

O'Reilly Auto Parts

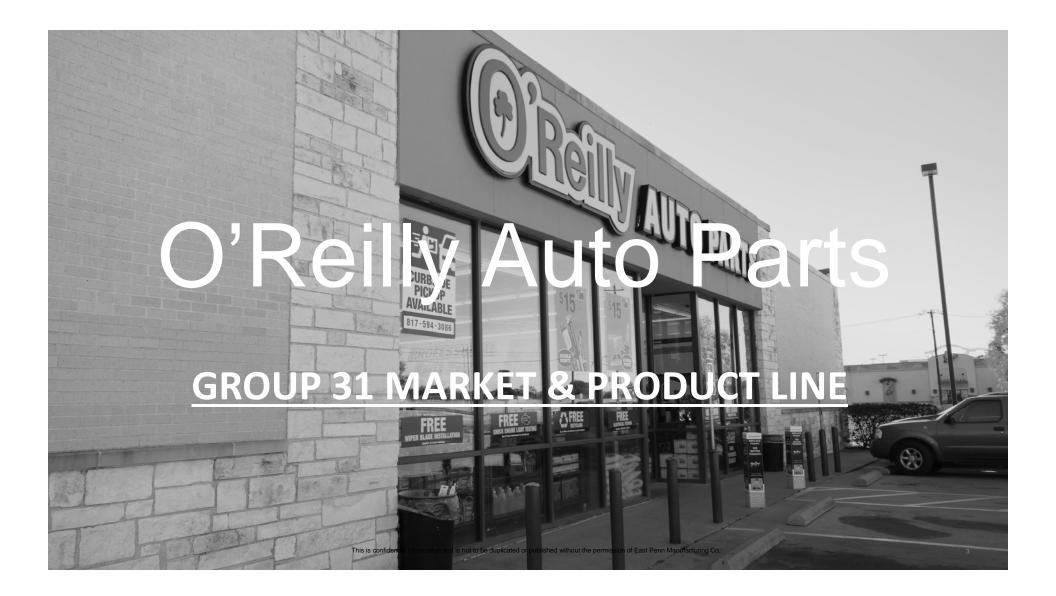
GROUP 31 HEAVY DUTY

AGENDA

- GROUP 31 MARKET & PRODUCT LINE
- STARTING
- DUAL-PURPOSE
- VRLA (AGM)



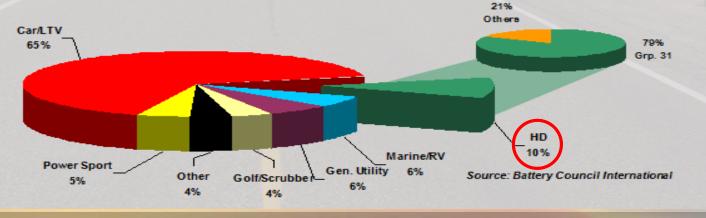




GROUP 31 RANKING

- Group 31 batteries are ranked number 1 in commercial battery sales
- Group 31 batteries are used in 100% of class 6-8 trucks

U.S. / North American Replacement Battery Shipments by Segment







HEAVY DUTY MARKET - PARTICIPANTS

OES TRUCK DEALERS	NAVISTAR STERLING KOBELCO KOMATSU PACCAR
Heavy Duty Specialists	TruckPro FleetPride TRUCK PRIDE TRUCK PRIDE TRUCK PRIDE
Auto Retailers	Auto BUMPER Value BUMPER Lauto Parts and Service. PARTS & PLUS PARTS PLUS PARTS PLUS PARTS PLUS
Battery Specialists	Continental Batteries Plus. +
Specialty Retailers	FARM & FLEET* FARM. ATWOODS TRACTOR ORSCHELN FARM & HOME STORES STORES





COMMERCIAL CLASSIFICATION

Class 1 (Light Vehicles)



Class 2 (Light Vehicles)



Class 3 (Medium Vehicles) Class 4 (Medium Vehicles)





Class 5 (Medium Vehicles) Class 6 (Light-Heavy Vehicles)





Class 7 (Heavy Vehicles)



Class 8 (Heavy Vehicles)







SUPER START GROUP 31 PRODUCT LINE



Starting Battery

•Designed for **cranking power** and limited cycling

Dual Purpose Battery

•31HD-T is designed to provide **both** instant starting power and constant power over time

AGM (Absorbed Glass Mat)

•Lower internal resistance provides quick starting and save considerable wear on your vehicle's alternator and entire recharging. High reserve capacity means more power for electronic loads especially when key off power is crucial. AGM tight packed construction resists vibration damage for better performance and longer life





GROUP 31 HEAVY DUTY BATTERIES

 Super Start Flooded Group 31 batteries offer maintenance-free design and more power-per-pound for longer battery life. Ideal for commercial trucks.

Super Start Features

- Popular group 31 size fits most commercial truck applications
- Deep-pocket envelope separators protect plates from shorts and extends battery life
- Full-frame positive negative plates direct all of the available cranking power to the terminals
- Anchor lock elements secured to the bottom of the case resist the damaging effects of pounding vibration and extend battery life
- Maintenance-free flush covers for easy installation, replacement, and cleaning









STARTING GROUP 31 APPLICATION

- Battery designed to provide instantaneous power
- Low resistance design
- Designed for cranking and minimal cycling
- Number of batteries determined by the engine requirement.

Part Number:

- 31-4T
- 31-5T
- 31-6T

Ratings:

- CCA 760/ RC 170
- CCA 950 / RC 175
- CCA 1000 / RC 185

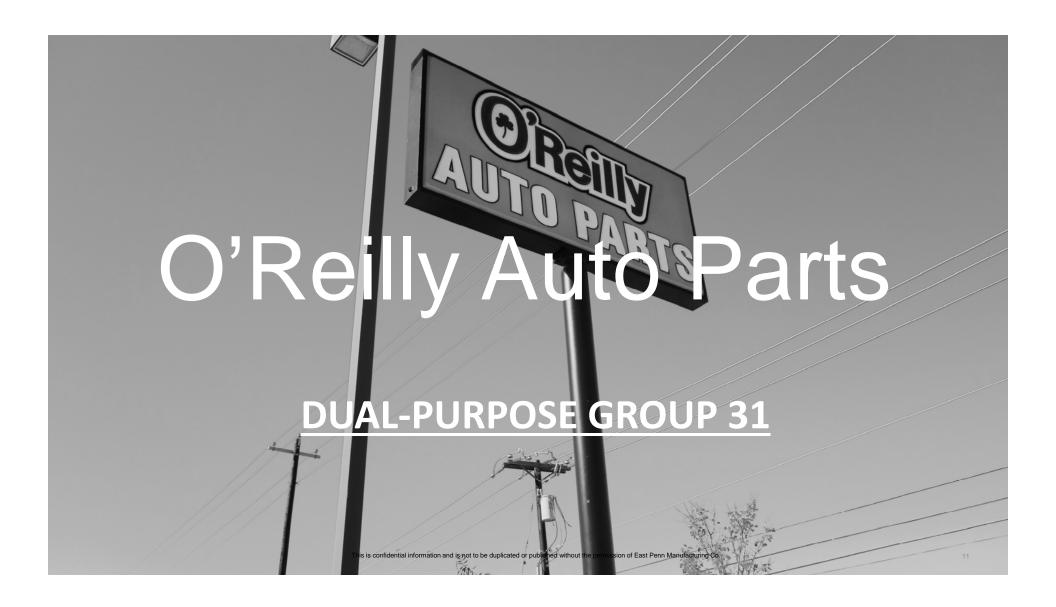
Applications:

- Day Cabs
- Business Class / Vocational
- Line Haul









THE COMMERCIAL TRUCKING INDUSTRY HAS CHANGED

Yesterday











Due to increase electrical demands & computer modules continuously running, commercial vehicles now need more reserve capacity to keep moving. Super Start 31HD-T dual-purpose batteries can handle the load.





DUAL PURPOSE GROUP 31 APPLICATION

- Battery designed to provide instantaneous power or power over time
- · Combination of starting and cycling design
- Designed for cranking & cycling applications
- Recommended for all P&D applications
- Number of batteries determined by the engine requirement.
- In sleeper cab applications, a low voltage disconnect is recommended with a cutoff voltage of 12.3 volts without automatic engine idle system or 12.1 with automatic engine idle system.

Part Number:

- 31HD-T
- 31HD

Ratings:

- CCA 730 / RC 190
- CCA 730 / RC 190

Applications:

- Sleeper Cabs / Reefers / APU
- Day Cabs
- Business Class / Vocational





DUAL-PURPOSE BATTERY DESIGN ATTRIBUTES

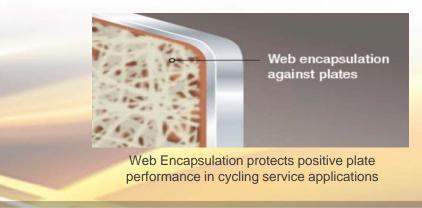






DUAL-PURPOSE GROUP 31

Groups 31HD-T & 31HD now use Web Encapsulation to help adhere the active material to the plate. Reinforcing the active material on the plate will enable it to continue to deliver dependable starting power even under the rigors of frequent cycle service use. This technique in conjunction with the Compu-Press process will help ensure a power optimizing plate that maximizes durability, cranking, performance, and extends battery life.





Compu-Press high-density grid structure in a power optimizing plate maximizes durability, cranking performance, and extends battery life





Relly Auto Parts **AGM GROUP 31**

AGM GROUP 31 APPLICATION

Premium Starting / Deep Cycle Service

- Designed for <u>both</u> cranking & cycling power
- Constructed specifically for heavy auxiliary loads or when the battery is the power source
- 20x more vibration resistant
- Higher reserve capacity (RC)
- Superior under extreme cold conditions when fully charged
- More durable under high heat
- Spill-proof / Leak-proof / lower self-discharge rate

Part Number:

- AGM31T
- AGM31DT

Ratings:

- CCA 925 / RC 190
- CCA 800 / RC 200

Applications:

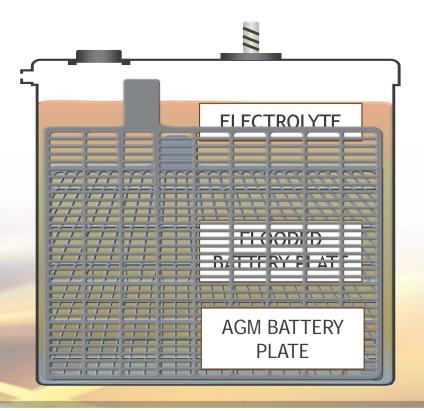
- Sleeper Cabs / Reefers / APU
- Day Cabs
- Business Class / Vocational







FLOODED VS. AGM PLATES



Taller plate - more surface area, more active material





AGM Plate

Flooded Plate

Enhanced electrolyte suspension system - (Absorbed Glass Mat) completely absorbs electrolyte for spill proof design





Flooded Separator

More surface area - more power for crank

More active material on AGM - more capacity for runtime

More robust/thicker plate - better for cycling

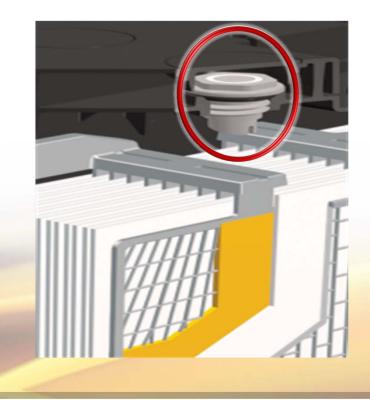
Grid Path Construction - special AGM design for maximum paste adhesion/retention





SUPER START AGM TECHNOLOGY

VRLA (VALVE REGULATED LEAD ACID)



One Way Pressure Relief Valve

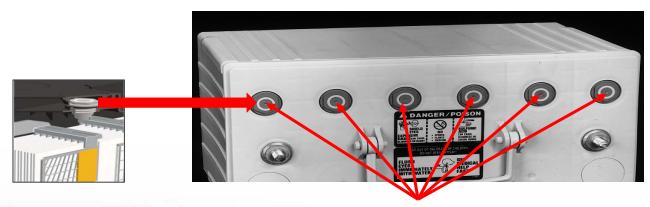
- Maintains correct internal pressure
- Release excessive pressure and gas
- Keeps the cell from being contaminated by the atmosphere
- Super Start manufactures its own (VRLA) valves in the "USA"
- Super Start (VRLA) valves are UL recognized and 100% tested
- Reliable performance and long life





SUPER START AGM TECHNOLOGY

VRLA (VALVE REGULATED LEAD ACID)



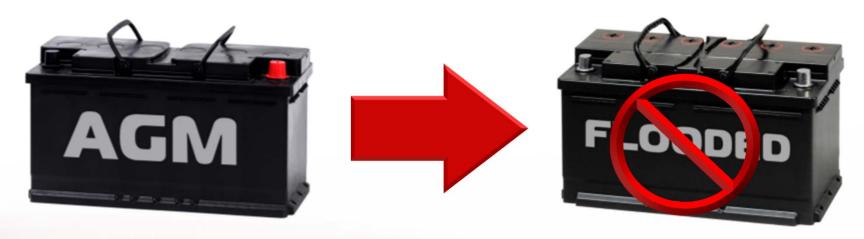
Every Cell Has Its Own Valve

- Valve Regulated Lead Acid batteries (AGM) recombine the hydrogen & oxygen that is created during charge & discharge, back into the water
- VRLA (AGM) system allows battery to maintain proper water levels
- Minimized gassing with VLRA (AGM) batteries
- Can be mounted inside the driver's compartment or near sensitive electronic equipment
- VRLA (AGM) batteries must be charged at specified voltages (use maintainers with specified AGM option)





AGM TECHNOLOGY



Never replace an AGM battery with a flooded battery.

Conventional starting batteries are not designed to handle multiple accessory loads like AGM products.





AGM OPPORTUNITY







Upgrade to **AGM** for all applications.





Dual-Purpose & AGM Group 31 Opportunities



Concrete Trucks



Waste Companies



Regional Haulers



City Municipalities



First Responders





Dual-Purpose & AGM Group 31 Opportunities



School Bus Garages



Boom Trucks



Utility Companies



Construction Rental Facilities



Tractor/Combine



Class 8 Trucks





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