

# ULTRALIFE<sup>®</sup>

BATTERIES INC.



*The new power generation...<sup>®</sup>*

## PRODUCT SUMMARY GUIDE

### *Lithium-Manganese Dioxide Batteries*

- 9-Volt
- Thin Cell<sup>®</sup>
- HiRate<sup>®</sup> Cylindrical
- Military

### *Rechargeable Batteries*

- Lithium Polymer
- Lithium ION

*Click on any product number on the following pages to obtain data sheet.*

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Our goal is to continuously improve the performance of our batteries. The specifications for battery performance are subject to change without notice. See individual product Technical Data Sheets for the latest specifications and complete performance details. The information contained herein is for reference only and does not constitute a warranty of performance.

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For mere information om produkter fra Power Incentive besøg os på:

[www.powerincentive.dk](http://www.powerincentive.dk)

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May 24 '04 UBM-5081 Rev. M

# Ultralife Lithium-Manganese Dioxide Battery Systems

## 9-Volt



A consumer-replaceable, high energy density battery that lasts up to 5 times longer than ordinary alkaline 9-volt batteries and 10 times longer than carbon-zinc batteries in many applications. Ultralife's lithium chemistry provides a flat discharge profile over a wide operating temperature range, and 10-year shelf life for the aluminum-jacketed U9VL-J battery. The Ultralife 9-volt is UL-recognized, has a patented safety mechanism and is environmentally friendly.

- Temperature Range: -20°C to 60°C - operating
- Terminals: Miniature Snap
- Transportation: See note 2
- 40°C to 60°C - storage

Ultralife Product No.	Dimensions (mm) Thickness x width x length	Nominal Voltage (V)	Rated Capacity (mAh) Note 1	Maximum Discharge (mA-continuous)	Weight (Grams)	Volume (cm <sup>3</sup> )	Housing Note 3
U9VL-J	17.5 x 26.5 x 49.0	9	1200	120	36.4	22.6	Aluminum
U9VL	16.9 x 26.0 x 48.8	9	1200	120	33.8	21.4	Plastic

Note (1): Rated capacity @ 900Ω to 5.4V

Note (2): For a complete description of transportation regulations for these products refer to

[http://www.powerincentive.dk/ultralife\\_batteries\\_lithium\\_battery\\_transportation\\_regulations.pdf](http://www.powerincentive.dk/ultralife_batteries_lithium_battery_transportation_regulations.pdf)

Note (3): U9VL sold as U9VL-FP (Foil Pack) only.

## Thin Cells



Ultralife Thin Cell® lithium batteries are wafer-thin, with a unique combination of high-energy density, long life, wide operating temperature range and light weight.

- Temperature Range: -20°C to 55°C - operating
- Terminals: Nickel Tabs
- Transportation: See note 2
- Housing: Laminated Foil
- 40°C to 55°C - storage

Ultralife Product No.	Dimensions (mm) Thickness x width x length	Nominal Voltage (V)	Rated Capacity (mAh) Note 1	Maximum Discharge (mA-continuous)	Weight (Grams)	Volume (cm <sup>3</sup> )
U10004	5.00 x 44.45 x 54.61	3	1500	250	15.0	12.1
U6VF-K-T-2	5.30 x 48.16 x 75.44	6	1000	40	16.4	13.0
U10005	2.16 x 48.16 x 75.44	3	1000	40	8.2	6.5
U10007	2.16 x 32.16 x 40.36	3	400	25	3.5	2.5

Note (1): U10004 rated capacity @ 10 mA to 1.5V  
 U6VF-K-T-2 rated capacity @ 500Ω to 3.0V  
 U10005 rated capacity @ 500Ω to 1.5V  
 U10007 rated capacity @ 500Ω to 1.5V

Note (2): For a complete description of transportation regulations for these products refer to :

[http://www.powerincentive.dk/ultralife\\_batteries\\_lithium\\_battery\\_transportation\\_regulations.pdf](http://www.powerincentive.dk/ultralife_batteries_lithium_battery_transportation_regulations.pdf)

## HiRate® Cylindrical



Ultralife HiRate® lithium batteries provide ultra-high rates of discharge, in extreme temperatures, without voltage delay at start-up even after long periods of storage. Significantly safer than comparable high-rate systems, Ultralife HiRate batteries have a 10-year shelf life and are environmentally friendly.

- Temperature Range: -40°C to 72°C – operating  
-55°C to 80°C – storage
- Terminals: See note 3
- Transportation: See note 4

Ultralife Product No.	Ultralife Part No.	Dimensions (mm)	Size	Nominal Voltage (V)	Rated Capacity (Ah) Note 1	Maximum Discharge (A-continuous) Note 2	Weight (Grams)	Volume (cm <sup>3</sup> )	Housing
U3356	U10000	33.2 x 54.8	D	3	10.4	3.3	117	47.7	Ni-Plated Steel
U3356H	U10002	33.3 x 56.5	D	3	10.0	3.0	108	48.0	Stainless Steel
U3360H	U3360H	33.3 x 61.0	D	3	11.0	3.0	117	52.0	Stainless Steel
U2560H	U2560H	25.5 x 61.4	1 1/4 C	3	5.6	1.5	69	31.0	Stainless Steel
U2550H	U2550H	25.7 x 50.5	C	3	4.5	1.25	58	26.0	Stainless Steel
U2550HCES-F95 (MIDS-LVT)	Same	25.9 x 52.2	C	3	4.3	1.2	60	26.0	Stainless Steel
U1965	U10001	18.9 x 62.0	-	3	3.4	1.3	44	17.6	Ni-Plated Steel
U2215 (BA-5368/U Cell)	U2215	22.4 x 14.8	-	3	1.0	320 mA	15	5.6	Ni-Plated Steel
U1613 (BA-5372/U Cell)	U1613	16.5 x 13.4		3	0.5	160 mA	8	3.0	Ni-Plated Steel

Note (1): U3356 rated capacity @ 2A to 2V  
 U3356H rated capacity @ 200mA to 2V  
 U3360H rated capacity @ 200mA to 2V  
 U2560H and U2550H rated capacity @ 100mA to 2V  
 U1965 rated @ 1.3A to 2V  
 U2215 rated @ 40mA to 2V  
 U1613 rated @ 4.5mA to 2V

Note (2): Higher pulse currents and higher continuous currents can be achieved. Contact Ultralife for details

Note (3): U3356, U3356H, U3360H, U2560H and U2550H: Flat end caps; tabs available  
 U1965, U2215 and U1613: (+) Molybdenum pin, (-) Container

Note (4): For a complete description of transportation regulations refer to:  
[http://www.powerincentive.dk/ultralife\\_batteries\\_lithium\\_battery\\_transportation\\_regulations.pdf](http://www.powerincentive.dk/ultralife_batteries_lithium_battery_transportation_regulations.pdf)

# Ultralife Batteries for Military Applications

## Military/Commercial: Li/MnO<sub>2</sub> Primary



Ultralife advanced-technology Li/MnO<sub>2</sub> military batteries have higher volumetric energy density than lithium sulfur dioxide batteries - in some cases two times more energy. And Ultralife Li/MnO<sub>2</sub> batteries are non-pressurized and non-toxic, making them safer and more environmentally friendly.

- Temperature Range: - 30°C to 72°C - operating  
- 40°C to 95°C - storage
- Terminals: See note 2
- Transportation: See note 3

Ultralife Product No.	NSN	Ultralife Part No.	Dimensions (mm) thickness x width x length	Nominal Voltage (V)	Rated Capacity (Ah) Note 1	Maximum Discharge (mA-continuous)	Weight (Grams)	Volume (cm <sup>3</sup> )	Housing
BA-5390/U (US)	6135-01-501-0833	UB0001	62.2 x 111.8 x 127.0	30 or 15	11 or 22	2 or 4A	1300	883	Hard Plastic
BA-5390/U (UK)	6135-99-485-3034	UB0002	62.2 x 111.8 x 127.0	30 or 15	9.8 or 19.6	2 or 4A	1250	883	Hard Plastic
U2550HCES-F95 (MIDS-LVT)	6135-99-571-4226 BY	Same	25.9 x 52.2	3	4.3	1.2	60	26.0	Stainless Steel
BA-5367	6135-01-507-1135	UB0006	25.4 dia x 20.8	3	1.3	380	22	9.6	Plastic
BA-5368	6135-01-455-7947	UB2776	27.7 dia. x 77.5	12	1.0	320	76	37	Plastic
BA/5372/U	6135-01-214-6441	UB1733	16.8 dia. x 36.1	6	0.5	160	20	7.2	Plastic
1/2 AA	6135-01-340-7883	UB1426	14.7 dia. x 26.0	3	0.5	160	10	4	Mylar, with end cap

Note (1): BA-5390/U lower capacity rating @ 250 mA to 20 Volts; higher capacity @ 500 mA to 10V  
 BA-5367/U rated @ 50 mA to 2V  
 BA-5368/U rated @ 40 mA to 8V  
 BA-5372/U rated @ 4.5 mA to 4V  
 1/2 AA rated @ 41 mA to 2V

Note (3): For a complete description of transportation regulations refer to:  
[http://www.powerincentive.dk/ultralife\\_batteries\\_lithium\\_battery\\_transportation\\_regulations.pdf](http://www.powerincentive.dk/ultralife_batteries_lithium_battery_transportation_regulations.pdf)

Note (2): BA-5390/U uses connector SC-C-179492  
 BA-5367/U, BA-5368/U and BA-5372/U: Nickel Plated Contacts  
 1/2AA: Nickel Plated Contacts

## Military/Commercial: Lithium ION Rechargeable and Chargers



Ultralife Lithium-Ion Rechargeable Batteries combine high-energy chemistry with state-of-the art technology to produce a lightweight battery with a wide operating temperature range with no memory effect.

- Temperature Range: -20°C to 60°C – operating and storage
- Cycle Life: Greater than 300 cycles @ C/2 to 80% of initial capacity
- Self-Discharge: < 5% per month
- Memory Effect: None
- Terminals: See note 1
- Charging: See note 2
- Transportation: See note 3

### Military/Commercial: Lithium ION Rechargeable Batteries

Ultralife Product No.	Ultralife Part No.	Dimensions (mm) thickness x width x length	Nominal Voltage (V)	Rated Capacity (Ah)	Maximum Discharge (A-continuous)	Energy (Wh)	Energy Density (Wh/kg)	Weight (Grams)	Volume (Cm <sup>3</sup> )	Housing	State of Charge Display
LWC-L	UBBL01	43.0 x 111.0 x 130.2	15.2	7.5	6.5	115 Wh	140	925	621	Hard Plastic	No
UBI-2590	UBBL02	62.2 x 111.8 x 127.0	30 or 15	6 or 12	6 or 12	186 Wh	133	1400	883	Hard Plastic	Yes

### Chargers

Ultralife Product No.	Ultralife Part No.	Dimensions (mm) thickness x width x length	Charge Termination Voltage (V)	Max Charge Rate	Weight (Grams)
CH0001 - for LWC-L	CH0001	92 x 58 x 52	16.8	3.0 Amps	170
CH0002 - for UBI-2590	CH0002	174 x 123.7 x 53.6	16.4	1.0 Amp	432
CH0003 - for UBI-2590	CH0003	61 x 51 x 22	16.4	1.1 Amps	11 Kg
CH0004 - for UBI-2590	CH0004	36 x 30 x 15	16.4	1.1 Amps	5 Kg

### Cables

Ultralife Product No.	Ultralife Part No.	Length	Type
CA0001 - for LWC-L	CA0001	61 cm	2 Conductor; 22 AWG
CA0002 - for UBI-2590	CA0002	61 cm	4 Conductor; 18 AWG

Note (1): Terminals: LWC-L: Lemo connector EEG 0B 305 CLL; UBI-2590: Connector SC-C-179495

Note (2): Charge at C/2 to 16.4V in a temperature range of 0°C to +45°C. Hold at 16.4V until current declines to C/10

Note (3): For a complete description of transportation regulations refer to:  
[http://www.powerincentive.dk/ultralife\\_batteries\\_lithium\\_battery\\_transportation\\_regulations.pdf](http://www.powerincentive.dk/ultralife_batteries_lithium_battery_transportation_regulations.pdf)

# Ultralife Polymer Rechargeable Battery System

## Polymer Rechargeable



Ultralife Polymer® Rechargeable Batteries combine high-energy chemistry with state-of-the-art polymer technology to produce a rechargeable battery system that is lightweight, has a wide operating temperature range, and no memory effect. A wide variety of different battery outlines (length x width) in a range of thickness meet the needs of a wide range of applications.

- Temperature Range: -20°C to 60°C – operating and storage
- Maximum Discharge: 2C Continuous; 5C pulse
- Terminals: See note 1
- Cycle Life: 300 cycles @ C/2 to 80% of initial capacity
- Self-Discharge: <10% per month
- Housing: Laminated Foil
- Memory Effect: None
- Charging: See note 2
- Transportation: See note 3

Ultralife Product No.	Ultralife Part No.	Dimensions (mm) thickness x width x length	Rated Capacity (mAh @ C/5 Rate)	Energy (Wh)	Energy Density (Wh/kg)	Weight (Grams)
UBC36106102/PCM	UBC011	3.6 x 106 x 102	3300	12.2	145	85.0
UBC425085/PCM	UBC002	4.2 x 50 x 85	1600	5.9	156	38.0
UBC433475/PCM	UBC001	4.3 x 34 x 75	930	3.4	156	22.0
UBC641730/PCM	UBC005	6.4 x 17 x 30	200	0.7	156	4.5
UBC502030/PCM	UBC006	5.0 x 20 x 30	180	0.7	150	4.5
UBC422030/PCM	UBC007	4.2 x 20 x 30	150	0.6	150	4.0
UBC322030/PCM	UBC008	3.2 x 20 x 30	120	0.4	146	3.0

Note (1) Terminals Aluminum (+), Nickel (-)

Note (2) Charge at C/2 to 4.2V in a temperature range of 0°C to +45°C. Hold at 4.2V until current declines to C/10

Note (3) For a complete description of transportation regulations refer to:

[http://www.powerincentive.dk/ultralife\\_batteries\\_lithium\\_battery\\_transportation\\_regulations.pdf](http://www.powerincentive.dk/ultralife_batteries_lithium_battery_transportation_regulations.pdf)

# Ultralife Lithium ION Rechargeable Battery System

## Lithium ION Rechargeable



- Temperature Range: -20°C to 60°C – operating and storage
- Maximum Discharge: 2C Continuous
- Terminals: See note 1
- Cycle Life: 500 cycles @ C/5 to 80% of initial capacity
- Self-Discharge: <10% per month
- Housing: Aluminum Can
- Memory Effect: None
- Charging: See note 2
- Transportation: See note 4

Ultralife Product No.	Ultralife Part No.	Dimensions (mm) thickness x width x length	Rated Capacity (mAh @ C/5 Rate)	Energy (Wh)	Energy Density (Wh/kg)	Weight (Grams)
UBBP01 (note 3)	UBBP01	5.9 x 53 x 72	1800	6.8	151	45.0
UBP103450/PCM	UBP001	10 x 34 x 50	1800	6.7	168	40.0
UBP563450/PCM	UBP002	5.6 x 34 x 50	920	3.4	142	24.0
UBP543048/PCM	UBP005	5.4 x 30 x 48	700	2.6	158	16.5
UBP463048/PCM	UBP003	4.6 x 30 x 48	600	2.2	158	14.5
UBP383450/PCM	UBP004	3.8 x 34 x 50	600	2.2	160	13.8

Note (1) Terminals: Can (+), Cap (-)

Note (2) Charge at C to 4.2V in a temperature range of 0°C to +45°C. Hold at 4.2V until current declines to C/10

Note (3) UBBP01: Battery pack with wire leads and JST connector

Note (4) For a complete description of transportation regulations refer to:

[http://www.powerincentive.dk/ultralife\\_batteries\\_lithium\\_battery\\_transportation\\_regulations.pdf](http://www.powerincentive.dk/ultralife_batteries_lithium_battery_transportation_regulations.pdf)