



# BioDAQ<sup>®</sup>

## Food & Water

## Intake Monitor for Rats and Mice

### Episodic Intake Monitor

ep-i-sod-ic - occurring at irregular intervals, defined by the animal's native behavior.

BioDAQ E2 Episodic monitoring system measures the ad libitum food and water intake behavior of singly housed lab rats and mice at very high resolution in their home cage. Computer controlled electronics record food and water intake episodically by measuring the moment-to-moment, undisturbed intake behavior of the animals being studied. The animal's behavior defines the variable period for these intake measurements through their native behavior.

### Periodic Intake Monitor

pe-ri-od-ic - recurring at equal intervals of time set by the investigator.

BioDAQ Unplugged is typically used for periodic measurements of ad libitum food and water intake of singly housed lab rats and mice in their home cage. These measurements are taken over an



investigator defined period such as, hourly, daily or weekly. Periodic measurements are sufficient for researchers without the need to record the structure of individual meals or the behavior associated with eating and drinking.



### MONITOR 32 MODULES

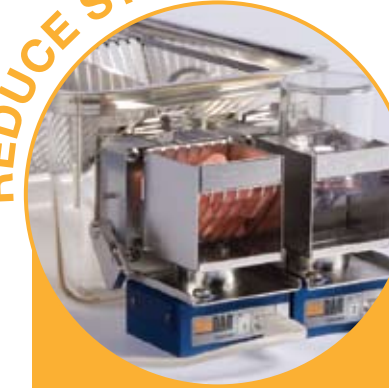
BioDAQ will monitor up to 32 modules at one time. The system is expandable from a minimum of 8 modules to 32 with one Central Controller and laptop computer.

#### FLEXIBLE



The same electronic components can be used for food or water and for rats or mice allowing a single set to accommodate variable experimental designs. You can choose to run FOOD alone, FOOD + WATER, FOOD + FOOD or WATER + WATER configurations.

#### REDUCE STRESS



Specially modified plastic shoe box style home cages reduce stress on the animal. The cages provide a suitable environment for long term studies and shorten the acclimation period. Gated hoppers mount outside the cage limiting variability caused by the interaction between researchers and animals.

BioDAQ E2 Electronic



### time behavior

BioDAQ 'bout metering' technology changes the context of intake measurements from fixed intervals of time to an animal's undisturbed behavior. BioDAQ incorporates a behavioral component into food and water intake by measuring the mass of the hopper and its contents once per second, and reporting changes in stable weights and time. The data is reported as a 'bout', with each report having a start time for the initiation of the activity, its duration, and the amount consumed.



#### NO LEAKS



The BioDAQ water intake module measures the episodic water intake behavior of mice and rats in the home cage. Our no-leak design ensures that the data collected reflects the total intake of the animals being studied.

#### REDUCE SPILLAGE



BioDAQ food hoppers present diet to animals outside of a cage-top configuration, limiting the amount of diet lost to spillage. Any spillage that does occur is captured in the integrated tray at the hopper base.

BioDAQ Unplugged



#### UPGRADABLE



The mounting hardware and cages are interchangeable between BioDAQ Unplugged and electronic systems, making upgrades simple. Add the Central Controller, laptop and Peripheral Sensor Controllers (PSC) to complete an electronic system upgrade.



# Automated Episodic Food & Water Intake Monitor

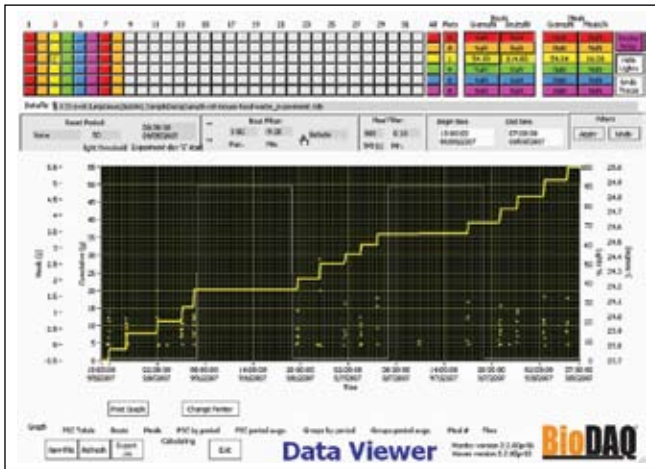
[researchdiets.com/biodaq](http://researchdiets.com/biodaq)

## Optimized BioDAQ Systems

An optimized BioDAQ system allows investigators to acclimate a set of animals in BioDAQ Unplugged while another is being studied electronically in a BioDAQ E2. This ensures that the electronics are in constant use and that animals are always well acclimated. An additional set of cages and hardware help to streamline husbandry activities and avoid gaps in data collection.

## Graphic DataViewer

A BioDAQ data set can be analyzed using our DataViewer software. The DataViewer allows users to define and manipulate meal criteria such as the inter-bout interval or minimum meal requirement. The complete data set is analyzed in a matter of seconds, something that could take days using other methods. All of the raw bout data and the analysis tables can be exported to an Excel spreadsheet with the click of a button.



The DataViewer is best understood with a live or web based demonstration.

To arrange contact: [biodaq@researchdiets.com](mailto:biodaq@researchdiets.com)



## Adapt to Metabolic Cages

The BioDAQ Food & Water IntakeMonitor can be adapted to metabolic cages commonly used in many animal facilities. BioDAQ adds value to data generated by reducing the spillage of both diet and water that often confounds data collected using these cages.

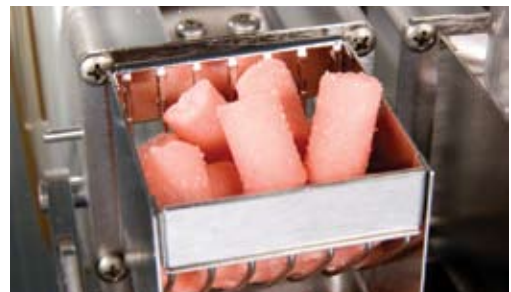
For additional information on the BioDAQ line please visit us at [researchdiets.com/biodaq](http://researchdiets.com/biodaq).

## Use OpenSource Diets

The BioDAQ food hopper works best with 1/2 inch diameter pelleted OpenSource Diets from Research Diets, Inc.



The scientists in our Resource Center are available for consultations to discuss your research and possible formulations to promote a desired phenotype. We have over 20 years experience formulating and pelleting custom diets for research and are the largest provider of purified diet in the world.



Where NutriPhenomics® Begins

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