



PDM BATTERY PACK INSTRUCTIONS



I OVERVIEW

The Battery pack is an optional attachment to the PDM. It allows the PDM unit to do real-time measurements when no mains power is available.

The Battery pack consists of the following components:

I.1 CHARGING CRADLE

The core of the battery pack is the charging cradle, this unit receives power from mains power or the battery and delivers the power to the PDM.

Figure 2 shows the connectors on the charging cradle: The four-pin connector (label 1) is the input side (mains power). The barrel connector (label 3) is the output side (PDM). The USB connector (label 2) supplies 5V for powering auxiliary devices.



Figure 1: The battery (left) and charging cradle (right)



Figure 2: The connectors on the charging cradle

I.1 BATTERY

The detachable battery supplies power to the charging cradle when mains power is not available. The battery has five indicator lights and a button. These indicator lights display the battery's conditions such as battery level (see paragraph 3.1: Indicator lights).



Figure 3: The contacts between the battery and the charging cradle



Figure 4: The indicator lights and the built-in pushbutton





1.2 MAINS POWER SUPPLY

The power supply connects to the four-pin connector on the cradle. The blue indicator light on the mains power supply indicates if mains power is available.

The four-pin connector locks into the charging port of the charging cradle. To disconnect, simply pull back the black part of the connector.



Figure 5: The mains power adapter



Figure 6: The four-pin connector with the locking mechanism

1.3 PDM CABLE

The PDM cable connects the charging cradle to the PDM. The black connector connects to the PDM and the blue connector connects to the output port of the charging cradle.



Figure 7: The PDM cable



Figure 8: The two connectors on the PDM cable. Blue connector at the charging cradle side, black connector at the PDM side

2 INSTALLATION

To install the battery pack, simply connect the charging cradle to the PDM using the supplied cable. When powered (either by battery or mains power), the charging cradle will automatically supply power to the PDM.

2.1 CONNECTING THE BATTERY

To connect the battery, push the battery into the cradle at the connector's side first. Then push the battery into the lid on the top side of the cradle. The lid will lock the battery in place.



Figure 9: Connecting the battery (step 1)



Figure 10: Connecting the battery (step 2)

2.2 DISCONNECTING THE BATTERY

To disconnect the battery, pull the lid on the top side of the cradle and pull the battery out at the top-side first.

When the cradle is powered by mains power, the battery can be hot-swapped at any moment without the PDM losing power.



Figure 11: Disconnecting the battery (step 1)



Figure 12: Disconnecting the battery (step 1)





3 BATTERY FUNCTIONS

The battery provides multiple functions:

3.1 INDICATOR LIGHTS

The indicator lights on the battery provide information about the state of the battery.

3.1.1 Battery charge

When plugged into the cradle, the indicators will automatically show the battery charge level.

When the battery is not plugged in the cradle, the indicator lights will normally be turned off. To show the battery charge level push the button once.

3.1.2 Battery health indicator

When not charging or discharging, the battery health can be displayed by pressing and holding the button for 3 seconds until the lights blink once. The indicators now show the battery health.

3.2 ENTERING DEEP-SLEEP MODE

The battery features a deep-sleep mode to preserve the battery while in storage. When the deep-sleep mode is activated, the battery can be stored for multiple years without charging.

Before entering deep-sleep mode, preferably charge the battery up to around 60 to 80%. Keep in mind that the battery cannot be woken up from the deep sleep without the charging cradle and mains power.

To enter the battery's deep sleep mode, press and hold the button for 10 seconds. The indicators will all start blinking and then turn off. The battery is now in deep-sleep mode and ready for storage.

3.3 EXITING DEEP-SLEEP MODE

To wake the battery up from deep-sleep mode, the charging and mains power are required.

First, make sure that the charging cradle is powered. Insert the battery into the charging cradle. The lights will turn on within a couple of seconds and the battery is now operational.

Safety precautions

Incorrect use of the battery pack may damage the equipment. It is very important that the battery is put into deep-sleep mode when it's stored for longer than 3 months (see paragraph 3.2: Entering deep-sleep mode).

Do not keep the battery at low charge for long periods. Preferably, keep the battery at around halfway charged when not using it.

