

Wave Commander



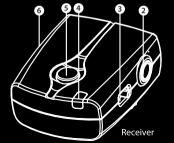
Wireless Intervalometer

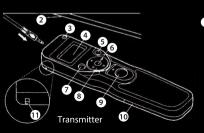
Timer and Shutter Release

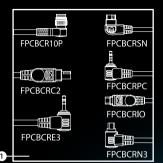
Table of Contents

Notices	2
Introduction	3
Parts of the FPRCW	3
Transmitter	3
Display Panel	4
Receiver	4
Inserting Batteries	4
Replacing Batteries	4
When the FPCRR is Not in use	4

Lighting/Lock Button 2
Connecting the FPCRR
Using FPCRR
Timer Photography
Manual Release1
Precautions for use1
Caring for the FPCRR1
Specifications1
Supported Models1









For Your Safety

To prevent damage to your product or injury to yourself or to others. read the following safety precautions in their entirety before using this equipment. Keep these safety instructions where all those who use this equipment will read them. The consequences that could result from failure to observe the precautions listed in this section are indicated by the following symbol:

- ⚠ This icon marks warnings and information that should be read before using this product to prevent possible injury.
- ⚠ Do not disassemble or modify Failure to observe this precaution could result in electric or product malfunction. Should the product break open as the result of a fall or other accident, remove the batteries and take the product to manufacturer for inspection.
- ⚠ Keep dry Do not handle with wet hands or immerse in or expose to water or rain. Failure to observe this precaution could result in fire or electric shock.
- ⚠ Do not use in the presence of flammable gas Failure to observe this precaution could result in explosion or fire.
- ⚠ Keep out of reach of children This device contains small parts which may pose a chocking hazard.
 - Consult a physician immediately if a child swallows any part of this device.

- ▲ Turn off immediately in the event of malfunction Should you notice smoke or an unusual smell coming from this device, remove the batteries immediately and take the device to an authorized service representative for inspection, taking care to aviod burns. Continued operation could result in injury.
- △ Do not expose to high temperatures Do not leave the device in a closed vehicle under the sun or in other areas subject to extremely high temperatures. Failure to observe this precaution could result in fire or in damage to the casing or internal parts.
- ⚠ Observe these precautions when handling batteries Batteries may leak or explode if improperly handled. Observe the following precautions when handling batteries for use in this device: Use only batteries listed in this manual. Do not mix old and new batteries
 - or batteries of different types. Read and follow all warnings and instructions provided by manufacturer.
- Do not short or disassemble.
- Do not expose to flame or excessive heat.
 - Do not attempt to insert batteries upside down or backwards.

 Batteries are prone to leakage when fully discharged. To avoid damage to the product, be sure to remove the batteries when leaving the product unattended for prolonged periods or when no charge remains. Should liquid from the batteries come into contact with skin or clothing, rinse immediately with fresh water.

Introduction

Thank you purchasing the FPCRR wireless remote controller. The FPCRR includes one transmitter and one receiver, is equipped with an interval timer suited to wide variety of tasks, including timelapses, star trails, panoramas, animated sequences, and behind the scenes shots.

Diagram Key

Please refrence the illustrations on the back cover

Transmitter

- Connector (Several models available)
- 2 Cord
- 3 Two color indicator light(Focus and Release) 8 Arrow buttons
- Display panel
- 5 TIMER START/STOP button

- 6 SET button
 - (Backlight/lock)Button

 - Shutter-release button
 - 10 Battery-chamber cover

Display Panel

- Current function indicator
- 2 Time indicator
- 3 Lock indicator
- 4) Low battery indicator
- TIMER ACTIVE" indicator

The illustration inside the front cover shows the control panel with all elements lit. In the other illustrations throughout this manual, elements relevant to the explanation in the accompanying text are shown in black. Indicators not mentioned in the text are shown in gray.

Receiver

- shutter release cable
- release cable socket
- 3 channel switch

- status indicator
- 5 shutter release button

Tone on/off indicator

"Release" indicator

"Set" indicator

9 Number of shots

6 power on/off switch



Inserting Batteries

Slide the battery-chamber cover to from the back of the transmitter and insert two AAA 1.5V LR03 alkaline batteries (available separately) as indicated.

The Low Battery Indicator

The low battery indicator 4 will blink when the batteries are low. Please replace the batteries.

Replacing Batteries

When replacing batteries:

- Check that the "TIMER ACTIVE" (5) and "RELEASE" (8) indicators are not displayed.
- 2. Turn the camera off and disconnect the FPCRR.
- 3. Remove the batteries.
- 4. Wait until the control panel has gone out and insert new batteries.

When the FPCRR is not in use

The FPCRR is not equipped with an off switch. To reduce the drain on the batteries when the FPCRR is not in use, end shooting and check that the "TIMER ACTIVE" 5, "SET" 7, and "RELEASE" 8 indicators are not displayed. The drain on the batteries increases when these indicators are flashing.

The "TIMER ACTIVE" "SET" and "RELEASE" indicators



If this is displayed	turn off by doing this
Timer Active	Timer active (page 8); pressTIMER START/STOP button 5
SET	Settings can be modified (page 5); press SET button 6
RELEASE TIMER ACTIVE (not flashing)	Manual release active (page 10); release shutter-release button 9 ; if button is in HOLD position, release shutter-release lock).

Lighting/Lock Button

Press the lighting/lock button ② briefly to activate the control panel backlight. The backlight will remain lit for about six seconds; pressing the arrow button ③ while the backlight is on extends the timer for another six seconds. To lock all controls except the shutter-release ④ and Lighting/lock buttons, press the illuminator lock button until the lock icon (L) is displayed in the control panel. To the release the lock, press the lighting/lock button until the lock icon is no longer displayed.

DELAY LONG INTVL N

Connecting the FPCRR

- 1. Turn the camera off.
- Check that the "TIMER ACTIVE" 5 and "RELEASE" 8 indicators are not displayed.
- Locate the camera's remote shutter port. Insert the plug firmly and smoothly into the camera's remote shutter release port. If it does not fit immediately, do not force it!! Take it out and check its orientation.

Disconnecting the FPCRR

After checking that the "TIMER ACTIVE" 5 and "RELEASE" 8 indicators are not displayed, turn the camere off and disconnect the FPRCW. Replace the camera's remote cord socket terminal cover.

Using the FPCRR

- As Automatic Timer: Choose the delay (time before shooting starts), exposure time, interval between, and number of shots for timer interval photography. Shutter speed can be determined with the camera if desired.
- As A Manual Release: Take photographs manually using the shutter-release button on the FPCRR. Photographs can be taken manually even when the timer is running.

Timer Photography

- 1. Proper Camera Settings
- 1A. Connect the FPCRR and turn the camera on.
- 1B. Adjust camera settings as follows (see your the camera's manual for details):

Exposure	M(manual)
Shutter speed	Bulb
Focus Mode	AF-C(continuous-servo auto- focus)* or M (manual)
Drive	S (single frame)

Select "release priority" if available.

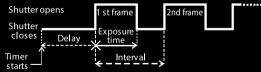
Set the Timer

2A. Press the SET button 6. "SET" will flash in the display panel.



The FPCRR can be connected to the camera after the timer has been set.

Delay, Exposure, and Interval Settings



Setting the timer

Use the arrow button to set the timer. Press left or right to select, up or down to change. The current selection is indicated by the selection cursor 1.

2A. Adjust the following settings:

Option	Description	Supported settings	
DELAY	Delay before shutter is released the first time	0 s to 99 hrs 59 min 59s	
LONG	Exposure time (Shutter Speed)	(in one-second increments)	
INTVL	Interval between shots	1 s to 99 hrs 59 min 59s (in one-second increments)	
Ν	Number of shots	1 to 399, or(unlimited)	
4	Tone on/off	♪ (on), ⑤ (off)	

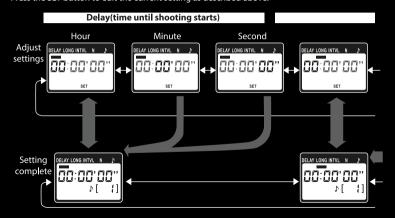
Number of shots (N)

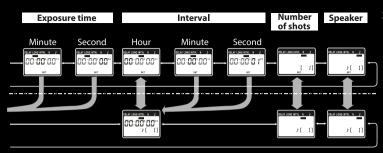




Press SET 6 at any time to complete the operation and display the new settings for the selected item. To view other settings, press the arrow button left or right. The current selection is indicated by the selection cursor 1.

Press the SET button to edit the current setting as described above.





Setting the timer

- 1. To ensure correct operation, choose an interval at least one second longer than the exposure time. When using autofocus, set the delay to two seconds or more and choose an interval at least two seconds longer than the exposure time to ensure that the camere has time to focus. When using long exposure noise reduction (available with some digital cameras), the interval should be at least twice the exposure time.
- Intervals of 00:00:00 will automatically be reset to 00:00:01 when the SET button 6 is
 pressed to put settings into effect. To set the number of shots to— (unlimited), select 1
 and press the arrow button 8 down or select 399 and press the arrow button up.

After adjusting all settings as desired, press the SET button on to put the new settings into effect. Timer will issue a beep-(if tone is activated), and the "SET indicator will go out.



The new settings will remain in effect until changed or until the batteries are removed or exhausted.

Sart the timer

Press the TIMER START/STOP button 3. The timer will start and TIMER ACTIVE 5 will flash in the display panel. Between shots, the display panel will show the time remaining until the next photograph is taken. While the shutter is open, the panel will show the time remaining until the shutter closes, and the release lamp and "RELEASE" indicator 8 will flash at one-second intervals. Focus and release indicator lamp will turn red. If the tone is tuned on, the timer will beep every second while it takes a picture, and the remaining number of shots will be updated.

Display Panel (Timer Active)



In between shots: Time remaining until next shot

During a shot: Time remaining in this exposure Number of shots remaining

The following illustration shows when a beep will sound () and the release lamp flash () with a delay of 5 s, an exposure time of 4 s, and an interval of 5 s.



Shooting Completion

Shooting will end automatically when the selected number of shots has been taken. To end shooting before all photographs have been taken. Press the TIMER START/STOPbutton 5

Using the camera to Select shutter Speed

To take photographs at the shutter speed selected with the camera, adjust settings as follows:

	Exposure mode	M(manual) or S(shutter-priority auto)
C	Shutter speed	Any
Camera	Focus mode	AF-C(continuous-servo autofocus)* or M (manual)
	Shooting mode	S(single frame)
FPCRR	Exposure time	Os
FFCKK	Interval	Longer than camera shutter speed*

^{*} Select "release priority" if available.

Using the Timer

Before using the timer for extended periods, check that the batteries have enough charge. Replace the batteries when the low battery indicator () flashes in the display panel 4.

^{*} When using autofocus, choose an interval at least two seconds longer than the camera shutter speed to allow the camera time to focus. When using long exposure noise reduction (available with some digital cameras), choose an interval at least double the camera shutter speed.

Using the FPCRR as a Manual Release

The FPCRR shutter-release button **9** functions in much the same way as the camera shutter-release button.

Adjust Camera Settings

Connect the FPCRR (pg.4) and turn the camera on. Choose exposure mode, shutter speed, focus mode, and shooting mode as desired.

Take Pictures

Press the Transmitter shutter-release button halfway and check focus and exposure, then click to complete the photograph. To keep the shutter-release button fully pressed for long exposure photography, slide the button to the HOLD position. Slide it in the opposite direction to release the lock.



When the shutter is open, Focus and Release indicators will light, every second the FPRCW will beep, the Release 3 indicator will flash, and the display will show the length of the current exposure.

The Receiver shutter-release button can be used when no batteries are inserted. The display panel will remain off and no beep will sound. The shutter-release button can be used to release the shutter manually while the timer is active. Timer count-down continues during manual release. If a manual release overlaps with an automatic release, the shutter will remain open until both exposure times have expired.

Precautions

Check the camera battery level and number of exposures remaining before using the FPCRR (see the camera manual for details). The timer will continue to operate even when no pictures can be recorded due to low battery, lack or film or memory, or lack of space in the memory buffer (digital cameras only). An AC camera adapter (available separately) is recommended for longer sessions.

Some cameras have an AF activation option that determines whether the camera will focus when the shutter release button is pressed halfway (see the camera manual for details). Enable shutter-release button AF-activation when using the FPCRR.

Please note that the timer is less accurate than most watches or household clocks.

Caring for the FPRCW

The product may malfunction if subjected to strong shocks or vibration. The product is not waterproof and may malfunction if immersed in water or exposed to high levels of humidity. Rusting of the internal mechanism can cause irreparable damage.

Avoid sudden changes in temperature: Sudden changes in temperature, such as occur when entering or leaving a heated building on a cold day, can cause condensation inside the device. To prevent condensation, place the device in a carrying case or a plastic bag before exposing it to sudden changes in temperature.

Keep away from strong magnetic fields: Strong static charges or the electromagnetic fields produced by equipment such as radio transmitters could interfere with the device.

A note on electronically-controlled devices: In extremely rare instances, unusual char-acters may appear in the display panel and the device may stop functioning. In most cases, this phenomenon is caused by a strong external static charge. Turn the camera off, disconnect the FPCRR, remove the batteries, and then replace them once the control panel has turned off. Caution is required when handling the batteries, which may be hot from use. In the event of continued malfunction, contact your retailer or representative.

Display panel: LCD displays tend to darken at high temperatures and exhibit slower response times at low temperatures. This does not indicate a malfunction.

Specifications

Supported cameras	Nikon. Canon. Sony. Samsung. Pentax. Olympus. Konica. Minolta etc.
Timer delay	0s to 99hrs 59min 59s in one-second increments
Exposure time	0s to 99hrs 59min 59s in one-second increments
Interval	1s to 99hrs 59min 59s in one-second increments
Number of shots	1 to 399, (unlimited)
Power source	FPRCWTX: AAA 1.5V LR03 battery×2; FPRCWRX: AAA 1.5V LR03 battery×2
Battery life	FPRCWTX 20,000 Shots +/- FPRCWRX 45 hrs standby (+/-)
Operating temperature	-20-+50 C(-4-+122 F)
Type	2.4GHz wireless remote control system
Distance	≤100m
Channels	4
Dimensions	Transmitter:155×40×18mm; Receiver: 60×46×34mm

Supported models

FPCBCRE3

Pentax K100D, K110D, K10D, *ist Ds2, *ist D, *ist Ds, *ist, *ist DL, *ist DL2 Samsung GX-1L, GX-1S, GX-10

Canon EOS 30, 33, 50E, 300, 300V, 3000, 50, 300D(Digital Rebel), 350D(Digital Rebel XT), 400D(Digital Rebel XTi), 450D(Digital Rebel XSi), 500D, 1000D, 60D, 600D, SL1

FPCBCRN3

Canon EOS 1Ds Mark II, 1Ds Mark III, 1Ds, 1D Mark IV, 1D Mark III N, 1D Mark III . 5D Mark III . 5D Mark III . 5D Mark III . 5D Mark III . 5D, 5D, 7D, 50D, 40D, 30D, 20D, 10D, D60, D30, D2000, 1v HS, 1v, 3

FPCBCRIO

Olympus SP-510UZ, SP-550UZ, E400, E410, E510, E450, E520, E420

FPCBCRPC

Panasonic

FPCBCR10P

Nikon D2H, D2Hs, D1x, D1h, D1, D2X, D2Xs, D200, D300, D3, D3X, D3s, D2Hs, D300S, D700, F5, F6, F100, F90, F90x, D100(MB-D100 Vertical Grip/Battery Holder needed), Kodak DCS-14n, Fujifilm Finepix S3pro, S5pro

FPCBCRC2

Nikon D90, D3000, D3100, D3200, D5000, D5100, D7000

FPCBCRSN

Sony Alpha DSLR-A100, A200, A300, A350, A700, A900, Minolta Maxxum/Dynax/AF 7D, 5D, 9, 7, 5, 4, 3, 807si, 800si, 700si, 600si, 505si, 500si, Sweets, 9000, 7000, 5000, Dimage 7Hi, 7i, 7, 5

