Contents

Precautions

1. Do not attempt to disassemble, open, or repair this speedlight by yourself.
2. Always use batteries of the same type, brand, and age. Always replace all 4 batteries at the same time. Do not combine different types, brands, old, or new batteries. This could cause the batteries to overheat, leak, or explode.
3. This product is not water-resistant. Keep it away from rain, snow, and high humidity areas.
4. Install the batteries in proper orientation as indicated in the battery chamber. Installing the batteries incorrectly could cause them to overheat, leak, or explode.
5. If you change the batteries after a period of sustained continuous firing of the speedlight, the batteries may become warm or hot. This is normal, however you should be careful when handling these batteries.
6. Always switch the speedlight off before changing batteries.
7. Do not fire speedlight from a short distance directly into the eyes of people or animals. This can cause damage to the retina and may even lead to blindness .
8. Avoid corrosive or flammable substances when cleaning this speedlight.
9. To prevent overheating and damage to the flash head, do not fire more than 25 continuous flashes in rapid sequence at full power (1/1 level). In this case the overheating protection mode will be activated and the flash will shut down. Allow it to return to a normal operating temperature before using. This takes about 10 minutes.
10. Do not touch the speedlight with wet hands. This could cause an electrical shock.
11. Remove batteries from the unit before storing .

Foreword

Thank you for purchasing the **[pro]master** 200SL.

The ProMaster 200SL Speedlight is a high performance,feature-rich unit designed to work with your camera's automatic and advanced functions. It can work as your primary on-camera flash, or as a master or slave unit in a wireless, multiple flash setup.

Here are some of the 200SL's features:

■ E-TTL II Mode

In this Canon wireless flash system monitor pre-flashes are fired at all times, the subject is correctly exposed, and the overall exposure is less affected by challenging ambient light conditions.

■ Manual Mode

By setting the aperture and the flash output level , you can manually control exposure.

■ RPT Mode

The 200SL fires repeatedly to create stroboscopic multiple-exposure effects In RPT mode. This is useful when shooting a fast-moving subject.

■ Advanced Wireless Lighting

In this mode you can set slave units into three groups and control the mode and output level compensation values seperately for each group.

■ Flash Exposure Lock

Flash exposure Lock, or “FEL” controls the amount of flash exposure for a subject .Using FEL Lock with compatible cameras , you can lock in the appropriate flash exposure for the main subject . This flash exposure is locked in , even if you change the aperture or composition , or zoom the lens in and out.

■ Auto FP High-Speed Sync

High-Speed flash synchronization at the compatible camera’s highest shutter speed is possible . This is useful when you want to use a wider aperture to achieve shallow depth of field to blur the background or create a "stop-motion" effect in your photograph.

■ Output level compensation / Exposure compensation.

Flash output level compensation is performed by modifying the flash output level for the flash illuminated subject only . Exposure compensation is performed by intentionally modifying the correct exposure to modify both the subject and background exposure.

■ Rear-Curtain sync

Rear-Curtain flash sync creates a picture in which the blur of a moving subject appears behind the subject and not in front. In this mode, the speedlight fires just before the rear curtain starts to close.

■ Bounce flash

By tilting or rotating the flash head , you can bounce the light off a ceiling or wall to make use of reflected light.

■ Key lock

The speedlights's control buttons can be locked to prevent them from being pressed accidentally.

■ AF-Assist illuminator

The 200SL emits an AF-Assist beam to help the camera properly auto focus in low light situations.

■ LCD panel backlight

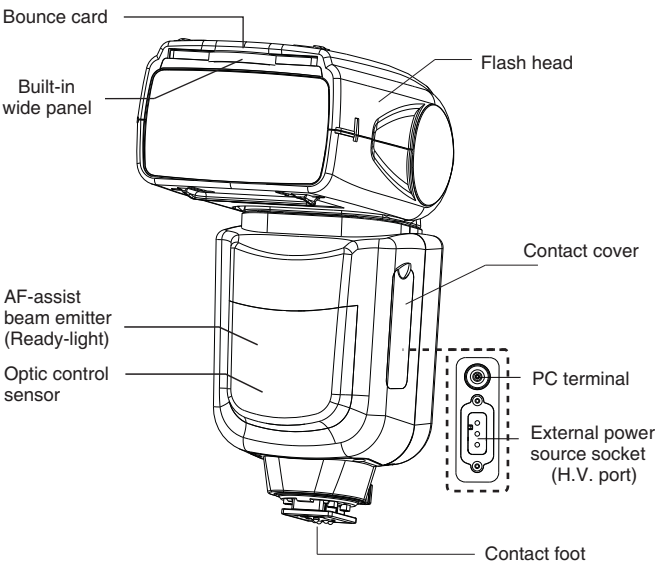
This function sets the LCD panel backlight to on or off.

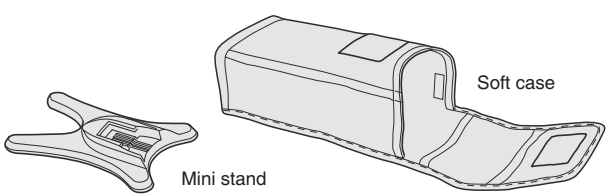
■ Thermal Cut-off protection

This function protects the 200SL from high operating temperatures . If the temperature of the unit rises to a certain level, the 200SL will switch to protective shutdown mode.

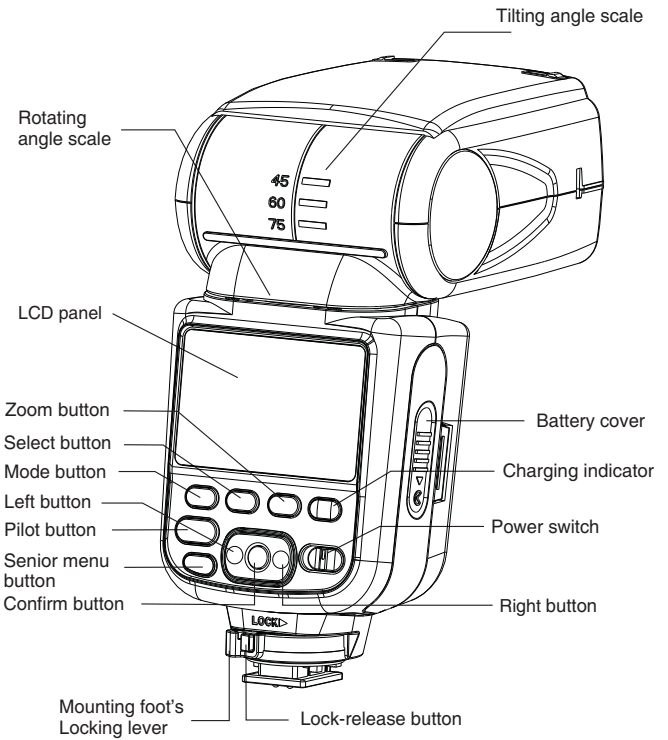
● **Read this instruction manual while also referring to your camera's instruction manual.**

Parts Identification



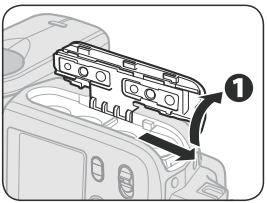


Parts Identification



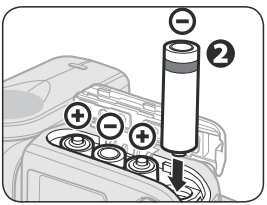
Basic Operation

Inserting The Batteries



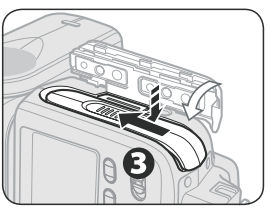
❶ Open the cover.

Slide cover in direction of the arrow and flip open.



❷ Install the batteries.

Make sure the + and - battery contacts are properly oriented as shown inside the battery compartment.

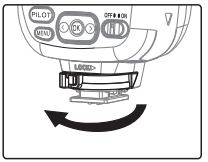


❸ Close the cover.

Close the battery compartment cover by flipping it down, pressing, and sliding closed.

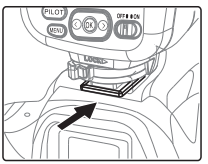
- Only use size AA alkaline or Ni-Mh batteries.
- If you change the batteries after firing many continuous flashes be aware that the batteries might be hot.
- Before change the batteries , be sure to turn off the speedlight.

Attaching and Detaching the Speedlight



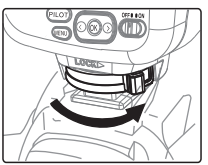
❶ Ready to attach the Speedlight.

Slide the lock level to the left.



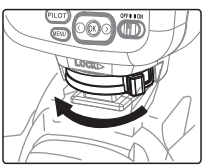
❷ Attach the Speedlight.

Mount the speedlight into the camera's hot shoe all the way.



❸ Secure the Speedlight.

On the mounting foot,slide the lock lever to the right until it locks in place.



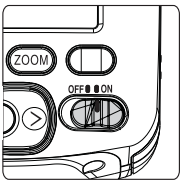
❹ Detach the Speedlight.

While pressing the lock-release button,slide the lock lever to the left and detach the speedlight by sliding it out of the camera's shoe.

● Before attaching or detaching the speedlight, be sure to turn off the speedlight.

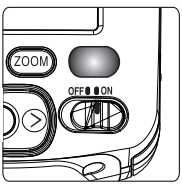
Basic Operation

Turn On The Power



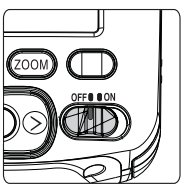
❶ Turn on the power.

Turn the power switch to <ON>.



❷ Check that the speedlight is ready.

The charging indicator is red while the speedlight is powering up. It will turn green and beep twice when the speedlight is ready to fire.



❸ Turn off the power.

Turn the power switch to <OFF> when you are finished using the 200SL.

- If the charging indicator remains red, and the low power icon is displayed replace the batteries with new ones.
- In order to conserve power, the speedlight will enter sleep mode after a specified time (this time can be adjusted by a custom setting). The LCD will shut off. Press the camera's shutter button halfway or the <Pilot> button on the speedlight to wake it up.
- It will not enter sleep mode when in Remote or F1/F2 mode.

LCD Panel

LCD Panel

Icons in the LCD show the status of settings. Displayed icons change according to selected flash modes and settings.

200SL condition

AF	AF-assist illumination
	Thermal Cut-out on
	Sound on
	Communicating with a wirless compatible camera

Low battery power indicator

When battery power is low, this icon appears on the LCD and the 200SL stops working. Replace the batteries.

Temperature warning indicators

If the temperature of the unit becomes too high, this icon shown will appear in the LCD screen. You will hear short beeps for 15 seconds as the unit locks-up for thermal protection. Please turn off the speedlight for 10 minutes until it cools down.

Mode Icons

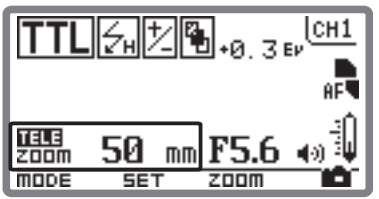
Press the <MODE> button to select a flash mode.

TTL	E-TTL II mode
M	Manual flash
RPT	Repeating flash

Examples of LCD Displays in TTL Mode

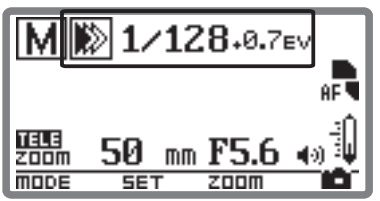
	High-speed sync
	Flash exposure compensation
	FEB
+0.3EV	Flash exposure compensation amount

Zoom position



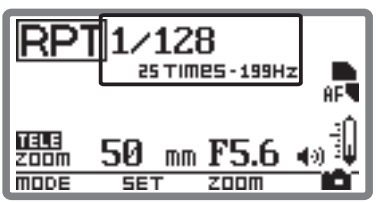
50MM	Zoom position

Examples of LCD Displays in Manual Mode



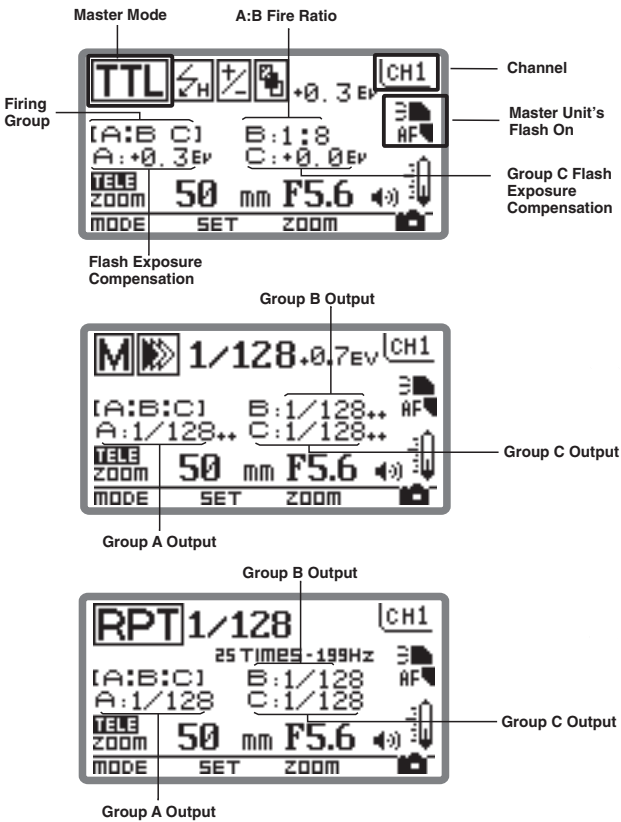
	Front-Curtain Sync
	Rear-Curtain Sync
1/128+0.7EV	Flash output level at manual mode

Examples of LCD Displays in RPT Mode

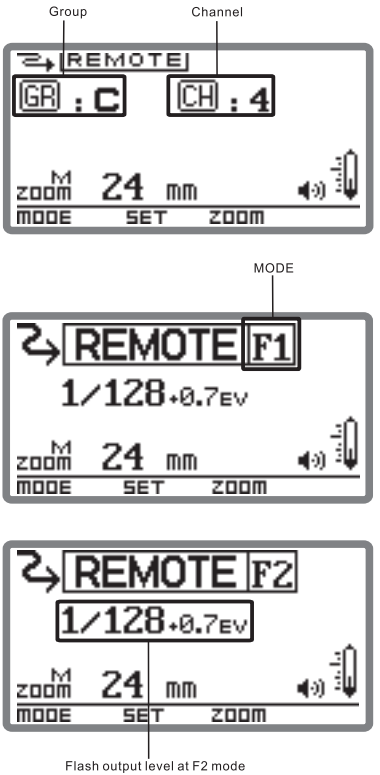


1/128	Flash output level
25 TIMES	Number of flashes
199Hz	Frequency

Examples Of LCD Displays In Wireless Multiple Flash Shooting

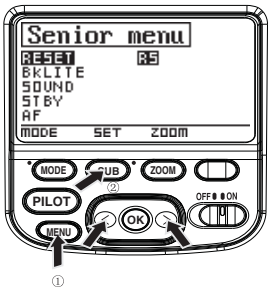


Remote Mode


Group
Channel
REMOTE
GR : C
CH : 4
M
zoom 24 mm
MODE SET ZOOM
MODE
REMOTE F1
1/128 +0.7EV
M
zoom 24 mm
MODE SET ZOOM
REMOTE F2
1/128 +0.7EV
M
zoom 24 mm
MODE SET ZOOM
Flash output level at F2 mode

Custom Settings

You can customize the speedlight features to suit your shooting preferences with Custom settings.



1. Press the <MENU> button for approx. two seconds to display the custom menu.
2. Press the <SUB> button to highlight a setting.
   - Press the right key to enter in the secondary menu for that setting.
   - If you want to return to the previous menu, press the navigation right key.
3. Press the <MENU> button for approx. 2 seconds to return to the normal display.

RESET	Reset custom setting
RS	Reset to factory settings.
BKLITE	Backlight
OFF ON	**OFF:Turn off** ON:Turn on
SOUND	Sound monitor
OFF ON	**OFF:Turn off** ON:Turn on
STBY	Standby function
NORMAL LONG SHORT OFF	**NORMAL**: 3**Minutes** LONG: 10**Minutes** SHORT: 1**Minute** OFF:Function canceled
It will not sleep in slave mode.	

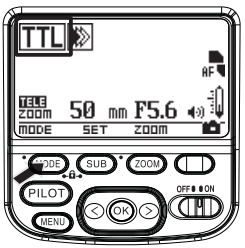
AF	AF-assist illuminator
OFF ON	**OFF:Turn off** ON:Turn on
TEMP	Thermal Cut-out
OFF ON	**OFF:Turn off** ON:Turn on
Warning: If you turn off the Thermal Cut-out, you can damage the 200SL by overheating the unit.	
RMTINDEX	Ready light
OFF ON	**OFF:Turn off** ON:Turn on
This turns the blinking ready light on or off when the 200SL is in slave mode.	
VER	Version of firmware
	Displays the version of your speedlight's firmware.

- Standby controls the length of time before the 200SL enters sleep mode.

Flash Modes

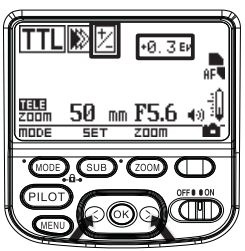
E-TTL II Mode

In this mode information obtained by monitor pre-flashes and by exposure control information are combined in-camera to automatically adjust flash output levels.



❶ Press the <MODE> button and set the flash mode to TTL .

- The default flash exposure compensation is 0.



❷ Set the flash exposure compensation.

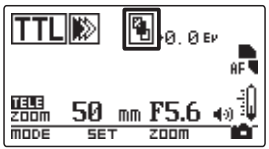
- Press the left/right buttons to decrease/ increase the flash exposure compensation.
- The flash exposure compensation will change in 1/3 steps from -3.0 to +3.0.

Flash Modes

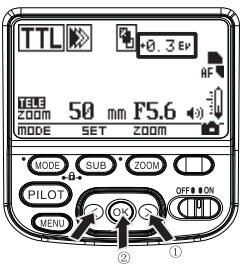
E-TTL II Mode

Flash Exposure Bracketing

Flash exposure bracketing can take three flash shots while automatically changing the flash output for each shot up to ±3 stops in 1/3-stop increments (1/2-stop increments if the camera enables only 1/2-stop increments).



❶ Press the <SUB> button to highlight the FEB icon.



❷ Tuning the FEB amount.

- Press the left/right key to decrease /increase the amount.
- Press the <OK> button to confirm.

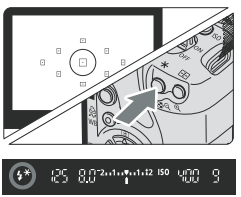
- FEB mode will cancel itself after 3 shots are fired. The speedlight will return to normal operation.
- Be sure the charging indicator light is green and the flash is ready before each shot.

Flash Modes

E-TTL II Mode

Flash Exposure Lock

While in <TTL> mode you can use Flash Exposure Lock to lock-in the correct flash exposure for a specific part of the scene you are photographing.



❶ Focus the subject.

❷ Press the <FEL> button.

① With the subject in the center of your viewfinder, press the camera's <FEL> or <*> button.

② The speedlight will fire a preflash to properly calculate exposure for the subject.

③ <✱> will be displayed in the camera's viewfinder for .5 seconds.

④ Each time you press the <**FEL**> button,a preflash will be fired and a new flash exposure setting will be locked.

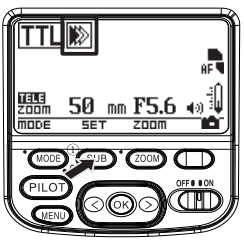
● If the subject is too far away resulting in underexposure, the flash icon will blink in the camera's viewfinder. Move closer to the subject and try FEL again.

Flash Modes

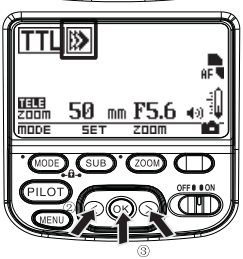
E-TTL II Mode

Front-Curtain/Rear-Curtain Sync

In front-curtain sync, the speedlight will fire immediately after the front shutter curtain opens completely.
In rear-curtain sync, the flash fires just before the rear shutter curtain starts to close.
When shooting a fast-moving subject at slow shutter speeds, rear curtain sync. creates a more natural looking photograph with a blur shown behind the subject.



❶ Press the <SUB> button to highlight the < >icon.



❷ Select Rear-Curtain Sync.

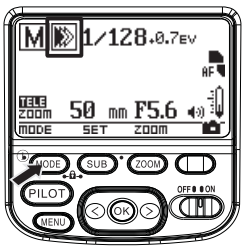
- Press the left/right buttons to switch between front and rear curtain sync. Press the <OK> button to confirm.

- Since slow shutter speeds are commonly used with rear-curtain sync. a tripod is recommended for best results.
- With E-TTL II, the speedlight will fire two flashes, even at slow shutter speeds.The first flash is only the pre-flash to aid in proper exposure.

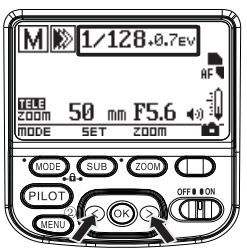
Flash Modes

M Mode

You can set the speedlight to manual mode and choose a power level between 1/1 and 1/128.



❶ Press the <MODE> button and set the flash mode to M.



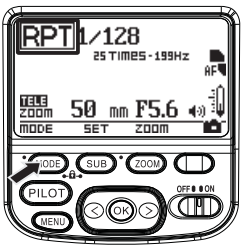
❷ Set the flash output level.

- Press the left/right key to decrease /increase the flash output level.
- The flash output level changes in 1/3 steps between 1/128 and 1/1.

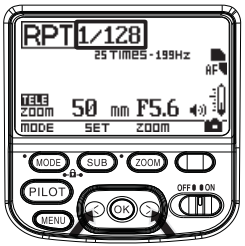
Flash Modes

Repeat Mode

In Repeat mode, the 200SL fires repeatedly during a single exposure, creating stroboscopic multiple-exposure effects. This operation is useful when shooting fast moving subjects.
You can set the firing frequency (number of flashes per second expressed as Hz), the number of flashes, and the flash output.

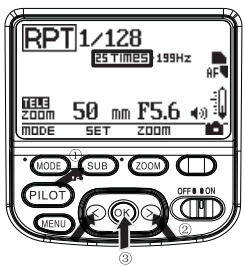


❶ Press the <MODE> button and set the flash mode to RPT.



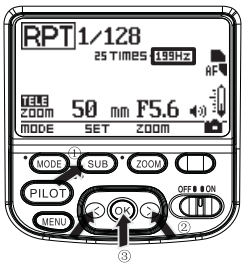
❷ Set the flash output level.

Press the left/right key to decrease /increase the flash output level. The flash output level changes between 1/128 and 1/4 power.



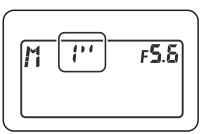
❸ Set the number of flashes.

① Press the <SUB> button to highlight the number.
② Press the left/right key to decrease/ increase the number.
③ Press the <OK> button to confirm.



❹ Set the firing frequency.

- Press the <SUB> button to highlight the frequency.
- Press the left/right key to decrease/ increase the number.
- Press the <OK> button to confirm.



❺ Set the shutter speed.

- Use the following equation to determine the shutter speed. Then set your camera to shutter speed slower than the calculated number.
  Shutter speed = Number of flashes per frame / Frequency of flash (Hz).
- For example, if the number of flashes per frame is 10 and the frequency is 5Hz, divide 10 by 5 to get a shutter speed of 2 seconds or slower (set a shutter speed of slower than 2 seconds)

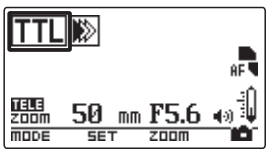
- Using a tripod, remote switch, and external power source is recommended.
- To avoid overheating and deteriorating the flash head, don't use stroboscopic flash more than 10 times in succession. After 10 times, allow the speedlight to rest for at least 15 min.
- The maximum flash firing number is a function of output level and frequency.See the appendix for more details.

Wireless Modes

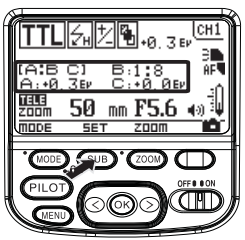
Master Mode

The 200SL can be used as a master unit in a wireless flash system.The settings you enter into the master unit (attached to the camera) are automatically transmitted to the slave units which are controlled by the master unit via wireless. You need not operate the slave unit(s) at all during the shoot.Wireless flash can be used in TTL,M,and RPT modes.

Wireless TTL flash

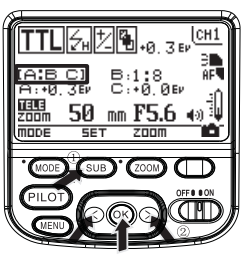


❶ Set the speedlight to <E-TTL II> mode.



❷ Set it as the master unit.

Press the <SUB> button for 2 seconds or longer until the group and channel icons appear.



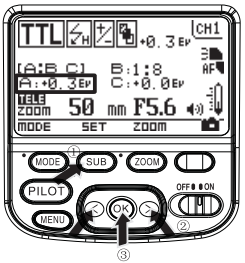
❸ Firing Group.

① Press the <SUB> button to highlight group.

② Press the left/right buttons to select a firing group.

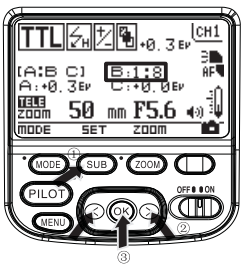
③ Press the <OK> button to confirm.

- The following three firing groups are available:
  <ABC>,<A:B>,<A:B C>.



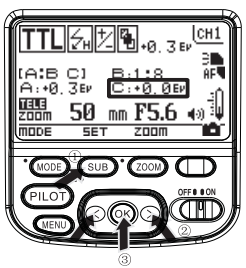
❹ Set wireless flash exposure compensation.

① Press the <SUB> button to highlight group A.
② Press left/right buttons to change the EV.
③ Press the <OK> button to confirm.



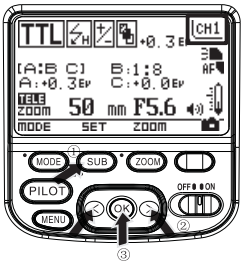
❺ Set the flash ratio.

① Press the <SUB> button to highlight group B.
② Press left/right buttons to change the ratio.
③ Press the <OK> button to confirm.



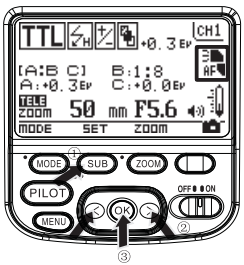
❻ Set the flash exposure compensation of group C.

① Press the <SUB> button to highlight group C.
② Press left/right buttons to change the EV.
③ Press the <OK> button to confirm.



❼ Set Channel.

① Press the <SUB> button to highlight channel.
② Press left/right buttons to change the channel number from 1 to 4.
③ Press the <OK> button to confirm.



❽ Master unit's flash ON/OFF.

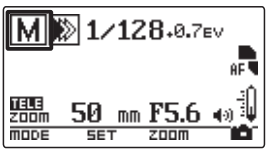
- You can use your camera's menu to turn the master unit's flash on or off.
- Even if you disable the master unit's flash, it will still fire a pre-flash to transmit wireless signals.

- If another photographer is using the same type of wireless slave flash setup nearby, your slave flash units may accidentally fire in sync with that photographer's master flash unit . To avoid this , use a different channel number.

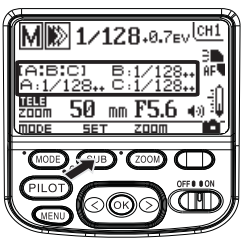
Wireless Modes

❑ Wireless Manual flash

Using wireless manual flash, you can set a different flash output level for each slave unit.

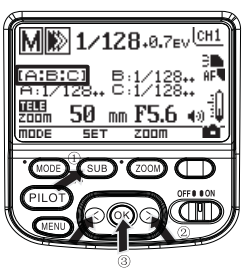


❶ Set the speedlight to <M> mode.



❷ Set it as the master unit.

Press the <SUB> button for 2 sec. or longer until group and channel icons appear.

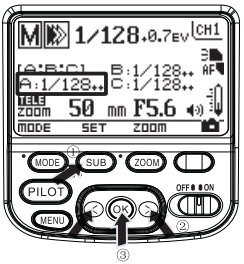


❸ Firing Group.

① Press the <SUB> button to highlight group.
② Press the left/right buttons to select a firing group.
③ Press the <OK> button to confirm.

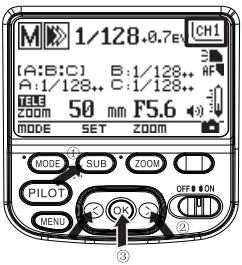
- The following three firing groups are available: <ABC>,<A:B>,<A:B:C>.

Wireless Modes



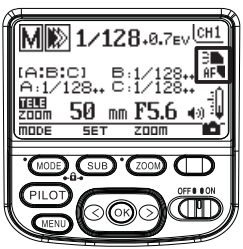
❹ Change the flash power.

① Press the <SUB> button to highlight a group.
② Press the left/right buttons to change the power of that group.
③ Press the <OK> button to confirm.



❺ Set Channel.

① Press the <SUB> button to highlight channel.
② Press left/right buttons to change the channel number.
③ Press the <OK> button to confirm.



❻ Master unit's flash ON/OFF.

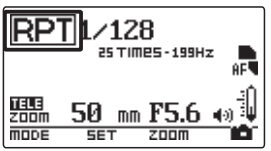
- You can use your camera's menu to turn the master unit's flash on or off.
- Even if you disable the master unit's flash, it will still fire a pre-flash to transmit wireless signals.

- When the 200SL is set to the <ABC > firing group, you can set the flash output power for all groups at once.

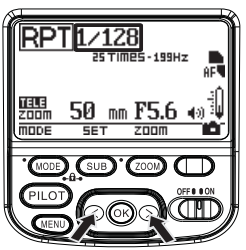
Wireless Modes

❑ Wireless RPT flash

With wireless RPT flash, you can set a different flash output for each slave unit. In this mode, all settings of flash frequency and the number of repeating flasher per frame will be the same among the master unit and slave units.

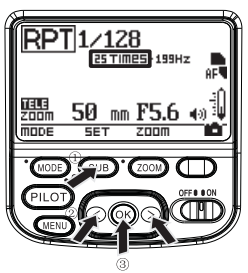


❶ Set the speedlight to <RPT> mode.



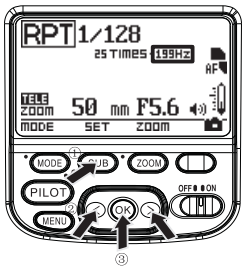
❷ Set the flash output level.

- Press the left/right buttons to change the output level from 1/128 to 1/4.



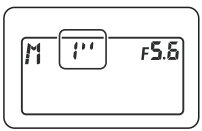
❸ Set the number of flashes (times).

① Press the <SUB> button to highlight the number.
② Press the left/right key to decrease/ increase the number.
③ Press the <OK> button to confirm.



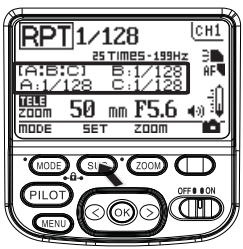
❹ Set the firing frequency.

- Press the <SUB> button to highlight the frequency.
- Press the left/right key to decrease/ increase the number.
- Press the <OK> button to confirm.



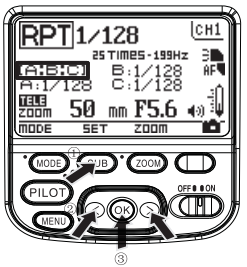
❺ Set the shutter speed.

- Use the following equation to determine the shutter speed. Then set your camera to shutter speed slower than the calculated number.
  Shutter speed = Number of flashes per frame / Frequency of flash (Hz).
- For example, if the number of flashes per frame is 10 and the frequency is 5Hz, divide 10 by 5 to get a shutter speed of 2 seconds or slower (set a shutter speed of slower than 2 seconds)



❻ Set it as the master unit.

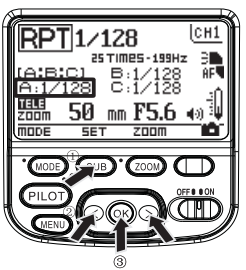
Press <SUB> button for 2 sec. or longer until group and channel icons appear.



❼ Firing Group.

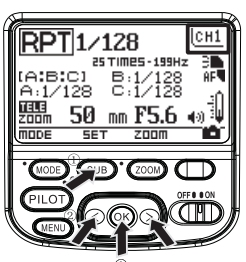
① Press the <SUB> button to highlight group.
② Press left/right buttons to select a firing group.
③ Press the <OK> button to confirm.

- The following three firing group modes are available: <ABC>,<A:B>,<A:B:C>.



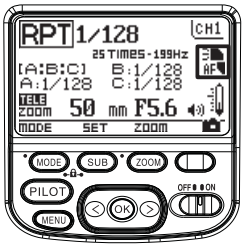
❽ Set the output power for each group.

① Press the <SUB> button to highlight each group.
② Press left/right buttons to adjust the power.
③ Press the <OK> button to confirm.



❾ Set the Channel.

① Press the <SUB> button to highlight channel.
② Press left/right buttons to change the number.
③ Press the <OK> button to confirm.



⑩ Master unit's flash ON/OFF.

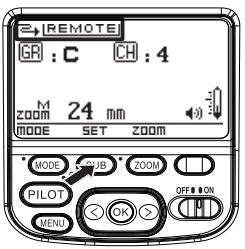
- You can use your camera's menu to turn the master unit's flash on or off.
- Even if you disable the master unit's flash, it will still fire a pre-flash to transmit wireless signals.

- To avoid overheating and deteriorating the flash head, don't use stroboscopic flash more than 10 times in succession. After 10 times, allow the speedlight to rest for at least 15 min.
- The maximum flash firing number is a function of output level and frequency. See the appendix for more details.

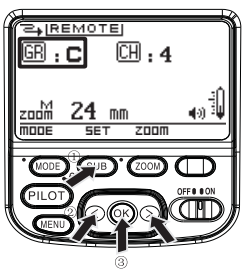
Wireless Modes

Slave(Remote) Mode

As a slave unit, the 200SL can receive signals from another 200SL (master), Canon 580EX II, ST-E2, and Canon camera commander function. In this mode, you can divide the slave units into three groups and set the flash mode and flash output level compensation values separately for each group as well as the master flash unit.



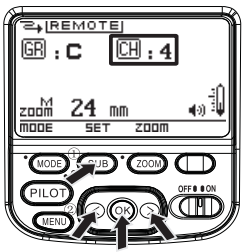
❶ Press the <MODE> button for 2 sec. to choose slave mode.



❷ Set Group.

① Press the <SUB> button to highlight GR (group).
② Press the left/right button to choose A, B, or C group.
③ Press the <OK> button to confirm.

- For slave flash units where the flash mode and flash output level compensation values are to be set identically , place these flash units into the same group.



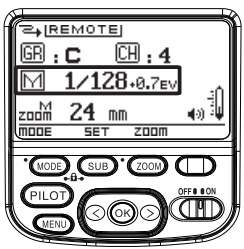
❸ Set Channel.

① Press the <SUB> button to highlight Channel.

② Press the left/right buttonto choose a channel between 1 and 4.

③ Press the <OK> button to confirm.

- Select channel number between 1 and 4.
- Be sure to choose the same channel number as set on the master flash unit.



❹ Parameter display.

- When the slave receives a TTL signal from the master, the <TTL> icon will appear in the LCD.This happens after the first remote firing of the slave flash
- If the master is set to fire the slave in M or RPT, the slave will display the appropriate icon and settings after the first remote firing.

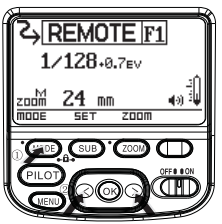
- When using the camera's built-in flash as a master unit remember to raise the built-in flash.

Wireless Modes

Slave Mode(F1/F2)

The F1 mode is used in a manual flash environment. The F2 mode is used in a TTL flash environment.

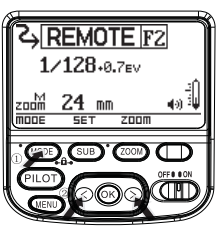
F1 mode



① First press the <MODE> button for 2 seconds to display the slave mode. Then press the <MODE> button to choose F1 mode.
② Set the flash output level.
- Press the left/right key to decrease /increase the flash output level.
- The flash output level changes in 1/3 steps between 1/128 and 1/1.

- When the speedlight is in F1 mode, it will fire in-sync. with the master flash, similar to a radio slave setup. To use this mode correctly, the master speedlight should be set as a manual flash and the TTL flash system with pre-flash and red-eye reduction modes should not be used.
- Press the Navigation key to set the flash output level. (P20)

F2 mode



① First press the <MODE> button for 2 seconds to display the slave mode. Then press the <MODE> button to choose F2 mode.
② Set the flash output level.
- Press the left/right key to decrease /increase the flash output level.
- The flash output level changes in 1/3 steps between 1/128 and 1/1.

- When the speedlight is in F2 mode it can support the master speedlight in TTL mode.
- Press the Navigation key to se the flash output level. (P20)

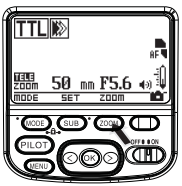
Power zoom function

The power zoom function automatically adjusts the flash zoom head positioning to match the lens focal length. Zoom positions can be adjusted between 24mm and 180mm. You can also adjust the flash zoom head position manually.

Auto zoom

Press the <ZOOM> button, then press the left and right keys until < M> disappears. Now zoom the lens and watch as the flash matches the zoom setting.

Manual zoom



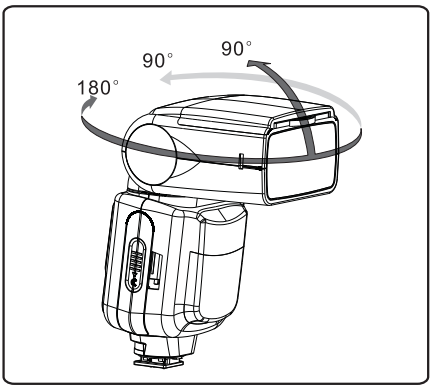
Press the <ZOOM> button,then press the left and right keys to indicate< M > on the LCD. Continue pressing the left/right buttons to decrease/increase the zoom position manually.

- If you set the flash zoom manually, make sure it covers the lens focal length so that the picture will not have a dark periphery.
- If you use a commercially-available sync cord to connect your camera to the speedlight's PC terminal, set the flash zoom manually.

AF assist beam emitter

In low light conditions the AF assist light will automatically emit a red colored beam and illuminate the subject so the camera can easily focus.

Bounce flash operation

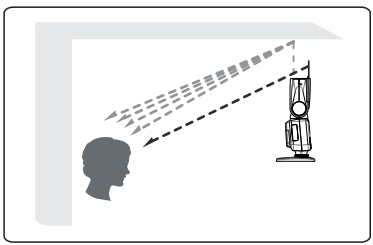


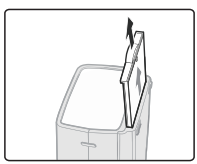
Tilt or rotate the 200SL's flash head to bounce the light off a ceiling or walls, providing more natural-looking pictures of people with softer shadows.

- If the wall or ceiling is too far away, the bounced flash might be too weak and can result in underexposure.
- Be sure to select a white/neutral surface to bounce the light off of. Otherwise your pictures will have an unnatural looking color cast similar to that of the reflecting surface.

Using the bounce card

You can use the 200SL's built-in bounce card to ceate a highlight in the subject's eyes.

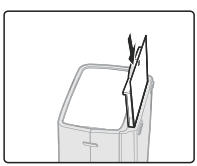




❶ Point the flash head upward by 90°.

❷ Pull out the wide panel.

The bounce panel will slide out at the same time.



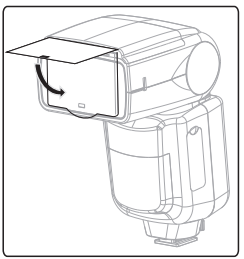
❸ Push the wide panel back in.

Push in only the wide panel.

- Point the flash head straight ahead and then upward by 90.The catchlight will not work if you swing the flash head left or right.
- For maximum catchlight effect, stay within 1.5m(4.9ft) of the subject.

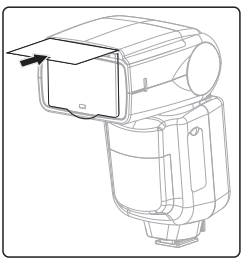
Use the wide panel

When the distance between the camera an subject is less than approx. 2m, you can take more natural-looking close-up pictures using the wide panel. (the zoom position is automatically set at 18mm when the built-in wide panel is attached.)



❶ Pull out the wide panel.

Slowly pull out the wide panel all the way, and position it over the flash head.



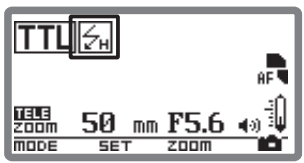
❷ Push the bounce card back in.

● Slowly pull out the wide panel all the way, and position it over the flash head.

Advanced Applications

High-speed Sync

With high-speed sync (FP flash), the speedlight can synchronize with all camera shutter speeds . This is convenient when you want to use aperture priority for fill-flash portraits.

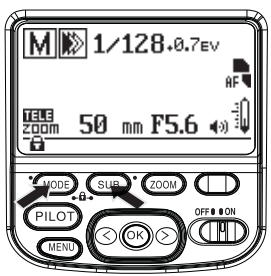


Select <HSS>.

- Use camera's menu or press the <SUB> button, and select High-speed Sync. This will be dependent on the particular camera model. Not all cameras support high-speed sync.

- With FP flash , the faster the shutter speed , the shorter the effective flash range will be.
- To return to normal flash firing, please select front/rear-curtain sync. or turn off high-speed sync. from the camera controls.
- If you set a shutter speed that is the same or slower than the camera's normal flash sync speed , HSS icon **will not** be displayed.

Key Lock



Pressing the MODE button and SET button simultaneously locks control buttons.

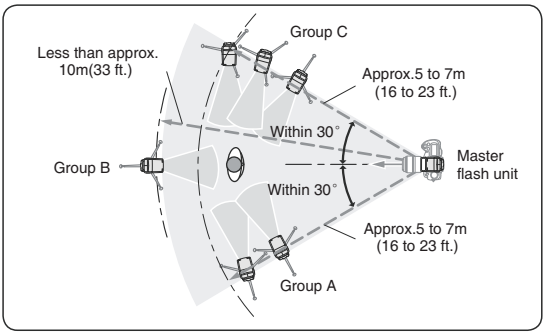
- The power ON-OFF switch and the test firing buttons remain unlocked.
- A key icon is displayed on the LCD while buttons are locked.

To cancel the key lock function, press the two buttons again for two seconds.

Advanced Applications

Advanced Wireless Flash

The 200SL supports multiple wireless flash setups.



- 200SL supports the Canon wireless flash system.
- 200SL can be used as a master or slave flash.
- Be sure to test the wireless flash operation before shooting.
- When used as a slave, confirm the unit(s) can receive a good optical signal.
- As a basic guide , the effective shooting distance between the master and slave units is approx.10m (33 ft.) or less in the front position, and approx.7m (23 ft.) at the sides. These ranges vary slightly depending on the ambient light.
- Indoors, the wireless signal can also bounce off a wall, so there is more leeway in positioning the slave units.
- Be sure to place all slave units that are set in the same group close together.
- Don't place any obstacles between the master unit and slave units. Obstacles can block the transmission of wireless signals.

Troubleshooting Guide

The Speedlight Does Not Fire

Possible cause: The batteries are installed in the wrong orientation.
Solution: Reinstall the batteries in the correct orientation.

Possible cause: The batteries are exhausted.
Solution: Replace the batteries.

Possible cause: The speedlight is not attached securely to the camera.
Solution: Attach the speedlight's mounting foot securely to the camera.

Possible cause: The electrical contacts of the speedlight and camera are dirty.
Solution: Clean the contacts.

The Slave Unit Does Not Fire

Possible cause: The slave's mode is set wrong.
Solution: Please set it to the same wireless mode, group, and channel as the master unit.

Possible cause: The salve unit(s) is not positioned properly.
Solution: Place the slave unit within the master unit's transmission range.

Specifications

Type:	On-camera , E-TTL II autoflash speedlight
Guide No.:	GN 60(at 180mm focal length , ISO 100)
Flash coverage:	24 ~180mm ● AUTO/Manual zoom
wireless mode:	● Canon wireless flash mode (master&slave modes) ● F1/F2 mode
Audible:	Yes (can be turned on or off)
Voice:	Beep
Display type:	LCD Dot Matrix Screen & LED Backlight
Protection type:	Thermal Cut-out (can be turned on or off)
Power supply:	4×AA size batteries(Alkaline & Ni-Mh)
Flash time:	1/800~1/20000S
Recycle time:	approx 0.27s-5.2s (AA alkaline cell use) approx 0.15s-3s (AA Ni-Mh cell use)
Color temperature:	5600K
Flash control:	22 Levels light quantity output control(1/1 ~1/128,14 levels of fine tuning); E-TTL II autoflash ; Repeat flash
Power saving:	Customizable via standby function
Vertical rotation angle:	-7°~90°
Horizontal rotation angle:	Right 0°~180° / Left 0°~90°
Dimensions:	7 3/4" x 3 1/16" x 2 5/16" (198.5mm × 77.8mm × 58.5mm)
Net weight:	425g(without batteries)

Appendix

Guide No.(at ISO 100 , in meters/feet)

Flash output level	Zoom position(mm)									
	24	28	35	50	70	85	105	120	135	180
1/1	30.5	33.5	37.7	43	47.2	50	53.3	56.3	58	60
1/2	21.6	23.7	26.7	30.4	33.4	35.4	37.7	39.8	41	42.4
1/4	15.3	16.8	18.9	21.5	23.6	25	26.7	28.2	29	30
1/8	10.8	11.9	13.4	15.2	16.7	17.7	18.9	19.9	20.5	21.2
1/16	7.7	8.4	9.5	10.8	11.8	12.5	13.4	14.1	14.5	15
1/32	5.4	6	6.7	7.6	8.4	8.9	9.5	10	10.3	10.6
1/64	3.9	4.2	4.8	5.4	5.9	6.3	6.7	7.1	7.3	7.5
1/128	2.7	3	3.4	3.8	4.2	4.5	4.8	5	5.2	5.3

Appendix

Maximum number of repeating flashes per frame

Referring to the table below , set the flash output level , the frequency, and the number of repeating flashes separately for each picture.

Frequency	Flash output level					
	M1/4	M1/8	M1/16	M1/32	M1/64	M1/128
1Hz	7	14	30	60	90	90
2Hz						
3Hz	7	14	30	60	90	90
4Hz	6	12	20	50	80	80
5Hz	5	10	20	40	70	70
6Hz	4	8	20	32	56	56
7Hz	3	6	20	28	44	44
8Hz	2	6	20	24	36	36
9Hz	2	5	10	22	32	32
10Hz	2	5	10	20	28	28
11Hz	2	4	8	12	25	25
|						
|						
199Hz						