

Model 51013

DUAL REPEAT CYCLE TIMER

USER INSTRUCTIONS



3700 Sagamore Parkway North
P.O. Box 5729 • Lafayette, IN 47903 USA
Tel: 765.423.1505 • 800.428.7545
Fax: 765.423.4111
E-mail: info@lafayetteinstrument.com
www.lafayetteinstrument.com

Description:

These timers contain two solid-state timing circuits acting upon a single relay output with two sets of contacts. Single timed intervals may be initiated either from a front panel push-button or from external contacts on the rear panel. The repeat/single mode switch may be placed in the repeat mode for continuous recycle operation of ON/OFF/ intervals until returned to the single mode.

System Specifications:

Timing Ranges (ON/OFF)	At x 0.01	0.01-9.99 in 0.01 second increments
	At x 0.1	0.1-99.9 seconds in 0.1 second increments
	At x 1.0	1.0-999.0 seconds (0:16:39) in 1 second increments
	At x 10.0	10.0-9,990. Second (2:46:30) in 10 second increments

Accuracy: 0.1% ± 1 LSD

Repeatability: 0.1% ± 1 LSD

Rear Panel Connections: External Initiate NO-C-NC relay contacts (2 sets)

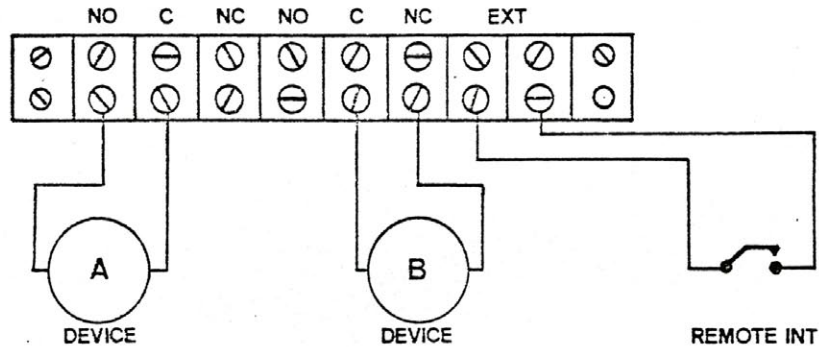
Contact Rating: 5 amps at 26V DC
3 amps at 115V AC

Operation:

Operation as a single interval timer:

1. Connect the timer to a properly grounded AC outlet rated at 115V AC 60 Hz (230 V AC 50 Hz for models 51012*C and 51013*C).
2. Place the INTERVAL/REPEAT switch on INTERVAL.
3. Turn the power switch ON.

4. Select the desired range (Model 51013 only) and the ON interval via the 3 decade switches or thumb-wheel switch. (NOTE: the OFF interval setting has no influence on this mode of operation.)
5. Connect the peripheral equipment to be controlled as shown.



6. Initiate the time interval either by momentarily depressing the front panel push-button or the remote initiate switch.

The relay is energized at the start of the ON interval. A green front panel LED signals this activation.

- i. Device A will be turned ON for the selected interval.
- ii. Device B will be turned OFF for the selected interval.

Operation as a repeat cycle timer:

1. Place the INTERVAL/REPEAT switch on REPEAT
2. Select the desired range (Model 51013 only), the 'ON' interval, and the 'OFF' intervals as desired
3. Connect peripheral equipment to be controlled as shown in step 5 above.
4. Activate the timer via either the front panel pushbutton or the remote initiate switch.

The relay is energized at the start of the ON interval. At the end of the ON interval, the OFF interval is automatically initiated. At the end of the OFF interval, the ON interval will be reactivated.

The ON/OFF intervals will continue to cycle back and forth until the Interval/Repeat switch is placed in the INTERVAL position. Once switched the timer, that is running, will continue to time out before the unit is deactivated.

Lafayette Instrument Dual Repeat Cycle Timer

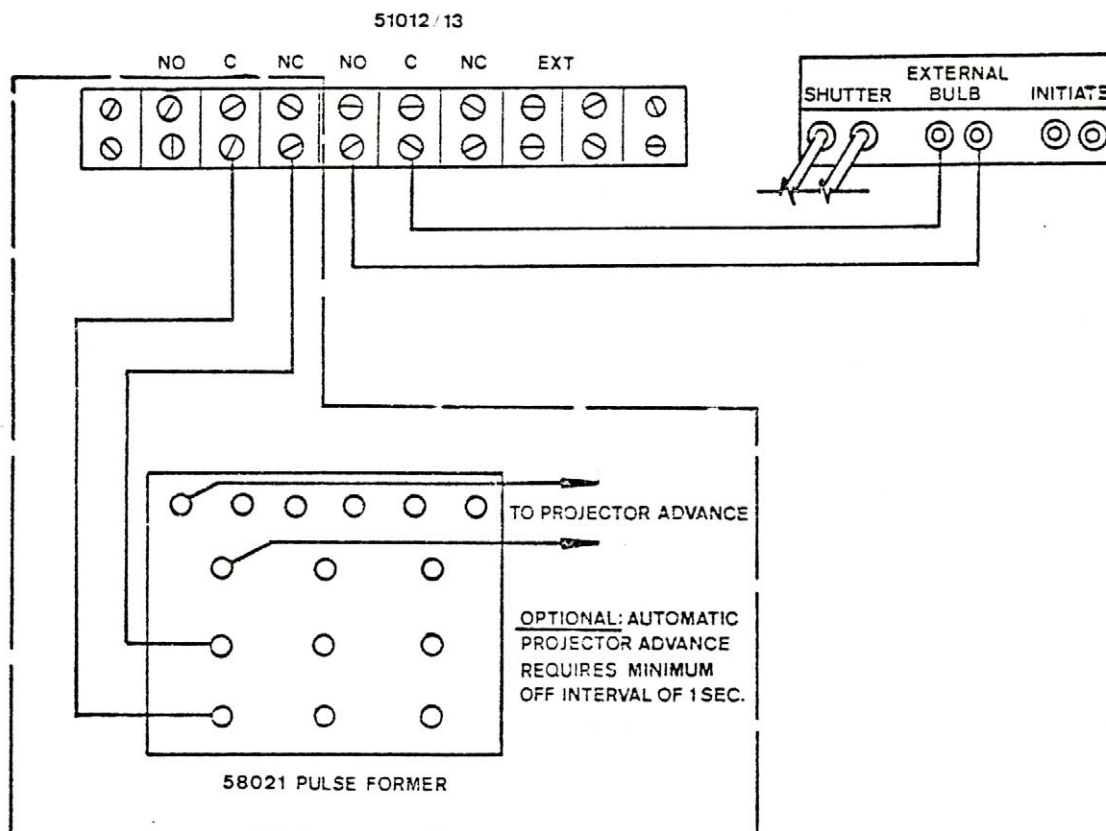
EXAMPLE WITH 43016 TACHISTOSCOPE

Purpose: To provide a 200 ms exposure out of each 5.0 second interval.

Settings:

- Range (51013 only) x 0.1 seconds
- ON Time x 0.2 seconds
- OFF Time x 4.8 seconds

Connections:



Notes:

Lafayette Instrument Dual Repeat Cycle Timer

Model 51013 User's Manual

Ordering Information:

All phone orders must be accompanied by a hard copy of your order. All must include the following information:

- 1) Complete billing and shipping addresses
- 2) Name and department of end user
- 3) Model number and description of desired item(s)
- 4) Quantity of each item desired
- 5) Purchase order number or method of payment
- 6) Telephone number

DOMESTIC TERMS

There is a \$50 minimum order. Open accounts can be extended to most recognized educational institutions, hospitals and government agencies. Net amount due 30 days from the date of shipment. Enclose payment with the order; charge with VISA, MasterCard, American Express; or pay COD. We must have a hard copy of your order by 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 transfer to our account; charge with VISA, MasterCard, American Express; or confirmed irrevocable letter of credit. Proforma invoices will be provided upon request.

RETURNS

Equipment may not be returned without first receiving a Return Goods Authorization Number (RGA).

When returning equipment 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, U.S.A. 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.

Please also state the name of the Lafayette Instrument representative authorizing the return. 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.

WARRANTY

Lafayette Instrument guarantees its equipment against all defects in materials and workmanship to the ORIGINAL PURCHASER for a period of one (1) year from the date of shipment, unless otherwise stated. During this period, Lafayette Instrument will repair or replace, at its option, any equipment found to be defective in materials or workmanship. If a problem arises, please contact our office for prior authorization before returning the item. This warranty does not extend to damaged equipment resulting from alteration, misuse, negligence or abuse, normal wear or accident. In no event shall Lafayette Instrument be liable for incidental or consequential damages. There are no implied warranties or merchantability of fitness for a particular use, or of any other nature. Warranty period for repairs or used equipment purchased from Lafayette Instrument is 90 days.

DAMAGED GOODS

Damaged equipment should not be returned to Lafayette Instrument prior to thorough inspection.

When 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. When damage is not detected at the time of delivery, contact the carrier and request an inspection within 10 days of the original delivery. Please call the Lafayette Instrument Customer Service Department for a return authorization for repair or replacement of the damaged merchandise.



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Lafayette Instrument Co. Europe
4 Park Road, Sileby,
Loughborough, Leics., LE12 7TJ. UK.
Tel: +44 (0)1509 817700
Fax: +44 (0)1509 817701
E-mail: EUsales@lafayetteinstrument.com