





Diesel Starting Batteries

What makes the EnerSys® Ironclad® diesel starting batteries different from the others?

EnerSys Ironclad's exclusive tubular positive plate technology, that's what!

It has consistently delivered high-rate performance since 1910.

The basic design has remained the same for the last 90 plus years. Nationwide, the square tubular positive plate is still an EnerSys Ironclad exclusive. That's one of the reasons our low maintenance line of diesel locomotive starting batteries can be found on most locomotives today.

EnerSys is the industry's recognized leader in technology and quality.

Features

- ⇒ Greater cranking ability.
- ⇒ High reserve capacity for auxiliary equipment
- ⇒ High-impact container.
- ⇒ Dead top cover for safety, unitized battery.
- ⇒ Good low temperature characteristics.
- \Rightarrow Rugged construction.
- ⇒ Lower maintenance cost.
- ⇒ Extended watering intervals.

Construction

- ⇒ Containers: LMS
 - LMS-325/450 High-density polyethylene structural foam.
 - LMUD/LMS-11 High density, crosslinked, roto-molded polyethylene
- ⇒ Cell/Cover:
 - Hi-impact polypropylene.
- ⇒ Plates:
 - Low-antimony alloy pos. grid design.
 - o Calcium alloy neg. grid design.
 - Specific gravity-full charge @77°F, 1.240-1.260

| Plate Dimensions | Height | Width | Thickness |
|------------------|--------|-------|-----------|
| Positive | 10.100 | 5.75 | 0.360 |
| Negative | 10.199 | 5.69 | 0.199 |

Nationwide Service

⇒ Nationwide service network to provide you with quality service backup.

Warranty

- \Rightarrow LMS
 - o 3 Year no-charge warranty
 - o 8 Year total pro rata warranty
- \Rightarrow LMUD
 - o 5 Year no-charge warranty

4-LMS-450



16-LMUD-530 16-LMUD-725

More Power

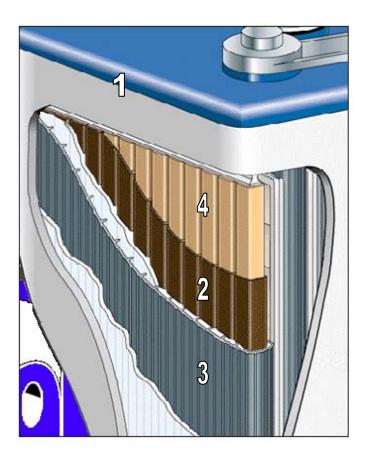
Copper core intercell connectors and terminals reduce electrical resistance and provide greater sustained starting power. EnerSys's improved state-of-the-art element design provides 10% more cranking power at lower temperatures.

The EnerSys LMUD-725 provides the highest power output of any locomotive starting battery in the industry. With capacities from 280-725A.H., we've got the power you need



1 Heat Bonded Cells

The EnerSys[®] Ironclad[®] heat-seal cover eliminates asphalt seals and costly resealing. Our heat-seal cover prevents electrolyte leakage, corrosion build-up, and power loss due to electrolyte dilution.



2 Cladex Fiberglass Tubes

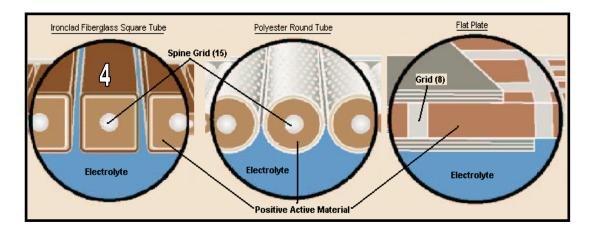
Our braided Cladex fiberglass tubes are proven to be very durable. In hot electrolyte, the polyester tube has been shown to disintegrate while the Cladex fiberglass tube is impervious to the same strength electrolyte.

3 Sleeved Separators

Our sleeved separators promote the free flow of electrolyte around positive and negative plates to help assure higher voltage and improved high rate performance. Most shorts across positive and negative plate edges are eliminated. This sleeve design also eliminates problems due to missing or misaligned separators, a major cause of premature battery failure.

4 Square Tube Design

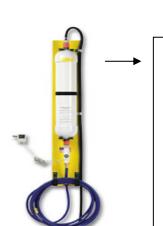
The EnerSys[®] Ironclad[®] square tubular positive plate design packs up to **35%** more useful ampere-hour capacity into the same space as conventional lead-acid storage batteries. This unique design provides **67%** more surface area than ordinary flat plate batteries and **22%** more surface area than round tube batteries.



Specifications

| | Capacity | Number | 5 sec. (| 5 sec. current 90 sec. current | | . current | Battery Dimensions | | Battery Wt. | | Electrolyte | |
|--------------------------------|--------------|--------|-----------|--------------------------------|-----------|-----------|--------------------|------------------|--------------|-----------------|-------------|------|
| Battery | 8 hr. rate @ | of | 77⁰F to | 32ºF to | 77°F to | 32⁰F to | (in inches) | | | (charged / wet) | | Wt. |
| Туре | 77⁰F to | Plates | 1.00 Vpc. | 1.00 Vpc. | 1.00 Vpc. | 1.00 Vpc. | L | W | Н | Unpacked | Packed | lbs. |
| | 1.70 Vpc. | | (amp | eres) | (amperes) | | | | | lbs | lbs | |
| 4-LMS-11 Cat# 402820 | 280 AH | 11 | 1360 | 1075 | 1115 | 840 | 4-c 20.38 | ell batt 7.75 | ery 18.60 | 170 | 194 | 42 |
| 4-LMS-325 Cat# 95703 | 330 AH | 11 | 1360 | 1075 | 1115 | 840 | 4-c 28.50 | ell batt 7.40 | ery 18.00 | 235 | 259 | 68 |
| 4-LMS-450 Cat# 95704 | 440 AH | 17 | 2180 | 1725 | 1785 | 1345 | 4-c 28.50 | ell batt 7.40 | ery 18.00 | 270 | 294 | 60 |
| 16-LMUD-530 | | | | | | | 16-cell battery | | | | | |
| Cat# 400390 400410 (heated) | 530 AH | 19 | 2450 | 1935 | 2005 | 1510 | 34.50 | 27.00 | 20.60 | 1345 | 1395 | 288 |
| 16-LMUD-725 | | | | | | | 16-cell battery | | | | | |
| Cat# 501118 402700 (heated) | 725 AH | 25 | 3275 | 2575 | 2675 | 2015 | 42.90 | 27.00 | 20.70 | 1700 | 1750 | 384 |

Accessories



De-Ionizers -

- lon exchange medium that electrostatically removes dissolved impurities.
- Rated for 600 gallons of pure water.
- Increases battery life
- "Purity Light"- signals when it's time to change cartridges.

Part # - 94866

De-lonizer replacement cartridges-

Part # - 94866-C



Watering Guns - Gun G

- Automatic Shutoff and pressure regulator, no electronics, no wires.
- High flow rate 2 gallon/minute.
- Insulated against short circuits.
- Narrow 5/8" nozzle, specially made for narrow vent openings.

Part # - 92755-LR-RR

*Contact NRS for additional accessories



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