

**Maintenance** After 20 or more shallow discharge cycles the battery pack may develop memory. A shallow discharge cycle is when the pack is for example discharged from 100% to 60% and then recharged. If this occurs on a regular basis then it would be important to deep cycle the battery by connecting it with a DIVELINK unit, turning it on and letting the pack fully discharge, then fully charging the pack again. A full discharge means all the LEDs turn OFF on the pack, and no noise coming from the DIVELINK communicator.

Do NOT re-use an O-Ring that has been removed, instead replace it with a NEW O-Ring. The battery pack and communications unit should be dried off before disconnecting the battery from the unit to prevent water from getting into battery terminals. For further information concerning proper care and maintenance of the battery pack please refer to the *Care and Maintenance* section in your COM-FF manual.

Annual replacement of the O-Ring is recommended (part ORG-01).

**Warranty** This battery is covered under the same warranty that covers your Divelink communications unit. Please refer to the Divelink COM-FF manual for more details on this warranty.

For non-rental recreational use, the manufacturer warrants the battery pack for a period of one year from the original date of purchase, to be free of defects arising from material or craftsmanship used or provided by the manufacturer, provided that:

- The battery is used under conditions of normal SCUBA use, and in compliance with the operating instructions set out in this manual and in the COM-FF user manual (see the Setup and Operation and Maintenance sections), by the original owner.
- The battery is not used for purposes other than those for which it was designed, or otherwise is not abused, misused, or subjected to unusual conditions.
- No unauthorized attachments or modifications are made to the battery pack.

Should the battery pack prove to have a manufacturer's defect within the warranty period, it will be repaired or replaced free of charge, at the election of the manufacturer, excluding shipping and handling charges.

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## OPERATORS MANUAL

for

BAT-U01-EM-NIMH

Nickel Metal Hydride  
Battery Pack with Energy Management Technology



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**System Overview:** The BAT-U01-EM-NIMH is an “intelligent” battery pack. By monitoring the amount of charge and discharge activity it knows how much energy is in the battery. It will cut off the charge current and also provides useful information by means of an LED display to the user - you.

**Operation:** To use this battery pack, simply plug it into your Divelink unit as described in the COM-FF manual. When you turn the unit on, you will notice that the LEDs in the battery pack light up after about 30 seconds. The LEDs will light up when there is charge or discharge activity and indicate how much charge is in the battery pack. Please refer to the Charge Status LEDs table on the following page.

Recharge the pack using an approved charger. **When ALL SIX LED's are lit, the battery pack is fully charged and ready for use\***. The battery pack does not have to be fully charged before it can be used, but the DIVELINK unit won't get as much operation time out of partially charged pack.

The GREEN LED **Cut Off** indicates charge status. If it is ON, the battery pack has CUT OFF charge to the battery. This LED will blink for a couple of hours after receiving a full charge; this is the top up function of the EM. It does not affect the battery's ability to power your DIVELINK unit.

**Fast Charger Temperature Caution:** Fast chargers are a great benefit for high demand use during a 24 hour period. However, when using the DIVELINK CHG-QC1 fast charger, it is important to understand what happens when charging in a hot as opposed to a cool environment. During a fast charge, the battery pack will generate some heat. Because not all the heat can get out of the pack in a short amount of time, there is a **\*limitation**. The intelligent battery pack monitors the temperature and will **Cut Off the charging if the pack gets too warm**. If the pack is in a warm environment when charging such as over 20 degrees Celsius, it may not get a full charge. Cut Off due to over-temperature is indicated during charging by the sixth LED turning ON, yet not all the other 5 LEDS being ON. Furthermore, this over-temperature condition could occur when the GREEN LED **80-100%** just turns on, which at the exact time that it goes

from OFF to ON means only 80% charge is in the battery, and then at the same time the GREEN **Cut Off** LED turns ON. At this stage you would assume the pack is fully charged, when in fact it is only 80% charged and the pack is in an over-temperature state. Furthermore, if you were to then use the pack in a cool environment such as during a dive, you may notice that the GREEN **80-100%** or even an AMBER **60-80%** LED will turn OFF as a lower temperature pack can accept MORE charge.

All this can be avoided by fast charging the battery out of direct sunlight, in a cool room temperature of less than 20 degrees.

CHARGE STATUS LEDs					
0-20%	20-40%	40-60%	60-80%	80-100%	Cut Off
RED	AMBER	AMBER	AMBER	GREEN	GREEN

## Specifications

### BAT-U01-EM-NIMH:

Battery Type: SANYO HRAAUX NiMH  
Battery Rating: 1650 mAh matched cells  
Battery Life: Over 9 hours.  
Short Circuit: Continuous Short Circuit is allowable  
Amperage: Up to 300 mA continuous current is available.  
Voltage: 9.6 Volts under load

### Approved Chargers for BAT-U01-EM-x Battery Packs:

May be charged with DIVELINK Part Number:

- CHG-U01 (slow charger).
- CHG-QC1 (quick charger).
- CHG-CIG (Automobile plug charger)