeiss Ikon Contaflex IV](http://Zeiss Ikon Contaflex IV)

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## Bulk Battery Suppliers


[buyabattery.co.uk](http://buyabattery.co.uk)

**UK Wholesale Discount Prices**

Official UK Distributors of Duracell, Duracell Industrial, Panasonic & GF

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SINCE 1973

15.9g 15.1D x 50.9H mm.

Still being manufactured



2) Radio Shack stocks it as Catalog #960-2089, but it isn't a store item and must be RSU ordered.

3) Batteries Plus stocks them regularly.

The world needs lithium  
lithium stocks have tons

## Common Camera and Watch Batteries

## Type

SR44  
Energizer 357/303  
Duracell D357  
KA76, LR1154, EPX76, S76,  
etc.

1.55V 160 mAh  
Silver-Oxide

11.8 D x 5.4 H mm

## Used In

Lots-n-lots of cameras, light meters, pocket alarm clocks, laser pointers, darkroom timers, calculators, etc.



Lots-n-lots of gadgets



LR44  
KS76, MS76, SP76, A76,  
PX76a, AG13

1.5V 105 mAh  
Alkaline

11.8 D x 5.4 H mm

## Solutions

This is a pretty popular size of watch battery. You should be able to get it in any drugstore or supermarket fairly easily. Make sure you get the silver-oxide SR-44 and not the "equivalent" but less powerful alkaline LR-44.

Price check:  
\$1.31 (\$3.93 / pack 3; Walmart, MN 2003.05)  
\$1.49 (B&H 2003.05)  
\$1.54 (\$4.62 / pack 3; Menards MN 2004.06)  
\$1.95 (Menards, MN 2003.04)  
\$2.00 (BatteryStation.com; 2007.05)  
\$2.69 (ZBattery.com; 2004.01)

Exactly the same size as the silver-oxide SR44, the LR44 is a very common battery and should be readily available just about anywhere.

Price check:  
\$0.25 (BatteryStation.com; 2007.05)  
\$0.62 (VintageBatteries.com; 2005.05)  
\$0.95 (B&H 2003.05)

¥50 (¥100/2-pack; Can Do, Japan 2004.09)

*Note: This is the wimpy version of the silver-oxide SR44. It has much less power but is often half the price. Since a dead battery in a camera is a Very Bad Thing® and usually happens far far away from a camera store, I don't recommend the use of alkalines. Use the SR-44 instead.*

SR54  
V389, 17, 113850, 280-15, M, G10,  
RW49, S1131E, SB-BU, SR1130W,  
10L122

1.55V 70 mAh  
Silver Oxide

11.6mm D x 3.05 H mm

Some digital table clocks including my designer calculator / clock

The alkaline version of this cell is LR54. Where possible, use the silver oxide version as it has more energy.

Price check:  
\$0.69 (Budget Batteries; 2010.03.20)

SR927  
SR927W, SR57, SB-BP/EP, 280-44, W,  
V399, D399, 613, GP399, 926E, 399,  
LR927, GR927

1.55V  
Silver Oxide

9.5mm D x 2.6 H mm

Some watches including my Casio Pathfinder

The alkaline version of this cell is AG7 / LR57. Where possible, use the silver oxide version as it has more energy.

Price check:  
¥xxx (Homac, Japan 2007.12)

SR936SW  
394

1.55V  
Silver Oxide

9.5 D x 3.6 H mm

Some watches including my Swatch Irony

This is a relatively uncommon battery and I had a little bit of trouble finding it. It's also more expensive than other silver-oxide cells in the same size.

Price check:  
¥698 (Homac, Japan 2007.12)

PX28S, PX-28  
4SR44, 4G13, 4SG13, 28PX,  
544, KS28, V28, V28PX

13.0 D x 25.2mm H

6.2V  
Silver Oxide

Yashica G models (w/ adaptor); Minox 35ML, Bronica GS-1, Canon AE-1; Asahi Pentax 6x7 (67)

Hasselblad PME-51, 203FE, 205FCC.



These are not that easy to find in local stores. Zbattery.com is the only place that I've seen them regularly stocked. I use 4 x SR-44 batteries instead, wrapping them in cello tape.

There is also a Lithium version PX28L or 2CR1/3N that has more capacity (see below) and can often be used in the same cameras that take the PX28S.

Price check:  
\$4.27 (ZBattery.com; 2004.01)  
¥1837 (Bic Camera; Tokyo 2004.09)

*Note: The shelf-life of this is about 8 years. In a pinch, you can use 4 x SR44 batteries instead.*

PX28L  
2CR1/3N, L544, L544BP,  
V28PXL, K28L, 2CR11108,  
2CR1/3H, CR28L, 1406LC

13.0mm D x 25.2mm H

6V 160mAh  
Lithium

Yashica G models (w/ adaptor); Asahi Pentax 6x7 (67)

Hasselblad PME-51, 203FE, 205FCC.

This is the same size as the PX28S / 4SR44 but because it is lithium, it is 6V instead of 6.2V. Most cameras will not mind. The lithium performs better in cold-weather conditions than the silver-oxide. Lithium cells have a shelf-life of about 10 years unused.

Note that it's often cheaper to use two stacked CR1/3N batteries instead of a single PX28L.

Price check:  
\$6.59 (ZBattery.com; 2010.03)  
\$4.95 (BatteryJunction.com; 2010.03)  
¥882 (Bic Camera; Tokyo 2004.09)



Note: The shelf-life of this is about 10 years. In a pinch, you can use usually use a PX28L, two stacked CR1/3N batteries, or four stacked SR44 batteries instead.

PX28A  
4LR44, A544, K28A, V34PX,  
7H34, 4NZ13, V4034PX,  
4034PX, PX28AB, 1414A

Yashica G models (w/ adaptor).

Price check:

\$1.99 (VintageBatteries.com; 2005.05)  
\$3.38 (ZBattery.com; 2004.01)

Note: This is the wimpy version of the Lithium PX28L or silver-oxide PX-28S. It has much less power but is almost the same price. Since a dead battery in a camera is a Very Bad Thing® and usually happens far far away from a camera store, I don't recommend the use of alkalines.

13.0mm D x 25.2mm H

6V  
Alkaline (Manganese  
Dioxide)

EOS 1v, 3, etc.



2CR5  
DL245, KL2CR, EL2CR55

34 x 17 x 45 mm

6V 1300 mAh  
Lithium (LiMnO2)

This battery is commonly used in the Canon EOS professional film cameras. Its advantage was that it fit right into the battery grip. The 2CR5 looks suspiciously like two CR123A cells stuck together in a single package. I wonder if it wouldn't be possible to make an adapter since CR123A cells are pretty cheap.

Price check:

\$3.95 (BatteryJunction 2010.03)  
\$5.85 (ZBattery.com; 2004.01)  
\$5.95 (B&H 2003.5)  
\$6.98 (Kodak; Savon Drug, CA; 2003.07)  
\$13.98 (Energizer E2; Savon Drug, CA; 2003.07)

CR 1/3N  
DL 1/3 N  
2 L76, CR1, DL1/3N,  
2167, CR111, CR1/3 1H

11.8 D x 11.0 H mm

3V 160mAh  
Lithium (LiMnO2)

Leica M6, M6TTL, M7, MP  
Nikon FE



This battery is used in the late-model film Leica rangefinders (aka M6/M7). It's rather rare, most stores don't regularly stock them, so I buy in bulk when I find them cheap. Lithium cells have a shelf-life of about 10 years unused.

The CR 1/3N is the same size as two SR-44 silver-oxide batteries, and in a pinch you can tape together two SR-44 cells, which can be bought just about anywhere. They won't last as long, but they're good in a pinch.

Price check:

\$3.50 (BatteryJunction.com; 2012.12)  
\$4.95 (B&H 2003.05)  
¥441 (Bic Camera; Tokyo 2004.09)  
¥514 (Fujiya Camera, Japan; 2004.09)  
¥514 (Yodobashi Camera, Japan; 2004.09)

CR123  
EL123A, DL123A, CR123A,  
CR17345

17.1 D x 34.5mm H

3v 1300mAh  
Lithium (LiMnO2)

Leica SF-20 flash, point and shoot  
cameras, smaller SLRs, high-end  
LED flashlights.



This is a pretty popular battery as it's used in a lot of point and shoot cameras and smaller, consumer SLRs. Popular high-power LED flashlights (3 and 5 watt versions) use CR123As. You can buy them at Radio Shack and larger drugstores for \$5-10 each or online for much much cheaper. The advantage of the CR123A over AA batteries is that the CR123A can power about a gazillion flashes before running out and it has excellent low-temperature performance.

\$1.00 (BatteryJunction.com 2010.03)  
\$1.50 (BatteryStation.com 2007.05)  
\$1.50 (CheapBatteries.com; 2006.05)  
¥150 (Fujiya Camera Junk Store, Japan; 2004.10)

CR2  
CR2N CR15270

15.0 D x 27.0mm H

3v 750mAh  
Lithium (LiMnO2)

Lots of point and shoot and  
consumer digital cameras.

Konica Hexar RF



This is a pretty popular battery as it's used in a lot of point and shoot cameras and smaller, consumer SLRs. You can buy it at Radio Shack and larger drugstores or online for much less.

\$1.00 (BatteryJunction 2010.03)  
\$1.50 (BatteryStation.com; 2007.05)  
¥150 (Fujiya Camera Junk Store, Japan; 2004.10)

CR2032

20.0 D x 3.2mm H

3V 220mAh  
Lithium (LiMnO2)

Gossen Digisix, Digiflash,  
darkroom timers, calculators,  
watches, etc.



This is a pretty popular watch/gadget battery. You should be able to get it in any drugstore or supermarket fairly easily.

Price check:

\$0.80 (BatteryJunction 2010.03)  
\$0.25 (CheapBatteries.com 2006.05)  
\$0.50 (BatteryStation.com; 2007.05)  
\$0.92 (VintageBatteries.com; 2005.05)  
\$0.99 (ZBattery.com; 2004.01)  
\$1.79 (B&H 2003.05)  
\$1.95 (Menards 2003.08)  
¥100 (Can Do, Japan 2004.09)

CR2430  
DL2430, KECR2430, ECR2430,  
BR2430, KCR2430, KL2430, L20

Suunto Advisor

This is pretty much only used in my  
altimeter/barometer/compass super-watch.

24.0 D x 3.0mm H

3V 280mAh  
Lithium (LiMnO<sub>2</sub>)Price check:  
\$1.24 (BatteryJunction 2010.03)  
\$1.29 (ZBattery.com; 2004.01)  
\$2.00 (BatteryStation 2007.05)  
\$4.99 (RadioShack.com 2008.08)

N

MN9100, UM-5, R1, 910A, E90

12.0 D x 30.2mm H

1.5V 800 mAh (Alkaline)  
Alkaline / Zinc-Carbon

Small flashlights

Used in some small electronic devices.

Price check:  
\$3.00 (Amazon.com 2012.12)

AAA

LR03, UM-4, 24A

10.5 D x 44.5mm H

1.5V 1200mAh (Alkaline)  
Alkaline / Zinc-Carbon

Small flashlights

Used in some small electronic devices.

Price check:  
\$0.25 (4 pack = \$1; Dollar General 2012.12)

AA

LR06, UM-3, 15A

14.5 D x 50.5mm H

1.5V 1100mAh (Zinc-Carbon)

Flash units, flashlights. Some digital cameras and digital backs.

Used in many electronic devices. Note that many high-drain devices in photography like flash units and digital cameras will last considerably longer if used with Lithium or NiMH batteries than alkaline, given their discharge curves.

Price check:  
\$0.25 (4 pack = \$1; Dollar General 2012.12)1.5V 2700mAh (Alkaline)  
1.5V 3000mAh (Lithium)  
Alkaline / Zinc-Carbon/Li-FeS<sub>2</sub>/NiCad/NiMH

6 volt Lantern Battery

IEC: 4R25Y, 4R25  
ANSI: 908AC, 908C, 908CD, 908D  
Energizer EN1209, EN529; MN908;  
Eveready EV90, EV90HP; GP908,  
PJ996

66 W x 66 L x 115 mm H

6V 12 Ah / 26 Ah  
Zinc-Carbon / Alkaline

Classic battery operated lanterns (torches).

Around \$3 for zinc-carbon (heavy duty) to \$8-9 for alkaline. The zinc-carbon have less than half the capacity (12 Ah vs 26 Ah) of the alkalines.

9 volt battery

IEC: 6F22, 6LR61  
JIS :5006P  
ANSI: 1604, 1604A  
Energizer 52217.5 W x 26.5 L x 48.5 mm  
H 36-45g9V 600 mAh (Alkaline) @ 20 mA  
discharge9V 1200 mAh (Lithium)  
Zinc-Manganese Dioxide (Alkaline)

Standard transistor radio battery used in multimeters, lightmeters, colorimeters, and assorted other handheld electronic devices. Also used in smoke alarms.

Links to more battery information:

- Wikipedia: [List of battery sizes](#)
- Energizer [Battery Data Sheets](#)
- CRIS Camera has [Mercury Battery Adaptors](#)
- [VintageBatteries.com](#) is an inexpensive source for:
  - Wein cells (PX625/400 replacement), LR44, 4LR44, CR2025 and CR203
- [CheapBatteries.com](#) lives up to its name -- especially when you buy bulk
- [www.zbattery.com](#) is a good source for inexpensive batteries
- [eurobatteries.com](#) is a cheap source in Britain
- KY Photo has a [Mercury Battery Page](#)
- Minolta Hi-Matic [Discussion of PX640 replacements](#)
- Micro-Tools sells [Wein cell \(PX625/400\) replacements](#) for most cameras
- [ClassicCamera.com](#) sells adaptors for cameras

Here's a handy chart from Lada Ada that shows the different power capacity of each type of battery cell:


PRODUCT NUMBER	SIZE	NOMINAL VOLTAGE	RATED CAPACITY	LOAD	WEIGHT		VOLUME		TYPICAL GRAVIMETRIC ENERGY DENSITY**		TYPICAL VOLUMETRIC ENERGY DENSITY	
		volts	ampere-hours	ohms	pounds	kilograms	cubic inches	liters	watt-hours per pound	watt-hours per kilogram	watt hours per cubic inch	watt hours per liter
MN1300	D	1.5	15,000	10	0.304	0.138	3.440	0.056	59.2	130	5.2	322
MN1400	C	1.5	7,000	20	0.143	0.065	1.640	0.027	65.5	144	5.7	347
MN1500	AA	1.5	2,850	43	0.052	0.024	0.510	0.008	65.8	143	6.7	428
MN2400	AAA	1.5	1,150	75	0.034	0.011	0.230	0.004	57.5	126	6.0	345
MN9100	N	1.5	0.800	100	0.021	0.010	0.210	0.003	45.7	96	4.6	320
7K67	J	6.0	0.580	340	0.075	0.034	0.960	0.016	37.2	82	2.9	174
MN908	Leakless	6.0	11,500	15	1.349	0.612	30.620	0.502	40.9	90	1.8	110
MN918	Leakless	6.0	24,000	9	2.800	1.270	75.880	1.343	41.1	91	1.5	93
MN1604	9V	9.0	0.380	620	0.101	0.046	1.390	0.023	41.4	91	3.0	182

\* TO 0.8V per cell at 21°C (70°F).

\*\* Based on 1.2 volt average operating voltage per cell at 21°C (70°F).


Table 1. Comparison of typical energy densities of major DURACELL® alkaline cells/batteries.

## 2 Comments

 [Karen Nakamura](#) | [January 6, 2011 11:25 PM](#) | [Reply](#)

Dear Karen, I've been reading your blog and website for a few years, I've gotten some great tips and info on it. THANK YOU! here is tip from here, most photo processors do disposable cameras which contain AA and AAA alkaline batteries. They all have high test values. I buy mine for 10 cents each (brands include: kodak, panasonic and varda) from the one hour photo shop here. Keep up your good work and thank you again for all that I've learned from your website.

Cheers, Michael S. Hamilton Montana

 [Karen Nakamura](#) | [February 23, 2012 2:33 AM](#) | [Reply](#)

Dear Karen

Firstly I would like to thank-you for your reference to my battery adapter on your page:

<http://photoethnography.com/ClassicCameras/batteries.html>

I'm glad you think it worthy of mention:

3) Paul Birkeland-Green has been making custom adapters for a while for the Nikon F meter

However it is listed alongside the PX 640 battery instead of the PX-625 above it. This is giving some confusion to people mistakenly ordering mine as a replacement for the PX-640

I was wondering if you could lift it into the PX-625 box above please?

Again thank-you for the great help and guidance you are giving to us old-camera fans.

Best wishes

Paul Birkeland-Green

## Leave a comment

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