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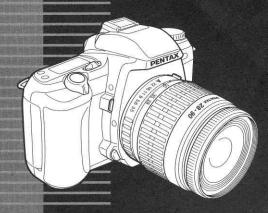
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PENTAX®
MZ-6

OPERATING MANUAL



WELCOME

Thank you very much for purchasing the Pentax SLR camera. Please read this manual before using the camera in order to get the most out of all the features and functions. Keep this manual safe, as it can be a valuable tool in helping you to understand all the camera's capabilities.

FOR SAFE USE OF YOUR CAMERA

Although we have carefully designed this camera for safe operation, please be sure to follow precautions given on this page.



This mark indicates precautions that, if not followed, could result in serious injury to the operator.



This mark indicates precautions that, if not followed, could result in minor or medium injury to the operator or damage to the equipment.



This mark indicates prohibited matters.



This mark indicates that caution should be taken.

A WARNING

- The electronic circuits inside the camera contain high voltage working parts. Never attempt to disassemble the camera yourself.
- Never touch internal parts of the camera if they become exposed from dropping the camera or for some other reason, as there is danger of an electric shock
- Wrapping the strap around your neck is dangerous. Make sure that small children do not get the strap caught around their neck.
- Do not look directly at the sun through the camera, as viewing the sun may damage your eyes, and/or parts of the camera (e.g: shutter blades, etc.)
- Be sure to store batteries out of the reach of children. Seek medical assistance immediately if accidentally swallowed.

ACAUTION

- Do not use the flash near anyone's eyes, as it may hurt them. Be particularly careful with the flash around infants.
- Never try to disassemble, short or recharge the battery. Also, do not dispose of the battery in fire, as it may explode.
- Remove the batteries from the camera immediately if they become hot or begin to smoke. Be careful not to burn yourself during removal.

PRECAUTIONS FOR YOUR CAMERA

Your Pentax camera is a high-precision mechanism. Handle it with great care.

Precautions when taking pictures

- Do not use the camera where it may come in contact with rain, water, or any
 other liquid, because the camera is not weather, water, or liquid resistant.
 Should the camera get wet from rain, splashing water, or any other liquid
 wipe it off immediately with a dry soft cloth.
- Do not drop the camera or allow it to hit solid objects. If the camera suffers a shock or impact, take it to a Pentax service center for inspection.
- Be careful not to subject the camera to strong vibrations, shock or pressure.
 Use a cushion to protect the camera when carrying it in a motorcycle, car, boat, etc.
- Condensation on the interior or exterior of the camera may be extremely
 harmful to the camera mechanism as it may cause rust. Furthermore, if the
 camera is taken from warm temperature to a subfreezing one or vice versa,
 the formation of crystals may cause damage. In such a case, put the camera
 into a case or plastic bag so that any changes in temperature difference is
 minimized. Do not remove it from the bag until temperature has stabilized.
- Regular size color prints may cut off what appears on the extreme edges of the film frame. Compose your picture with a margin of safety at the edges.
- When a macro or telephoto lens is attached to the camera, the top part of the viewfinder may look dark due to the lens blocking the mirror. However, this does not affect the picture taken.

Precautions for storage

- Avoid leaving the camera for extended periods in places where the humidity and temperature are very high, such as in a car.
- Do not store the camera in a closet with moth balls or in an area where chemicals are handled. Store it in a place with good dry air circulation to prevent the growth of fungus.

Precautions for proper care

- · Never touch the shutter curtain or mirror with your finger or any other object.
- Use a blower and lens brush to remove dust accumulated on the lens or viewfinder
- Never use solvents such as paint thinner, alcohol or benzene to clean the camera.
- Electrical problems may often be caused by water, dirt or dust at points of
 electrical contact. Also check for battery leakage, traces of dirt or grease, or
 corrosion due to salinity or gas. If you cannot correct the problems, have your
 camera inspected at a Pentax service center. Repairs of this nature are not
 covered under the terms of the warranty and charges may be assessed.

Other precautions

- The temperature range at which this camera functions properly is 50°C to -10°C (122°F to 14°F).
- A camera which has been submerged in water usually cannot be repaired. If such an accident should occur, it is advisable to contact a Pentax Service Center immediately.
- To maintain optimum performance, it is recommended that the camera be inspected every one or two years. If the camera has not been used for an extended period, or is being prepared for an important photographic session, it is recommended that you have the camera inspected or test shoot with it.
- Repairs deemed necessary due to usage of this product in an industrial or commercial application may not be covered under the terms of the Pentax
- warranty.
- The PENTAX warranty provides only for the repair of defects in materials or workmanship. Damage of any kind cannot be repaired at no charge under the terms of the warranty. If the difficulty is caused as a direct result of the product being used in conditions as outlined in the "Precautions for Your Camera" section or any other operation contrary to the instructions outlined in this manual, charges will be assessed and a repair quotation will be provided.

PRECAUTIONS FOR BATTERY USAGE

- Use two 3V lithium batteries (CR-2 type).
- Misuse of the battery can cause hazards such as leakage, overheating, explosion, etc. The battery should be inserted with the "+" and "-" sides facing correctly.
- Battery performance may be temporarily hindered in low temperatures, but will recover in normal temperatures.
- Keep a spare battery on hand for replacement convenience when shooting outdoors or while traveling.
- If the built-in flash is used continuously, the battery may become warm, but it
 does not mean that the battery is faulty; it is one of the battery's characteristics.
- Replace the batteries at the same time. Do not mix battery brands, type or an old battery with a new one. It may cause explosion or overheating.

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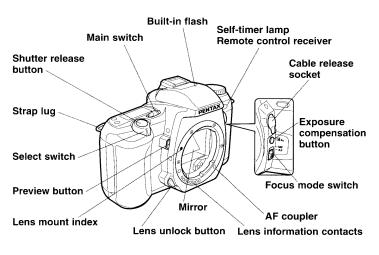
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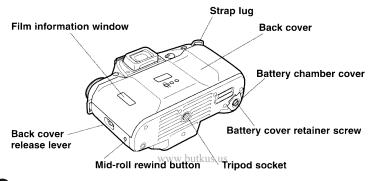
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NAMES OF WORKING PARTS



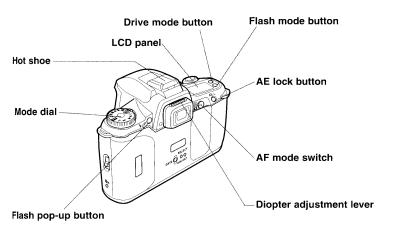


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USING THIS OPERATING MANUAL

This operating manual consists of the following sections.

Things to Check

This section is before "Things to Do," and it explains cautions for using the camera and accessories, as well as the names of working parts.

♦Things to Do

Explains the procedures to be followed before you use the camera for the first time.

It also explains how to load and rewind the film.

◆Basic Operations

- Explains the easiest way to take pictures with the camera set to single-frame mode, programmed AE mode, multi-segment metering mode, and AF mode.
- Using the Built-in Flash: Explains how to use the built-in flash.

Advanced Operations

The camera's features are explained in detail.

- Picture-taking Techniques: Consecutive-frame mode, multiexposure mode, self-timer mode, auto bracketing
- Setting the Exposure: Auto Picture mode, Shutter-Priority AE, Aperture-Priority AE, metered manual exposure, bulb exposure, exposure compensation
- · Focusing: Auto focus mode, manual focusing

◆Flash Photography

- Tips: Tips on using flash in backlit conditions and at night, flash exposure settings, and effective flash range.
- Using a Pentax-Dedicated External Flash: Explains the operation for dedicated external flash units and high-speed sync and wireless mode features with the AF360FGZ.

SET UP

THINGS TO DO

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BEFORE TAKING PICTURES

Things to do before using the camera for the first time.

Step 1 Attaching the Strap

Pass the end of the strap through the strap lug from underneath, then pass the strap through the clasp from underneath.



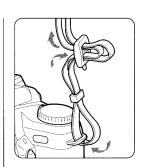
The strap's clasp can be used to rewind the film in mid-roll or to alter the date or time. Position the clasp away from the camera body.

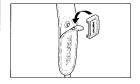
Follow the same procedure to attach the other end of the strap to the other strap lug.



Memo Using the strap pocket

The strap also has a pocket which can store the viewfinder cap, hot shoe cover or any other small accessory as illustrated.





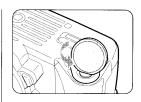
Step 2 Loading the Batteries

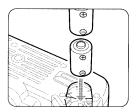
- As shown in the illustration. open the battery chamber cover by turning it with a coin.
- 2 As shown in the illustration, load the two lithium CR2 batteries or equivalent into the battery chamber with the batteries' positive (+) contacts pointing up.
- Push in the battery chamber cover firmly and use a coin to turn the cover clockwise to close.

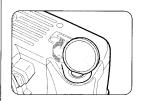


Memo About the Batteries

- · Be sure to use two lithium CR2 batteries.
- · When taking the camera to unfamiliar areas or when using in cold environments, take a spare set of batteries.
- · See "Replacing the Batteries" to replace the batteries and read the cautions regarding the batteries. (p.38)

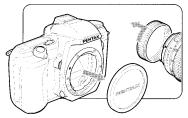






Step 3 Attaching a Lens

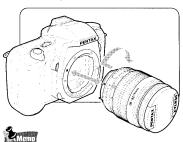
Remove the body mount cap and rear lens cap.



Memo

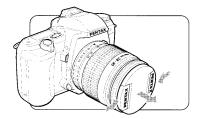
The body mount cap protects the inside of the camera from dust and scratches upon factory shipment. For long-term camera storage, the optional accessory "Body Mount Cap K" is also available.

Align the red dots on the lens and camera while attaching the lens to the camera, then turn the lens clockwise until it clicks in place.



 After attaching the lens try and turn the lens counterclockwise to make sure it is locked in place.

As shown in the illustration, remove the front lens cap.





Handling the Lens

 To detach the lens, hold down the lens unlock button and turn the lens counterclockwise.



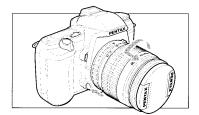
- We assume no responsibility nor liability for damages resulting from the use of lenses made by other manufacturers.
- Use a soft, dry cloth to keep the electrical contacts on the body mount and lens mount clean. Dirt or corrosion on the contacts can cause problems with the electrical system.

As shown in the illustration, remove the front lens cap.



Memo Handling the Lens

 To detach the lens, hold down the lens unlock button and turn the lens counterclockwise.



- We assume no responsibility nor liability for damages resulting from the use of lenses made by other manufacturers.
- Use a soft, dry cloth to keep the electrical contacts on the body mount and lens mount clean. Dirt or corrosion on the contacts can cause problems with the electrical system.

Step 4 Imprinting the date or time (OPTIONAL)

If you have purchased your camera as the Date model Version, or if you have purchased the Data Back FJ separately, read this section. Imprint the date or time within the picture.

Press the DATE button on the DATA BACK FJ to set the desired imprinting format.

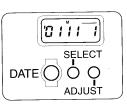
Each time you press the DATE button, the display will change in the following sequence:

 The sample display below indicates November 1, 2001, 2:10 PM. YY indicates the year's last two digits, MM is the month, DD is the day, hh is the hour, and mm is the minute.

[YY MM DD]→[01 11 1] [DD hh mm]...[1 14:10] [-- -- --]...Blank [MM DD YY]...[11 1 01] [DD MM YY] > [1 11 01]



The date or time is imprinted on the lower right corner of the picture. If this part of the picture is light-colored (white, yellow, etc.), the imprinted date or time may be difficult to distinguish.







- To set the correct date and time, see ADJUSTING THE DATA BACK on page 42.
- If the imprinting looks too light or if the Data back's display looks light or shows nothing, replace the Data back's battery. (Pp.40)
- The date or time of the first frame will be imprinted in the multi-exposure mode.

Step 5

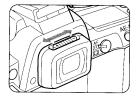
Adjusting the viewfinder's diopter

Adjust the viewfinder's diopter to suit your eye's vision.

Look through the viewfinder and point the camera to a well-lit scene. Then move the diopter adjustment lever left or right until the autofocus frame in the finder looks sharp.



The diopter can be adjusted from -2.0 to +1.0m⁻¹ (per meter).



Step 6 Film loading

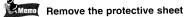
Automatic film speed setting This camera is designed to use DX-coded films with ISO ratings from 25 to 5000.



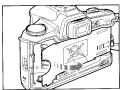
We suggest that you first operate the camera with no film loaded to become familiar with its operations.

 When DX-coded film is used, the correct film speed is automatically set for the camera. If you use a non-DX coded film, you can set the film speed manually. (Pp.36)

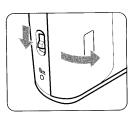
To open the back cover, slide the back cover release lever in the direction of the arrow.



- · Before loading film for the first time after purchase, open the back cover and remove the protective sheet.
- · Be careful not to touch the shutter curtains with the protective sheet.



· Always load and unload film in the shade or by using your body to shade the camera.



Place the film cartridge in the film chamber as shown in the illustration.



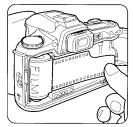
As shown in the illustration, pull the film leader out only far enough to reach the take -up spool.

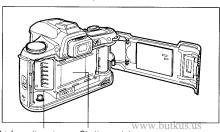
Important

The shutter curtains are fine-precision material. Do not touch them with your fingers or any other object while loading film.



 The DX information pins in the film chamber are used to read film speed. Keep them clean and free from scratches. To remove smudges, wipe them gently with a soft, dry cloth.





DX information pins Shutter curtains

Align the film leader with the film leader end mark and make sure that the film leader is positioned under the film retainer as shown in the illustration.



- If the end of the film leader is extremely bent, straighten it or cut off the bent portion.
- If you have pulled out too much film, push it back into the cartridge to reduce the slack.

5 Close the back cover.

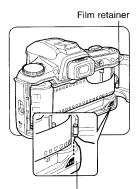
Turn the main switch to [ON].

The film will advance to frame 1 automatically, and the LCD panel will display the exposure counter 1 and film status information.

Memo Incorrect film loading

If the film is not loaded properly, the LCD panel will display \boldsymbol{E} . Open the back cover and load the film again.





Film leader end mark





Exposure counter

BASIC

BASIC OPERATIONS

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QUICK AND EASY SHOOTING

POWER ON/OFF

- Turn on the camera.
 - 1)Turn the main switch to ON.



Turn off the camera.

①After you finish taking pictures, turn the main switch to OFF.



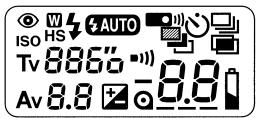
Be sure to turn the main switch to OFF to prevent accidental drain on the batteries.





Memo About the LCD Panel

The LCD panel displays the following indications:



4 : Flash status information @p.30

① : Red-eye reduction flash indication @p.33, 87

\$ AUTO : Automatic flash information p.87 ISO : Manual-set film speed Pp.36

т/886% : Shutter speed

: Battery exhaustion warning @p.38

((C : Remote control release Pp.50 : Consecutive shooting p.46 =1}) : Audible PCV signal @p.74

: Self-timer @p.49 (1)

: Multiple-exposure shooting @p.47

8.8 vA : Aperture value

Ż : Exposure compensation @p.71 O. : Film status information @p.20

-88 : Exposure counter @p.20

and exposure compensation value p.72

W : Wireless flash mode p.99, 100 HS : High-speed sync mode @p.97, 98

Under the dim light condition, the LCD panel will be illuminated automatically. www butkus us

QUICK AND EASY SHOOTING

For quick and easy shooting, set your camera for singleframe shooting, Auto picture, multi-segment metering, and autofocus.



To load the batteries and film or to attach the lens, see "Things to Do." (p.11)

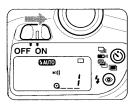
Set the single-frame drive mode.

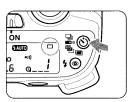
①Set the main switch to [ON] position.

② Press the drive mode button until [□] appears on the LCD panel. One picture is taken each time the shutter release button is pressed.



The drive mode can also be set to consecutive-frame mode (p.46), self-timer (p.49), remote control release mode, auto bracketing or multiple-exposure mode (p.47).





Set the Auto Picture Mode.

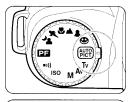
- Set the mode dial to the [AUTO PICT] position.
- 2 Turn the aperture ring to the [A] position while holding down the aperture-A lock button on the lens.

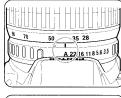
3 The lens aperture ring can be released from the [A] position in the same manner.

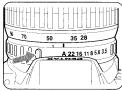
(4) The selected picture mode appears in the viewfinder and the mode dial.

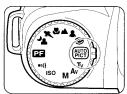
Memo

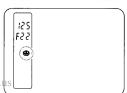
This Auto picture mode allows you to take pictures by simply pressing the shutter rlease button. The camera automatically selects the proper exposure.











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- In the Auto picture mode, the camera automatically selects one of 5 picture modes according to the requirement of the scene.
- The Auto picture mode operates only when an FA or F lens is attached.
- · See page 56, 63 for any other exposure mode.
- The AE lock function or exposure compensation function cannot use while the Auto picture mode is being used.



Set the AF mode switch to [Wide[]]

①Set the AF mode switch to [[]].



- The subject will be focused properly even if the main subject is off the center of the viewfinder.
- · See page 80 for details of Spot AF.



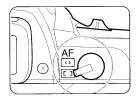
Set autofocus

①Set the focus mode switch to the down position at [AF].

When you press the shutter release button halfway down, the lens automatically focuses. The picture cannot be taken unless focus is achieved. The focus will remain locked as long as the shutter release button is held in the halfway down position.



· See page 78 for the manual focus.





TAKING A PICTURE



To load the film and batteries or to attach a lens, see "Things to Do." (p.11).

Frame the subject

1) Look through the viewfinder and frame the subject.

Autofocus works with the 3 points-AF frame [f 1] in the viewfinder. Cover the subject with the AF frame [[]].



3 points focus frame

Memo Holding the camera

· Hold the camera firmly, with your left hand supporting the camera and lens as shown in the illustrations.





- · To reduce camera shake, support your body or the camera on a solid object - a table, tree, or a wall for instance.
- · Although there are individual differences among photographers, in general the shutter speed for a hand held camera is the inverse of the focal length. For example, 1/60 of second when focal length is 50mm, and 1/125 of second when it is 100mm. A tripod should be used for shutter speeds slower than this.
- · When using a telephoto lens, a tripod that is heavier than the total weight of the camera and lens is recommended to avoid camera shake.



Memo Using a Zoom Lens

♦ Using the Manual Zoom Lens To photograph a wider area, turn the zoom ring to the left. To magnify the subject, turn the zoom ring to the right.



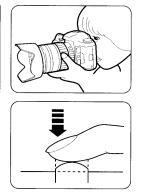
Taking the picture

ÜLightly depress the shutter release button halfway down with your finger.

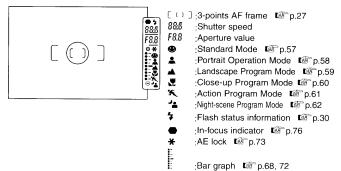
The exposure information (shutter speed, aperture, flash status) will be displayed in the viewfinder.



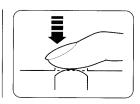
· See page 75 for autofocus.







- The indicator in the viewfinder turns to orange color when you take a picture in low light to warn you of possible camera shake.
- 2 Check the exposure information in the viewfinder and press the shutter release button completely.



:Spot AF frame Pp.80

BUILT-IN FLASH - SMART FLASH

The basic procedure for using the built-in flash is explained below.



To set the built-in flash's flash mode or when using an external flash unit, refer to "Using external flash" on page 95.

USING THE BUILT-IN FLASH



- When using the built-in flash, do not attach a hood to the lens. The hood will obstruct a part of the flash light.
- As a rule of thumb the distance for using the built-in flash (which varies with the lens used) is within about four meters (using ISO 400 film).
- . The built-in flash does not retract automatically.

Auto pop-up flash function

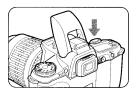
- ①Press the flash mode button until [FAUTO] appears on the LCD panel.
- ②The built-in flash automatically pops up when pressing the shutter release button halfway down in the following conditions.
 - 1. Low light situation
 - backlit situation



When the built-in flash is fully charged, [5] appears in the viewfinder and on the LCD panel.

③Focus the subject and take a picture.





BASIC



- · The built-in flash does not retract automatically.



- The shutter cannot be release while the built-in flash is being charged.
- If the built-in flash is used continuously, the batteries will get warm, but it does not mean that the batteries are faulty.
- The built-in flash pops up not only when using the camera in a dark location, but also when there is back light.
- Note the built-in flash pops up even when the subject is far away or beyond the maximum flash effective range. See page 86 for the flash effective distance.



When [4] blinks

When using an F or FA lens not suited for flash photography. [4] will blink in the viewfinder and on the LCD panel when the flash is ready and the shutter release button is pressed halfway down. Taking a picture with this warning may cause vignetting in the picture corners or semicircular vignetting at the bottom of the picture.

See F and FA Lens Compatibility Table p.90

2 Retracting the built-in flash

1) After using the built-in flash, push down the flash head to lock it in the closed position.





Memo AF illuminator

When the shutter release button is pressed halfway down where it is hard for autofocus to work, such as in a dark place, the built-in flash discharges continuously to provide illumination, making it easy for the autofocus to work.

- In the case of using an AF spot beam of an external flash unit such as the AF360FGZ or AF500FTZ, the AF illuminator of the built-in flash does not operate.
- The AF illuminator does not operate when the exposure mode is set to the Action Program Mode [x] and the focus mode switch is set to MF.
- · Since the external flash unit will end up discharging if the AF illuminator is operated when using the slave function of the AF360FGZ. AF500FTZ set the focus mode switch to the MF position when using the sleeve function
- The AF illuminator may not operate if the batteries become worn down.
- Although varying according to the conditions at the time, the effective distance of the AF illuminator is roughly 1 to 5 meters.

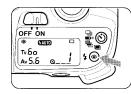
SETTING THE RED-EYE REDUCTION MODE

Red-eye reduction mode: To make the eye's iris smaller, a low-output flash fires right before the picture is taken. This is to reduce the chances of red eye from occurring in the subject's eyes.

Setting the red-eye reduction mode

pop-up button to activate the built-in flash on.

Refer to page 86 for Flash mode display.



UNLOADING FILM

Film rewind (auto/manual), setting the ISO for non-DX-coded film are covered here.

REWINDING THE FILM



- Always unload film in the shade or by using your body to avoid direct sunshine.
- Never open the back cover until the whole film roll is completely rewound.

◆ Automatic film rewinding



The shutter may be released a frame or more after the specified number of frames have been used as indicated on the film cartridge. However, those extra frames may be lost in processing. When you take important pictures, rewind the film when the film reaches the number of frames indicated on the film cartridge.

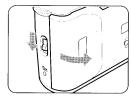
The film automatically rewinds at the end of the roll.

During rewinding, [**Q**] blinks on the LCD panel, indicating that the film is being rewound.

When the film is fully rewound, [**Q**] blinks and the exposure counter disappears from the LCD panel.



2 Before opening the back cover, check that [•] is blinking.



◆ Rewinding a film in mid-roll

If you wish to unload the film before exposing all the frames, use this function.

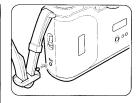


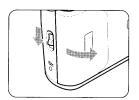
- At the end of the film rewind, you can also leave the film leader outside the cartridge. (IPP p.116)
- Turn the main switch to ON.
- 2 Use the strap clasp's rod to press the mid-roll rewind button. when the film is fully rewourd, [Q] blinks and the exposure counter disappears from the LCD panel.



Avoid using anything other than the strap clasp's rod to press the mid-roll rewind button. If you have to use some other instrument such as a ballpoint pen, be sure to press the button gently without excessive force.

3 Before opening the back cover, check that [Q] is blinking on the LCD panel.



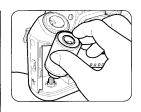


SETTING THE FILM SPEED (ISO) MANUALLY

The camera automatically reads the film speed from the film's DX code. However, the film speed setting can be changed. If you use a non-DX coded film, set the film speed manually.

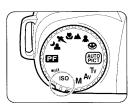
Load the film.

①Load the non-DX-coded film.



Setting the ISO speed

①Set the mode dial to [ISO].



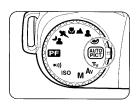
2 Move the select switch to set the ISO speed.



- The ISO speed can be set from ISO 6 to 6400 in 1/3-FV increments.
- [ISO] is displayed when the film speed is set manually for the DX-coded film.



③After setting the ISO speed, set the mode dial to any position other than [ISO].



REPLACING THE BATTERIES

REPLACING THE CAMERA BATTERIES

When the camera's lithium CR2 batteries are exhausted, replace with a new set.

When the batteries are exhausted

Keep a set of new lithium CR2 batteries handy. Even while the low battery warning is displayed, as long as the shutter works, a proper exposure will be obtained.

When the batteries must be replaced

When the low battery warning ♣ blinks, the information display in the viewfinder will be off and the shutter will not work. Replace the lithium CR2 batteries with new ones. (🎼 p.13)







- Replace the two batteries at the same time. Do not mix battery type, brands or old battery with new one. It may cause explosion or overheating.
- When the batteries are replaced, the following settings will take effect.
 All other settings will remain unchanged.

Auto pop-up flash	.On
Drive mode	.Single frame
Audible PCV signal	.On

 If the camera has not been used for a long time, the LCD panel may still display the low battery warning
 • even with a new set of batteries. In this situation, turn on the camera and press the shutter release button halfway down. When the low battery warning
 • turns off, you can continue using the camera.



Memo Battery Life (using 24-exposure film rolls)

The number of 24-exposure film rolls that can be taken with a new set of batteries is indicated below.

	Number of film rolls at 20°C/68°F	Number of film rolls at -10°C/14°F	
General existing light photography	about 120 rolls	about 30 rolls	
Flash photography (using flash 50% of the times)	about 20rolls	about 15 rolls	
Flash photography (using flash 100% of the times)	about 12 rolls	about 5 rolls about 2 hours	
Bulb exposure time	about 8 hours		

 CR2 batteries were used under Pentax testing conditions. Actual battery life and performance may vary drastically depending on usage of autofocus, built-in flash and external conditions such as temperature and freshness of the battery.

REPLACE BATTERY FOR DATA BACK FJ (OPTIONAL)

If you have purchased your camera as the Date model Version, read this section.

If the date/time display or imprinting looks faint, replace the lithium CR2025 battery.

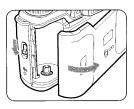


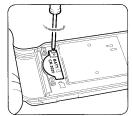
- Replace the battery when the data information on a picture or the LCD panel becomes weak or invisible. The battery will last for approximately 3 years. The data back uses one 3V lithium battery, type CR2025.
- After replacing the battery, set the correct date and time. (p.42)

Remove the battery.

①Ensure that a film is not loaded, then open the back cover.

② Loosen the battery cover fixing screw (located near the upper left side of the pressure plate) with a Phillips head screwdriver and then remove the battery chamber cover.





3 Remove the old battery.

- Install a new battery.
 - ①Install a new battery with the + side facing up.

2 Reinstall the battery chamber cover, and tighten the battery chamber fixing screw.

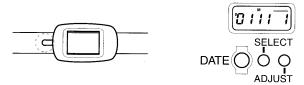


ADJUSTING THE DATA BACK FJ (OPTIONAL)

If you have purchased your camera as the Date model Version, or if you have purchased the Data Back FJ separately, read this section.



Use the strap clasp's rod to press the buttons. Do not press the buttons with an object having a sharp tip.



Adjusting the year/month/day.

①Press the [SELECT] button to make the year, month or day you want to change blink.



The digits blink in the following order. Year- Month - Day

2 Change the date with the [ADJUST] button.



The digit increases by one each time the [ADJUST] button is pressed. Holding the button for about 2 to 3 seconds will change the digits continuously.

3 Press the [SELECT] button to stop the digit from blinking, after you have changed the date. The adjusted date has been entered.

Adjusting the hour/minute.

①Press the [SELECT] button to make the hour, minute or second (:) you want to change blink.



The digits blink in the following order.

Hour → Minute → : → Hour

②Change the data (hour or minute) with the [ADJUST] button.



The digit increases by one each time the [ADJUST] button is depressed. Holding the button for about 2 to 3 seconds will change the digits continuously.

- ③ To change the second (:), press the [SELECT] button until ":" will blink, and then press the [ADJUST] button in sync with a time signal to set the second to zero.
- ④ Press the [SELECT] button to stop the adjusted hour/minute from blinking.



Memo Operational precautions

- To select or cancel the date imprinting or to select the format, see "Imprinting the Date and Time" on page 16.
- If the imprinting looks too light or if the Data back's display looks light or shows nothing, replace the Data back's battery. (I p.40)
- The working temperature for data printing is 0°C 50°C (32°F 122°F).
- Imprinted data may appear too light under the low temperature.
- Use DX-coded films with ISO rating from 25 1600.
- If high-speed film with an ISO rating of 1000 or faster is used, the imprinted characters may blur.
- If film with ISO rating of 50 or slower is used, the printed characters may be dark or dim.
- If you release the shutter while the blinking data is being corrected, the data cannot be imprinted.
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STEP UP

DVANCED OPERATIONS

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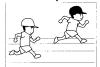
CAMERA OPERATION

Besides single-frame drive mode, the camera can be set as follows:

- Multi-exposure mode: Expose the same frame multiple times. p.47
- Self-timer mode: A picture will be taken with a 12-second delay.
- Wireless remote control: The wireless remote control allows you to trip the shutter at a distance. @p.50
- Auto bracketing: Three pictures are taken consecutively as follows: Correctly exposed, underexposed, and overexposed. pp.53

CONSECUTIVE-FRAME DRIVE

Keep the shutter release button pressed to take pictures continuously.

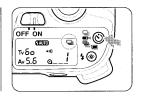






Setting the consecutive-frame drive mode

- Turn the main switch to [ON].
- Press the drive mode button until [□] appears on the LCD panel.



1

Shooting consecutive frames

- 1 Depress the shutter release button halfway down to focus the subject.
- 2 Depress and hold down the shutter release button completely.
- 3 To stop taking consecutive pictures, take your finger off the shutter release button.



The shutter cannot be released while the built-in flash is being charged.

MULTIPLE EXPOSURES ON A SINGLE FRAME

Picture can be exposed on the same frame multiple times. For example, you first take a picture of a dark background, then use flash to photograph someone on the same frame.



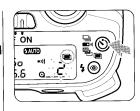




Setting the multi-exposure mode

- Turn the main switch to ON.
- ② Press the drive mode button until [] appears on the LCD panel.

The frame counter will blink.



Using the multi-exposure mode

- Take the first picture.
 The frame counter and [■] on the LCD panel blink.
- ② Take the second picture. The frame counter stops blinking and film is advanced to next frame then return to single frame drive mode [□].



To exposed the third shot or more, press the drive button until [] appears after repeating step 1.



The multi-exposure mode remains in effect even after the main switch is turned [OFF]. To cancel the multi-exposure mode, remove the batteries once and load again.

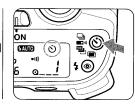


SELF-TIMER MODE

After you pressing the shutter release button, the picture will be taken about 12 sec. later. Use the self-timer when you want to be in the picture.

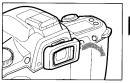
Setting the self-timer mode

- ①Turn the main switch to ON.
- 2) Press the drive mode button until [3) 1 appears on the LCD panel.

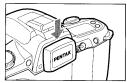


Preventing stray light from entering the eveniece

Underexposure may occur if light enters the viewfinder during self-timer operation on auto picture mode and 6 picture modes. If you intend to move away from the viewfinder, attach the supplied finder cap or use AE lock function (p.73).



Detaching Eyecup



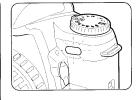
Attaching the finder cap

Using the self-timer mode

①Depress the shutter release button halfway down to focus the subject.

2) Depress the shutter release button completely.

The shutter will be released about 12 seconds after the shutter release button is depressed. The audible PCV signal is heard and the rate increases for the last two seconds.



OFF ON COMPANY S.E. Q. 1 4 (20)

Cancelling the self-timer mode

① Press the drive mode button to another setting.

The self-timer mode is cancelled.



The stop the self-timer operation after it has been activated, press the drive mode button again.



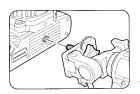
The audible PCV signal can be stopped (IPP.74).

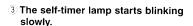
REMOTE CONTROL SHOOTING (OPTIONAL)

If you have purchased the optional wireless remote control, read this section.

The shutter will be released 3 seconds after the remote control's shutter release button is pressed.

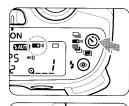
① Attach the camera to a tripod.



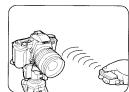


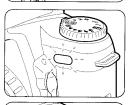
- Aim the remote control transmitter towards the remote control receiver on the camera, and then press the shutter release button on the remote control.
- ⑤ The self-timer lamp blinks rapidly for 3 seconds and then the shutter is released.

6 When the picture is taken, the self-timer lamp lights for approx. 2 seconds and return to blink slowly.







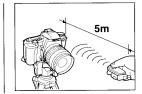




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The operating distance of the wireless remote control is approx. 5m from in front of the camera.





- · To cancel the remote control mode, press the drive mode button until () disappears from LCD panel.
- · To stop the remote control operation after it has been activated, press the drive button or turn the main switch off.
- · Adjust the focus by pressing the shutter release button on the camera halfway down or manually and then press the remote control's release button.
- · The remote control may not work in a backlit situation.
- · The remote control does not work while the flash is being charged.
- When the remote control mode is left and is unused for 5 minutes, the single drive mode will be automatically set.

Memo Battery life on the Remote Control

About 30,000 commands can be issued using the Remote Control. If the battery is exhausted, please have it replaced at your local Pentax Service center (there is a charge for this service).

AUTO BRACKETING

When you press the shutter release button, three consecutive frames will be taken at different exposures. The first frame is exposed with no compensation. The second frame is underexposed, and the third frame is overexposed. The initial bracketing amount is $\pm 1/2EV$ step.



Auto bracketing amount can be set to $\pm 1/3$, $\pm 2/3$, $\pm 1EV$ step with pentax Function. (Pp.113).







Exposure with no compensation

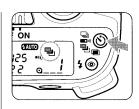
-1/2 EV underexposure +1/2 EV overexposure



 If the exposure compensation amount is small, the effect will not be so noticeable with print film.

Setting the auto bracketing mode

- ①Turn the main switch to [ON].
- 2 Press the drive mode button until [] appears on the LCD panel.



Using the auto bracketing mode

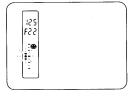
Press the shutter release button halfway down to focus the subject. The bar graph is displayed in the viewfinder and the current exposure compensation amount blinks.



- The focus is locked at the first picture and remains locked until all pictures are taken.
- ② Hold down the shutter release button. In the viewfinder, the bar graph indicates the correct exposure for the first frame. For the second frame, it indicates the minus side for underexposure. For the third frame, it indicates the plus side for overexposure.



If you let go of the shutter release button during auto bracketing, the auto bracketing exposure setting will remain effective for about 20 sec. After that, the auto bracketing exposure for the first bracketed frame will take effect.



Memo Taking pictures underexposed or overexposed only

You can use the auto bracketing mode for only underexposure or overexposure shots by combining the operation with exposure compensation. ([F] p.71)

Taking pictures of overexposure only

 $[\pm 1/2]$ step (EV).....Set the exposure compensation to $[\pm 1/2]$. 1st frame=+1/2EV, 2nd frame=±0EV, 3rd frame=+1EV

Taking pictures of underexposure only

 $[\pm 1/2]$ step (EV).....Set the exposure compensation to [-1/2]. 1st frame=-1/2EV, 2nd frame=-1EV, 3rd frame=±0EV

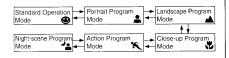


Only the amount of light of the flash can be changed continuously by using the auto bracketing mode following completion of charging of the built-in flash or external flash unit (TTL and P-TTL Auto only). However, in the case of an external flash unit, if three consecutive frames are taken while depressing the camera shutter button, the second and third frames may be taken prior to completion of charging. Always make sure to check completion of charging for each frame.

USING THE PICTURE MODE

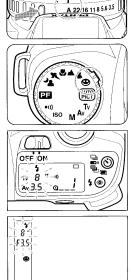
The camera incorporates the Auto Picture Mode function. In this mode, the camera automatically selects the one of 5 picture modes depending on the camera-to-subject distance and the image magnification. You can also select your desired Picture Mode manually. The picture mode has a total of 6 modes as follows. See details for each mode on page 57 to 62.

- Set the lens aperture ring to [A].
- Set the mode dial to the desired exposure mode.



Exposure Warning

If the subject is too bright or too dark, the shutter speed and aperture setting in the viewfinder will blink. If the subject is too bright, use ND filter or select a darker subject. Use a flash if the subject is too dark.



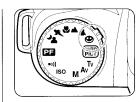
STANDARD OPERATION MODE

For take a picture easily, use the Green Operation Mode. You simply depress the shutter release button. The camera selects the best combination of aperture and shutter speed setting.



Set the mode dial to [●].

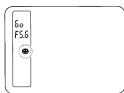
[] on the mode dial lights up.



When the shutter release button is depressed halfway, the shutter speed and aperture setting are displayed in the viewfinder and on the LCD panel.

[] is also displayed in the viewfinder.





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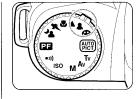
PORTRAIT PROGRAM MODE 🚨

This mode is suitable for taking portrait photography.



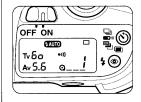
Set the mode dial to [...].

 $[\stackrel{\blacktriangle}{ hildspace}]$ on the mode dial lights up.



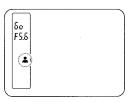
When the shutter release button is depressed halfway down, the shutter speed and aperture settings are displayed in the viewfinder and on the LCD panel.

[\clubsuit] is also displayed in the viewfinder.





In this mode, the telephoto lens produces a portrait in crisp focus against the out-of-focus background, while the wide angle lens enables you to shoot group photography or snapshots in sharp and clear focus with the extended depth-of-field.



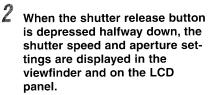
LANDSCAPE PROGRAM MODE A

This mode is ideal for landscape photography and scenic snapshots.



Set the mode dial to [▲].

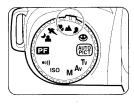
[] on the mode dial lights up.

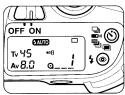


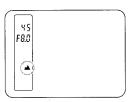
[] is also displayed in the viewfinder.



When a photo of a landscape is taken in this mode, the resulting photograph will be in focus for the entire landscape, including objects close up and those in the distance.







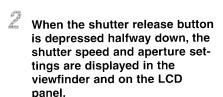
CLOSE-UP PROGRAM MODE 🕏

This mode is convenient when taking close-up photos of flowers and so forth.



Set the mode dial to [...].

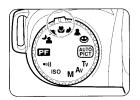
[🕷] on the mode dial lights up.

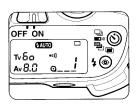


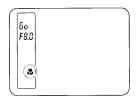
[] is also displayed in the viewfinder.



This mode favors smaller apertures to maximize the depth of field, ensuring sharp focus of a close-up subject.







ACTION PROGRAM MODE 🛠

This mode selects a faster shutter speed to capture a moving subject.

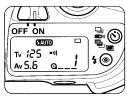


Set the mode dial to [*]. [1 on the mode dial lights up.



When the shutter release button is depressed halfway down, the shutter speed and aperture settings are displayed in the viewfinder and on the LCD panel.

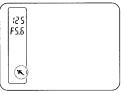
[1 is also displayed in the viewfiner.





This mode freezes the action and prevent blurred images. This mode is especially convenient for active photography. It is also suitable for portraits with blurred background.

This mode focuses the subject continuously when the shutter release button is depressed halfway down, and the shutter can be released even when the tkus.us subject is in focus or out of focus.



NIGHT-SCENE PROGRAM MODE 🚣

This mode is useful when taking a portrait photograph with a night scene in the background.



- Set the mode dial to [4].
 [4] on the mode dial lights up.
- Set the auto pop-up flash on.
- When the shutter release button is depressed halfway down, the shutter speed and aperture settings are displayed in the viewfinder and on the LCD panel.

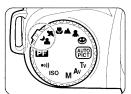
[1] is also displayed in the viewfinder.



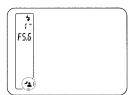
It is possible to photograph subjects and background in a balanced way by using the flash to properly expose the foreground subject and a slow-speed to expose the low light background. The shutter speed automatically changes in the range of 1/100 to 1 second.



- Use of a tripod is recommended.
- The Standard Operation Mode is automatically set when the built-in flash is not in use







SELECTING AN EXPOSURE MODE

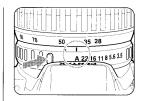
The exposure mode varies on the selection of the camera's mode dial and lens aperture ring setting as shown on the table below.

	Mode dial		@ 2 4 5 % 4		AV	М
Lens	Lens aperture set to A position	Auto Picture AE	Picture Mode AE	Shutter-Priority AE	Aperture-Priority AE	Metered-Manual
aperture					Aperture-Priority	Metered-Manual
1.	set to other than A		AE	AE	AF	

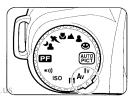
USING THE APERTURE-PRIORITY AE MODE

When the desired aperture is selected, an appropriate shutter speed is automatically set by the camera for a proper exposure. This mode is ideal for shooting land-scapes with increased depth of field, or a portrait against a blurred background.

Set the lens aperture ring to [A] while pressing the aperture -A-lock botton.



2 Set the mode dial to [Av]



Select the desired aperture value by moving the select switch.

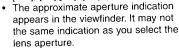


When the shutter release button is depressed halfway down, the shutter speed and aperture value will be displayed in the viewfinder and on the LCD panel.

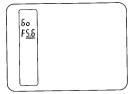




- The bar underneath the aperture value indicates that you can change the aperture setting by the select switch.
- The Aperture-Priority AE Mode can also set when the lens aperture ring is set to desired f-stop other than [A].
 Set the mode dial to either [AUTO PICT],
 [], [], [], [], [].

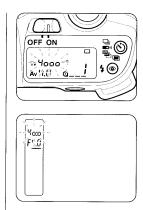


 The approximate aperture indication appears only an FA or F lens is attached.



Exposure Warning

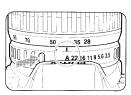
If the subject is too bright or too dark. the selected shutter speed will blink in the viewfinder and on the LCD panel as a warning as shown. When the subject is too bright, choose a smaller aperture, if available; when it is too dark. choose a larger aperture, if available. When the shutter speed indication stops blinking, you can take the picture. If both shutter and aperture blink, it means that the exposure is out of metering range, unable to obtain a correct exposure even if the aperture is adjusted. Select a darker subject if it is too bright, or use a flash if it is too dark



USING THE SHUTTER-PRIORITY AE MODE

When the desired shutter speed is selected, the appropriate aperture is automatically set by the camera for a proper exposure according to the brightness of the subject. This mode is suitable for freezing the action with a fast shutter speed or capturing a flowing dynamic image with a slow shutter speed.

Set the lens aperture ring to [A] while pressing the aperture -Alock botton



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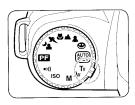
Set the mode dial to [Tv].

Select the desired shutter speed by moving the select switch.

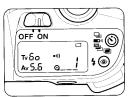
When the shutter release button is depressed halfway down, the shutter speed and aperture value will be displayed in the viewfinder and on the LCD panel.

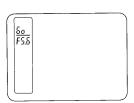


The bar underneath the shutter speed indicates that you can change the shutter speed setting.



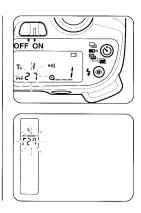






Exposure Warning

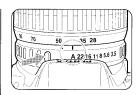
If the subject is too bright or too dark, the selected aperture value will blink in the viewfinder and on the LCD panel as warning as shown. When the subject is too bright, choose a faster shutter speed. If it is too dark, choose a slower shutter speed. When the shutter speed indication stops blinking, you can take the picture. If both selected shutter speed and aperture blink, it means that the exposure is out of metering range, unable to obtain a correct exposure even if the shutter speed is adjusted. Select a darker subject if the subject is too bright. Use a flash if it is too dark.



USING THE METERED MANUAL MODE

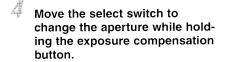
The manual exposure mode is a convenient exposure mode for taking pictures using the same shutter speed and aperture setting combination, or taking creatively under or overexposured photographs.

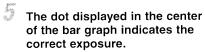
Set the lens aperture ring to [A] while pressing the aperture -A-lock button.



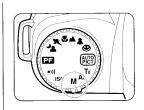
Set the mode dial to [M].

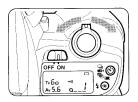
Move the select switch to change the shutter speed.

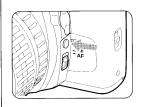


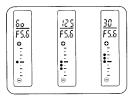


Moving one dot on the bar graph indicates 0.5 step (0.5EV).









ADVANCED OPERATIONS

When the shutter release button is depressed halfway down, the shutter speed and aperture value will be displayed in the viewfinder and on the LCD panel.

OFF ON Tvδn Av 5.5 δο F5.5

When under or over exposure is set beyond + 2 or - 2 steps (2EV), [♥] or [⊕] indicator will blink.



- · The bar underneath the shutter speed indicates that you can change the shutter speed. With the exposure compensation button pressed, the bar appears underneath the aperture that indicates you can change the aperture value.
- The AE lock and exposure compensation do not work in the Metered Manual Mode
- The metered manual mode can be used. even if the aperture ring is not set to "A". Turn the lens aperture ring to select the desired aperture ring. Since the indication of aperture value inside the viewfinder only serves as a general reference, it may differ from the set aperutkus us ture value.



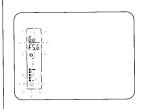
OFF ON

τνδο

- When lenses other than an F or FA lens is used, no approximate aperture indication will appear in the viewfinder.
- The indicator in the viewfinder turns to orange when the shutter speed changes to a slower shutter speed which causes camera shake.

Exposure Warning

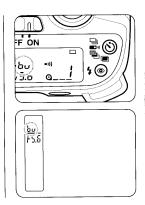
If the subject is too bright or too dark, both shutter speed, aperture setting and [♠]/[♠] will blink in the viewfinder as a warning as shown. It means that the exposure is out of metering range, unable to obtain a correct exposure even if the aperture is adjusted. Select a darker subject or use a flash if it is too dark.



USING THE BULB EXPOSURE MODE

This mode is useful for the long exposures required for shooting night scenes and fireworks. The shutter remains open as long as the shutter release button is held down.

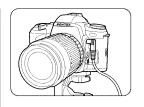
1. With the Metered-Manual Mode set, move the select lever to change the shutter speed until [Bu] appears in the viewfinder and on the LCD panel.



When using this mode, use a steady tripod to prevent camera shake and attach the optional "Cable Switch CS-205" after opening the release socket cap.



- Up to approx. 8 hours of time exposure are possible with new lithium batteries at ambient temperatures.
- With the remote control shooting mode set, the shutter remains open as long as the remote control's shutter release button held down
- The indicator in the viewfinder turns to orange color.



ABOUT EXPOSURE COMPENSATION

The exposure compensation allows you to deliberately overexposure (brighten) or underexposure(darken) a subject, or compensate for difficult lighting conditions which may fool the camera's built-in exposure meter.



 Exposure compensation does not work in the Metered manual mode and Bulb Exposure Mode.

Setting the exposure compensation amount

While holding down the exposure compensation button, move the select switch to set the desired compensation value on the LCD panel.

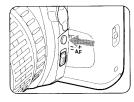
[☑] is displayed on the LCD panel. The bar graph which indicates the compensation value and [☑] appear in the viewfinder

2 The exposure compensation can also be confirmed in the viewfinder. When the dot is displayed to the [♥] side, it indicates overexposure and when the dot is displayed to the [⊕] side, it indicates underexposure.

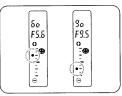
Moving one dot on the bar graph indicates 0.5 step (0.5EV).

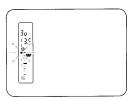


When under or over exposure is set beyond +2 or -2 steps, $[\bullet]$ or $[\ominus]$ indicator will blink.











- The exposure compensation range is -3EV to +3EV in 0.5EV.
- Exposure compesation does not work in the metered manual mode and Bulb exposure mode.
- The exposure compensation cannot be canceled even if the power is turned OFF or any other exposure mode is set.

AE LOCK FUNCTION

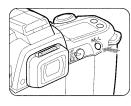
You can lock the exposure setting before you take the picture. If the subject is too small for a proper exposure setting to be obtained, you can zoom in on the subject to obtain a proper exposure setting. Then you can lock the exposure setting and recompose the shot before taking the picture.

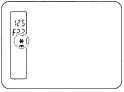
Setting AE Lock

- ①Position the area to be measured in the viewfinder metering area and press the AE Lock button [AE-L].
- ②[★] is displayed in the viewfinder.



- The current exposure setting will be locked for about 20 sec.
- If the shutter release button or AE Lock button is pressed while the AE Lock timer is operating, the memorized meter reading will remain even if the finger is released from the button.
- When the AE lock button is depressed, the audible PCV signal is heard. This PCV signal can be turned off. See page 74
- The auto pop-up built-in flash function does not work while the AE Lock is used





MULTI(6)-SEGMENT METERING

This mode automatically measures light in six different zones, enabling proper exposure value in a wide variety of normal and adverse lighting conditions.



When a lens other than an A, F or FA lens is attached, the center-weighted metering mode is automatically set .



CANCEL THE AUDIBLE PCV SIGNAL

You can change the audible PCV signal on or off when the self-timer, remote control, AE Lock function is in use or when the focus is in-focus.

Set the mode dial to [=1)]



Move the select switch to display [ON] or [--] on the LCD panel.





The shutter cannot be released when the mode dial is set to [• 1)]

ABOUT FOCUSING

The autofocus modes, and manual focus mode are explained here.

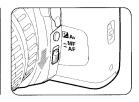
USING AUTOFOCUS



- The focus indicator [] is blinking. (The subject is difficult to autofocus.)
- The maximum aperture of the lens in use is smaller than f/5.6.
- A bellows 100mm f/4 lens, Shift 28mm f/3.5 (shifted) lens, or Reflex lens is in use.
- An old type screw-mount lens fitted with an optional "Mount Adapter K" is in use.

Using the autofocus mode (AF)

①Set the focus mode switch to [AF].



- ①Focus on the subject with the 3 point AF frame [[]].
 - When the shutter release button is depressed halfway down, the lens automatically focuses.
- When the shutter relase button is depressed halfway down, the shutter speed, aperture setting and selected picture mode are displayed in the viewfinder and the LCD panel.
- 3When the subject is in focus, the focus indicator [] lights up and an audible PCV beeping signal is emitted
- Take a picture. Gently depress the shutter release button.



Focus indicator



- As this camera incorporates the 3- point autofocus system, the subject will be focused properly even if the subject is slightly off.



The focus indicator [•] blinks when the camera is not able to obtain proper focus for one of the following reasons.

- 1. The subject is too close. Adjust the camera-to-subject distance.
- 2 The subject is difficult to autofocus. See "HARD-TO-AUTOFOCUS SUBJECTS" on t∰ page 77.

HARD-TO-AUTOFOCUS SUBJECTS

The autofocus system is highly precise, but not perfect. Depe brightness, contrast, shape, and size of your subject, the auto tem may not operate. In this situation, use the focus -lock technic (IPP.80) or set the focus mode switch to [MF] and use the manuamode to focus the lens on the subject with the aid of the matte field in viewfinder (rp.79).

Subjects which may fool the autofocus system include:

- · Extremely low-contrast subjects such as a white wall in the autofocus frame
- Subjects which don't reflect much light in the autofocus frame.
- Subjects with complex or detailed patterns.
- · Subjects which are moving too fast.
- · Multiple subjects in the foreground and background of the autofocus frame
- Subjects positioned against reflected light or strong backlight or with extremely bright backgrounds.



Notes on accessories

The following conditions do not allow autofocusing or manual focusing with the focus indicator in the viewfinder. Use the manual focus mode to focus on the subject with the aid of the matte field surrounding the autofocus frame. Pp.79

- · When using Stereo Adapter.
- When using Extension Tubes or an Auto Bellows for close-up photographv.
- When using an ordinary polarizing filter; the half mirror incorporated into the autofocus system reduces the effectiveness of the autofocus function when used in combination with an ordinary polarizing filter. Use a CIRCULAR POLARIZING FILTER for proper autofocus operation.

■ Note on the SMC Pentax SOFT 85mm/f2.8lens.

When shooting at a distance closer than approx.1.5m(4.9ft), set the lens to a manual f-stop setting between f/2.8 and f/4.5. A smaller aperture (f/5.6 to f/32) may cause the autofocus system and the viewfinder's focus indicator to malfunction. To remedy this problem, temporarily set the lens to f/4.5. After focusing on the subject, lock focus, and set the lens to the required f-stop.



Memo HARD-TO-AUTOFOCUS SUBJECTS

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- Subjects which don't reflect much light in the autofocus frame.
- · Subjects with complex or detailed patterns.
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- Multiple subjects in the foreground and background of the autofocus frame.
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- When using an ordinary polarizing filter; the half mirror incorporated into the autofocus system reduces the effectiveness of the autofocus function when used in combination with an ordinary polarizing filter. Use a CIRCULAR POLARIZING FILTER for proper autofocus operation.

■ Note on the SMC Pentax SOFT 85mm/f2.8lens

When shooting at a distance closer than approx.1.5m(4.9ft), set the lens to a manual f-stop setting between f/2.8 and f/4.5. A smaller aperture (f/5.6 to f/32) may cause the autofocus system and the viewfinder's focus indicator to malfunction. To remedy this problem, temporarily set the lens to f/4.5. After focusing on the subject, lock focus, and set the lens to the required f-stop.



Using the snap-in focus function

When the subject comes to the point where the lens was pre-focused, the shutter is automatically released.

- 1 Use a non-autofocus lens.
- 2 Set the focus mode switch to [AF].
- 3) Focus at the point where you wish to capture the subject.
- Using optional cable switch, keep the trigger button pressed so that the autofocus and metering systems stay active.

 The shutter will be released automatically when the subject comes into focus at the point selected.

MANUAL FOCUSING

When you focus manually, you can either look at the focus indicator [) or the viewfinder's matte field to check if the subject is in focus.

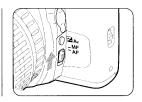
◆ Using the focus indicator [●]



If the maximum aperture of the attached lens is f/5.6 or larger (f/1.2 - f/5.6), you can use the focus indicator [\blacksquare] as a guide to achieve focus. With slower lenses, adjust a focus on the matte screen in the viewfinder.

Setting manual focus (MF)

Set the focus mode switch to [MF].



Focusing

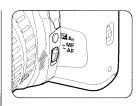
- Frame the subject, then press the shutter release button halfway down.
- 2) Turn the focusing ring on the lens until the subject is in focus.
- When focus is achieved, the focus indicator [] lights and the audible PCV signal beeps.
- 3 Check that the focus indicator [is lit, then press the shutter release button completely.



♦ Using the viewfinder's matte screen.

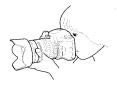
Setting manual focus (MF)

Set the focus mode switch to [MF].



Focus the subject

- 1. Frame the subject, then turn the focusing ring on the lens until the subject is in focus.
 - Focus until the subject looks sharp in the viewfinder.
- 2 Check that the subject is in sharp focus, then depress the shutter release button completely.



SPOT AF MODE

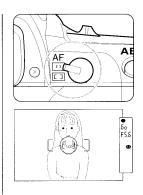
Select the Spot AF Mode to critically focus on a specific spot of the subject which is in the Spot AF autofocus frame.

Using the Spot AF Mode

- Set the AF mode switch to [[]].
- 2 Focus on the subject with the spot AF frame and press the shutter release button halfway down, the lens automatically focuses.



If the subject is not covered with the AF frame, the camera cannot automatically focus on the subject. In this situation, use the focus lock technique.



USING FOCUS LOCK

If the subject is not covered by any of the focus points, the camera cannot automatically focus the subject. In this situation, you can aim the focus point on the subject, use focus lock, then recompose the picture.

Setting the autofocus mode

1) Set the focus mode switch to [AF].

Using focus lock

Trame the subject. If the subject you want to focus is not on any of the focus is not on the AF frame, you can use focus lock.

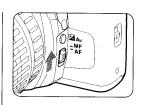
Figure to the right shows the person is not focused and the background is focused instead.

②Aim the center of the viewfinder over the subject, then press the shutter release button halfway down.

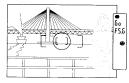
While the focus indicator [●] is lit, the focus will be locked (focus lock).



- You can lock the focus by pressing the shutter release button halfway down
- Rotating the zooming ring in focus lock mode may cause the subject out of focus.
- 3 Re-compose the picture while pressing the shutter release button halfway down.
- 4 Check that the focus indicator [] is lit in the viewfinder, then press the shutter release button completely.



The desired framing





Aim the center of the viewfinder over the subject, then press the shutter release button halfway.



The person is focused.

PREVIEWING THE DEPTH OF FIELD

Before taking a picture, you can check the depth of field in the viewfinder.

Focusing the subject.

①Adjust focus to the subject.

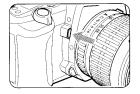


Previewing the depth of field

While looking through the viewfinder, press the preview button.
You can check the focused area in the viewfinder.



- The depth of field can be previewed in any exposure mode.
- The focus range display in the viewfinder may differ slightly from the actual picture.



EFFECT OF APERTURE AND SHUTTER SPEED

A correct exposure is established by a combination of shutter speed and aperture setting according to the subject brightness. There are many correct combinations of shutter speed and aperture for a particular subject brightness. Different shutter speed and aperture settings produce different effects.

◆ Effect of Shutter Speed

The shutter speed determines the film exposure time, or the length of time that light is allowed to strike the film. If the subject is moving, the image will be blurred when a slow shutter speed is used. It is possible to enhance the effect of motion, (The movement of a wave or waterfall) by intentionally using a slower speed. Choosing a faster shutter speed will allow the image of a moving subject to be frozen. A faster shutter speed also helps prevent camera shake.

◆ Effect of Aperture

The aperture increases or reduces the amount of reflected light from an object which passes through the lens, controlling how much light strikes the film. If the aperture is opened up to increase the amount of light, objects in front of and behind an infocus subject will not be focused. That is, the range of focus (depth of field) becomes small. If the aperture is closed down to reduce the amount of light, the depth of field increases. For instance, if you shoot a person against a landscape with the aperture open, the landscape in front of and behind the person will be blurred, making the person appear to rise out of the landscape. By contrast, closing down the aperture increases the in-focus range.



faster shutter speed



slower shutter speed



closed down aperture



open aperture

STEP UP

FLASH PHOTOGRAPHY

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USING THE BUILT-IN FLASH

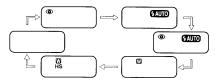
This section explains how to set the built-in flash modes and notes concerning the built-in flash.

SETTING THE FLASH MODE

Press the flash mode button until the desired flash mode appears on the LCD panel.



The flash mode will be displayed on the LCD panel as shown below.



 Auto pop-up flash [Auto] can only be selected in the Auto Picture Mode and Picture Mode.



Memo Flash mode display

The flash fires in accordance with the flash mode indicated on the LCD panel.

Icon displayed	Flash mode	Flash status		
	Flash ON	Flash fires when you press the shutter release button.		
® ‡	Flash ON + Red-eye red	duction When the flash is fired in the flash ON mode, red-eye reduction takes effect.*1		
\$AUTO	Auto pop-up	If the Auto Picture Mode or Picture Mode is set, the flash pops up automatically when necessary.		
FAUTO + ①	Auto Pop-up + Red eye	e reduction When the flash is fired in the auto-pop up flash mode, red-eye reduction takes effect. *1, *2		
W	Wireless	Set when using a dedicated wireless flash. © p.100		
W +HS	Wireless + High-speed	sync Set when using high-speed sync with a dedicated wireless flash. 🖙 p.99		

^{*1:} If red-eye reduction is used while the AF360FGZ, etc. is set as a slave unit, the preflash for red-eye reduction will trigger the slave unit to fire. When using a slave unit, do not use red-eye reduction.

^{*2:} The auto pop-up mode will work in any mode except Auto Picture Mode or Picture Mode. (p.86).



Memo Reducing Red Eye

Red eye occurs in flash pictures when the flash reflects off the eye's retina. Although red eye cannot be totally prevented, it can be reduced by the following methods:

· Take the picture in a well-lit place.

· When using a zoom lens, use the wide-angle end and a close distance.

 If you are using an external flash unit, keep it apart from the camera lens as far as possible.

ADVANCED TECHNIQUES WITH THE BUILT-IN FLASH

This section explains how to calculate the built-in flash's effective range and the compatibility with F and FA lenses.

◆ Calculating the flash effective distance according to the camera-to-subject distance.

Calculate the effective flash range as follows:

For far distances Guide No. ÷ Current aperture For near distances Far distance result ÷ 5*1

*1: This formula using "5" as the divider applies only to the built-in flash.



The flash cannot be used at distances shorter than 0.7 m. Doing so will result in irregular or obstructed flash coverage and flash overexposure.

The Guide No. will be as follows depending on the ISO film speed.

ISO Film Speed	Guide No.
ISO25	5.5
ISO50	7.8
ISO100	11
ISO200	15.6
ISO400	22

With ISO 100 film and an f/2.8 aperture, calculate the effective flash range as follows:

For far distances Guide No. 11 \div f/2.8 = approx. 3.9 m For near distances 3.9 \div 5 = approx. 0.8

The effective flash range is therefore approx. 0.9 m - 4.3 m.



Calculating the flash aperture from the effective flash range

Use the effective flash range to calculate the flash aperture as follows:

Guide No. ÷ flash range = Flash aperture

If the result is a number (such as 3) that is not a lens aperture value, set it to the next smaller aperture value (2.8).

◆F and FA Lens Compatibility with the Built-in Flash

The compatibility of F and FA lenses with the built-in flash is explained here.



If an F or FA lens incompatible with the built-in flash is used, depressing the shutter release button halfway down when the flash is ready will have the [‡] blink on the LCD panel and in the viewfinder as a warning. (property pout the picture with an incompatible lens, the corners of the picture may look dark or there may be a dark, semi-circular area on the lower part of the picture

F and FA Lens Compatibility with the Built-in Flash

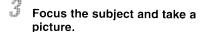
 \bigcirc = Compatible \triangle = Vignetting will occur under the usage conditions \times = Incompatible because of vignetting

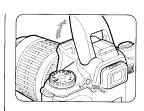
Lens name	Compatibility
F Zoom 17-28mm f/3.5-4.5	×
FA Zoom 20-35mm f/4AL	Δ
	Vignetting will occur at focal length between 20-24mm.
FA Zoom 24-90mm	Δ
f/3.5-4.5AL (IF)	Vignetting may occur if the focal length is 24-28mm.
FA* Zoom 28-70mm f/2.8AL	Δ
	Vignetting may occur if the focal length
	is less than 35 mm or the camera-to-
	subject distance is closer than 1 m with
	the focal length of 40 mm.
FA Zoom 28-70mm f/4AL	0
FA Zoom 28-90mm f3.5-5.6	0
FA Zoom 28-105mm f/3.2-4.5 AL (IF)	0
FA Zoom 28-200mm	Δ
f/3.8-5.6AL (IF)	Vignetting may occur if the focal length
WW	is 28 mm or the camera-to-subject dis-
WW	tance is closer than 1 m with the focal
	length of 35 mm.

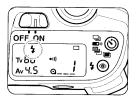
Lens name	Compatibility
F or FA Zoom 35-80mm f/4-5.6	0
FA Zoom 70-200mm f/4-5.6	0
FA* Zoom 80-200mm f/2.8 ED (IF)	0
F or FA Zoom 80-200mm f/4.7-5.6	0
FA Zoom 80-320mm f/4.5-5.6	0
F or FA Zoom 100-300mm f/4.5-5.6	0
FA Zoom 100-300mm f/4.7-5.8	0
FA* Zoom 250-600mm f/5.6ED(IF)	×
FA 20mm f/2.8	×
FA* 24mm f/2 AL(IF)	×
FA 28mm f/2.8	0
FA 31mm f/1.8 AL Limited	0
FA 35mm f/2AL	0
FA 43mm f/1.9 Limited	0
FA 50mm f/1.4,f/1.7	0
FA 77mm f/1.8 Limited	0
FA* 85mm f/1.4 (IF)	0
FA 135mm f/2.8 (IF)	0
FA* 200mm f/2.8 ED (IF)	0
FA* 300mm f/2.8 ED (IF)	×
FA* 300mm f/4.5 ED (IF)	0
FA* 400mm f/5.6 ED (IF)	0
FA* 600mm f/4 ED (IF)	×
FA Macro 50mm f/2.8	0
FA Macro 100mm f/2.8	0
FA Macro 100mm f/3.5	0
FA* Macro 200mm f/4.0 ED (IF)	0
FA Soft 28mm f/2.8	0
FA Soft 85mm f/2.8	0

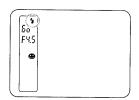
POP-UP THE BUILT-IN FLASH MANUALLY

- The built-in flash starts charging automatically. When it is fully charged, [4] appears on the LCD panel.











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After using the flash, retract the built-in flash by pressing it down into the camera body.

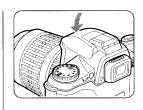


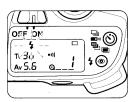
- The flash is always discharged even if the subject is not required flash light.
- The shutter cannot be released until the flash is fully charged.
- If the built in flash is used continuously, the battery may become warm, but it does not mean the battery is faulty; it is one of the battery's characteristics.
- When the built-in flash is used, using a lens hood is NOT recommended as it may obstruct the path of the light coming from the flash, causing vignetting in the picture corners.
- With the built-in flash popped-up, an external flash cannot be attached to the hot shoe. If you would like to use an external flash together with the built-in flash, see the flash connections on page 102.
- If the flash pop-up button is pressed while the flash is popped up, the camera enters the Flash ON mode in which the built-in flash discharges at all times.

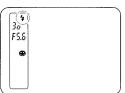


Flash recommended information

The flash-recommended indicator [\$] on the LCD panel blinks and the indicator in the viewfinder turns to orange color when you attempt to photograph a subject in low light to warn you the camera shake.









- In the Shutter-Priority AE Mode and Metered-Manual Mode, the flash-recommended indicator blinks only when attempting to photograph a subject in a backlit situation
- · The indicator in the viewfinder turns to green when the flash is fully charged.

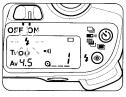


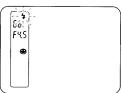
Inappropriate lens warning when the built-in flash is used

When using an inappropriate F- or FAlens, [4] will blink in the viewfinder and on the LCD panel when the shutter release button is depressed halfway down. For more details on COMPATIBILI-TY OF F AND FAILENSES WITH THE BUILT-IN FLASH, see page 90, 91.



- Taking a picture while this warning is displayed may cause vignetting in the picture corners or semi-circular vignetting at the bottom of the picture.
- When lenses other than an F or FA are used, this warning will not appear.





USING EXTERNAL FLASH

When the built-in flash cannot provide enough illumination, use a Pentax-dedicated. With an external flash unit, TTL auto wireless flash and high-speed sync photograph can be taken with AF360FGZ.

FLASH FUNCTIONS

The features available with the built-in flash or a dedicated, external flash are described below.

Check which type your external flash unit is and see which functions it has.

Camera Functions	TYPE A	TYPE B	TYPE C	TYPE D	TYPE E	TYPE F
Red-eye reduction	0	0	0	×	O *1	×
Automatic firing of the flash	0	0	0	0	0	0
When the flash is ready, the camera switches to the flash sync speed automatically.	0	0	0	0	0	0
Auto Picture Mode, Picture Mode or Shutter-priority AE mode, the aperture is set automatically.	0	0	0	0	O *2	O *2
Flash confirmation in the viewfinder	×	0	0	0	×	\times
TTL auto flash P.97	0	O *4	0	0	O *3	×
P-TTL auto flash @p.96	×	O *5	×	×	×	×
Slow-speed sync p.105	0	0	0	0	0	0
AF illuminator	0	0	0	0	×	×
Trailing shutter curtain sync flash*6	O *7	0	0	0	×	×
Contrast-control-sync flash mode*8	×	0	0	×	×	×
Multiple-burst flash, slave flash	×	0	O *9	×	×	×
High-speed sync	×	0	×	×	×	×
Wireless flash	×	0	×	×	×	×

TYPE A: Built-in flash

TYPE B: AF360FGZ

TYPE C: AF500FTZ, AF330FTZ

TYPE D: AF400FTZ, AF240FT

TYPE E: AF400T, AF280T, AF220T, AF200T, AF080C, AF140C, AF201SA

TYPE F: AF200S, AF160, AF140

*1: Available with the AF280T and AF400T, only when the flash confirmation indicator in the viewfinder is off and TTL auto is set.

*2: With Type E flash units (except AF201SA), use the MS (Manual Sync) or M (Manual) mode. With Type F flash units, use Aperture-Priority AE, manual, or bulb. Picture mode and Shutter-Priority AE cannot be used because the aperture changes.

*3: With the AF201SA, TTL auto cannot be used.

*4: With Pentax A, F and FA lenses, P-TTL auto flash can be used.

*5: With Pentax A, F and FA lenses.

*6: The shutter speed will be 1/60 sec. or slower.

- *7: With Type B or C, and D flash units, trailing shutter curtain sync flash is possible.
- *8: The shutter speed will be 1/60 sec. or slower.

*9: Exception of AF330FTZ.

USING P-TTL AUTO FLASH MODE

The optimum flash amount is fired to match the subject brightness.

P-TTL auto flash, which pre-fires the flash using the sixsegment metering, allows more precise control.

P-TTL is available with external wireless flash.



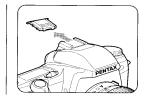
P-TTL auto flash is only available in combination with the AF360FGZ.

Attaching the flash unit

Remove the hot shoe cover Fk from the camera.



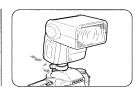
Store the hot shoe cover in the strap's us pocket. Fig. p.12





Set the flash unit to P-TTL auto

- 1) Attach the flash unit to hot shoe.
- 2)Turn on the flash unit's power switch.
- 3 Set the flash mode switch to P-TTL auto.





- With the AF360FGZ, the flash mode is always set to P-TTL auto; with any other flash unit, it is set to TTL auto.
- For instructions on how to operate the flash unit, refer to the flash unit's operating manual.

Taking a flash picture

- ①Check that the flash is ready.
- 2) Focus the subject and take the picture.



- When the flash is ready (fully charged), the [4] will light in the viewfinder when the shutter release button is depressed halfway down.
- An external flash can also be made to automatically fire. Note that
 the flash will not fire against an lighter subject especially during daytime sync shooting.

USING HIGH-SPEED SYNC WITH THE AF360FGZ

With the AF360FGZ, you can use a flash sync speed faster than 1/125 sec. High-speed sync mode can also be used while the flash unit is attached to the camera or in a wireless configuration.

With high-speed sync.



♦ Using High-speed sync Flash on the Camera

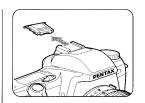
Attaching the flash unit

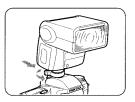
①Remove the Hot Shoe Cover Fk from the camera.



Store the Hot Shoe Cover in the strap's pocket. Fig. 12

2 Attach the flash unit to hot shoe.





2 Set the flash unit to the HS mode.

①Set the flash unit's sync mode switch to HS (high-speed sync).



For instructions on how to operate the flash unit, refer to the flash unit's operating manual.

Taking a picture.

- ①Check that the flash is ready.
- ②Focus the subject and take the picture.



- When the flash is ready (fully charged), the [\$] will light in the viewfinder when the shutter release button is depressed halfway down.
- The high-speed sync is only available when the shutter speed is faster than 1/125 sec.
- The high-speed sync flash mode does not work in the Auto Picture Mode and Picture Mode.

♦ Using Wireless high-speed sync flash

Positioning the flash

- 1) Place the flash unit at the desired location.
- ②Set the flash unit's power switch to [WIRELESS].
- ③Set the flash unit's sync mode switch to HS (high-speed sync).
- 4 Set the wireless mode switch to S (Slave).



- For instructions on how to operate the flash unit, refer to the flash unit's operating manual.
- For wireless Flash, refer to page 100.

Set the camera to the HS mode.

- ①Press the flash pop-up button to enable the built-in flash to be used.
- 2 press the flash mode button until [W HS] is displayed.



- 3 Check that both the built-in flash and external flash unit are ready.
- 4 Focus the subject and take the picture.



- The high-speed sync is only available when the shutter speed is faster than 1/125 sec.

WIRELESS FLASH (AF360FGZ ONLY)

With the AF360FGZ, you can fire a flash without having a cord connection between the camera and flash unit. The high-speed sync mode can also be used with wireless flash. ©p.99

Positioning the flash

- Place the flash unit at the desired location.
- ②Set the flash unit's power switch to [WIRELESS].
- 3 Set the wireless mode switch to S (Slave).



For instructions on how to operate the flash unit, refer to the flash unit's operating manual.

Set the camera to the wireless mode.

- ①Press the flash pop-up button to enable the built-in flash to be used.
- ②Press the flash mode button until [M] is displayed.



- 3 Check that both the built-in flash and external flash unit are ready.
- ④ Focus the subject and take the picture.



When the built-in flash is ready (fully charged), the [4] will light in the viewfinder when the shutter release button is depressed halfway down.



Memo Wireless Flash Control (P-TTL flash mode)

When the AF360FGZ is used for wireless flash, the following process is executed between the built-in flash and AF360FGZ before the flash is fired.

Depress the shutter release button completely.

- 1) The built-in flash fires a pre-flash (the camera's flash mode is transmitted).
- 2 The external flash unit fires a pre-flash (the subject's lighting condition is checked).
- 3 The built-in flash fires a pre-flash (the required flash output is transmitted to the external flash).
 - * If HS (high-speed sync) has also been set, the built-in flash will fire another pre-flash to transmit the flash duration time.
- 4 The AF360FGZ Flash unit fires the flash.



Memo Channel Control

For wireless control, channel (e.g. CH1) for the AF360FGZ must be set on the camera. Attach the AF360FGZ to the camera, turning on the camera and depressing the shutter release button halfway down.

USING BOTH THE BUILT-IN FLASH AND EXTERNAL FLASH

To use both the built-in flash and dedicated external flash simultaneously, follow the procedure below.

To use both the built-in flash and a dedicated external flash simultaneously, the following accessories (sold separately) are required.

Hot Shoe Adapter FG, Off-Camera Shoe Adapter F. Extension Cord F5P

Attaching the flash unit

①Remove the Hot Shoe Cover Fk from the camera.



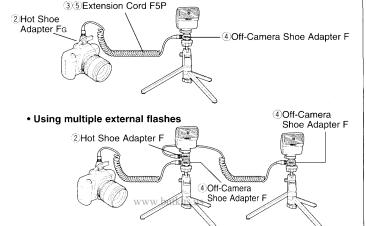
Store the hot shoe cover in the strap's pocket. ©p.12



- 2 Attach the Hot Shoe Adapter FG to the camera.
- **③Connect the Extension Cord F5P to the Hot Shoe Adapter FG.**
- **4** Attach the Off-Camera Shoe Adapter F to a tripod.
- **⑤Connect the Extension Cord F5P to the Off-Camera Shoe Adapter F.**
- 6 Attaching a Flash Unit to the Off-Camera Shoe Adapter F.
- 7) Press the flash pop-up button.



The AF500FTZ can be connected directly to Extension Cord F5P without requiring Off-Camera Shoe Adapter F.



USING CONTRAST-CONTROL-SYNC FLASH MODE

Using the dedicated external flash in combination with the built-in flash allows twin flash photography (contrast-control-synch flash photography). This is based on the difference between the amount of light discharged from two units.



Contrast-control-sync flash is possible with the combination of following flash units: AF360FGZ, AF330FTZ, AF500FTZ, and the built-in flash.

 Using the built-in flash and a dedicated external flash.

Positioning the flash unit

①Place the flash unit apart from the camera.



Do not use accessories (such a hot shoe grip) having a different number of contacts. It may cause the TTL auto flash to function improperly.

2 Set the flash unit's sync mode to Contrast-control-sync.



For instructions on how to set the sync mode, refer to the flash unit's operating manual.

Taking a picture

- Press the flash pop-up button to enable the built-in flash to be used.
- 2)Check that the flash is ready.
- ③Focus the subject and take the picture.



- Between the built-in flash and external flash, the flash ratio will be 1:2 respectively (summed up when the external flashes are more than one).
- When the contrast-control-sync flash mode is used, the maximum flash sync speed will be 1/60 sec.

Using Multiple External Flash Units (with no built-in flash)

Setting the flash units

1) Set up the external flash units apart from the camera.



If a hot shoe grip is used, would cause the TTL metering to function improperly. For instructions for connection, see ₱p.102

②Set the required flash units' sync mode to Contrast-Control-Sync Flash mode.



Output ratio of the flash is 2 for contrast-control-sync mode to 1 for the other flash mode.

For instructions on how to set the contrast-control-sync mode, refer to the flash unit's operating manual.

Z Taking a picture

- 1) Check that all of flash units are ready.
- 2) Focus the subject and take the picture.



Memo External multiple sync flashes

Note the following when you use two or more flashes in sync.

- Use the flashes in the following combinations referring to the "Flash functions" (₱ p.95).
 - · Combine the same type (Type B to F) of flashes.
 - If you use different type combination of flashes, combine Type C and Type D or Type E and Type ES
- Any type of combinations of the built-in flashes can be used.

USING SLOW-SPEED SYNC

When you photograph someone in front of a sunset or dark background, using slow-speed sync flash will result in the proper exposure of both the subject and background. Slow-speed sync can be set with the built-in flash or with any dedicated external flash unit.



With slow-speed sync, a slow shutter speed is used. Use a tripod to prevent camera shake.

Using Metered Manual Mode

Setting the flash unit

①If you will use the built-in flash, press the flash pop-up button.



If you will use an external flash, turn on the power.

Setting the Metered Manual Mode

- 1) Turn the lens aperture ring to set the aperture value.
- 2 Set the shutter speed. @p.67



Check that the flash is ready and that the flash exposure setting is correct.

3) Focus the subject and take the picture.

Using Shutter-Priority AE

Setting the Shutter-Priority AE Mode

refer to page 65

2 Setting the Flash unit



Do not turn on the power of the built-in flash or external flash before setting step 1 above. Otherwise, the background may not be exposed properly.

1 If you will use the built-in flash, press the flash pop-up button.



If you will use an external flash, turn on the power.

Focus the subject and take the picture.

PRECAUTIONS FOR USING FLASH

Cautions for using flash are explained below.

Using the built-in flash and a dedicated external flash

- If you use the built-in flash and a Pentax-dedicated external flash simultaneously and set the external flash to trailing shutter curtain sync, the built-in flash will also be set to trailing shutter curtain sync.
- Before taking the picture, make sure both the built-in flash and external flash are ready (fully charged).

Using a non-Pentax flash unit

- Using a non-Pentax flash unit may cause a malfunction. Pentax-dedicated flash units are recommended.
- When using studio type flash with the camera, note the polarity of the flash contacts. Some studio type flash units may have reversed polarity which will not work with the camera. For details, consult the manufacturer of the flash.
- When using studio type flash, set a flash sync speed one stop slower than the camera's normal sync speed. This is to prevent a partial flash exposure (part of the picture looks dark).

APPENDIX

PENTAX FUNCTIONS	110
BASIC SETTING OF PENTAX	
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PENTAX FUNCTIONS

The camera provides 11 Pentax Functions so you can set the camera according to your shooting preferences.

Selection of range of auto bracketing correction value	© p.113
Selection of re-set to single frame after auto bracketing exposure	© p.113
Selection of shutter release delay time with the remote controller	☞ p.114
Selection of whether or not auto focusing is used during remote control photography	☞ p.114
Selection of the metering method with AE lock	© p.114
Selection of whether or not AE lock is used when the subject is in focus.	₽ p.115
Selection of autofocus method in the action program mode	© p.115
Selection of illumination method of the LCD panel	© p.115
Selection of Mode dial illumination pattern when power switch is turned ON	© p.116
Selection of the state of the end of film when rewinding	t p.116
Selection of the built-in flash in the wireless flash mode	© p.116
	Selection of re-set to single frame after auto bracketing exposure Selection of shutter release delay time with the remote controller Selection of whether or not auto focusing is used during remote control photography Selection of the metering method with AE lock Selection of whether or not AE lock is used when the subject is in focus. Selection of autofocus method in the action program mode Selection of illumination method of the LCD panel Selection of Mode dial illumination pattern when power switch is turned ON Selection of the state of the end of film when rewinding

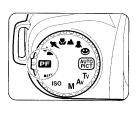
BASIC SETTING OF PENTAX FUNCTIONS

Follow the procedure below to set a Pentax Function.

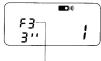
Display Pentax Function No.

①Turn the mode dial to PF.

2 Move the select switch to display the Pentax Function No. You wish to set. The Pentax Function No. will be displayed on the LCD panel



Example: Selection of Remote controller operation time.



Pentax Function No.

Display the setting No.

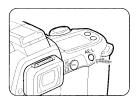
Press the AE lock button and display the setting No.

The setting No. will be displayed on the LCD panel.



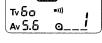
The LCD panel shows that Pentax Function No. F3

The setting number on the panel shows function no. F3 (the setting number for the operating time of the remote controller is set to "2").









PF C.L

2 Turn the mode dial to "AUTO PICT".



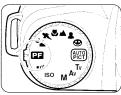
Memo Resetting the Pentax Functions to the Default Settings

- 1) Set the mode dial to [PF].
- 2 Hold down the AE lock button for 2 sec. or longer. [PF] and [CL] will be displayed on the LCD panel, and all the Pentax Functions will be reset to default setting.
- ③Set the mode dial to [AUTO PICT].

SETTING A PENTAX FUNCTION

The settings for each Pentax Function are explained below. To display the Pentax Function No. and setting No.. see Basic Setting of Pentax Functions. [#] p.111

1 Set the mode dial to PF



- 2 Pentax Function No. :Select with the select swich.
- F3 ;
- 3 Setting No. : Select with the AE lock button.

[F1] Selection of range of auto bracketing correction value

This is used to select the range of the correction value when using the auto bracketing function.

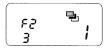
- Pentax Function No. [F1]
- Setting No.
- [1]...1/2 step (EV)
- [2]...1/3 step (EV)
- [3]...2/3 step (EV)
- [4]...1 step (EV)



[F2] Selection of re-set to single frame after auto bracketing exposure.

This is used to select whether the camera automatically returns to single frame shooting after auto bracketing exposure.

- Pentax Function No. [F2]
- Setting No.
- [1]...Returns to single frame shooting
- [2]...Remains in auto bracketing





♦ [F3] Selection of shutter release delay time with the remote controller

This is used to select the delay time when taking pictures using the remote controller.

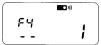
- Pentax Function No. [F3]
- Setting No.
- [1]...picture taken after 3 seconds
- [2]...picture taken immediately

	(max)	_
F3	,	
∃"	1	

[F4] Selection of whether or not auto focusing is used during remote control photography

This is used to select whether or not auto focusing is used when taking a picture using the remote controller.

- ●Pentax Function No. [F4]
- Setting No.
- [1]..Auto focusing not used
- [2]..Auto focusing used



[F5] Selection of exposure metering mode during AE Lock

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This is used to select either spot metering or multi-segment metering mode during the AE Lock.

- ●Pentax Function No. [F5]
- Setting No.
- [1]...Spot metering
- [2]...Multi-segment metering



APPENDIX

[F6] Selection of whether or not AE lock is used when the subject is focused

This is used to select whether or not AE lock is used when a subject is focused with shutter release button is depressed halfway down.

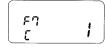
- Pentax Function No. [F6]
- Setting No.
- [1]. .AE lock not used
- [2]. .AE lock used



[F7] Selection of autofocus method in the Action Program Mode

This is used to select whether focusing be made continuously or focus be locked when a subject is focused in the Action Program mode except auto pictures.

- ●Pentax Function No. [F7]
- Setting No.
- [1]...Continuous focusing
- [2]...Focus lock



[F8] Selection of illumination method of LCD panel

This is used to select the timing at which the panel lighting is illuminated during display.

- Pentax Function No. [F8]
- Setting No.
- [1]...Illuminated automatically when shutter button is depressed halfway down when the subject being photographed is dark
- [2]...Illuminated when the electronic preview button is pressed
- [3]...Not illuminated



[F9] Selection of mode dial illumination pattern when power is turned on

This is used to select the illumination pattern of the mode dial when the power is turned on.

- Pentax Function No. [F9]
- Setting No.
- [1]...Pattern A (regular illumination)
- [2]...Pattern B (irregular illumination)
- [3]...Not illuminated

F9 |

◆ [F10] Selection of the state of the end of the film when rewinding film

This is used to select whether or not the leader on the end of the film is to be wound up when the film has been rewound.

- Pentax Function No. [F10]
- Setting No.
- [1]...Film completely rolled up
- [2]...End left unwound @p.35



[F11] Selection of how built-in flash be fired in wireless mode

This is used to select whether the flash unit be fired in master mode or controlled mode.

- ●Pentax Function No. [F11]
- Setting No.
- [1]...Fire in master mode (built-in flash unit is fired)
- [2]...Controlled fire (built-in flash unit is not fired)

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CAMERA FUNCTIONS AVAILABLE WITH VARIOUS LENSES

FUNCTION Lens [Mount type]	FA lens [Kar/Kar2]	F lens [KAF2]	A lens [K _A]	M lens [K]	S lens [Screw]
Autofocus (Lens only)	0	0	×	×	×
(Lens with AF Adapter 1.7X)		-	O*1	<u></u>	×
Manual focus (with FI)*2	⊜*3	⊜*3	⊜*3	⊜*3	×
(with Matte field)	0		0	0	0
3 - points AF	0	0	×	×	×
Auto Picture, Picture	○*4	○*4	<u>_</u> *5	×	×
Aperture-Priority AE	0	0	0	0	0
Shutter-Priority AE	⊜*4	<u></u> *4	0	×	×
Metered Manual	0	0	0	0	0
Multi(6)-segment metering	0	0	⊜*6	X*7	X*7
Approx. f-stop indication	0	0	×	×	×



- *1. Lenses with a maximum aperture of f/2.8 or larger. (See AF Adapter operating manual.)
- *2. Manual focusing using the focus indicator (FI) () in the viewfinder.
- *3. Lenses with a maximum aperture of f/5.6 or larger.
- *4. Exception of Pentax-FA Soft 85mm f/2.8 and FA-soft 28mm f/2.8.
- *5. Standard operation mode only.
- *6. With A50mmf/1.2, the center-weighted metering or Spot metering is used instead of the multi-(6) segment metering mode.
- *7. Multi(6)-segment metering, if selected, will be switched to centerweighted metering.

ACCESSORIES (OPTIONAL)

A number of dedicated accessories are available for this camera.

AA-BATTERY PACK Fg

Battery grip powered by size-AA batteries and dedicated to the MZ-6/ZX-L.





Battery Life (Using 24-exposure film rolls)

The number of 24-exposure film rolls that can be taken with a new set of alkaline batteries is indicated below.

	Number of film rolls at 20°C/68°F
General existing light photography	about 180 rolls
Flash photography	about 35 rolls
(using flash 50% of the times) Flash photography	
(using flash 100% of the times)	about 20 rolls
Bulb exposure time	about 18 hours

CABLE SWITCHES

Cable Switch CS-205

length: 0.5 m





III FLASH ACCESSORIES

AF360FGZ

TTL auto flash unit with Guide No. 36. Features include slave-sync flash, multiple-flash, and leading/trailing curtain-sync flash. High-speed sync and wireless flash can be used.



AF500FTZ

A TTL Auto Zoom flash with a built-in AF spotbeam and large guide number of 50 in meters (ISO 100). It features the slave sync flash function, multiple flash burst, contrast-control-sync flash, leading/trailing -curtain-sync flash mode.

AF220T

A TTL Auto flash with a guide number of 22 in meters (ISO 100).

AF201SA

An auto flash (not TTL) with the guide number of 20 in meters (ISO 100).

AF140C

TTL macro flash unit with the guide number of 14 in meters (ISO 100).

Off-Camera Shoe Clip CL-10

Enables the AF360FGZ to be used as a wireless flash.

Hot Shoe Adapter F, Extension Cord F5P and Off-Camera-Shoe Adapter

The adapters and cord which allow the external flash to be used off the camera, while maintaining full electric coupling to the camera.

W VIEWFINDER, LENS AND CLOSE-UP ACCESSORIES

Magnifier FB

Magnifies the image at the center of the viewfinder.

Refconverter A

Right angle finder which attaches to the grooves on both sides of the viewfinder. The viewfinder magnification is able to switch from 1X to 2X.



While attached, it may obstruct the opening/closing of the camera back. First detach the Refconverter A before opening/closing the camera back.

AF Adapter 1.7X

An adapter for autofocus photography using a non-autofocus lens with a maximum aperture of f/2.8 or larger.

Filters

Skylight, Cloudy, UV, Y2, O2, R2 and Circular Polarizing Filter are available in sizes of 49mm, 52mm, 67mm and 77mm.



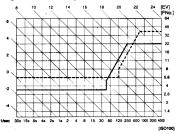
- Since the camera's autofocus mechanism uses a semi-transparent mirror, using a non-circular polarizing filter may throw off the autofocusing and exposure metering precision. When using autofocus, a circular polarizing filter is recommended instead. This will also maintain exposure metering precision.
- When you attach/detach Adapter K (for the 645 lens) to the camera, the adapter's screw should not contact the camera body. If necessary, change the screw's position.
- The hot shoe cover attached to the hot shoe unit is used exclusively
 with the MZ-6/ZX-6 and MZ-7/ZS-7. The use of other hot shoe covers
 will prevent operation of the auto pop-up function of the flash.

Auto Extension Tube K

A set of three tubes. A close-up accessory placed between camera and lens. Supports automatic aperture and metering with maximum aperture.

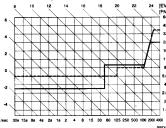
PROGRAM DIAGRAMS

①Standard Operation Mode
Night-scene Program Mode without Flash



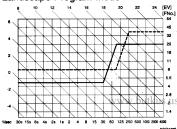
With FA 28-90mm f3.5-5.6

2 Portrait Program Mode



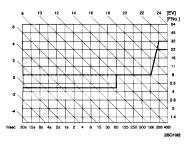
With FA 28-90mm f3.5-5.6

3Landscape Program Mode



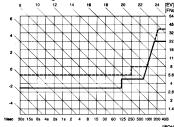
With FA 28-90mm f3.5-5.6

4 Close-up Program Mode



With FA 28-90mm f3.5-5.6

⑤Action Program Mode



With FA 28-90mm f3.5-5.6

TROUBLE SHOOTING

Before requesting service, please check the following points.

Nothing is displayed on the LCD panel.

Check 1: Power is OFF.

Countermeasure Turn the main switch to ON (22).

Check 2: Batteries are not inserted or inserted backwards.

Countermeasure Check the insertion direction of the batteries and insert

the batteries correctly (@ 13).

Check 3: The batteries are exhausted.

Countermeasure Replace the batteries with new ones (13, 38).

Shutter does not trip.

Check 1: Power is OFF.

Countermeasure Turn the main switch to ON (#22).

Check 2: Batteries are not inserted or are inserted backwards.

Countermeasure Check the insertion direction of the batteries and insert the batteries correctly (12 13).

Check 3: The "Battery Warning" is blinking.

Countermeasure Replace the batteries with new ones (# 13, 38).

Check 4: The mode dial is set to the [PF] [**)) or [ISO] position.

Set the mode dial to a position other than the [***)] position, [PF] position or [ISO] position.

Check 5: The built-in flash is charging.

Countermeasure Wait until charging is finished (19831).

Subject is out of focus.

Check 1: The subject to be focused on is not inside the AF frame.

Countermeasure Cover the subject you wish to photograph within the AF frame before shooting (1227).

Check 2: The picture-taking distance is too close.

Countermeasure

Move away from the subject to be photographed (12676).

Check 3:

The subject is not suited for autofocus (4877).

Countermeasure

Use focus-lock to focus on a subject which is about the same distance as the subject to be photographed (page 81), or set the focus mode switch to the [MF] position and then use the matte screen to focus manually (1279)

Check 4:

Countermeasure

The focus mode switch is at the [MF] position.

Use the focusing indicator and matte screen to adjust the focus manually (see page 79). Or set the focus mode switch to the [AF] position before taking pictures (1275).

◆ Exposure counter is not displayed or does not advance.

Check 1:

[E] is blinking on the LCD panel.

Countermeasure

Film has not been loaded properly. Load the film again

(**12**20).

◆ The built-in flash does not fire.

Check 1:

The built-in flash is charging.

Countermeasure

Wait until charging is finished (#31).

Check 2:

The "Battery Warning" symbol is blinking.

Countermeasure Check 3: Replace the batteries with new ones (#13, 38).

Countermeasure

The flash mode is set to [A] (auto flashing mode). If the subject to be photographed in the auto flash mode is bright, the flash will not light. Set to the flash ON mode to cause lighting even for bright subjects (1284).

Imprinting data on negative is faint.

Check 1: Imprinting data information on a picture is faint.

Countermeasure Replace the data back's battery (CR2025) (p.40).

AE lock do not work.

Check 1: The camera is set to Manual Exposure.

Countermeasure Set the exposure mode to the Auto Picture Mode or Picture Mode. (@ 25, 56).

◆ The built-in flash does not pop up automatically.

Check 1: The camera is not set to the Auto Picture Mode or Picture Mode.

Countermeasure Set the exposure mode to the Auto Picture Mode or Picture Mode.(@p.25, 56).

SPECIFICATIONS TABLE

Туре	TTL autofocus, multi-mode auto-exposure 35mm SLR with built-in TTL auto flash (RTF)
Format	24 × 36mm
Usable Film	35mm perforated cartridge film. DX-coded film with ISO 25-5000; non-DX coded films with ISO 6-6400
Exposure Modes	Auto Picture Mode, Picture Mode (Standard Operation Mode, Portrait Program Mode, Landscape Program Mode, Close-up Program, Action Program Mode, Night-scene Program Mode), Shutter-Priority AE Mode, Aperture-Priority AE Mode, Metered Manual Mode, Bulb Mode, TTL Flash Mode
Shutter	Electronically controlled vertical-run focal-plane shutter, Electromagnetic release, Speed range: (1)Auto 1/4000-30 sec.(stepless),(2)Manual 1/4000-30 sec.(3)Bulb,
Lens Mount	Pentax KAF bayonet mount (K-mount with AF coupler, lens information contacts).
Compatible Lens	Pentax KAF2-, KAF-,KA-, and K-mount lenses are usable. Autofocus is possible using AF Adapter with KA-and K-mount lenses.
Autofocus System	TTL phase-matching multi-(3 points) autofocus system switchable to Spot focusing, AF operational brightness range: EV –1 to 18(at ISO 100 with f/1.4 lens), Focus lock available using shutter release button/AF button, Focus Mode: AF.S(single), AF.C(predictive AF), Manual[MF]. AF illuminator
Viewfinder	Fixed pentamirror, Natural-Bright-Matte focusing screen, Field of view:92%, Magnification:0.7X(with 50mm f/1.4 lens a infinity), Diopter: -2 to +1m ⁻¹
Viewfinder Indication	Procus Information. In-focus (Green lamp [

External LCD panel Indication	Shutter speed, Aperture value, [*] = Built-in flash ready indication [*] = blinking slowly flash recommended warning, [*] = blinks rapidly Inappropriate lens warning, [●] = Red-eye reduction flash mode, [] = Auto pop-up flash function, Automatic flash function ISO indication, [•] = Battery exhaustion warning, Exposure counter, [•••] = PCV signal indication, [☑] = Exposure compensation, Exposure compensation value [◎] = Self-timer, [•] = Auto bracketing mode, [•] = Consecutive shooting, [•] = Multiple exposure, [•] = Wireless flash mode, [•] = High-speed flash sync
Preview Button	Electronically controlled type and possible to use in all exposure modes
Self-timer	Electronically-controlled type with delay time of 12 sec. Start by depressing of shutter release button, Operation confirma- tion: Possible to set PCV beep tone. Cancelable after opera- tion.
Auto bracketing	Three frame consecutive shots with exposure bracketing in 0.5 EV step. Increment, Possible to use with exposure compensation
Mirror	Quick-return mirror with AF secondary mirror.
Film Loading	Film advances automatically to 1st frame after back cover is closed, Film information window is provided.
Film Wind & Rewind	Auto wind/rewind by built-in motor, Consecutive or Single advance mode, Approx.2 frames/sec.(consecutive mode), Auto rewinding starts at end of roll, Film rewind/completion of rewinding is displayed on the LCD panel, mid-roll rewind button will rewind film in mid-roll.
Exposure Meter	TTL multi(6)-segment metering, Metering range from EV0 to EV21 at ISO100 with 50mm f/1.4 lens.
Exposure Compensation	±3EV in 0.5EV step increments
AE Lock:	Set by AE lock button, current exposure value remains for 20 sec. With the shutter release button pressed halfway down, the exposure value remains continuously.

● Flash	Series-control, Retractable TTL Auto Flash (RTF), Guide number:11 (ISO100/m), Illumination angle covers 28mm lens angle of view, Flash-sync-speed in the range from 1/125 to a slower speed, Slow-speed-sync flash, Contrast-control-flash sync (ISO range=25-800), Auto pop-up, Red-eye reduction flash function
● Flash sync	Hot shoe with X-contact with couples with Pentax dedicated auto flashes, ISO range=25-800, Flash-sync-speed in the range from 1/125 to a slower speed. Possible to use high-speed sync, wireless flash mode, P-TTL mode with AF360FGZ.
 Pentax function 	11 user-defined functions
Power source	Two 3V lithium batteries (CR-2 or the equivalent)
 Battery Exhaustion Warning 	Battery exhaustion symbol [\P] is lit. (The shutter is locked and no indication in the viewfinder when starts blinking)
Dimension and Weight	135.5mm(W) \times 92mm(H) \times 63mm(D) (5.3" \times 3.6" \times 2.5") 400g (14.1 oz) body only without batteries
Supplied Accessories	Hot Shoe Cover Fk, Release Socket Cap , Camera Strap Fk Eye Cup Fk, Finder Cap
Data Back FJ Cover (optional)	Crystal quartz controlled; LCD with digital clock, auto calendar up to 2049.
 Data printout 	7-segment, 6-digit LCD
Printout confirmation	"-"indication blinks for a few seconds on LCD panel.
Printing mode	① Year/month/day, ② day/hour/minute, ③ "", ④ month/day/year, ⑤ day/month/year
● ISO range	ISO 25-1600 (automatic setting)
Power source	CR2025 (lithium battery)
Number of prints	Approx. 5,000

SPECIFICATIONS ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTIFICATION OR ANY OBLIGATION ON THE PART OF THE MANUFACTURER. www.bulkus.us