

MAN624

Model 86061

Activity Wheel Counter User's Manual



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System Description

The Activity Wheel Counter Model 86061 is used to monitor the revolutions of the Single Mouse Activity Wheel Model 80820, Single Rat Activity Wheel Model 80850, 80859, 80859L, 80860W, older wheels such as Model 86043 and some wheels from other manufactures. It uses an optical sensor to detect the total revolutions of the wheel. (contact Lafayette Instrument Company for applications with non-optical sensors) This unit is supplied with a 7' modular cable and must be used with a computer interface. An optional 14' cable is listed on the Accessories tab. This Counter is less expensive than the 86060 Counter and provides virtually unlimited data when connected to the Activity Wheel Counter USB Computer Interface Model 86056A and PC computer running 86065 AWM Software.

System Specifications

Power:	Provided through the Activity Wheel Counter USB Computer Interface Model 86056A
Total Revolutions:	Unlimited - counter rollover value at 9,999,999
External Interface:	RS-232C interface to computer through Activity Wheel Counter USB Computer Interface Model 86056A, no parity, 8 data bits, 1 stop bit
Dimensions:	1.7" x 3.4" x 1.5"
Weight:	4.5 ounces

Operating Instructions

1. Connect the Activity Wheel Counter Model 86061 counter to either the Single Mouse Activity Wheel Model 80820, Single Rat Activity Wheel Model 80850 or Single Rat Activity Wheel Model 86043 using the mounts on the wheel. Adjust the cage selector switch as instructed in the Cage Selector instructions (pg 4).
2. Plug the 3.5mm sensor phone plug on the wheel into the 3.5mm jack on the Activity Wheel Counter Model 86061A.
3. Connect the Activity Wheel Counter Model 86061A to the Activity Wheel Counter USB Computer Interface Model 86056A using the 6 pin modular cable. It is recommended to connect the counters in sequential jacks beginning with one.
4. Make sure the 9 pin serial cable from the Animal Wheel Monitor Starter Interface Model 86056A is connected to the computer.
5. Turn the power on at the Activity Wheel Counter USB Computer Interface Model 86056A.
6. Use the Animal Wheel Monitor Software Program, to download information from the counter. Refer to the software instructions for the Activity Wheel Monitor System for operation.

Cage Selector Switch

The three-position cage selector switch is located on the left side of the counter. The top position "A" is used for the Single Mouse Activity Wheel Model 80820. The middle position "B" is used for the Single Rat Activity Wheels Model 80850, 80850M, or 80859. For both the "A" and "B" positions, the ratio of pulses from the wheel to wheel revolutions and the distance per revolution are automatically set in the AWM Software. The wheel type (Rat or Mouse) will be displayed in the third column of the screen display of data and in the third row of the header in the .csv or .xls data file. The bottom position "C" should be used for Lafayette Instrument Co. Models 86043, 80850L, 80859L and all custom wheel applications. The default Input-to-Count ratio is 6:1. This ratio, as well as the distance traveled for each revolution, is easily changed via the Preferences Menu of the AWM Software. Refer to your wheel details for the proper values to enter. For example Model 86043 provides just 1 pulse per revolution and travels a distance of 1.1 meter, while the 80850L and 80859L wheels provide the standard 6 pulses per revolution, but travel 1.4 meters per revolution.



Wheel/Cage Cleaning

Make sure the 6 pin modular cable and the 3.5mm plug have been removed and disconnected from the electronics. Remove the Activity Wheel Counter Model 86061 from its mounting, and clean the cage accordingly. If the cage will be sent through a washer, please remove the sensor from the cage before washing. If the sensor needs cleaning, clean the lens of the sensor, and refer to **Sensor Adjustment** instructions (below) to correctly mount the sensor.

Sensor Adjustment

Use the 80820TL Sensor Adjustment Tool as pictured, to assist in correctly adjusting the optical sensor. Sensor adjustment is critical for accurate data collection. If the counter is not increasing as the wheel is spinning, the optical sensor may need adjustment. To achieve maximum results, the sensor should be mounted at a distance of 0.2" from the rungs of the respective wheel. The sensor should be aimed directly towards the center of its wheel. On a visual inspection, the lens of the sensor should be mounted slightly higher than the edge of the wheel. It is recommended that the user clean the lens of the optical sensor with a clean, soft, cotton cloth before placing the sensor at a distance of 0.2" from the rungs.



80820TL Sensor Adjustment Tool

When using the Activity Wheel Counter Model 86061 with the Single Rat Activity Wheel Model 80850, the optical sensor will be aimed at the reflective surface. When using the Single Rat Activity Wheel Model 80850, the distance from sensor to the reflective surface may be greater than 0.2" for optimal reflection.

Terms and Conditions

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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.
5. Failure by the customer to perform normal and reasonable maintenance on instruments will void warranty claims.
6. 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.