PROTEUS INSTRUMENTS

Proteus Logging with an Uninterrupted, External Power Supply

Some Proteus water-quality multiprobes are equipped with an Internal Battery Pack so that they can automatically log data without a cable attached. During a logging period, these Proteus' will "go to sleep" between logging runs to conserve battery power. If connected to an external power supply (for instance, from a telemetry system), the Proteus will use that power, if adequate, leaving the Internal Battery Pack available if the external power supply fails.

Note that the Proteus does not willingly go to sleep if adequate external power is applied and never turned off (i.e. the power is uninterrupted) – otherwise, the Proteus might go to sleep during a calibration procedure. This unnecessarily taxes the external power supply, and prevents the turbidity wiper (should the instrument be equipped with a turbidity sensor) from carrying out its normal cycling when the Proteus is "powered up". So when an externally powered Proteus finishes a logging run, it is a good idea to force the Proteus to go to sleep. There are two ways to do this.

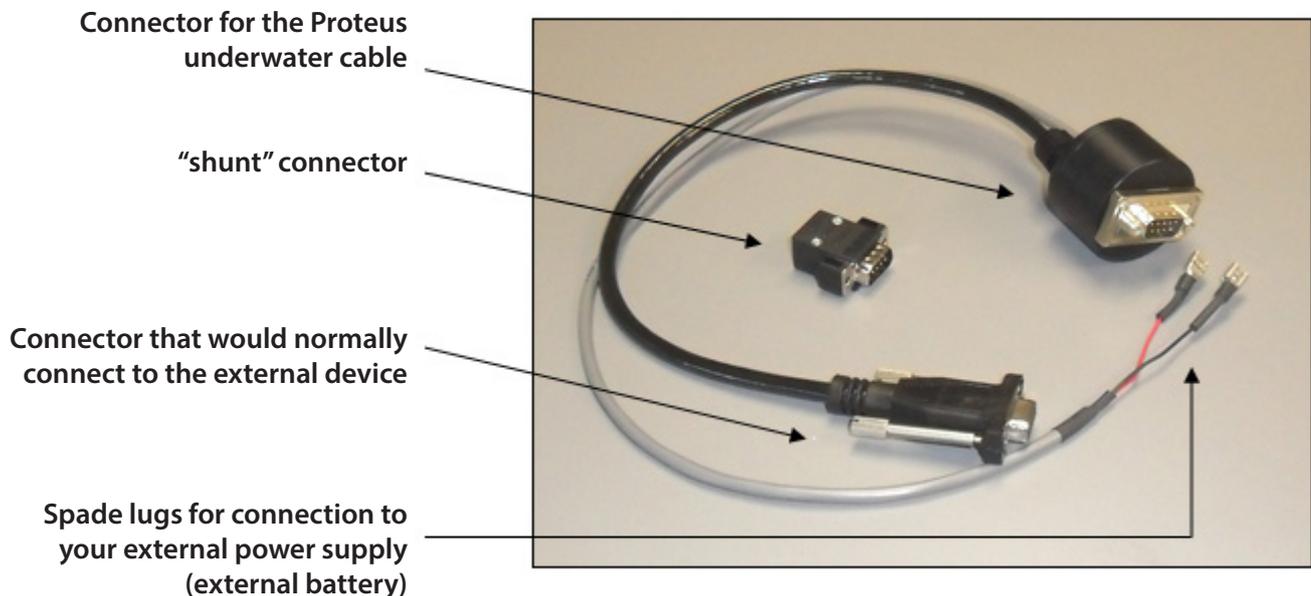### Option 1 – Battery Cable (user-supplied external power source)

You can use your own uninterrupted external power supply, such as a solar-recharged battery, with Battery Y Cable (Cable-Y) and Shunt Connector (SleepShunt) as shown below.

When connected to the Battery Cable, the shunt connector tells the Proteus to treat the power from the external power supply as it would treat power from an Internal Battery Pack. This means the Proteus will go to sleep after each logging cycle, and the turbidity wiper will properly commence a cleaning cycle each time the Proteus wakens for a logging cycle.

To use your battery (or other uninterrupted power source) for a Proteus logging run:
1) disconnect the Proteus from the Battery Cable,
2) plug the shunt connector into the 9-pin connector that would normally connect to the external device (such as a third-party data logger),
3) reconnect the Proteus to the Battery Cable.

This will now allow the Proteus to power down between logging cycles. Note that you must remove the shunt connector and briefly disconnect the Proteus if you wish to use the Battery Cable with a peripheral device (such as a data display).


Connector for the Proteus underwater cable

"shunt" connector

Connector that would normally connect to the external device

Spade lugs for connection to your external power supply (external battery)

Option 2 – Proteus Instruments' 4.5 Amp-hour Lithium Battery Pack

If you wish to use the Proteus Instruments 4.5 AH Lithium Battery Pack (PN# AuxBattery), with the Shunt Connector (PN# SleepShunt), as shown in below.

To use your battery (or other uninterrupted power source) for a Proteus logging run:
1)   disconnect the Proteus from the Battery Pack,
2)   plug the shunt connector into the 9-pin connector that would normally connect to the external device (such as a third-party data logger),
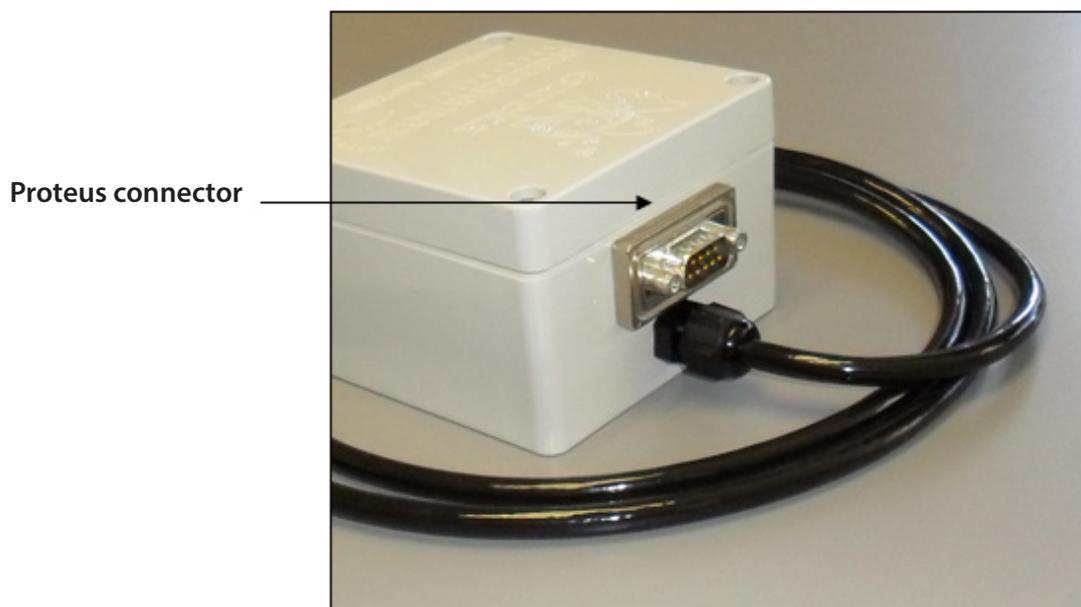3)   reconnect the Proteus to the Battery Pack.

This will now allow the Proteus to power down between logging cycles. Note that you must remove the shunt connector and briefly disconnect the Proteus if you wish to use the Battery Cable with a peripheral device (such as a data display).
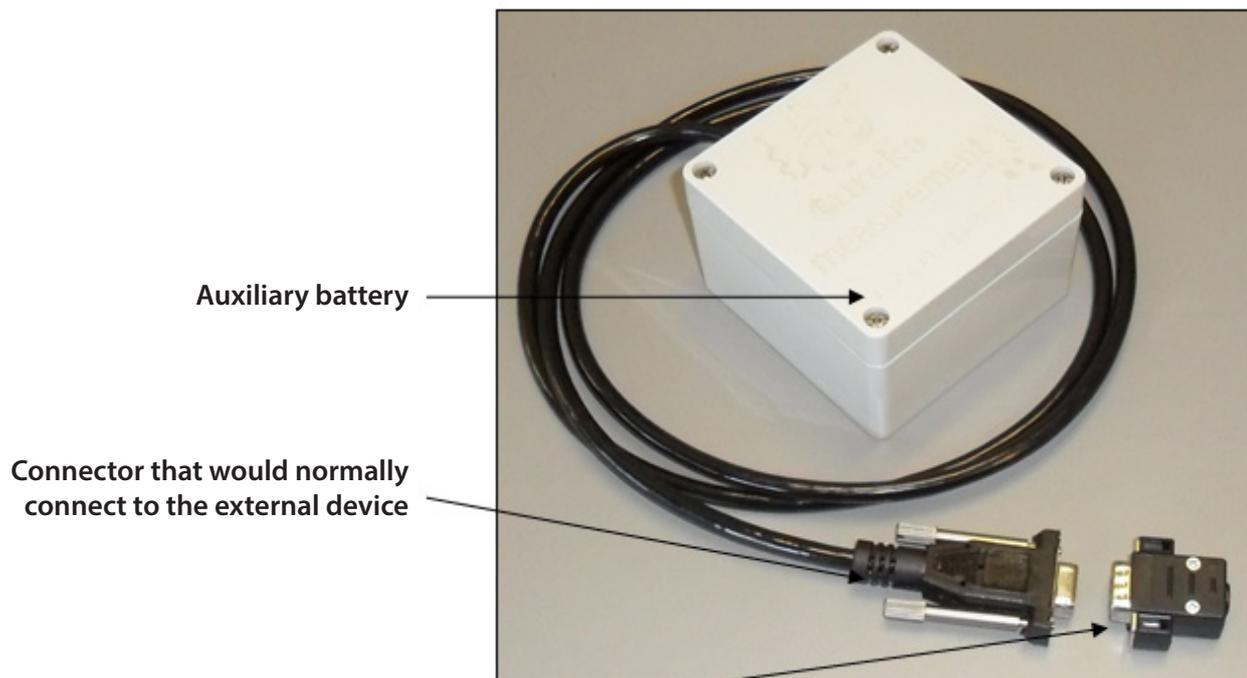
Auxiliary battery

Connector that would normally connect to the external device

"Shunt" connector

Proteus connector

Do I need batteries in the Proteus if I'm using an external power source?

When you use an external power supply via the Battery Cable of the Battery Pack, you do not need batteries in the Proteus' Internal Battery Pack (if equipped). However, if you have an Internal Battery Pack, you can load it with batteries that will take over if the external power fails. If you so this, be sure that the switch plate is set to "ON".

If you are using external power for your Proteus logging, it doesn't matter if the switch plate is set to "ON" or "OFF".

If you have any problems, or need any assistance, email us at support@proteus-instruments.com or call +44 1527 433221

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