Sold as auto 555 in U.S.A and Canada and G4500DX in all other countries.

Das Modell auto 555 wird in den U.S.A. und Kanada unter der bezeichnung G4500DX angeboten.

Ce modèle est vendu, aux U.S.A. et au Canada sous la référence auto 555, sous la référence G4500DX dans tous les autres pays.

Vendido como auto 555 in U.S.A y Canada y G4500DX en los otros países.

In de U.S.A. en Canada verkocht onder de naam auto 555 en in alle andere landen onder de naam G4500DX.

VENDUTO IN U.S.A. E CANADA CON LA SIGLA auto 555, IN TUTTI GLI, ALTRI PAESI CON LA SIGLA G4500DX.

Säljs i U.S.A och Canada som auto 555 och som G4500DX i alla andra länder.

商品名は、アメリカ、カナダでは auto 555, 日本及びその他の国では G4500DX となります。
INTRODUCTION

The Sunpak Auto 555 is a remarkably versatile and sophisticated flash unit. It gives you . . .

- More Power,
  Guide Number of 150/45 (m/l) for ISO 100 film, 22/72 (ft/m) for ISO 25 film.

- More Control,
  Fully dedicated capability via dedicated remote cords and interchangeable modules allows the use of TTL off-the-film metering with compatible cameras. Plus more: override features for automatic operation and manual power ratio operation.

- More Versatility,
  A full range of power sources available.

- More Flashes,
  The energy-saving Thyristor circuitry gives you hundreds of extra flashes in automatic or manual operation—and provides ultra-fast recycling times as well. And the unique Nicad “Cluster” recharges completely in one hour.

- More Picture-taking Possibilities,
  Dial the unique Power Ratio control to shoot at 1/2 power, 1/4 power . . . all the way down to a 1/864th power. This opens up a whole new range on fill-in flash, macro flash, rapid-sequence flash and more. Because of its many unique features, we recommend that you read through this Owner’s Manual with your camera and flash unit in front of you before taking pictures. Then, as with any important new equipment, shoot a test roll of film to confirm that you are using your new equipment to the best advantage. You’ll be rewarded by superior flash pictures beginning with your first roll of film—and for many, many years to come.

Welcome . . . to the Sunpak world of light!

All pictures, illustrations and charts will be available from page 59.

Figures bracketed at the end of each instruction sentences are coupled with the numbers supplied on the pictures, illustrations and charts.

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DESCRIPTION OF PARTS

1. Bounce Head
2. Vertical Bounce Scale
3. Accessory Mounting Groove
4. Flashtube Housing
5. PC Synch Cord Socket
6. Dedicated Connector
7. Silicon Photo Transistor Cell
8. Flash Grip
9. Flash Bracket Clamp
10. Tripod Mounting Socket
11. Battery Door
12. Film Speed Scale
13. Film Speed Selector Knob
14. Aperture Scale
15. Aperture Selector Knob
16. Power Ratio Selector Knob
17. Auto OK Lamp
18. Distance Scale
19. Ready/Test (Open Flash) Button
20. ON/OFF Switch (AC, H.V/Battery Selector)
21. Mode Selector Switch
22. AC/510 V Outlet
23. Quick-Release Button/Lock Ring
24. Battery Holder
25. Filter Holder
26. PC Synch Cord
27. Camera Mounting Bracket
28. Camera Retaining Screw

BASIC OPERATING INSTRUCTIONS:

(Automatic Operation)

1. Insert Batteries into Holder: (1)
   Insert batteries as illustrated into the removable AA Battery Holder. The holder has a guide showing the correct positioning of the batteries for proper polarity. Use either six AA alkaline or six AA nickel-cadmium batteries.
   Note: In addition you may also use the Sunpak CL-2 Nicad Battery Cluster, Sunpak Powerpak for 510 V Battery or the Sunpak AC Adapter.

2. Load Holder into Battery Chamber: (2)
   Insert the loaded battery holder as illustrated into the battery chamber of your Auto 555. Close battery door until it snaps.
   Note: If you are using the AC Adapter or the high voltage Sunpak Powerpak for 510 V. Battery, plug connecting cord into the AC/High Voltage Socket on the back of the unit.

3. Mount on Camera (p, 4); (3)
   Attach camera to bracket and bracket to flash clamp. Connect the PC cord to the flash and camera. Set the shutter speed dial to the fastest speed recommended for flash synchronization (p. 4).
   *Note: Move the Mode Selector Switch (on back) to the Auto position.

4. Set Film Speed Scale: (4)
   Slide the Film Selector knob until the appropriate film speed ISO number is indicated. For ISO of your film, refer to the instructions supplied with the film.

5. Select Working Aperture: (5)
   With most films, you will have a choice of seven apertures in automatic operation (seven in manual). For automatic operation, choose any f/stop as indicated in the Aperture Window and set your lens to this corresponding f/stop. For manual operation, adjust the Power Ratio Control for the desired aperture.

6. Turn the Unit On: (6)
   Set on/off switch to ‘batt.’ position. Using the Ready/Test (open flash) button, fire the Auto 555 about 5 times to form the capacitor. The ready light (amber color)
will glow when the Auto 655 is ready to be fired. Be sure to
set the Mode Selector Switch to the desired position.
In addition, when your Auto 655 is flashed, the auto-OK
lamp will verify correct automatic exposure by lighting
momentarily.

7. Aim Adjustable Bounce Flash Head: (7)
The unique Adjustable Bounce Flash Head of your
Auto 655 can be aimed in virtually any direction. If
using automatic operation, the built-in sensor will proper-
ly adjust the flash for perfectly-exposed pictures. For
off-camera auto bounce flash operation, the optional
Remote Sensor is recommended.
Notes: The sensor must always face the subject for
proper auto exposure control.

8. Take Your Picture: (8)
Be sure your camera's shutter speed is set for X synchro-
nization. This is usually 1/60th or 1/125th second for
focal plane shutter SLR cameras. Refer to your camera's
owner's manual for the correct setting. Also be certain
that the flash PC cord is connected to the "X" synch
terminal of the camera.

OPERATION

POWER SOURCES: (Optional) (10)
Your Sunpak Auto 655 Pro-System may be used with six
different power sources. Each power source has specific
advantages; select the power source for your photographic
needs.

1. Six alkaline AA batteries (10A)
2. Three rechargeable nickel-cadmium AA batteries (10B).
3. Rechargeable, nickel-cadmium Battery Pack CL2 (10C)
4. The Sunpak Multi-Voltage AC Adapter (10D).
5. The Sunpak Powerpak for 610 V Battery (10E).
6. The Sunpak 610-V rechargeable battery pack NC510 (10F).

TO INSTALL BATTERIES:
1. Open the battery door as illustrated and remove battery
holder. (8)
2. Install batteries as illustrated in the holder. Be sure to
observe correct polarity or you may cause damage to
your Auto 655. (11)
3. Replace Battery Holder in your Auto 655. Extra Battery
holders may be purchased for use when rapid replace-
ment of batteries is necessary. (12)
Notes: The Battery Holder has been designed to fit your
Auto 655 so as to assure proper use. Do not force since
it will fit in only the proper position.

Alkaline or Nickel-Cadmium Batteries?
The major advantage of alkaline batteries is that they provide
more flashes per set. With nickel-cadmium batteries, will
provide fewer flashes per set, they will recycle your Auto 655
slightly faster and can be recharged hundreds of times for
more economical operation over the long run.

Using Multi-Voltage AC Adapter AD-26
or Sunpak Powerpak for 610-V Battery
1. For AC operation, be sure to check that the voltage
selector on your Multi-Voltage AC adapter is set to the
appropriate voltage. Your AC adapter has been factory
set for 120 V, the U.S. standard. For use in other coun-
tries where 100 V, 220 V and 240 V are standard, you
may adjust the setting as illustrated. Remove the small
Phillips head screw next to voltage switch and rotate the
selector switch with a screwdriver to the proper voltage
setting. After the voltage setting has been made, the
socket must be reinstalled to prevent accidental
movement of the selector switch. (13)

2. Plug into the AC/High Voltage socket on the flash and
into standard wall outlet as illustrated. The AC Adapter
supplies virtually unlimited flashes and is ideal for indoor
use. (14)
Notes: If the Multi-Voltage AC Adapter is incorrectly set,
the adapter will not function properly and may damage
your Auto 655.
3. When you use the optional accessory Sunpak Powerpak
for 610-V Battery, refer to the instructions supplied
with that unit. Plug into the Auto 655 in the same
manner as you would with the Multi-Voltage AC Adapter.
The Sunpak Powerpak for 610-V Battery allows extremely
rapid recycle times and the greatest number of flashes
from any portable power source. (15)

CAUTION:
In dedicated operation with other power sources than 6 pcs
of AA batteries or Sunpak CL-2, keep 6 AA batteries or CL-2
in battery compartment to control the dedicated circuitry.
And make sure Power Switch is set to AC/1V position, as
current is drawn from batteries and auxiliary power
sources in parallel.

MOUNTING FLASH ON CAMERA:
Your flash unit has a quick-release mounting clamp attached
to the flash grip (handle). This clamp accepts a snap-in
bracket, your camera is secured to the bracket. As the
bracket may be removed from the clamp with a one-touch
action, set-up and disassembly of your equipment is quick
and positive.

1. Turn Locking Button on clamp counterclockwise. (16)
2. Press Locking Button firmly inward, and hold in place. (17)
3. Slide silver end of bracket into center of clamp. (18)
4. Release Locking Button. The bracket is now attached
to the clamp. For ultimate security, you should tighten
the locking screw by turning it fully clockwise. (19)
5. Press the Camera Retaining Screw through opening at
end slot on bracket, and turn screw clockwise firmly
until threaded portion of screw passes above bracket
slot. Center the camera retaining screw under your
camera's tripod socket, and tighten securely. (20)
6. Connect the PC cord to the flash sync outlet (on the side
of the flash) and camera flash outlet as shown. (21)
* If the camera has separate flash terminals marked "M"
and "X", the Sunpak cord connects to the "X" terminal.
* If the camera has a switch "flash/off", with the lens
barrel marked "M" and "X" set the switch to the "X" position.

7. Set shutter speed to the fastest speed usable for electronic
flash with your camera, provided that speed does not exceed
1/450th second. On single-lens reflex cameras
with focal-plane shutters, this speed is usually 1/60th
or 1/125; cameras with in-the-lens shutters usually
allow synchronization at speeds up to the maximum
of 1/450th. Do not set shutter too fast faster than
1/450th second, as this may cause under-exposure when
the flash is used at maximum power. (If shutter has a
switch marked "M" and "X", place at "X" position.) (22)
* Note: Should you desire to mount the flash on the
right side of your camera, or raise or lower the flash
handle within the clamp, this may be done by loosening the
two Phillips-head screws inside the encircling ring of the clamp. (23)
Then reposition the encircling ring as desired.
Be sure to tighten the screws again fully for maximum
stability and correct lighting angle.
DEDICATED CORD (OPTIONAL) HOOK-UP

Dedicated Cord (Optional: EXT-11)

Optional Dedicated Cord and Dedicated Module give you added convenience and advantages. Depending on your camera type, dedicated features may be available that set the "X" shutter speed, provide ready indication inside the viewfinder, TTL on-the-film plane exposure control and/or auto aperture control.

1. Plug the dedicated remote cord into dedicated connector while holding the lock levers on both sides of the plug. (24)
2. Connect the dedicated module for your camera. (25)
3. Slide the mounting foot of the dedicated module into the position and tighten the lock ring. (28)
4. The dedicated circuit will adjust the dedicate function such as shutter speed automatically. (27)

Dedicated Shoe Modules Chart

<table>
<thead>
<tr>
<th>Shoe Module</th>
<th>Interface with</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA-1D</td>
<td>Canon A-1, AE-1 PROGRAM, AE-1, AL-1, AV-1, New F-1, T-50, T-70, T-80, T-90</td>
</tr>
<tr>
<td>NE-1D</td>
<td>Nikon FE, EM, FM, New FM2, FG-20</td>
</tr>
<tr>
<td>OT-1D</td>
<td>Olympus OM-1N, OM-2, OM-2N, OM-2S, OM-3, OM-4, OM-10, OM-G, OM-F, OM-PC</td>
</tr>
<tr>
<td>MX-1D</td>
<td>Minolta XD series, XG series</td>
</tr>
<tr>
<td>YC-1D</td>
<td>CONTAX 137 MD/MA Quartz, 139 Quartz, RTSII Quartz, 159MM</td>
</tr>
<tr>
<td>KX-1D</td>
<td>Konica FC-1, FP-1, FS-1, FT-1, FT-1 MOT, TC-X</td>
</tr>
<tr>
<td>PT-1D</td>
<td>Pentax ME, ME super, Super Program, Program Plus, LX, P30, A3000</td>
</tr>
<tr>
<td>NE-2D</td>
<td>Nikon FA, FE-2, FG, N2000, N2020</td>
</tr>
<tr>
<td>MX-2D</td>
<td>Minolta X-370, X-570, X-700,</td>
</tr>
<tr>
<td>NE-3D</td>
<td>Nikon F3</td>
</tr>
<tr>
<td>STD-1D</td>
<td>For all Non-Dedicated cameras</td>
</tr>
</tbody>
</table>

OPERATION OF POWER EXPOSURE CONTROL CENTER

AUTOMATIC OPERATION

The sensitive Silicon Photo Transistor of your Auto 555 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:

1. Slide the Film Selector knob until the desired ISO film speed is shown. (Example: ISO 100) (28)
2. Move Mode Selector on back of flash to "A" (Auto) position. (29)
3. Slide the Auto 1/stop Selector Knob until desired lens opening is corresponding with the thin white line. Set camera lens to this opening (f/number). (Example: F/7.1) (30)

Note: At this f/stop setting your Auto working distance is 3.3' ~ 104'/1 m ~ 32 m.

Note: Auto effective distance range at F/1.4 (ISO 100) is 3.3' ~ 104'/1 m ~ 32 m.

* You will note that you may select any lens opening within a 7-stop range. For example, with ISO 100 film openings from f/1.4 to f/1 may be used. By using a wider lens opening you gain the ability of taking pictures at the greatest distance—up to 104 feet (32 m) at maximum aperture. Choosing a smaller lens opening reduces the maximum distance range, increases depth-of-field or the 'zone' of overall sharpness. You may even set this control to an intermediate of fractional lens opening (such as f/4.5 or f/6.3) to match the maximum aperture of a particular lens, or for any desired reason.

* The minimum distance for correct automatic exposure is 2.3' (0.7 m), regardless of the lens opening in use. Note: F/4.1 (ISO 100) — 3.3' (1 m)

An interesting benefit of your flash's energy-saving (Thyristor) circuitry is that by shooting at the widest possible lens opening (f/2 with ISO 100 film) you obtain not only the greatest distance range but also the greatest number of flashes and fastest recycling times, in normal operation.

Reason: At a given distance, less energy is required to lighten a subject at f/1.4 than at smaller apertures (f/2.8 — f/32).

Smaller lens openings (f/5.6 — f/32) provide greater 'depth-of-field' within their usable distance range (to 13' (4 m) at minimum aperture). Choose them when you're taking pictures of children or sporting events, where it's hard to stay in focus because the subjects are usually moving. By shooting at smaller lens openings (f/5.6 — f/32) you'll generally get sharper pictures of moving subjects. This is also handy in dim light or with wide angle lenses, when precise focusing is somewhat harder than normal. (31)

NOTE:
If the distance between subject to camera is less than 1 m (3.3 feet), it is recommended to compensate the parallax of the lens axis and flash light axis as follows.
1. Remove Auto 555 from Bracket and aim flash head to your subject so as to match the flash axis and lens axis.
   OR
2. Untighten the clamp and slide down Auto 555 to match the flash axis and lens axis.
TAKE THE PICTURE

It's easy — just follow the steps:
1. Move the On-Off Switch to flash to appropriate position for power source in use. (32)
2. Set mode selector switch to "A" (Auto) position your flash is ready for automatic operation. (33)
3. Within seconds the Ready Lamp will glow. Now, focus and... Take the Picture! Your flash will automatically deliver the correct amount of light for correct exposure within the distance range indicated. (34)

For succeeding Exposures...
Just wait until the Ready Lamp starts to glow, make sure you're within the usable distance range for the lens opening in use... and shoot!

To Verify Correct Auto Exposure
Aim the flash towards the subject and press the 'Test' (ready/test) button. The flash will fire and, immediately, the auto OK Lamp will glow and then fade out. When this occurs, the automatic exposure will be correct. If the auto OK Lamp does not glow, choose a wider lens opening, or move closer to your subject and repeat the verification test. It's a simple, highly accurate way of confirming that your picture will be perfectly exposed before you take the picture. (35)

Caution:
When you finish shooting with your 566, move the ON/OFF switch to "OFF" position to preserve battery power.

AUTOMATIC OPERATION (DEDICATED MODE)

Some dedicated cameras offer TTL on-the-film plane exposure systems. The Auto 566 is compatible with them.
1. Set the mode selector at "A" position. (36)
2. Set the aperture you want to use. Note: Depending on camera instructions, refer to the camera's instruction manual and the Sunpak dedicated module instruction manual.
3. Ready indication is displayed in the viewfinder. When it is displayed you're ready to take the picture. Note: For specific camera instructions, refer to the camera's instruction manual and the Sunpak dedicated module instruction manual.

POWER RATIO (MANUAL) OPERATION

With the unique Power Ratio Control on your Auto 566, you can adjust the light output so your camera can be used over a seven stop range, from full to 1/64 power. This feature gives you greater depth-of-field control, ability to control battery life and recycle times, precise fill-in flash capability, macro/close-up capability and the ability to control flash duration.

USE OF POWER RATIO CONTROL AT FULL POWER:
1. Set the Film Speed Scale to the desired ISO setting. (37)
2. Set the Mode Selector Switch to the M Position. (38)
3. Adjust the Power Ratio Control to Full power. (39)
4. You may determine the proper f/stop by matching the aperture and distance scales on your calculator. The distance scale refers to the flash-to-subject distance, not the camera-to-subject distance, so be sure to measure flash-to-subject when you are using the Auto 566 for remote lighting. (Example: At 18' (5.5 m), use f/8 with ISO 100 film.) (40)

CAUTION:
After 40 consecutive flashes at 1/64 power or 10 consecutive flashes at full power, unit requires to pause at least for 10 minutes.

USING POWER RATIO
1. When using the Power Ratio at Full power, set the Film Speed Scale to the desired ISO rating and be sure the Mode Selector Switch is set to the M Position. (41)
2. Determine the flash-to-subject distance. When the Auto 566 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. (42)
3. Slide the Power Ratio Control knob until you have the desired f/stop opposite this distance. (43)
4. Be sure the distance scale shows there is the proper amount of light for a correct exposure of your subject. If not, increase or decrease the power as needed. (44)
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.

DEPTH-OFF-FIELD CONTROL (45A ~ 45C)

In addition to controlling exposure, the lens opening or aperture of your camera's lens also controls the depth-of-field of your image. When a lens has a small aperture, such as f/16 or f/11, the area in front and behind your subject will be in focus. However, when the lens aperture becomes wider such as at 1/2.8 or 1/2, the area in focus will be significantly reduced. Thus, when you use a wider aperture your portraits will be more pleasing because distracting backgrounds will be all but eliminated. For other subjects, such as still life, you will want the entire area to be in focus. With the Sunpak Power Ratio Control, you can adjust the power ratio settings to the aperture you desire for extra creative control.

Examples:
When photographing still life, more depth-of-field is often required. Use the higher power settings and smaller lens openings for best results. For portraits, use the lower power settings and wider lens openings for less depth-of-field.

OPERATING ADJUSTABLE BOUNCE FLASH HEAD

Your Auto 566 has a unique flash head assembly which allows you to aim the light in virtually any direction. This allows you to use the Auto 566 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 bounce you desire.
1. To rotate the Adjustable Bounce Flash Head, with thumb and forefinger gently turn to desired setting. (48) DO NOT FORCE HEAD
2. To adjust the Flash Base, simply twist as illustrated with finger as illustrated with thumbnail and forefinger. (47)

For a complete description for better bounce pictures please read Sunpak's "Guide to Electronic Flash Photography" enclosed with your Auto 566.

DEDICATED OFF-CAMERA FLASH

Off-camera flash offers many of the benefits of bounce flash. In addition, it allows the full power of the flash to be used, thus permitting professional lighting effects (and smaller lens openings) irrespective of distance or ceiling reflection. It's easy to use.
MULTIPLE FLASH OPERATION (54)

For genuinely professional lighting effects, the only thing better than a Sunpak flash is...two Sunpak flashtwo Sunpak flashtwo Sunpak flashtwo Sunpak flashtwo Sunpak flashtwo Sunpak flash...or more. It's easy to use your Sunpak in conjunction with another Auto 555, or almost any other 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 multiplyflash 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 (or into the sync outlet of the Auto 555 if the 555 is used as a 'remote' flash).

Although the Sunpak Slave is very sensitive to electronic flash light, it's unaffected by bright 'ambient' room light or even day light—all 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.

ACCESSORIES AVAILABLE FOR THE SUNPAK AUTO 555 (56)

1. Quick Detachable Interface Modules

   Full camera dedication with full electronic interfacing. Set not only the "X" sync, but much more. Sunpak one touch interchangeable interface modules are compatible with all Sunpak "D" series Electronic Flash Systems, Auto 522 pro system and Auto 555.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Shoe Module</th>
<th>Interface with</th>
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<tbody>
<tr>
<td>651-040</td>
<td>CA-1D</td>
<td>Canon A-1, AE-1 PROGRAM, AE-1, AL-1, AV-1, New F, T-50, T-70, T-80, T-90</td>
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<td>NB-1D</td>
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<td>651-043</td>
<td>MX-1D</td>
<td>Minolta XD series, XG series</td>
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<td>651-044</td>
<td>YC-1D</td>
<td>CONTAX 127 MD/MA Quaetz, 128 Quaetz, RTSII Quaetz, 165MM</td>
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<td>651-047</td>
<td>RX-1D</td>
<td>Ricoh XR-1000S, XR-25, XR-4, XR-S, XR-7, XR-10 super, KR-305P</td>
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<tr>
<td>651-041</td>
<td>KX-1D</td>
<td>Konica FC-1, FP-1, FT-1, FT-1 MOT, TC-X</td>
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<td>651-048</td>
<td>PT-1D</td>
<td>Pentax MG, ME, ME super, Super Program, Program Plus, LX, P3, A3000</td>
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<td>NE-2D</td>
<td>Nikon FA, FE-2, FG, N2000, N2020</td>
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<td>651-143</td>
<td>MX-2D</td>
<td>Minolta X-370, X-570, X-700,</td>
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<tr>
<td>651-246</td>
<td>NE-3D</td>
<td>Nikon P3</td>
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<td>651-042</td>
<td>SSD-1D</td>
<td>For all Non-Dedicated cameras</td>
</tr>
</tbody>
</table>

2. Dedicated Remote Cord EXT-11
cat. No. 651-166

3. Powerpak for 510 V Battery

   Allows professional 510 V batteries to be used for most rapid recycle times and situations where extended

FOR BETTER BOUNCE FLASH PICTURES (55)

Don't Stand Too Close to Your Subject.

1. 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.

2. 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.

3. 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 which space is limited.

4. 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 so far.

5. 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 the color in the finished photograph. Therefore, create your own bounce surface...possibly you can use an ordinary piece of white cardboard held or taped in front of the flash tube housing so that it reflects the light onto the subject.
number of flashes is a must. Has built-in voltage regulation and detachable cord. An accessory 10'3 m coiled cord is also available, cat. No. 651-723

4. 510 V Ni-cd Battery NC510
This battery provides the fastest recycle times of any available power source. The NC510 can be recharged for hundreds of cycles and provides approximately 60 to 400 flashes per charge, cat. No. 651-727

5. Nicad Cluster CL-2
Provides 45 to 450 flashes per charge, CL-2 can be charged in approximately 3 hours using the Sunpak QBC-5 Charger, cat. No. 651-784
QBC-5 Charger: cat. No. 651-809

6. Battery Holder
Extra battery holders are available for the Auto 555 ideal for fast, convenient changes, cat. No. 651-783

7. AC Adapter AD-26
This AC Adapter permits you to operate your flash on 100 V, 120 V, 220 V and 240 V AC. The benefits to you are unlimited number or flashes and maximum economy, cat. No. 651-741

8. Charger QBC-5 for Ni-cd Battery NC510
The charger is for use with the Sunpak NC510 Ni-cd Battery. It will fully recharge battery in approximately 10 hours, cat. No. 651-809

Use with Sunpak Filter Holder 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, cat. No. 651-757
Filter Holder: cat. No. 651-722

10. Tele Kit: TL-3
Ideal for use with telephoto and zoom lenses of the most popular focal lengths, the Sunpak Tele Kit actually increases light intensity while decreasing the angle of illumination. This dual position fresnel lens outfit may be used for focal length lenses from 85 to 135 mm with 35 mm format cameras. For specific recommended setups with various 35 mm format lenses, see chart, cat. No. 651-786

<table>
<thead>
<tr>
<th>Lens (mm)</th>
<th>Tele Kit Position</th>
<th>Guide No. (ISO 100 m/ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td></td>
<td>45/150</td>
</tr>
<tr>
<td>85</td>
<td>T1</td>
<td>55/180</td>
</tr>
<tr>
<td>135</td>
<td>T2</td>
<td>64/210</td>
</tr>
</tbody>
</table>

11. 6 x 6 Bracket
This is an oversize metal platform for use with 6 x 6 SLR and TLR cameras. With adjustable retaining screw, cat. No. 651-752

12. Bracket Extender
This Bracket Extender is designed to holder the Remote Sensor when used with cameras which do not have an accessory shoe, cat. No. 651-759

13. Slave Unit
Allows your Auto 555 or 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

14. Bounce Lighting Kit
Can be used with Filter Holder, Designed to give very pleasant, soft, indirect lighting effects to the subject, cat. No. 651-795

CARE OF YOUR 555
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:
When not in use, your Auto 555 should be stored in a cool dry place. Do not expose the unit to extreme heat or leave it in direct sunlight for extended periods of time. For example, do not leave the unit in the glove compartment, trunk or seat of a car.
Also, be sure to remove the batteries before storage to prevent 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 a 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. Make Connections Securely:
Make sure the flash is securely attached to the bracket (and that the bracket is securely attached to your camera)

5. Maintenance:
In case not using your Auto 555 for a long period, it is recommended to fire your flash at least once or twice per month to prevent the deterioration of the electrical components.
If your Auto 555'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.

6. 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 the Warranty card. Do not, under any conditions, 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 any other single cause. If it doesn't fire, check batteries and contents carefully.
SPECIFICATION

Guide Number: 300/80 (ISO 400 f/m), 150/45 (ISO 100 f/m), 72/22 (ISO 25 f/m)

BCPS: 3,980 (at full power)

Angle of Illumination: 60° Horizontal by 45° Vertical Permits use of 35mm lenses on 36mm camera

Automatic Aperture Setting: F1.4, 2, 2.8, 4, 5.6, 8, 11 (ISO 100)

Automatic Distance Range:
3.3' ~ 104'/1 ~ 32 m
(at maximum aperture)
2.3' ~ 13'/0.7 ~ 4 m
(at minimum aperture)

Sensor Acceptance Angle: 15°

Bounce Flash: Adjustable Bounce Flash Head at 330 degree elevation

Power Ratio Range: Full, 1/2, 1/4, 1/8, 1/16, 1/32 and 1/64

Interchangeable Power Sources:
6 x AA Alkaline Batteries
6 x AA Nicad Batteries
Nicad Cluster CL-2
Powerpak for 510 V Battery
NC510 Rechargeable Battery
AC: Multi-Voltage AC Adapter (AD-26)

NUMBER OF FLASHES & RECYCLING TIME

<table>
<thead>
<tr>
<th>Power Level</th>
<th>Maximum Power</th>
<th>Minimum Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>With AA Alkaline Batteries</td>
<td>100</td>
<td>800</td>
</tr>
<tr>
<td>Number of Flash</td>
<td>9 sec.</td>
<td>0.3 sec.</td>
</tr>
<tr>
<td>Recycling Time</td>
<td>45</td>
<td>450</td>
</tr>
<tr>
<td>Number of Flash</td>
<td>4 sec.</td>
<td>0.3 sec.</td>
</tr>
<tr>
<td>Recycling Time</td>
<td>45</td>
<td>450</td>
</tr>
<tr>
<td>Number of Flash</td>
<td>4 sec.</td>
<td>0.3 sec.</td>
</tr>
<tr>
<td>Recycling Time</td>
<td>300</td>
<td>2,800</td>
</tr>
<tr>
<td>Number of Flash</td>
<td>2 sec.</td>
<td>0.25 sec.</td>
</tr>
<tr>
<td>Recycling Time</td>
<td>60</td>
<td>400</td>
</tr>
<tr>
<td>Number of Flash</td>
<td>2 sec.</td>
<td>0.25 sec.</td>
</tr>
<tr>
<td>Recycling Time</td>
<td>at 100 V</td>
<td>14 sec</td>
</tr>
<tr>
<td>at 200 V</td>
<td>13 sec</td>
<td>0.3 sec</td>
</tr>
<tr>
<td>at 300 V</td>
<td>11 sec</td>
<td>0.3 sec</td>
</tr>
<tr>
<td>at 400 V</td>
<td>11 sec</td>
<td>0.3 sec</td>
</tr>
<tr>
<td>Flash Duration</td>
<td>1/450th ~ 1/17000th sec. (MANUAL, P.R.)</td>
<td></td>
</tr>
<tr>
<td>Color Temperature: Most suitable for daylight color films</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions (S x W x D): 10'' x 4'' x 3.9''/255 mm x 102 mm x 100 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight: 24 oz/680 g (less batteries)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All specifications subject to change without notice.