

PSIU9 Power Supply Interface Unit

The PSIU9 Power Supply Interface Unit provides a convenient connection between the host PC or Macintosh data collection computer and a network of activity monitors.

Enclosed in a small plastic housing, the PSIU uses a USB connection to transmit and receive data from the host computer, and an array of RJ-11 phone-type jacks to connect to the activity monitors.

DC power to the PSIU, and in turn the activity monitors, is supplied by an external 9V power supply through a power input jack, and status lights indicate the presence of input power and active data transmission to and from the monitors.

A single PSIU9 and data collection computer form a monitoring system, to which up to 120 activity monitors of various types may be attached.

Specifications

- Dimensions: 4.25 x 2.60 x 1.12" LWH (108 x 66 x 29 mm)
- Mass: 125g
- Computer interconnect: A-B male USB cable (supplied)
- Monitor interconnect: 4 6-position RJ-11 modular telephone line jacks to DAMSystem monitor network for DC power and data transmission
- Power input: 9V DC, 3A maximum
- Power input jack: 5.5mm OD x 2.5mm ID round, center pin positive
- Compatible power supplies: PS9-1 universal input (supplied)
- Case material: ABS plastic



Features

- Compact size allows easy desktop placement adjacent to collection computer.
- USB connection to host facilitates use with any current desktop or laptop Macintosh or Windows PC for data collection and storage.
- Universal-input external power supply allows straightforward worldwide operation (100-240 VAC, 50/60hz.)
- Status leds indicate power input and data transmission.
- 4 telephone-type jacks provide direct connection to 4 activity monitors or monitor networks. Additional monitors are connected in 'daisy-chain' fashion using 5-way splitters (supplied as necessary.)
- Includes PS9-1 AC power supply, AC line cord, USB cable, and 10' extension data cable with coupler

TRIKINETICS

DC Power Supply

The PSIU9 and all activity monitors connected to it are powered from an external 9V DC power supply (PS9-1) which connects to the PSIU through the input power jack. This jack accepts a round 5.5mm OD by 2.5mm ID power plug, with the center pin positive polarity. Only 9V DC supplies must be used.

USB Connection

The PSIU connects to the host PC or Macintosh computer with an 'A-B male' USB cable. Any free USB port on the computer may be used, and if none are available, a USB hub may be used to add ports. Note that the DC Power Supply must be connected to the PSIU to enable the USB computer link.

Software Drivers

All USB devices require *drivers* to inform the host system of their characteristics. Drivers for the PSIU may be downloaded from the TriKinetics web site, and must be installed for the PSIU to be recognized.

Multiple Systems

A single computer may operate multiple monitoring systems in parallel, each with its own PSIU9, cabling network, and monitor set. Each system runs a separate copy of the data collection program, with independent control of the reading interval, USB port, and data type selection.

Large sets of monitors may be split into multiple systems for shorter overall reading intervals, and duplicate monitor numbers may be assigned to separate systems if necessary.

To setup multiple systems, place duplicate copies of the DAMSystem3 program (and libs if Windows) in separate folders on the desktop. Launch each copy and select its reading interval.

Multiple PSIU9s will appear in the Preferences Serial Port list as separate entries; select one for each system, and verify its operation using the Current Data setting.

Checkout

To verify that a PSIU9 is operating properly, perform the following steps:

1. Unplug all monitor data cables and the USB cable from the unit.
2. Launch DAMSystem3, click Preferences, and click Serial Port.
3. Plug the PS9-1 power supply into a wall outlet using a line cord, and plug the round connector into the PSIU9. Verify that the green light is on. Plug the USB cable into the PSIU9 on one end and the computer on the other.
4. Click Serial Port again in Preferences and watch for a new entry - this is the port for the PSIU9. Click this entry and it should turn from gray to black indicating successful selection.
5. Click Current Data and verify that the yellow light on the PSIU9 is flashing.
6. Plug the monitor network cables into the PSIU telephone jacks, and verify that both the green light stays On, and the yellow light continues to flash.
7. If these steps are successfully performed, the PSIU is operating properly, and the computer should be able to acquire data from installed monitors. Additional information is available in the Help section of DAMSystem3.