

This manual is for reference and historical purposes, all rights reserved.

This page is copyright© by M. Butkus, NJ.

This page may not be sold or distributed without the expressed permission of the producer

I have no connection with any camera company

On-line camera manual library

This is the full text and images from the manual. This may take 3 full minutes for the PDF file to download.

If you find this manual useful, how about a donation of \$3 to: M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701 and send your e-mail address so I can thank you. Most other places would charge you \$7.50 for a electronic copy or \$18.00 for a hard to read Xerox copy.

This will allow me to continue to buy new manuals and pay their shipping costs.

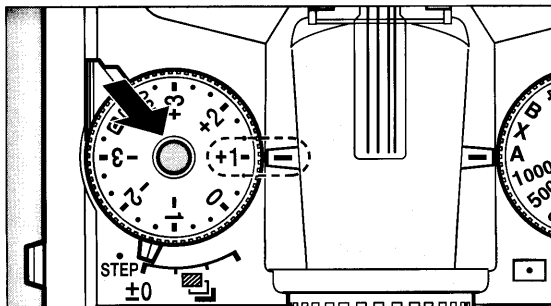
It'll make you feel better, won't it?

**If you use Pay Pal or wish to use your credit card,
click on the secure site on my main page.**

www.orphancameras.com

ABOUT EXPOSURE COMPENSATION


1



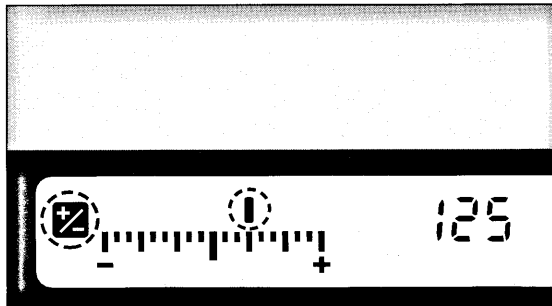
Purpose


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

To set

1. Turn the exposure compensation dial to the desired compensation value.
2. The exposure compensation dial locks at the [0] position. To set the exposure compensation dial to a position other than the [0] position, turn the exposure compensation dial while holding down the exposure compensation dial release button.
3. The bar graph indicates the compensation value and [] appear in the viewfinder.

2



- Exposure compensation does not work in the Bulb Exposure Mode.
- The exposure compensation range is -3EV to +3EV in 0.3EV step.
- The exposure compensation step can be selected from initial 0.3EV step to 0.5EV step with the Pentax Function No.5. See page 79 for more details
- When the 0.5EV step is selected, two bars above the bar graph indicate a 0.5EV step.
- When exposure compensation is used in the Metered Manual Mode, the bar above the bar graph indicates under or overexposure, it is not indicating the exposure compensation value. [] is displayed.

When you take a picture that requires exposure compensation and it may be difficult to determine the correct exposure, use this mode to make three different bracketed exposures with different exposure levels.

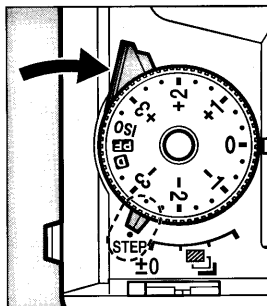
Selection of auto bracketing amount.

The auto bracketing amount can be selected either 1/3EV step or 1/2EV step.

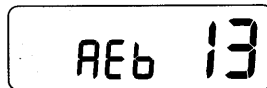
To set

1. While holding the auto bracketing selector at the STEP position, depress the up/down button to select the desired auto bracketing amount.
 - The bracketing amount can be set 13 (1/3EV step) or 12 (1/2EV step).
2. Release the finger from the auto bracketing selector. The selector returns to the ± 0 position to complete the set-bracketing amount.

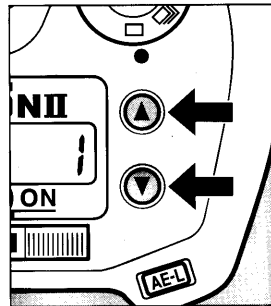
1



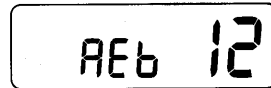
with 1/3EV set



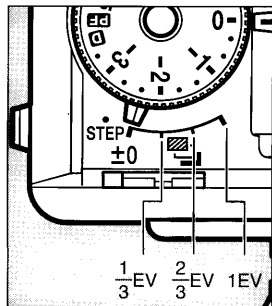
2



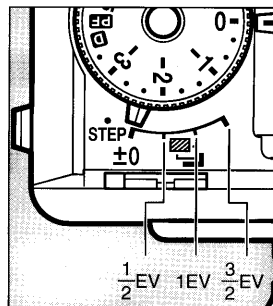
with 1/2EV set



with 1/3EV set



with 1/2EV set



1. Set the auto bracketing selector to the desired exposure compensation value.
2. Press the shutter release button fully. Three pictures are taken consecutively according to the auto-bracketing switch you have set.

- Three pictures are taken consecutively as follows.

First picture: Correct exposure

Second picture: Underexposure

Third picture: Overexposure

- The sequence of the auto bracketing exposures can be changed with Pentax Function No. 3.

- The camera automatically measures the exposure for each shot.
- The focus is locked at the first picture and remains locked until all pictures are taken.
- If you let go of the shutter release button during auto bracketing, the auto bracketing will remain effective until the viewfinder indication goes off. After that, auto bracketing exposure for the first bracketed frame will take effect.

Auto Bracketing Exposure Mode combined with the Exposure Compensation function.

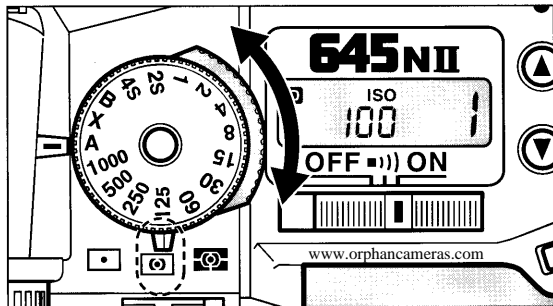
You can combine the auto bracketing exposure mode with exposure compensation function.

The auto bracketing will take effect to the set-exposure compensation amount.

Auto Bracketing Exposure Mode combined with the Metered Manual Mode.

You can combine the auto bracketing exposure mode with the metered manual mode (except X sync speed).

The auto bracketing will take effect only to the set-shutter speed. The bar graph of the metered manual mode is only displayed in the viewfinder. The bar graph of the exposure compensation value is not displayed.




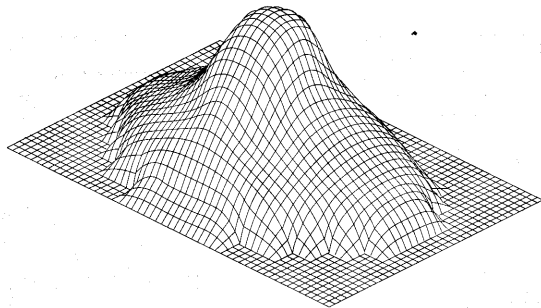
The Spot metering or center weighted metering mode can also be selected in this camera. Select the desired metering mode with the metering mode selector.

Using the Center-Weighted Metering Mode

This metering system does not automatically compensate for backlit or spotlight scenes like the Multi(6) - Segment Metering Mode. Creative exposure control is decided by the user.

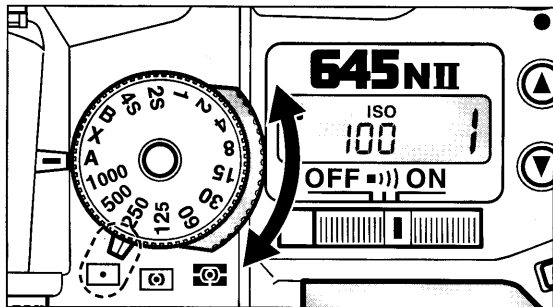
To set

Set the metering mode selector to the [] position.



- The metering pattern in the illustration above shows that the upper part of the pattern (in the center of the viewfinder) has more sensitivity to light than the lower part.
- In this metering mode, the camera does not automatically compensate the exposure in backlit or spotlight situations like the Multi (6) - Segment Metering Mode. Creative exposure control is decided by the user.

1



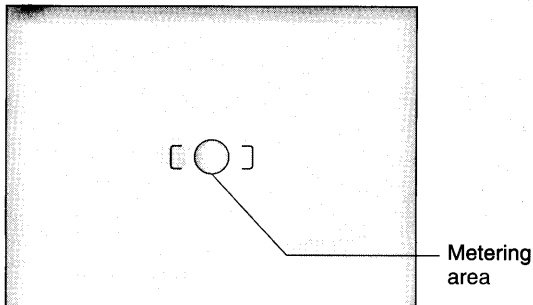
Using the Spot Metering Mode

The Spot Metering Mode measures light only in the small area in the center of the viewfinder.

To set

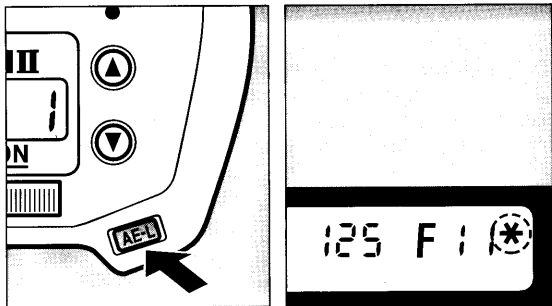
1. Set the metering mode selector to [].

2



2. Measure the small area of the viewfinder as illustrated.

- If the brightness range between area in the photograph is too great, the exposure should be determined in consideration of the overall brightness. Otherwise, the picture will come out improperly exposed.



The AE lock function enables an exposure level to be memorized before shooting. The AE lock function is very effective when used along with spot metering. Use the AE lock function to get a correct exposure when the subject occupies only a small part of the viewfinder.

Position the area to be measured in the spot metering area and press the AE lock button. The exposure level is memorized and [*] is displayed in the viewfinder.

- As soon as the AE lock button [AE-L] is pressed, and the camera stores the measured exposure level for 20 seconds. The AE lock function remains while the AE lock button is depressed.
- If the shutter release button is depressed halfway down while the AE lock timer is operating, the memorized meter reading will remain even if the AE lock button is released.
- The AE lock function cannot be used when the camera is set in the Metered Manual Mode.

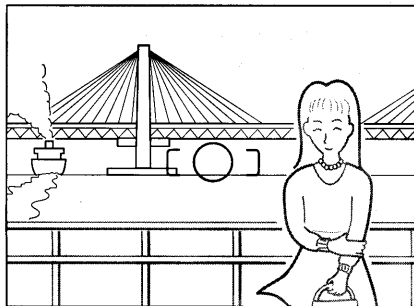
How to cancel

To cancel the AE lock function, press the AE lock button again.



FOCUS LOCK FUNCTION

1



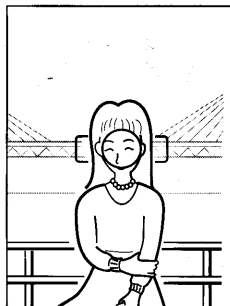
In the Spot Metering Mode, the camera focuses with the spot metering / focusing area of the viewfinder. If you shoot without positioning the spot metering / focusing area on the main subject, the main subject will not be focused properly.

Set the AF frame selector to [].

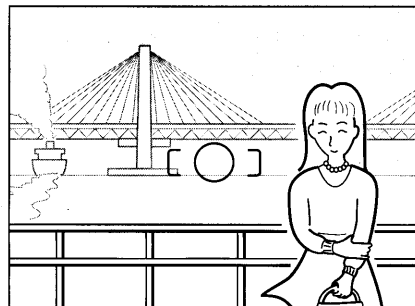
1. When the composition does not allow the autofocus frame to be placed over the most important subject, the camera will focus on the background as shown in the illustration.

- The focus lock can be used in the 3-point AF Mode and Spot AF Mode.
- The focus lock does not operate when the AF mode selector is at [C].

2




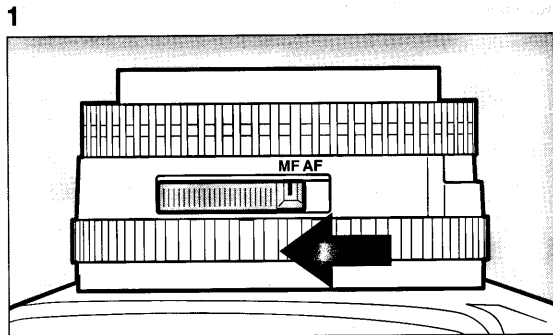
3



2. To prevent this, focus on the main subject with the spot metering / focusing area. Depress and hold the shutter release button halfway down. The in-focus indicator remains on, indicating that the focus is temporarily locked.

3. While holding the shutter release button halfway down, re-aim the camera or recompose the picture, then depress the shutter release button fully to release the shutter.

- Lifting your finger off the shutter release button clears the in-focus indicator [] in the viewfinder and cancels the focus lock function.
- To refocus on another subject, lift your finger off the shutter release button.

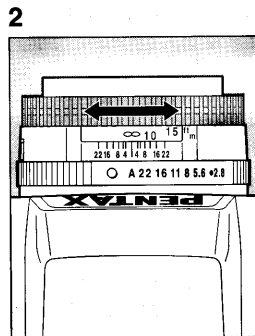



Using the in - focus indicator

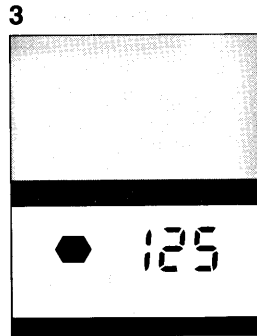
How to focus



1. Set the lens in the manual focus mode.

- Switching between the autofocus and manual focus modes depends on the lens you use. For more details, read the operating manual of the lens.




2. While looking through the viewfinder, turn the focusing ring to the right or left while holding the shutter release button halfway down.
3. When the subject comes into focus, the in - focus indicator [] lights up in the viewfinder. Press the shutter release button fully to take the photograph.



- The camera is not equipped with the focus mode selector.
- When the subject comes into focus, the focus indicator [] lights up in the viewfinder. An audible PCV signal can be heard if the main switch is set to the [] position.

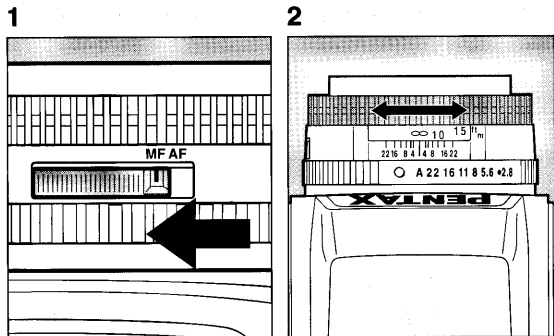
When the autofocus mode or the in-focus indicator is unsuited for focusing

When the autofocus function or the viewfinder's in-focus indicator [] cannot be used when the subject on the AF frame is difficult to autofocus. Focus the subject in the manual focus mode with the aid of the matte field in the viewfinder as you would with a non-AF SLR camera.

Notes on Accessories

The following conditions do not allow autofocus or manual focusing with the in-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. See page 58 for manual focusing.

- a) When using special effect filters or "Magic Image Attachment".
- b) When using Extension Tubes or an Auto Bellows for close-up photography.



How to focus on the subject with the aid of the matte field

- 1. Set the lens in the manual focus position.**
- 2. While looking through the viewfinder, turn the focusing ring to the right or left until the image in the viewfinder is clearest.**

HARD-TO-AUTOFOCUS SUBJECTS

The autofocus system is highly precise, but not perfect. Depending on the brightness, contrast, shape, and size of your subject, the autofocus system may not operate. In such a case, use the focus-lock technique (see page 60.) on another subject that is the same distance away, or set the lens to use the manual focus mode to focus the lens on the subject with the aid of the matte field in the viewfinder.

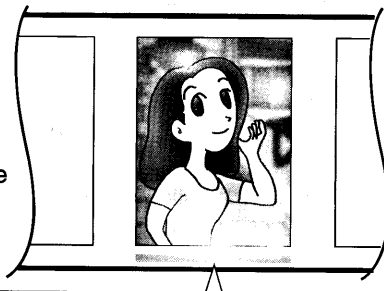
Subjects which may fool the autofocus system include:

- a) Extremely low-contrast subjects such as a white wall in the autofocus frame [☐].
- b) Subjects which don't reflect much light in the autofocus frame [☐].
- c) Subjects which are moving too fast.
- d) Multiple subjects in the foreground and background of the autofocus frame [☐].
- e) Subjects positioned against reflected light or strong backlight or with extremely bright backgrounds.

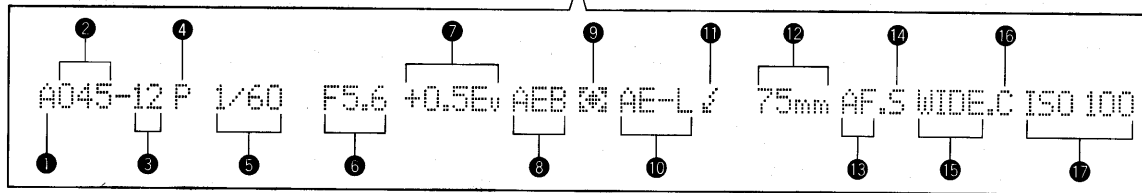
64 IMPRINTING THE EXPOSURE DATA ON THE NEGATIVE





If a 645 A- or FA lens (autofocus lens) is attached, the camera imprints the following exposure data directly on the negative, outside of the picture frame with each exposure.

- ① Characters
- ② Number of Films
- ③ Number of Frames
- ④ Exposure Mode
- ⑤ Shutter Speed
- ⑥ Aperture Setting
- ⑦ Exposure Compensation Value
- ⑧ Auto bracketing
- ⑨ Metering Mode

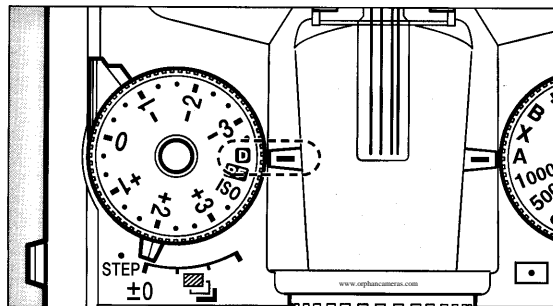


- ⑩ AE-lock
- ⑪ Flash status
- ⑫ Focal length of Lens
- ⑬ Focus mode
- ⑭ Autofocus mode
- ⑮ AF area
- ⑯ Focus point
- ⑰ Film speed

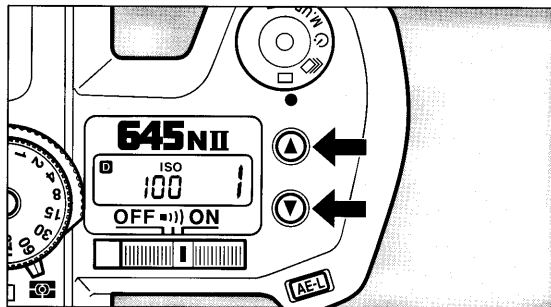


Data type	Imprinted description
Characters	Capital letter [A to G] is imprinted to identify the camera.
Number of films	[1 - 199] can be imprinted. Beyond 199, it returns to 1.
Number of frames	[1 - 99] can be imprinted.
Exposure mode	[M] (Metered Manual), [Tv] (Shutter-priority AE), [Av] (Aperture-priority AE) or [P] (Programmed AE) can be imprinted.
Shutter speed	[The shutter speed] displayed in the viewfinder is imprinted. For bulb exposure, up to [9999] seconds can be imprinted. Beyond 9999 seconds, [L. T.] will be imprinted. [LS] for lens shutter is used, [X] for when the shutter speed dial is set to the X position.
Aperture setting	[Aperture value] displayed in the viewfinder is imprinted. When the 67 lens adapter or the 645 Helicoid Extension Tube having no lens information contacts are used, [F - -] will be imprinted.
Exposure compensation value	When the exposure compensation is not enabled, [$\pm 0.0\text{Ev}$] is imprinted. The exposure compensation value for the auto bracketing is also imprinted. If both auto bracketing and exposure compensation are used, the sum is imprinted.
Auto bracketing	[AEB] is imprinted when the pictures are taken in auto bracketing mode.
Metering mode	 (Multi-segment),  (Center-weighted),  (Spot)
AE lock	[AE-L] is imprinted with the AE-lock function used.
Flash status	[] is imprinted when a Pentax dedicated flash is fired.
Focal length of lens	[Focal length] is imprinted when the FA lens is attached. When the FA zoom lens is in use, [an approximate value of focal length] is imprinted. [- - mm] is imprinted when the A-lens, rear converter or etc. is mounted.
Focus mode	[AF] is imprinted with the autofocus mode used. [MF] is imprinted with the manual focus mode used.
Autofocus mode	[S] is imprinted with Single AF mode used. [C] is imprinted with Continuous AF mode used.
AF area	[WIDE] is imprinted with the 3-point AF mode used. [SPOT] is imprinted with the spot AF mode used.
Focus point	With the 3-point AF is set, which focus point is used imprinted with L (left), R (right), or C (center).
Film speed	Set the film speed ISO 6 to 6400 is imprinted.

1



2



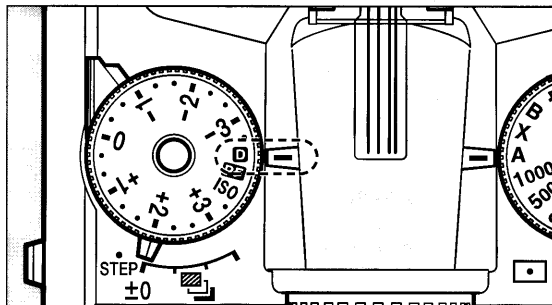
To set

1. Set the exposure compensation dial to [D]. [D] will be displayed on the LCD panel.
2. Press the up/down button repeatedly until [on] appears on the LCD panel.

If [**D**] is displayed on the LCD panel, the exposure data will be imprinted on the negative.

- With a 645 A- lens attached, the exposure data but not the focal length of the lens will be imprinted even if [**D**] is displayed on the LCD panel.
- With an accessory without the lens information contacts such as a helicoid extension tube attached, the exposure data but not the focal length and aperture setting of the lens will be imprinted even if [**D**] is displayed on the LCD panel.
- Since the exposure data are imprinted on the outside of picture frame, the data will not be seen on the actual photographs.
- The shutter cannot be released with the exposure compensation dial set at [D].

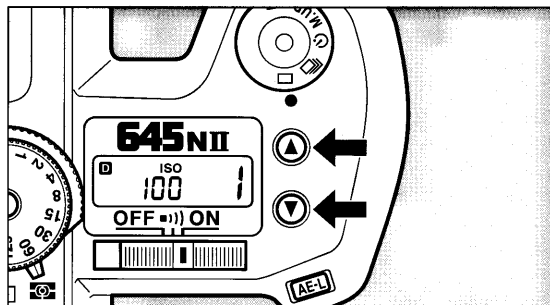
1



To cancel the Exposure Data Imprint Mode

1. Set the main switch to [ON].

2




2. Set the exposure compensation dial to [D].
3. Depress the up/down button repeatedly to display [OFF] on the LCD panel.

Using the TTL Auto Flash

1. Remove the hot shoe cover and attach a Pentax dedicated flash unit.
2. Turn the flash ON.
3. Set the flash to TTL Auto mode.
4. Confirm that the flash is fully charged.
5. Focus on the subject and release the shutter.

Auto Bracketing Exposure mode with a Pentax TTL dedicated flash

When the auto bracketing exposure mode is selected with a Pentax dedicated TTL flash in use, only the amount of flash output is varied.

- When the flash is fully charged, the ready lamp on the flash unit lights up. When the shutter release button is depressed halfway down, [] appears in the viewfinder indicating the flash is ready.
- For more details, read the flash operating manual.

Exposure Compensation with a Pentax TTL dedicated flash

When the exposure compensation is set with a Pentax TTL flash in use, it makes possible to adjust the brightness of the subject on the background and the main subject respectively.

AF500FTZ, AF330FTZ and AF360FGZ

- These flash units feature a built-in infrared spotbeam to assist the autofocus system in dim light and low-contrast conditions.
- The auto zoom function will automatically adjust the angle of discharge according to the lens focal length only when a 645 FA lens is in use.
- The AF500FTZ and AF360FGZ feature a wireless slave-sync flash function.
- The flash effective range appears on the LCD panel only when an a 645 A- lens is in use, or FA lens is in use.
- Multiple flash burst on a single frame are possible with the AF500FTZ.
- In the Programmed AE, Shutter-Priority AE, or Aperture-Priority AE, the TTL Auto Flash Mode will be set automatically even if the flash is set to Manual.
- With AF360FGZ, the picture format size can be selected depending on the camera format being used.

AF240FT, AF400FTZ

- These flash units feature a built-in infrared spotbeam to assist the autofocus system in dim light and low-contrast conditions.
- In the Programmed AE, Shutter-Priority AE, or Aperture-Priority AE: TTL Auto Flash Mode will be set automatically even if the flash unit is set to Manual.
- When the flash unit is charged and left unused for about 5 minutes, the power will automatically switch off to save battery power. Depressing the shutter release button halfway down will restart charging of the flash unit.

AF200T, AF220T, AF280T, and AF400T

- If the TTL auto mode is selected, these flash units can be used for daylight-sync shooting, because the shutter speed is adjusted according to the ambient brightness. The slower shutter speed varies according to the lens focal length. The shutter speed varies within the shutter speed range of 1/60 of second to a slower speed which does not cause camera shake. However, when a 645 A- lens is in use, the shutter speed is set to 1/60 of second. The aperture value will also be fixed but will vary depending on what ISO film is loaded.

- When using the Three-Level Auto (red, green, and yellow settings) mode, the aperture value is adjusted as shown in the table. When the flash is fully charged, the shutter speed also varies within the shutter speed range of 1/60 to a slower speed which does not cause camera shake. The slowest shutter speed varies according to the lens focal length. When a 645A - lens is use, the shutter speed will be set to 1/60 of second.

	AF200T	AF280T	AF400T
Red	f/2.8	f/4	f/4
Green	f/5.6	f/8	f/8
Yellow			f/11

with ISO 100

Multi-burst flash with the Pentax dedicated flash

When discharging more than 2 Pentax dedicated flashes, make sure that they are of the same type, combine Type A with Type B or Type C with Type D. (refer to the overview of Flash Function on page 71).

Overview of Flash Function

CAMERA FUNCTION	TYPE A	TYPE B	TYPE C	TYPE D
After the flash is charged, the camera automatically switches to the flash-sync speed.	○	○	○	○
Automatic aperture setting in the Programmed AE Mode or Shutter-Priority AE mode.	○	○	○*1	○
Flash confirmation signal in the viewfinder	○	○		
TTL auto flash	○	○	○	
Auto flash	○*2		○*3	○
Slow-speed sync in the Shutter-Priority AEMode or Metered Manual Mode	○	○	○*4	○
AF spotbeam	○	○		
Trailing-shutter-curtain sync flash	○	○		
Contrast-control flash mode	○			

TYPE A : AF500FTZ(*3), AF360FGZ, AF330FTZ

TYPE C : AF400T, AF280T, AF220T, AF200T, AF080C, AF140C

TYPE B : AF400FTZ, AF240FT

TYPE D : AF200SA, AF201SA

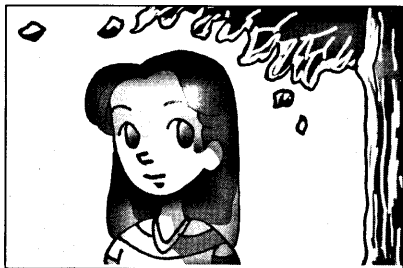
Notes:

- *1. When using a Type C flash (except AF220T) in the MS (Manual Sync) or M (Manual) modes, set the camera's exposure mode to the Aperture-Priority AE Mode, Manual or Bulb. The Program and Aperture-Priority AE Modes cannot be used because the actual required aperture value may change.
- *2. AF500FTZ and AF330FTZ do not have the auto flash capability.
- *3. AF140C and AF080C do not have the auto flash capability.
- *4. In the MS (Manual Sync) or M (Manual) mode, the Shutter-Priority AE cannot be used because the actual required aperture value may change.

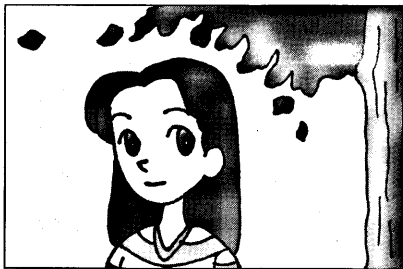
Using other type of a flash

- Use of non-Pentax flash units may damage the camera. For the best results, use a Pentax dedicated flash unit.
- Some large studio type flashes may have reversed contacts and may not fire with the 645_{NI} camera. For further information, contact the manufacturer or local supplier of the flash unit. Also, some studio flash units may not sync properly and part of the image could be blacked out by the second shutter curtain. It is recommended, for safety's sake, to use a shutter speed one step slower than flash sync speed.

DAYLIGHT- SYNC SHOOTING



Without Daylight-Sync



With Daylight-Sync

Purpose

When taking a portrait in daylight, the subject's face may be cast in shadow. The use of a flash will help eliminate the unwanted shadow.

Daylight-sync photography is accomplished in the same manner as normal flash photography, so you simply depress the shutter release button.

- If the background is too bright, it may be overexposed.

Purpose

It is possible to balance the exposure of a foreground subject against a dimly lit background by using the flash to properly expose the foreground subject and a slow-shutter-speed to expose the low light background.

To set

With the Metered Manual Mode set

1. Turn the flash on.
2. Set the camera's exposure mode to the Metered Manual Mode.
3. Select an appropriate shutter speed (slower than 1/60 of second) and aperture combination for a correct exposure.
4. Release the shutter.

To set

With the Shutter-Priority AE Mode set

1. Set the camera's exposure mode to the Shutter-Priority AE Mode.
2. Set the desired shutter speed.

- If the aperture in the viewfinder blinks, a correct exposure will not be obtained for the background. Adjust the shutter speed until the blinking stops.

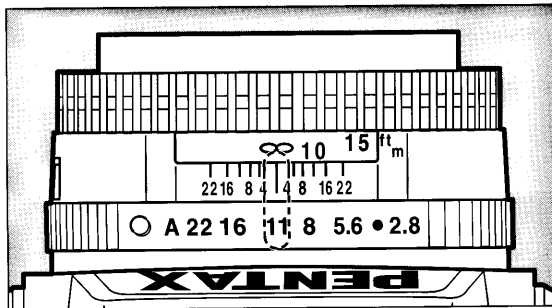
3. Turn the flash on.
4. Take the picture.

- If the power is on before the desired shutter speed is selected, the proper exposure for the background will not be obtained. Be sure to select the shutter speed before the flash is turned on.
- In the slow-speed-sync shooting, use of a tripod is recommended to prevent camera shake.



USING THE PREVIEW LEVER

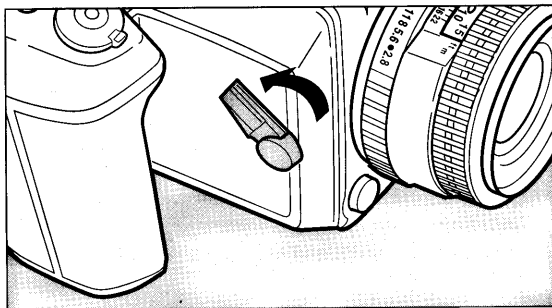
1



To confirm the depth of field in the viewfinder, depress the preview lever.

1. Turn the lens aperture ring a position other than the [A] position.

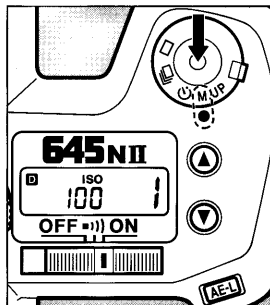
2



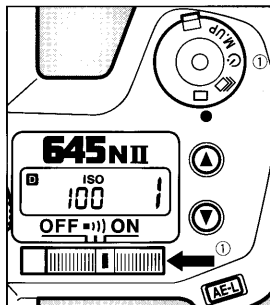
2. Depress the preview lever. The aperture will stop down to the preset value, and the depth-of-field can be confirmed through the viewfinder.

- The lens aperture is closed down while holding the preview lever.
- The shutter cannot be released while depressing the preview lever.
- The depth-of-field cannot be confirmed with the lens aperture set to [A].

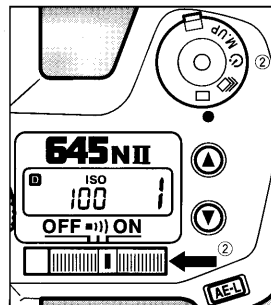
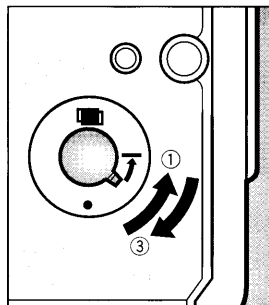
To set



To cancel 1



To cancel 2



This camera is equipped with a mirror lock-up facility.

To set

1. Set the drive mode selector to [M. UP].
2. Press the shutter release button fully to swing up the mirror.
3. Press the shutter release button again. The shutter is released.

- The exposure is locked just before the mirror goes up.
- The audible PCV signal's beeping can be enabled and will be heard with the drive mode selector set at [M. UP].

To cancel

1. With the exposure mode set to the Aperture-Priority AE mode, Metered manual mode or Bulb exposure mode:

① Set the Drive mode selector to a position other than [M. UP] or set the main switch to [OFF].

2. With the exposure mode set to the Programmed AE or Shutter-Priority AE mode:

① Set the multi-exposure switch to the ON position.

② Set the drive mode selector to a position other than [M. UP] or set the main switch to [OFF].

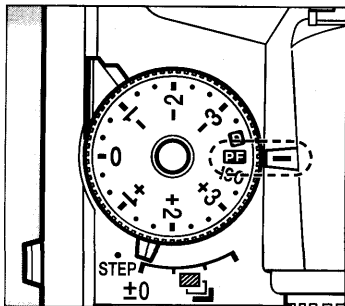
③ Set the multi-exposure switch to the original position.

Note:

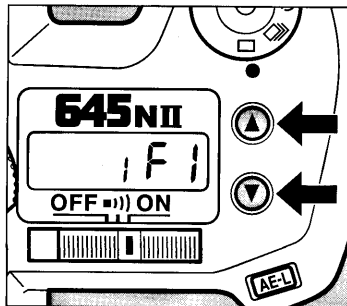
Without setting the multi-exposure switch to the ON position, the film is advanced by 1 frame when the mirror returns to the original position.

PENTAX FUNCTIONS

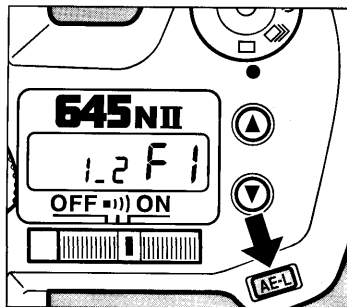
1



2



3



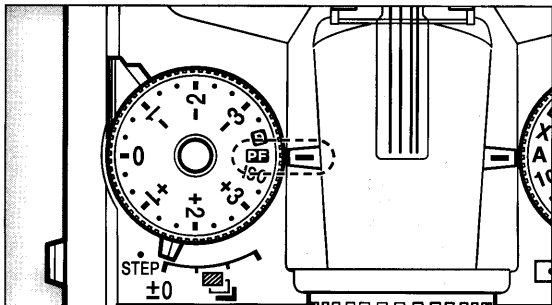
SETTING PENTAX FUNCTIONS

The camera provides 10 Pentax Functions so you can set the camera accordingly to your preferences.

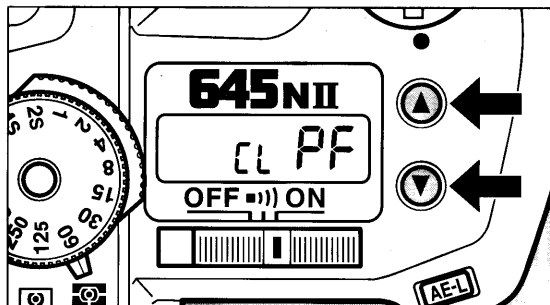
To set:

1. Turn on the camera. Set the exposure compensation dial to [PF].
 - Function No. and setting content will be displayed on the LCD panel.
2. Press the up or down button to display the Pentax Function No.F0 to F9 you want to set.
3. Press the AE-lock button to select the setting content.
4. The Pentax function No. and setting content will be set when the exposure compensation dial is set to other than [PF].
 - The shutter cannot be released with the exposure compensaion dial at [PF].

1



2



Resetting the Pentax Function

To reset all the Pentax Functions to the initial settings in the following procedures.

1. Set the exposure compensation dial to [PF].
2. Hold down the up and button at the same time for more than 2 seconds. [CL] will be displayed on the LCD panel and all Pentax Functions are reset to initial setting.

SETTING PENTAX FUNCTION

[PF 0] Imprinting the character (capital letters A – G)
If the imprinting is enabled, a capital letter can be imprinted on the negative.

If the user has more than two cameras a different letter can be set to identify the negatives from each camera.

Pentax Function No. 0

[PF 1] Setting the shutter speed step

For use with the Shutter-Priority AE or Metered Manual Mode set, the shutter speed step can be set to either 0.5 or 1 EV steps.

Pentax Function No. 1

1/2EV step (initial setting)

1.2 F 1

1.0EV step (follows the shutter speed dial)

1 F 1

[PF 2] Setting the metering timer

The metering will stay on for 10 seconds but can be changed to 20 or 30 seconds.

Pentax Function No. 2

10 seconds (initial setting)

10" F2

20 seconds

20" F2

30 seconds

30" F2

[PF 3] Setting the auto bracketing sequence

You can set the sequence of the auto bracketing exposures.

Pentax Function No.3

Proper exposure →

Under exposure →

Over exposure

... F3

Under exposure →

Proper exposure →

Over exposure

... F3

Over exposure →

Proper exposure →

Under exposure

... F3

[PF 4] Setting the self-timer delay time

The self-timer delay time can be set to 12 sec. or 2 sec. If the 2 sec. self-timer is set, the mirror is locked-up when the shutter release button is pressed and the shutter will be released after 2 seconds.

Pentax Function No. 4

Self-timer delay of 12 sec.
(initial setting)

12" F4

Self-timer delay of 2 sec.
with mirror lock-up

2" F4

[PF 5] Setting the exposure compensation step

Set the exposure compensation step 1/3EV or 1/2EV step.

Pentax Function No.5

Selecting an exposure compensation step of 0.3EV or 0.5EV

1/3EV (initial setting)

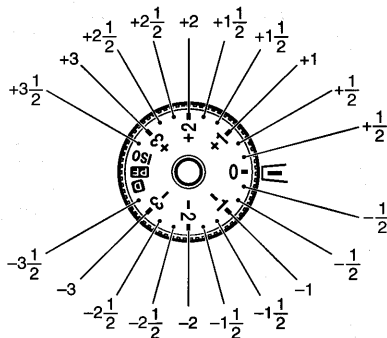
1.3 F5

1/2EV

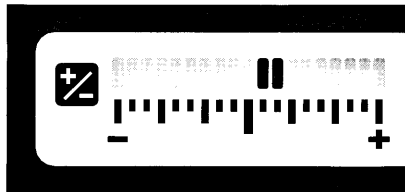
1.2 F5

With the exposure compensation step is set to 1/2

Exposure compensation can only be set to 1/2 step even if the exposure compensation dial is set to 1/3 or 2/3 steps.



In the viewfinder, when the 1/2 step is set, two bars are displayed on the bar graph.



[PF 6] Enabling/disabling the program line for shifting.

The program line of Programmed AE Mode can be shifted according to your shooting preferences.

Pentax Function No.6

Disabling the programmed line shift (initial setting)

P_{OFF} F6

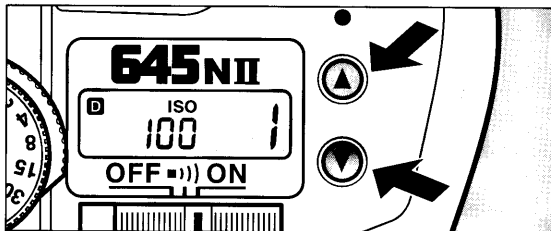
Enabling the programmed line shift

P_{ON} F6

With the programmed line shift is enabled

The programmed line is shifted 0.5EV step each time the up/down button is depressed.

Holding the button will shift the program line continuously.



- The shutter speed increases and the aperture opens up by depressing the up button. Conversely, the shutter speed decreases and the aperture closes down by depressing the down button.

- The shifted shutter speed and aperture values are displayed in the viewfinder.
- To cancel the program shift, set the main switch to OFF or change the exposure mode.

[PF 7] Setting the frame counter indication

The frame counter can be set to a count-up indication or to a count-down indication.

Pentax Function No.7

Count-up indication (initial setting)

0.. F7

Count-down indication

..0 F7

[PF 8] Enabling/disabling displaying of the number of films taken and frame counter in the viewfinder

The number of films taken and the frame counter are displayed in the viewfinder while holding the Auto bracketing selector to [STEP] position.

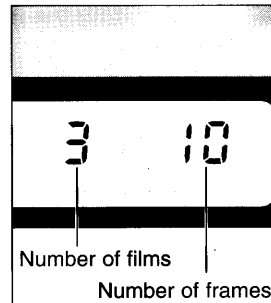
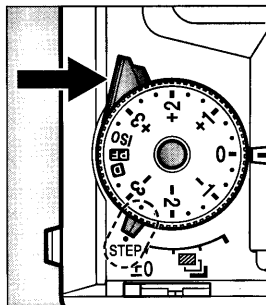
Pentax Function No.8

Disabling the display in the viewfinder (initial setting)

CoFF F8

Enabling the display in the viewfinder

Con F8



How to display

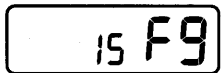
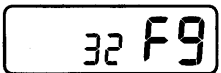
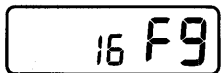
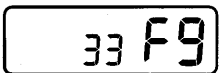
Hold the auto bracketing selector to [STEP] position.
The total number of films taken and the current exposure counter are displayed in the viewfinder.

[PF 9] Changing the number of frames taken

Changes the maximum frames can be taken when 120 film or 220 film is loaded.

Pentax Function No.9

The maximum frames can be taken is changed depending on the type of film holder is attached.

LCD panel indication		Setting contents
With 120 film back attached	With 220 film attached	
		15 or 32 frames (initial setting) With 120 film holder ... 15 frames With 220 film holder ... 32 frames
		16 or 33 frames With 120 film holder ... 16 frames With 220 film holder ... 33 frames

- With 16 or 33 frames set, the film flatness of 2nd frame may be deteriorated in the consecutive-frame mode.
- The number of frame taken can be changed before 1st frame is taken. After 1st frame is taken, the number of frames cannot be changed until the film is removed.

ACCESSORIES (OPTIONAL)

83

A number of dedicated accessories are available for this camera.

- **Cable Switch CS-105/CS-130**

A shutter release cord designed for use with the 645_{NI} and MZ-S. The length of cable for CS-105 is 50cm and CS-130 is 3m.

- **Release Timer Switch TS-110**

645_{NI} and MZ-S dedicated shutter release device for interval and timer shooting.

- **Magnifier 645**

A viewfinder accessory for magnifying the central area of the viewfinder.

- **Refconverter A**

Right angle finder which attaches the viewfinder. The viewfinder magnification can be switched from 1X to 2X.

- **AF500FTZ**

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

- **AF360FGZ**

A P-TTL and TTL auto zoom flash with a built-in AF spot beam and guide number of 36 in meters (ISO 100). It features a bounce-flash capability, slave-sync function, contrast-control-sync flash, leading/trailing-curtain-sync flash, modeling flash mode.

- **AF330FTZ**

A TTL Auto Zoom flash with a built-in AF spotbeam and guide number of 33 in meters (ISO 100). It features contrast-control-sync flash sync, leading/trailing-curtain-sync flash mode.

- **AF220T**

A TTL Auto flash with the guide number of 22 in meters (ISO 100). It features a bounce-flash capability.

- **Hot Shoe Adapter FG, Extension Cord F5P (L) and Off-Camera-Shoe Adapter.**

The adapters and cord which allow the AF240FT, AF330FTZ, AF360FGZ, AF400FTZ and AF500FTZ to be used off the camera, while maintaining full electronic coupling to the camera.

- **Macro Flash AF140C**

A TTL macro flash unit with the guide numbers 14 in meters (ISO 100).

- **Filters**

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

- **Remote Battery Pack 645**

The remote battery pack is an accessory to keep batteries warm when photographing in extremely cold temperature.

- **Film back 645**

120 film back and 220 film back are available.

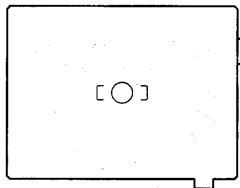
- **Quick Shoe Adapter QS-20/Quick Shoe Base QS-B1**

The camera can be attached or removed from the tripod in seconds.

www.orphancameras.com

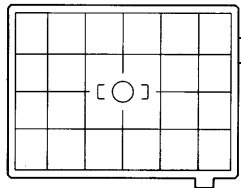
• Interchangeable screen

Four types of focusing screens including the standard focusing screen are available. (Please refer to the instruction sheets supplied with each screen for changing instructions.)



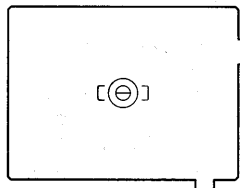
AS-80 (AF Center Spot Matte)

The standard focusing screen for general photography.



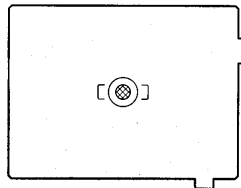
AG-80 (AF Cross-Lined Matte)

Designed to guide picture compositions. The sectional lines for horizontal and vertical are graduated in 9mm.



AB-82 (AF Sprit-Image Matte)

Matte screen with the sprit image.



AA-82 (AF Microprism Matte)

For general use, the matte screen with the microprism.

Notes on Accessories

When using an ordinary polarizing filter, a 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.

Double Cable Release

- When using the Auto Bellows 645 with 645_{NI} camera, the double cable release A is required for releasing the shutter. If your Auto Bellows 645 does not include the double cable release A, the double cable release A is available as an optional accessory.

How to attach

- 1 Attach the double cable release so that the end with the red end ring of the double cable release is connected to the socket with the red ring in the lower part of the front board of the Auto Bellows 645.
- 2 The other end fits into the shutter release button.

Adjust the double cable release so that when the double cable release is pushed with the lens set at the minimum aperture, the shutter is released after the lens is fully stopped down. If the shutter is released before the aperture is stopped fully down to its minimum. Adjust the cable so that the end with the red ring to extend further and/or the end that attaches to the shutter button to extend less.



Adjustment procedures

To extend the length, turn the knurled front ring to the left (when viewed from front end), and then turn the back knurled ring to the left (when viewed from front end) while holding the front ring.

To shorten the length, turn the back knurled ring to the right (when viewed from front), and then turn the front knurled ring to the right while holding the back knurled ring.

TROUBLESHOOTING







What appears troublesome may be easily remedied. Here are some problems that may occur and their remedies. Before contacting a Pentax service center, check the following items.


Symptoms	Causes	Remedies	Reference
The shutter cannot be released.	The last frame is exposed and wound onto the take-up spool.	Remove the film from the film back.	P.25
	The main switch is set to [OFF].	Set the main switch to [ON].	P.14
	The battery warning [] appears.	Replace the battery.	P.12
	The self-timer mode is being set.	Cancel the self-timer mode.	P.35
	The exposure compensation dial is being set to D, PF or ISO.	Turn the exposure compensation dial other than D, PF or ISO.	P.24, P.66, P.76
The exposure counter does not indicate [/].	The shutter release button is not depressed after loading the film.	Press the shutter release button after loading the film.	P.20
Indicators do not appear on the LCD panel.	The main switch is the [OFF] position.	Turn the main switch to [ON].	P.14
	No battery has been installed.	Install the batteries.	P.12
	The batteries are improperly installed	Install the batteries properly.	P.12
	The batteries are dead.	Replace the batteries.	P.12
The camera does not focus.	AF frame is not placed over the subject.	Move the camera until the AF frame [] covers the subject.	P.36
	The subject is too close.	Increase the camera-to-subject distance.	P.36
	The focus mode is set to [MF].	Set the lens in the autofocus position.	P.32
	The subject is difficult to autofocus.	Use the focus technique or focus manually using the matte field.	P.60, P.62



Symptoms	Causes	Remedies	Reference
[●] blinks in the viewfinder.	The subject is too close or difficult to autofocus.	Use the focus-lock technique or focus manually using the matte field.	P.62, P.63
[Err] blinks on the LCD panel.	The camera may be defective.	<ul style="list-style-type: none"> • Press the mid-roll wind-up button to wind the film, then consult your Pentax distributor or authorized Pentax repair shop. • [Err] indication stays on and battery warning [⏻] blinks even if the mid-roll wind-up button is pressed. In this situation, replace the battery and press the mid-roll wind button again. 	

SPECIFICATIONS

- Type:** ————— TTL autofocus, auto-exposure 6 x 4.5 format SLR camera
- Format:** ————— 56 x 41.5mm
- Usable Film:** ————— 120 roll film (16 exposures) with 120 film holder, 220 roll film (33 exposures) with 220 film holder and 70mm roll film (about 95 exposures) with 70mm film holder
- Usable Film Speed:** — ISO 12 - 6400
- Exposure Modes:** ————— Programmed AE Mode, Shutter-Priority AE Mode, Aperture-Priority AE Mode, Metered Manual Mode, Bulb Mode, TTL Flash Mode
- Shutter:** ————— Electronically-controlled vertical-run cloth focal-plane shutter, Speed range: (1) Auto 1/1000-30 sec.(stepless), (2) Manual 1/1000-6 sec.(3) Bulb,
- Lens Mount:** ————— Pentax 645 AF mount (645 A-mount with AF coupler, lens information contacts)
- Compatible Lens:** ————— Pentax 645 AF mount, Pentax 645 A-mount
- 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), Focus lock available using shutter release button, Focus Mode: CONTINUOUS (predictive AF provided), SINGLE, Manual [MF]
- Viewfinder:** ————— Keplerian telescopic viewfinder with Natural-Bright-Matte focusing screen (Interchangeable focusing screens available), Field of view: 92% vertical and 93% horizontal, Magnification:0.76X(with 75mm lens at infinity), Diopter: -3.5 to +1.5 m⁻¹, 3-point AF frame, Spot AF frame, Spot AF range
- Viewfinder Indication:** — Focus Information: In-focus (Green lamp [] is lit), front or back focus signals and unable-to-focus indicator (Green lamp blinks), Shutter speed indication, Aperture indication, Flash ready indication [] is lit, Bar graph (exposure compensation), Auto bracketing indicator, Over or Under exposure indication in Manual Exposure Mode, [] exposure compensation indication, [] AE lock indicator
- External LCD panel Indication:** — [] = possible to imprint exposure data, [] =Battery exhaustion warning, Film speed, ISO indication, Film counter
- Self-timer:** ————— Electronically-controlled type with delay time of 12 sec. or 2sec. delay when mirror lock-up in use. Start by depressing of shutter release button, Operation confirmation: By PCV beep tone. Cancelable after operation
- Mirror:** ————— Instant-return mirror with AF secondary mirror. Mirror lock-up is possible.

- Film Loading:** — 120 and 220 films semi-automatically loaded with a start mark, 70mm film automatically loaded
- Film Winding:** — Auto film winding by built-in motor with single/consecutive mode, Approx.2.0 frames/sec.(consecutive mode)
- Exposure Meter:** — TTL dual six-segment metering, Metering range from EV2 to EV21 at ISO100 with 75mm f/2.8 lens, Center-weighted and Spot metering mode can be set
- Exposure Compensation:** — $\pm 3.3\text{EV}$ in 0.3EV step increments
- Multiple Exposure:** — Via Multi-exposure switch
- Auto bracketing:** — 1/3EV step increments, 2/3EV step increments, 1EV step increments, Possible to use with exposure compensation
- Flash sync:** — Via Hot shoe with X-sync. contact with couples with Pentax dedicated auto flashes, X-sync speed at 1/60 sec., Slow shutter speed synchronization possible in Metered Manual Mode, X-sync. socket is provided, ISO range=25-800
- Exposure Data Imprinting** — Possible to imprint the exposure data on the outside of the picture frame. Characters, number of films, frame number, exposure mode, shutter speed, aperture value, exposure compensation, metering mode and focal length
- Pentax Function:** — 10 user defined functions
- Power Source:** — Six AA-size 1.5V batteries (Alkaline or Lithium battery), an optional Remote battery pack 645 is attachable with connecting the power cord.
- Battery Exhaustion Warning:** — Battery exhaustion symbol [] is lit (blinking when the shutter is locked; no indication in the viewfinder.)
- Dimensions and Weight:** — 147.0mm(W) x 109.0mm(H) x 117mm(D) (5.8"x4.3"x4.6") 1280g (45.2 oz) body only without batteries.
- Supplied Accessories:** — Body mount cap 645, Rear body cap 645, Release socket cap, Strap D, Large eye cap 645, and Hot shoe cover FK.