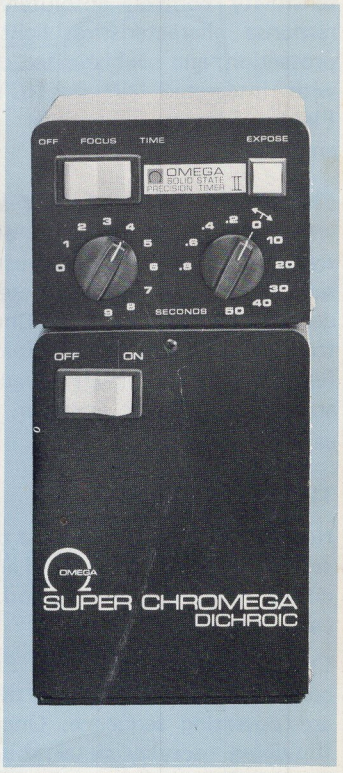
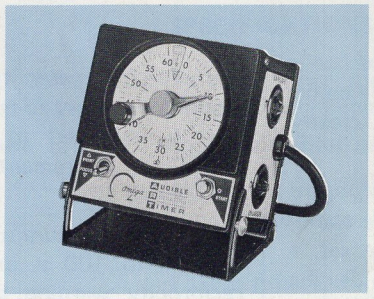
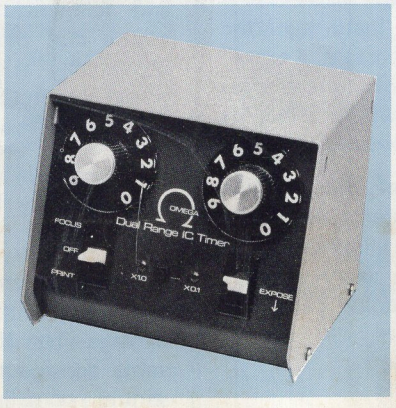
OMEGA

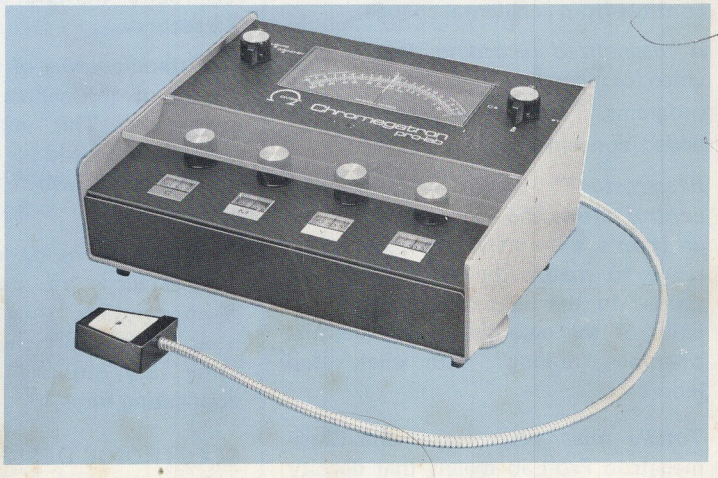
DARKROOM INSTRUMENTATION

Color analyzers, exposure meters and enlarging timers









CHROMEGATRON PRO-LAB

The Chromegatron Pro-Lab is a professional, photomultiplier type color analyzer and exposure meter. Its advanced design and high quality afford outstanding accuracy, sensitivity, repeatability and reliability. At the same time, operation of the analyzer is simple and convenient.

The analyzer has a very small, adjustable probe; a stainless steel clad glass fiber optic light pipe; Electrostop ™ sensitivity control; absolutely linear response characteristics; light shock protection; and sophisticated circuitry with integrated circuits (IC's), and Field Effects Transistor (FET) amplifier.

The characteristics of this analyzer were developed on the basis of extensive market research from which design and operational parameters were determined. As a result, the Chromegatron Pro-Lab has a combination of features and advantages unequalled in any other on-easel analyzer. Specifically, these are:

Chromegatron Pro-Lab Color and Exposure Analyzer.

THE INSTRUMENT

Human engineering and ease of use is evident in every control. All are color-coded, fully illuminated and clearly calibrated.

Cyan, Magenta, Yellow and Exposure control knobs are in-line, in the standard operating sequence. Once set, a flip-down acrylic panel shields the controls from accidental change.

A magnetized recording slate is provided for recording up to three analyzer programs. The slate is removable for added convenience.

Electrostop™ electronic diaphragm control allows the user to position the analyzer's extremely wide sensitivity range to match the instrument's response to the light output characteristics of the enlarger. It also permits precise "nulling" with click stop lenses.

Totally linear response of the Chromegatron Pro-Lab means that density and density changes can be directly read and adjusted to precise CC filter values.

An oversize meter features a 5½", illuminated, easy-to-read face. Filtration is indicated to plus or minus 100CC, in increments of 2.5; fully readable to 1CC.

Wide band exposure scale is calibrated from 1 to 100 seconds, with a red reciprocity warning band from 1 to 5.5 seconds.

Anti-static coating of the meter face is typical of the deluxe features of the instrument. This important "extra" prevents the build-up of static charges on the meter, which would affect its accuracy.

The standby mode of the function control turns off meter illumination when printing, thus eliminating the need to turn off the analyzer when using very sensitive color papers or duplicating films.

ELECTRONIC DESIGN

Integrated circuits and an F.E.T. (Field Effects Transistor) amplifier are used to give the analyzer its impressive performance characteristics. These space age components are the electrical equivalent of well over 100 individual transistors.

Printed circuit board construction for long, trouble-free operating life and easy servicing. A single, plug-in circuit board carries all the electronics.

Built-in solid state voltage stabilization and temperature stable components ensure that the analyzer will operate dependably and consistently, despite power line fluctuations and under continuous professional use.

No warm up means that the instrument is ready for use the instant it is turned on.

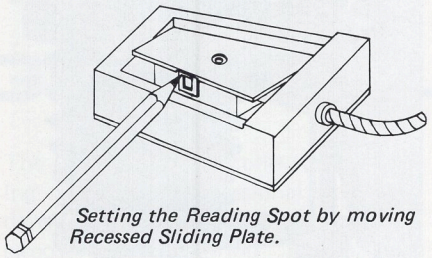
Light shock protection and fused circuitry guards this fine analyzer against damage. The light shock circuit prevents damage or calibration changes, should room light be turned on with the analyzer in use. An external fuse protects against damage from short circuits.

THE PROBE

The reading probe is extremely compact for accurate and convenient positioning on the reference area of the projected image. Features of the probe include:

A low profile for accurate reading close to the actual paper plane. The probe is about a half-inch high, made possible by locating the photo-multiplier within the analyzer.

Weighted base, white surface finish. The probe is weighted to remain in place when positioned on the easel. Locating reference areas within the projected image is simplified by the reflective white surface finish.



Setting the Reading Spot by moving Recessed Sliding Plate.

Two reading spots (3mm AND 5mm) are provided. For most enlargements, a 3mm reading area ensures highest accuracy and selectivity. For very large prints, a 5mm area is more appropriate. By merely moving a sliding plate, either setting is available. This adjustment is recessed to prevent inadvertent change.

Cosine correction is built in to ensure reading consistency even if the selected reference area is at the edges of the projected image, away from the lens axis. Without cosine correction, when the probe is moved away from the lens axis the analyzer's response varies as light rays strike the reading area at increasingly greater angles. With cosine correction, light rays continue to strike the reading spot at a perpendicular.

Magnetized bottom contact surface permits the probe to be conveniently stored on the analyzer top panel when not in use. Moreover, when using steel easels, the probe offers additional adherence to keep it accurately positioned on a reference area.

GLASS FIBER OPTICS

A fine glass prism directs light falling onto the probe into a four foot glass fiber optics light pipe.

Stainless steel armor fully covers the light pipe, from probe to analyzer input. This protects it from mechanical damage and stress.

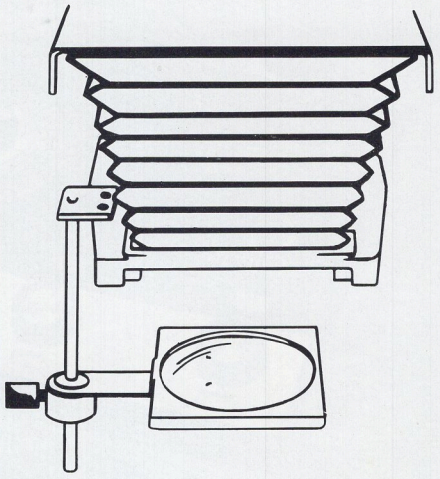
Extra-long, 4′ light pipe gives long reach capability for bench or wall mounted analyzer installation.

PACKAGING

A two-tone, steel and aluminum housing encloses the instrument. It combines good looks with heavy duty protection.

A tilt-up bracket on the underside of the instrument permits it to be raised for better visibility when working from a seated position. The bracket also permits the analyzer to be conveniently wall-mounted.

INTEGRATED READINGS

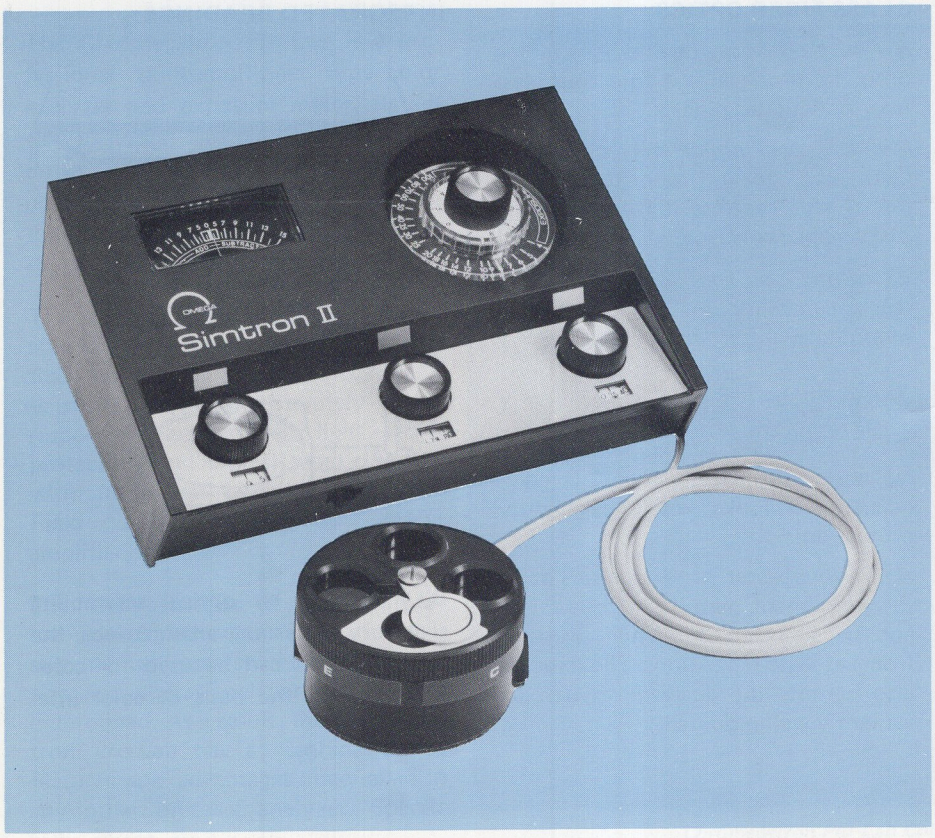


By mounting an optical scrambling accessory under the enlarger lens, the Chromegatron can be used for color analyzing on the basis of color integration.

SPECIFICATIONS

Type	Photomultiplier, spot reading (area analysis with integrator attachment)
Reading Aperture	Adjustable: 3mm or 5mm
Sensitivity	0.000001 Footcandles (10^{-5})
Probe	Compact, low profile, with cosine correction control
Light Pipe	4′ Glass Fiber Optics with stainless steel armor
Circuitry	Solid State Modular on PC board
Warm-up	Instantaneous
Readout	Illuminated, 5½" anti-static coated meter
Line Input	120/220VAC, 50/60 Hz.
Voltage Stabilization	Internal, 95-135v at 120v nominal
Power Consumption	10 Watts
Fuse	3AG, 250V, .250A
Dimensions	9"x11"x5¾"
Chromegatron Pro-Lab	Cat. No. 414-017
Integrating Attachment	Cat. No. 429-157

SIMTRON II



Simtron II Color Analyzer and Exposure Meter

The analyzer is a simple-to-use, highly accurate instrument which determines precise color balance on the basis of color integration. Operation is similar to the principle used in costly automatic photofinishing color printers. Analyzing on the basis of color integration is preferred by many darkroom enthusiasts since this method permits printing a wide variety of subject matter with a very high percentage of acceptable first prints. Using an integration-type analyzer also does not require the careful selection of specific color references needed for spot-type analyzers.

The analyzer reads by means of a CdS cell housed in a high-impact, ABS probe assembly. This assembly also incorporates color and exposure reading filters and a selector to automatically switch channels as filters are positioned for reading. The selected channel is clearly identified by an illuminated letter at the side of the probe. In addition, a convenient swing-away target with an integral alignment stop is a valuable aid for finding the desired reference area of the projected image when determining exposure. Another important feature not normally found on low cost analyzers is the use of infrared cut-off filters to match the analyzer's response to the emulsion characteristics of color papers.

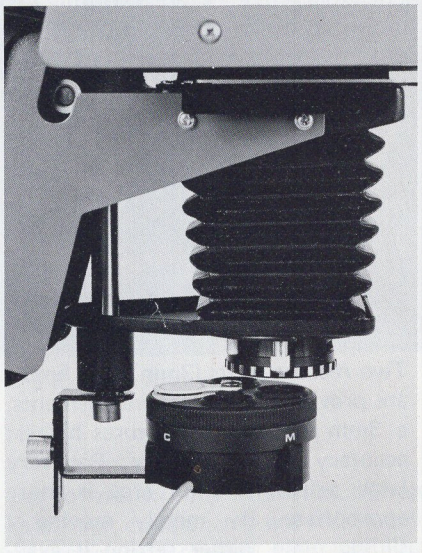
SUBJECT FAILURE CORRECTION

Among the Simtron II's unique advantages is a "subject failure" operating mode which permits negatives with dominant colors to be easily and accurately analyzed.

HUMAN ENGINEERED CONTROLS

All the analyzer controls are large, color coded and illuminated. Color controls are calibrated so that they can be changed, yet easily re-set. Similarly, the exposure control has a calibrated paper speed scale for different papers and emulsions.

The Simtron II has an illuminated 2½" meter scale, using a rugged and accurate D'Arsonval movement on jeweled bearings. The meter face has a special anti-static coating to prevent the build-up of static electricity that can affect meter accuracy. Although the Simtron is a nulling instrument, in which the meter needle is simply brought to zero to balance for color and exposure, the scale is fully calibrated in increments of 2.5cc from 0 to 5 and in 1cc to 15. This gives the user a visual indication of how much filtration must be added or subtracted to get an acceptable print.



Reading Probe mounted on bracket for Chromega B Enlarger.

SPACE-AGE COMPONENTS

Electronically, analyzer design incorporates advanced integrated circuits (IC's) and other precision components, including 1% resistors in the critical measuring circuits. The Simtron II requires no warm-up and circuitry is temperature stable.

Built-in voltage stabilization is provided to ensure consistent operation despite power line fluctuations.

Construction is modular, with all electronics mounted on a single, plug-in printed circuit board for optimum reliability. An internal fuse provides short circuit protection.

In addition to printing color negatives, the Simtron II can be used in making R-type prints and for determining exposure in black and white work.

The analyzer is enclosed in a handsome black and brushed aluminum housing. It takes up only 5" x 8" of bench area and can also be wall mounted by means of a wall bracket incorporated in the base. The Simtron II weighs 3 lbs. and operates from 120/220 VAC, 50/60 Hz.

It is supplied complete with a mounting bracket for the Omega B-22, Super Chromega B or Super Chromega C. Brackets for other enlargers are available.

SIMTRON II SPECIFICATIONS

Line Input	117/220VAC, 50/60 Hz.
Power Consumption	8 Watts
Circuitry	Solid State, Internally grounded and fused
Meter	2½" Illuminated, null type, anti-static coated
Housing	High Impact ABS
Sensor	CdS Cell
Probe	Combination Color and Exposure with Automatic Switching System, illuminated
Sensitivity Range	6 f/stops
Dimensions	5"x8"x2"
Net Weight	3 lbs.
Catalog Number	414-007

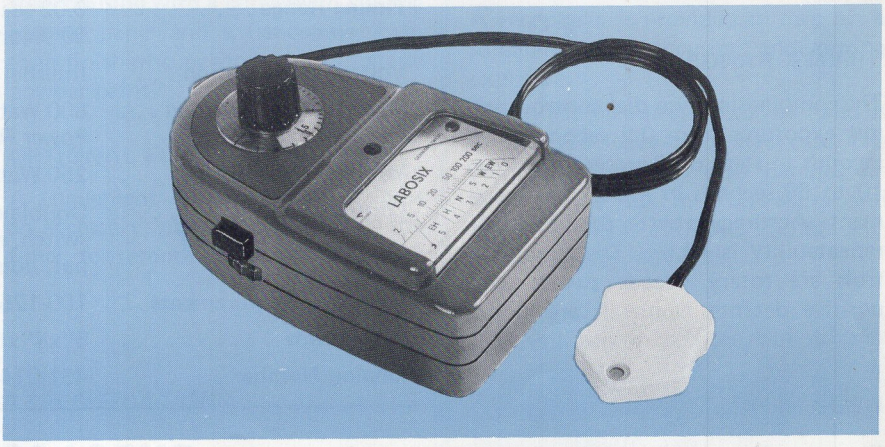
GOSSEN LABOSIX

The Gossen Labosix solid state enlarging meter is a professional darkroom densitometer for determining precise exposure. In addition, it measures negative contrast and determines correct paper grade selection. While primarily intended for black and white printing, the Labosix determines color print exposures just as well. Use of this instrument greatly speeds enlarging, eliminates exposure guesswork or trial and error printing, and minimizes waste of paper and chemistry. With ever-rising costs, the use of this instrument makes good sense since it can pay for itself by savings in time and materials.

The Labosix operates from line current, requires no warm-up and has built-in voltage stabilization. Readings are taken by means of a compact probe which is easily and accurately positioned on a reference area of the projected image.

Exposure, contrast and paper selection data are displayed on a large, 2½" illuminated meter. This affords a degree of precision unobtainable with glow-lamp enlarging meters. The Labosix indicates exposure in seconds, from 1 to 200, permitting the user to vary exposure time or diaphragm settings, as desired. There is no need to work to a fixed f/stop and interpolate.

The Labosix controls include variable meter illumination and an easy-to-set illuminated paper speed control. Illumination is provided by a unique electroluminescent panel which gives a glare-free light without danger of paper fogging.



Labosix Enlarging Exposure Meter

LABOSIX SPECIFICATIONS

Type	Solid State enlarging densitometer with CdS probe.
Exposure Range	1 – 200 Seconds
Reading Area	4mm
Voltage Stabilization	Internal
Controls	On/Off Switch; Paper Program Control; Illuminated Paper Index Scale; Illuminated Meter Variance; Dial Light Controls
Electrical Requirements	95-135VAC, 50/60 Hz.
Dimensions	2-1/8"x5-1/4"x3-1/2"
Catalog Number	130-065

CHROMEGA
SOLID STATE PRECISION TIMER II

Omega's finest electronic timer, this unit was designed and engineered to meet the exacting requirements of professional color printing. It is a heavy-duty timer for constant, day-in day-out use. Moreover, the Chromega Solid State Precision Timer II is an integrated part of the Super Chromega Dichroic color enlarging system. The timer's configuration permits it to be mounted on top of the power supply of all Super Chromega "C", "D", and "E" color enlargers by means of a ball stud connector supplied with the timer. This space saving arrangement conveniently groups all operating controls and eliminates the normal tangle of interconnecting cables. Of course, the timer can be used with all other types of enlargers as well.

The timer's circuitry is all solid state with built-in line voltage regulation to maintain accuracy during line voltage fluctuations. Electronics are mounted on a modular, plug-in printed circuit board for high reliability and ease of service.

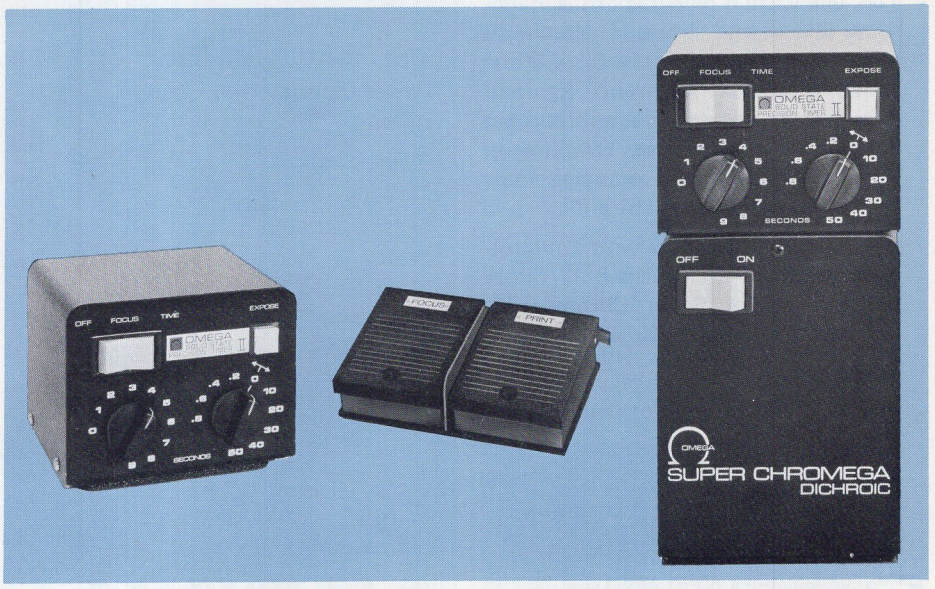
TIMING RANGE

The combination two-dial controls permit exposures from 0.2 second to 10 seconds in steps of .2 second and from 10 to 59 seconds in full-second increments. Accuracy is better than 1% while repeatability is +0.5%. The time controls are rotary decade switch with positive detents. Numerals are luminous for high darkroom visibility.

DOUBLE FOOTSWITCH

The timer is supplied with a heavy duty double pedal footswitch for remote control of both focus and expose functions. The footswitch has a 6 foot safety grounded cord with molded connector. Focus and exposure functions can also be controlled directly from the timer control panel.

Professional quality and construction is evident in the mechanical specifications. The timer is housed in a steel enclosure finished in super-tough, electrostatic powder paint. Both the timer and the footswitch have non-skid base pads.



Chromega Solid State Timer with Double Footswitch. Also shown mounted on Chromega D Power Supply.

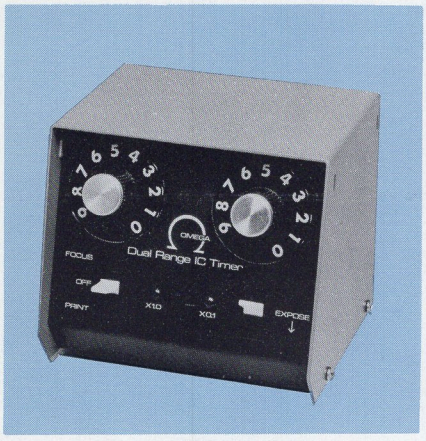
CHROMEGA SOLID STATE PRECISION TIMER II SPECIFICATIONS

Type	Electronic, with solid state components on plug-in PC board
Timing Range	0.02 sec. to 10 sec. in increments of .02 sec., 10 to 59 seconds in full-second increments
Voltage Stabilization	Internal
Maximum Timed Load	600 Watts (increased to 1000 Watts with optional Power Relay)
Maximum Safelight	250 Watts
Controls	Double decade timing dials, off/focus/time rocker switch, expose button, safelight outlet, enlarger input, double footswitch with molded connector.
Electrical Requirements	100-125 VAC, 50/60 Hz.
Dimensions	5"x4"x6"
Catalog Number	461-014

OMEGA POWER RELAY
For All Enlarging Timers

Increase the load carrying capacity of any enlarging timer by the use of this power relay. Extends current switching capacity to over 1000 watts, allowing the use of large format enlargers such as the Super Chromega F Dichroic (8"x10") with the Chromega Solid State Precision Timer II. The power relay works with all enlargers and all timers. It is equipped with timer and enlarger connector cords and a 6-foot line cord with tinned leads for direct connections to voltage stabilizer terminals or to power line junction box. The Power Relay measures 3-1/4" x 4" x 3-1/2". Order Cat. No. **412-022.**

DUAL RANGE IC TIMER



The Dual-Range IC (Integrated Circuit) Timer is a professional quality universal enlarging timer for all black and white and color enlargers. Although designed for professional use, it is priced well within the reach of serious home darkroom enthusiasts.

The timer has solid state components and employs sophisticated integrated circuits that afford precise timing, assured repeatability and high reliability. The timer is voltage stabilized to maintain timing accuracy in spite of power line fluctuations.

The timer provides two timing ranges: 0.1 to 9.9 seconds in 1/10th second, and 0 to 99 seconds in full second increments. Accuracy is within ±2% and repeatability is ±1%.

ILLUMINATED INDICATORS

Special black-out dials display the selected setting in large, easy-to-read, illuminated numerals. All other numbers are blacked out, Illumination is darkroom safe for even the most sensitive papers.

CONVENIENT CONTROLS

In addition to the unique timing dials, the instrument features a large focus/print selector and a toggle-type expose control. A slide switch selects the desired timing range. The timer has an automatic safelight outlet to turn off safelight for focusing and during exposure.

SUPERIOR CONSTRUCTION

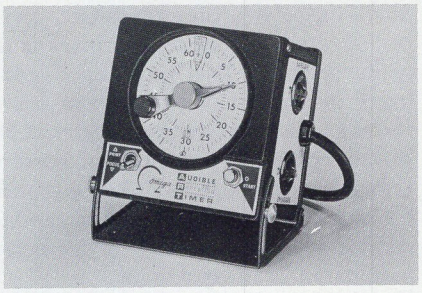
The Dual Range IC Timer is mechanically and electrically superior to competitive models. Components are mounted on a glass epoxy, modular printed circuit board, wave soldered for reliability. The timer has a modern steel housing with a convenient sloping control panel and a handsome, two-tone finish of super-tough electrostatic powder paint.

OPTIONAL FOOTSWITCH

A convenient footswitch, available as an accessory, plugs into the rear of the timer, for remote expose control.

DUAL-RANGE IC TIMER SPECIFICATIONS

Type	Electronic, with solid state components and integrated circuits on wave soldered PC board
Timing Range	Dual: 0.1-9.9 sec. and 0-99 sec.
Voltage Stabilization	Internal
Maximum Timed Load	600 Watts
Maximum Safelight	100 Watts
Controls	Illuminated decade timing dials, focus/off/print switch, spring loaded exposure toggle, range switch, safelight outlet, enlarger input, footswitch connector
Electrical Requirements	95-130VAC, 50/60 Hz.
Dimensions	4¾"x5¾"x5¼"
Catalog Number	461-019
Accessories	Remote Footswitch (Cat. No. 461-060)

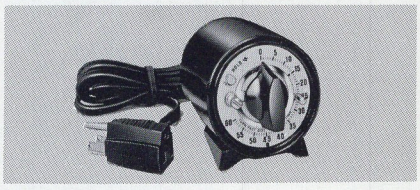


AUDIBLE REPEATING TIMER

A standard in countless professional darkrooms, this timer provides accuracy, reliability and convenience at moderate cost. With a timing range of 0-60 seconds, this electro-mechanical timer features an audible countdown mechanism that clicks off the seconds to precisely control dodging or burning in. The audible signal can be switched off at will. Timer settings are indicated in whole-second increments on a darkroom safe, phosphorescent, 3½" dial. The timer automatically resets itself to facilitate making multiple prints.

A receptacle is provided to turn off a safelight while focusing and during exposure.

The timer measures 5"x5"x4" and is housed in a heavy-gauge steel case. The Audible Repeating Timer handles enlarger loads up to 750 watts and operates from 120VAC, 50/60 Hz. Order Cat. No. **461-001.**



60-SECOND ENLARGING TIMER

An excellent low-cost mechanical enlarger timer for all amateur applications. The timer is calibrated in full-second increments, indicated on a luminescent 2-1/2" face. Features include a focus hold position, a print and repeat stop and push-button exposure control. The timer is UL and CSA approved and is housed in a strong, chemical resistant plastic case. Order Cat. No. **461-027.**

TIMEGA

Electronic densitometer auto-timer

The Timega is a photomultiplier-controlled timer for automatic black and white printing. This precision instrument measures the reflected light from the easel during exposure and shuts off the enlarger when the correct exposure time has elapsed. It is especially useful for high volume production and can be connected to a roll-easel to form an automated printing system.

The instrument consists of a control unit and a sensing head mounted on an ultraflex arm. The control unit can be bench or wall mounted. In operation, an aiming light is pointed at a desired reference area of the projected image area on the easel to position the sensing head. The Timega is then switched to the "Print" mode at the press of a button, the instrument turns on the enlarger, reads the reflected light, and turns off the enlarger after exposure.

The Timega has both coarse and fine program controls which can be pre-set for various papers and emulsions. It is provided with remote control sockets for accessory footswitches and has a "cancel" switch to shut off the enlarger in mid-exposure. An outlet for automatic safelight operation is also incorporated.

The sensing head uses the reliable RCA 931-A photomultiplier and has a special blue filter to cancel out safelight illumination.

TIMEGA SPECIFICATIONS

Type	Photomultiplier operated auto-timer
Timing Range	1 Sec. to 3 Minutes
Voltage Stabilization	Internal
Maximum Timed Load	400 Watts
Controls	Coarse and fine program inputs, On/Off switch; Focus/Print switch; Aim Light; Sensitivity Adjustment; Aim, Focus and Expose remote outlets; Enlarger Input; Safelight Control.
Electrical Requirements	95-135VAC, 60 Hz.
Dimensions	
Control Unit	4"x9½"x11"
Sensing Head	5"x2½"x10"
Catalog Number	461-002

Specifications Subject To Change Without Notice

BERKEY MARKETING COMPANIES, INC.
OMEGA DIVISION
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