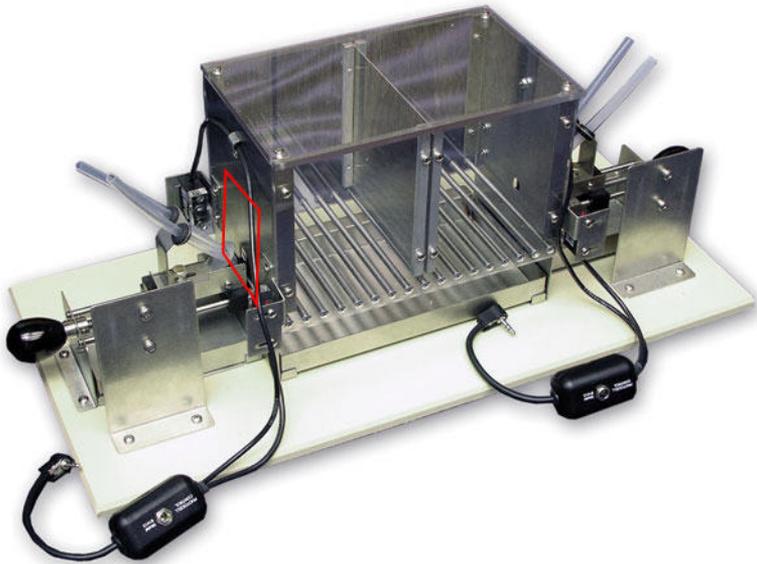


# ***Automated Mouse Reaching Chamber User Instructions***



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# Automated Mouse Reaching Chamber

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## Description

The automated mouse reaching chamber allows researchers to simultaneously measure motor behavior, cognitive processing and motivation.

**Motor Behavior:** Skilled forepaw reaching behaviors are required to retrieve pellets from the food hopper.

- The gap between the pellet hopper and chamber discourages “scooping” behavior and encourages pellet grasping.
- Infrared recording accurately quantifies reach attempts as well as latency.
- Reach attempts exceeding the number of pellets removed from the hopper indicates unsuccessful attempts.
- Pellets removed or scooped from the hopper but dropped outside of the chamber into a drop pan indicate pellets grasped but not retrieved.
- Pellets that drop through the grid-floor into the waste pan indicate pellets successfully retrieved but not eaten.

**Cognitive Processing:** Two reaching holes on opposite walls allow researchers to alternate baited and nonbaited hoppers within or between trials.

- Walls may be marked for visually cued cognitive tasks.
- Latency measures and non-baited hopper reach attempts are used to assess cognitive deficits.

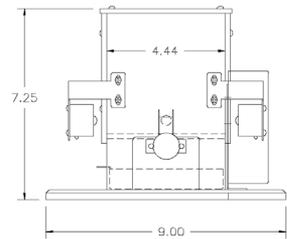
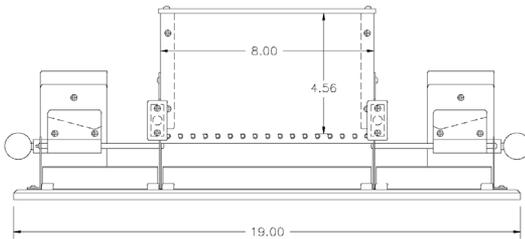
**Motivation:** Latency measures from chamber introduction to the first reach attempt indicates motivation to retrieve pellets.

## Operating Instructions

1. Mount your Lafayette Activity Counter to the 80870.
2. Connect the photocells’ 3.5mm connector to a Lafayette Activity Counter.
3. Place the Activity counter in the “C” position to capture on single transition input.
4. Connect the power packs to the photocells. Both red LED’s should be on. The led on the receiver will blink when the beam is broken. If the LED on the receiver is not on, make sure the transmitter is in line with the receiver. See additional alignment and operation instructions below.
5. Connect power to the photo beam module. Separate Power is required for the Activity Counter. This may be supplied via a modular cable to an 86056 interface, or via a separate power pack.

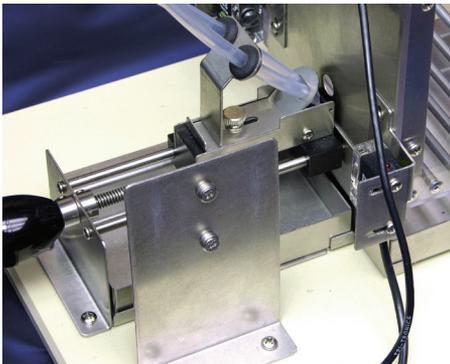
## Model 80870 User Instructions

- Capture your data through the display of the 86060 or through the Activity software. If you are using the Activity software, your paw reaching inputs will be labeled as position "C" Rat inputs.
- Place food pellets inside the two feeder tubes on either side of the cage, and run your experiments.



### Specifications

<b>Overall Dimensions</b>	19.0" x 9.0" x 7.3"
<b>Chamber Dimensions</b>	8.0" x 4.4" x 4.6"
<b>Reach Gap</b>	Fully adjustable from 0.125" to 2.00"
<b>Chamber Material</b>	
<i>End Walls</i>	0.032" Stainless Steel
<i>Side Walls</i>	0.188" Clear Polycarbonate
<i>Lid</i>	0.188" Clear Polycarbonate
<i>Hoppers</i>	Delrin with Stainless Steel Walls
<i>Pellet Drop Pans</i>	0.032" Stainless Steel
<i>Waste Pan</i>	0.032" Stainless Steel
<i>Grid Rods</i>	Stainless Steel
<b>Photo Detectors</b>	Two durable industrial grade photo beam pairs



### **Installation and Operating Instructions for 81413A or 81413B Photo Beam Sensors**

Attach photo beams if needed as illustrated below. Note that the Sender (unit with green power light and sensitivity screw) is installed in the upper slot and the Receiver (unit with green power light and red alignment light) is installed in the lower slot. The sensitivity (power) should be full counter clockwise. If the receptacle head is moved too close to the chamber wall the alignment light may go out. The sensitivity power can be increased to compensate for this up to a point. It is not possible to run the unit with the receptacle head tight against the wall.

### **Wiring the photo beams**

When the 80870 has been set up for use with the 86060 Digital Display Counter or 86061 Activity Counter for the AWM Interface, the cable will be terminated in a phone plug and connection is made with the sensor input of the counter.

When the 80870 is set up for an ABET Interface or other data collection device, the lead wires are left stripped and tinned. Connect as follows.

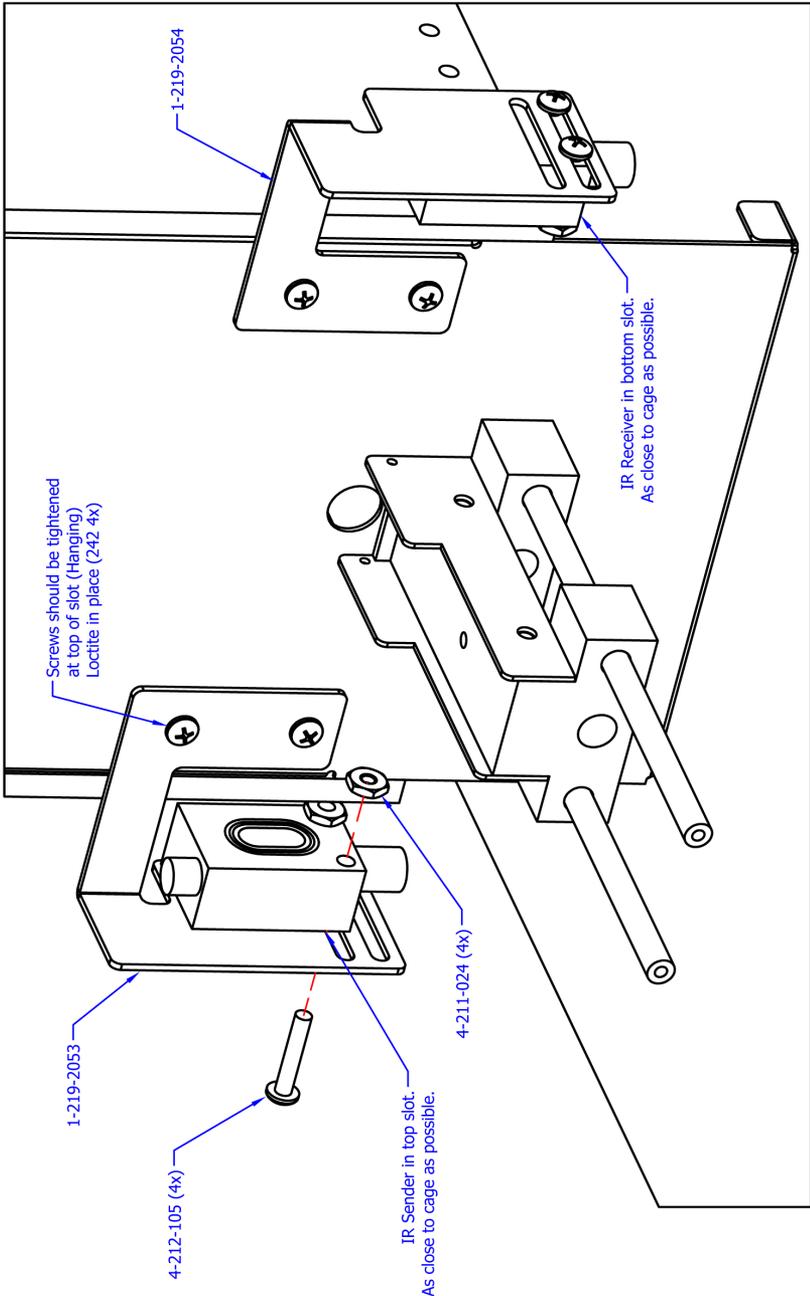
Red: + 28 V DC

Black: Ground

Green: Response Line (NPN Sink up to 100 mA)

### **Options**

- Model 86060 Activity Counter with Display - to quantify reach attempts
- Model 86061 Computer Only Counter - to quantify reach attempts
- Model 86056 Computer Interface and Activity Software - to collect data and latency measures
- Model 88500 ABET Software & Starter Kit - for operant control and monitoring
- Model 80875 Automated Reaching Chamber Home-Cage Training Hoppers



Turn power down all the way for best results  
except right next to chamber.

## **Notes**

Write any user notes on these pages for your convenience.



# Terms and Conditions

## LIC Worldwide Headquarters

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Email: [esuals@lafayetteinstrument.com](mailto:esuals@lafayetteinstrument.com)

## 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 "C" 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.