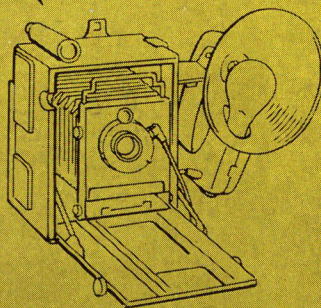
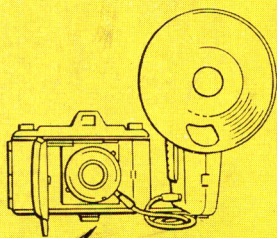
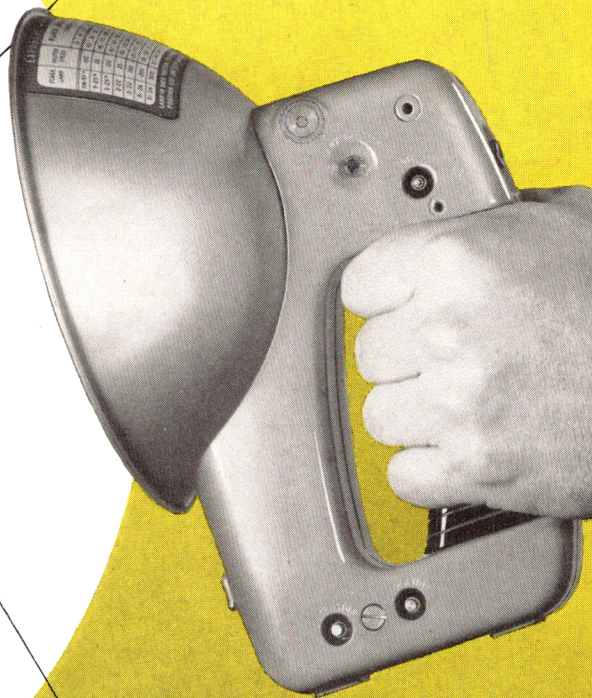


KODAK

Ektalux

FLASHHOLDER



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AS A FLASHHOLDER

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K O D A K

Ektalux Flashholder

- The Kodak Ektalux Flashholder presents a brand-new concept of flash photography. It will give dependable flash lighting day in and day out in all kinds of weather, with battery worries a thing of the past.

Its physical shape and specially designed accessories make the Kodak Ektalux Flashholder the most convenient unit to use and store. With appropriate accessories it can be used to solve most flash-photography problems.

The Kodak Ektalux Flashholder uses the B-C (battery-condenser) circuit. As used in the flashholder, a standard 22½-volt photoflash battery, similar to those used in miniature radios and electronic equipment, supplies power to a condenser—not directly to the lamp. Typical batteries are: Eveready Mini-Max Photoflash #412; Olin #U51E; Burgess Battery U15E; General Dry Batteries Inc. #612. The condenser acts as a storage reservoir and builds up a charge which, when released, flows in a single surge to the lamp. This relatively high-powered surge of current causes the lamp to fire dependably—and its power is such that much greater lengths of wire and additional flash lamps can be used. As the battery charges the condenser and does not directly fire the lamp, it does not need to supply such a rigid surge of current. This makes for more dependable performance in cold weather and for longer battery life. The power source is located only in the flashholder itself, and the extension units are thus lighter to carry and hold.

Trimmer resistors are inserted in the flashholder circuit to prevent arcing of the shutter contacts. These are automatically shorted-out when the extension units are plugged into the flashholder. Hence the number of possible extension units is not limited by these resistors.

T. M. REG. U.S. PAT. OFF.

DESCRIPTION

KODAK EKTALUX FLASHHOLDER

The Kodak Ektalux Flashholder is a die casting with a radically new gun grip for a more compact, easier-to-hold unit. A choice of brackets allows the unit to be adapted to various types of cameras.

The 6-inch, deep-drawn, anodized reflector is polished and chemically brightened for maximum efficiency. It is quickly and easily removable for greater compactness in storing. This one reflector permits the use of miniature (SM and SF) and medium screw-base bulbs (No. 2 and No. 22) and does not necessitate the purchasing and carrying of two reflectors. An exposure table is on the back of the reflector so that exposure information is always readily available.

Two lamp sockets for both miniature and medium screw-base bulbs, each provided with bulb ejectors, are unequalled in dependability and ease of insertion and ejection. The sockets place the bulbs at the correct position for efficient use of the light. Miniature lamps can be focused for broad, even illumination or for maximum central light by moving the lamp socket in or out by means of the black button on the back of the flashholder.

For operation of the flashholder singly or with one or two extension units, the dummy battery (supplied with the unit) and one live battery (not supplied) are used. To assure more than nonmarginal power when more than two extension units are used, or the solenoid is used, the dummy battery is replaced with a second battery.

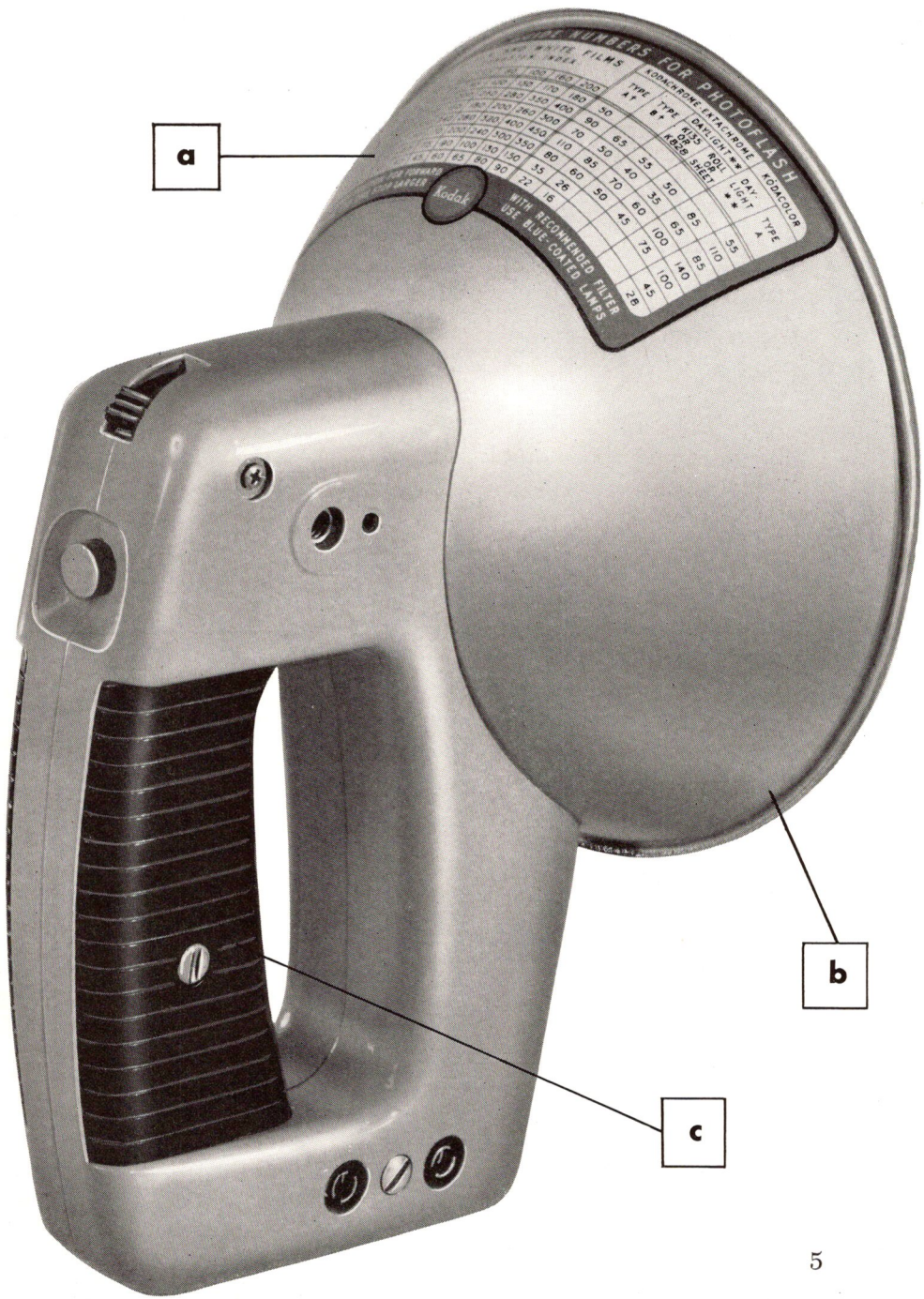
A bracket and connecting cord are provided with the flashholder. With the standard camera bracket there is a 15-inch extension cord with bayonet connector; with the press-type camera bracket there is a 3-foot extension cord with a 2-post connector; and with the Polaroid Land Camera bracket there is a 15-inch extension cord with bayonet connector. Additional brackets can be purchased separately.

Also furnished with the flashholder is the Kodak Ektalux Flashguard for fitting over the reflector. Since most close-up work is done with miniature

a Exposure information is readily available

b Easy-to-remove reflector

c Gun grip handle for easy holding



a

b

c

EXPOSURE NUMBERS FOR PHOTOFLASH

WHITE FILMS

ISO	160	200	250	320	400	500	640	800	1000
1/1000	1/1000	1/1000	1/1000	1/1000	1/1000	1/1000	1/1000	1/1000	1/1000
1/500	1/500	1/500	1/500	1/500	1/500	1/500	1/500	1/500	1/500
1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250
1/125	1/125	1/125	1/125	1/125	1/125	1/125	1/125	1/125	1/125
1/60	1/60	1/60	1/60	1/60	1/60	1/60	1/60	1/60	1/60
1/30	1/30	1/30	1/30	1/30	1/30	1/30	1/30	1/30	1/30
1/15	1/15	1/15	1/15	1/15	1/15	1/15	1/15	1/15	1/15
1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8
1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
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4	4	4	4	4	4	4	4	4	4
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60	60	60	60	60	60	60	60	60	60
125	125	125	125	125	125	125	125	125	125
250	250	250	250	250	250	250	250	250	250
500	500	500	500	500	500	500	500	500	500
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

ADAMANTINE CAPACITORS

TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE
A1	B	C	D	E	F	G	H
35	40	45	50	55	60	65	70
75	80	85	90	100	110	120	130
140	150	160	170	180	190	200	210
220	240	260	280	300	320	340	360
380	400	420	440	460	480	500	520
540	560	580	600	620	640	660	680
700	720	740	760	780	800	820	840
860	880	900	920	940	960	980	1000
1050	1100	1150	1200	1250	1300	1350	1400
1450	1500	1550	1600	1650	1700	1750	1800
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4250	4300	4350	4400	4450	4500	4550	4600
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8250	8300	8350	8400	8450	8500	8550	8600
8650	8700	8750	8800	8850	8900	8950	9000
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10250	10300	10350	10400	10450	10500	10550	10600
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13850	13900	13950	14000	14050	14100	14150	14200
14250	14300	14350	14400	14450	14500	14550	14600
14650	14700	14750	14800	14850	14900	14950	15000
15050	15100	15150	15200	15250	15300	15350	15400
15450	15500	15550	15600	15650	15700	15750	15800
15850	15900	15950	16000	16050	16100	16150	16200
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16650	16700	16750	16800	16850	16900	16950	17000
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17450	17500	17550	17600	17650	17700	17750	17800
17850	17900	17950	18000	18050	18100	18150	18200
18250	18300	18350	18400	18450	18500	18550	18600
18650	18700	18750	18800	18850	18900	18950	19000
19050	19100	19150	19200	19250	19300	19350	19400
19450	19500	19550	19600	19650	19700	19750	19800
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23450	23500	23550	23600	23650	23700	23750	23800
23850	23900	23950	24000	24050	24100	24150	24200
24250	24300	24350	24400	24450	24500	24550	24600
24650	24700	24750	24800	24850	24900	24950	25000

ADAMANTINE CAPACITORS

WITH RECOMMENDED PAPER
USE BLUE-COATED LENSES

lamps and since they are more susceptible to shattering, the flashguard has been made for use with these miniature lamps only. If large flash lamps are used for close-up work, some suitable transparent protective screen over the reflector is recommended.

Outlets are incorporated in the flashholder for:

a	shutter connector cord
b	two extension units so they can be placed on each side of the camera without extra wiring
c	solenoid to trip camera shutter
d	remote trip
e	open-flash shots, see page 27

The flashguard fits over the reflector and is fastened to a strap which fits around the flashholder handle. It is not necessary to remove the flashguard when changing lamps. Just raise the flashguard sufficiently to allow clearance for reaching into the reflector. The flashguard must be left loose around the bottom of the reflector to allow gases to escape in case a lamp explodes.

► **BRACKETS**

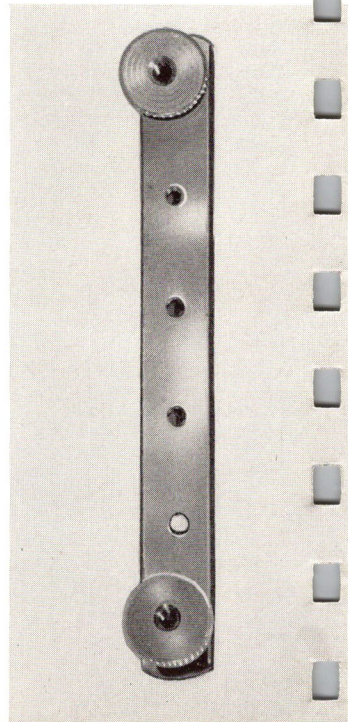
Standard Bracket:

A universal bracket for attachment to most roll-film cameras.

Press Bracket:

A special bracket for press-type cameras. With this bracket, the flashholder can be

Standard Bracket



rapidly attached or removed from the cameras. A safety-type latch prevents accidental removal of the flashholder.

Polaroid Camera Bracket:

A two-piece bracket specially designed to hold the Kodak Ektalux Flashholder on the Polaroid Land Camera.

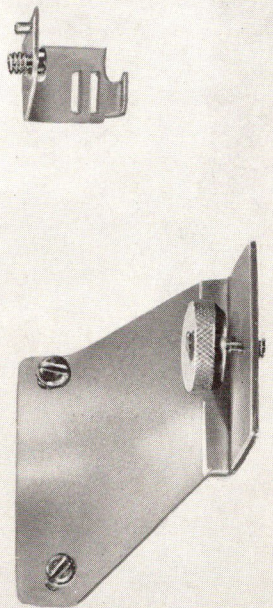
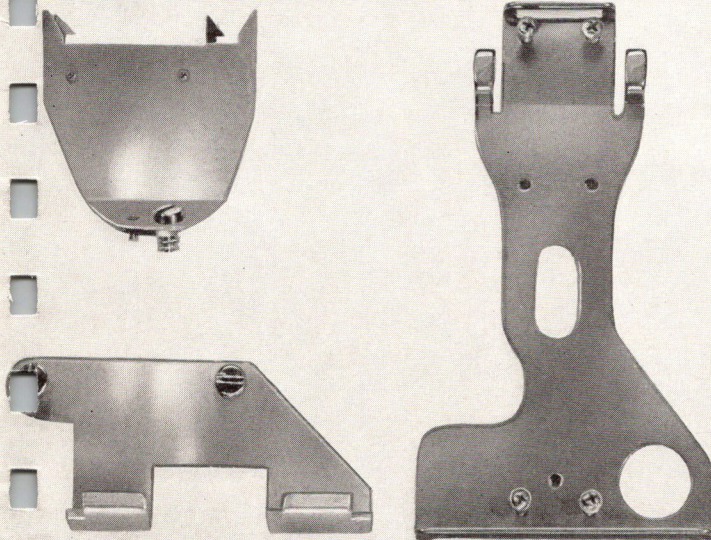


KODAK FLASHPOST ADAPTER

The Kodak Flashpost Adapter is a small adapter which converts the continental flash connector on continental cameras to the A.S.A. standard bayonet connector used on most U.S. cameras. With it the flashholder can be used in all its applications with cameras having shutters such as the Flash Compur, Pronto, and Prontor. The adapter fits over the flash post on the shutter.

Press Bracket

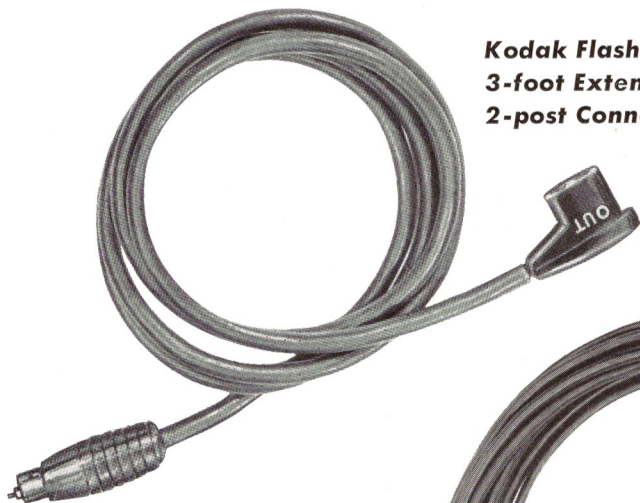
Polaroid Bracket



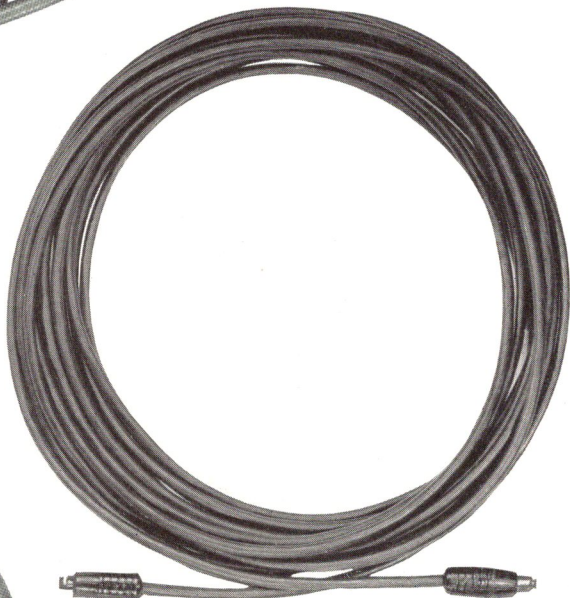


ACCESSORY CONNECTING CORDS

**Kodak Flashholder
3-foot Extension Cord,
2-post Connector**



**Kodak Flashholder
20-foot Extension Cord,
Bayonet Connector**



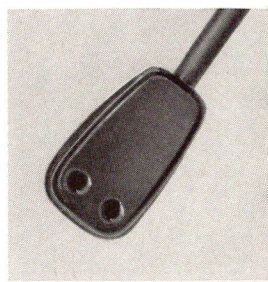
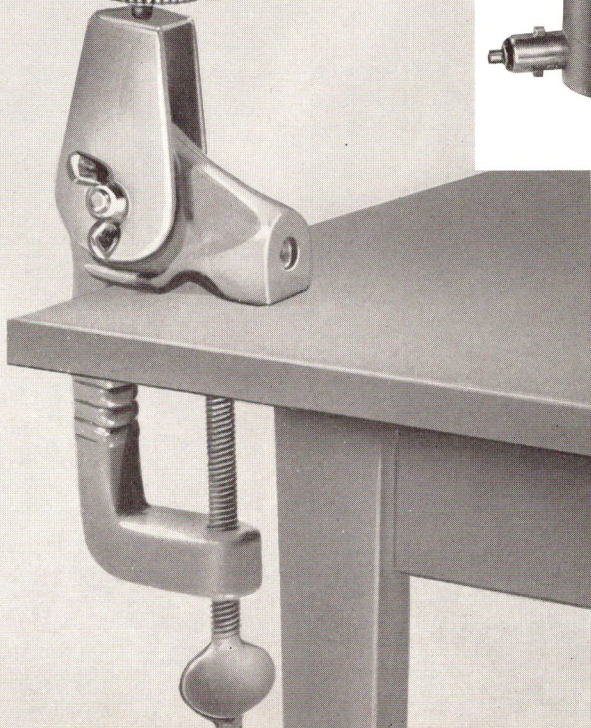
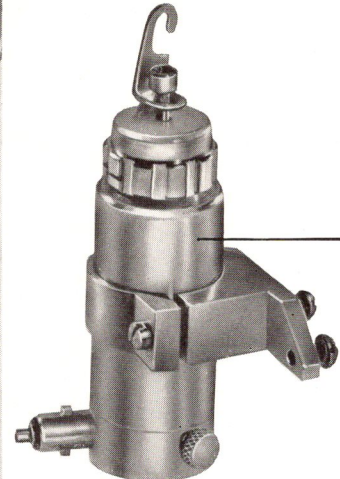
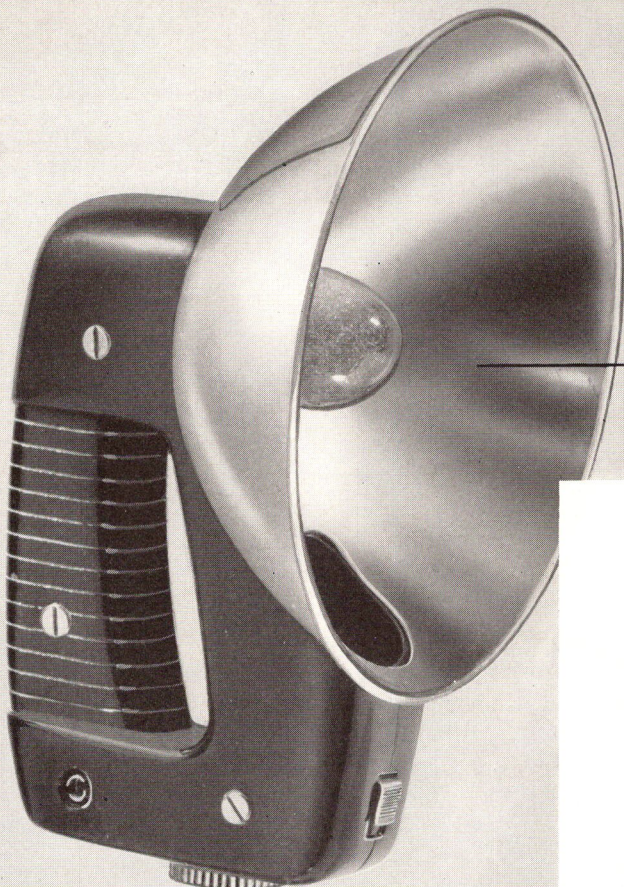
**Kodak Flashholder
3-foot Extension Cord,
Bayonet Connector**

KODAK EKTALUX EXTENSION UNITS

The Kodak Ektalux Extension Units provide a means of obtaining better modeling on single subjects or more extended coverage when making group or interior pictures. The extension unit does not require additional batteries, but uses the power of the flashholder. It is of the same easy-to-handle shape as the flashholder and has the same lamp handling system—for both miniature and medium screw-base lamps. The reflector is of the same size and shape as the flashholder and has an exposure table on the back. The reflectors are quickly removable and “nest” for compact storage—the bodies of the units also are shaped for compact storage. The extension units are made so that they will stand on a table or other flat surface and also have tripod sockets for mounting on tripods or on Kodak Ektalux Extension Unit Clamps. Included is a 20-foot extension cord for attaching the extension unit to the flashholder. To attach the extension units electrically, fit the receptacle end of the 20-foot extension cord into one of the

outlets on the left side of the flashholder marked **EXTENSION**. Fit the bayonet fitting on the cord into one of the outlets on the extension unit. Additional extension units up to 6 can be used. More than 6 extension units can be used if a second Kodak Ektalux Flashholder is used. Accessory extension cords can be used to add distance between extension units or between the flashholder and extension units.





Heiland

KODAK EKTALUX EXTENSION UNIT CLAMP

The Extension Unit Clamp is a "C" clamp-type bracket. It has a tripod screw which can be turned from vertical to horizontal so that the extension unit can be adjusted for proper aiming. The bracket can be mounted on flat surfaces, such as a table or on round tubular rods, and is padded to prevent marring furniture finishes.

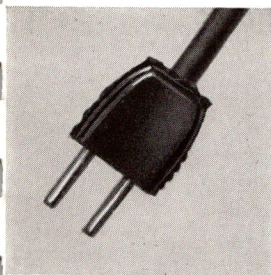
▶ KODAK EKTALUX SOLENOID

This solenoid has been specially designed for the Kodak Ektalux Flashholder to *permit operation of flash-synchronized cameras from the flashholder*. This is particularly useful for certain types of cameras, off-the-camera shots, and remote release. The solenoid must also be used with the Kodak Ektalux Synchro-Switch (see page 12).

The Kodak Ektalux Solenoid is supplied with fittings to attach to both press and standard bracket cameras and a 3-foot bayonet connector cord for attaching to the flashholder. The solenoid can thus be attached to the shutter's cable release socket or mounted on the shutter lens board for tripping the shutter by pulling the shutter trigger.

Graflex and Heiland solenoids (with an adapter cord) will work satisfactorily with all shutters except the Kodak Synchro-Rapid 800 Shutter. With this shutter the Kodak Ektalux Solenoid must be used.

▶ KODAK EKTALUX ADAPTER **GRAFLEX SOLENOID** **HEILAND SOLENOID**



Graflex

To use either a Graflex or a Heiland solenoid, it is necessary to connect the solenoid to the flashholder with a special adapter cord. These are 3-foot extension cords with a bayonet fitting on one end for attaching to the SOLENOID outlet on the flashholder, and the appropriate solenoid fitting on the other end.

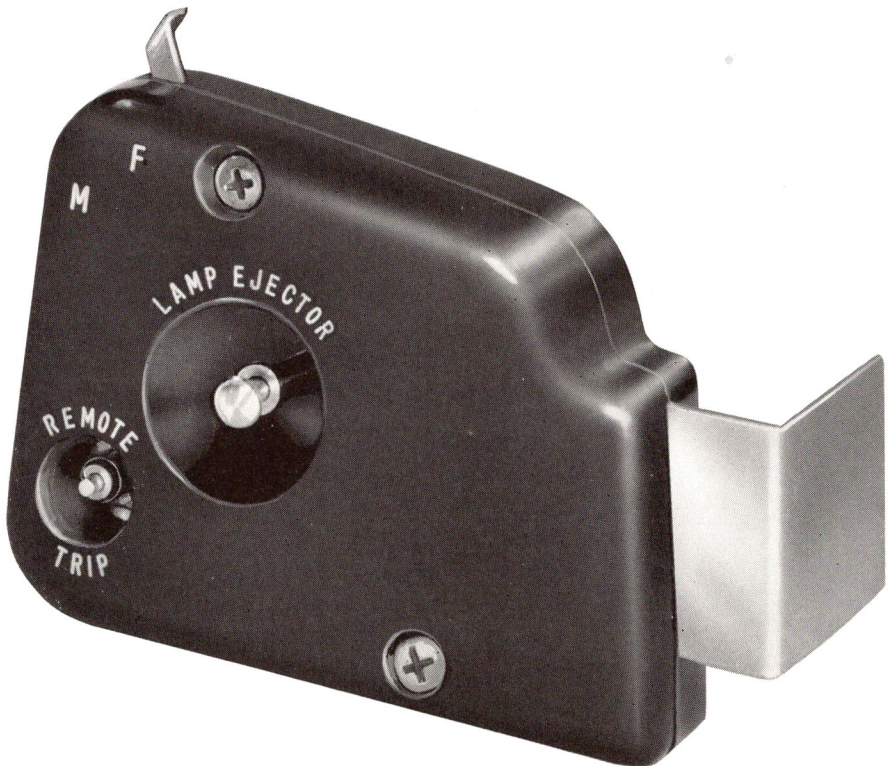


KODAK EKTALUX SYNCHRO-SWITCH

The Kodak Ektalux Synchro-Switch converts the Kodak Ektalux Flashholder to an external synchronizer for use with shutters not having built-in synchronization. It is an accessory timing device which provides the proper time lag between the instant that power is supplied to the flash lamp and the shutter is opened.

To use the synchro-switch, a solenoid must be used. The switch is then attached to the flashholder to provide the proper time lag. Settings are provided for Class F (SF and SM) lamps and Class M (No. 5 and No. 25) lamps. Class S lamps can be used with shutter speeds of 1/50 second or below, with the synchro-switch lamp selector lever set at M.

12 See instructions packed with the switch.





▶ | **KODAK EKTALUX REMOTE RELEASE**

In many situations it is desirable to operate the camera at a distance from the camera or flashholder. Animal and bird pictures (with or without flash) can most easily be taken in this manner. The Kodak Ektalux Remote Release is designed for solving this picture situation. It consists of a 20-foot extension cord with a bayonet connector on one end which plugs into the REMOTE TRIP outlet on the flashholder and a button which is pressed to complete the circuit on the other end. To use the remote release, the flashholder is hooked up with a solenoid to trip the camera shutter. Pushing the button on the remote release will then cause the solenoid to trip the shutter. The distance between the flashholder and the remote release can be lengthened by adding accessory extension cords.

With flash shutters the release and the solenoid can be used for flash or nonflash pictures; with nonflash shutters it can be used for nonflash pictures only although it must be plugged into the remote trip outlet on the flashholder.

KODAK EKTALUX FLASHHOLDER

AS A FLASHHOLDER

For cameras having shutters with built-in synchronization, the basic unit, consisting of the flashholder, connecting cord, and the proper bracket, is all that is required for taking flash pictures. The steps to follow in taking flash pictures are detailed and illustrated on the succeeding pages.

1	Battery Installation
2	Attaching Standard Bracket
3	Attaching Press Bracket
4	Attaching Polaroid Land Camera Bracket
5	Cord Connections
6	Attaching The Reflector
7	Flash Lamps
8	Exposure
9	Taking The Flash Picture
10	Open Flash
11	Kodak Ektalux Extension Units

1

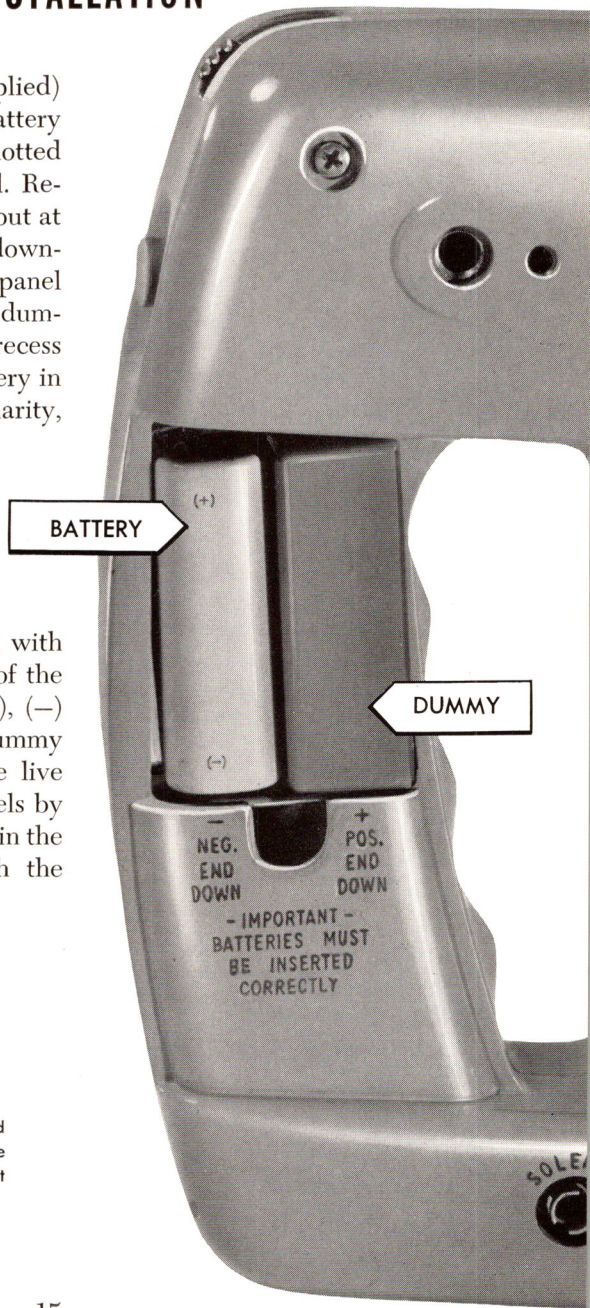
BATTERY INSTALLATION

Use one 22½-volt battery (not supplied) and the red Tenite dummy battery (supplied). Remove the coin-slotted screw in the center of the panel. Remove the panels by lifting them out at the bottom and drawing them downward to remove the tab on the panel from the slot in the handle. The dummy battery is in one side of the recess in the handle. Place the live battery in the other recess with the polarity,

marked on the battery, matched with the polarity marked on the side of the flashholder, such as (+) with (+), (-) with (-). The open side of the dummy battery must be away from the live battery. Replace the handle panels by inserting the tab ends in the slots in the handle. Secure the panels with the coin-slotted screw.

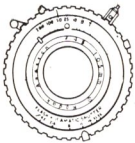



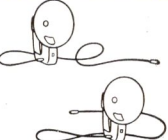

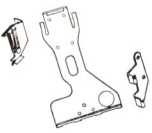


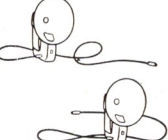

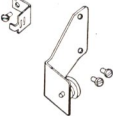


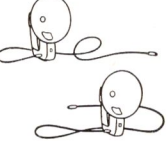
NOTE:

Because the condenser system is wired in series, the dummy battery and one live battery or two live batteries must be used.

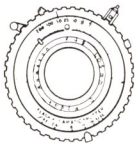
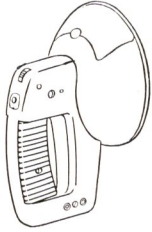
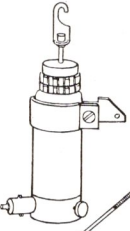

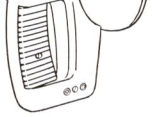
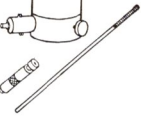


Applications of Ektalux Equipment


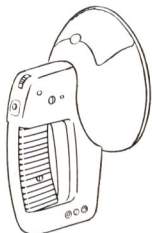
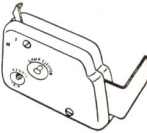
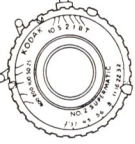
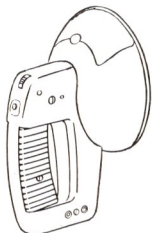
1 As a Flashholder

	Type of Shutter	Mounting Bracket	Connector Cord	With One Battery	Number of Extensions
Amateur	 FLASH SHUTTER	STANDARD  INCLUDED	15-inch BAYONET  INCLUDED		 TWO
Press	 FLASH SHUTTER	 INCLUDED	3-foot, 2 post  INCLUDED		 TWO
Polaroid	 FLASH SHUTTER	POLAROID  INCLUDED	15-inch BAYONET  INCLUDED		 TWO

2 With Solenoid Tripper

Amateur	 FLASH SHUTTER	FLASHHOLDER 	SOLENOID 	<p>With amateur or press cameras the addition of a Kodak Ektalux Solenoid (or cord for your present solenoid) permits tripping the shutter from the flashholder. It also allows holding the flashholder at a distance from the camera and the use of the accessory Kodak Ektalux Remote Release.</p> <p>The solenoid can be used as a pusher-type for amateur cameras and as a puller-type for press cameras. Accessory 20-foot extension cords can be added to the remote tripping release to obtain the desired tripping distance from the camera.</p>
Press	 FLASH SHUTTER	WITH CORD AND BRACKET 	WITH CORD 	

3 As a Synchronizer

Amateur	 NONFLASH SHUTTER	FLASHHOLDER 	SYNCHRO-SWITCH 	<p>For cameras having nonflash shutters, two attachments are added to the basic Flashholder: The Kodak Ektalux Solenoid (or an adapter cord for your present solenoid) and the Kodak Ektalux Synchro-Switch. The synchro-switch provides the proper time lag between the instant power is supplied to the flash lamp until the shutter is opened. The synchro-switch thus converts the flashholder to an external synchronizer.</p>
Press	 NONFLASH SHUTTER	WITH SOLENOID AND CORD 		

to Varied Flash Requirements

With Two Batteries



up to 6 EXTENSIONS



up to 6 EXTENSIONS



up to 6 EXTENSIONS

1. The first section illustrates the basic unit for use with roll-film cameras, press cameras, and the Polaroid Land Camera. The unit consists of the flashholder, and the Polaroid Land Camera, camera, and connector cord. If your press camera has a Kodak Synchro-Rapid 800 Shutter, use a bayonet connector cord.

2. Here we add to your amateur or press camera basic unit a Kodak Ektalux Solenoid and a connector cord for the solenoid (or an adapter cord for your present solenoid) to permit tripping the shutter from the flashholder. With the solenoid the Kodak Ektalux Remote Release can be used.

3. The third section illustrates what is necessary to convert the flashholder to an external synchronizer with nonflash shutters. To the basic unit is added a Kodak Ektalux Solenoid, a connector cord for the solenoid (or an adapter cord for your present solenoid), and the Kodak Ektalux Synchro-Switch.

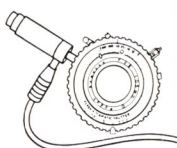
Solenoid

Solenoid Connector Cord

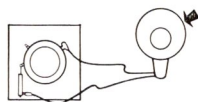
What the Solenoid Permits:



up to 6 EXTENSIONS



INCLUDED



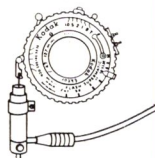
TRIPPING SHUTTER WITH FLASHHOLDER BUTTON



REMOTE RELEASE



up to 6 EXTENSIONS



INCLUDED

Adapter Cord



FOR HEILAND

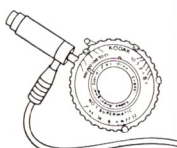
Remote Release 20-foot CORD



FOR GRAFLEX



up to 6 EXTENSIONS

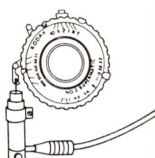


INCLUDED

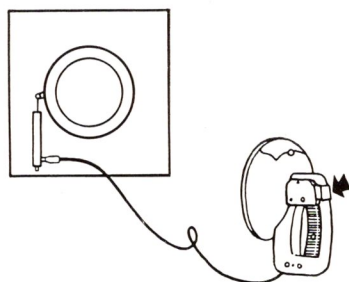
With Synchro-Switch



up to 6 EXTENSIONS



INCLUDED



ATTACHING STANDARD BRACKET

Remove one of the coin-slotted screws from the bottom of the flashholder. Either hole in the bottom of the flashholder can be used to mount the flashholder on the bracket. Attach the flashholder to the bracket with the bracket thumbscrew. The embossing on the bottom of the flashholder should fit into the groove in the bracket. Attach the camera to the bracket with the camera thumbscrew. The flashholder may be placed either to the left or the right of the camera. The standard bracket is provided with several holes to permit the selection of the one most suitable for the particular camera.

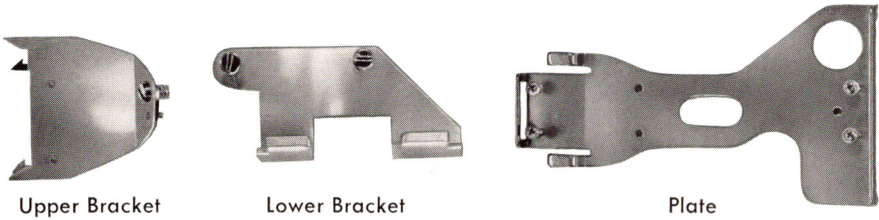
18



3

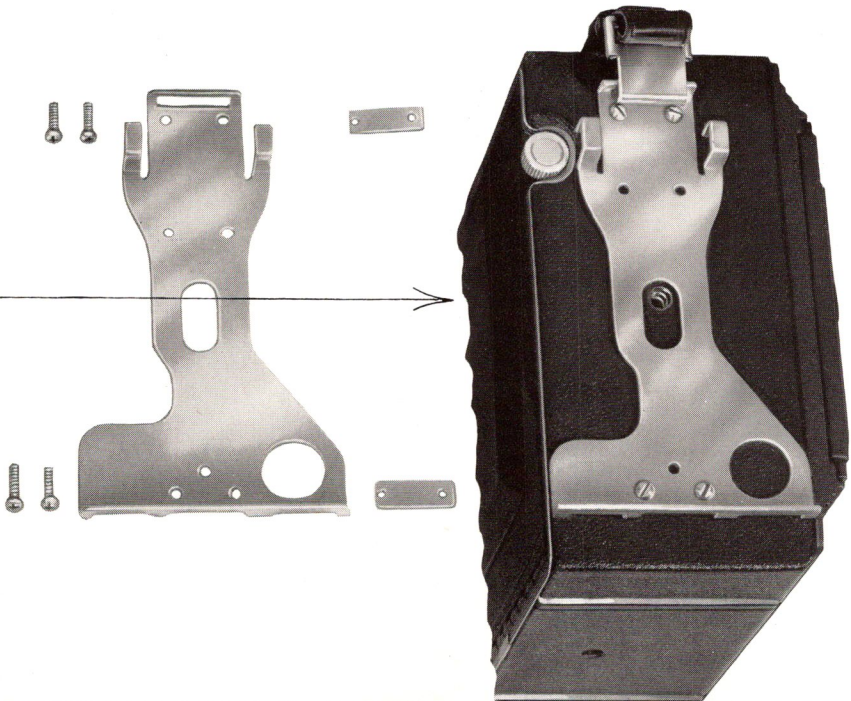
ATTACHING PRESS BRACKET

The press bracket consists of three parts: a PLATE, an UPPER BRACKET, and a LOWER BRACKET. It is recommended that the installation be done by a competent camera serviceman, who has the necessary experience and facilities.



To attach the bracket, first remove the handle and handle straps from the side of the camera. Using the plate as a template, lay the plate on the left side of the camera, with the slot in the center of the plate over the camera tripod socket. Mark the location of the screw holes, in the plate, on the side of the camera. Make sure that no part of the camera will be damaged in drilling the screw holes or inter-

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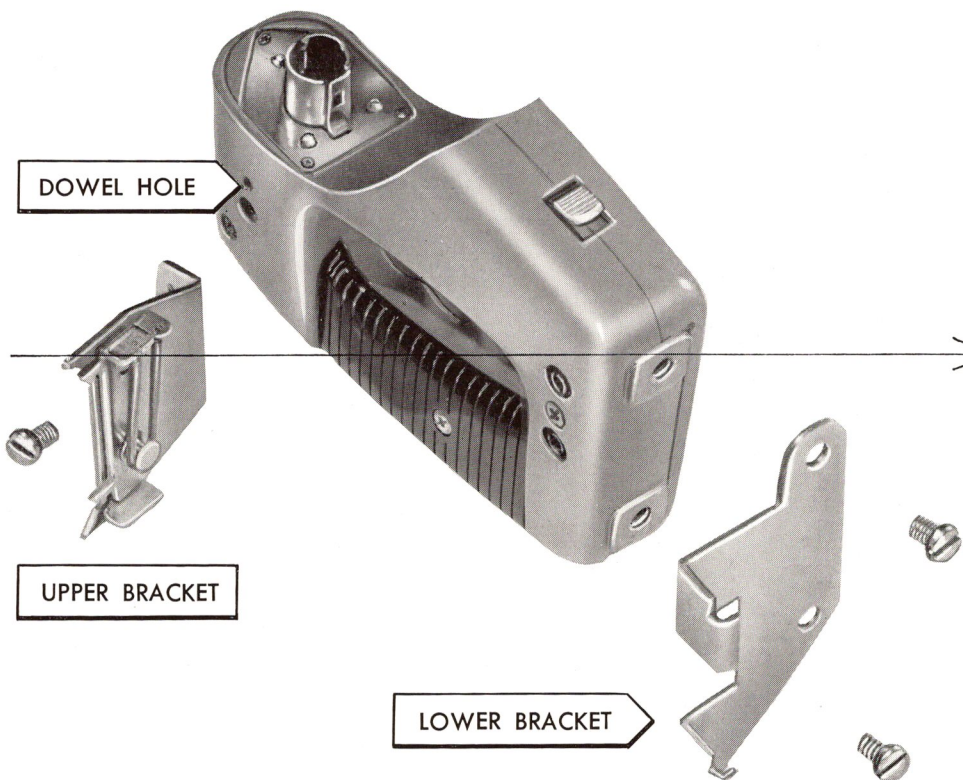


ferred with after the plate is attached. Drill the four screw holes in the camera with a No. 27 (.144 diameter) drill. Attach the plate to the camera with the four No. 6-32 screws and the two retaining nuts.

It is not necessary to drill any holes to attach the plate to the $3\frac{1}{4}$ x $4\frac{1}{4}$ Speed Graphic Camera. Remove the handle and attach the plate to the side of the camera, with the retaining screws and nuts (supplied), using the previously drilled handle screw holes.

The handle can be attached to the two loops in the bracket or it can be fastened as follows: attach the handle clip to the top of the plate and place the loose end of the handle on the camera top. Mark the location of the screw hole in the handle strap on the top of the camera, being sure that the handle will fit your hand properly. Again check to make sure that the camera will not be damaged in drilling

20

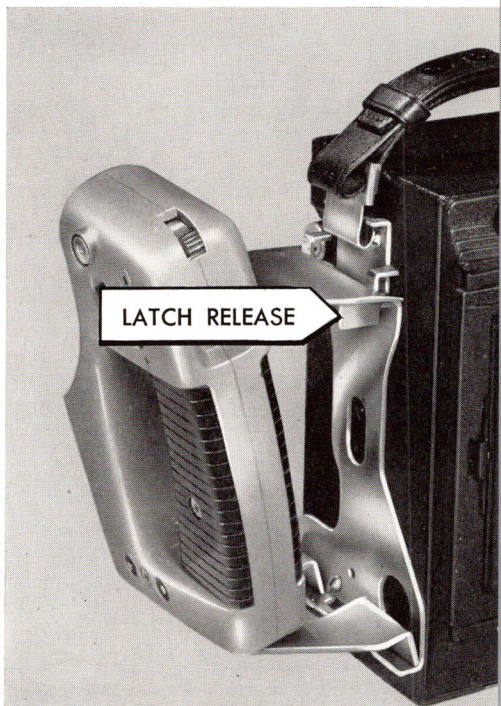
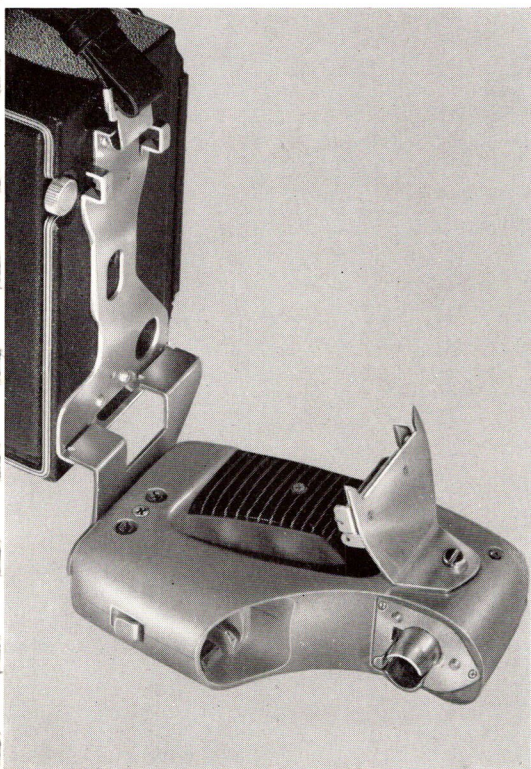


the screw hole. Drill the hole with a No. 27 (.144 diameter) drill. Attach the handle strap with the retaining screw and nut.

Attach the lower bracket to the base of the flashholder with the two coin-slotted screws. Fasten the upper bracket to the right side of the flashholder with the coin-slotted screw. The dowel pin on the bracket should fit into the DOWEL HOLE in the side of the flashholder.

To attach the flashholder to the camera, fit the two hooks on the lower bracket into the lower slot in the plate, as the flashholder is held horizontally. Then swing the flashholder up and toward the camera until the upper bracket latch locks with the plate on the camera.

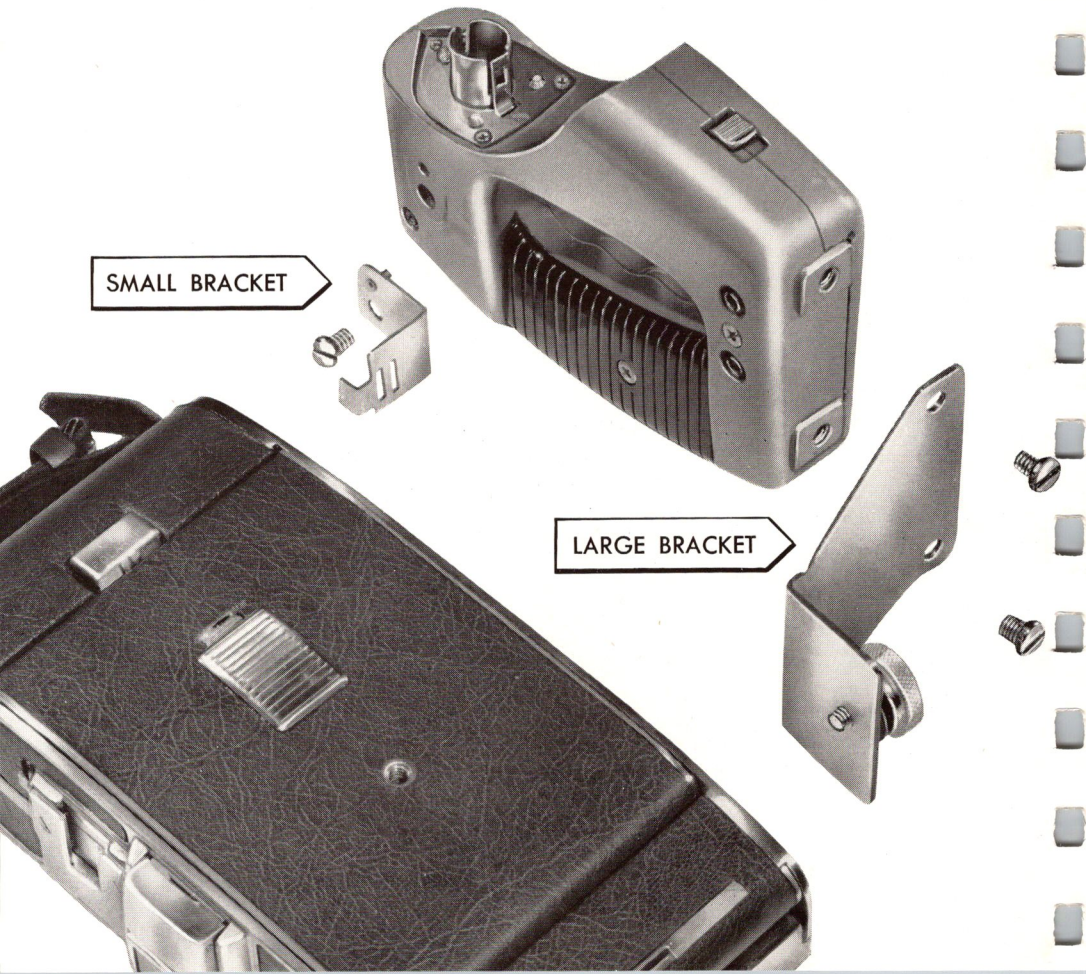
To remove the flashholder, push the LATCH RELEASE to the left (away from the camera) and press forward. After the latch is released, rotate the flashholder to disengage the lower hooks.



ATTACHING POLAROID LAND CAMERA BRACKET

Remove the carrying strap from the left side of the camera. Attach the **SMALL BRACKET** to the right side of the flashholder with the coin-slotted screw. The dowel pin on the bracket should fit into the dowel hole in the side of the flashholder. Fasten the **LARGE BRACKET** to the base of the flashholder with the two coin-slotted screws. The thumbscrew on the large bracket should be to the right and toward the bottom of the flashholder. Engage the small bracket on the flashholder in the camera carrying strap bracket and insert the large bracket thumbscrew in the camera tripod socket; then tighten the thumbscrew. Attach the carrying strap to the small bracket by looping it through the two slots in the bracket.

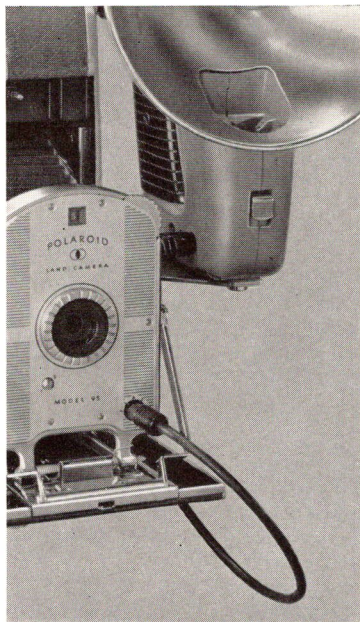
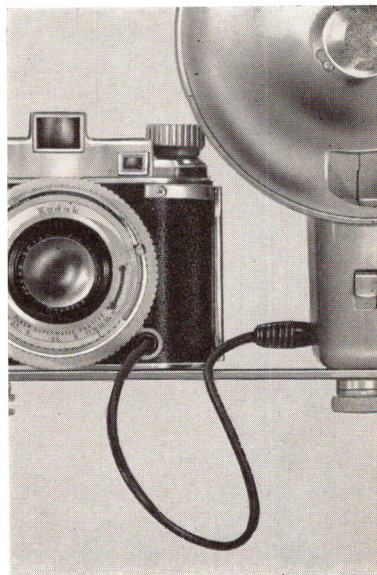
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CORD CONNECTIONS

Connect the cord to the flashholder as follows: press the bayonet fitting on the cord into the flashholder outlet marked SHUTTER and turn it clockwise. Fit the other end of the cord over the flash post on the shutter or camera, push it in and turn it clockwise. Be sure the cord is not in front of the lens. To remove either end, push in the cord, turn it counterclockwise, and pull it off the terminal.

For shutters with a 2-post flash receptacle, fit the receptacle end of the 3-foot, 2-post connector cord over the two posts on the shutter and push it down to seat it. The word OUT on the 2-post connector should be toward the front of the camera.



ATTACHING THE REFLECTOR

Attach the reflector by placing it on the flashholder with the exposure table up on the back of the reflector and with the three keyholes in the reflector over the three studs on the flashholder. Rotate the reflector clockwise. This is done easiest by holding the rim of the reflector between the thumb and forefinger at a point just above the opening for the large bulbs in the reflector. The reflector will fit only if the exposure table is up. If after starting to turn the reflector, it tends to stick, lift out slightly on the reflector.

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FLASH LAMPS

Both medium screw-base flash lamps (No. 2 and No. 22) and bayonet-base flash lamps can be used. No. 11, No. 0, and No. 40 flash lamps can be used but are not efficient because they do not center perfectly in the reflector.

The medium screw-base flash lamps (No. 22 and No. 2) are inserted with a straight thrust into the lower socket. They are ejected by pressing down the ejector tab on the front of the flashholder. Never try to pull a lamp out of the socket. Always use the ejector button. Pulling out lamps by force will damage a socket.

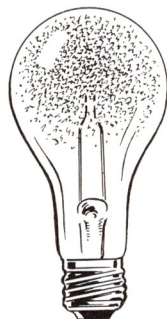
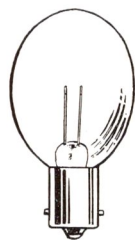
The bayonet-base lamps (No. 5, No. 25, SM, and SF) are inserted with a straight thrust into the upper socket. Do not twist the lamp after it has been inserted in the socket. The lamps are ejected by pressing the black button on the side of the flashholder.

The position of the bayonet-base lamps can be adjusted in the reflector by moving the black knob at the top back corner of the flashholder. When this knob is pulled down, the lamp is pushed forward resulting in uniform illumination. Pushing the knob toward the reflector retracts the lamp and results in a light beam which is more efficient in the center of the field. This is the normal position.

CAUTION:

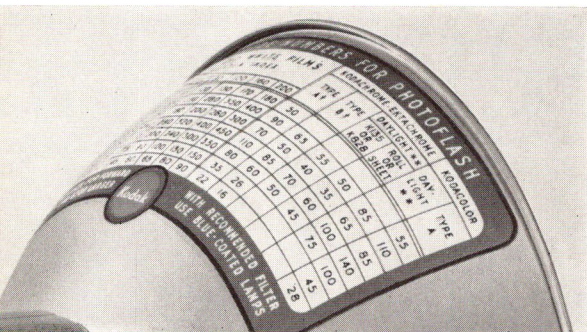
Chances of lamps exploding are very remote, especially the large lamps. But since lamps may shatter when flashed, the use of the Kodak Ektalux Flashguard, over the reflector for close-ups with miniature lamps, is recommended. If large lamps are used, some type of protective screen over the reflector is recommended. Do not flash lamps in an explosive atmosphere.

Do not insert flash lamps in the reflector if the shutter is open—the lamp will flash and a serious burn may result.



EXPOSURE

Always consult your camera manual for specific information that may apply to making flash pictures with your camera. Guide numbers, for films varying in tungsten speed from 20 to 160 (American Standard



Exposure Index) and for Kodak color films, are shown on the back of the flashholder reflector and on pages 30 and 31. Use these guide numbers to determine your lens opening. All other guide numbers should be ignored. Select the guide number which applies to the particular combination of film, flash lamp, and shutter speed you are using. Divide this number by the distance,

in feet, from the lamp to the subject. The answer is the recommended lens opening.

For example, the exposure guide number for the SM or SF flash lamp at 1/100 second with Kodak Super-XX Film (tungsten exposure index of 80) is 120. At 15 feet (lamp-to-subject distance), 120 divided by 15 = 8 or $f/8$.

TAKING THE FLASH PICTURE

After the flashholder has been connected to the camera and a flash bulb has been inserted in the proper lamp socket, set the shutter for the proper exposure. If the shutter has a scale nut or a synchronizer lever, set it according to the camera manual instructions. To take the picture, cock* and release the shutter in the normal manner. The flash synchronizing mechanism built into the shutter automatically

*On some cameras the shutter is automatically cocked as the film is advanced.

insures that the shutter will be open when the flash of the lamp is brightest. The red button on the back of the flashholder is used only when a solenoid is used to trip the shutter or to make open-flash shots as described below.

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OPEN FLASH

To use the Kodak Ektalux Flashholder as an open-flash unit, plug the 15-inch bayonet connector cord into the outlet marked **SHUTTER** on the side of the flashholder and into the outlet marked **REMOTE TRIP** near the top of the flashholder. To take the picture, cock and trip the shutter, set on T (time) or B (bulb). Hold the shutter open and press the red button on the back of the flashholder to flash the lamp; then close the shutter.

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KODAK EKTALUX EXTENSION UNITS

To connect the extension units to the flashholder, fit the receptacle end of the 20-foot extension unit cord (supplied) into the flashholder outlet marked **EXTENSION** and turn it clockwise. Press the bayonet fitting on the cord into the outlet on the extension unit and turn it



clockwise. Connect each extension to the other using the remaining outlet on the extension units. Accessory extension cords can be used to add distance between extension units or between the flashholder and the extension units. The flashholder can be used either next to the camera or at a distance from the camera. If a solenoid is used, extension cords can be added to the solenoid to obtain the necessary distance when the flashholder is used away from the camera.

Flash lamps are inserted in and ejected from the extension unit in the same manner as the flashholder. The ejector button for the bayonet-base lamps is on the back of the extension unit.



**Flash Exposure Guide Numbers
Kodak Ektalux Flashholder—Black-and-White Films**

Flash Lamp	Shutter Speed	Exposure Index for Tungsten Light		
		25	40	50
SM-SF*	Open, 1/25, 1/50	70	90	100
	1/100	65	85	95
	1/200	60	75	80
	1/400	45	55	60
5-25*	Open, 1/25	140	170	200
	1/50	120	150	170
	1/100	100	130	150
	1/200	75	100	110
2-22	Open, 1/25	160	200	240
	1/50	140	180	210
	1/100	120	150	170
	1/200	95	120	140
31-2A	1/200	50	65	75
	1/500	30	40	45
Flash Lamp	Shutter Speed	Exposure Index for Tungsten Light		
		80	100	160
SM-SF*	Open, 1/25, 1/50	130	140	180
	1/100	120	130	170
	1/200	100	120	150
	1/400	80	90	110
5-25*	Open, 1/25	250	280	350
	1/50	230	240	310
	1/100	180	200	260
	1/200	140	150	200
2-22	Open, 1/25	280	320	400
	1/50	250	290	370
	1/100	200	240	300
	1/200	170	190	250
31-2A	1/200	90	100	130
	1/500	60	65	80

*Lamps in "Normal" position. For "Flat" position, use one stop larger.

**Flash Exposure Guide Numbers
Kodak Ektalux Flashholder—Kodak Color Films**

Flash Lamp	Shutter Speed	Koda-color Type A	Koda-chrome Type A**	Ekta-chrome Type B**	Ekta-color Type B**
SM-SF*	Open to 1/50	60	55		
	1/100	55	50		
	1/200	50	45		
	1/400	40	35		
5-25*	Open, 1/25	110	90	65	55
	1/50	100	80	55	50
	1/100	85	70	50	40
	1/200	70	50	35	30
	1/400	50	35		
2-22	Open, 1/25	140	110	85	70
	1/50	130	95	70	60
	1/100	100	80	60	55
	1/200	85	60	45	40
	1/400	65	45	35	30
31-2A	1/200	45	35	26	24
	1/500	28	22		
Flash Lamp	Shutter Speed	Koda-color Daylight	Koda-chrome Daylight	Ekta-chrome Daylight	
5B-25B	Open, 1/25	85	55	50	
	1/50	75	50	45	
	1/100	65	40	35	
	1/200	50	32	28	
2B-22B	Open, 1/25	100	70	60	
	1/50	90	60	55	
	1/100	75	50	45	
	1/200	65	40	35	
	1/400	50	30	28	

*Lamps in "Normal" position. For "Flat" position, use one stop larger.

**With the recommended filter.

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Kodak