

Battery Pack WETPak-20R

User's Guide

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Attention!

Return Policy for Instruments with Anti-fouling Treatment

WET Labs cannot accept instruments for servicing or repair that are treated with anti-fouling compound(s). This includes but is not limited to tri-butyl tin (TBT), marine anti-fouling paint, ablative coatings, etc.

Please ensure any anti-fouling treatment has been removed prior to returning instruments to WET Labs for service or repair.



WETPak Warranty

This unit is guaranteed against defects in materials and workmanship for one year from the original date of purchase. Warranty is void if the factory determines the unit was subjected to abuse or neglect beyond the normal wear and tear of field deployment, or in the event the pressure housing has been opened by the customer.

To return the instrument, contact WET Labs for a Return Merchandise Authorization (RMA) and ship in the original container. WET Labs is not responsible for damage to instruments during the return shipment to the factory. WET Labs will supply all replacement parts and labor and pay for return via 3rd day air shipping in honoring this warranty.

Shipping Requirements for Warranty and Out-of-warranty Instruments

- 1. Please retain the original shipping material. We design the shipping container to meet stringent shipping and insurance requirements, and to keep your meter functional.
- 2. To avoid additional repackaging charges, use the original box (or WET Labsapproved container) with its custom-cut packing foam and anti-static bag to return the instrument.
 - If using alternative container, use at least 2 in. of foam (NOT bubble wrap or Styrofoam "peanuts") to fully surround the instrument.
 - Minimum repacking charge for WET Paks: \$90.00.
- 3. Clearly mark the RMA number on the outside of your shipping container and on all packing lists.
- 4. Return instruments using 3^{rd} day air shipping or better: do **not** ship via ground.



1. Description

The WETPak-20R is a rechargeable battery pack that provides a maximum of 10 Amp hours (AH). It uses sealed lead acid batteries and comes with a short pigtail with the proper mating connector. The WETPak comes equipped with a polyswitch to protect connected instruments and the batteries from a possible short. The standard configuration is a single bulkhead connector, though a dual-bulkhead connector version is available. The WETPak-20R has an overpressure vent plug designed to prevent excessive pressure build-up inside the battery casing.

2. Specifications

Dimensions:	15.5 x 4.5 in (39.4 x 11.4 cm) diameter
Rated depth:	500 meters
Voltage output:	12 VDC (9.5–13.6)
Battery type:	Hawker Energy Cyclon XCELL Sealed Lead Acid
Cell rating:	2 Volt, 5.0 AH
Number of cells:	12
Total capacity:	10 AH *
Charging:	12 Volt/1.25 Amp
Fusing:	3 Amp polyswitch
Connector:	VSG-2-BCL
	Pin 1: GND
	Pin 2: V+
Housing:	Anodized aluminum

* Capacity ratings are according to the manufacturer's specifications. Actual performance depends on rate of discharge, temperature, and the minimum voltage requirements of your instrument. For an accurate assessment of battery life, compare discharge curves for the battery type with the minimum voltage on your instrument specification sheets.



3. Operation, Storage, and Maintenance

Typical hours of use for a few configurations:

WETStar + C-Star + Pump	16–18 hrs
ac-9 + Pump	9–10 hrs
ac-9 + DH-4 + Pump	7–8 hrs

For system applications requiring continuous use, two battery packs are needed—one charging while the other is in use. Charge the WETPak by connecting the appropriate charger to the bulkhead connector.

WARNINGS

Remove the overpressure vent plug while charging the batteries to prevent any buildup of hydrogen gas.

Lead acid batteries must be charged in a ventilated area.

The batteries will accept 1.5 Amp maximum recommended charging current. Obtaining a full charge will require 8–12 hours, depending upon the initial discharge state. WET Labs recommends using a battery charger that will automatically switch from fast charge to trickle charge when the batteries are fully charged (13.2V).

Continuous charging with this charger will not harm the batteries. Note that if the batteries are not fully charged when stored, the "uncharged" portion provides the chemicals for sulfation (hardening) of the plates inside the battery. This reduces the batteries' power capacity. Under certain conditions, damage to the battery can occur in just a few hours if not recharged immediately.

Under normal circumstances, sealed lead acid batteries will not leak and therefore need not be stored upright. It is preferable to store the WETPak-20R connected to a tricklecharger. If it is not convenient to store the battery pack connected to the charger, charge the batteries once every three months to prevent them from losing their rated capacity. Batteries allowed to discharge below about 10.2V cannot be recharged as many times, may not operate efficiently, or may not work at all. Recharge battery pack just before use.

Maintenance summary:

- Keep battery pack connected to a trickle charger when not in use.
- Charge after each use, no matter how brief.
- Do not allow batteries to discharge below 10.2V.
- Do not store for more than 90 days without fully recharging (13.2V).



Revision History

Revision	Date	Revision Description	Originator
A	10/7/99	Begin revision tracking	H. Van Zee
В	2/28/00	Add battery storage section (DCR 17)	A. Derr
С	4/24/01	Add battery maintenance section (DCR 104)	H. Van Zee
D	1/13/06	Clarify warranty statement (DCR 481)	A. Gellatly, S. Proctor
E	3/8/06	Update battery storage and maintenance section;	J. da Cunha, H. Van Zee
		delete user-accessible fuse replacement (DCR 492)	