This manual is for reference and historical purposes, all rights reserved.
This creation is copyright© by M. Butkus, NJ, U.S.A.
These creations may not be sold or distributed without the expressed permission of the producer
I have no connection with any camera company

On-line camera manual library

If you find this manual useful, how about a donation of $2 to:
M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701
and send your e-mail address so I can thank you.
Most other places would charge you $7.50 for an electronic copy or
$18.00 for a hard to read Xerox copy.

This will allow me to continue this site, buy new manuals and pay their shipping costs.
It'll make you feel better, won't it?

If you use Pay Pal, go to my web site
www.orphancameras.com and choose the secure PayPal donation icon.
Sold as auto 433D in U.S.A and Canada and B3600D in all other countries.

Das Modell auto 433D wird in den U.S.A. und Kanada unter der bezeichnung B3600D angeboten.

Ce modèle est vendu, aux U.S.A. et au Canada sous la référence auto 433D, sous la référence B3600D dans tous les autres pays.

Vendido como auto 433D in U.S.A y Canada y B3600D en los otros países.

In de U.S.A. en Canada verkocht onder de naam auto 433D en in alle andere landen onder de naam B3600D.

Säljs i U.S.A och Canada som auto 433D och som B3600D i alla andra länder.

商品名は、アメリカ、カナダでは、auto 433D、日本及びその他の国では B3600D となります。
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 APPLIANCE IS USED SUBSEQUENTLY.

6. DO NOT OPERATE APPLIANCE WITH A DAMAGED CORD.

7. DO NOT LET CORD HANG OVER EDGE OF TABLE OR COUNTER OR TOUCH HOT SURFACES.

8. IF AN EXTENSION CORD IS NECESSARY, CARE SHOULD BE TAKEN TO ARRANGE THE CORD SO THAT IT WILL NOT BE TRIPPED OVER OR PULLED.

9. ALWAYS UNPLUG APPLIANCES FROM ELECTRICAL OUTLET WHEN NOT IN USE. NEVER YANK CORD TO PULL PLUG FROM OUTLET. GRASP PLUG AND PULL TO DISCONNECT.

SAVE THESE INSTRUCTIONS

English .. 3  Dutch .. 30
Deutsch .. 9  Svenska .. 37
Français .. 16  日本語 .. 43
Español .. 23
INTRODUCTION

WELCOME to the world-wide family of Sunpak owners. Your Sunpak autozoom 433D is one of the most advanced electronic flash units in the world. It is the product of extensive research and development and has been designed to give you many enjoyable years of service. Because many of the fine features of your new autozoom 433D are so unique, please take a few minutes to read this owner's manual carefully with your autozoom 433D in front of you. The more you know about your new electronic flash, the better you can use it for maximum creativity in your pictures.

All pictures, illustrations and charts will be available from page 52. Figures bracketed at the end of each instruction sentence are coupled with the numbers supplied on the pictures, illustrations and charts.

Table of Contents

Description of Parts ........................................... 3
OPERATION .................................................. 3—6
Accessories Available for the Sunpak autozoom 433D .................. 6
Care of your autozoom 433D ..................................... 6
Specifications .................................................. 8

Description of Parts (Page 52)

1. Flashtube Housing
2. Accessory (optional) Mounting Guide
3. Bounce Flash Control Base
4. Battery Compartment Cover
5. Auto Sensor
6. Knurled Lock Ring
7. Dedicated/Hot Shoe Contact
8. Auto/Manual Mode Window
9. Auto/Manual Selector Switch
10. AC/51OV Outlet
11. Battery/AC.HV Selector (On/Off) Switch
12. Bounce Flash Head
13. Vertical Bounce Control Scale
14. Bounce Angle Indicator
15. Film Speed Selector
16. Film Speed Indicator Window (ISO)
17. F/Stop Scale
18. Distance Scale
19. Feet/Meter Selector Hole
20. Power Ratio Control Scale
21. Power Ratio Control Selector
22. Ready Light/Test (Open Flash) Button
23. Auto OK Indicator

OPERATION

Power Sources: (1)

Your Sunpak auto 433D may be used with five different power sources:
1. Four AA alkaline batteries (not included)
2. Four AA rechargeable nickel-cadmium batteries (optional)
3. The Sunpak Multi-Voltage AC Adapter (AD-27) (optional)
4. The Sunpak Powerpak for 51OV High Voltage Batteries (optional)
5. The Sunpak 51OV rechargeable battery NC510 (for use with Sunpak Powerpak) (optional)

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 autozoom 433D slightly 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 direction shown. (2)
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)
3. Press the cover until it snaps into place.
Using the Multi-Voltage AC Adapter or the Sunpak Powerpak for 510-Volt Batteries (Both Optional):

1) For AC operation, be sure to check that the voltage selector on your AC Adapter is set to the appropriate voltage. Your AC Adapter has been factory set for 220V. For use in other countries where 117V, 127V and 240V are standard, you may adjust the setting as illustrated. Remove the small Phillips head screw located next to voltage window and rotate the selector switch with a screw driver to the proper voltage setting. After the voltage setting has been made, the screw must be reinstalled to prevent accidental movement of the selector switch. (4)(5)

Note: If the Multi-Voltage AC Adapter is incorrectly set, the adapter will not function properly and may damage your auto 433D.

- For auto 433D, do not use the AC Adapter other than the AD-27.

2) When using Multi-Voltage AC Adapter or Sunpak Powerpak for 510-Volt Batteries, always set Battery/AC HV Selector Switch to AC/HV position.

Plug into the AC/High Voltage socket on the flash and into a standard wall outlet as illustrated. The AC Adapter will supply virtually unlimited flashes and is ideal for indoor use. (6)

3) When you use the optional accessory Sunpak Powerpak for 510-Volt Battery, first attach the supplied plug adapter to the end of Powerpak cord and plug it into the auto 433D in the same manner as you would with the Multi-Voltage AC Adapter. The Sunpak Powerpak for 510-Volt Battery allows extremely rapid recycle times and the greatest number of flashes. (7)(8)

CAUTION: Even when your auto 433D is used with external power sources, always store batteries inside for dedicated function. Your auto 433D is not interfaced to the camera without internal batteries.

Mounting the Flash to the Camera:

CAUTION: For mounting or detaching the autozoom 433D on or from the camera, always make sure the On/Off Switch is at “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. (9)

Note: When using Olympus cameras, make sure that the appropriate accessory shoe as below is attached to your camera and then put the autozoom 433D on it.

- For OM-2N, OM-1N: accessory shoe #4
- For OM-2: accessory shoe #3
- For OM-10: mount the autozoom 433D onto the built-in hot shoe.

2. 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. (10)

AUTOMATIC OPERATION:

The sensitive Silicon Photo Transistor of your autozoom 433D Sensor measures the light reflected by your subject and automatically controls the flash duration to assure correct exposure within a wide range of distances. It’s easy to use:

A. Slide the ISO Film Speed Scale till the ISO of film in use is visible in the ISO speed window.

(Example: ISO 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 and f/2 will appear. Then set your camera lens opening (for ISO 100 film, the lens opening is f/2). Your flash and lens are now set for correct exposure at any distance between 2.3 m and 18 m (8 feet and 60 feet). (11)
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 ISO 100 film, the lens opening is f/4). Your flash and lens are now set for correct exposure at any distance between 1.2 m and 9 m (4 feet and 30 feet). (12)

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", red line and f/8 appear. Then set your camera lens opening (for ISO 100 film the lens opening is f/8). Your flash and lens are now adjusted for correct exposure at any distance between 0.6 m and 4.5 m (2 feet and 15 feet). (13)

**TAKING THE PICTURE** (14)

1. Move On/Off Switch to the On position.
2. In a few seconds, the Ready/Test Button on the back of the flash unit will start to glow. This confirms that your flash is ready to fire.
3. **Take the picture!**
   Your flash will automatically provide the correct amount of light for proper exposure within the distance range indicated.

   **For succeeding exposures...**
   Just wait until the Ready/Test light comes on. Make sure you are within the usable auto distance range for the lens opening in use and...Shoot!

**To Verify Correct Auto Exposure:** (15)

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 or red auto mode, switch to green and adjust the aperture accordingly). The Auto OK provides positive verification in automatic operation that your picture will be correctly exposed.

**POWER RATIO (MANUAL) OPERATION**

With Sunpak’s unique Power Ratio Control you can adjust the light output over a five stop range (from full to 1/16 power). This feature gives you greater depth-of-field control, the ability to control battery life and recycle times, precise full-in flash capability, macro/close-up capability and the ability to control flash duration.

**OPERATING INSTRUCTION FOR STANDARD CAMERAS**

**Using the Power Ratio Control at Full Power:**

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 ISO setting. (16) (Example: ISO 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 combination of exposure. Find the flash-to-subject (not camera-to-subject) distance. (Example: 4.5 m/15')
5. Set your lens to the lens opening shown for this distance. (17) (Example: with ISO 100 film, the correct lens opening at 4.5 m/15' is f/8)

**Using Power Ratio** (18)

1. As when using the Power Ratio at full power, set the Film Speed Scale to the appropriate ISO rating and be sure the Auto/Manual Selector is at "M".
2. Determine the distance of your subject from your flash. When the auto 433D is mounted to the camera, you can easily do so by focusing your camera’s lens and reading 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 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: 3.2 m/11 feet with ISO 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.

OPERATING ADJUSTABLE BOUNCE FLASH HEAD

Your autozoom 433D has a unique flash head assembly which allows you to aim the light in virtually any direction. This allows you to use the autozoom 433D to render more pleasing and more creative lighting 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 desired setting. (19) DO NOT FORCE HEAD.

2. To adjust the flash Base, simply twist as illustrated with thumb and forefinger. (20)

For a complete description for better bounce pictures please read Sunpak’s “Guide to Electronic Flash Photography”.

Total Bounce Control System (21)(22)

In addition to its bounce flash head, your auto 433D’s unique accessories are ideal for better bounce lighting.

Bounce Flap: The bounce flap gives multiple lighting effects by single auto 433D unit. A predetermined portion of light illuminates your subject directly and the rest of the light goes to the ceiling for bounce illumination. Ideal for vivid and lively effects.

Bounce Reflector: For more extensive bounce lighting effects, Sunpak Bounce Reflector (to be attached to the Sunpak Telezoom or Filter Holder) is available in option. For details, refer to the Bounce Adaptor instruction manual.

ACCESSORIES AVAILABLE FOR THE SUNPAK AUTO 433D (23)

For maximum creativity and ease of operation, many optional accessories are available for your auto 433D. Just like today’s system cameras, you can customize your auto 433D to suit your exact photographic requirements.

1. Sunpak Filter Kit FK-1
2. Sunpak Bounce Reflector
3. Telezoom TL-8
4. Sunpak Basic Grip/6x6 Bracket
5. Sunpak QBC-3 Nicad 3-Hour Charger
6. Sunpak Multi-Voltage AC Adapter
7. Sunpak Powerpak for 510V Battery
8. Sunpak NC510 Rechargeable Battery for Sunpak Powerpak/
Sunpak QBC-5

CARE OF YOUR auto 433D

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: If you don’t use your autozoom 433D for several weeks, or if you plan to take it on a trip, the accessory compartment case is recommended. This case will not only hold your autozoom 433D, but its many accessories. Also be sure to remove the batteries before storage to prevent possible damage due to battery leakage.

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. **Maintenance:** If your autozoom 433D's reflector window becomes dirty, use one drop of lens cleaner on a lens cleaning tissue. A small amount of lens cleaner and lens tissue or a slightly moist cloth can be used to clean the rest of the unit. BE SURE TO THOROUGHLY DRY THE UNIT IMMEDIATELY AFTER CLEANING.

5. **Service:** In the unlikely event that your Sunpak electronic flash requires service, return it to your dealer or the address shown on Sunpak world wide network. Do not, under any conditions, attempt to desassemble and/or adjust it by 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 any other single cause: if the flash doesn't fire, check batteries and contacts carefully.