CHEETAH CL-180

Powerful & Portable Flash

Instruction Manual

⚙ FOREWORD

Before using this product

Please read this user manual carefully in order to ensure your safety and the proper operation of this product. Keep for future reference.

Thank you for purchasing Cheetah product.

The Cheetah advanced flash CL-180 is a powerful and portable lighting source designed for professional photographers and photography enthusiasts. It is compatible with market-available cameras from Canon, Nikon, Pentax, and Olympus, etc.

CL-180 offers:

- **High Power:** True 153.6 W/S, GN 160 (ISO 200 at 10ft with standard reflector). Approx. 28 mm flash coverage when operating on a camera with the standard reflector.
- **Bare bulb:** Provides even 360 degree illumination
- **Precise Output:** Adjusting from 1/128 to full power in 1/3 stop increments
- **Good Portability:** The CL-180's compact and lightweight body provide easy portability even with accessories
- **Stable Color Temp:** 5600±200k over the entire power range
- **Advanced Functions.:** Multi flash, Focus-assist beam on/off & Hi-Speed sync triggering (with optional transmitter)
- **Wireless Commander:** Controlls flash functions and triggering
- **External Power Pack:** Cheetah Lithium Battery Pack 11.1V/4500mAh
- **Wide-Range Accessories:** softbox, reflector, fold-up umbrella, and beauty dish, etc

⚙ FOR YOUR SAFETY

⚠ Warning! Always keep the CL-180 dry. Do not use in rain or in damp conditions.

⚠ This product contains high-voltage electronic parts. Touching the high-voltage circuit inside may result in electric shock. DO NOT DISASSEMBLE! Should repairs become necessary, this product must be sent to an authorized maintenance center.

⚠ Discontinue use of this product if casing breaks or is compromised. Electric shock may accur if use is continued and internal parts are exposed.

⚠ Do not look directly at flash when in use at short distances (especially those of babies and toddlers) Temporary blindness and/or visual impairment may occur. The use of a diffuser is recommended while in use with children.

⚠ Do not use the flash unit in the presence of flammable gases, chemicals and other similar materials. In certain circumstances, these materials may be sensitive to the strong light emitted by from this flash unit and fire or electromagnetic interference may result.

⚠ DO NOT leave or store unit in the temperature over 115°F. Never leave in vehicle as temperature may rise and damage may accur.

⚙ CONTENTS

Name of Parts

Body

01. Accessory Mount
02. Accessory Locking Ring
03. Flash Tube
04. Tube Socket
05. Release Button
06. Power Socket
07. Wireless Control Port
08. Sync Cord Jack
09. PC Sync Socket
10. MF-Assist Beam
11. Light Sensor
12. Control Panel
13. Hotshoe Stand

Control Panel

14. LCD display
15. MF-Assist Beam Button
16. BUZZ Button
17. MODE Selection Button
18. SET Button
19. ON/OFF Power Switch
20. Test Button/ Flash Ready Indicator
21. Select Dial

⚠️ This unit is not self powered. It uses Cheetah Lithium battery or Cheetah Ni-MH Battery (sold separately).

Included Accessories

1. Flash tube*1
2. Protecting bag*1
3. Mini stand*1
4. Reflector*1
5. Power cable*1
6. Reflector diffuser*1
7. Instruction manual*1

Separately Sold Accessories

The product can be used in combination with the following accessories (sold separately)so as to achieve the best photography effects:
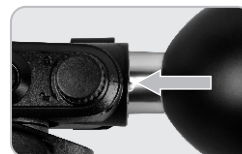
Wireless Remote Control, Photographic Umbrella, High Speed Sync Transmitter, Beauty Dish, Snoot, Softbox, etc.

Installing Reflector (Other Accessories)

1. Rotate Accessory Locking Ring (2) counter-clockwise until it is loosen.

2. Insert the reflector into the Accessory Mount (1).

3. Rotate Accessory Locking Ring (2) clockwise to lock it up. Do not over-tighten.

Attaching Flash Tube

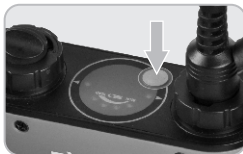1. Remove the reflector or other accessories from the flash head.

2. Match the red dot on the base of the flash tube with the red dot in the Tube Socket (4). Push the flash tube in until it is securely seated into the socket.

Connecting to a Power Pack

1. Make sure that power pack is OFF before connecting.

2. Plug one end of Power Cable into Power Socket (6) of the flash unit, and insert the other end into the output socket of the power pack.
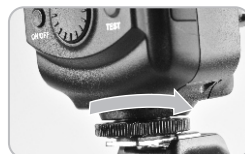

3. Turn power pack on.

⚠ The flash unit is not powered by itself, but draws power from Cheetah Lithium Battery or Cheetah Ni-MH Battery (sold separately).
For the instructions of the power pack, see the related user manual.

Connecting the Flash to a Camera

1. Loosen the locking ring on the mounting foot.

2. Slip the mounting foot of the flash unit into the camera hotshoe.

3. Secure the flash unit by rotating the locking ring in the direction of the arrow.

Using the Flash

1. Power Management

ON/OFF Power Switch (19) controls the on-and-off of the flash unit. Turn off the power pack if the flash unit will not be used for an extended period of time.

2. Flash Output

Flash output can be varied from 1/128th power to 1/1 full power in 1/3 stop increments. To obtain a correct flash exposure, use a hand-held flash meter to determine the required flash output.

Adjust the power output by rotating Select Dial (21). The following table makes it easier to see how the stop changes in terms of f/stop when you increase or decrease the flash output:

Figures displayed when reducing flash output level→

1/1	1/1-0.3	1/1-0.7	1/2	1/2-0.3	1/2-0.7	1/4	...	OF
	1/2+0.7	1/2+0.3		1/4+0.7	1/4+0.3		...	

←Figures displayed when increasing flash output level

3. M Mode: Manual Mode

Press MODE Selection Button (17) to enter M mode. In this mode, you can set the flash unit onto your camera hot shoe or your trigger hot shoe for firing. Before shooting, adjust the power output of CL-180. When the camera's shutter is pressed, the flash will fire. Slave triggering mode is not available in M mode.

4. S1 Mode: S1 Slave Triggering Mode

Press Mode Selection Button (17) to enter S1 mode. In this mode, the flash unit can function as a slave flash for creating multiple lighting effects. It is respectively applicable to manual flash environment.

In S1 mode, the flash unit will fire synchronously when the master flash fires, the same effect as that by the use of radio triggers.

5. S2 Mode: S2 Slave Triggering Mode

Press Mode Selection Button (17) to enter S2 mode. In this mode, the flash unit can function as a slave flash for creating multiple lighting effects. It is applicable when using a TTL master flash.

In S2 mode, the flash unit will ignore a single "preflash"from the master flash and will only fire in response to the second, actual flash from the master.

6. RPT Mode: Stroboscopic Flash

Press Mode Selection Button (17) to enter RPT mode (Multi/Stroboscopic flash). With stroboscopic flash, a rapid series of flashes is fired. It can be used to capture multiple images of a moving subject in a single photograph.

You can set the firing frequency (number of flashes per second. expressed as Hz), the number of flashes, and the flash output.

For setting procedures, see the following:
 • Press the Mode Selection Button (17) so that "RPT" is displayed.
 • Press Set Button (18) to select the item to be set. The item blinks.
 • Rotate Select Dial (21) to set a desired number.

Calculating the Shutter Speed

During stroboscopic flash, the shutter remains open until the firing stops. Use the following formula to calculate the shutter speed required to capture the full sequence of flashes:

Number of flashes / Firing frequency = Shutter speed

For example, if the number of flashes is 10 and the firing frequency is 5 Hz, the shutter speed should be at least 2 sec.

Note:
 • Stroboscopic flash is most effective with a highly reflective subject against a dark background.
 • Using a tripod, a remote switch, and an external power source is recommended.
 • NOTICE ! A flash output of 1/1 or 1/2 cannot be set for stroboscopic flash.

 • Stroboscopic flash CAN be used with "bulb" setting.

Maximum Stroboscopic Flashes:

Flash Output \ Hz	1	2	3	4	5	6	7
1/1	1	1	1	1	1	1	1
1/2	1	1	1	1	1	1	1
1/4	30	2	2	2	2	2	1
1/8	50	4	2	2	2	2	2
1/16	70	70	7	4	3	3	3
1/32	80	80	80	16	8	6	5
1/64	99	99	99	99	99	99	25
1/128	99	99	99	99	99	99	99

Flash Output \ Hz	8	9	10-11	12-13	13-15	15-19	20-99
1/1	1	1	1	1	1	1	1
1/2	1	1	1	1	1	1	1
1/4	1	1	1	1	1	1	1
1/8	2	2	2	2	2	2	2
1/16	2	2	2	2	2	2	2
1/32	5	4	4	3	3	3	3
1/64	15	10	6	6	5	5	5
1/128	99	99	99	99	99	36	20

7. ⚡н Hi-Speed Sync Triggering

To enter ⚡н mode, press both Mode Selection Button (19) and Set Button (20).

Press Mode Selection Button (17) again to exit ⚡н mode.

In ⚡н hi-speed sync triggering mode, you can use a hi-speed sync trigger to have your flash unit synchronize with all shutter speeds of cameras. This is convenient when you want to use aperture- priority for fill-flash portraits.

Note:
 • Hi-speed sync triggering mode is effective only when the flash unit is used together with hi-speed sync trigger, e.g., Cells II transceiver.(sold separately)
 • Hi-speed sync triggering mode is NOT available when the flash unit is mounted

onto the camera hotshoe.

> ⚠️ To avoid overheating or deteriorating the flash head, the High-Temperature Protection function will be activated automatically after 10 continuous high-speed flashes and the recycle time becomes 10s longer.

Number of flashes that will activate over-temperature protection in high-speed sync triggering mode:

Power Output Level	Number of Flashes (Approx.)
1/1	10
1/2	15
1/4	20
1/8	30

8. MF-Assist Beam

Under poorly-lit or low-contrast conditions, you can press MF-Assist Beam Button (15) to turn on the MF-assist beam in order to make it easier to autofocus.

When the MF-assist beam is lit, ⚐ is shown on the LCD display.

9. Buzz Function

The buzz function can be controlled by pressing BUZZ Button (16).

When the buzzer is turned on, ⚑ is shown on the LCD display. The buzzer provides an indication that CL-180 flash unit has fully recycled.

10. Wireless Control Function

• The flash unit is built in with a Wireless Control Port (7) so that you can wirelessly control the on-and-off of your flash, modeling lamp and buzzer, as well as adjust the flash output level, etc.

• To control the flash wirelessly, you need a Cheetah CL series remote control set (CL-Tx and CL-Rx). Insert CL-Rx receive into the Wireless Control Port (7) on the flash and put CL-Tx transmitter on top of the camera hot shoe. Settings made on the CL-Tx transmitter , and CL-Rx receiver will be wirelessly communicated to the flash. Then you can press the camera shutter-release button to trigger the flash.

• For full instructions on the use of CL series remote control, see its user manual.

• When the flash unit receives wireless signals, ⚏ is shown on the LCD display.

11. Sync Triggering

The Sync Cord Jack (8) is a 3.5mm plug. Insert a trigger plug here and the flash will be fired synchronously with the camera shutter.

12. PC Sync Triggering

Insert one end of a PC sync cable into the PC Sync Socket (9) of the flash unit and the other end into the PC Sync Socket on the camera. The flash unit will fire when the camera's shutter-release button is pressed.

Protection Function

High-Temperature Protection

• To avoid overheating and deteriorating the flash head, do not fire more than 75 continuous flashes in fast succession at 1/1 full power. After 75 continuous flashes, allow a rest time of at least 10 minutes.

• If you fire more than 75 continuous flashes at 1/1 full power and then fire more flashes in short intervals, the High-Temperature Protection function may be activated and make the recycling time about 10 to 15 seconds. If this occurs, allow a rest time of about 10 minutes, and the flash unit will then return to normal.

• When the High-Temperature Protection is started, ⚑ is shown on the LCD display.

Number of flashes that will activate over-temperature protection:

Power Output Level	Number of Flashes (Approx.)
1/1	75
1/2	100
1/4	200
1/8	300
1/16, 1/32	400
1/64, 1/128	500

Technical Data

Model	CL-180
True Watt/Second	153.6W/S
Guide No.	160 (10ft, ISO 200, with standard reflector) Approx. 28mm flash coverage when operating on a camera with the standard reflector
Vertical Rotation Angle	-15°- 90°
Horizontal Rotation Angle	0-270°
Power Supply	Cheetah Lithium Power Pack
Flash Times	900 (With Cheetah Lithium Battery at full power)
Recycle Time	Approx. 0.05-2.6s (With Cheetah Lithium Power Pack)
Color Temperature	5600±200k
Flash Duration	1/800s - 1/10000s
Dimension	205*90*70 mm (flash tube & reflector not included)
Net Weight	550g (flash tube & reflector not included)

Maintenance

- Shut down the device immediately should abnormal operation be detected.
- Avoid sudden impacts and the lamp should be dedusted regularly.
- It is normal for the flash tube to be warm when in use. Avoid continuous flashes if unnecessary.
- Maintenance of the flash must be performed by our authorized maintenance department which can provide original accessories. The flash-tube is user-replaceable. Replacement tubes can be obtained from the manufacturer.
- Unauthorized service will void the warranty.
- If the product had failures or was wetted, do not use it until it is repaired by professionals.
- Disconnect the power when cleaning the unit or when changing the flash tube.

Changes made to the specifications or designs may not be reflected in this manual.