



Military Factory Representatives:



# Optima Battery NSN List

The only battery with Warfighter proven Spiralcell Technology! Highest power per pound!

All models starting with letter "D" are designed for both deep cycle & engine starting applications. Excellent for vehicle accessories, engine starting, remote power, support equipment, weapon systems, etc.

Current Model #	Part #	Description	NSN	CCA (amps @ OF)	CA (amps @ 32F)	Ah Capacity (C/20)
<b>Yellow Top - DUAL PURPOSE Deep Cycle &amp; Engine Start Batteries</b>						
D51	8071-167	For Asian vehicles and specialty Mil equipment. (same as D51R, with reversed terminals)	6140 01 523 6288	450	575	38
D51R	8073-167	Replacement for <b>2HN</b> . Also used in 5kW generator, Bradley Turret, and other applications.	6140 01 529 7226	450	575	38
D35	8040-218	Slightly smaller than Optima group 34 sized models	tbd	620	770	48
D25/75	8042-218	same as D35 but with dual terminals (automotive posts and side GMC terminals)	tbd	620	770	48
D34	8012-021	Group 34 size, top post only. For support equipment and weapons systems ( <b>Alternative to 34 Red Top</b> )	6140 01 450 0141	750	870	55
D34/78	8014-045	Dual terminal group 34 size. Top terminals & Chevy side terminals. Used in support equipment and weapons systems ( <b>Also an alternative to 34/78 Red Top</b> )	6140 01 441 4272	750	870	55
D27F	8037-127	For Toyota trucks/SUVs. Excellent for other equipment needing a larger battery.	6140 01 600 5785	830	1,025	66
D31T	8050-160	Group 31 size battery for large commercial and engineering equipment. Specified for 100kW & 200kW generators, Skid Loaders, Back Hoe, etc. Has 3/8" threaded stud terminals.	6140 01 457 5469	900	1,125	75
D31A	8051-160	Group 31 size truck battery for commercial and engineering equipment. Automotive terminals.	6140 01 502 4973	900	1,125	75
<b>Blue Top - DUAL PURPOSE Deep Cycle &amp; Engine Start Batteries</b> Terminals: automotive posts & 5/16" stainless steel threaded studs.						
D34M	8016-103	Group 34 size battery for boats, cars, light trucks, etc. Also M777 Howitzer	6140 01 475 9355	750	870	55
D27M	8027-127	Group 27 size marine battery.	6140 01 589 0622	800	1,000	66
D31M	8052-161	Group 31 size battery for large commercial and engineering equipment & boats.	6140 01 502 4405	900	1,125	75
34M	8006-006	Group 34 size with <b>BLUE</b> top & <b>BLACK</b> case - <b>not for deep cycle use</b> . Used in vehicles & aviation ground support equipment. (can substitute dual purpose model D34M)	6140 01 526 2605 6140 01 441 4280	800	1,000	50
<b>Red Top - ENGINE START Batteries</b>						
75/25	8022-091	Smaller battery with both Automotive posts & Chevy side terminals.	6140 01 475 9361	720	910	44
25	8025-160	same as 75/25 but top post only	tbd	720	910	44
35	8020-164	Same as model 25 but with reversed polarity	6140 01 598 4013	720	910	44
34	8002-002	Group 34 size, top post only. Used in generators, pumps, various other support equipment, a few specialty mil vehicles, and non-tactical vehicles.	6140 01 378 8232	800	1,000	50
34/78	8004-003	Dual terminal group 34 size. Has top terminals & Chevy side terminals. Also used in non-tactical vehicles on bases such as GMC & Ford cars and trucks.	6140 01 374 2243	800	1,000	50
78	8078-109	same as 34/78 but only has side GMC terminals	tbd	800	1,000	50
34R	8003-151	Top post only group 34 size. Same as model 34 but with reversed terminal polarity.	6140 01 475 9357	800	1,000	50
34VX	8008-158	Same as 34/78 with enhancements for added vibration resistance. Used in MRAP M-ATV.	6140 01 534 6466	800	1,000	50
6V	8010-044	6-volt battery for specialty applications	6140 01 475 9414	850	1,000	50
<b>INSTALLATION ADAPTERS</b>						
<b>6TMF / 6TAGM</b>	242-0038	Adapter tray for using group 34 batteries in place of <b>6TMF &amp; 6TAGM</b> batteries. (verify reserve capacity requirement)	6160 01 453 0858			
<b>Group 78</b>	242-0041	Bottom bracket to simplify installing Optima group 34 size battery in to <b>Chevy/GMC</b> commercial vehicles.	No NSNs - contact us for availability & price.			
<b>Group 65</b>	150-28821	A pair of bottom brackets to simplify installing Optima group 34 size battery in <b>Ford</b> vehicles.				
<b>Adapter Kit</b>	15033630	Includes Group 78 adapter, Group 65 adapters (pair), Group 48 "DIN" adapter, Group 24 or 27 height adapter				
<b>ADDITIONAL INFO &amp; SUPPORT:</b>						
<ul style="list-style-type: none"> <li>● <b>Tech Support &amp; Maintenance Training</b></li> </ul>						
<ul style="list-style-type: none"> <li>● <b>Smart chargers for Optima, 6T-AGM, &amp; other military batteries. Fully Automatic, pulsing de-sulfation technology.</b></li> <li>● <b>***The 12-Station "Pallet Charger" NSN 6130-01-532-7711. *** World Charger, 12V, 20amp, NSN 6130-01-477-4703.</b></li> <li>● <b>***ProHD 12V &amp; 24V (includes 24V NATO plug for on-vehicle charging) NSN: 6130-01-500-3401</b></li> </ul>						
<ul style="list-style-type: none"> <li>● <b>3kW TQG battery, NSN: 6140-01-610-6102</b></li> </ul>						
<ul style="list-style-type: none"> <li>● <b>Contact us for info on improved NATO Slave cable &amp; DC-AC inverter with NATO Slave plug.</b></li> </ul>						





**US Military Approved for:**

- Tactical Generators
- GSE / AGE
- Boats
- Shelters
- Engineer Equipment
- Trucks
- Weapon Systems
- Vehicles

**Alternative to expensive 6T-AGM batteries in some equipment.**

**www.milbatteries.com  
970-586-0660**

**Pure Lead/Tin Plates, AGM (not Gel)**

**Spiralcell Technology** for superior vibration resistance and extended life

**Absorbent Glass-Mat Separators** holds electrolyte like a sponge to eliminate acid spilling (**AGM**)

**Tightly Compressed Cells** for added vibration resistance

**Solid Cast Cell Connections** for increased durability and maximum plate height

**99.99% Pure Lead** Spiralcell design allows for lead to be used in its purest form



**Basic Battery Care**

**On receipt of new battery:** Batteries can be stored in warehouses for a long time. **If voltage is less than 12.7 volts recharge before installation.**

**Stored or infrequently used equipment:** Electronics and high temperatures accelerate battery discharge on equipment. If possible check battery voltage every 3 to 6 months. Recharge when volts drop below 12.6 (25.2 volts for a 24V pack).

**NOTE:** A maintenance charger (Solar or AC power) can keep your batteries fully charged, & ready to work. They also extend battery life. We have a list of solutions with NSNs.

Optima batteries can often be recovered from deep-discharge and sulfation conditions that kill flat plate batteries. Contact us for info and charger recommendations.

**Maintenance**

- 1. Inspect:** Check battery terminals, sides, top, & bottom for damage, cracks, etc. Do not charge a damaged battery.
  - 2. Voltage:** Recharge if voltage is < 12.65 volts
  - 3. Charging:** Use a charger designed for sealed, AGM batteries. Voltage should peak and then hold between 14.4 to 15.0 VDC. Charge for 1 hour after current drops below 3 amps.
  - 4. Check voltage** after re-charge. Let battery rest for at least 8 hours. A fully charged Optima will have an open circuit voltage of:  
**Red Top ≥ 12.85 volts, Yellow Top ≥ 13.0 volts**
  - 5. Test:** Use your organizations approved tester.
- Load Test: Discharge at approximately 1/2 battery rated CCA for 15 seconds. On a good battery, volts at 15 seconds should be ≥ 9.6 V.
- Conductance: Digital conductance type testers calculate theoretical CCA & health readings. On a good Optima the CCA value is typically 10% to 20% higher than the battery's actual CCA label rating. We always recommend you charge before any testing.
- \*\*\*\*WHEN TESTING ANY BATTERY WITH THREADED STUD TERMINALS, NEVER CONNECT A DIGITAL CONDUCTANCE TESTERS CLAMPS TO THE THREADED STUDS! YOU MUST USE SCREW-ON LEAD ADAPTERS. FAILURE TO DO SO WILL RESULT IN BAD TEST RESULTS (usually a very low CCA reading)**