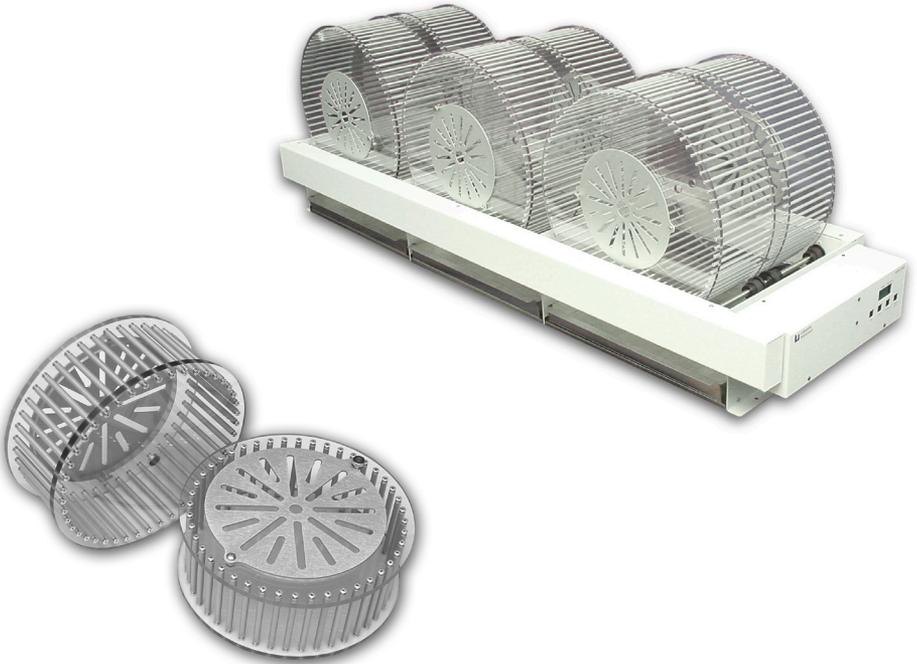


MAN808XXCLEAN

Activity Wheel Systems Cleaning Instructions



**Lafayette
Instrument.**

3700 Sagamore Pkwy N
Lafayette, IN 47904 USA

Tel: (765) 423-1505

Fax: (765) 423-4111

info@lafayetteinstrument.com

www.lafayetteinstrument.com

Table of Contents

General Care	2
Cleaning Instructions	2
General Wheel Cleaning Instructions	2
Polycarbonate Cleaning Instructions	3
Polycarbonate Specifications	4
Cleaning Models 80800 and 80805	4
Cleaning Models 8082X, 80850 and 80852	4
Assembly Diagrams	5
Figure 1: Wheel Assembly for Model 80800	5
Figure 2: Wheel Assembly for Model 80805	6
Figure 3: Assembly Diagram For Model 8082X	7
Figure 4: Wheel Assembly For Model 80850	8
Figure 5: Wheel Frame Assembly 1 For Model 80850	9
Figure 6: Wheel Frame Assembly 2 For Model 80850	10
Figure 7: Wheel Frame Assembly 3 For Model 80850	11
Figure 8: Chamber Tunnel and Hatch Assembly For Model 80852	12
Figure 9: Chamber Cover Assembly For Model 80852	13
Figure 10: Assembly Diagram For Model 80859	14
Appendix 1: Sensor Adjustment for 86060S Optical Sensor	15
Ordering Information	16

General Care

Check daily to see that the wheels are spinning properly and are free of debris. Keep electronics covered to keep them free of dust. Check regularly to see that all screws are tight.

Cleaning Instructions

General Wheel Cleaning Instructions

Stainless steel cage components can be cage washed, but make sure that any detergent or salts are rinsed off thoroughly, as they will destroy the protective layer on stainless steel. Blot most of the water from the surfaces to make sure that the stainless steel is not in contact with standing water droplets for a long period of time.

The small parts inside of the wheel shaft should be washed with deionized water and dried carefully.

The Rulon bearings in the wheel shaft should just be wiped down to remove visible debris, using deionized water if necessary. The less these bearings are exposed to washing, the longer they will last. They cannot tolerate detergents or solvents of any kind, as they will dry out.

Remove the wheel after loosening the two thumbscrews. Remove one locking collar and slide the axle out. Remove the Rulon bearings and set them aside.

Warning: Do not run the Rulon bearings through the cage washer or soak in water or other solvents. Doing so will eventually dry out the natural lubrication. Do not add any lubricant. A quick wipe is recommended.

Warning: Any optical sensor must be removed before running the top panel assembly through a cage washer or soaking in water.

Cleaning Instructions

Polycarbonate Cleaning Instructions

The life of polycarbonate can be prolonged by following these Usage/Cleaning Instructions

Care

Contact between animal waste and cages should be kept to a minimum by using a sufficient quantity of an absorbent bedding material and replacing it with fresh material as often as possible. Residues left by adhesive tape or writing used for identifying cages can be removed with ethyl alcohol. Other solvents should not be used. Avoid using felt-tipped pens, as their solvents can damage plastic.

Cleaning

Plastic spatulas are useful for removing bedding from a cage. Do not bang on cages; banging cages can weaken them. Wash cages with hot water and detergent (keep the pH of the washing solution between 4.5-7.5). Soft water minimizes formation of whitish-grey film on cages that are washed frequently.

Disinfection

First, check with the disinfectant manufacturer regarding safety of the product for polycarbonate cages. Many disinfectants have the potential to damage polycarbonate. Never heat cages wetted with disinfectant materials.

Sterilization

All bedding must be removed from cages prior to thermal sterilization since heat can release potentially damaging substances from bedding material.

Hot Air Treatment: Polycarbonate cages are heat stable up to about 250° F. Do not exceed that temperature, and avoid hot air sterilization that permits development of localized hotspots in excess of 250° F.

Steam Treatment: Polycarbonate cages can be autoclaved at 245°-250° F. Do not stack cages in heights exceeding 30 inches. Effective steam sterilization depends upon proper temperature controls and an adequate steam supply. Alkaline corrosion inhibitors from boiler feed water may destroy plastic materials or dull the cage surface layer.

Additional Autoclaving Polycarbonate Instructions

1. If cages are washed prior to autoclaving, it is important to be certain no detergent residue remains on the surfaces. The extreme heat and pressure of autoclaving can cause the residue to become "baked on" causing a loss of clarity/transparency.
2. Use as short of a cycle as possible. Exposure of 15 minutes at 15-17psi and 250° F is recommended.
3. Do not stack cages in heights exceeding 30 inches.
4. Effective steam sterilization depends upon proper temperature controls and an adequate steam supply. Alkaline corrosion inhibitors from boiler feed water may destroy plastic materials or dull the cage surface layer.

Lafayette Instrument Activity Wheel Systems

Polycarbonate Specifications

The following is a listing of vital specifications for polycarbonate cages.

Burning Rate	Self-Extinguishing
Effect of Sunlight	Yellows slightly
Effect of Weak Acid	None
Effect of Strong Acid	Attacked Slowly
Effect of Weak Alkaline	Resistant (limited)
Effect of Strong Alkaline	Attacked
Effect of Organic Solvents	Resistant to parafins, soluble in aromatic and chlorinated hydrocarbons
Machining Qualities	Excellent
Clarity	Transparent
Water Absorption (24 hr 1/8" thickness %)	0.3
Heat Distortion (66psi°F)	250
Hardness	R118
Tensile Strength (LBS/IN ²)	8,000
Flexural Strength (LBS/IN ²)	12,000
Compressive Strength (LBS/IN ²)	11,000
Impact Strength (120D notch)	14.0
Major Advantages	Heat resistance, strength, clarity

Models 80800 and 80805

1. Remove wheels and waste pans from system base.
2. To clean the wheels: Wash in an automatic cage washer or hand wash. Secure swing hatch before putting the wheel in the automatic cage washer. The wheels can be hand washed with soap and water or wiped down with a 70% ETOH solution.
3. To clean waste pans: Wash in an automatic cage washer or hand wash with soap and water or wipe down with a 70% ETOH solution.

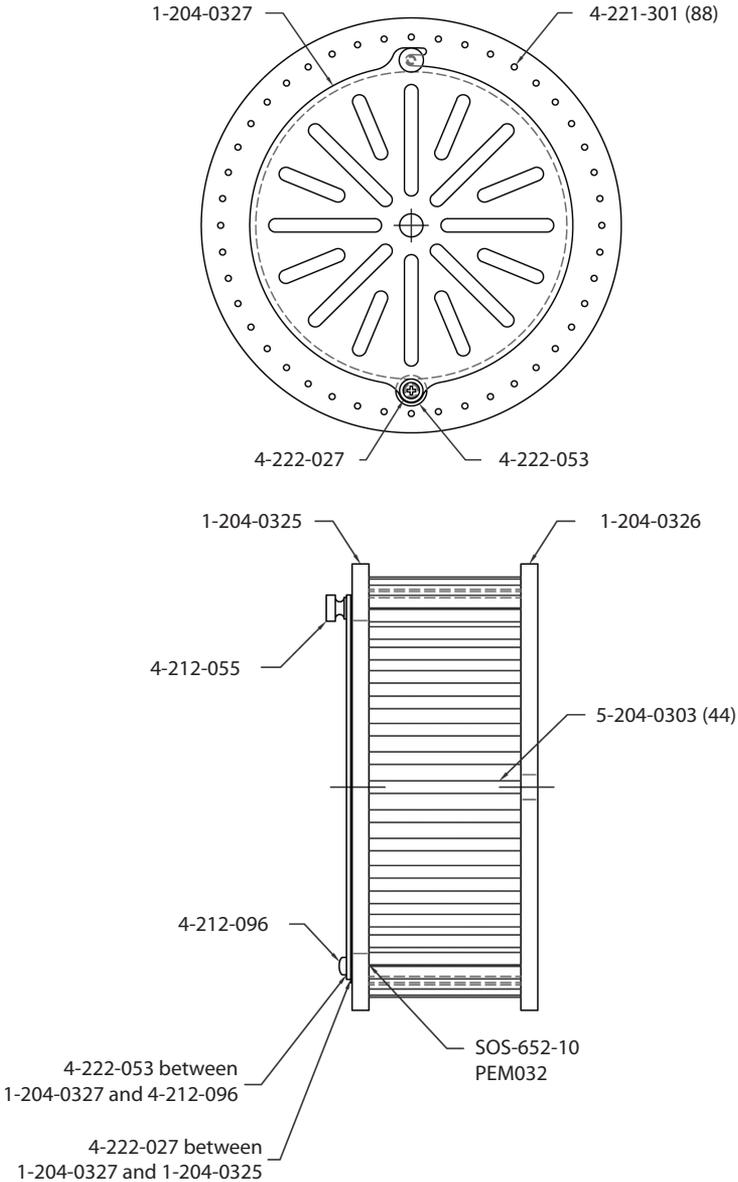
Models 8082X, 80850, 80852 and 80859

1. Unplug all electronics from the unit.
2. Disassemble the system so that the polycarbonate cage is separate from the stainless steel and aluminum parts (See assembly diagrams).
3. The polycarbonate cage can be washed in an automatic cage washer or it can be hand washed with soap and water.
4. The aluminum wheels can be washed in an automatic cage washer. For model 80852, the guillotine door should be secured or removed before going into the cage washer to prevent it from bending. The wheels can also be hand washed with soap and water or wiped down with a 70% ETOH solution.
5. All other parts can be washed in an automatic cage washer or hand washed with either soap and water or wiped down with a 70% ETOH solution.
6. To clean waste pans: Wash in an automatic cage washer or hand wash with soap and water or wipe down with a 70% ETOH solution.

Cleaning Instructions

Figure 1: Wheel Assembly for Model 80800

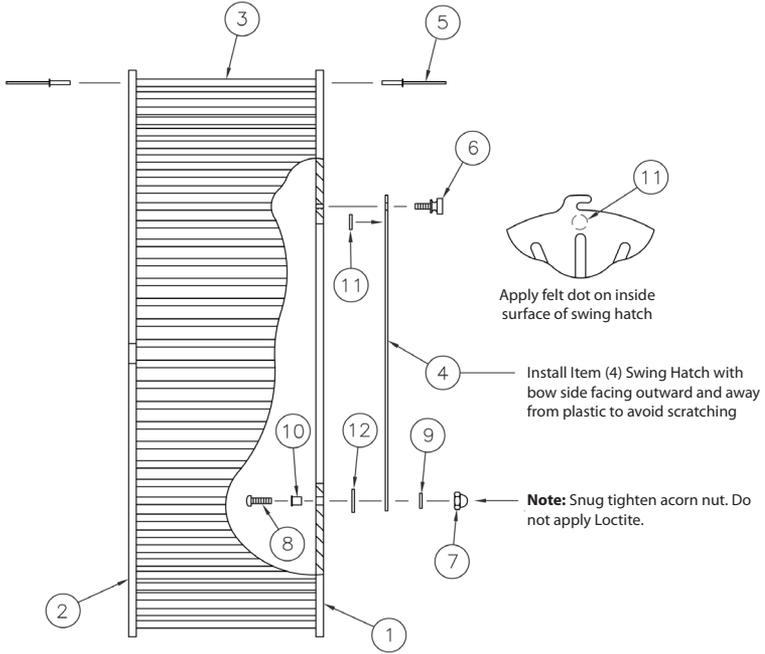
These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.



Lafayette Instrument Activity Wheel Systems

Figure 2: Wheel Assembly for Model 80805

These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.

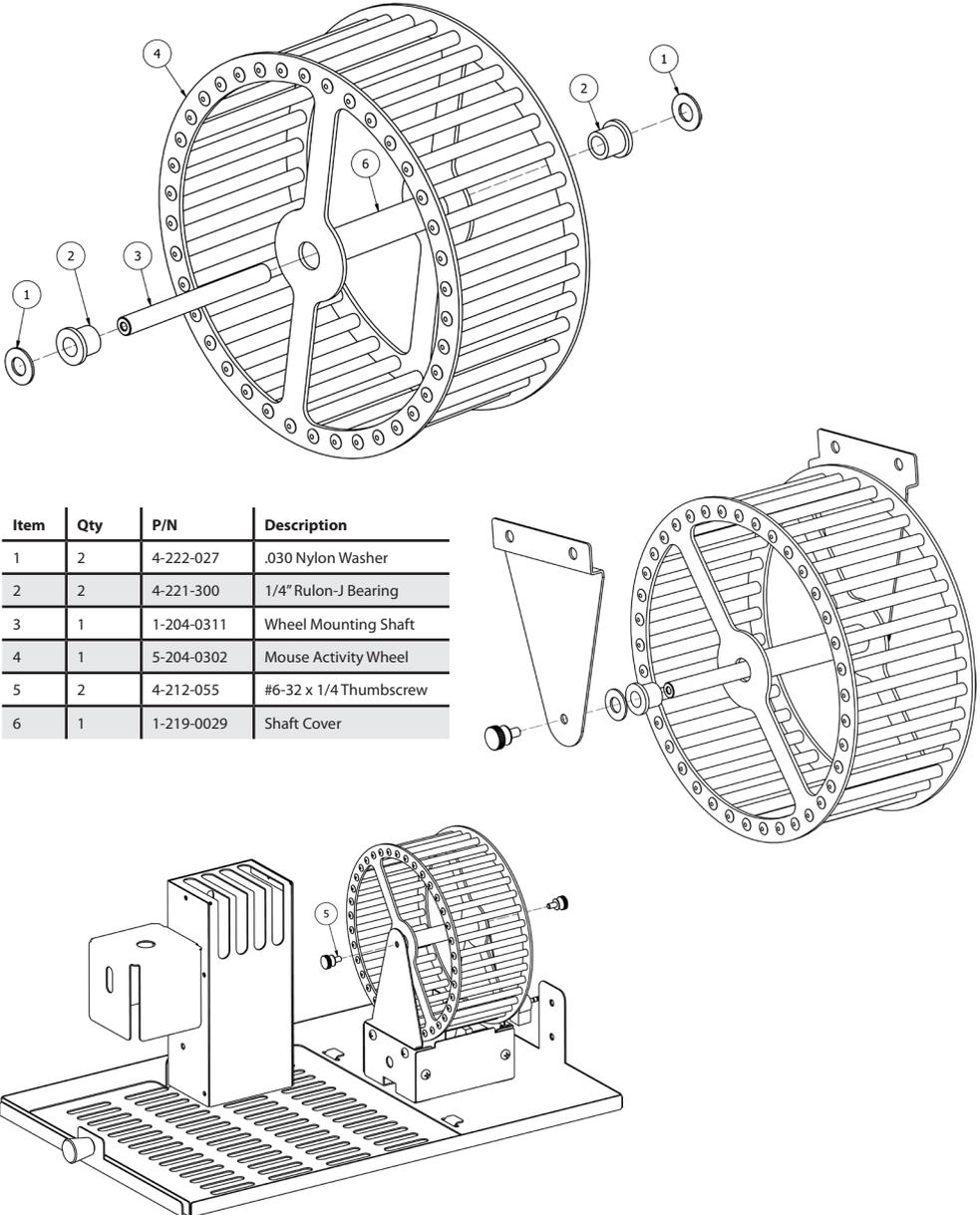


Item	Qty	P/N	Description
1	1	1-204-0355	Wheel Side - Hatch
2	1	1-204-0353	Wheel Side - Plain
3	82	5-204-0352	Anodized Rail
4	1	1-204-0354	Hatch
5	164	4-221-301	Pop Rivet
6	1	4-212-055	Thumb Screw
7	1	4-211-013	#6-32 Acorn Nut
8	1	4-212-088	#6-32 x 1/2" Pan Head Screw
9	1	4-222-053	Nylon Flat Washer
10	1	SOS-6143-8	PEMSOSUN24
11	1	4-153-009	3/8" Diameter Felt Pad
12	1	4-222-027	Nylon Flat Washer

Cleaning Instructions

Figure 3: Wheel Assembly for Model 8082X

These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.

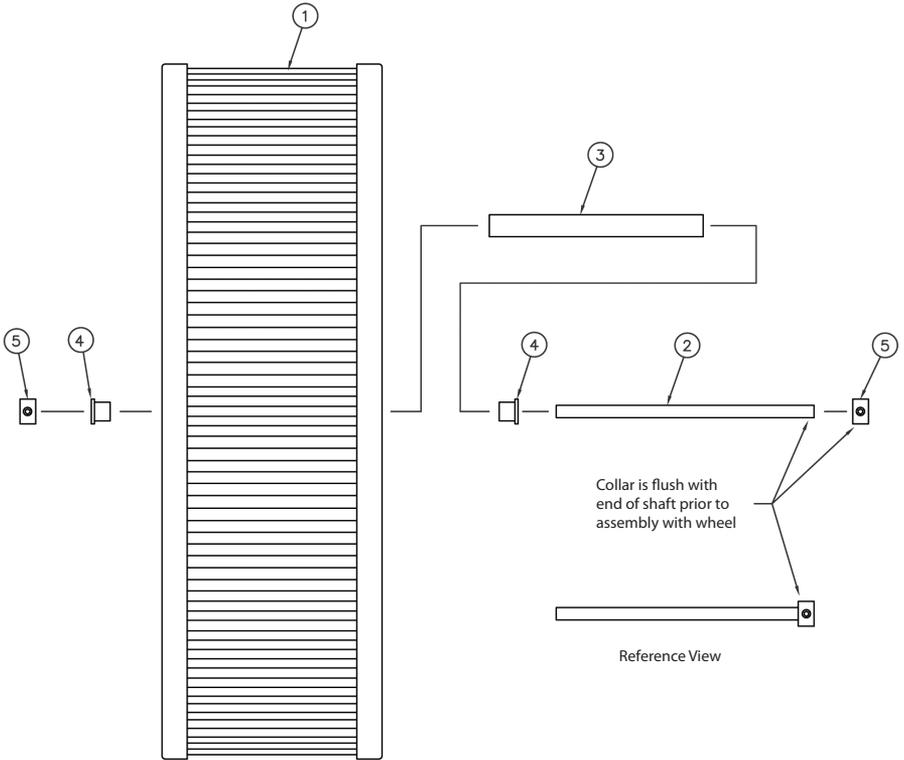


Item	Qty	P/N	Description
1	2	4-222-027	.030 Nylon Washer
2	2	4-221-300	1/4" Rulon-J Bearing
3	1	1-204-0311	Wheel Mounting Shaft
4	1	5-204-0302	Mouse Activity Wheel
5	2	4-212-055	#6-32 x 1/4" Thumbscrew
6	1	1-219-0029	Shaft Cover

Lafayette Instrument Activity Wheel Systems

Figure 4: Wheel Assembly for Model 80850

These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.

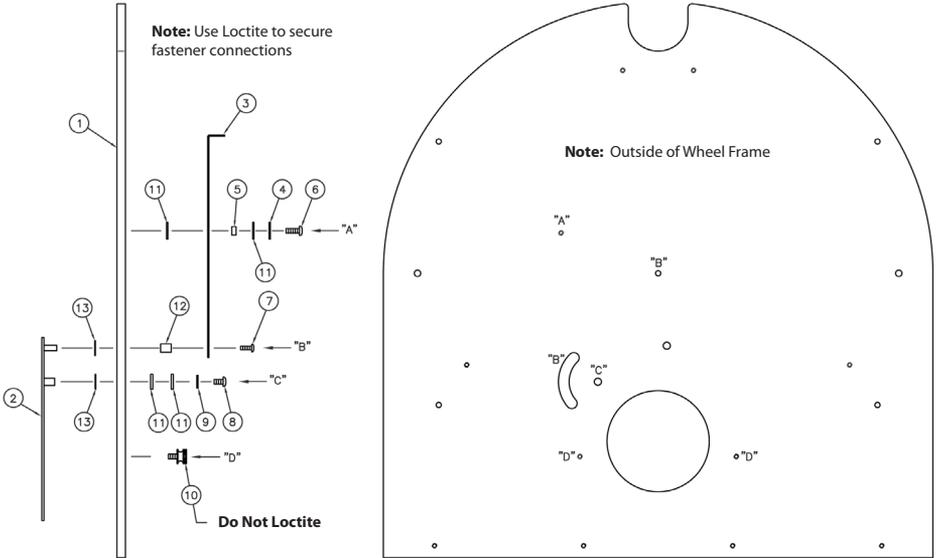


Item	Qty	P/N	Description
1	1	5-219-0082	Wheel Assembly
2	1	1-219-0075	Shaft
3	1	1-219-0087	Shaft Cover
4	2	4-221-300	Rulon Bearing
5	2	4-333-003	Locking Collar

Cleaning Instructions

Figure 5: Wheel Frame Assembly 1 for Model 80850

These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.

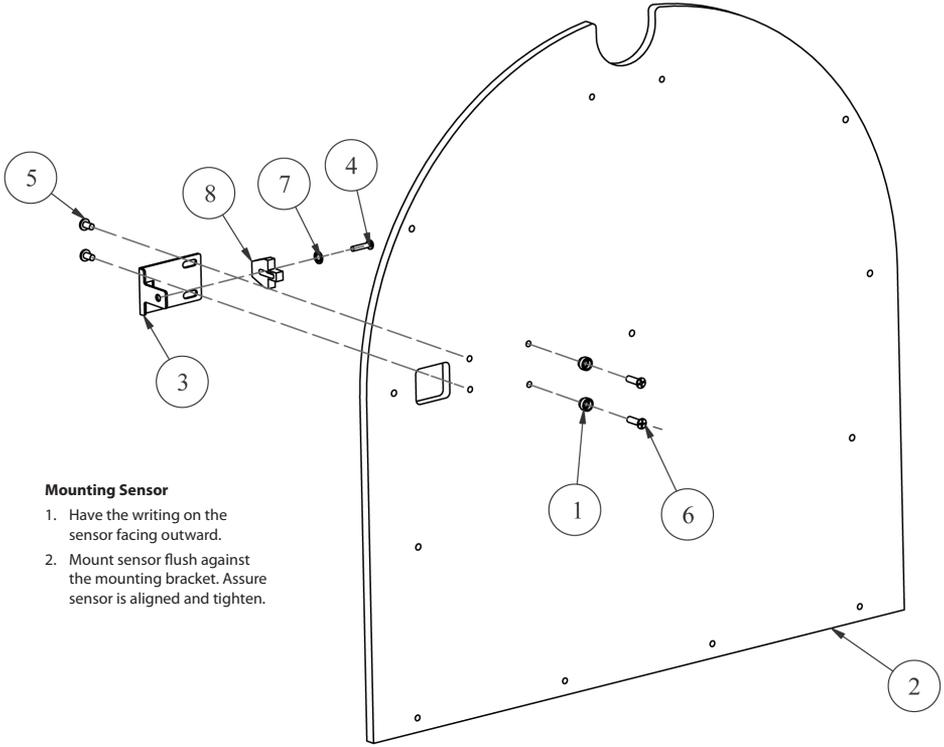


Item	Qty	P/N	Description
1	1	1-219-0083	Wheel Back Mounting Panel
2	1	1-219-0078	Swing Hatch
3	1	1-219-0073	Hatch Lever
4	1	4-221-160	#6 Steel Flat Washer
5	1	4-221-009	Aluminum Spacer
6	1	4-212-508	#6-32 x 7/16" PHS SS
7	1	4-212-504	#4-40 x 5/16" PH SS NYLOC
8	1	4-212-506	#4-40 x 1/4" PH SS NYLOC
9	1	4-221-074	#8 Steel Flat Washer
10	2	4-212-055	Knurled Thumb Screw
11	4	4-222-027	1/4" Nylon Flat Washer
12	1	4-221-015	.165 x 5/16" Spacer
13	2	4-222-026	1/4 x .015" Nylon Flat Washer

Lafayette Instrument Activity Wheel Systems

Figure 6: Wheel Frame Assembly 2 for Model 80850

These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.



Mounting Sensor

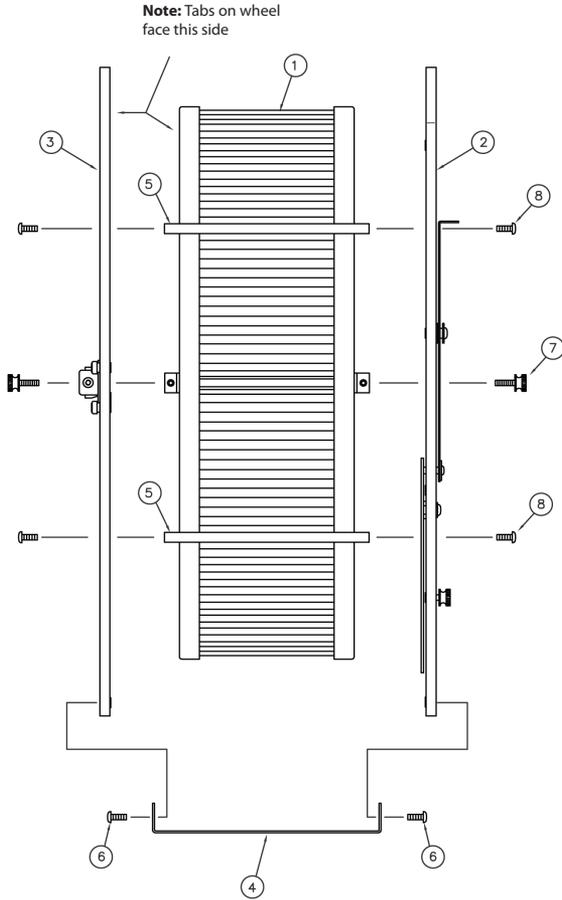
1. Have the writing on the sensor facing outward.
2. Mount sensor flush against the mounting bracket. Assure sensor is aligned and tighten.

Item	Qty	P/N	Description
1	2	1-204-0329	Feeder Mount Key
2	1	1-219-0056	Wheel Mounting Panel - Sensor
3	1	1-219-0084	Sensor Mounting Bracket
4	1	4-212-110	#4-40 x 1/2" Pan Head Screw
5	2	4-212-506	#6-32 x 1/4" Pan Head Screw
6	2	4-212-509	#6-32 x 1/4" Pan Head Screw
7	1	4-221-059	#4 Internal Tooth-Lock Washer
8	1	860605	Optical Sensor

Cleaning Instructions

Figure 7: Wheel Frame Assembly 3 for Model 80850

These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.

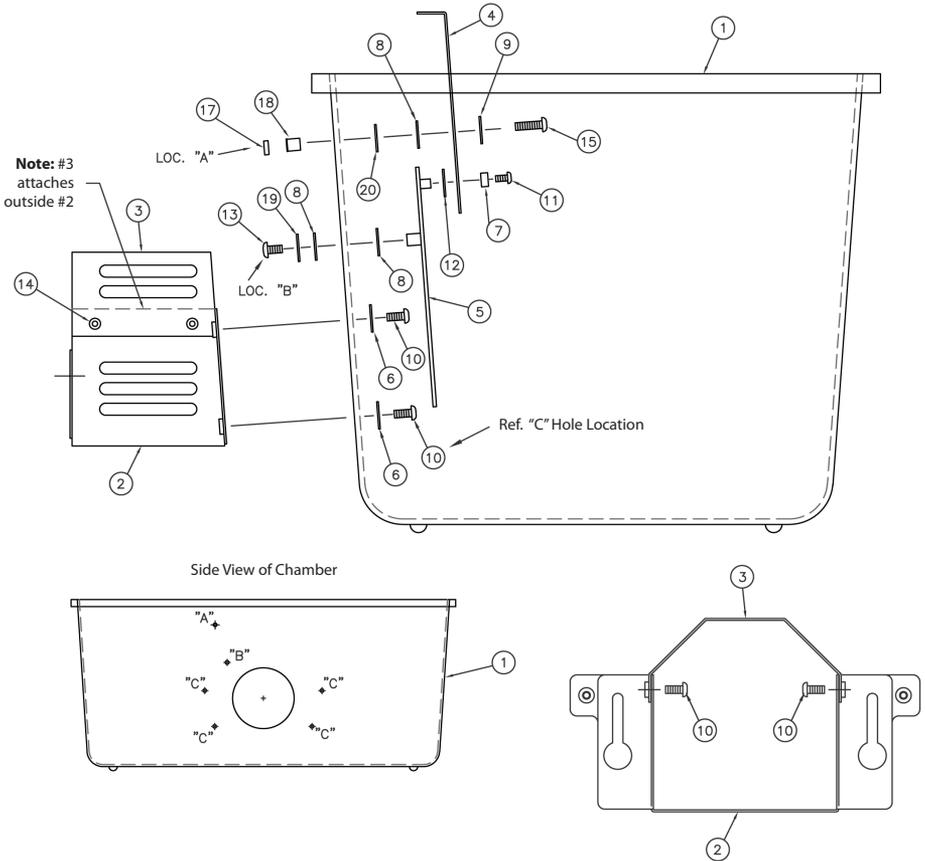


Item	Qty	P/N	Description
1	1	5-219-0082	Wheel Assembly
2	1	80850-2	Hatch Side Panel Assembly
3	1	80850-3	Sensor Side Panel Assembly
4	1	1-219-0082	Side Panel Mounting Bracket
5	4	1-219-0075	Wheel Spacer
6	8	4-212-506	#6-32 x 1/4" Pan Head Screw
7	2	1-219-5008	Knurled Thumb Screw
8	8	4-212-508	#6-32 x 7/16" Pan Head Screw

Lafayette Instrument Activity Wheel Systems

Figure 8: Chamber Tunnel & Hatch Assembly For Model 80852

These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.



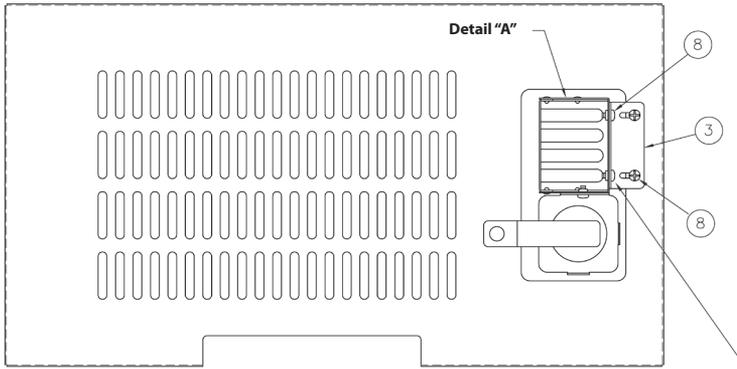
Item	Qty	P/N	Description
1	1	1-219-0079	Rat Living Chamber
2	1	1-219-0071	Tunnel Base
3	1	1-219-0072	Tunnel Cover
4	1	1-219-0070	Hatch Lever
5	1	1-219-0077	Swing Hatch
6	4	4-222-025	3/16 x 7/16 x .032" Nylon Washer
7	1	4-221-009	1/8" Long Aluminum Spacer
8	3	4-222-027	1/4" Nylon Spacer
9	1	4-221-216	#4 x 1/2 x 1/32" Flat Washer
10	4	4-212-091	#6-32 x 5/16" Pan Head Screw

Item	Qty	P/N	Description
11	1	4-212-504	#4-40 x 3/16" Pan Head Screw
12	1	4-221-078	.19 x 3/8 x 0.15" Spring Washer
13	1	4-212-096	#6-32 x 1/4" Pan Head Screw
14	4	PEMSP300	PEM SP-632-0
15	1	4-212-110	#4-40 x 1/2" Pan Head Screw
16	1	4-222-026	1/4 x 1/2 x .015" Nylon Washer
17	1	4-211-024	#4-40 Nyloc Nut
18	1	PEMSOS202	4-40 x .25 PEM Through hole
19	1	4-221-162	#6 x 3/8 x 1/32" Flat Washer
20	1	4-222-023	#8 x 3/8 x 1/32" Nylon Washer

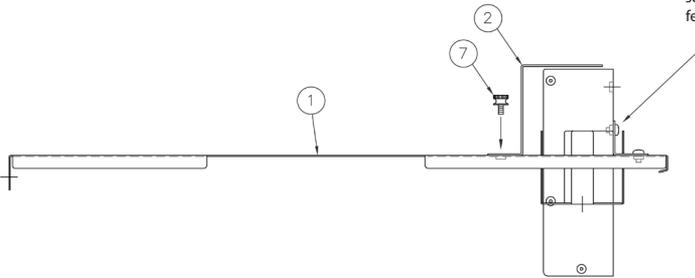
Cleaning Instructions

Figure 9: Chamber Cover Assembly For Model 80852

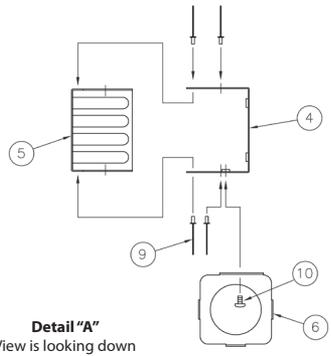
These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.



Note: Install (Item 8) screws in second set of feeder mounting holes



Item	Qty	P/N	Description
1	1	1-219-0080	Chamber Cover
2	1	1-219-0069	Bottle Holddown Bracket
3	1	1-204-0346	Feeder Mounting Bracket
4	1	1-204-0308	Feeder Housing
5	1	1-204-0309	Feeder Front Panel
6	1	1-204-0307	Water Bottle Holding Bracket
7	1	4-212-055	Knurled Thumb Screw
8	4	4-212-098	#6-32 x 3/16" Pan Head Screw
9	6	4-221-245	Rivet
10	2	4-212-117	#4-40 x 3/16" Pan Head Screw

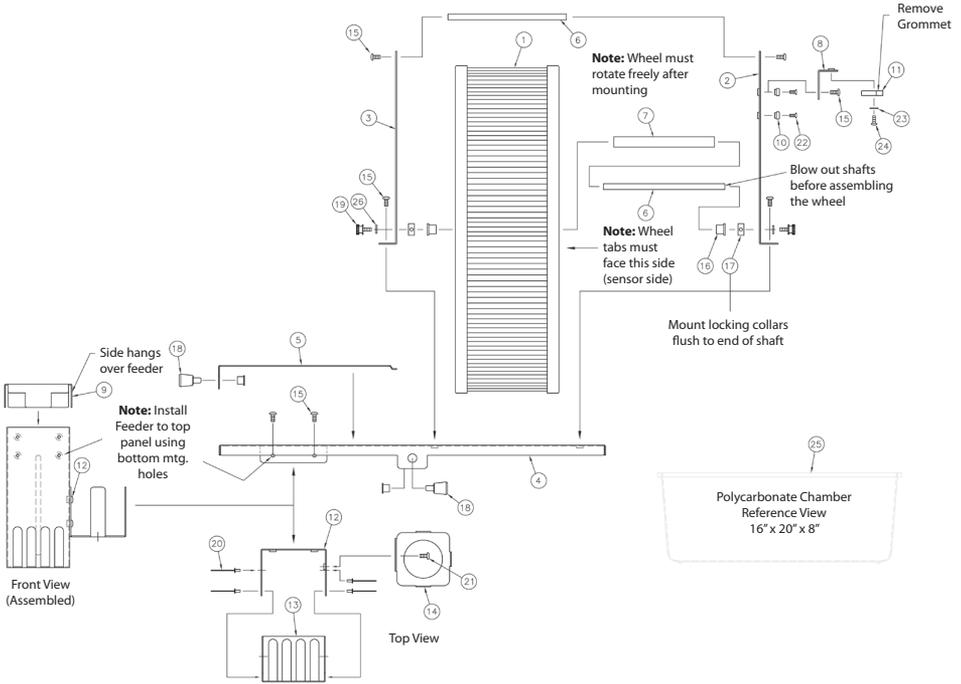


Detail "A"
View is looking down

Lafayette Instrument Activity Wheel Systems

Figure 10: Wheel & Chamber Assembly For Model 80859

These drawings and specifications are the property of Lafayette Instrument Company © and shall not be reproduced or copied or used as the basis for the manufacture or sale of apparatus or devices without permission.



Item	Qty	P/N	Description
1	1	5-219-0082	Wheel Assembly
2	1	1-219-0141	Wheel Side - Sensor
3	1	1-219-0140	Wheel Side - Plain
4	1	1-219-0139	Chamber Top Panel
5	1	1-204-0826	Chamber Hatch
6	2	1-219-0075	Shaft
7	1	1-219-0087	Shaft Cover
8	1	1-219-0084	Sensor Mounting Bracket
9	1	1-204-0520	Feeder Cover
10	2	1-204-0329	Mounting Key
11	1	860605	Sensor
12	1	1-204-0308	Feeder Housing
13	1	1-204-0309	Feeder Cover

Item	Qty	P/N	Description
14	1	1-204-0307	Water Bottle Mounting Bracket
15	14	4-212-133	#6-32 x 3/16" Pan Head Screws
16	2	4-222-300	Rulon Bearing
17	2	4-333-003	Locking Collar
18	2	4-134-035	Spring Plunger
19	2	4-212-055	#6-32 Knurled Knob
20	6	4-221-245	Pop Rivet
21	2	4-212-504	#4-40 x 3/16" Pan Head Screw
22	2	4-212-507	#6-32 x 3/8" Flat Head Screw
23	1	4-221-053	#4 External Lock Washer
24	1	4-212-590	#4-40 x 3/8" Pan Head Screw
25	1	4-137-013	Polycarbonate Chamber
26	2	4-221-066	Split Washer

Appendix 1: Sensor Adjustment for 86060S Optical Sensor

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 it is noticed that the LCD count 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. On a visual inspection, the lens of the sensor should be mounted slightly higher than the edge of the wheel. The sensor should be aimed directly towards the center of its wheel. It is recommended that the user clean the lens of the optical sensor with a clear soft cotton cloth before adjusting the sensor.



80820TL Sensor Adjustment Tool

Terms and Conditions

LIC Worldwide Headquarters

Toll-Free: (800) 428-7545 (USA only)

Phone: (765) 423-1505

Fax: (765) 423-4111

Email: sales@lafayetteinstrument.com

export@lafayetteinstrument.com (Outside the USA)

Mailing Address:

Lafayette Instrument Company

PO Box 5729

Lafayette, IN 47903, USA

Lafayette Instrument Europe:

Phone: +44 1509 817700

Fax: +44 1509 817701

Email: eusales@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 completed Return Form. A copy of the Return Form or your assigned Return # (you will receive this via email after submitting the form) must be included with the returned goods. The merchandise should be packed well and fully insured. 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. Returned products must be in saleable condition, and credit is subject to inspection of the merchandise.

Repairs

Instrumentation may not be returned without prior authorization by Lafayette Instrument Company and a completed Return Form. When you

complete the Form, or call Lafayette Instrument, you will receive a Return #. Your Return # 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 LIC PO Box. Items should be packed well, insured for full value, and returned along with a copy of the Return Form or the Return #. An estimate of repair will be given prior to completion ONLY if requested in an enclosed cover letter. We must have a completed 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.