



OPTIMA Yellow 31A

Specifications

OPTIMA® YELLOWTOP® D31A Ultra high-performance SPIRALCELL TECHNOLOGY® AGM (absorbent glass mat) dual-purpose (deep-cycle and starting) battery. OPTIMA® YELLOWTOP® batteries have three times the cycling capability (rechargeability) with ultimate cranking power for your auto, car or truck to outperform traditional batteries. Perfect for powering heavy electrical loads, including winches, audio systems, inverters, and other demanding vehicle accessories and electronics. Lower internal resistance provides more efficient power output and faster recharges.

The OPTIMA® model number for this battery is D31A. If you are replacing an OPTIMA® battery you already have, this model is the same as batteries marked 8051-160, 9051-160, 27994, D31A-1125, YEL31A, SC31DA, or N9931AYEL.

Battery Model:	D31A
Part Number:	8051-160
NSN:	6140 01 502 4973
UPC Code:	8 11405 00051 5

Performance Data	
Cold Cranking Amps:	900
Cranking Amps:	1125
Nominal Voltage:	12 volts
Open Circuit Voltage (fully charged):	13.1 volts
Internal Resistance (fully charged):	0.0025 ohms
Capacity:	75 Ah (C/20)
Reserve Capacity:	BCI: 155 minutes (25 amp discharge, 80°F (26.7°C), to 10.5 volts cut-off)

Physical Characteristics

Plate Design:	High purity lead-tin alloy. Wound cell configuration utilizing proprietary SPIRALCELL TECHNOLOGY®.
Electrolyte:	Sulfuric acid, H ₂ SO ₄
Case:	Polypropylene
Case Color:	Light Gray
Cover Color:	“OPTIMA“ Yellow
Group Size:	BCI: 31
Post Type:	SAE Post
Weight:	59.8 lb
Length:	12.19 in
Width:	6.56 in
Height:	9.38 in

Power

CCA (BCI 0°F):	900 amps
MCA (BCI 32°F):	1125 amps

Recommended Charging

The following charging methods are recommended to ensure a long battery life: (Always use a voltage regulated charger with voltage limits set as described below.)

Model: D31A

These batteries are designed for starting and deep cycling applications and for use in vehicles with large accessory loads.

Recommended Charging Information

Alternator:	13.65 to 15.0 volts
Battery Charger:	13.8 to 15.0 volts; 10 amps maximum; 6-12 hours approximate
Float Charge:	13.2 to 13.8 volts; 1 amp maximum (indefinite time at lower voltages)
Rapid Recharge (Constant voltage charger):	Maximum voltage 15.6 volts. No current limit as long as battery temperature remains below 125°F (51.7°C). Charge until current drops below 1 amp.
Cyclic or Series String Applications::	14.7 volts. No current limit as long as battery temperature remains below 125°F (51.7°C). When current falls below 1 amp, finish with 2 amp constant current for 1 hour. All limits must be strictly adhered to.