

[pro]master

DSS6000

Digital Studio Slave Flash

Instruction Manual

Thank you for your purchase of a ProMaster electronic flash. This electronic flash may be used with both digital and film cameras. Your flash uses a low voltage and low current triggering system to provide protection for most digital cameras. Please take a few minutes to read these instructions before using your flash.

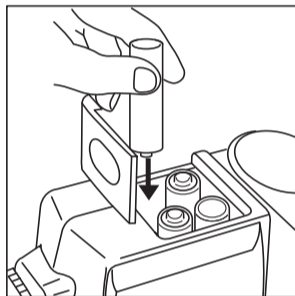
SPECIFICATIONS

Guide No. (ISO100 / DIN21) @85mm	148ft/45m
Flash Head Zoom Position	28-35-50-85mm
Bounce Angle	0°, 45°, 60°, 75°, 90°
Swivel Angle	Right 0° - 90°; Left 0° - 180°
Power Ratio	1/1, 1/2, 1/4, 1/8, 1/16, 1/32
Auto Aperture	f/2.0, f/2.8, f/4.0, f/5.6, f/8.0
Built-in Slave Function	S0-S9
Power Source	Four 1.5V AA size batteries
Flash Duration	1/500-1/30000 sec.
Recycling Time	0.3-7 sec. with fresh batteries
Dimensions	72 (W) x 132 (H) x 102 (D) mm
Weight w/o Battery	270g
Accessories	2m Miniphone-PC Synchro cord X 2; Flash Stand; Pouch; AC-DC Power Adapter Wide Angle Diffuser and Reflecting Panel

Specifications and design are subject to change without notice.

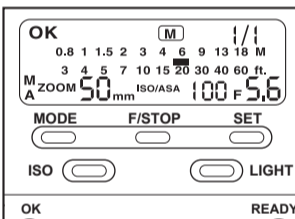
LOADING BATTERIES

Make sure the ON/OFF switch is in OFF position. Slide open the battery cover and insert 4 x AA batteries in the direction shown by the symbols in the battery compartment. Close the battery cover. Inserting batteries with the wrong polarity may cause the batteries to overheat, leak, explode and/or damage the flash. Switch the ON/OFF switch to the ON position. The ready indicator will light within a few seconds if the batteries are properly installed. When you need to replace the batteries, be sure all of the batteries are the same brand, type and capacity.



ATTACHING THE FLASH TO YOUR CAMERA

Loosen the lock ring. Slide the flash into camera accessory shoe. Tighten the flash with the lock ring. If hot shoe socket contacts on your camera do not match the contacts on the foot of the flash, do not mount the flash onto the camera. If the contacts do not match, your camera or flash may be damaged. If you do not have a hot shoe on your camera, the flash may be connected using the synchro cord (included) to connect to the camera's PC sync terminal.



REMOVING THE FLASH

Loosen the lock ring and slide the flash off of the hot shoe.

ON/OFF SWITCH AND FLASH TEST OPERATION

Slide the ON/OFF switch to ON position. After a few seconds the Ready lamp should glow indicating that the flash is ready to shoot. Press the TEST key to make sure that your flash works properly. If the flash discharges, wait until the Ready lamp glows again.

OPERATING THE FLASH

Mount the flash onto your camera. Switch on the flash. Make sure that your flash is not in the slave mode (See the section Slave Mode). Select the appropriate output power using the MODE key (See section Power Ratio) on the back of the flash. When the flash ready light glows, press the camera shutter button. The flash should fire. You should set your camera according to the settings indicated on the flash's LCD. By choosing the film speed (in ISO measurement) and aperture value (f/stop) using the ISO key and the F/STOP key on the back of the flash, you will get the correct flash to subject distance for proper exposure.

LCD PANEL BACK LIGHT

You can switch on the back light of the LCD panel by pressing the LIGHT button. Every time the "LIGHT" key is pressed, the LCD display will be illuminated for about 5 seconds.

POWER RATIO

Push the MODE key until an "M" symbol shows on the LCD. Then press the SET key to choose the output power. The setting will change in the following sequence: M 1/1 (Full Power) → M 1/2 → M 1/4 → M 1/8 → M 1/16 → M 1/32 → M 1/1

AUTO APERTURE

This flash is equipped with an Auto Aperture function. There are 5 auto aperture settings f/2.0, f/2.8, f/4.0, f/5.6, f/8.0 available for use. Note that the aperture settings of both the camera and the flash must be the same. For example, when the camera is set at ISO100 and the aperture set at f4.0, the flash has to be set to an aperture of f4.0 so that your photos are exposed correctly. Within the effective range, the flash will automatically control the correct amount of light output. The OK Indicator will light when the pictures are correctly exposed.

You can choose the auto aperture mode as follows:

- Press the MODE key until an "A" symbol shows up at the bottom right of the LCD.
- Then press the SET key. The auto aperture value will change in the following sequence: A F2.0 → A F2.8 → A F4.0 → A F5.6 → A F8.0 → A F2.0. Choose the appropriate value that suits your need.

OK INDICATOR

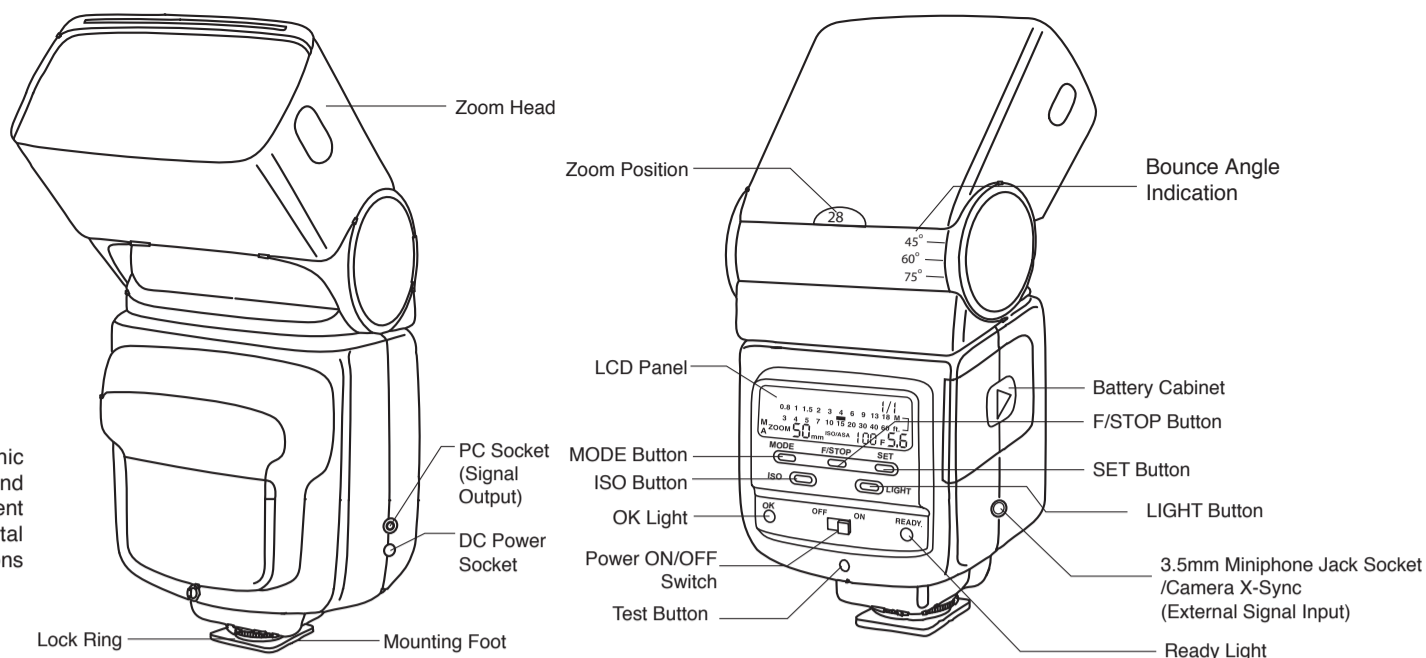
The green OK indicator shows you whether the flash is giving the correct amount of light output in the manual (at output 1/2, 1/4, 1/8, 1/16, and 1/32), auto aperture, and slave modes. It will light after you have triggered the flash when the flash output is correct.

POWER SAVE FUNCTION

In order to conserve battery life, the flash switches to the power save mode automatically after being idle for approximately 3 minutes when in the manual or auto aperture mode. The "OFF" sign will appear on the LCD. The Ready light will be off in the power save mode. To reactivate the flash, simply press any button below the LCD or turn the flash off and on. The flash is not completely powered down in power save mode, however power consumption is drastically reduced. If you are not going to use your flash for an extended period of time, we recommend you to turn the flash off.

DC POWER SOCKET

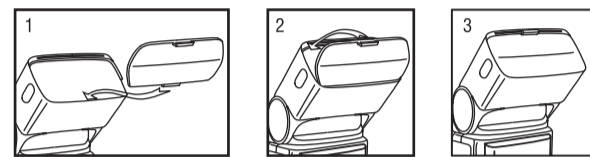
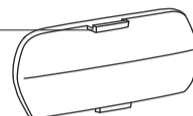
This flash comes with a DC power socket so you can power the flash by an external DC power supply or the AC-DC power adapter provided.



USE OF WIDE ANGLE DIFFUSER

Wide Angle Diffuser (Optional)

Attachment Clip



SLAVE MODES

10 slave modes are available for users to choose from when the flash is set to fire using the optical slave mode. To use the slave mode, you first press the MODE key until a "S" symbol shows on the LCD. Then press the SET key to select the desired slave mode in the following sequence:

Mode 0 (S0) → Mode 1 (S1) → Mode 2 (S2) → Mode 3 (S3) → Mode 4 (S4) → Mode 5 (S5) → Mode 6 (S6) → Mode 7 (S7) → Mode 8 (S8) → Mode 9 (S9) → back to Mode 0 (S0)

The slave modes work as follows:

- S0 - the flash fires at once when triggered by an external strobe light source.
- S1 - the flash skips 1 flash and fires when it detects the 2nd flash.
- S2 - the flash skips 2 flashes and fires when it detects the 3rd flash.
- Etc., up to
- S8 - the flash skips 8 flashes and fires when it detects the 9th flash.
- S9 - the flash skips 9 flashes and fires when it detects the 10th flash.

The power output in the slave mode depends on what Manual Power or Auto Aperture setting you have previously selected on the flash.

- If you previously selected M1/1 (full power) and then switch the flash to slave mode, the flash will fire a 1/1 power. If you previously selected M1/8 and then switch the flash to slave mode, the flash will fire at 1/8 power.
- If you have selected the Auto Aperture function and then you switch the flash to slave mode, the flash will fire full power.

SYNCHRONIZING THE FLASH THRU MINIPHONE JACK (CAMERA X-SYNC) SOCKET OR THE OPTICAL SLAVE SENSOR

This flash can be fired from your camera's hotshoe, or thru the miniphone jack (camera x-sync) socket, or as a slave unit utilizing the built-in optical slave.

INSTANTLY SYNCHRONIZE THE FLASH THRU THE MINIPHONE JACK (CAMERA X-SYNC) SOCKET

Set the flash to manual or auto aperture mode. Connect an external device (e.g. camera) to this flash's miniphone jack (camera x-sync) socket using the supplied PC-Miniphone synchro cable. The external device can then control the firing of the flash.

FIRE THE FLASH USING OPTICAL SLAVE

You can use an external strobe light source to trigger the flash. Select the appropriate slave mode as described in the section "SLAVE MODE". The flash will detect the flash from a secondary source and fire according to your settings. Many modern flashes have a pre-trigger function which emits several pre-flashes before the main flash to obtain correct TTL metering or reduce red-eye. You will need to know the number of pre-flashes your camera emits and then set the flash unit to a slave mode that allows you to skip all the pre-flashes from the transmitting flash to obtain proper exposure. The built-in optical slave is very sensitive to strobe light, but for increased sensitivity, swivel the flash base so the optical slave is facing your triggering light source.

INTERCONNECTING MULTIPLE FLASH UNITS FOR CREATIVE LIGHTING

If you have multiple DSS6000 flash units you can use these flashes as follows to create many different lighting effects for your scene:

- Connect a wireless radio receiver to the miniphone jack socket of Flash A and link this flash to the miniphone jack socket of Flash B by a PC-Miniphone cable. Then the two connected flashes can be triggered by your radio device.
- Connect a camera, Flash A, and Flash B using PC-miniphone cables. A flash chain is created here with the camera as the triggering device. Both flashes will fire simultaneously when the camera's shutter is pressed. You can daisy chain as many pieces of this flash as you like to create the lighting effect you need for your scene.

BOUNCE AND SWIVEL FLASH

This flash's head can be tilted to an angle of 45°, 60°, 75°, or 90° and rotated horizontally 180° to the left and 90° to the right. You can also tilt or rotate the flash head to bounce the light off the ceiling or walls. While shooting indoors, this technique can help to create more natural-looking pictures of people with softer shadows.

In order to have your pictures correctly exposed using bounce or swivel flash, we offer the following recommendations:

- Select white or reflective surfaces to bounce the light off, or your pictures will come with an unnatural color cast similar to that of the reflecting surface.
- Use a wider aperture, as 2 or 3 stops of light can be lost when using indirect flash

ZOOM HEAD

The zoom flash head covers focal lengths of 28-35-50-85mm in four stops. To choose these positions, simply pull or push the flash head. The zoom position will be shown on the LCD. Make sure that the flash is set to a focal length equal to or wider than the camera lens' focal length to assure proper coverage.

CAUTION

- This flash unit is not for use with a camcorder.
- Do not leave or store the flash unit at temperature exceeding 40°C. This might adversely affect the internal structure or performance of the flash unit. Do not leave the flash unit in your automobile during the summer.
- Remove the batteries if you do not intend to use the flash unit for a long period of time.
- The flash unit is not water-resistant. Rain and humidity may cause irreparable damage to the flash.
- The flash unit is composed of very delicate electronic parts. It should be protected against shock, falls or other improper handling.
- The flash unit contains a high voltage condenser. Do not try to open the housing or repair the flash.
- Do not clean the surface of flash unit by petroleum distillates, detergents or strong solvents. These can cause damage to the flash.

