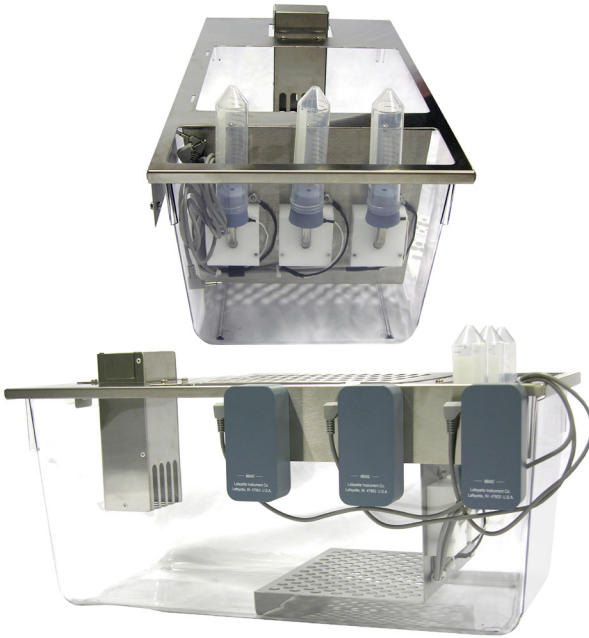


Custom Triple Lickometer Chamber and Counter

User Instructions



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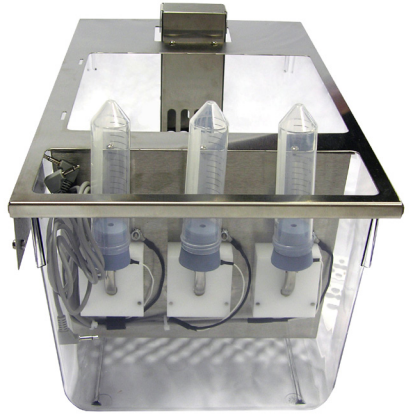
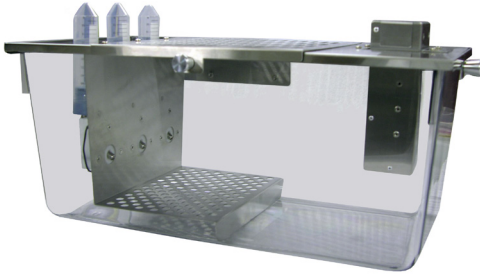
Custom Triple Lickometer Chamber and Counter

Description

The Custom Polycarbonate Chamber, Model 80380 with stainless steel lid and hatch features a stainless steel food hopper on one side of the tub with area for standard bedding and three 50 ml bottles with sipper tubes on the other end. The sipper tube end is fitted with a stainless steel floor to provide contact for three Lickometer/Counters designed to monitor lick activity from each individual tube. Bottles may be easily removed without disconnecting any wires.

The Lickometer/Counters, Model 86062 are similar to the Activity Wheel Counter, Model 86061 used to monitor the revolutions of voluntary running wheels. The ABC switch has been removed and special circuitry and firmware added for the detection of animal licks. The 22 M Ohm input is sensitive to subject resistances up to 30 M Ohm with subject currents less than half of that produced by other contact lickometers. The specifications of the Lick circuit are provided in the System Specifications below.

The AWM (Activity Wheel Monitor) USB Interface, Model 86056A will support up to 15 Lickometer/Counters (5 test chambers) along with Version 8.8 or higher of the AWM Software (**Interface and Software are sold separately**).



Specifications

General:

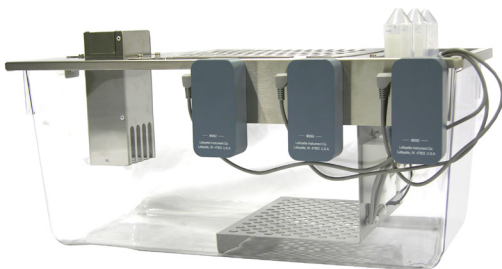
Power:	Provided through the AWM Interface
External Interface:	USB 2.0 via 86056A Interface (sold separately)
Software Required:	AWM 8.8 or higher running on Windows XP
Dimensions:	Model 80380 Chamber: 19.0" x 10.5" x 8.0" (48.3 cm x 26.7 cm x 20.3 cm) Model 80380 Animal Workspace: 14.0" x 10.5" x 8.0" (35.6 cm x 26.7 cm x 20.3 cm) Model 86062 Counter: 1.7" x 3.4" x 1.5" (4.32 cm x 8.64 cm x 3.81 cm)

Lickometer:

Total Lick Counts:	Unlimited - counter rollover value at 9,999,999
Input Resistance:	22 M Ohm
Subject Resistance:	30 M Ohm Maximum
Auto Increment:	8 Hz
Debounce Filter:	10 ms ON and OFF (eliminates false readings or "ringing")

Operating Instructions

1. Install each of the three Lickometer/Counters Model 86062 (some enclosures may be labeled) on the hangers provided on the back of the lid.
2. Connect the cable from each of the three sipper tubes to the 3.5mm phone jack on the side of the Model 86062 case.
3. Connect the Lickometer/Counters Model 86062 to the USB Interface Model 86056A using the 6 pin modular cable supplied with each counter. It is recommended to connect the counters in sequential jacks beginning with one.
4. Connect the power supply and USB cable to the interface following the instructions provided with that unit, but be sure the power switch is off and do not connect to the computer as yet.
5. Install the AWM Software Version 8.8 or higher on a suitable PC computer running on Microsoft Windows™ XP.
6. Connect the USB cable and install the AWM Interface driver from the installation disk.
7. Turn the power on at the Animal Wheel Monitor Starter Interface Model 86056A and open the AWM Application Software using the desktop black arrow icon.
8. AWM will automatically detect the interface and display the connected counters (currently labeled as type Rat) as long as at least one Lickometer/Counter is connected to the interface, the interface power is ON, the USB cable is properly connected and the drivers properly installed. If a request to use the virtual interface appears, check NO, close the AWM software check steps 1 – 7 and try again. If the virtual interface is installed (indicated in red at the top of the screen) it will be necessary to use the Preferences selection on the Tools menu to change the Hardware Configuration.



Software Notes

The lickometer package requires the full featured AWM Software application. This means that there are several features that will not be required. The following may be helpful. Feel free to contact Lafayette Instrument Co. (Phone: 765-423-1505) if you have any questions during the operation of this product.

- Use Appendix A from the AWM Software Manual for software installation tips.
- Setting up the Lickometer/Counters is similar to “Creating a New Experiment for Voluntary Running Wheels” beginning on page 6 of the AWM Software Manual.
- Additional copies of the manual may be downloaded from our web site: www.lafayetteinstrument.com
- Note, the raw data for the Lickometer will include “Interval Counts” and “Total Counts” only. Data in Excel format with the “Data Management” tool active will still have tabs for speed, distance, speed chart, and distance chart, however they will not contain any data.

Terms and Conditions

LIC Worldwide Headquarters

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Phone, Fax, Email or Mail-in Orders

All orders need to be accompanied by a hard copy of your purchase order. All orders must include the following information:

- Quantity
- Part Number
- Description
- Your purchase order number or method of pre-payment
- Your tax status (include tax-exempt numbers)
- Shipping address for this order
- Billing address for the invoice we'll mail when this order is shipped
- Signature and typed name of person authorized to order these products
- Your telephone number
- Your email address
- Your FAX number

Domestic Terms

There is a \$50 minimum order. Open accounts can be extended to most recognized businesses. Net amount due 30 days from the date of shipment unless otherwise specified by us. Enclose payment with the order; charge with VISA, MasterCard, American Express, or pay COD. We must have a hard copy of your purchase order by mail, E-mail or fax. Students, individuals and private companies may call for a credit application.

International Payment Information

There is a \$50 minimum order. Payment must be made in advance by: draft drawn on a major US bank; wire transfers to our account; charge with VISA, MasterCard, American Express, or confirmed irrevocable letter of credit. Proforma invoices will be provided upon request.

Exports

If ordering instrumentation for use outside the USA, please specify the country of ultimate destination, as well as the power requirements (110V/60Hz or 220V/50Hz). Some model numbers for 220V/50Hz will have a "CC" suffix.

Quotations

Quotations are supplied upon request. Written quotations will include the price of goods, cost of shipping and handling, if requested, and estimated delivery time frame. Quotations are good for 30 days, unless otherwise noted. Following that time, prices are subject to change and will be re-quoted at your request.

Cancellations

Orders for custom products, custom assemblies or instruments built to customer specifications will be subject to a cancellation penalty of 100%. Payment for up to 100% of the invoice value of custom products may be required in advance. Cancellation for a standard Lafayette Instrument manufactured product once the product has been shipped will normally be assessed a charge of 25% of the invoice value, plus shipping charges. Resell items, like custom products, will be subject to a cancellation penalty of 100%.

Exchanges and Refunds

Please see the cancellation penalty as described above. No item may be returned without prior authorization of Lafayette Instrument Company and a Return Goods Authorization (RGA#) number which must be affixed to the shipping label of the returned goods. The merchandise should be packed well, insured for the full value and returned along with a cover letter explaining the reason for return. Unopened merchandise may be returned prepaid within thirty (30) days after receipt of the item and in the original shipping carton. Collect shipments will not be accepted. Product must be returned in saleable condition, and credit is subject to inspection of the merchandise.

Repairs

Instrumentation may not be returned without first receiving a Return Goods Authorization Number (RGA). When returning instrumentation for service,

please call Lafayette Instrument to receive a RGA number. Your RGA number will be good for 30 days. Address the shipment to:

Lafayette Instrument Company

3700 Sagamore Parkway North

Lafayette, IN 47904, USA.

Shipments cannot be received at the PO Box. The items should be packed well, insured for full value, and returned along with a cover letter explaining the malfunction. An estimate of repair will be given prior to completion ONLY if requested in your enclosed cover letter. We must have a hard copy of your purchase order by mail or fax, or repair work cannot commence for non-warranty repairs.

Damaged Goods

Damaged instrumentation should not be returned to Lafayette Instrument prior to a thorough inspection. If a shipment arrives damaged, note damage on delivery bill and have the driver sign it to acknowledge the damage. Contact the delivery service, and they will file an insurance claim. If damage is not detected at the time of delivery, contact the carrier/shipper and request an inspection within 10 days of the original delivery. Please call the Lafayette Instrument Customer Service Department for repair or replacement of the damaged merchandise.

Limited Warranty

Lafayette Instrument Company warrants equipment manufactured by the company to be free of defects in material and workmanship for a period of one year from the date of shipment, except as provided hereinafter. The original manufacturer's warranty will be honored by Lafayette Instrument for items not manufactured by Lafayette Instrument Company, i.e. resell items. This assumes normal usage under commonly accepted operating parameters and excludes consumable products.

Warranty period for repairs or used instrumentation purchased from Lafayette Instrument is 90 days. Lafayette Instrument Company agrees either to repair or replace, at its sole option and free of part charges to the customer, instrumentation which, under proper and normal conditions of use, proves to be defective within the warranty period. Warranty for any parts of such repaired or replaced instrumentation shall be covered under the same limited warranty and shall have a warranty period of 90 days from the date of shipment or the remainder of the original warranty period whichever is greater. This warranty and remedy are given expressly and in lieu of all other warranties, expressed or implied, of merchantability or fitness for a particular purpose and constitutes the only warranty made by Lafayette Instrument Company.

Lafayette Instrument Company neither assumes nor authorizes any person to assume for it any other liability in connection with the sale, installation, service or use of its instrumentation. Lafayette Instrument Company shall have no liability whatsoever for special, consequential, or punitive damages of any kind from any cause arising out of the sale, installation, service or use of its instrumentation. All products manufactured by Lafayette Instrument Company are tested and inspected prior to shipment. Upon prompt notification by the Customer, Lafayette Instrument Company will correct any defect in warranted equipment of its manufacture either, at its option, by return of the item to the factory, or shipment of a repaired or replacement part. Lafayette Instrument Company will not be obliged, however, to replace or repair any piece of equipment, which has been abused, improperly installed, altered, damaged, or repaired by others. Defects in equipment do not include decomposition, wear, or damage by chemical action or corrosion, or damage incurred during shipment.

Limited Obligations Covered by this Warranty

1. In the case of instruments not of Lafayette Instrument Company manufacture, the original manufacturer's warranty applies.
2. Shipping charges under warranty are covered only in one direction. The customer is responsible for shipping charges to the factory if return of the part is required.
3. This warranty does not cover damage to components due to improper installation by the customer.
4. Consumable and/or expendable items, including but not limited to electrodes, lights, batteries, fuses, O-rings, gaskets, and tubing, are excluded from warranty.
7. Failure by the customer to perform normal and reasonable maintenance on instruments will void warranty claims.
8. If the original invoice for the instrument is issued to a company that is not the company of the end user, and not an authorized Lafayette Instrument Company distributor, then all requests for warranty must be processed through the company that sold the product to the end user, and not directly to Lafayette Instrument Company.

Export License

The U.S. Department of Commerce requires an export license for any polygraph system shipment with an ULTIMATE destination other than: Australia, Japan, New Zealand or any NATO Member Countries. It is against U.S. law to ship a Polygraph system to any other country without an export license. If the ultimate destination is not one of the above listed countries, contact us for the required license application forms.