



Lafayette Hydraulic Pinch Gauge

User's Manual

Lafayette Hydraulic Pinch Gauge

Introduction

The Lafayette Hydraulic Pinch Gauge was designed as a diagnostic tool to measure the strength of different pinch applications. The pinch gauge has a real time force needle and a peak hold needle. The real time force needle displays the current force being applied to the gauge. The peak hold needle displays the maximum force that was applied during the trial.

Operation

The therapist holds the rounded end of the gauge supporting the weight of the instrument with the pressure pad positioned toward the patient. The gauge must be “zeroed” before each trial. To zero the instrument turn the center knob counter-clockwise until the peak hold needle returns to zero. With the therapist still supporting the weight of the instrument, the patient applies pressure to the pinch block and pressure pad with the thumb and finger being tested.

Applications

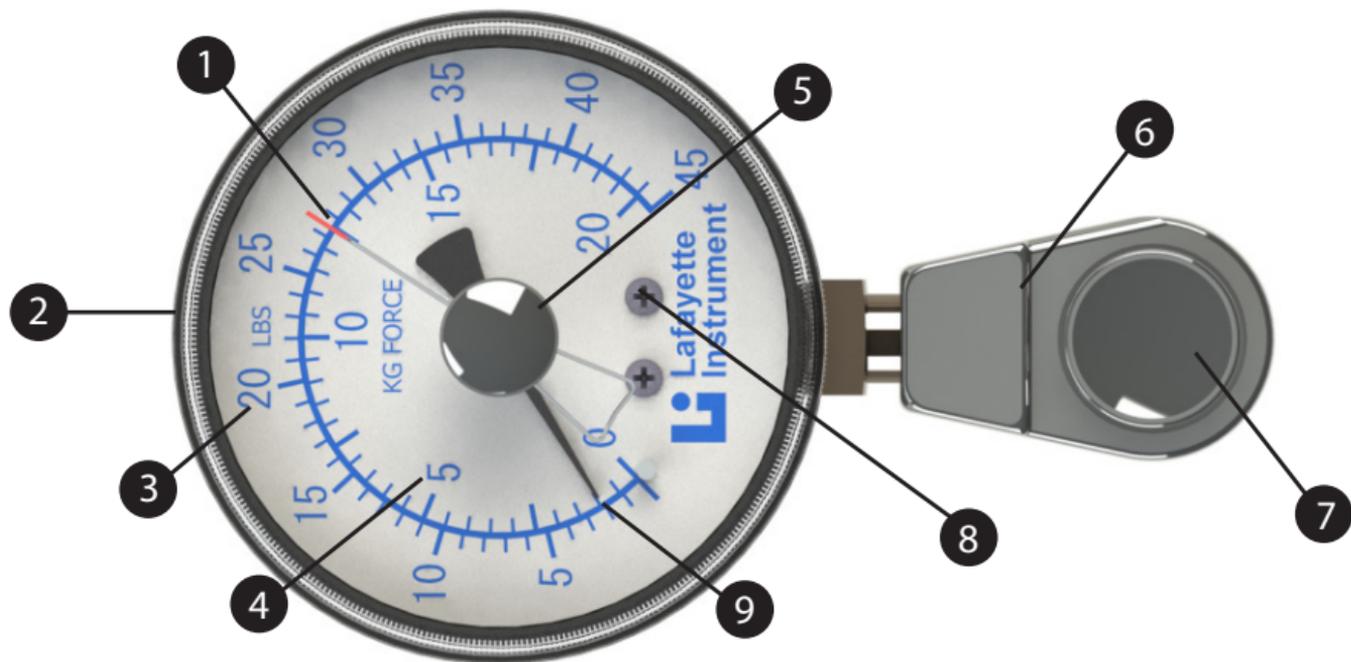
The patient should be seated with the test arm at the side of the elbow flexed at 90 degrees with the forearm and wrist in the neutral position.

The various pinch styles include

1. **Tip Pinch:** Test involving the tip of the thumb and the tip of each or any of the fingers making certain that the other fingers are not involved.
2. **Key Pinch:** Test involving the pad of the thumb and the PIP joint of the index finger.
3. **Palmar Pinch:** Test involving the pad of the thumb and the pads of the index and middle fingers.

Note: Lafayette Instrument Company recommends placing the patient's thumb on the pressure pad with the index and pointer fingers on the back when doing the Palmar Pinch test.

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Key

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|---------------------|---------------------------|
| 1. Peak Hold Needle | 6. Pinch Block |
| 2. Crystal | 7. Pressure Pad |
| 3. Pound Scale | 8. Zero Adjustment Screw |
| 4. Kilogram Scale | 9. Real Time Force Needle |
| 5. Peak-Hold Knob | |

Service Tips

The Lafayette Hydraulic Pinch Gauge is designed to provide reliable service, with minimal maintenance, over a period of many years. To make sure the instrument is reading accurately, it is recommended to make a few checks, occasionally, as listed below.

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Calibration

The instrument is calibrated at the factory using a custom calibration device. To ensure proper operation, the instrument should be returned to the manufacturer for calibration on a regular, preferably, annual basis. If the instrument has been dropped or there is some particular reason to suspect the calibration is in error, the instrument should be serviced by the manufacturer immediately.

Zero Reading

The gauge needle may be above or below the zero reading upon receipt of the instrument. The gauge on this instrument is sensitive to pressure changes due to changes in altitude and will most likely require an



Zero-Adjustment Screw

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adjustment to re-zero the instrument. Follow these steps to return the gauge needle to zero:

1. Unscrew (counter clockwise) and remove the lens from the gauge (the red peak-hold needle is attached to the lens)
2. Remove the handle (to prevent applying pressure during this process)
3. Place the instrument on a sturdy surface
4. Using a small slotted screwdriver, rotate the slotted screw counter clockwise in the gauge dial face until the needle is below zero (if it is already zero, turn the cam until it is slightly farther below zero)
5. Turn the screw in the reverse direction until the gauge needle is almost touching the zero line
6. Reattach the gauge lens and the handle
7. Pick up and squeeze to apply pressure to the instrument a few times
8. Place the instrument back on a sturdy surface and return the red peak-hold needle to zero by turning the center knob
9. Check to see that the red peak-hold needle is at zero
10. If the red peak-hold needle is not on zero, repeat the steps until the red peak-hold needle is at zero

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Red Peak-Hold Needle

Check for excessive friction in the red peak-hold assembly by turning the peak-hold knob in the lens counterclockwise. If the peak-hold needle deflects the gauge needle, return the instrument for service. Likewise, if the red peak-hold needle moves too freely, (i.e. spins without pressure applied) return the instrument for service.



Peak-Hold Needle

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Wrist Strap

The Lafayette Hydraulic Pinch Gauge is equipped with a wrist strap. Simply place your hand through the strap before pinching the pressure pad to protect the instrument from damage if dropped.

Cleaning

Cleaning with mild antibacterial soap and water is recommended. Do not soak or saturate the device with water. Handle can also be cleaned with an isopropyl alcohol wipe. Do not use alcohol on the plastic gauge faceplate or cover.

Disclaimer: The cleaning instructions for Lafayette Instrument products are a recommendation of compatible cleaning materials only. Product end users are responsible for instituting an appropriate cleaning regimen utilizing best practices and techniques. Lafayette Instrument assumes no responsibility for the cleanliness or sanitation of the products after initial use nor makes any claim that the use of the recommended cleaning materials mitigates all risk of potential cross infection.

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Hydraulics

Any sign of hydraulic oil is an indication of damage to the instrument which requires service by the manufacturer.

Hydraulic Fluid Exposure

Lafayette hand and pinch dynamometers are filled with a biodegradable, plant based hydraulic fluid. Under normal circumstances, the fluid is contained within the device and does not come into contact with the user or patient. If the device is damaged, the fluid can leak out and human exposure to the fluid is a possibility. The fluid is non-toxic and contains no chemicals known to cause cancer, birth defects or other reproductive harm. Despite the relative safety of the fluid, precautions should be taken to limit exposure. If exposure occurs, the following guidelines from the Material Safety Data Sheet (MSDS) of the fluid should be followed.

ORAL: DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.

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EYE: Flush with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

SKIN: Wash with soap and water. Remove contaminated clothing. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

INHALATION: Remove exposed person to fresh air if adverse effects are observed. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. If irritation persists, get medical attention.

Warranty

The Lafayette Hydraulic Pinch Gauge has a 1 year parts and labor warranty. Please contact our service department at service@lafayetteinstrument.com to schedule your yearly calibration or repair. Any attempt to service or calibrate outside of Lafayette Instrument will void the warranty.

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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

3700 Sagamore Pkwy N

Lafayette, IN 47904, 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

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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.

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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.

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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.

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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.