



HRB-U30-S045 and HRB-U30-S100 Replacement Batteries



Important Lead Acid Battery Information

- Use protective eye wear when testing, charging and/or handling the batteries.
- Do not attempt to disassemble batteries.
- Contact with sulfuric acid may cause harm. Should contact occur, wash skin and/or clothes with liberal amounts of water.
- Do not throw batteries into fire; batteries so disposed may rupture or explode.
- Disassembled batteries are hazardous waste and must be treated accordingly.
- Dispose of old batteries per local regulations.

Inside this Package

- Replacement battery (1)
- Replacement Battery Cable

Before You Begin - Testing the Battery

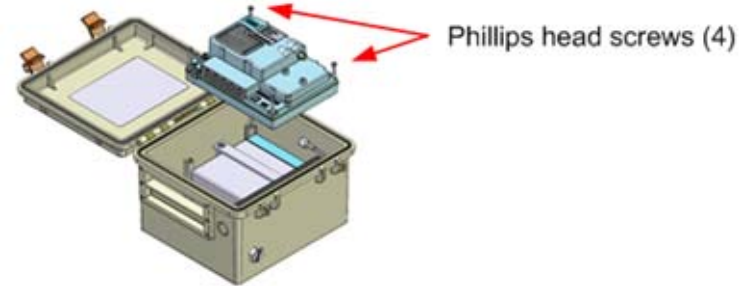
Before you install the battery, use a voltmeter to make sure it has an adequate charge. If the charge is less than 3.0 volts, charge the battery externally with a current-limited variable power supply.

Hold the battery across a constant voltage source of 4.5 volts with a current limit of 2 Amps. It takes up to 24 hours to fully charge a dead battery.

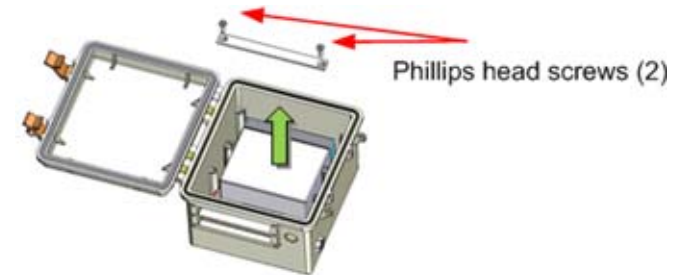
IMPORTANT: Do not apply more than 4.6 volts absolute maximum to the battery. Do not exceed 2 Amps of current when charging. If the battery gets hot, immediately stop charging the battery.

Follow these steps to replace the battery:

1. Open the U30 enclosure and remove any connections to the U30 including the battery, Smart Sensors and external power. For the U30/GSM and U30/Wi-Fi, use a 5/16" wrench to unscrew the antenna connection.
2. Use a Phillips-head screwdriver to remove the four screws at the corners of the logger (clear inner case), and then remove the logger.



3. Use a Phillips-head screwdriver to remove the bar that secures the battery.



4. Remove the battery.
5. Remove protective caps from terminals of replacement battery.
6. Connect the battery to the U30 using the replacement cable that corresponds to the old one, with either a 2-pin or 4-pin connector.
 - a. Connect the red wire of cable to positive (+) terminal and black wire to negative (-) terminal. Terminals are color coded. ALWAYS confirm polarity.
 - b. Connect the white plastic connector to the U30 battery connection.



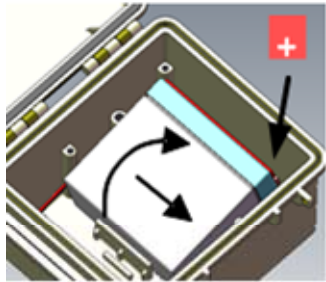
(HRB-U30-S100 shown)

6. Install the new battery.

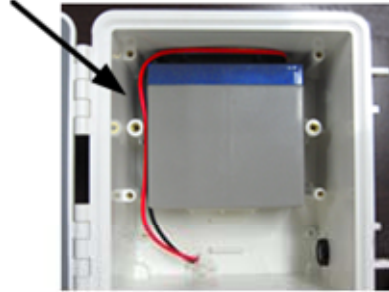
HRB-U30-S100

Install the HRB-U30-S100 with positive (+) terminal towards upper right corner of case. Insert the battery at an angle, with the bottom against the shelf in the case, as shown. Press the battery down flat into place and then push it to the right to make room for the cable.

Route cable between battery and the flat surface of post.



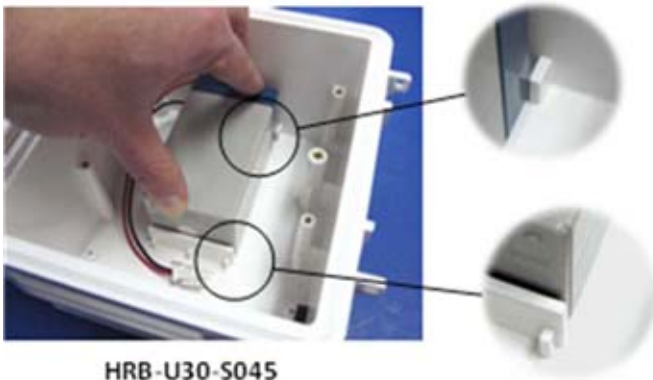
HRB-U30-S100



HRB-U30-S045

Separate the 2 outside velcro pads from the pads attached to the battery. You can either discard these pads or replace the ones that are already attached to the battery compartment on the case.

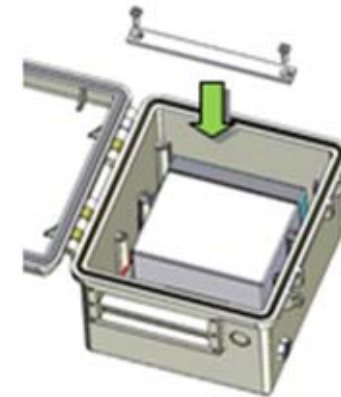
With the cable routed to left of the battery as shown, press the side of the battery with the velcro pads firmly onto the pads in the battery compartment on the case.



HRB-U30-S045

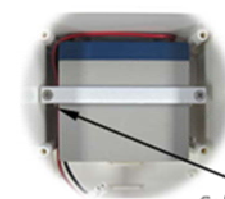
7. Re-install the battery bar.

For the HRB-U30-S045 only, the foam side of the bar faces down.

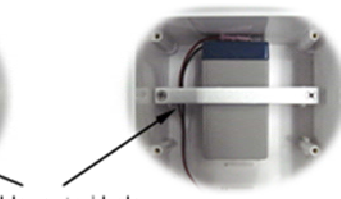


CAUTION: Make sure that battery cable is routed below the battery bar as shown to avoid possible shorting hazard!

HRB-U30-S100



HRB-U30-S045



Cable routed below battery bar

8. Re-install the logger and attach external components.

9. Dispose of the old battery per local regulations.

IMPORTANT: Re-charging battery when not in use

Due to the self-discharge characteristics of this type of battery, if the battery is not being actively used it is imperative that you charge the battery for at least 12 hours every six months, at a minimum. Otherwise, permanent loss of battery capacity may occur.