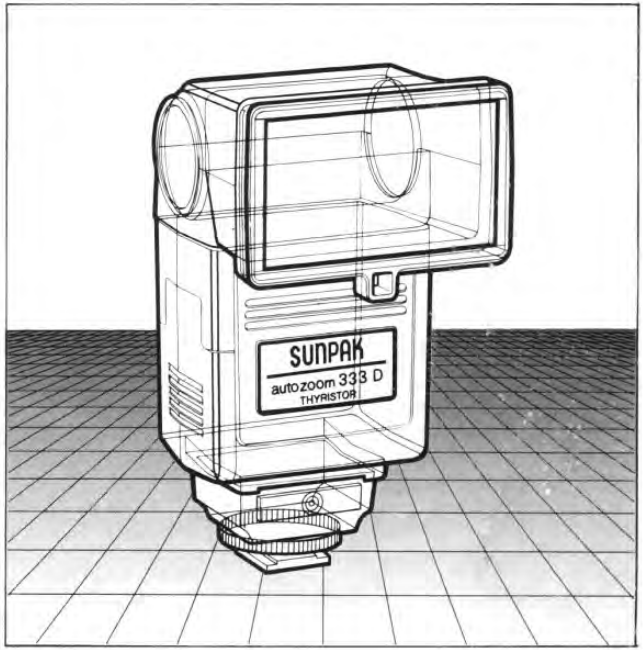
SUNPAK®

autozoom 333 D

THYRISTOR

Electronic Flash Unit

OWNER'S MANUAL



IMPORTANT SAFEGUARDS

WHEN USING YOUR PHOTOGRAPHIC EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING.

1. READ AND UNDERSTAND ALL INSTRUCTIONS.
2. CLOSE SUPERVISION IS NECESSARY WHEN ANY APPLIANCE IS USED BY OR NEAR CHILDREN. DO NOT LEAVE THIS APPLIANCE UNATTENDED WHILE IN USE.
3. DO NOT OPERATE APPLIANCE IF IT HAS BEEN DROPPED OR DAMAGED—UNTIL IT HAS BEEN EXAMINED BY A QUALIFIED SERVICEMAN.
4. TO PROTECT AGAINST ELECTRICAL SHOCK HAZARDS, DO NOT IMMERSE THIS APPLIANCE IN WATER OR OTHER LIQUIDS.
5. TO AVOID ELECTRIC SHOCK HAZARD, DO NOT DISASSEMBLE THIS APPLIANCE, BUT TAKE IT TO A QUALIFIED SERVICEMAN WHEN SOME SERVICE OR REPAIR WORK IS REQUIRED. INCORRECT REASSEMBLY CAN CAUSE ELECTRIC SHOCK HAZARD WHEN THE APPLIACNE IS USED SUBSEQUENTLY.

SAVE THESE INSTRUCTIONS

Table of Contents

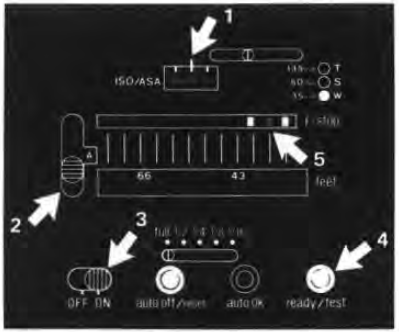
Introduction

Welcome to the world-wide family of SUNPAK owners! More than nine million SUNPAK electronic flash systems have been chosen by photographers throughout the world for their rugged construction, innovative design, and fast, easy operation. To insure that you get the most out of your electronic flash, please take the few minutes required to check through this owner's manual with your SUNPAK flash in front of you.

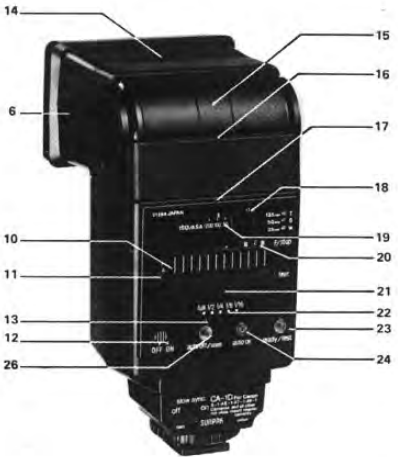
Condensed Operating Instructions for Automatic Operation

1. Set the ASA.
2. Set the Auto/Manual Selector Switch so that the red, green or yellow "A" appears.
3. Move the On/Off Switch to the "On" position.
4. Wait for the Ready/Test amber light to glow.
5. Set the aperture on your camera to the corresponding aperture which appears on the computer f/stop window. You are ready to take your pictures .

For more creative use with your Sunpak autozoom 333 D, read the following pages.



Description of Parts



1. Flashtube, Reflector and Lens
2. Filter (optional) Mounting Socket
3. Bounce Flash Control Base
4. Battery Compartment Cover
5. Interchangeable Interface Module
6. Zoom Flash Head
7. Auto Sensor
8. Knurled Lock Ring
9. Hot Shoe Contact
10. Auto/Manual Mode Window
11. Auto/Manual Selector Switch
12. Battery (On/Off) Switch
13. Power Ratio Control
14. Bounce Flash Head
15. Bounce Position Indicator
16. Vertical Bounce Control Scale
17. Bounce Angle Indicator
18. Film Speed Selector
19. Film Speed Indicator Window (ASA)
20. F/Stop Scale
21. Distance Scale
    (W = 35mm. S = 50mm. T = 135mm.)
22. Power Ratio Control Scale
23. Ready Light/Test (Open Flash) Button
24. Auto OK Indicator
25. Bounce Reflector Mounting Post
26. Auto-Power-Off Indicator/Reset Button
27. Interface Module Locking Lever
28. Interface Blade
29. Interlock Receptacle
30. Interface Module Positioning Guide
31. Interface Receptacle
32. Interface Module Locking Pin

OPERATION

To Install Batteries:

Alkaline or Nickel-Cadmium Batteries?

The major advantage of alkaline batteries is that they provide more flashes per set. While nickel-cadmium batteries will provide fewer flashes per set, they will recycle your flash faster and can be recharged hundreds of times for more economical operation over the long run.

1. Slide the battery compartment cover toward the bottom of the unit. Now gently fold up the cover in the direction shown.

2. Insert four AA size batteries (alkaline or nickel-cadmium) as shown. The battery compartment has a guide showing the correct positioning of the batteries for proper polarity. (+ – contacts).

3. Press the cover until it snaps into place.

MOUNTING THE FLASH TO THE CAMERA:

CAUTION: FOR MOUNTING OR DETACHING THE Autozoom333D FROM YOUR CAMERA, ALWAYS MAKE SURE THAT THE ON/OFF SWITCH IS SET AT THE "OFF" POSITION OR THE CAMERA MAY BE DAMAGED.

1. Slip the unit onto the camera's hot shoe. Turn the knurled lock ring clockwise to insure secure mounting to your camera's shoe.

   Note: When using Olympus cameras, make sure that the appropriate accessory shoe as below is attached to your camera and then put the autozoom 333D on it.

   - **For OM-2N, OM-1N:** accessory shoe #4
   - **For OM-2:** accessory shoe #3
   - **For OM-10, OM-G, OM-F:** mount the autozoom 333D onto the built-in hot shoe.

2. If your camera does not have a hot sho contact, use an optional Standard Sho (Cat. No. 651-042) and optional Flash Synch Cord (Cat. No.651-781).

   A. Insert the male end of the synch cord into the socket on the base of Standard Shoe.

B. Connect the other end to the flash synch socket on your camera (usually marked 'X'). In case your camera has no 'Accessory Shoe', use the optional Sunpak Basic Grip (Cat. No. 651-772).

3. Set the Camera shutter to the fastest shutter speed synchronized for electronic flash. For SLR cameras, the highest usable speed is generally 1/60th second; however, some permit flash synchronization of up to 1/125th second. To be sure, refer to your camera's instruction manual and the Interface Module instruction manual.

Your Sunpak autozoom 333D is so designed that by changing its interface module (a hot shoe contact) the flash will be fully interfaced with any dedicated camera. (For details of the Interface Modules, please read the separate instruction leaflet for the interface modules.)

1. Open the Battery Compartment Cover and take out the batteries.
2. Pull the Interface Module Locking Lever out with a metal piece like a coin as illustrated.
3. Remove the Module while holding the Locking Lever out.

4. Insert the Interface Blade and the Locking Pin of the module respectively into the Interface Receptacle and the Interlock Receptacle of the flash body. Then push the Locking Lever back into the locking position until the edge of the marks align. Make sure the module is securely attached.

CAUTION: THE BATTERY COMPARTMENT DOOR MUST BE OPENED PRIOR TO ATTACHING OR DETACHING INTERFACE MODULES.

Turn The Unit On

Slide the Auto/Manual Selector Switch (On/ Off Switch) to the red, yellow or green "A" position, and or "M" position. The amber ready light will glow as soon as the unit is charged and ready for picturetaking. This takes approximately 10 seconds.

Zoom Flash Head

The Autozoom 333D flash unit is equipped with a built-in zoom flash head. This Zoom flash head adjusts the angle of illumination to match the focal length of the lens in use. In automatic operation, the zoom flash head provides longer automatic operating distances. Refer to the following charts:

autozoom 333 D Thyristor Effective auto Distance Ranges

	35mm	50mm	135mm
F2	6.6~43'	7.5~50'	9~60'
F4	3.3~21'	4~25'	4.6~30'
F8	2.3~11'	3.3~13'	2.6~15'

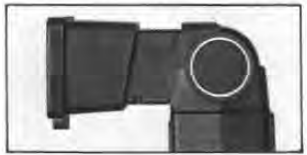
Table 1:

Lens (mm)	35	40	50	55	70	85	100	105	120	135	200	300
Zoom Distance to be set	←35		→←50							→←135		

(For example: If your lens is 40mm, set Zoom head at 35).

35mm

50mm



135mm

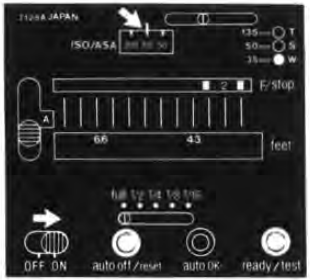
* Set the Zoom Head to one of the three focal settings matching the focal length of the lens in use.
* If the focal length of the lens in use is not indicated, refer to the following table 1:

For Manual Operation

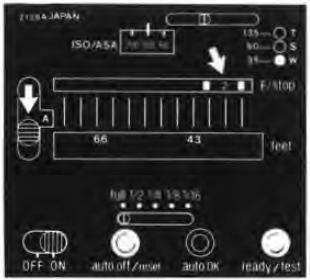
The guide number calculator dial (and power Ratio dial) on the back of the flash unit is calculated for 35mm coverage. For 50mm coverage, using the Zoom flash head, stop down 1/2 f/stop to compensate for the increased flash output. For 135mm coverage using the Zoom flash head stop down a full f/stop.

Note: For a wider angle of illumination, use the Sunpak Wide Angle Diffuser included in Sunpak's Filter Kit FK-1 (Cat. No. 651-738). Set the Zoom flash head at the 35mm position when using the Wide Angle Diffuser.

Automatic Operation



A. Slide the ASA Film Speed Scale until the ASA of the film in use is visible in the ASA speed window. (**Example:** ASA 100).

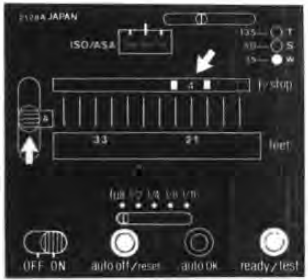


B. For the maximum distance range in automatic operation, move the Auto/Manual Selector Switch to the green "A" position so that the green "A" is visible in the Auto/Manual Mode Window. A Green line and f/2 will appear. Then set your camera lens opening (for ASA 100 film, the lens opening is f/2).

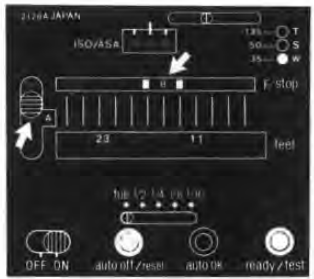
Note: If the ASA number for your film is not indicated on the ASA film speed scale, set ASA number as shown:

Marked ASA Speeds:	1000		400		200		100		50		25
Intermediate Nos:	800	500 640		250 320		125 160		64 80		32 40	

Automatic Operation



C. For an intermediate distance range in automatic operation, move the Selector Switch to the yellow "A" position so that the yellow line and f/4 appear. Then set the same aperture on your camera (for ASA 100 film, the lens opening is f/4).

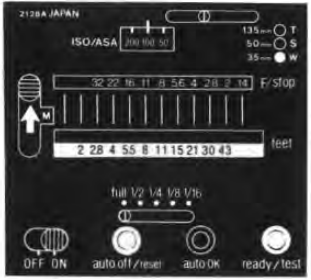


D. For maximum depth-of-field (greatest sharpness in front of, and in back of the subject), move the Selector Switch to the red "A" position so that the red "A", the red line and f/8 appear. Then set your camera lens opening (for ASA 100 film, the lens opening is f/8).

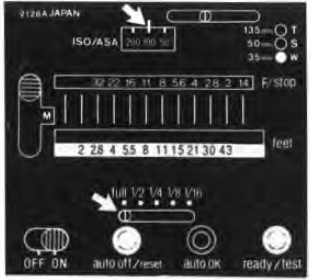
To Verify Correct Auto Exposure:

To verify the correct automatic exposure, just aim your flash directly towards your subject and press the Ready/Test Button. This will cause the flash to fire without actually exposing any film. If the automatic exposure is correct for your subject, the green "Auto OK" lamp will glow immediately after the "test" exposure. If the lamp does not glow, move closer to your subject (or, if you are shooting in yellow auto mode, switch to green auto mode and adjust the aperture accordingly.). The 'Auto OK' provides positive verification in automatic operation that your picture will be correctly exposed.

Manual/Power Ratio Operation



1. Set the Auto/Manual Selector Switch (on the back of the flash body) to the top so that the white "M" appears.



2. Set the Film Speed Scale to the desired ASA setting. (**Example:** ASA 100).

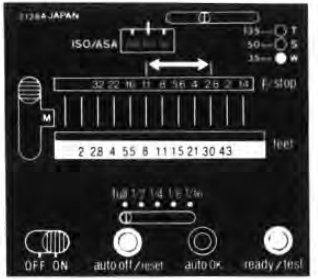
3. Adjust the Power Ratio Control to full power by sliding the Selector Switch.

4. The scales for distance and f/stop now show the correct combination of exposure. Find the flash-to-subject (not camera-to-subject) distance. (**Example:** 8')

5. Set your lens to the lens opening shown for this distance. (**Example:** with ASA 100 film, the correct lens opening at 8' is f/11).

Using Power Ratio:

1. As when using the Power Ratio at full power, set the Film Speed Scale to the appropriate ASA rating and be sure the Auto/Manual Selector is at "M".
2. Determine the distance of your subject from your flash. When the autozoom 333D is mounted onto the camera, focus your camera's lens and read the distance indicated by the distance scale on the lens barrel.



3. Slide the Power Ratio Control Switch until you have the desired f/stop opposite to this distance.
   ALWAYS SLIDE THE POWER RATIO CONTROL SWITCH TO A MARKED (CLICK STOP) POSITION. DO NOT SET THE POWER RATIO BETWEEN MARKED RATIOS OR THE UNIT WILL NOT OPERATE AS DESIRED.
   (Example: 8 feet with ASA 100 film, you may choose f/11, 8, 5.6, 4 and 2.8).

4. Be sure the distance scale indicates proper f/stop for the correct exposure of your subject. If not, increase or decrease the power as needed.
5. You are now ready to take your picture. Remember to adjust the aperture on your lens to match the aperture indicated on the calculator scale.

Auto-Power-Off/Reset

Your Sunpak autczoom333D features an energy saving circuitry which has long been awaited because battery life is very precious for flash photographers.
While the power switch is at 'batt' position and the unit is charging, the power circuit will automatically shut off. The current flow from the battery to the capacitor is cut if no pictures are taken within a predetermined period of time.
Your autozoom333D will remain ready to fire even after the circuitry is cut off as long as the orange Ready/Test light stays 'on'. To reset, just fire the flash again or push the Auto/Off Reset Button. This energy.saving circuitry works both in automatic and manual operations.

Using Power Ratio for Better Pictures

Fill-in Flash Photography

Your Sunpak electronic flash is of significant benefit even in outdoor photography. Example: a bright day at the beach ..... much too bright for your subjects to face the sun. So you turn them around, and shoot against the sunlight: a backlit shot. You can take a close-up meter reading of their faces, to insure that the exposure is based upon the subjects' faces (relatively dim) and not upon the background light (extremely bright). While this technique will produce a well-exposed image of the subject, the background will be rendered far too light; the brightness value in the scene is beyond the ability of any film to record.

Solution: Sunpak ..... and its unique Power Ratio Control.

EXAMPLE:
Full-fill-in (1/2 power)
Shutter speed: 'X' speed
Distance to subject: 8 feet
Film speed: ASA 100
Aperture: f/8

1) With your camera's built-in exposure meter (or a separate meter), determine and set the correct lens opening for the brightest part of the scene when exposed at the fastest speed at which your camera synchronizes with electronic flash. (Automatic shutter-priority cameras, such as Konica may be used in "Automatic" mode.)
   Example: Set your camera's shutter to 'X' speed (or to the fastest speed synchronized for electronic flash without exceeding 1/1200th second). Your meter indicates correct exposure for the brightest area of the scene — usually the background. Example: Set your lens to f/8.
2) Focus, and read the camera-to-subject distance (feet) from your lens' distance scale. (**Example:** 8 feet.)
3) Your have now determined the two required parameters for correct exposure — aperture and distance. Move the Power Ratio Control Selector until the required distance (8') appears above the required aperture (f/8). Your flash will now operate at the correct power ratio setting for perfectly-balanced fill-in flash. Example: Where an aperture of f/8 is required at a distance of eight feet, a "power ratio" of 1/2 is set for ASA 100 film.
4) Shoot! Your picture will be perfectly exposed, because the light of the flash on your subject is now balanced perfectly with the exposure required for the brightest part of the scene!

Full fill-in (1/2 power)

The technique described above provides equal brilliance on the subject and the brightest area of the overall scene. This effect is called "full" fill-in and gives excellent results with a majority of subjects.

1/2 fill-in (1/4th power)

- Should you prefer a less pronounced fill-in effect (less light on subject), move the Power Ratio Control to the next smallest position: for example, 1/4th when 1/2 is indicated. Use this technique when your subject is surrounded by a faint shadow or has an unusally light complexion or appearance.

1/4 fill-in (1/8th power)

- Alternatively, you may wish to employ a more pronounced fill-in flash effect when your subject has darker complexion or is in an extremely dark shadow and not well lit as other bright areas of the scene. This "extra" fill-in effect is achieved simply by dialing a Power Ratio one

1/8 fill-in (1/16th power)

step over the power indicated – Example: full power instead of 1/2.
- Experiment, when possible, to determine the ratio most pleasing to you with subjects representative of your normal picture-taking.

Operating Adjustable Bounce Flash Head

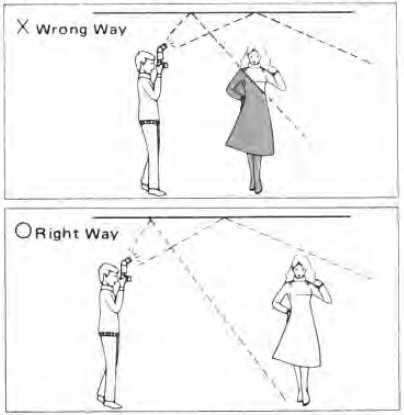
Your autozoom 333D has a unique flash head assembly which enables you to aim the light in virtually any direction and render more pleasing and creative results. For added convenience and repeatability, the Adjustable Bounce Flash Head has reference marks so you can determine the exact angle of bounce you desire.

1. To rotate the Adjustable Bounce Flash Head, grip with thumb and forefinger and gently turn to the desired setting. DO NOT FORCE THE HEAD.

2. To adjust the Flash Base, simply twist as illustrated with thumb and forefinger.

For Better Bounce Flash Pictures

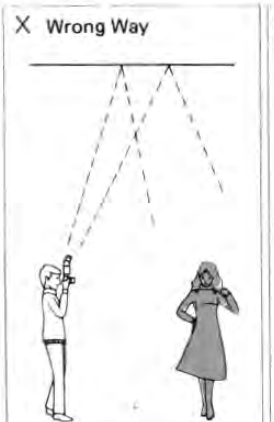
Don't Stand Too Close to Your Subject

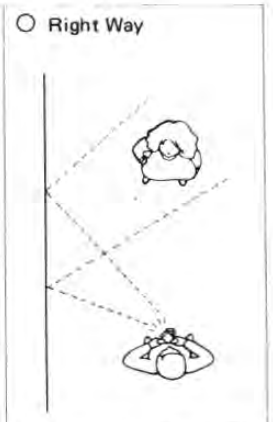


Reason: The light will be reflected downward at an angle so acute that no light (or very little light) can reach your subject's face. This will cause unpleasant looking dark (shadow) areas under the subject's eyes and nose.

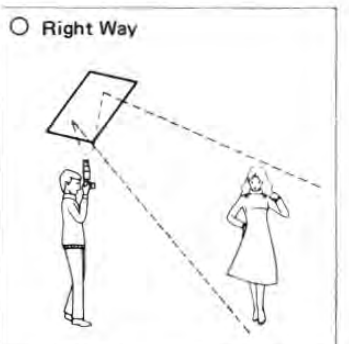
Rotate the flash sufficiently to prevent the subject or the background immediately behind the subject from receiving any portion of direct light from the flash.

In small rooms, try bouncing the light off the wall onto the ceiling. Provided it is a white wall and ceiling, this technique provides more even lighting than off-ceiling bounce where space is limited.

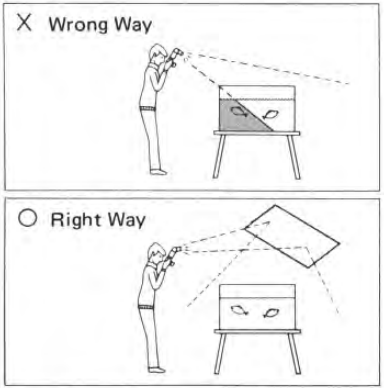




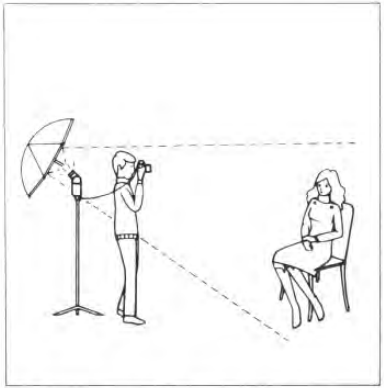
Remember, you can bounce light off a wall if the ceiling is too high. In many homes, a white wall makes an excellent reflective surface for bounce flash ..... and, quite often more light can reach the subject since the light does not have to travel as far.



If you can't find a suitable bounce surface, you can make one, i.e., if the wall or ceiling is any color other than white, your subject will show that color in the finished photograph. Therefore, create your own bounce surface ..... possible you can use an ordinary piece of white cardboard held or taped in front of the flashtube housing so that it reflects the light onto the subject.



In close-up photography, many excellent lighting effects can be achieved by using one or more pieces of white cardboard as reflective surfaces in bounce flash. The soft, diffused effect of "bounce" light often reveals fascinating details of small objects.



For extensive use in portrait photography, many photographers prefer "umbrella" lighting created by bouncing the flash off a white or silvered umbrella. The Sunpak Bounce Lighting Kit is ideal for this use.

NOTE: To determine the bounce lighting technique which satisfies you, try experimenting by using all of the flash head positions.

Multiple Flash Operation

For genuinely professional lighting effects, the only thing better than a Sunpak flash is ..... two Sunpaks! (Or more.) It's easy to use your Sunpak in conjunction with another, electronic flash.

Understanding Multiple Flash

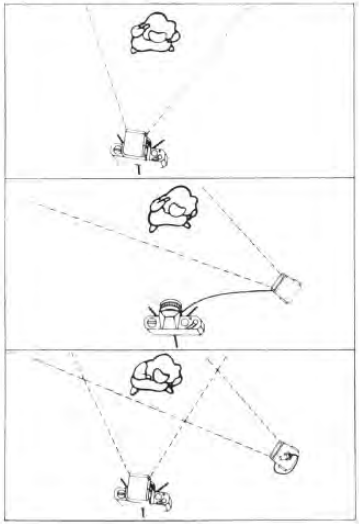
* The 'main' flash is the one which is attached to the camera. A light-sensitive **slave unit** is attached to each of the 'remote' (other) flash units; when the main flash is fired, the other flash units are triggered – in perfect synchronization – by the slave units. The only cord involved is the one going from the 'main' flash to the camera, so you don't have to contend with wires dangling across the floor.

* The **Sunpak Auto Slave** is a perfect partner for your multiple-flash work. It's very small, requires no batteries, and is extremely sensitive – being able to trip a remote flash even with indirect or bounce lighting at distances up to 100 feet or more. It plugs into the PC cord of the remote flash.

  Although the Sunpak Slave is very sensitive to electronic flash light, it's unaffected by bright 'ambient' room right or even daylight – so your flash won't go off accidentally.

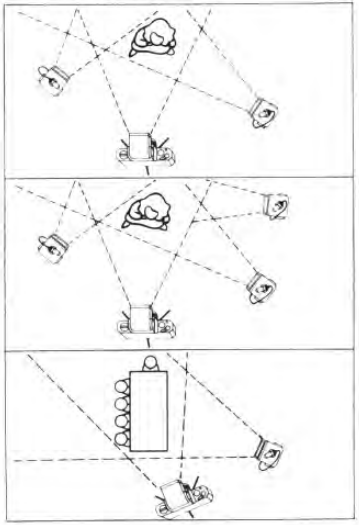
  And the Sunpak Auto Slave is supplied with a handy adapter that lets you attach any shoe-mount flash to any standard tripod.

Use This Arrangement



For This Effect

Use This Arrangement



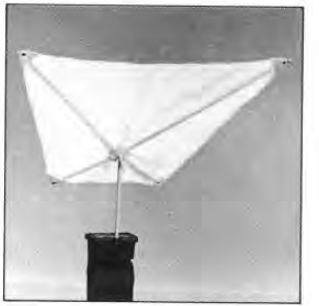
For This Effect

Accessories Available

For maximum creativity and ease of operation, many optional accessories are available. Just like today's system cameras, you can customize your flash system to suit your exact photographic requirements.

Sunpak Auto Slave:
Allows any flash unit with a PC Cord, to be used to trigger an auxiliary flash by plugging its PC Cord into a built-in PC socket on the slave.
Cat No. 651-715

Sunpak Filter Kit FK-1:
Filter Kit consists of red, blue, green and yellow color filters as well as a neutral density filter, 85B color correction filter for use with tungsten film, and two wide-angle diffusers. Supplied with case.
Filter Kit FK-1: Cat. No. 651-738



Sunpak Bounce Lighting Kit:
Designed to give very pleasant, soft, indirect lighting effects to the subject.
For autozoom 333D, neither a Filter Holder nor a Telekit are required for mounting the Bounce Kit.
Weighs only 1.4 Oz.
Bounce Lighting Kit: Cat No. 651-795

Sunpak Basic Grip/6x6 Bracket: The Sunpak basic Grip features a built-in hot shoe, contoured grip, tripod socket. Supplied with standard 12-position bracket (for use with 35mm style cameras), and PC cord. The Sunpak 6x6 Bracket can be used with the basic grip when using 2¼ film format cameras. Basic Grip: Cat No. 651-772 6x6 Bracket: Cat No. 651-752

Sunpak Bracket Extender: This Bracket Extender is designed to hold the remote sensor when used with cameras which do not have an accessory shoe. Use with Sunpak Standard Grip:
Cat No. 651- 772
Sunpak Bracket Extender:
Cat. No. 651-759

Sunpak QBC-3 Nicad 3-Hour Charger:
This charger is used with **Sunpak QB-3 Nicad Batteries.** It charges one to four batteries at a time. It will fully recharge batteries in approximately 3 hours. Sunpak QBC-3 Nicad 3-hour Charger:
Cat No. 651-731 Sunpak QB-3 Nicad Batteries (4 pcs.):
Cat. No. 651-732

Sunpak Dedicated Remote Sensor Cord:
Designed for the Sunpak Autozoom 333D and Sunpak 'D' Series flash units, the Extension Cord allows the use of electronic flash off camera. Since the auto sensor unit always faces the subject, you will be assured of accurate automatic bounce for remote lighting effects with perfect exposures.

Cat. No. 651-843 for Canon
Cat. No. 651-844 for Nikon/Ricoh/Minolta/Standard
Cat. No. 651-845 for Pentax/Olympus/Yashica

Care of Your autozoom 333 D

Your Sunpak electronic flash has been engineered to require almost no "maintenance". Still to insure best performance year-in and year-out follow these basic pointers:

1. Storage:
Store your flash unit in a cold dry place. Do not leave your flash near a heater, in a car or car trunk on a hot day, or any other location that can get excessively hot.

2. Inspect Batteries Frequently:
Check for reasonable recycling time (the length of time it takes the ready light to come on between flashes): if it's more than 20 or 30 seconds, a fresh set of alkaline batteries should be obtained (or if nickel cadmium batteries are used, they must be recharged).
It's also wise to check your batteries for appearance: Sometimes even the best of batteries discharge or leak some chemical material through the jacket ..... and leave a whitish-powder on the battery which passes onto your Sunpak flash unit's electrical contacts. (If this has happened, replace the batteries after cleaning the Sunpak's internal battery contacts with an eraser.) Finally, it's a good idea to remove the batteries once in a while and wipe them with a handkerchief. The cleaner the battery surface, the easier it is for the energy to pass through your flashgun's electrical system.

3. Remove Batteries:
If for some reason you do not intend to use your flash unit for a period of several weeks or more, remove the batteries and store them separately. Inside a plastic bag is one good way.

4. Service:
In the unlikely event that your Sunpak electronic flash requires service, return it to your dealer or the sole U.S. Distributor at the address shown on back of the Warranty Card. Do not, under any condition, attempt to disassemble and/or adjust it yourself. Electronic flash operates on high voltage and should not be taken apart. **However, keep in mind that flash failure is more likely to result from weak batteries than from any other single cause.** If it doesn't fire, check batteries and contacts carefully.

Specifications

GUIDE NUMBER (ASA100) WIDE GUIDE NUMBER (ASA100) STD GUIDE NUMBER (ASA100) TELE		86 100 120
GUIDE NUMBER (ASA1000) WIDE GUIDE NUMBER (ASA1000) STD GUIDE NUMBER (ASA1000) TELE		272 316 379
BCPS WIDE POSITION BCPS STD POSITION BCPS TELE POSITION		1310 1770 2550
AUTO CIRCUIT		THYRISTOR
POWER SOURCE		4 x AA
RECYCLE TIME	(ALKALINE)	0.5 ~ 9 sec.
	(NC)	0.5 ~ 4 sec.
NO. OF FLASHES	(ALKALINE)	200 ~ 1800
	(NC)	95 ~ 900
FLASH HEAD ZOOM		WIDE 35MM ~ TELE 135MM
FLASH HEAD BOUNCE		VERTICAL 0 ~ 90° HORIZONTAL 0 ~ 330°

LIGHT DISTRIBUTION "WIDE" 35mm COVERAGE "STD" 50mm COVERAGE "TELE" 135mm COVERAGE		 45° x 60° 34° x 46° 17° x 24°
FLASH DURATION		1/1200~1/45000 sec. 1/1200~ 1/20000 sec.
COLOR TEMPERATURE		5500°K MOST SUITABLE FOR DAYLIGHT COLOR FILMS.
AUTO OK LAMP		GREEN LED
AUTO APERTURE (ASA100)		F2, F4, F8
AUTO DISTANCE	"WIDE"	2.3 ~ 11' (F8) 3.3 ~ 21' (F4) 6.6 ~ 43' (F2)
	"STD"	2.6 ~ 13' (F8) 4 ~ 25' (F4) 7.5 ~ 50' (F2)
	"TELE"	3.3 ~ 15' (F8) 4.6 ~ 30' (F4) 9 ~ 60' (F2)
INSTANT READ OUT DIAL		YES WITH LED
PC SYNC CORD		DETACHABLE TO STANDARD MODULE
DIMENSIONS H x W x D		4.4 x 2.9 x 3.2"
WEIGHT		9.9 oz

Note:

* Specifications subject to change without notice.
* All specifications are based upon American National Standards Institute (ANSI) testing procedures.
* The number of flashes / recycling time was determined by using fresh batteries in normal room temperature under test conditions. User result may differ due to battery and temperature conditions.

SUNPAK®

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BERKEY MARKETING COMPANIES
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WOODSIDE, N.Y. 11377

Made and Printed in Japan

ELECTRONIC FLASH autozoom 333D Thyristor