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INSTRUCTION BOOK
FOR FLASH PHOTOGRAPHY
WITH AF CAMERAS

WHAT'S WHAT ON THE COBRA 700AF

1. Zoom head focal length scale
2. Bounce angle scale
3. Swivel action
4. Battery compartment cover
5. Film speed selector/distance scale
6. Flash test button
7. Flash ready light
8. ON/OFF Switch
9. Auto check indicator
10. Hotshoe locking wheel
11. Flash head
12. Autofocus illuminator
13. Removable module
14. Module locking Switch

Notes* FOR EFFECTIVE FLASH PHOTOGRAPHY DO NOT OBSTRUCT PARTS 11 AND 12 WITH YOUR FINGERS. To reduce battery consumption your Cobra 700AF will switch over to standby mode after five minutes. Simply press the camera's shutter button or the test flash button (6) to restore power. For longer periods of time switch the flashgun off using the ON-OFF switch (8).

Warning: There are no user-serviceable parts in this flashgun. Extremely high voltages are generated inside the unit, so never attempt to dismantle or tamper with it. Any attempts to open the flashgun will invalidate the guarantee.

HOW TO USE COBRA 700AF

1. LOAD THE BATTERIES
Slide the battery cover (4) towards the front of the flash and insert the batteries according to the diagram inside the compartment. Close the cover by sliding it firmly back into place. Ensure that the batteries are fitted properly, and remove them when storing the gun for a long period of time. The majority of flash faults are caused by leaking or incorrectly fitted batteries. This flashgun takes four 1.5V AA size Alkaline batteries or Ni-Cad equivalent. We strongly advise against the use of zinc-carbon batteries due to their short life and tendency to leak.

Make sure the batteries are fitted correctly

2. MOUNT THE FLASH ON THE CAMERA'S HOT-SHOE
First switch off the gun. Then ensure that the flash shoe module (13) is locked in place, as marked on the flashgun. Next rotate the locking wheel (10) upwards and slide the flash shoe into the camera's hot-shoe until it's fully home. There should be no need to force it into place. Rotate the locking wheel (10) downwards to hold the flash on the camera.

Note: With Dynax version slide catch towards "LOCK"

Secure the flashgun on the hotshoe with the locking wheel

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3. SWITCH THE FLASH ON
Make sure that the camera is switched on. Then simply slide the ON/OFF switch (8) to the right. If the batteries are fresh the gun will charge up in less than 12 sec. and the ready light (7) will glow. If the gun is new, or hasn't been used for a while, fire the flash with the test button (6) a couple of times to get the flash working at full capacity.

Note: The flash exposure is controlled via the camera's Through-the-lens (TTL) and "Off-the-film" (OTF) systems. Therefore if the flash is tested on camera without a film or test card loaded incorrect flash operation will result.

4. HOW TO POSITION THE BOUNCE AND SWIVEL HEAD
The 700AF offers the advantages of a zoom head with tilt and swivel facilities.

Zoom head. By pre-setting the zoom head to match the lens in use you can obtain even light coverage with wideangle lenses and still maximise the flashgun's power output with longer lenses.

Simply set the number on the head (1) that most closely matches the focal length of the lens. So if it's an 85mm lens or longer, set 85; standard lens, set 50; 35mm lens, set 35; and 28mm lens, set 28. Don't forget to alter the zoom head when using a zoom lens.

Note: For 24mm lenses set the zoom head to 28 and fit the wideangle diffuser. This will cause slight underexposure by about 1 stop, which is not noticeable with colour print film.

Tilt and swivel. The 700AF's head can be tilted upwards and swivelled sideways to bounce the light off white or neutral coloured surfaces. This gives a much more flattering result, preventing washed-out highlights reducing harsh shadows and eliminating red-eye. The head can be tilted from 0deg (straight ahead), through 45, 60 and 75deg to 90deg (straight upwards). It will also swivel right through to 180deg, useful for bouncing the light off a wall.

5. SELECT AN EXPOSURE MODE
For simple point-and-shoot photography, leave your camera in Program mode. However, the Cobra 700AF's advanced dedication allows you to choose any other exposure mode available e.g. aperture priority, shutter priority and manual. Further details for using this flashgun with specific cameras is provided overleaf.

6. FILM SPEED SELECTOR/DISTANCE SCALE (5)
This scale can be used as a guide to maximum shooting distances, especially useful when using the camera in its TTL manual mode. The scale is not electronically connected to the flash unit and its use will not affect the flash output, which is completely controlled by the camera.

7. AF ILLUMINATOR
The 700AF has a built in autofocus illuminator (12) to enable the camera to judge the distance, and adjust the focus of the lens in low ambient light or total darkness. The illuminator fires a red light when the shutter release button of the camera is pressed. The camera can then adjust the focus of the lens and when correct will fire the shutter and the flash. The illuminator has an effective distance of 7 metres. Beyond this distance manual focus should be used.

Bouncing the flash light off a white wall or ceiling gives a more flattering result to portraits.
HOW TO USE COBRA 700AF IN DIFFERENT EXPOSURE MODES

NIKON AF CAMERAS
Nikon F401, F401S, F401X, F501, F601, F801S, F4, F90
The 700AF can be used in four modes with the above cameras. "Point
and-shoot" programmed mode, known as Program TTL (P) mode, Aper-
ture priority TTL (A) mode, Shutter priority (S) mode and Manual TTL
(M) mode where the user has control over both shutter speeds and
apertures.

PROGRAM TTL (P) MODE (Point and Shoot):
Set your camera to standard program (refer to camera's instruction
book) and switch flash on. Once charged the flash ready signal (7
lights and a flash ready symbol will appear in the camera's viewfind-
er. The exact speed will depend on the camera model.

APERTURE PRIORITY TTL (A) MODE:
This mode is useful when depth-of-field is an important factor. Set the
camera to its A position (refer to camera's instruction book) and selec-
t desired aperture.

SHUTTER PRIORITY TTL (S) MODE (Not F501):
This mode allows you to increase the background exposure for better
background detail and also creates a more natural lighting balance
between the subject and the background. Set camera to its S mod-
(refer to camera's instruction book) and select any shutter speed be-
tween the maximum sync and the B setting.

MANUAL TTL (M) MODE:
Set camera to manual M mode (refer to camera's instruction book). An
combination of shutter speed (up to the maximum sync) and aperture
may be selected. The film speed selector/distance scale (5) on the rear
of the gun can be used as a guide to maximum flash distances with
most apertures.

METERING MODES-F601, F801, F801S, F4
Flash will operate in Matrix Fill Flash, Centre Weighted Fill Flash
Centre Weighted TTL Flash, Matrix TTL flash and Spot TTL flash (F60
& F801S only). No "Background and Foreground balance compensa-
tion" facility available on F4, F801 and F801S.

The following relates to the F601 only:

AUTOMATIC BALANCED FILL FLASH
While pressing shift button press mode/balanced fill flash, balanced fill
flash symbol will appear on the camera LCD panel.

SLOW SYNC
Slow sync allows you to increase the background exposure for better
background detail and also creates a more natural lighting balance
between the subject and the background.
Operates only in P, Pr, and A modes (also in Shutter priority S mode,
see earlier section for details). Press shift button and slow button
together.

REAR CURTAIN SYNC
Press shift button and rear curtain sync button at the same time.

All models:

EXPOSURE CHECK
If the flash exposure is sufficient the auto check indicator (9) will light
up. If it fails to light and the camera viewfinder flash signal blinks as a
warning, check that you are within flash range. In aperture priority and
manual modes a larger aperture may be selected allowing more light to
strike the film.

CANON AF CAMERAS
EOS 650, 620, 600, 1, 5, 10, 100, 100F, 1000F, 850, 750, 700,
RT
The 700AF may be used with the above cameras in "Point and Shoot"
program TTL (P) mode, Aperture priority TTL (AV) mode, Shutter prior-
ity TTL (TV) mode, and Manual TTL (M) mode. Note : the EOS 850,
750 and 700 models provide TTL Programmed flash only.

NOTE: The EOS 5 and EOS 10 cameras will not operate the flash gun's
AF illuminators (12). Due to the nature of the focusing systems, these
cameras are designed to only utilise their own built-in AF illuminators.
Batteries do not need to be inserted into the optional Pro-Grip AF
accessory if used in conjunction with these cameras.

Program TTL (P) MODE (Point and Shoot)
Select the * Green Square * mode on your camera (refer to camera's
instruction book). This puts the camera into "Point-and Shoot" mode, and
can be used for general flash photography indoors and day light fill
flash outdoors. Switch on flash: once charged the ready light (7) will
glow and a flash ready symbol will appear in the camera's viewfinder. A
shutter sync speed will be set by the camera, the exact speed will
depend on the amount of ambient light present, usually the maxi-
The camera will also automatically select an appropriate aperture. In this mode daylight fill flash is controlled by the camera.

**APERTURE PRIORITY TTL (AV) MODE**

It should be noted that the EOS system is so designed that in AV mode a sync speed will not be set. The shutter speed selected by the camera solely depends on the aperture selected and the amount of ambient light present.

AV mode is useful when depth-of-field is an important factor. Switch camera on and select AV mode (refer to camera’s instruction book). Select desired aperture via the camera’s input dial and switch the flash on. The camera will select a shutter speed between 30 seconds and the maximum sync speed.

**NOTE:** If a small aperture is selected in low light conditions, the camera will set a slow shutter speed. In this case either set a larger aperture or ensure that your camera is mounted on a sturdy tripod to avoid camera shake. If the maximum sync speed in the viewfinder blinks set a smaller aperture to avoid over-exposure.

**SHUTTER PRIORITY TTL (TV) MODE**

Like AV, TV mode reads ambient light and adjusts the aperture accordingly. In low light conditions the camera will select a wide aperture or the aperture value may blink indicating that there is not enough light for a correctly exposed picture. The only method of correction is to select a slower shutter speed.

This mode allows you to increase the background exposure for better background detail and also creates a more natural lighting balance between the subject and the background. Switch camera on and select TV mode (refer to camera’s instruction book). Select desired shutter speed from the maximum sync to 30 seconds via the camera’s input dial and switch flash on. If the minimum aperture can be seen blinking in the viewfinder select a faster shutter speed. If the maximum aperture blinks select a slower one.

**MANUAL TTL (M) MODE**

Switch camera on and select M mode (refer to camera’s instruction book). Select desired shutter speed from the maximum sync to 30 seconds & B, and desired aperture. The film speed selector/distance scale (5) on the rear of the gun can be used as a guide to maximum flash distances with most apertures.

**MINOLTA DYNAX AF CAMERAS**

Dynax 3000i, 5000i, 7000i, 8000i, 2xi, 3xi, 5pxi, 5xi, 7xi, 9xi

The 700AF can be used with above cameras in “Point-and-Shoot” mode, known as Program TTL (P) mode, Aperture priority TTL (A) mode, Shutter priority TTL (S) mode, and Manual TTL (M) mode, where the user has control over both shutter speed and apertures.

**NOTE:** The 3000i has Program TTL (P) mode flash only, and the 5000i program TTL (P) mode and Manual TTL (M) mode flash only.

**PROGRAM TTL (P) MODE (Point and Shoot)**

Switch camera on and select program (P) mode (refer to camera’s instruction book). This puts the camera into a “Point-and-Shoot” mode and can be used for general flash photography. Switch flash on, once charged a flash symbol will appear in the viewfinder and the flash ready light (7) will glow. A shutter sync speed and aperture will be automatically set by the camera. The exact sync speed set will depend on the amount of available ambient light and the length of lens in use. Usually the maximum sync for your particular camera will only be set in bright conditions.

**APERTURE PRIORITY TTL (A) MODE**

This mode is useful when depth-of-field is an important factor. Switch camera on and select A mode (refer to camera’s instruction book). Select desired aperture via the camera’s rocker or dial, and switch flash on. The camera will select a sync speed depending on the Dynax model. The scale (5) on the rear of the gun can be used to give a guide to maximum shooting distances with most apertures.

**SHUTTER PRIORITY TTL (S) MODE**

Operates as per program TTL (P) mode. Shutter speed and aperture are selected by the camera.

**EXPOSURE CHECK**

If the flash exposure is sufficient, the auto check lamp (9) will light up briefly. If it fails to, check that you are within the maximum distance by using the scale (5) on the rear of the flash. In AV and manual modes a larger aperture can be selected allowing more light to strike the film.
MANUAL TTL (M) MODE
Switch camera on and select manual (M) mode (refer to camera’s instruction book). Any combination of shutter speed (up to the maximum sync) and aperture may be selected. Refer to the scale (5) on the rear of the gun to obtain maximum shooting distances.

SLOW-SHUTTER SYNC
5000i, 7000i, 8000i, 2xi, SPxi, 5xi, 7xi, 9xi
Slow shutter sync is available on the above cameras. It allows you to increase the background exposure for better background detail and also creates a more natural lighting balance between the subject and the background. Slow-shutter sync can be used in program (P) mode with all the above cameras. For other modes consult your camera’s instruction book.

Select Program or desired mode available on your camera and switch flash on. The above cameras will have either a SPOT button or an AEL button located to the right of the viewfinder. When the flash has charged a sync speed and aperture will be set by the camera. The pressing of the SPOT/AEL button will cause the camera to set a slower speed (up to slowest speed of particular model). Use a sturdy tripod with slower speeds to avoid the danger of camera shake.

NOTE:
The 700AF can be used in conjunction with certain Creative Expansion Cards (available for some Dynax models). Simply mount the flash and switch it on. The camera will select a shutter speed and aperture according to the particular card being used. If in doubt refer to your Minolta Dealer.

EXPOSURE CHECK
If the flash exposure is sufficient, the auto check indicator (9) will light up briefly. If it fails to, check that you are within the maximum distance by referring to the scale (5) on the rear of the gun. In aperture priority or manual modes a larger aperture may be selected allowing more light to strike the film.

PENTAX AF CAMERAS:
The 700AF can be used in the following exposure modes with the Z-1 and Z-20.

"GREEN SQUARE OPERATION " PROGRAMMED AE, HYPER PROGRAMMED AE, HYPER AUTOMETERED AE, HYPER MANUAL, MANUAL

the following modes with the SF7, SFX, and SFX-N

PROGRAMMED AE, SHUTTER-PRIORITY AE, APERTURE-PRIORITY AE, METERED MANUAL

and the following modes with the Z-10

PROGRAMMED AE, METERED MANUAL

"GREEN SQUARE" PROGRAMMED AE MODE (Z-1 & Z-20), PROGRAMMED AE MODE (ALL MODELS)
Select PROGRAMMED AE mode on the camera (refer to camera’s instruction book), this is useful for general photography. In this mode shutter sync speed and aperture are selected for you, any speed from 1/250th sec to 1/30th sec may be set depending on particular camera model and ambient lighting. Switch flash on and wait for the ready signal (7) to glow then simply point, focus and shoot.

Note: The 700AF will also operate with the "PICTURE" modes of the Z-20. Refer to the Z-20’s instruction book for further information.

HYPER PROGRAMMED AE MODE (Z-1 ONLY)
This mode is similar to standard program but the user has the option of altering the shutter speed and aperture without switching modes. Select HYPER PROGRAMMED AE on the camera (refer to camera’s instruction book). Initially a shutter sync speed and aperture combination will be set by camera. If desired this can be changed by using the TV and AV input dials on the front and rear of the camera. Note: a safety shift feature on the Z-1 will not allow incorrect shutter speed/aperture combinations to be set. If this happens an "S" will appear on the LCD information panel. For more information refer to the camera’s instruction book.

SHUTTER-PRIORITY AE MODE (ALL MODELS EXCEPT Z-10)
This mode allows the user to select any shutter speed from the maximum sync to the slowest speed. It is useful for increasing the back-
ground exposure for better background detail and also creates a more natural lighting balance between the subject and the background. Select SHUTTER-PRIORITY AE mode on the camera (refer to camera's instruction book) and select any shutter speed from the maximum sync to the slowest speed of particular model. The camera will select an appropriate aperture.

APERTURE-PRIORITY AE MODE (ALL MODELS EXCEPT Z-10)
This mode allows the user to select any aperture and is useful when depth-of-field is an important factor. Select APERTURE-PRIORITY AE mode on the camera (refer to camera's instruction book) and select any aperture. The camera will select a sync speed. The distance scale (5) on the rear of the gun can be used as a guide to maximum shooting distances with most apertures.
Note: The sync speed set by the camera depends on the aperture selected. A wide aperture i.e. f1.7 will usually mean a fast sync speed i.e. 1/125th sec, however selecting a narrow aperture, i.e. f16, will likely result in 1/30th sec being set.

HYPER MANUAL (Z-1 & Z-20), METERED MANUAL (ALL OTHER MODELS)
This mode allows the user to select both shutter speed and aperture. Select HYPER MANUAL/METERED MANUAL on the camera (refer to camera's instruction book) and select shutter speed and aperture desired. The distance scale (5) on the rear of the gun can be used as a guide to maximum shooting distances with most apertures, film speeds etc.
Note: The Z-1 will not allow incorrect shutter/aperture combinations to be set and an "S" will appear on the camera's LCD information panel. For more information refer to camera's instruction book.

MANUAL (BULB) (Z-1 & Z-20), BULB (ALL OTHER MODELS)
"BULB" allows the shutter to be kept open indefinitely for long exposure shots with or without flash. Select "BULB" on the camera (refer to camera's instruction book). Select desired aperture.
Note: When the 700AF flash fires in this mode the auto check indicator (9) will illuminate, this shows that the flash has correctly exposed the subject as indicated by reflected light. It is not, however, an indication of the over-all exposure, this will depend on the amount of time that the shutter remains open and the reciprocity of the film in use. Some trial and error may be required.

AF ILLUMINATION WITH 700AF Z-SERIES VERSION
A) The 700AF's illuminator (12) will only operate with the Z-10 (and only when an FA-AF "Power-Zoom" lens is fitted).
B) The Z-1 will only operate its own AF spot beam which is located next to the RTF. When AF illumination is required simply engage the RTF, focus as normal, then retract the RTF. If the RTF is left in the 'up' position there is a possibility that it will fire along with the 700AF.
C) Low light illumination is not possible with the 700AF and Z-20, regardless of lens type in use.
D) When using the 700AF and Pro-Grip with any model other than the Z-10, batteries need not be used in the grip.

IMPORTANT NOTICE:
Due to circuit board differences between the SF and Z series 700AF Pentax guns, the two are not interchangeable, i.e. an SF series 700AF cannot be used on a Z series camera, and vice versa.

EXPOSURE CHECK
If the flash exposure is sufficient the auto check indicator (9) will light up. If it fails to light, check that you are within flash range. In aperture priority and manual modes a larger aperture may be selected allowing more light to strike the film.

THE FILTER PACK
Three coloured filters, a red green and blue, plus a wideangle diffuser are included with your Cobra 700AF. These simply click onto the front of the zoom head.
Note that the coloured filters will reduce the flashgun's light output by about two stops, and the wideangle diffuser by about one stop.

WARNING: Your 700AF flashgun is dedicated to one brand of camera only. Dedication cannot be changed by simply changing the removable module (13). The flashgun's dedicated circuitry is housed in the body of the gun not the module. The module is removable only to allow use with the optional Pro-Grip AF outfit. Serious damage could result to both flash and camera if this warning is not adhered to.

Donated to www.orphancameras.com
The 700AF PRO - GRIP is an optional accessory to your flashgun. It comprises of a sturdy grip and bracket which enables the 700 AF to be used off-camera, giving much improved illumination to portraits and other subjects. All the programmed dedication between camera and gun is retained. The AF illuminator remains on the camera for accuracy and is connected to the flash with an extension lead.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedication</td>
<td>TTL operation for AF SLRs.</td>
</tr>
<tr>
<td>Guide Number (ISO 100 in meters)</td>
<td>25 (28 mm zoom head position)</td>
</tr>
<tr>
<td></td>
<td>30 (35 mm zoom head position)</td>
</tr>
<tr>
<td></td>
<td>35 (50 mm zoom head position)</td>
</tr>
<tr>
<td></td>
<td>42 (85 mm zoom head position)</td>
</tr>
<tr>
<td>Angles of coverage (V x H)</td>
<td>28 mm 53 x 70 deg</td>
</tr>
<tr>
<td></td>
<td>35 mm 45 x 60 deg</td>
</tr>
<tr>
<td></td>
<td>50 mm 34 x 46 deg</td>
</tr>
<tr>
<td></td>
<td>85 mm 23 x 31 deg</td>
</tr>
<tr>
<td>Film speed settings</td>
<td>Marked for ISO 50 - 1000</td>
</tr>
<tr>
<td>Flash duration</td>
<td>1/1000 to 1/30,000 sec.</td>
</tr>
<tr>
<td>Recyclng time</td>
<td>0.5 to 12 sec.</td>
</tr>
<tr>
<td>Number of flashes</td>
<td>Over 80 per new set of alkaline batteries.</td>
</tr>
<tr>
<td>Power source</td>
<td>4 x AA size alkaline batteries or Ni-CAD equivalent.</td>
</tr>
<tr>
<td>Accessories</td>
<td>Wide-angle diffuser and three colour filters.</td>
</tr>
</tbody>
</table>

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