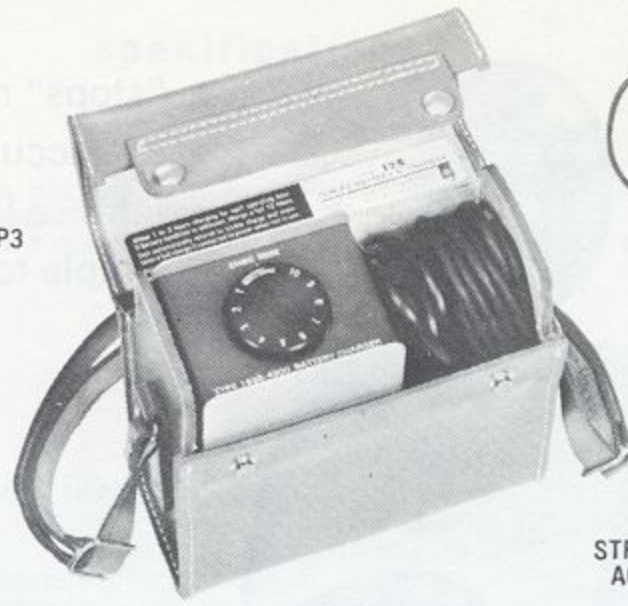


Type 1538-A STROBOTAC®

electronic stroboscope

- flashing rates up to 150,000 per minute
- speed measurements to 1 million rpm
- battery or power-line operation
- remote flash lamp on extension cable
- extra-high-intensity single flash for photography

1538-P3



1538-P2

1538-A
STROBOTAC AND
ACCESSORIES

1538-A

1538-P4



The 1538-A Strobotac is able to satisfy a broader range of applications than the 1531-A. In addition to its higher maximum flashing rate, it has several accessories available for extending its performance and convenience. It can be operated from a power line, or, if there is no power outlet nearby, from the rechargeable battery pack. The accessory extension lamp is useful in illuminating hard-to-reach areas.

This stroboscope is ideally suited for photographic applications requiring a high light intensity. With the 1538-P4 High-Intensity-Flash Capacitor, it produces 8-microsecond flashes of 44 million beam candelas at one-meter distance. This results in a guide number of about 250 when a film rated at ASA 3000 is used.

The 1538-A circuits are all transistorized. This not only makes possible battery operation but also ensures greater stability of the flashing rate.

The flash can be triggered externally by a simple con-

tact closure across the input terminals, by a positive pulse, or by a sine wave. With a photoelectric pickoff, the flash can be triggered by pulses that are synchronized with a mechanical motion. The 1537-A Photoelectric Pickoff connects directly to the 1538-A and contains a light-activated switch but no light source. The 1536-A pickoff contains a photocell and light source, for which power is supplied by the 1531-P2 Flash Delay. With this combination, an adjustable delay is introduced between the time a selected point on a moving object passes the pickoff and the time at which the Strobotac flashes. Three-way synchronization of the camera shutter, the mechanical motion, and the Strobotac flash is a very useful feature of this combination. Both the Strobotac and the 1538-P4 High-Intensity-Flash Capacitor are equipped with sockets for attaching the two together and for tripod mounting.

— See *GR Experimenter* for April 1966.

specifications

Flashing-Rate Range: 110 to 150,000 flashes per minute in four direct-reading ranges: 110 to 690, 670 to 4170, 4000 to 25,000, and 24,000 to 150,000 rpm. Speeds to 1 million rpm can be measured.

Accuracy: $\pm 1\%$ on all ranges after calibration on 670- to 4170-rpm range against 50- or 60-Hz line frequency.

Flash Duration: Approx 0.5, 0.8, 1.2, and 3 μs for high-to-low speed ranges, respectively, measured at $\frac{1}{3}$ peak intensity; 8 μs for single flashes with 1538-P4 High-Intensity-Flash Capacitor.

Peak Light Intensity: Typically 0.16, 1, 5, and 15 million beam candelas (0.16, 1, 5, and 15×10^6 lux measured at 1 meter distance at the beam center) for high-to-low speed ranges, respectively; 44 million beam candelas at 1 meter for single flash, with 1538-P4 High-Intensity-Flash Capacitor.

Reflector Beam Angle: 10° at half-intensity points.

Output Trigger: Greater than 6-V positive pulse behind 400 Ω .

External Triggering: Either a switch closure across the input jack terminals, a 1-V (peak) positive pulse, or a 0.35-V (rms) sine wave down to 100 Hz increasing to 3.5 V (rms) at 5 Hz.

Power Required: 100 to 125 or 195 to 250 V, 50 to 400 Hz, 15 W (max) or 20 to 30 V dc, 12 W (max).

Accessories Available: 1538-P2 Extension Lamp, 1538-P4 High-Intensity-Flash Capacitor (1538-P2 and -P4 cannot be used simultaneously), 1538-P3 Battery and Charger, 1531-P2 Flash Delay, 1536-A Photoelectric Pickoff (use with flash delay), 1537-A Photoelectric Pickoff, and 1539-A Stroboslave® stroboscopic light source.

Mounting: Flip-Tilt Case.

Dimensions (width x height x depth): $10\frac{5}{8} \times 6\frac{5}{8} \times 6\frac{1}{8}$ in. (270 x 170 x 160 mm).

Weight: Net, $7\frac{1}{4}$ lb (3.3 kg); shipping, 10 lb (4.6 kg).

Catalog Number	Description	Price in USA
	1538-A Strobotac® electronic stroboscope	
1538-9701	115-V ac Model	\$545.00
1538-9702	230-V ac Model	545.00
1538-9601	1538-P1 Replacement Strobotron flash lamp	15.00
1538-9602	1538-P2 Extension Lamp	65.00
1538-9603	1538-P3 Battery and Charger	315.00
1538-9604	1538-P4 High-Intensity-Flash Capacitor	95.00
1560-2101	1560-P76 Patch Cord , connects output of 1538 to input of another 1538 or 1531 Strobotac, a 1539 Stroboslave, or a 1531-P2 Flash Delay.	3.00

PATENT NOTICE. See Notes 6, 22, 30.