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OPERATING MANUAL

PENTAX®

645NII

Welcome to the Fantastic World of Pentax Autofocus Multi-Mode Medium Format Photography

The Pentax 645_{NI}, our latest development in the area of the medium format SLR, promises a superior 6 x 4.5cm result with 120, 220, or 70mm film.

Made possible through our vast experience and technology accumulated over the years, the new autofocus multi-mode 645_{NI} assures pin-sharp focus accuracy with AF Spot and AF Wide selection, and the 6-segment multi-pattern metering allows precise exposure control under widely varying conditions. Unsurpassed versatility is assured through the utilizing of a full range of exposure modes (Programmed AE, Aperture-Priority AE and Shutter-Priority AE, Metered Manual and TTL auto flash control), an exposure compensation control and auto-bracketing mode and a new user-set Pentax Function to customize the 645_{NI} to meet the for user's shooting preferences.

With a 645 A- or FA lens attached, the 645_{NI} imprints relevant information (frame number, shutter speed, aperture setting, exposure control and auto-bracketing mode).

The Pentax 645_{NI} is a professional camera possessing a number of highly sophisticated features: built-in automated film wind, an external LCD information panel and clearly visible LCD information in the viewfinder.

Lenses and accessories produced by other manufacturers are not made to our precise specifications and therefore may cause difficulties with or actual damage to your Pentax camera. We do not assume any responsibility or liability for difficulties resulting from the use of lenses and accessories made by other manufacturers.

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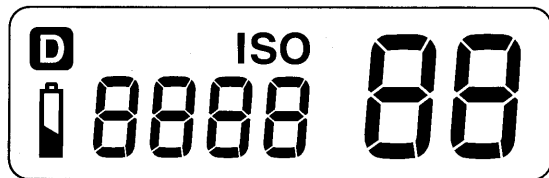
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LCD PANEL INDICATION

VIEWFINDER INDICATION

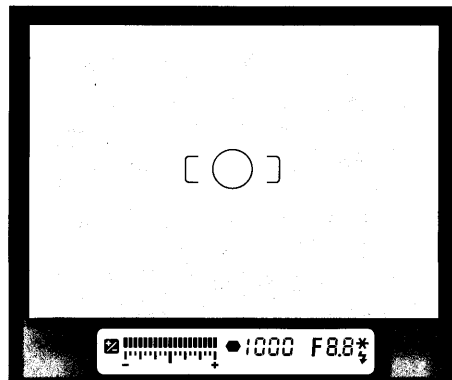
3







- 00** : Frame Counter (p.22)
- 0000** : Film Speed Information (p.24)
- ISO** : Film Status Information (p.24)
-  : Battery Exhaustion Warning (p.15)
-  : Imprinting Exposure Data Information (p.64)

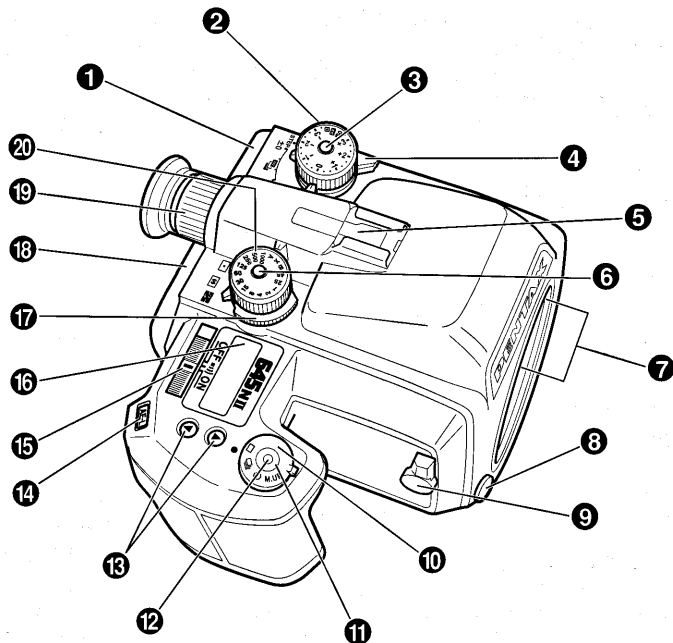
LCD (Liquid-Crystal Display)

When the LCD is exposed to high temperatures over approximately 60°C it may blacken, but when the temperature normalizes, it should return to normal.



- [] : 3-point AF Frame (p.34)
- : Spot Metering / Focusing Area (p.56, 59)
- 1000 : Shutter Speed (p.42, 45, 47, 49)
- F8.8 : Aperture Value (p.42, 45, 47, 49)
-  : Flash Status Information (p.68)
-  : In-Focus Indicator (p.36)
-  : Exposure Compensation (p.52)
-  : Bar Graph (p.49, 52)
- * : AE lock (p.57)

NAMES OF WORKING PARTS

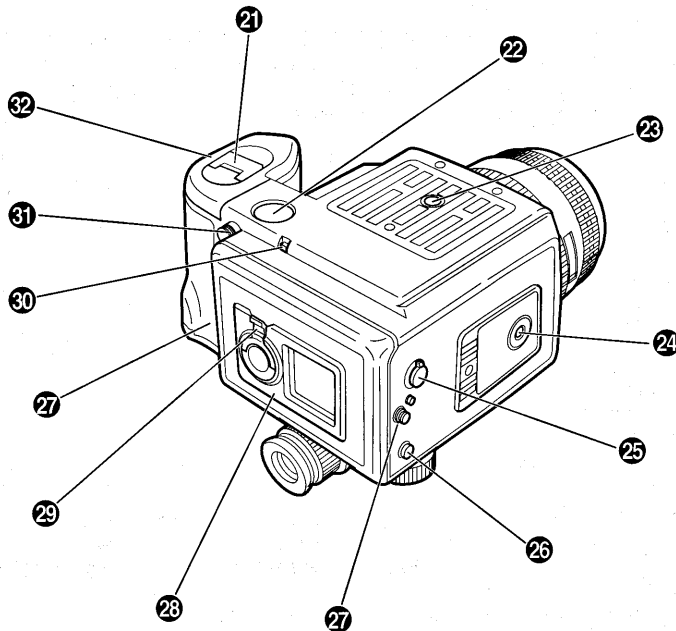


- ① AF mode selector (p.33, 58)
- ② Exposure compensation dial (p.52)
- ③ Exposure compensation dial release button (p.52)
- ④ Auto bracketing selector (p.53)
- ⑤ Hot shoe (p.68)
- ⑥ Shutter speed dial release button
- ⑦ Lens information contacts
- ⑧ Lens unlock button (p.16)
- ⑨ Preview lever (p.74)
- ⑩ Drive mode selector (p.34, 38, 39)
- ⑪ Shutter release button (p.20)
- ⑫ Shutter release socket (p.51)
- ⑬ Up / down buttons
- ⑭ AE lock button (p.57)
- ⑮ Main Switch (p.14)
- ⑯ LCD panel (p.3)
- ⑰ Metering mode selector (p.31, 55, 56)
- ⑱ AF frame selector (p.34, 59)
- ⑲ Diopter adjustment ring (p.28)
- ⑳ Shutter speed dial

NAMES OF WORKING PARTS

5

- 21 Battery holder release knob
- 22 External power supply socket (p.13)
- 23 Tripod socket (p.35)
- 24 Vertical tripod socket (p.35)
- 25 Multi-exposure switch (p.40)
- 26 X-sync socket
- 27 Strap lug (p.11)
- 28 Film holder (p.18)
- 29 Film holder release knob (p.18)
- 30 Mid-roll wind-up button (p.26)
- 31 Electronic cable release socket (p.51)
- 32 Battery holder (p.12)



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.

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

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

⚠ WARNING

- 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 for an extended period may damage your eyes.

⚠ CAUTION

- 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.

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 ice 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.

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 mothballs 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

9

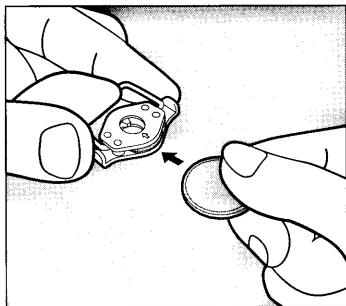
- Use six 1.5V AA size alkaline, or lithium batteries.
- Misuse of the battery can cause hazards such as leakage, overheating, explosion, etc. The battery should be inserted with the “+” and “-” sides facing correctly.
- Battery performance may be temporarily hindered in low temperatures, but will recover in normal temperatures.
- Keep a spare battery on hand for replacement convenience when shooting outdoors or while traveling.
- Replace the batteries at the same time. Do not mix battery brands, type or an old battery with a new one. As this may cause explosion or overheating.

Icon indicators used in this manual

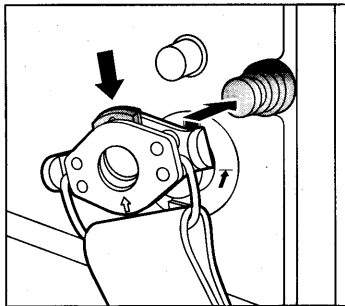
Operation direction	
Attention	
Lamp blinking	

I. BASIC OPERATION (PREPARATION)

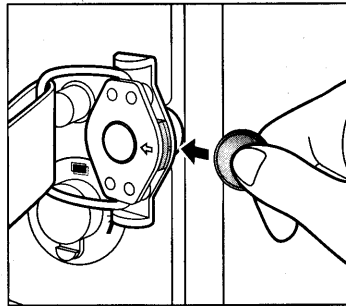
1



2



3



1. Using a coin or similar object slide the clasp in the direction of the arrow.

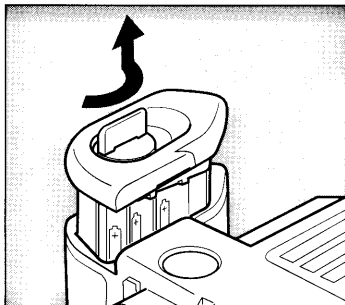
2. Put the clasp onto the strap lug of the camera with the arrow indication facing out, and slide the lock plate back to the original position.

3. To remove the strap, repeat step 1.

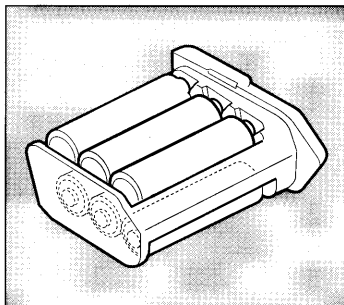
- Adjust the length of the strap with the buckle.
- After fitting the strap and adjusting the length, pull the strap hard to confirm that the strap has securely attached to the camera.
- There is a pocket on the strap so you can store a small accessory.

LOADING THE BATTERIES

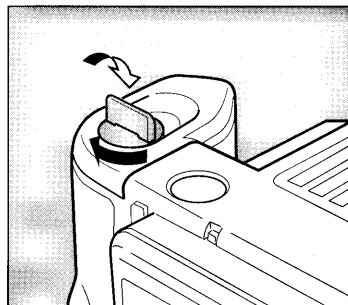
1



2



3



1. To remove the battery holder, lift the battery holder release knob and turn it in the direction of the arrow.

2. Load six 1.5V AA-size batteries in the battery holder in accordance with the diagram located in the battery holder.

3. To secure the battery holder, turn the battery holder release knob in the direction of the arrow.

- This camera requires battery power for operation. Always use six 1.5V AA size batteries.
- The ISO film speed and number of exposed frames are unchanged if the batteries are replaced.
- Keep spare batteries on hand when shooting out doors or while traveling.
- Use of the optional Remote Battery Pack 645 and Power Cord 645 is recommended when the camera is to be under the extremely low temperatures.
- Replace all the batteries at the same time. Do not mix battery brands, types or old batteries with new.
- Remove batteries when not using the camera for long periods of time as the batteries may leak after time.

Battery Life

[20°C/68°F]

	Alkaline Battery	Lithium Battery
120 film holder:	about 130 rolls	about 320 rolls
220 film holder:	about 100 rolls	about 250 rolls
Bulb exposure time	about 8 hours	about 12 hours

Battery Life

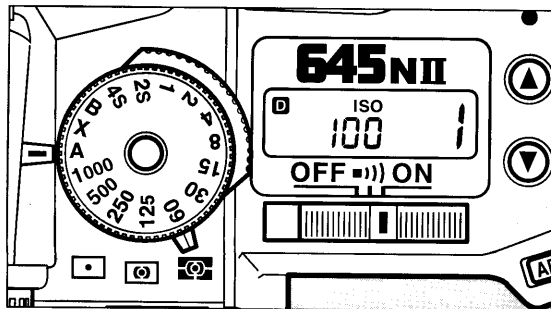
[-10°C/14°F]

	Alkaline Battery	Lithium Battery
120 film holder:	about 7 rolls	about 120 rolls
220 film holder:	about 5 rolls	about 90 rolls
Bulb exposure time	about 6 hours	about 10 hours

- The batteries were used under Pentax testing conditions. Actual battery life and performance may vary drastically depending on external conditions such as temperature and freshness of the battery.
- Battery performance may be temporarily hindered in low temperatures, but should recover in normal temperatures.

TURNING THE POWER ON

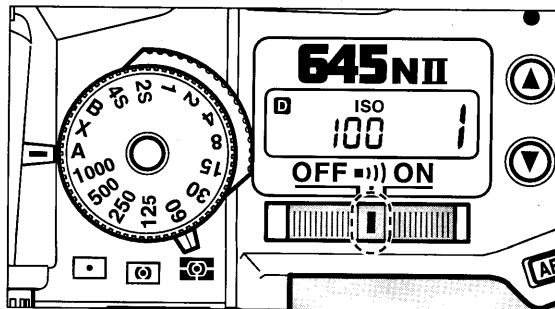
1



1. Set the main switch to [ON]

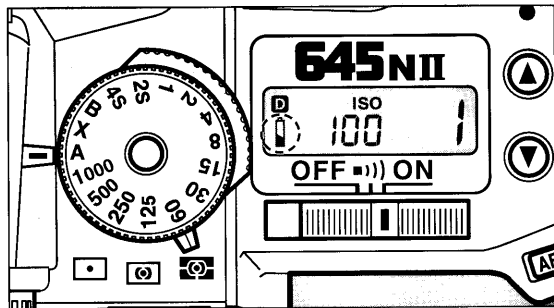
- When the camera is not in use, make sure that the main switch is OFF to prevent battery drain if the shutter release button is accidentally depressed.

2




2. With the main switch set to [ON], an audible PCV signal is heard for one of the following conditions.

- When the subject comes into focus.
- When the film is left only one frame.
- With the mirror lock-up function set.



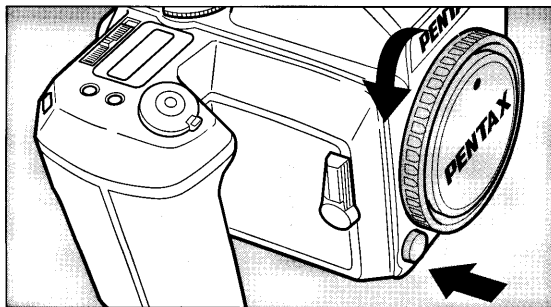
* Low Battery Warning

When the batteries are nearly exhausted, the battery symbol [] appears on the LCD panel as a warning. Replace the batteries as soon as possible. See page 12 for replacing the batteries.

- Even if the low-battery symbol appears, exposure will be correct as long as the shutter can be released. It is recommended to replace the batteries as soon as possible.

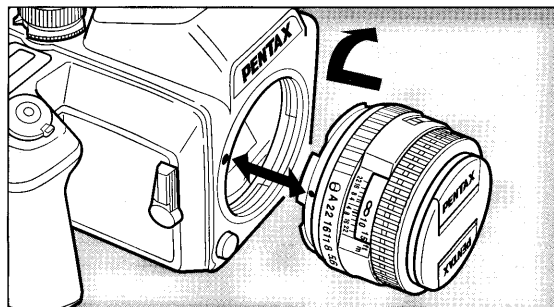
ATTACHING THE LENS

1



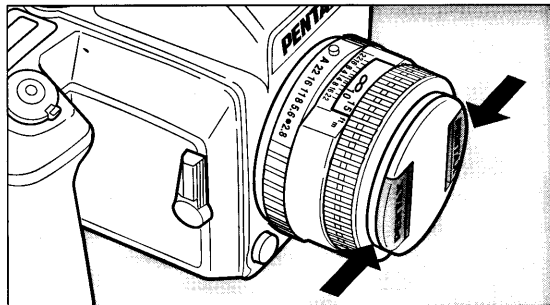
1. Remove the body mount cap while depressing the lens unlock button.

2



2. Align the red dots on the camera and lens mount, attach the lens to the camera body, and turn it fully to the right until you hear a click.

3

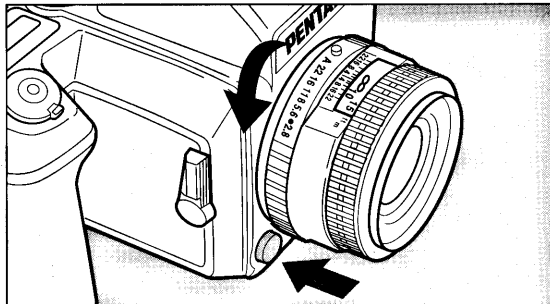


3. To remove the front lens cap, squeeze the tabs on both sides in the direction of the arrow.

- With a non-autofocus lens attached, all available functions in this camera operate except autofocus operation.
- We assume no responsibility nor liability for damages resulting from the use of lenses made by other manufacturers.
- The camera body and lens mount incorporate lens information contacts and an AF coupler. Dirt, dust, or corrosion may cause damage to the electrical system. Clean the contacts with a soft, dry cloth.

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*

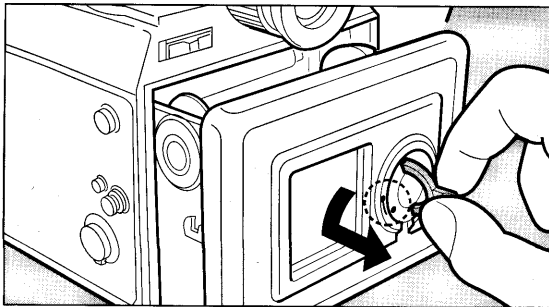


*** How to remove**

To remove the lens, turn it to the left while depressing the lens unlock button.

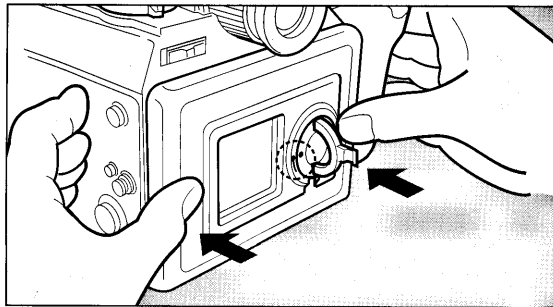
- To protect the contacts and AF coupler of the lens against damage after removal, be sure to set the lens down with the mount side facing upward.

1

**Detaching**

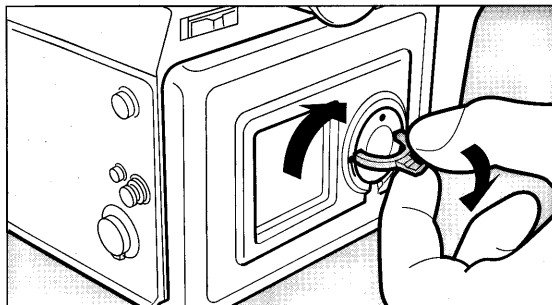
1. Raise the film holder knob and turn until the red dot markings align and a click is heard. Continue to turn the film holder knob to the end of the red line; the locking mechanism will release and the film holder is now detached from the camera body.

2

**Attaching**

2. Align the red dots on the film holder knob and film holder, then insert the film holder into the camera chamber. Depress both sides of the film holder until you hear a click.

3

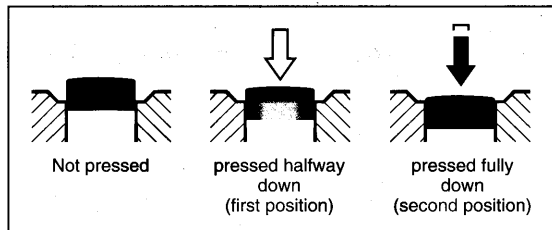


3. Turn the film holder knob 90° to the right. After attaching the film holder to the camera, fold the film holder knob into its original position.

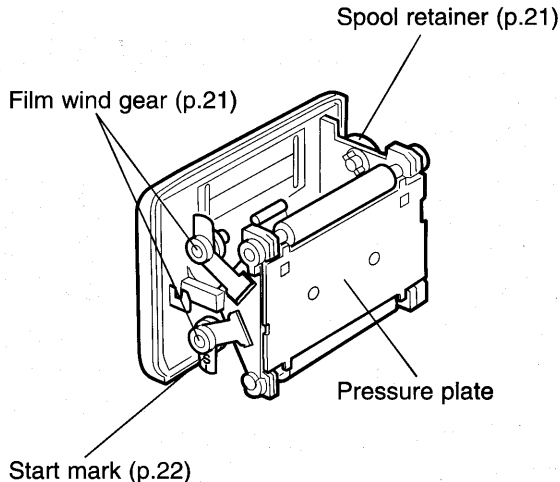
- When inserting the film holder into the camera body, be sure that the film holder is inserted the right way up in order to avoid any serious damage.
- The same precaution is required when attaching the 220 film holder.

The shutter release button has two positions. Pressing it down halfway (first position) turns on the exposure meter and autofocus system. Pressing it fully (second position) releases the shutter. When taking a picture, press the shutter release button gently to prevent camera shake.

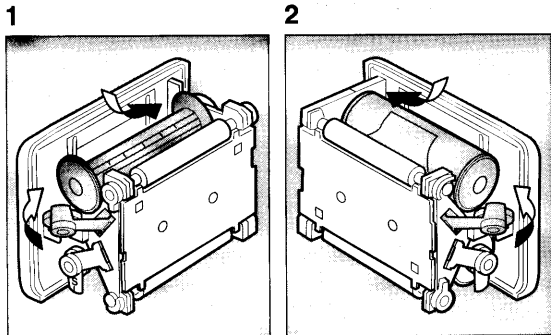
- Before loading a roll of film, slowly press the shutter release button to learn where the first position is.
- The LCD indication stays on for about 10 seconds after the button is released from the halfway position.
- The LCD indication timer duration can be changed from the initial 10 seconds to 20 or 30 seconds with Pentax Function No.2. See page 78.



LOADING FILM

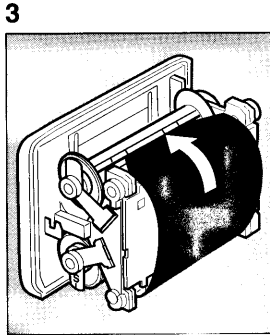
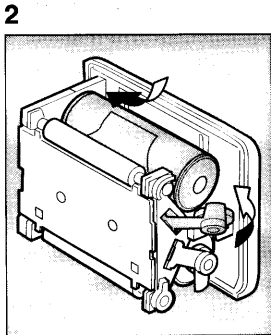


After loading the film, be sure to set the proper film speed. See page 24 for setting the film speed.



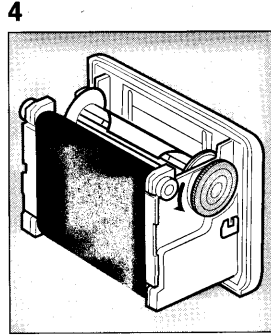
1. Install the emptied spool to the spool retainer as illustrated.

2. Tear off the tape and install the spool to the film holder so that the black inner side of the leading must face outwards.

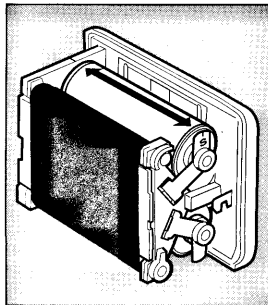


3. Draw the leader from the film roll, and insert the leader paper tip into the take-up spool's slit.

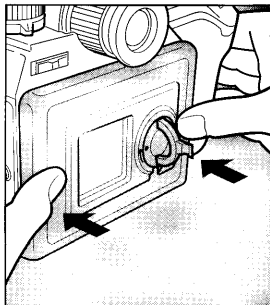
4. Slowly rotate the film winding gear in the direction of the arrow while lightly holding the leader paper.



5

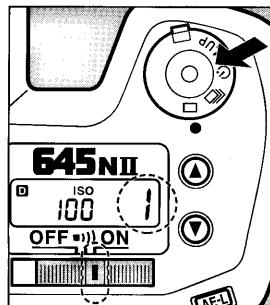


6

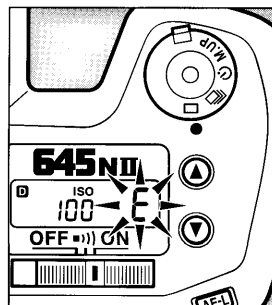


5. Wind the leader paper to the take-up spool until arrow marking on the leader paper aligns with the holder's start mark S and the red line.
6. Attach the film holder into the camera body.

7



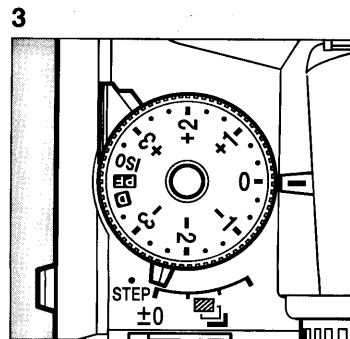
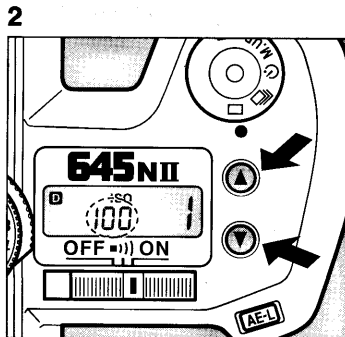
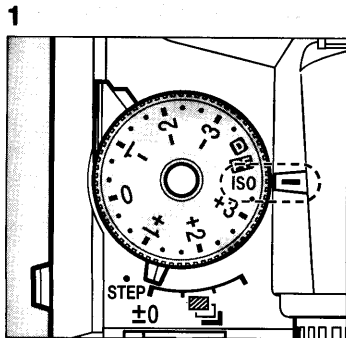
8



7. Set the main switch to [ON]. Depress the shutter release button. The film automatically advances to the first frame. [1] is displayed on the LCD panel.
8. If the [E] appears, indicating that the film is not properly loaded. Detach the film holder from the camera and load the film once again.

- Always load or unload a film in the shade or by using your body to shade the film holder.
- We suggest that you first operate the camera without film to become familiar with its operations.
- The film counter indication advances one each time the shutter is released.
- With a 220 film loaded, the dot marks appear before the arrow marking. If the dot marks align with the start mark on the film holder, the first 3 frames will not be exposed.
- The film counter indication can be set either advance with each frame or count down each frame with Pentax Function No.7.
- If the leader paper is wound far beyond the start mark S or the red line, you may lose the last frame(s) on the roll.
- The film holder cannot be changed or removed when the film is in mid-roll.
- 15 pictures are taken with the 120 roll film and 32 pictures are taken with the 220 roll film. The number of taken pictures can be changed with a Pentax function No.9.
- With the main switch set to [■)], the PCV signal beeps for two second when the film is left only one frame for film depleting warning.

SETTING THE FILM SPEED (ISO)



1. Set the exposure compensation dial to the ISO position.

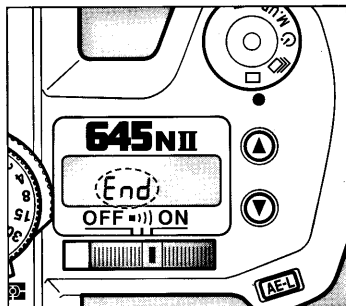
- Turn the exposure compensation dial while holding down the exposure compensation dial release button.
- The shutter cannot be released with the exposure compensation dial set at [ISO].

2. Press the up/down button. To set the ISO for to a higher film speed, press the [▲] button repeatedly until the desired ISO appears on the LCD panel. To change ISO for a lower film speed, press the [▼] button repeatedly until the desired film speed appears on the LCD panel.

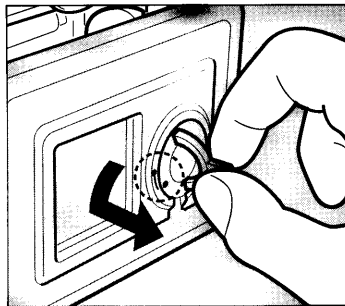
3. After the desired film speed is set, turn the exposure compensation dial to the [0] position.

- The film speed setting range is ISO 6 to 6400 in 1/3 EV step increments.
- You can tear off the end cover of the film package indicating the type of film and speed and insert it into the memo holder provided on the film holder to remind you of the film type/speed that you are using.
- [ISO] and film speed are always displayed on the LCD panel with the main switch set to the ON position.

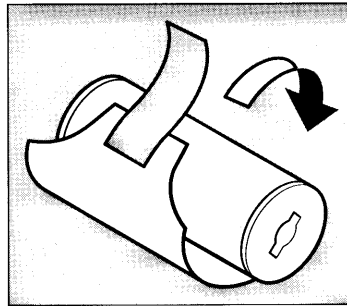
1



2



3

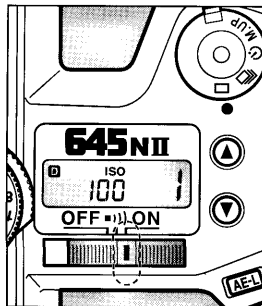


1. After the last frame of the roll is exposed, the camera will automatically wind the film and stops winding as soon as the back of the leader paper is wound to the take-up spool. [End] on the LCD panel is displayed.
2. Detach the film holder from the camera.
3. While firmly holding the wound film roll, affix the paper seal securely on the back of the paper leader to prevent from accidental unwinding of the exposed roll.

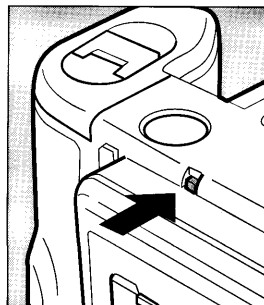
- Remove the film in the shade or by using your body to shade the camera.
- The number of exposed frames on the LCD panel disappears from the LCD panel.

UNLOADING THE FILM IN MID-ROLL

1



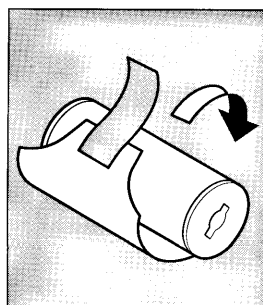
2



3



4



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

1. Set the main switch to [ON].
2. Press the mid-roll wind-up button fully with a fine-pointed object. The film will wind completely.
3. Before detaching the film holder, check that [End] is displayed on the LCD panel.

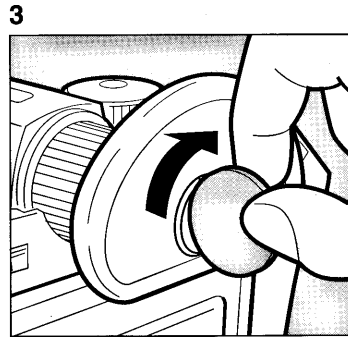
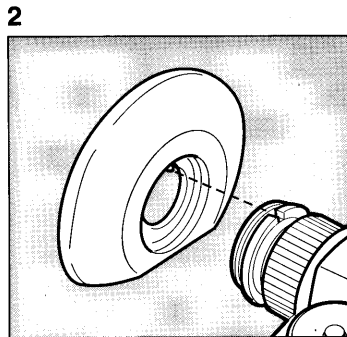
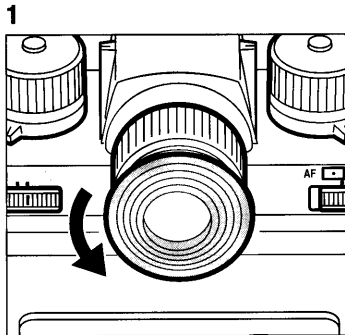


4. While firmly holding the wound film roll, affix the paper seal securely on the back of the paper leader to prevent from accidental unwinding of the exposed roll.

- The number of exposed frames on the LCD panel disappears from the LCD panel.
- When removing the film from the camera, protect it from exposure to direct sun light.

INSTALLING THE EYECUP

27



BASIC OPERATION (PREPARATION)

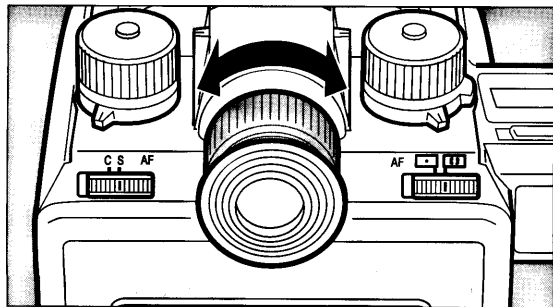
Two types of eyecups, a standard and a larger are provided as accessories; they may be utilized according to a given situation. The larger is constructed of rubber and designed to fit close to the face for easy shooting.

To install


1. The standard eyecup may be easily removed from the viewfinder by rotating the cup to the left.
2. To install the larger eyecup: match the eyecup pin with fitting eyepiece hole.
3. Turn the fixing screw by turning to the right with a coin or similar object.

- When using accessories such as the Refconverter 645, remove the eyecup first.
- When turning the fixing screw with a coin, a large diameter coin is recommended to use. A small diameter coin touches the glass part of the eyepiece and causes scratching the eyepiece glass.

ADJUSTING THE VIEWFINDER DIOPTER



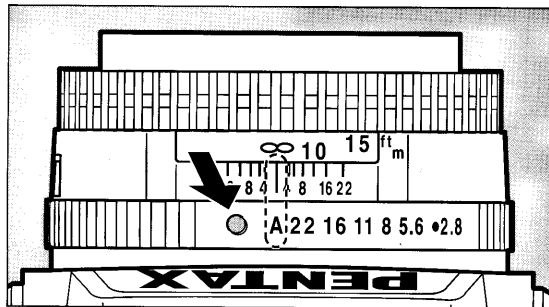
- The diopter adjustment range is $+1.0D$ to $-3.5m^{-1}$ (per meter).

Aim the camera at a bright subject. While looking through the viewfinder, turn the diopter adjustment ring to the left or right until the autofocus frame [] appears in the sharpest focus.

II. BASIC OPERATION (SHOOTING)

USING THE PROGRAMMED AE MODE

1



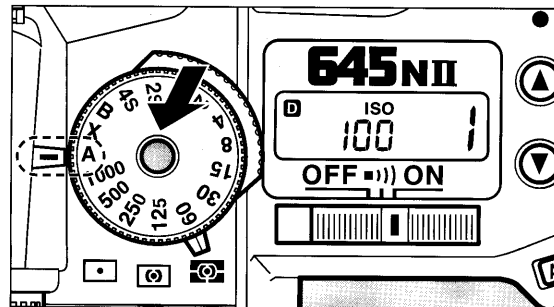
Purpose

For easy picture taking, use this mode. In the Programmed AE mode, the camera automatically selects the best combination of aperture and shutter speed setting allowing you to take pictures by simply pressing the shutter release button.

To set

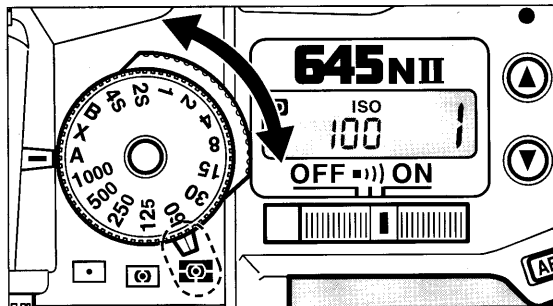
1. Turn the lens aperture ring to the [A] position as shown in the illustration.
- To move the lens aperture ring to the [A] position, turn the aperture ring while holding down the aperture-A lock button on the lens. The lens aperture ring can be released from the [A] position in the same manner.

2



2. Turn the shutter speed dial to [A] while holding down the shutter speed dial release button. The shutter speed dial can be released from [A] in the same manner.

- You can shift the program line of Programmed AE Mode with Pentax Function No.6. See page 79 for more details.
- See page 44, 46, 48, and 50 for other available exposure modes.



In the multi(6)-segment metering mode, the metering system automatically measures light in six different zones, enabling proper exposure value in a wide variety of normal and adverse lighting conditions.

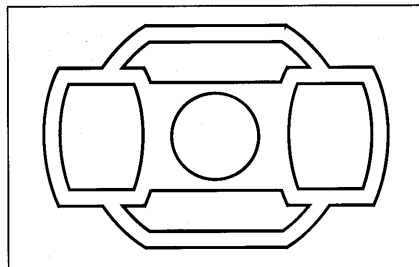
Set the metering mode switch to [].

- The center-weighted metering mode and spot metering mode are also available in this camera. See page 55 and 56 for more details.
- When the Adapter 645 for 67 lens or Helicoid Extension Tube 645 attached, the center-weighted metering mode is automatically set even if you select the multi-segment metering mode. The multi-segment mode cannot be used.

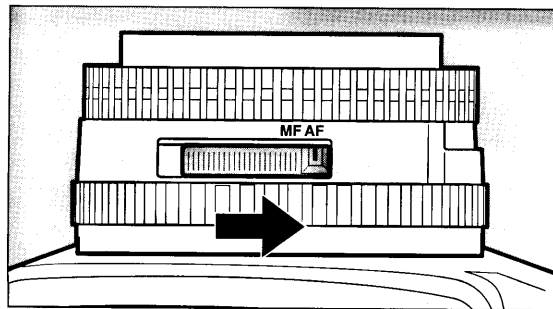
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MULTI(6)-SEGMENT METERING

This camera incorporates a high-precision six-segment TTL metering system. Light values are measured in six segments within the image field, enabling an optimal exposure to be made under a variety of lighting conditions. With conventional averaged metering systems, underexposure of the subject results from the brightness of the background affecting the overall metering. With multi(6)-segment metering, the camera records the brightness in six zones within the image field and uses these measurements to choose an exposure that will not underexposed the subject. The multi(6)-segment metering system also calculates exposure values for a scene to automatically compensate for high-contrast and other difficult lighting conditions. Even a beginner can achieve excellent results with ease.



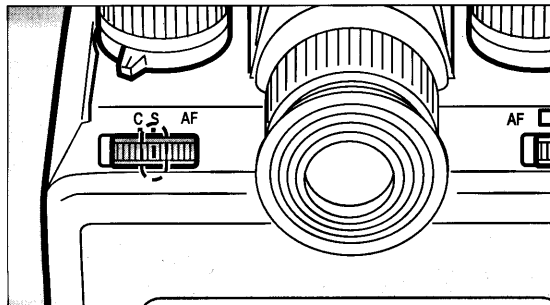
USING AUTOFOCUS MODE



- Switching between the autofocus mode and manual focus mode depends on the lens you use. For more details, read the operating manual of the lens.
- The camera does not provide the switch for switching between the autofocus mode and manual mode.

With the Pentax 645 FA lens attached, the lens automatically focuses when you press the shutter release button halfway down.

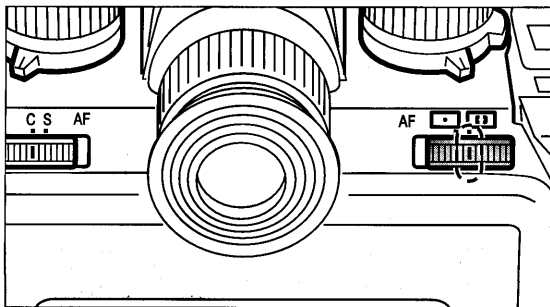
Set the lens in the autofocus mode.



- Continuous AF Mode is also available in this camera. See page 58.

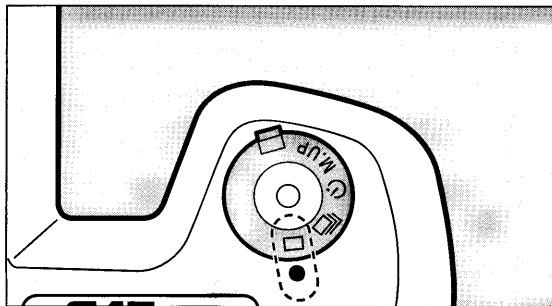
When you depress the shutter button, the lens automatically focuses. As soon as the subject is in focus, the shutter is released. For normal use, select this position. The shutter cannot be released if the subject is out of focus.

Set the AF mode selector to [S].



In the 3-point autofocus system, the subject will be focused properly even if the main subject is slightly off-center of the AF frame.

Set the AF mode selector to [ ].



One picture is taken each time the shutter release button is depressed.

Set the drive mode dial to [].

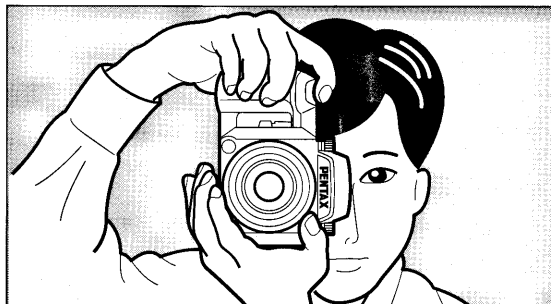
Camera held horizontally



For best results, be sure to hold the camera correctly as shown in the illustrations.

Hold the camera firmly, with your left hand supporting the camera and lens as shown in the illustrations. While taking a picture, hold your breath and gently depress the shutter release button. (Sudden force on the shutter release button will cause camera shake, making the picture blurred.)

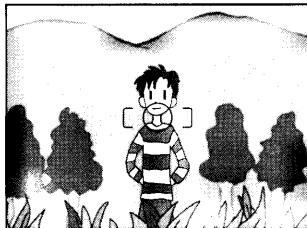
Camera held vertically



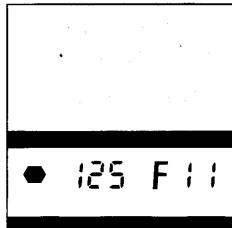
- To reduce camera shake, support your body or the camera on a solid object - a table, tree, or a wall for instance.
- Although there are individual differences among photographers, in general the shutter speed for a hand held camera is the inverse of the focal length. For example, $1/75$ of second when the focal length is 75mm, and $1/150$ of second when it is 150mm. A tripod should be used for shutter speeds slower than this.
- When using an ultra-telephoto lens, a tripod that is heavier than the total weight of the camera and lens is recommended to avoid camera shake.
- This camera has provided two tripod sockets for vertical and horizontal format positions.
- When the tripod is used, use of an optional Cable SW CS-105/CS-130 or Cable Release is also recommended.

TAKING A PICTURE



1




2




Set the lens to the autofocus position.

1. Focus on the subject with the 3-point AF frame []. When the shutter release button is pressed halfway down, the lens automatically focuses.
2. When the subject is in focus, the focus indicator [] lights up.
3. To release the shutter, gently press the shutter release button fully.

- When the shutter release button is pressed halfway down, the shutter speed and aperture setting are displayed in the viewfinder.
- Select the Spot AF Mode to critically focus on a specific spot of the subject. See details on page 59.
- When the subject is in focus, the audible PCV signal can be emitted. See details on page 14.
- During autofocus operation, the focusing ring should not be obstructed with your fingers, hands, or any other object.

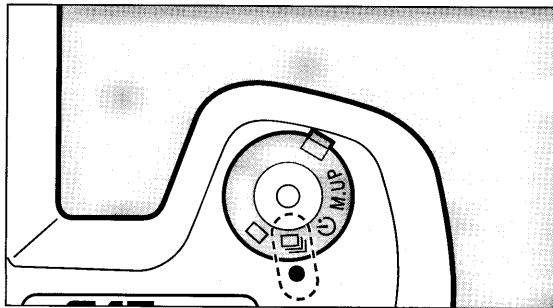
The focus indicator [] blinks when the camera is not able to obtain proper focus for one of the following reasons.

1. The subject is too close. Adjust the camera-to-subject distance.
2. The subject is difficult to autofocus. See "HARD-TO-AUTOFOCUS" on page 63.

- The shutter cannot be released if the subject is out of focus.
- The film counter indication advances each time the shutter is released.
- Depress the shutter release button halfway down. While [] is on, the camera-to-subject distance is fixed (focus lock). To refocus on another subject, lift your finger off the shutter release button.
- If the drive mode switch is set to the Consecutive-Frame Mode with the Single AF Mode set, the camera focuses only the first picture. From the second picture, the pictures are taken consecutively with the focus locked at the first picture.

III. ADVANCED OPERATIONS

SELECTING A DRIVE MODE



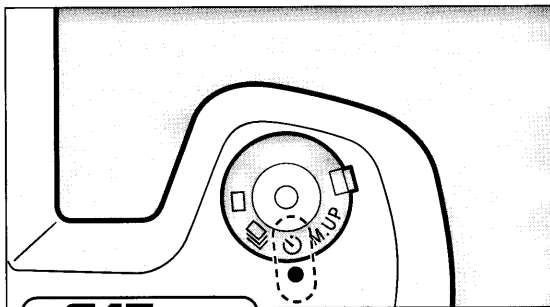
Consecutive-Frame Mode

Consecutive pictures can be taken by holding down the shutter release button.

Set the drive mode selector to [].

- If the AF mode selector is set to [S], the camera focuses only the first picture. From the second picture, the pictures are taken consecutively with the focus locked at the first picture.

1

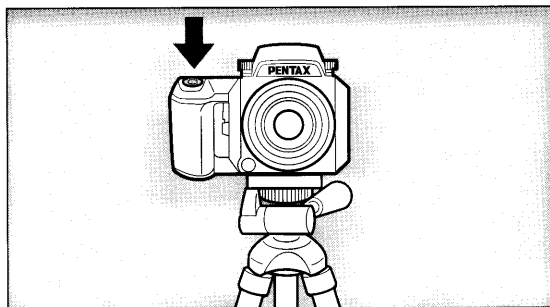


Self-Timer Mode

The self-timer mode delays the shutter release, and is useful for taking group shots that include the photographer. The shutter will be released about 12 seconds after the shutter release button is pressed.

1. Set the drive mode selector to [].
2. Focus on the subject first using the autofocus frame and by pressing the shutter release button halfway down. Then press the shutter release button fully.

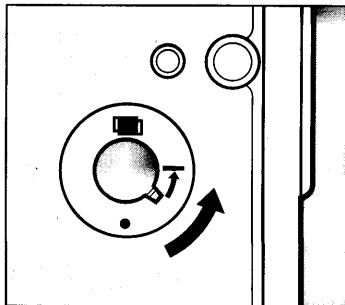
2



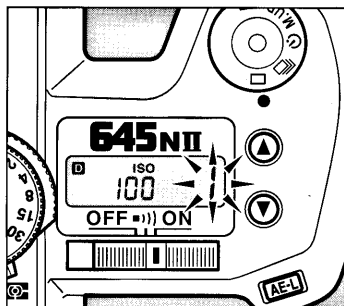
- The shutter will be released about 12 seconds later.
- When the self-timer is in operation, the audible PCV signal is heard and the rate increases for the last two seconds.
- To cancel the self-timer operation after it has been activated, move the drive mode selector to a position other than [] or set the main switch to the OFF position.
- The self-timer delay time can be set to 12 sec. or 2 sec. (with mirror lock-up) with Pentax Function No. F4.

MULTIPLE EXPOSURE MODE

1



2



3



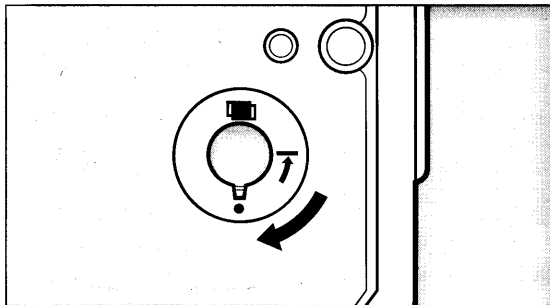
Procedure

1. Turn the multi-exposure switch in the direction of the arrow until it locks.

2. The frame counter on the LCD panel blinks.

3. Depress the shutter release button to shoot an initial exposure. The film will not advance.

4

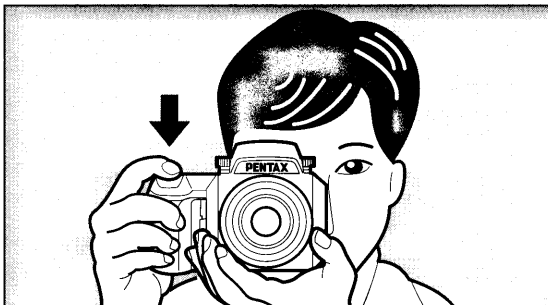


4. Return the multi-exposure switch to the original position to cancel the multi-exposure mode.

Notes:

- To exposure the tripled shot, leave the multi-exposure switch in the lock position and shoot the second shot. Then return the multi-exposure switch to the original position. The film does not advance at on this stage. Depress the shutter release button to shoot the third shot. The film will advance and the single-frame shooting will be restored.

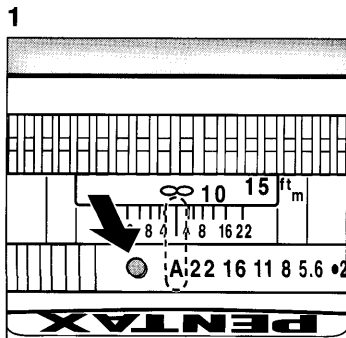
5



5. Recompose the frame, and depress the shutter release button to shoot the second shot.

- When using the Multi-Exposure Mode, you usually get the best result using a flash to illuminate the main subject against a dimly-lit background.
- To cancel the Multi-Exposure Mode, turn the multi-exposure switch to the original position.
- When using the Multi-Exposure Mode, the exposed frame may move slightly.
- With the data exposure imprinting set, the data of the last frame is imprinted.

SELECTING AN EXPOSURE MODE



Using the Programmed AE Mode

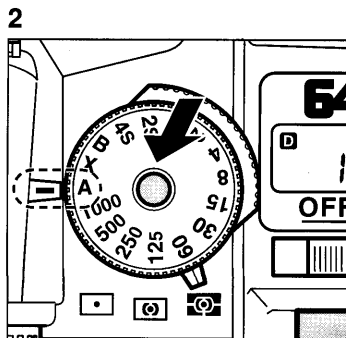
Purpose

The camera automatically selects the optimum combination of shutter speed and aperture setting, making it easy to take a good photograph by just depressing the shutter release button.

To set

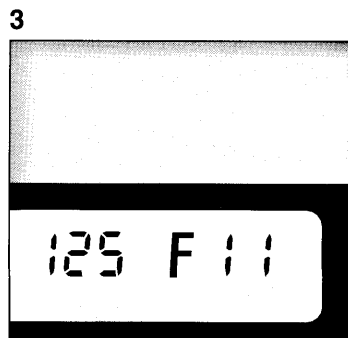
1. Set the lens aperture ring to [A].

- Turn the lens aperture ring while holding down the aperture-A lock button.

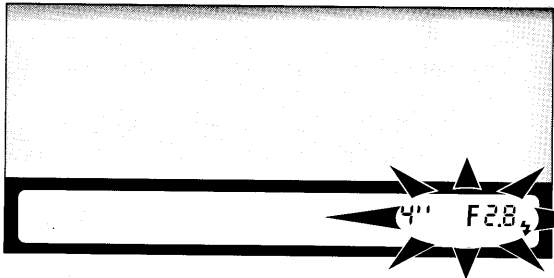


2. Turn the shutter speed dial to [A] while holding down the shutter speed dial lock release button.

- The shutter speed dial can be released from [A] to another position in the same manner as above.
- When the shutter release button is depressed halfway, the shutter speed and aperture setting will be displayed in the viewfinder.
- You can shift the program line of Programmed AE Mode with Pentax Function No. 4. See page 79 for more details.



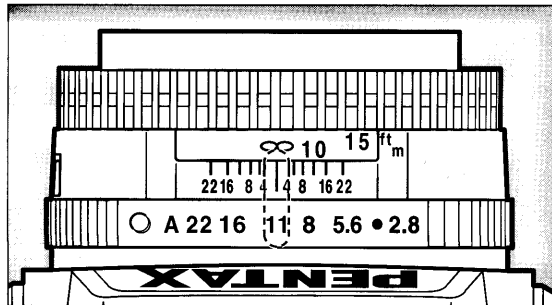
*



* Exposure Warning

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

1



Using the Aperture-Priority AE Mode

Purpose

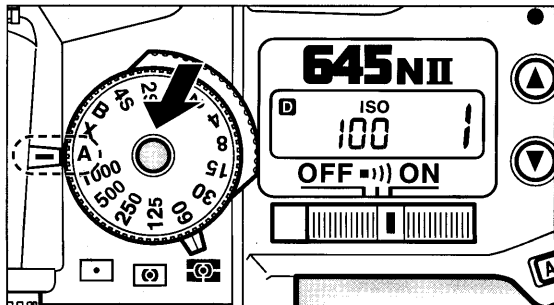
When the desired aperture is selected, an appropriate shutter speed is automatically set by the camera for a proper exposure. This mode is ideal for shooting landscapes with increased depth of field, or a portrait against a blurred background.

To set

1. Set the lens aperture ring to the desired f-stop other than [A].

- Turn the lens aperture ring while holding down the aperture-A lock button.

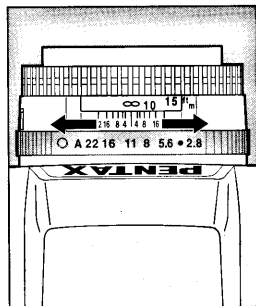
2



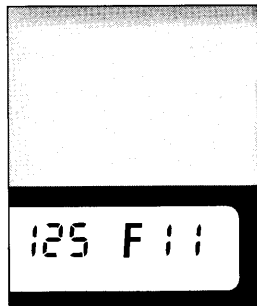
2. Set the shutter speed dial to [A].

- The shutter speed dial can be released from [A] to another position while holding down the shutter speed dial lock button.

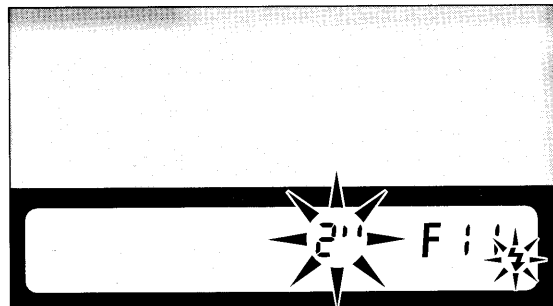
3



4



*



3. Set the desired f-stop.

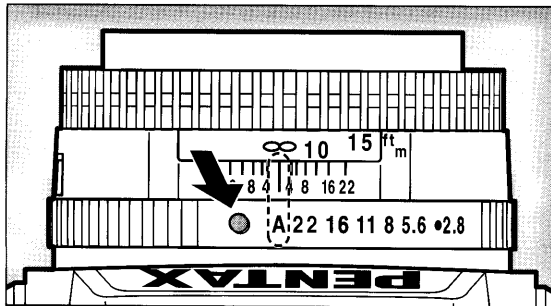
4. The f-stop that you have selected and appropriate aperture indication determined by the camera can be seen in the viewfinder when the shutter release button is depressed halfway.

- The approximate aperture indication appears in the viewfinder. It may not be the same indication as you select the lens aperture ring especially when the A645 150mm f/3.5 or A 645 45-85mm Zoom f/4.5 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.

1

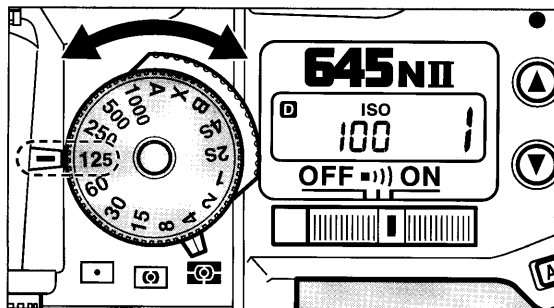


Using the Shutter-Priority AE Mode

Purpose

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.

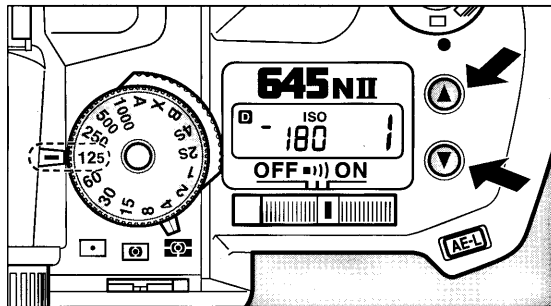
2



To set

1. Set the lens aperture ring to [A].
2. Set the shutter speed dial to a shutter speed other than [A].
 - To set the shutter speed dial to a position other than [A], turn the shutter speed dial while holding down the shutter speed dial lock button.
3. Set the shutter speed dial to the desired shutter speed.

3

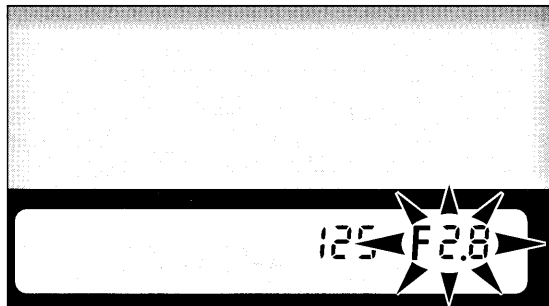


4. The shutter speed dial between 1/1000 to 4S can be set to 1/2 step by pressing the up/down button. The set shutter speed will be displayed on the LCD panel and in the viewfinder.

- If the shutter speed does not change to 1/2 step, confirm Pentax Function No. 1
- When the shutter release button is depressed halfway down, the shutter speed and the aperture value will be displayed in the viewfinder.
- In flash photography, when you use the flash sync shutter speed of 1/60 second or a non-dedicated external flash unit, set the shutter speed dial to the [X] (1/60 of second) position.

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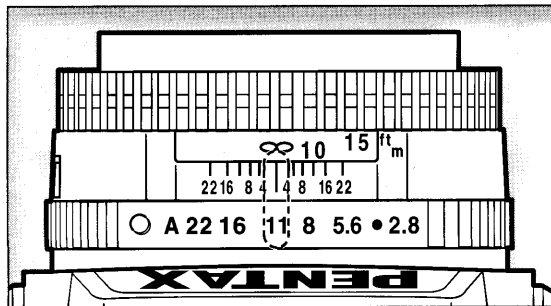
*



* Exposure Warning

If the subject is too bright or too dark, the shutter speed and aperture setting in the viewfinder blink. 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.

1



Using the Metered Manual Mode

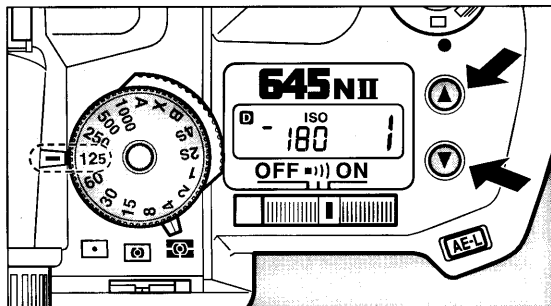
Purpose

The Metered Manual Mode is a convenient exposure mode for taking pictures using the same shutter speed and aperture setting combination, or taking creatively under or over exposed photographs.

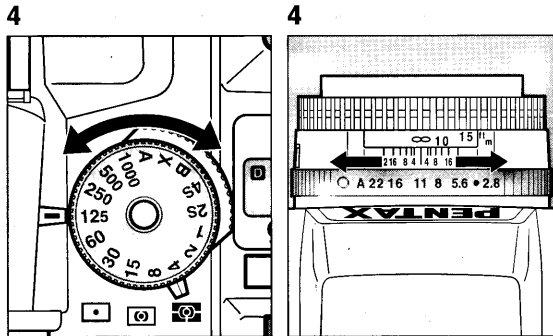
To set

1. Set the lens aperture ring to the desired f-stop setting.
- Turn the lens aperture ring while holding down the aperture-A lock button.

2



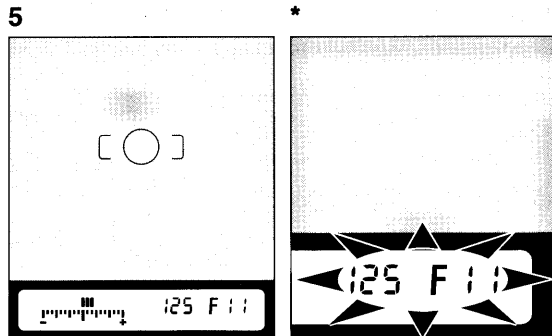
2. Set the shutter speed dial to the desired shutter speed.
3. The shutter speed dial between 1/1000 to 4S can be set to 1/2 step by pressing the up/down button. The set shutter speed will be displayed on the LCD panel and in the viewfinder.
- If the shutter speed does not change to 1/2 step, confirm Pentax Function No. 1
- To set the shutter speed dial to a position other than [A], turn the shutter speed dial while holding down the shutter speed dial lock button.
- When the 645 LS (with leaf shutter) 75mm is attached, [LS] appears on the LCD panel.



4. Turn either the shutter dial or lens aperture ring until a single bar is displayed in the center of the bar graph.

5. When the shutter release button is depressed halfway, the shutter speed, approximate aperture and bar graph will be displayed in the viewfinder.

- When the bars are displayed to the [+] side on the bar graph, it indicates overexposure and when the bars are displayed to the [-] side, it indicates underexposure.
- Moving one bar on the bar graph indicates 1/3 step (0.3EV). However, when under or over exposure is set beyond + 3 or - 3 steps (3EV), [+] or [-] indicator will blink.

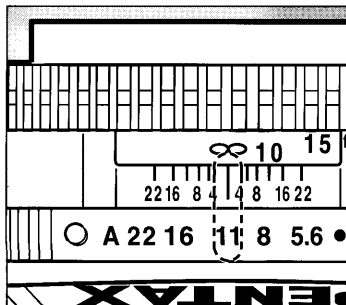


- In flash photography, when you use the flash sync shutter speed of 1/60 second or a non-dedicated external flash unit, set the shutter dial to the [X] (1/60 of second) position.

* Exposure Warning

If the subject is too bright or too dark, the selected shutter speed will blink in the viewfinder as a warning as shown. When the subject is too bright, choose a smaller aperture; when it is too dark, choose a larger aperture. When the shutter speed indication stops blinking, you can take a 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 or use a flash if it is too dark.

1



Using the Bulb Exposure Mode

Purpose

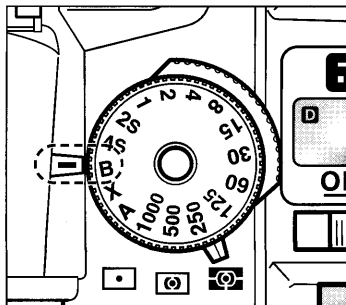
This mode is useful for the long exposures required for shooting night scenes and fireworks. The shutter remains open as long as the shutter release button is held down.

How to

1. Set the lens aperture ring to the desired f-stop other than [A] while holding down the aperture-A lock button.

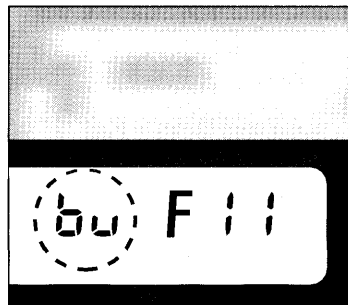
- Do not set the lens aperture ring to [A]. If doing so, the aperture will always closed to the maximum position.

2



2. Set the shutter speed dial to [B].

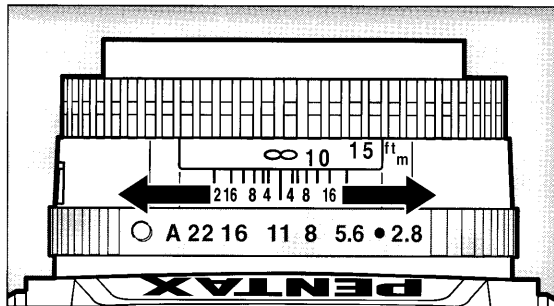
3



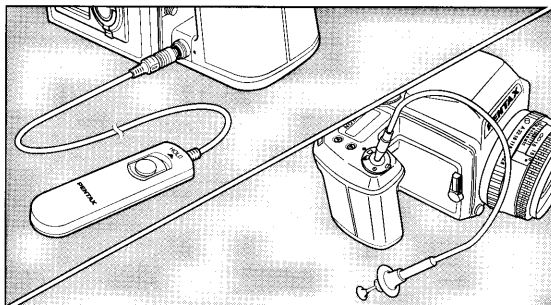
3. An appropriate aperture will be displayed in the viewfinder when the shutter release button is depressed halfway.

- Set the shutter speed dial to the [B] position. Turn the shutter speed dial while holding down the shutter speed dial lock button.
- The approximate aperture indication appears in the viewfinder. It may not the same indication as you select the lens aperture ring especially when the A645 150mm f/3.5 or A 645 45-85mm Zoom f/4.5 is attached.

4



4. Adjust the desired aperture by lens aperture ring.



- When using this mode, use a steady tripod to prevent camera shake and attach the optional "Cable Switch CS-105, CS-130" or Release Timer Switch TS-110 after removing the Release Socket Cap.
- Up to approx. 8 hours of time exposure are possible with new alkaline batteries at room temperatures.