

INSTRUCTIONS FOR THE USE OF THE MODEL pDR-BP RECHARGEABLE BATTERY MODULE

1.0 DESCRIPTION

The Rechargeable Battery Pack (model pDR-BP) is an optional accessory for the personalDataRAM hand-held dust monitor/data logger. The pDR-BP is a modular unit for direct plug-in and rigid attachment to the personalDataRAM. The pDR-BP contains a rechargeable nickel-metal-hydride (NiMH) battery pack designed to provide dc voltage power to the personalDataRAM allowing it to operate for an extended period of time without requiring line power or battery replacement.

Plugging the Rechargeable Battery Pack into the personalDataRAM automatically disconnects the internal battery of the instrument, preventing any interference between the internal and the external power sources.

The pDR-BP can be recharged by means of the AC Power Supply (model pDR-AC) provided as a standard accessory with the personalDataRAM. The pDR-BP used in combination with the pDR-AC, provides uninterruptible power operation, i.e. continuous operation over unlimited time, even during line power interruptions.

2.0 ATTACHMENT TO personalDataRAM

Before attaching the Rechargeable Battery Pack to the personalDataRAM, the instrument should be shut off. The same rule applies when detaching the two units.

2.1 Place the personalDataRAM upside down on a flat surface.

2.2 Carefully insert the upper end of the pDR-BP and its output connector (see accompanying figure) into the bottom end of the personalDataRAM, aligning the connector of the pDR-BP with the corresponding dc voltage power receptacle on the personalDataRAM.

2.3 Ensure complete insertion and then tighten firmly the large thumbscrew on the bottom end of the pDR-BP (now facing upwards). Check that the pDR-BP is firmly attached to the personalDataRAM forming one solid unit.

3.0 CHARGING PROCEDURES

3.1. To charge the Rechargeable Battery Pack plug the output connector of the AC Power Supply (model pDR-AC) into the charger receptacle on the bottom of the pDR-BP (see accompanying figure).

3.2. Connect the line plug of the pDR-BP to an ac voltage outlet. It can be used with any voltage between 100 and 250 volts ac (50-60 Hz).

3.3. The pDR-BP can be charged either separately or while attached to a personalDataRAM, and the latter may be switched on or off during charging.

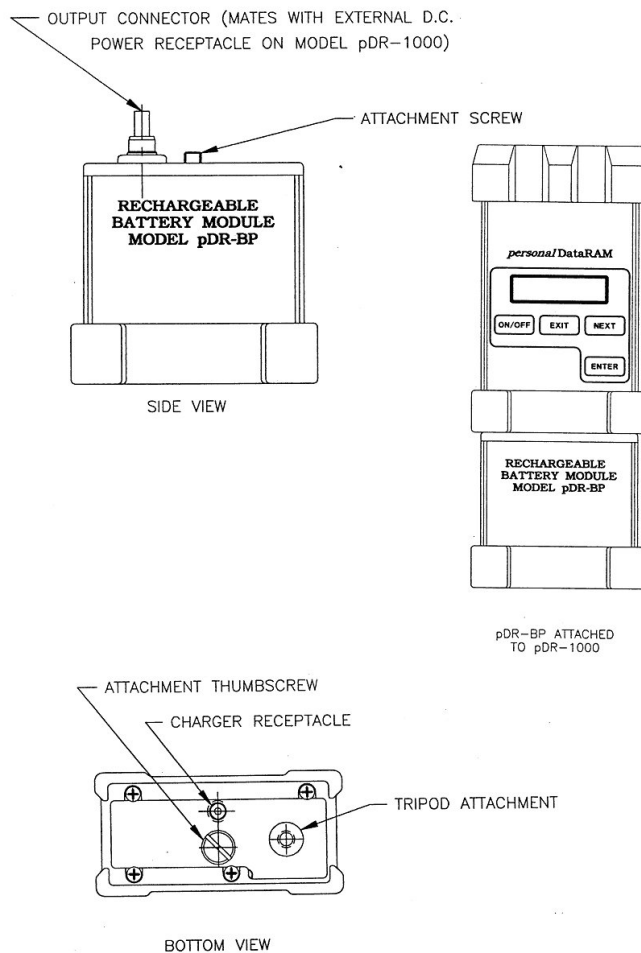
A completely discharged pDR-BP battery requires approximately 3 hours to be fully recharged using the pDR-AC charger. No overcharging or damage to the battery will occur if the charger is left connected to the pDR-BP for longer periods of time. However, it is advisable to disconnect the charger after a full charge has been reached in order to extend the life of the rechargeable battery.

Charging of the pDR-BP should be completed as close to a monitoring run start time as possible to minimize self-discharge losses.

The NiMH battery used in the pDR-BP exhibits no memory effects; therefore, it may be recharged even when only partially discharged without affecting its capacity to retain a full charge.

4.0 SPECIFICATIONS

- Rated capacity @ 20 °C: 1.9 ampere-hours
- Full charging time: 2 hours
- Operating time when used to power personalDataRAM @ 20 °C: 70 hours (typically)
- Life expectancy: greater than 500 cycles (typically)
- Dimensions (max. external):
102 mm (4.0 in) H x 92 mm (3.6 in) W x 45 mm (1.8 in) D
- Dimensions (attached to pDR):
77 mm (3.0 in) H x 92 mm (3.6 in) W x 45 mm (1.8 in) D
- Weight: 0.45 kg (1 lb)



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