Discover®
Innovative Battery Solutions

950-0006
ACCESSORIES

Discover AES Lithium Battery
CAN Bus Battery Discharge Indicator (Fully Featured)

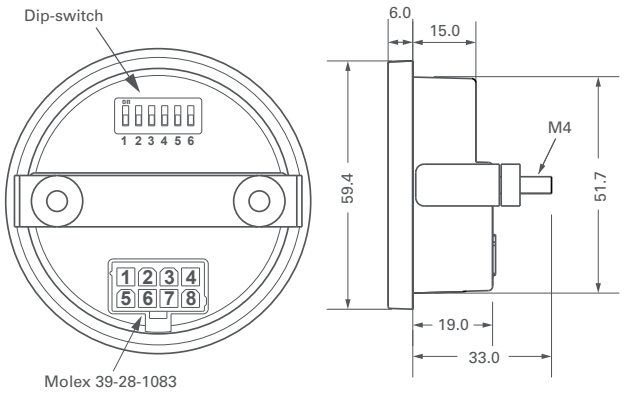
The discharge curve of the Discover Advanced Energy Systems (AES) Lithium batteries are very flat, and 80 percent of the stored energy remains in the flat voltage profile. While this characteristic is desirable as an energy source, it presents a challenge for standard voltage-based fuel gauging as it can only indicate full charge and low charge; the important middle section cannot be estimated accurately.

To solve the problem and offer accurate fuel gage and State of Charge indicators, Discover introduced a series of AES compatible accessories. The 950-0006 is a fully featured Battery Discharge Indicator (BDI) that communicates with AES batteries and allows for visualization of the battery's State of Charge, Voltage, Current, Charge and Discharge Amp Hours, and Equipment Run Hours. The indicator is housed in a standard 52mm circular package requiring limited installed time and equipment.

Functionality

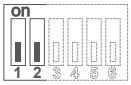
State of Charge | Voltage | Current | Charge & Discharge Amp Hours | Equipment Run Hours | Low Voltage Disconnect

MECHANICAL DRAWINGS

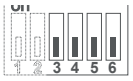


Units in mm

DIP SWITCH

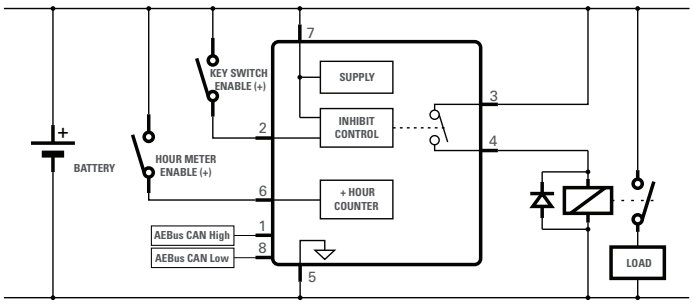


1	2	Nominal Battery Voltage
Off	Off	12 V
Off	On	24 V
On	Off	36 V
On	On	48 V



1	2	3	4
Not assigned			

ELECTRICAL DRAWINGS



PIN ASSIGNMENTS

Molex mating connector 39-01-2080

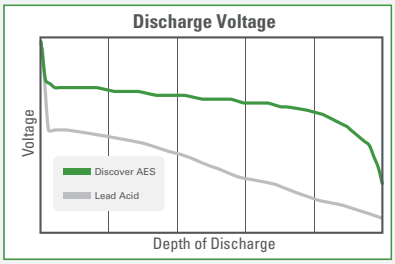
PIN	Function
1	AEBus CAN High
2	Key Switch Enable (+)
3	Common Relay Contact
4	N.O. Relay Contact
5	Battery / AEBus CAN GND
6	Hour Meter Enable (+)
7	Battery Positive
8	AEBus CAN Low

COMPATIBLE BATTERIES

Discover Advanced Energy Systems

- 12-48-6650
- 12-36-6700
- 42-48-6650
- 14-24-2800
- 14-24-2800

DISCOVER AES VS. LEAD ACID DISCHARGE CURVE



Discover AES batteries have a flat and stable discharge curve, which can not be accurately monitored by a voltage based SOC indicator. For accurate fuel gage and SOC an AES compatible Battery Discharge Indicator is necessary.

FEATURES

- Battery voltage of 12/24/36/48 V selected with dip-switch
- Relay control device with normally open contact (4A@12/24V - 2A@36/48V)
- Digital 6 digit hour-counter with precision of 1/10h
- 9 bar battery's fuel gage and SOC indicator (with memory)
- Inhibit management
- Illuminated display
- Protection against reverse polarity
- Power consumption in stand-by mode (no commands active and backlight): 3.6mA@12V; 2.5mA@24V; 2.3mA@36V; 2.2mA@48V
- Protection IP30 (frontal IP65)
- Fastening with U-bolt and M4 nuts
- ABS box

808-0015 REV A

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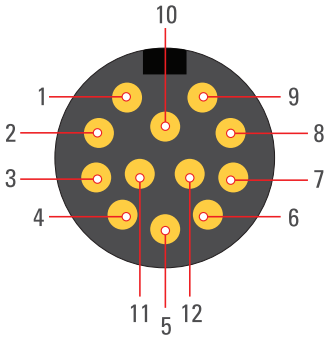
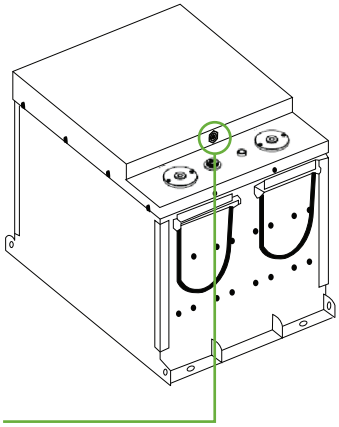
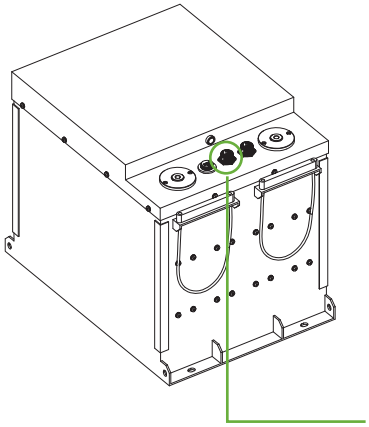
Battery Discharge Indicator Connection

Circular 12 PIN (12-48-6650)

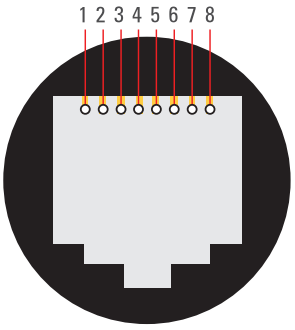


Pin 3	AEBus CAN GND
Pin 4	AEBus CAN High
Pin 5	AEBus CAN Low
Pin 11	AEBus CAN +5V





RJ45 AEBus (42-48-6650)



Pin 3	AEBus CAN GND
Pin 4	AEBus CAN Low
Pin 5	AEBus CAN High
Pin 6	AEBus + 5V