

MAN63502IR

Model 63502IR

Lafayette Timing Gate System

Instruction Manual



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Lafayette Timing Gate System

Description

The Model 63502IR Lafayette Timing Gate System generates an infrared beam that is reflected back using the supplied retroreflective target. When the beam is broken a low signal is output for use starting or stopping the LIC series of clock/counters.

Specifications

- 2 x AA batteries
- Battery life: ~75 hours
- Weight:
- Dimensions:
- Maximum Sensing Distance: 30 feet or more

Kit Includes

- Timing Gate System
- High Intensity Reflector
- Two Tripods
- Screwdriver

Accessories

- Small Switchmat Model, 63516A
- Economy Clock/Counter, Model 54060A
- Infrared Control Cable, Model 63501CBL

Operation

Set the 63502IR and reflector up so that there is a clear path between them. The reflector should be facing the 63502IR. The included tripods or other mounting devices may be used. By default, the 63502IR has a range of approximately 6 inches to 6 feet or more. If a greater range is desired, care must be taken with alignment and adjusting the sensitivity of the device. When the beam is broken, a low signal is output for starting or stopping the LIC series of clock/counters. When the "Low Battery" LED comes on, approximately 30 minutes of battery life is left.

Alignment

When the 63502IR is turned on, the "Beam Broken" LED will light up when the device cannot see the reflection of the IR beam. This can be due to the beam path being crossed or if the reflector is misaligned.

With ranges under 10 feet, it is often adequate to set up the 63502IR and reflector approximately where they are to be used and visually adjusting them until the "Beam Broken" light turns off, showing proper alignment.

Calibration for long distances

- Turn the sensitivity all the way up on the device (clockwise).
- Starting within a few feet, move the reflector away from the 63502IR. If the "Beam Broken" LED is on, adjust the 63502IR or the reflector to stay on the IR beam path.
- When the target distance has been reached, turn the sensitivity down all the way (counter-clockwise). The "Broken Beam" LED should turn on. Slowly turn the sensitivity adjustment back up until the "Beam Broken" LED turns off. Turn the sensitivity dial an additional 1/4 turn if possible.

Calibration for short and medium distances

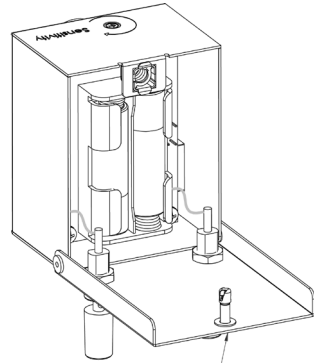
- Turn the sensitivity all the way down (counter-clockwise)
- Turn the sensitivity up just a little (approximately 1/8 of a turn)
- Test the shortest distance and longest distance that will be used. If the sensitivity is turned up too high, the 63502IR can reflect off of unintended surfaces and will not register a beam break.

Changing Batteries

Open the enclosure by turning the 1/4 turn knob on the back of the enclosure counter-clockwise and rotating the back panel open.

Use the supplied screwdriver to assist removing the used batteries from the battery holder. Replace them with new batteries.

To close the enclosure, rotate the back panel shut and push the knob into the receptacle and turn it clockwise to lock it closed.



1/4 Turn Counter Clockwise
To Open, Slot-Head Screwdriver

Wiring Instructions

Economy Clock/Counter (54060A)

The settings for the 63502IR to stop the 54060A are as follows (chosen options in **BOLD**) when using a Lafayette Instrument Model 63516A to begin the test:

- RUN: **NO** NC
- START: NO **NC**
- STOP: **NO** NC
- RESET: **NO** NC
- TONE: **OFF** ON
- START: **SNGL** REP

Recommended accessories for specific setup

- Small Switchmat, Model 63516A
- Economy Clock/Counter, Model 54060A
- Infrared Control Cable, Model 63501CBL

For a 40 yard dash, connect a Lafayette Instrument Model 63502IR's black output binding post to any ground port of the 54060A. Connect the red output binding post of the 63502IR to the STOP input port on the 54060A. Connect the Lafayette Instrument Model 63516 black wire to any other ground port of the 54060A. Connect the red wire to the START input port of the 54060A. When the runner steps off of the switch mat, the clock on the 54060A will begin to run until the beam produced by the 63502IR is broken. Thus, the clock will halt.

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 *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.
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.