# battery-related products

**ACCESSORIES** 

#### 24505 Lockout Lever Kit 🜟



Special lever and flange plate accept a padlock to securely lock a Disconnect Switch in the Off position, which is required by many lock-out/tag-out safety regulations. For use with Cole Hersee lever actuated master disconnect switches with a 3/4" diameter (19.1mm) mounting stem: 2484, 2484-A, 2484-06, 2484-09, 2484-16, 75903, 75904, 75904-01, M-284, M-284-A, M-284-01, M-284-02, M-289, M-290, M-290-01, M-290-05. (We recommend the use of a padlock with a 5/16" (7.9mm) diameter shackle.)

#### 80101-B Replacement Lever



Chrome-plated diecast lever. Fits all Cole Hersee lever-actuated Master Disconnect Switches.

#### 83353 Hencol Key



For Hencol trouble-free locks. Heavy gauge plated steel resists corrosion.

# lockouts/tagouts

Lockouts and tagouts prevent operators, technicians and maintenance personnel from unanticipated power-ups that might cause injury or death.

According to OSHA, "A lockout device utilizes a positive means such as a lock to hold an energy isolating device in a safe position and prevent the energization of a machine." A tagout is a tag or seal that states 'Do not operate or remove this tag' and is signed by the person who places the tagout. Procedures specify that nobody but that person may remove the tag.

A lockout on a battery switch not only keeps a vehicle safe, but also immobilizes it. A locked out vehicle is less vulnerable to battery drain or theft.

## **Face Plates**

#### 82065 without indexing hole



For Master Disconnect Switches. Polished aluminum with enamel finish. Fits Cole Hersee Master Disconnect Switches without indexing pin. 2 1/2" (63.5mm) diameter.

#### 82065-02 with indexing hole

Same as 82065, but with hole for indexing pin.

## 563 Switch Position Label for M-750 Series

Pressure-sensitive label for Dual Battery Selector & Master Disconnect Switches. Useful when the switch is mounted through a panel.

## **Battery Jumper Terminals and Studs**

Use them to make easily-accessible battery connections, inside or outside the vehicle. Can be used individually or in pairs. Easy to install. Solid brass posts. Includes brass hexnut and lockwasher. Jumper terminals have contact post 13/16" (20.6mm) diameter, 1 1/8" (28.8mm) long, which is grooved to accept standard jumper cables 6 -48V DC.

#### 46210-02 Post with red cap for positive terminals 🜟



97846-A Replacement captive red cap

#### 46210-03 Post with black cap for negative terminals



97846-B Replacement captive black cap

CONTINUED J4









# battery-related products

J4

**ACCESSORIES** 

#### 46211-R Red Battery Feeder Stud

Brings 6-36V DC power through bulkheads or firewalls. Impact-resistant plastic insulator/mounting bushing, 1 17/64" (32.1mm) diameter, 5/8" (15.9mm) long. Two 3/8" -16 thread brass stud terminals, 5/8" (15.9mm) long.



#### 46211-01 Black Battery Feeder Stud 🜟





Same as 46211-R, only black plastic.

### 3188 Copper Cable Terminal

0.46" (11.7mm) diameter for 0AWG or 00AWG cable. 150A. 13/32" (10.3mm) diameter hole for 3/8" (9.5mm) stud.



## dead batteries in inactive vehicles

If you leave a fully charged battery connected in an inactive vehicle, it could be dead within two months. Today's vehicles all have electronics, and although they require only a very small amount of current to maintain their memory, it's enough to kill an uncharged battery over time.

Any breakdown in insulation in the electrical system can result in the same problem. Breakdown of the insulation can be caused by abrasion, infiltration of contaminants such as road salt, or the use of electrical test prods.

Apart from inconvenience, there are two important reasons to avoid complete battery discharge. First, the battery plates can crystallize and the battery will no longer take a charge — an irreversible process. The second reason is cold temperatures. When a battery is fully charged, its electrolyte freezes at -83°F (-64°C), but when it's discharged, it freezes at a higher temperature closer to 32°F (0°C). Resulting ice buildup can break the intercell connections and crack the case.

A good way to prevent a dead battery is to fully charge it, then disconnect the ground cable. In this state the battery can hold its charge for about a year.

The best way of all is to totally disconnect the battery using a Master Disconnect Switch.

# standards

Cole Hersee makes switches and connectors that meet industry standards, generally understood to be those of the SAE and the automotive industry. Many of our switches meet other standards as well, such as USCG, ABYC, US Mine Safety & Health Administration. For OEMs we can design a switch to meet or exceed any standard.

For over a century, Underwriters' Laboratories (UL) has been a third-party trusted source worldwide for product compliance.

Having the UL mark on our products means that UL has tested and evaluated representative samples of that product and determined that they meet the stringent UL requirements. Products are continually checked by UL to make sure they continue to meet those requirements – UL inspectors visit the Cole Hersee factory every quarter to check on certified products. UL marks may be only used on products certified by UL and under the terms of a written agreement between UL and Cole Hersee.

Visit the UL website, www.ul.com where you can find us listed under 'Cole-Hersee'.

UL certified products are accepted in the US and Canada by OSHA, insurance companies, labor unions, fire officials and electrical inspectors.



#### The UL Listing Mark

One of the most common UL Marks, found on many Cole Hersee products. It means UL found that samples of this product met the UL safety requirements that are primarily based on UL's own published Standards for Safety.



#### The UL Marine Mark

These products have been tested specifically for marine use, and have been evaluated to UL's published Marine Safety Standards and other applicable standards and codes. These requirements specifically relate to hazards that can occur as a result of exposure to harsh marine environments - vibration, impact, ignition protection, water ingress and salt spray corrosion common on pleasure craft and boats.

Many of our marine switches also conform to applicable ABYC and USGC standards.

American Boat & Yacht Council: www.abycinc.org United States Coast Guard: www.uscg.mil

We provide UL certification because our customers may be mandated to install UL-marked products. There are costs associated with UL certification and ongoing testing and auditing, and therefore UL-labeled switches may be slightly more expensive than their unmarked counterparts.



#### The CE Mark

The CE mark is a European mark analogous to UL. It similarly denotes that a product has undergone assessment procedures complies with European standards that apply to the product. The designation "CE" is French for "Conformité Européen



96