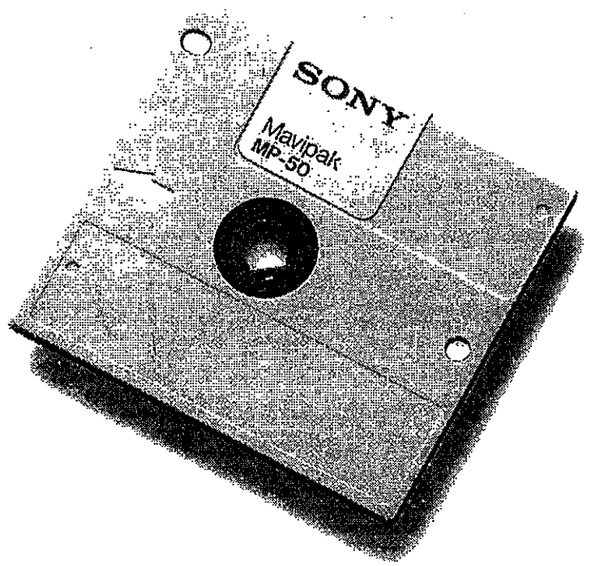


Sony Corporation Printed in USA

SONY

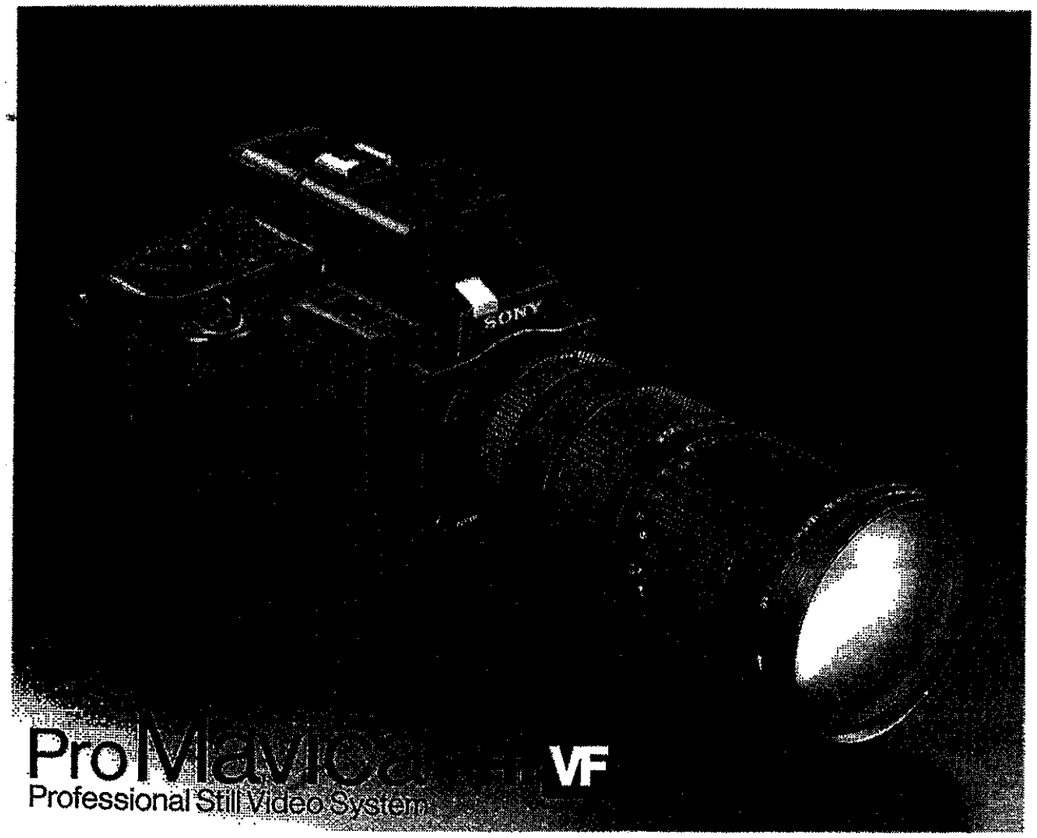
3-751-213-26 (1)

Still Video Camera Recorder

MVC-5000

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.



(The MCL-913T zoom lens is optional.)

Owner's Record

The model number is located on the side panel and serial number is located at the bottom. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. MVC-5000
Serial No. _____

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To reduce the risk of fire, do not remove cover (or back).

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing devices pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Caution
Television programs, films, video tapes and other material may be copyrighted.
Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

The export of this product is subject to the authorization of the government of the exporting country.

Hi VF is the common mark of the Hi-Band Still Video Floppy System.

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Precautions

On safety

- Should any solid object or liquid fall into the unit, turn off the unit and detach the battery pack or AC adaptor, and have it checked by qualified personnel before operating it any further.
- Detach the battery pack from the unit if it will not be used for a long time.

On operation

- For "once-only" events, it is strongly recommended to have a trial shooting to check that everything is working perfectly.
- Remove disks from the unit after use.
- Avoid using and storing the unit in the following locations.
  - Locations susceptible to vibration.
  - Locations exposed to strong magnetic fields.
  - Locations near TV or radio transmitters where strong radio waves are generated.
  - Locations near a heat source such as a radiator or air duct.
  - Locations subject to direct sunlight, excessive dust or moisture.
  - Locations near AM tuners or receivers. (Noise may occur.)
- Avoid rough handling or mechanical shock to the unit. Be careful in handling the lens.
- When the unit is used at the beach, special care should be taken to keep the unit from getting wet with sea water.

On cleaning

- Clean the casing, panel and controls with a dry soft cloth, or soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine, which might damage the finish.

On moisture condensation

- If the unit is brought directly from a cold to a warm location, moisture may condense inside the unit or on the disk. If moisture is present, the [disk] indication lights up in the display window when the power is turned on. Should this occur, the unit may not operate correctly and may be damaged. In this case, eject the disk and leave the unit with the disk holder open until the [disk] indication goes off.

If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

For the customers in the U.S.A.
For detailed safety precautions, see the leaflet 'IMPORTANT SAFEGUARDS'

Introduction

Overview of the MVC-5000 Still Video Camera Recorder

The MVC-5000 is a Hi-band still video camera recorder.
You can record the still images on a compact 2-inch still video floppy disk. Since the pictures are recorded on a disk, you can see the recorded pictures immediately on a monitor screen without any chemical processing. Moreover, you can add audio to the still pictures.
For playback, you need the optional MVP-660 still video player (for video/audio playback), or the MVR-5600 still video recorder (for video playback).

Your unit has the following features:

Incorporated HI-band format and two-chip CCD assure production of high quality pictures
The MVC-5000 complies with the Hi-band format, as well as the normal band format of the Still Video Floppy System. The HI-band format produces high quality pictures (horizontal resolution of 500 lines). In addition, the MVC-5000 incorporates two CCD chips, one for sending the Y (luminance) signal, and the other for sending the C (chrominance) signal.

Interchangeable lens system allows you to shoot under various conditions
You can shoot pictures under almost all conditions using the optional 13 times zoom lens (MCL-913T) with macro function. In addition to the standard zoom lens, you can attach the Nikkor lenses for a 35mm film camera to the unit, using the optional lens adaptor (MCL-200N).

You can transmit the recorded pictures to a distant location
The recorded pictures can be transmitted instantly over the telephone lines, using the digital information handler (DIH-2000, optional). And the transmitted pictures can easily be reproduced as a hard copy. In this way, you can take full advantage of the pictures.

You can record audio to accompany the still pictures
Your unit has a built-in microphone, so you can add sound or comments to the still pictures. The added audio can be played back associated with the still pictures, making the pictures more effective.

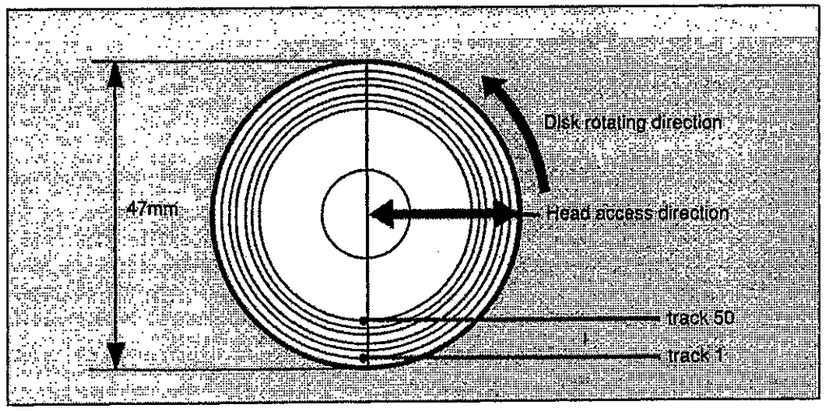
You can monitor the pictures being recorded on a monitor screen
Since your unit is equipped with a video output connector, you can use the unit as a video camera. If you connect the unit to a monitor, you can confirm the pictures being recorded on a monitor screen. If you press the shutter release button, the still picture is recorded on a disk. This function is useful, for example, when you use the unit in a studio.

Getting to Know the Still Video Floppy System

If you could look inside a still video floppy disk

The disk used conforms to the Still Video Floppy System. A still video floppy disk has tracks 1 through 52 running from the outside in. Tracks 1 through 50 are assigned for video and audio recording. And track 51 is defined unused, and track 52 is defined as a cue track but cannot be used with this unit.

Recording side



How the picture is recorded on a floppy disk

The pictures are recorded on tracks on a still video floppy disk.
Each picture is recorded either as a FRAME or a FIELD. When FRAME is selected, each picture is recorded on two tracks, therefore, you can record up to 25 pictures on a disk. And when FIELD is selected, each picture is recorded on one track. So if you want to record as many pictures as possible, you can get up to 50 pictures on a disk, as each picture is recorded on one track. In this case, the pictures become less detailed compared with the pictures recorded on two tracks. However, the sensitivity of the FIELD-recorded pictures is superior to that of the FRAME-recorded pictures. Both FRAME and FIELD pictures can be present on a disk.

How the sound is recorded on a floppy disk

The sound can be recorded through the built-in microphone or an external microphone. The sound is not recorded on the same track as the picture. However, if you record the sound right after you have recorded a picture, the sound associated with the picture can be heard during playback.
The sound is recorded in monaural. The length of the sound you can record with this unit is up to 9.6-second/track. And if you record the sound only, the total length of the sound is 480 seconds using 50 tracks.

How to Use This Manual

This manual will help you get to know your unit and take full advantage of your unit. The manual is divided into four sections; Introduction (this section), Getting Started, Procedures and Reference.

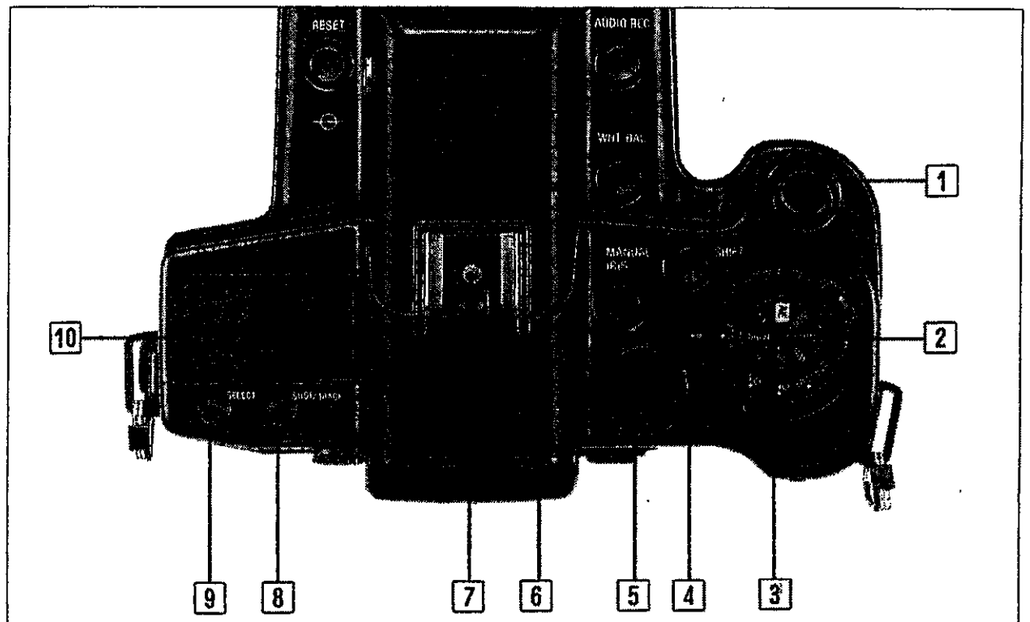
In the Getting Started section, we show you the preparations you need to do before operation.

In the Procedures section, we explain the basic operations. In addition to the operations that are similar to those of a film camera, there are operations particular to the still video camera recorder.

In the Reference section, you can find information on advanced operations or special effects.

Location and Function of Controls

For details, refer to the pages indicated in ●.



1 **WHT BAL (white balance) button** ●36
Press to set the white balance manually.

2 **Mode dial**
Turn the dial to set the following items.
AE: Programmed AE/Shutter speed priority AE/Aperture priority AE/Manual
(When using with the MCL-913T zoom lens)
EV (exposure value): ±3 EV of exposure value, adjustable in 0.5 EV step
DRIVE: Single/Continuous/Self-timer/Interval
SKIP: Selecting tracks
AUDIO: On/Off/Reserving a track
WB (white balance): Auto/Memory/5800 K/3200 K
FR/FLD: FRAME/FIELD
SENS (sensitivity): Normal/x1/2/x2

3 **Main switch** ●30
Functions as the power switch of this unit.
ON: The power is turned on.
OFF: The power is turned off.
STANDBY: The unit enters the standby mode.
V OUT: The units outputs the video signal.

4 **SHIFT button** ●32
Press to set the item selected with the Mode dial.

5 **Shift dial** ●32
Turn to select the item set by the Mode dial.

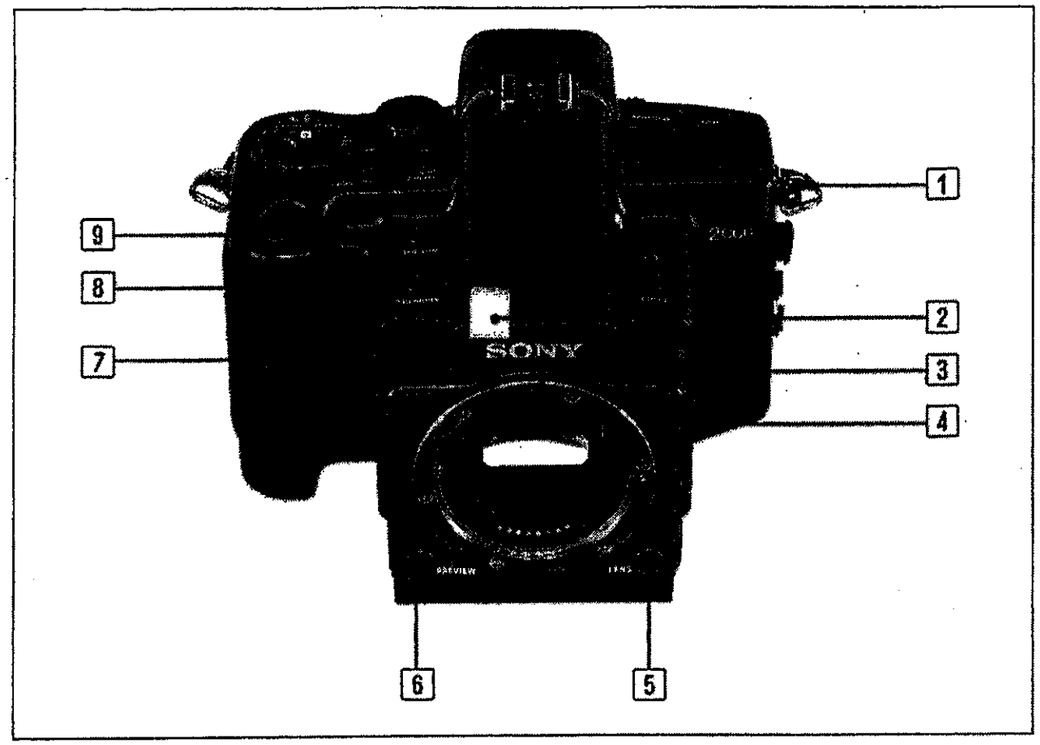
6 **MANUAL IRIS button** ●34
Press to adjust the aperture value manually.

7 **Accessory shoe** ●34
Attach the optional MFL-30 electronic flash.

8 **SHOT/TRACK button** ●60
Press to display the number of remaining shots (SHOT) or the present track number (TRACK).

9 **SELECT button** ●42, ●64
Press to set the recording date or time. And press to set the interval time for the interval recording.

10 **Display window**



[1] **Shoulder strap hook** (19)

[2] **Automatic white balance sensor** (58)
Senses the color temperature of the ambient light.

[3] **Lens mounting guide** (16)
Align the red dot of the lens here when mounting the lens.

[4] **Self-timer lamp** (41)
Blinks in self-timer recording.

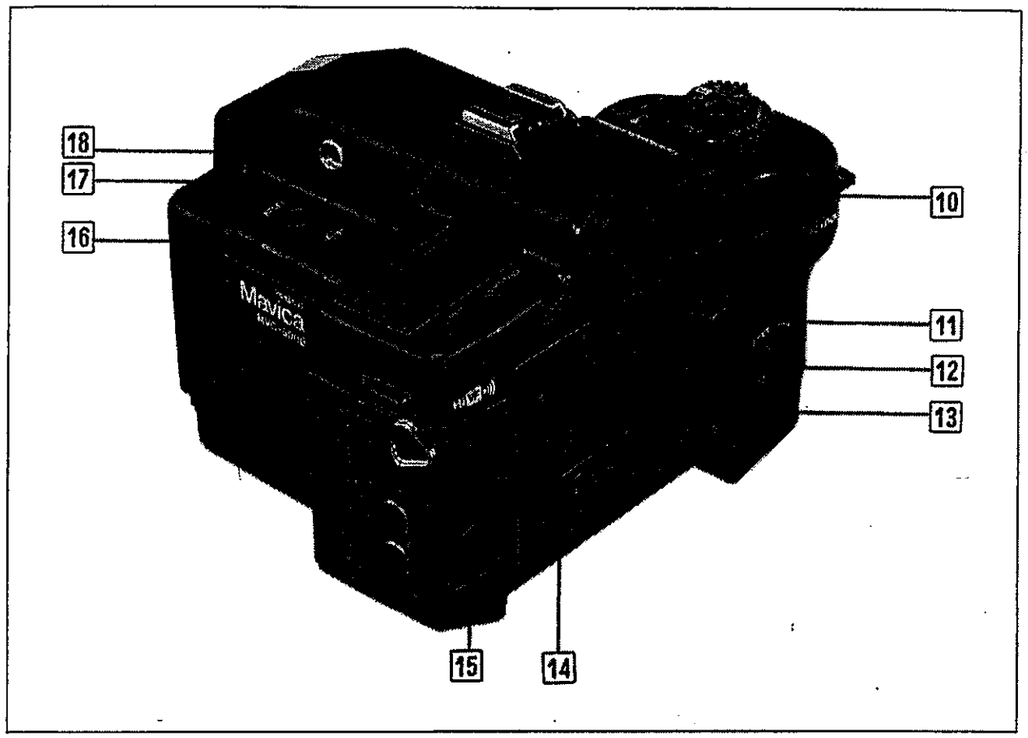
[5] **LENS release button** (16)
Press to detach the lens.

[6] **PREVIEW button** (62)
Press to confirm the depth of field.

[7] **Grip**

[8] **AUDIO REC (audio recording) button** (47)
Press to record audio.

[9] **Shutter release button** (28)
A three-position push button. Touch the button lightly to set the unit to stand by when the Main Switch is set to ON. Press it completely to shoot a picture.



[10] **AE LOCK button** (53)
Press to lock the AE when the brightness of the main subject is extremely different from that of the background.

[11] **Disk holder lock button** (24)
Press to close the disk compartment.

[12] **EJECT (disk eject) lever** (24)
Slide to remove the disk.

[13] **Disk ready lamp** (23)
Lights up for several seconds until the unit is ready for shooting when you first insert a disk. And lights up when you touch the shutter release button lightly, or the unit is in the standby mode. And lights up also while recording audio. When you eject the disk, wait until this lamp goes off.

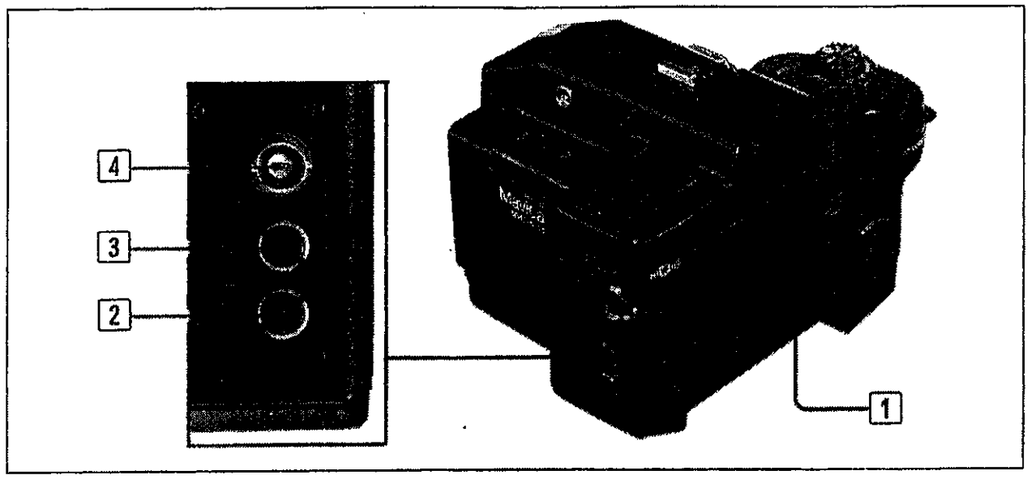
[14] **Viewfinder lens adjustment dial** (17)
Turn to adjust the position of the viewfinder lens.

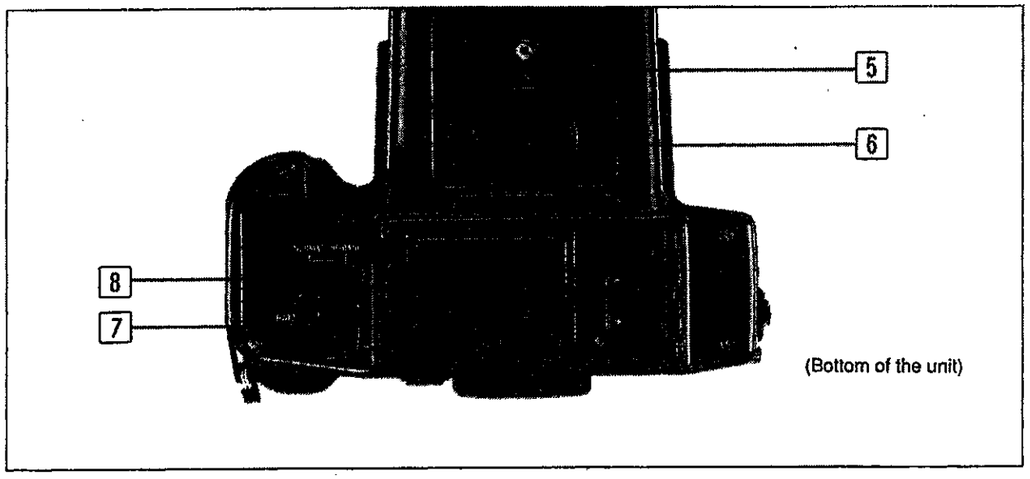
[15] **Built-in microphone** (47)
Omni-directional microphone, which picks up the operator's voice in recording.

[16] **RESET button** (28)
Press to reset the following items to these basic settings.
AE: Programmed AE (with the MCL-913T zoom lens), Aperture priority AE (with a Nikkor lens, using the MCL-200N lens adaptor)
EV: No exposure compensation
SENS: Normal
FR/FLD: FRAME
DRIVE: Single
WB: Auto white balance
AUDIO : Off

[17] **Eyepiece shutter lever** (60)
Slide the lever down to prevent light from entering the unit through the eyepiece when shooting in self-timer or in interval recording.

[18] **Flash outlet (X terminal)** (57)
Attach a flash other than the Sony MFL-30 electronic flash (optional).





(Bottom of the unit)

[1] **Viewfinder**

[2] **REMOTE jack (special minijack)** ⑱
Connect the optional RM-S7 remote control unit.

[3] **MIC (external microphone) jack (minijack/plug-in-power)** ⑲
Connect an external microphone equipped with a miniplug.
When a microphone is plugged in, the built-in microphone is disconnected automatically.

[4] **VIDEO OUT connector (BNC)** ⑫
Connects to the video input connector of a monitor or a video cassette recorder.

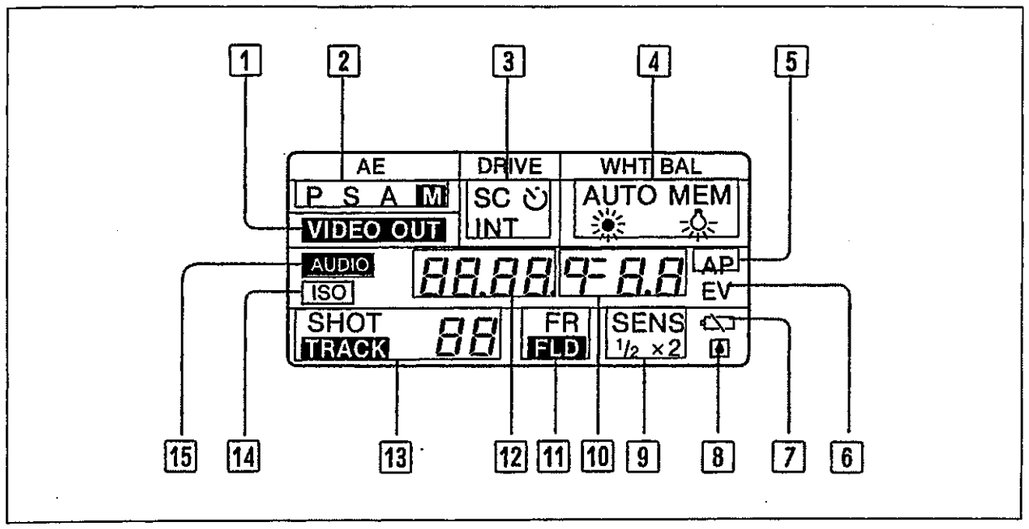
[5] **Tripod receptacle** ⑯

[6] **Lithium battery holder** ㉓

[7] **BATT (battery) eject lever** ⑬
Slide to eject the battery pack.

[8] **NORMAL/HI-BAND select switch** ⑥①
Set to HI-BAND for recording in the Hi-band format. And set to NORMAL for recording in the normal band format.

Indications in the Display Window



The illustration shows all the indications. For details, refer to the pages indicated in ●.

[1] **VIDEO OUT** ⑫
Displays when the Main switch is set to V OUT.

[2] **AE (automatic exposure control) mode indications** ㉜
Displays the selected exposure.
P : Programmed AE
S : Shutter speed priority AE
A : Aperture priority AE
M : Manual

[3] **DRIVE mode indications** ㊶
Displays the selected drive mode.
S: Single recording
C: Continuous recording (approximately 3 shots/second)
: Self-timer recording
INT: Interval recording

[4] **WHT BAL (white balance) indications** ㉟
Displays the selected white balance.
AUTO: Automatic
MEM: Memory
: 5800 K (sunlight)
: 3200 K (incandescent lamp)

[5] **A/P (a.m./p.m.) indications** ㊺

[6] **EV (exposure compensation value)** ㊴
Displays when the exposure is compensated. The compensated value is displayed where the aperture value is displayed.

[7] **Battery alarm** ⑳
Blinks when the battery becomes weak. Lights up when the battery is exhausted.

[8] **indication** ④
Moisture has condensed inside the unit.

[9] **SENS (sensitivity) indications** ㊵
Displays × 2 when you increase or 1/2 when you decrease the sensitivity.

[10] **Aperture value indications/Exposure compensation value indication** ㉞, ㊴
Displays the aperture value, and displays the EV value when the exposure is compensated.

[11] **Recording mode indications** ㊹
FR: FRAME recording
FLD: FIELD recording

[12] **Shutter speed indication** ㉝
Displays the shutter speed when you touch the shutter release button.

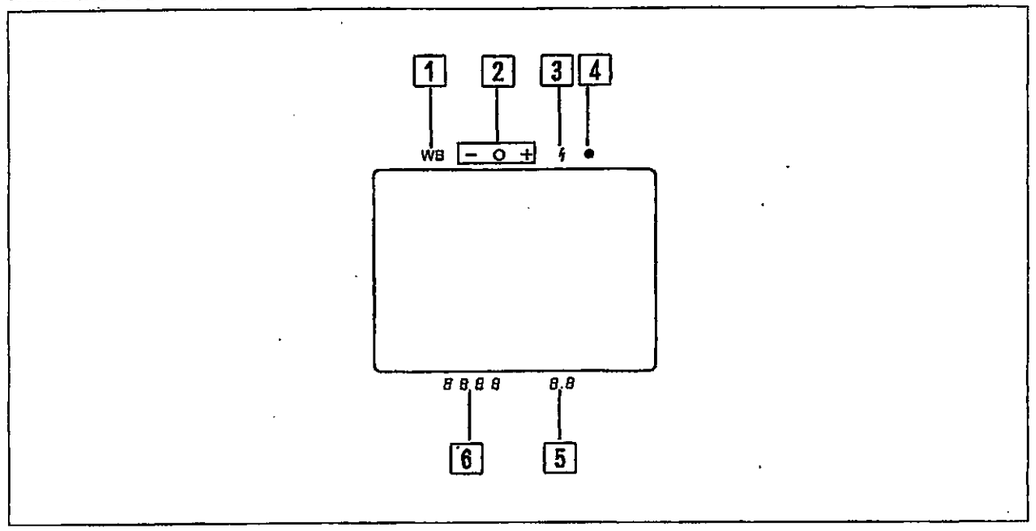
[13] **SHOT/TRACK indication** ㊿
Displays the remaining shots with the SHOT indication and the present track number with the TRACK indication. The TRACK indication blinks when you skip the tracks.

[14] **ISO indications** ㊵, ㊹
Displays the ISO value when selecting FR/FLD (FRAME/FIELD) and SENS (sensitivity).

[15] **AUDIO** ㊼
Lights up when recording audio is possible.

Location and Function of Controls

Indications in the Viewfinder



The illustration shows all the indications which appear when you touch the shutter release button lightly.

1 WB indication 38
Blinks when the white balance readjustment is required.

2 Exposure indications 35
+: Over exposure (more than +0.375 EV)
O: Appropriate exposure (within ±0.125 EV)
–: Under exposure (more than –0.375 EV)
+ and O: Over exposure (within +0.375 EV)
– and O: Under exposure (within –0.375 EV)

3 ϟ (charge-up) indication (red) 55
Lights up when the optional MFL-30 electronic flash is connected and the flash is charged.

4 EV/Sensitivity indication (orange) 49, 40
Lights up when the exposure value or sensitivity is compensated.

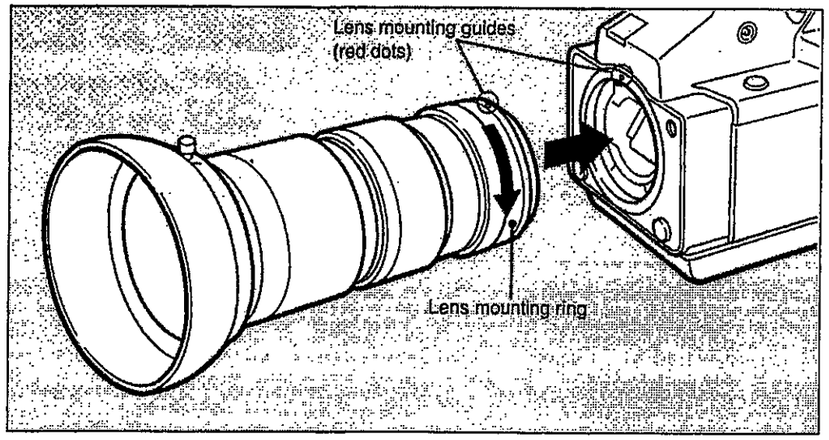
5 Aperture value indication 29
Displays the aperture value (F1.8 – F22 with the MCL-913T zoom lens) with 1/2 EV step.

6 Shutter speed indication 29
Displays the shutter speed (1/8 – 1/2000 sec.).

Getting Started

Attaching a Lens

Attaching the MCL-913T Zoom Lens (optional)



For details, see the instruction manual of the MCL-913T.

1 Remove the dust cap.

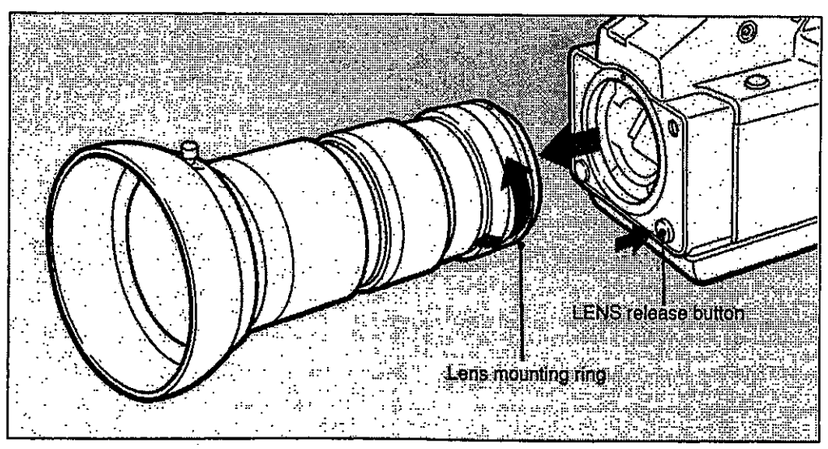
2 Align the mounting guides on the lens and camera, and insert the lens into the lens mount.

Do not turn the macro ring when mounting. Turn the lens mounting ring only.

3 Tighten the lens mounting ring in the direction of the arrow and tighten the lens until it clicks.

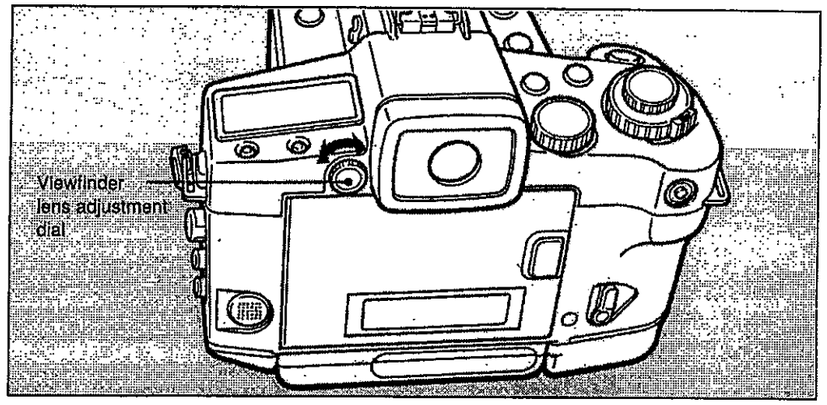
Detaching the MCL-913T Zoom Lens

Turn the lens mounting ring and detach the lens while pressing the LENS release button.



Adjusting a Viewfinder

You need to adjust the position of the viewfinder lens, as optimum vision varies from person to person. Adjust it when you use the unit for the first time. Turn and adjust the viewfinder lens adjustment dial until the circle inside the viewfinder comes into sharp focus.



Attaching a Telephoto Lens for a 35 mm Film Camera

If you use the MCL-200N lens adaptor (optional), you can attach Nikkor telephoto lenses made for 35 mm film cameras. For the lenses usable with this unit, see the following list. The exposure control systems you can use when you attach a Nikkor lens are Aperture priority AE(A) and Manual (M). We recommend you have a trial shooting and confirm the exposure.
For details, see the instruction manual of the MCL-200N lens adaptor.

Note
If the lens you attach to the unit is designed for the auto focusing system, you cannot use the auto focusing system on the unit.

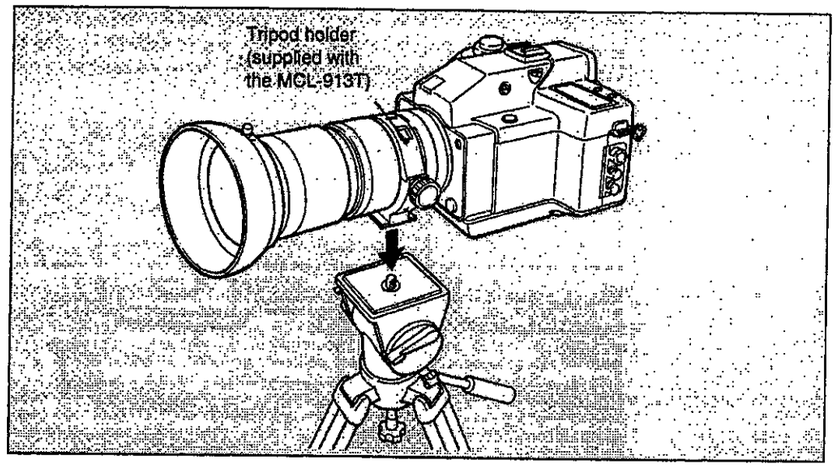
Usable lenses

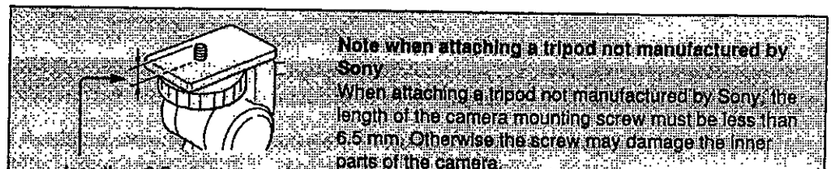
Listing below are the Nikkor lenses which you can use with the MVC-5000. (Other lenses with focal length of more than 400 mm can be attached also.)

Al Micro Nikkor 105 mm F4S	Al Nikkor ED 400 mm F5.6S (IF)
Al Nikkor 135 mm F3.5S	Al Nikkor ED 400 mm F3.5S (IF)
Al Nikkor 135 mm F2.8S	Al Nikkor ED 400 mm F2.8S (IF)
Al Nikkor ED 200 mm F2S (IF) <NEW>	Al Nikkor ED 600 mm F5.6S (IF) <NEW>
	Al Nikkor ED 600 mm F4S (IF) <NEW>
Al Nikkor ED 300 mm F4.5S (IF)	Al Nikkor ED 800 mm F8S (IF)
Al Nikkor ED 300 mm F2.8S (IF) <NEW>	Al Nikkor ED 1200 mm F11S (IF)
	Reflex Nikkor 500 mm F8 <NEW> (Use without the filter.)
Al Nikkor ED 300 mm F2S (IF)	Reflex Nikkor 1000 mm F11 (Use without the filter.)
Al AF Nikkor ED 300 mm F4.5S (IF)	Reflex Nikkor 2000 mm F11 (Use without the filter.)
Al AF Nikkor ED 300 mm F4S (IF)	Al AF Zoom Nikkor 80 – 200 mm F2.8S
Al AF Nikkor ED 300 mm F2.8S (IF) <NEW>	Al Zoom Nikkor 100 – 300 mm F5.6S

Attaching a Tripod

Use the tripod holder supplied with the MCL-913T zoom lens to stabilize the unit. For attaching the tripod holder, see the instruction manual of the MCL-913T.



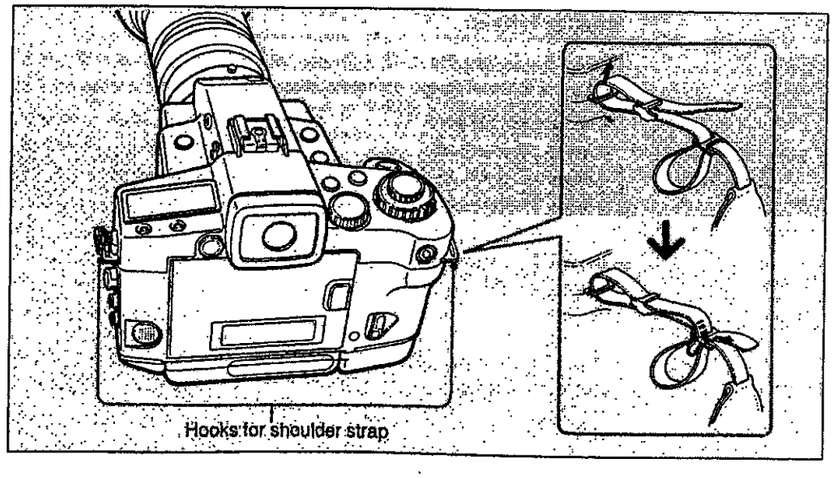


Note when attaching a tripod not manufactured by Sony

When attaching a tripod not manufactured by Sony, the length of the camera mounting screw must be less than 6.5 mm. Otherwise the screw may damage the inner parts of the camera.

Attaching a Shoulder Strap

Use the supplied shoulder strap.



Preparing the Power Sources

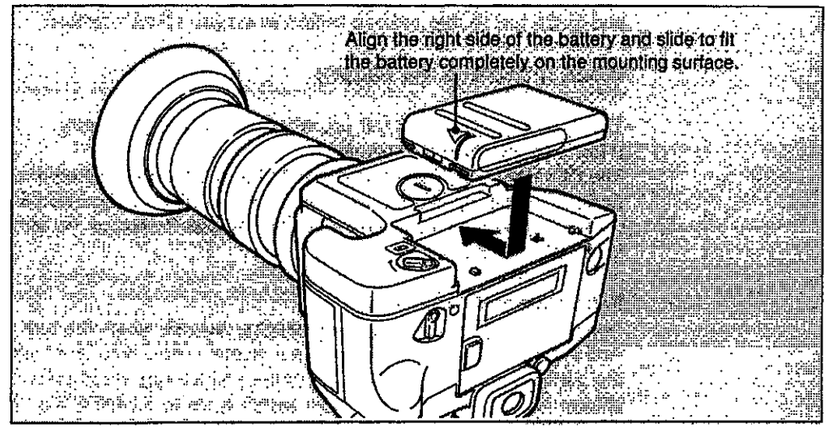
You can select the power source from among the battery operation, AC power operation, and the car battery operation.

Using the Rechargeable Battery Pack

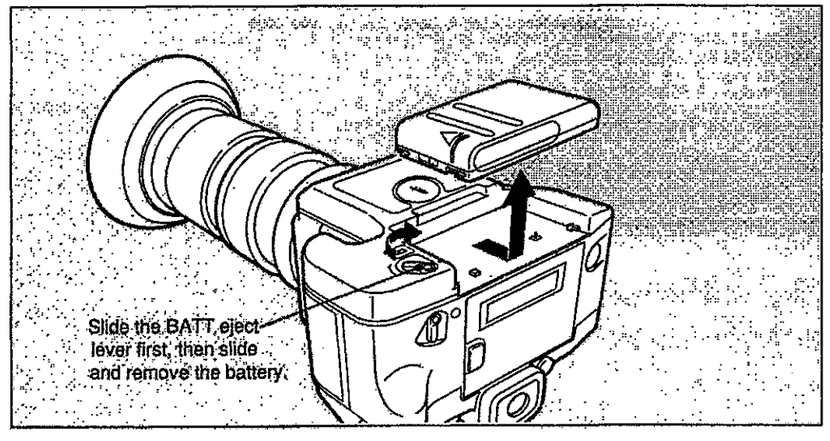
You need the optional NP-55 (or NP-77/NP-77H) rechargeable battery pack. Before using the battery, you must charge it. For charging, you need the AC-V55 AC power adaptor.
For details, see the instruction manuals of the battery pack and the AC power adaptor.

To attach the battery pack

Before attaching or detaching the battery pack, turn the unit's power off.



To detach



Preparing the Power Sources

On battery life

A fully-charged battery provides the following operations. However, the repeated charging will make the possible operating time shorter.

- When you shoot the pictures every 5 second with the Main switch set to STANDBY
  250 times of shooting with the NP-55
  500 times of shooting with the NP-77
- When you use the unit as a video camera with the Main switch set to V OUT
  Approx. 30 minutes operation with the NP-55
  Approx. 1 hour operation with the NP-77

To conserve the battery

If you leave the unit in the standby mode (with the Main switch set to STANDBY), the unit consumes the battery more. To conserve the battery, set the Main switch to ON and touch the shutter release button when you shoot a picture.

When to replace the battery

The following indications tell you when to replace the battery.

If the battery becomes weak

The indication starts blinking in the display window when you turn the power on. And the shutter speed indication and b-E (battery empty) indication in the viewfinder blink in turn when you touch the shutter release button or the Main switch is set to STANDBY or V OUT.

If the battery is exhausted

The indication lights up in the display window when you turn the power on. And the b-E indication and the time indication (how long you have used the unit with the battery) are displayed instead of the shutter speed indication when you touch the shutter release button or the Main switch is set to STANDBY or V OUT.

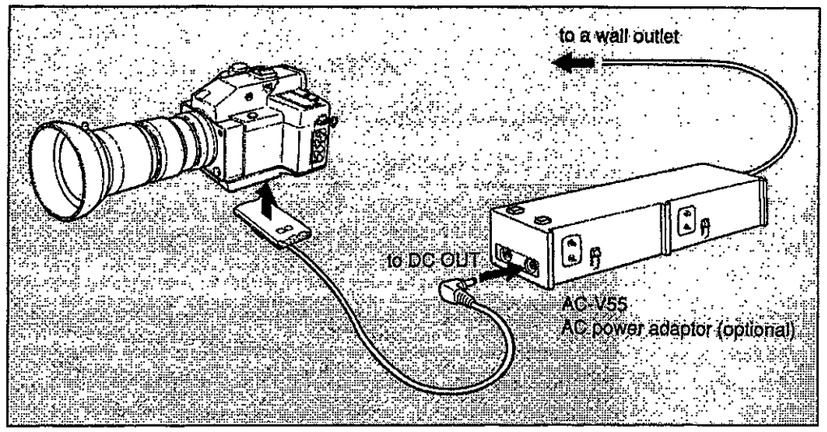
Replace the battery with a charged one when the indication appears.

Note

If you cannot get the designated operating time with the fully-charged battery pack, replace the battery pack with a new one.

Using the AC Power Adaptor

You need the optional AC-V55 AC power adaptor for AC operation. To attach/detach the AC power adaptor, refer to the illustration of the rechargeable battery pack.

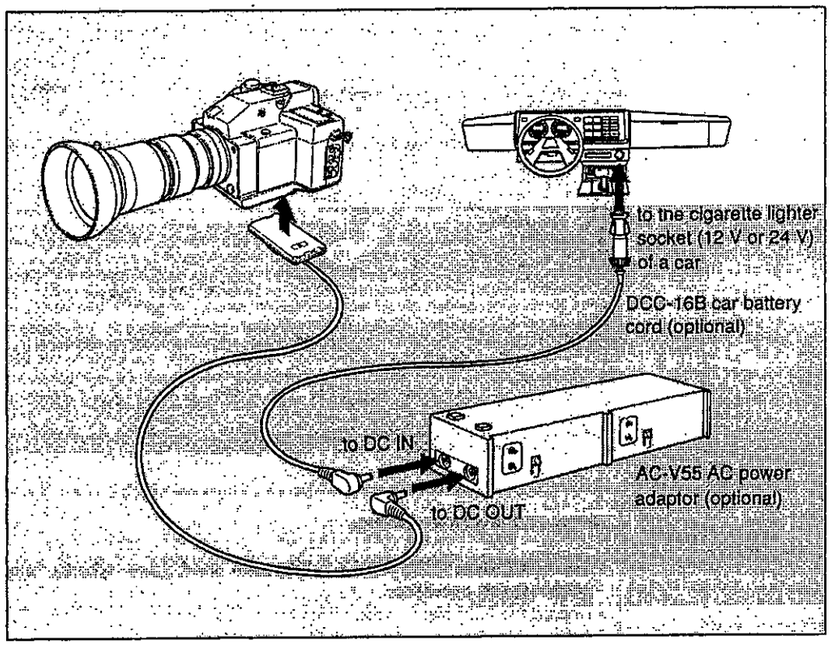


Notes on the power sources

- Be careful when detaching the battery pack or AC power adaptor from the unit since they get hot during operation.
- Unplug the AC power adaptor from the wall outlet when not in use. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- Do not operate the AC power adaptor with a damaged cord, and do not operate it if it has been dropped or damaged.
- Keep the terminals (metal parts of the AC power adaptor) clean.
- Do not apply mechanical shock or drop the power source unit.

Using the Car Battery Cord

Connect the optional DCC-16B car battery cord to the DC IN jack of the AC-V55 AC power adaptor, and connect it to the cigarette lighter socket (12 V or 24 V) of a car.



Notes on the car battery cord
Use only the recommended car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.

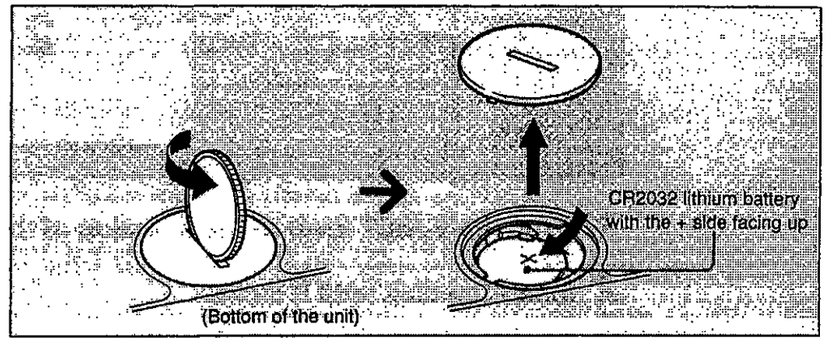
Backup Battery

A backup battery is required for retaining the date, AE mode, FR/FLD recording mode, remaining shot counter, etc., in memory.

Insert the supplied lithium battery CR2032 with the rechargeable battery pack attached to the unit.

Lithium battery life

The battery life is approximately 1 year in normal operation.
When the lithium battery becomes weak, the ⚠ indication in the display window blinks for 3 seconds when the Main switch is set to ON or STANDBY. In this case, replace the battery with a Sony CR2032 lithium battery. Use of another battery may present a risk of fire or explosion.



Lithium battery replacement

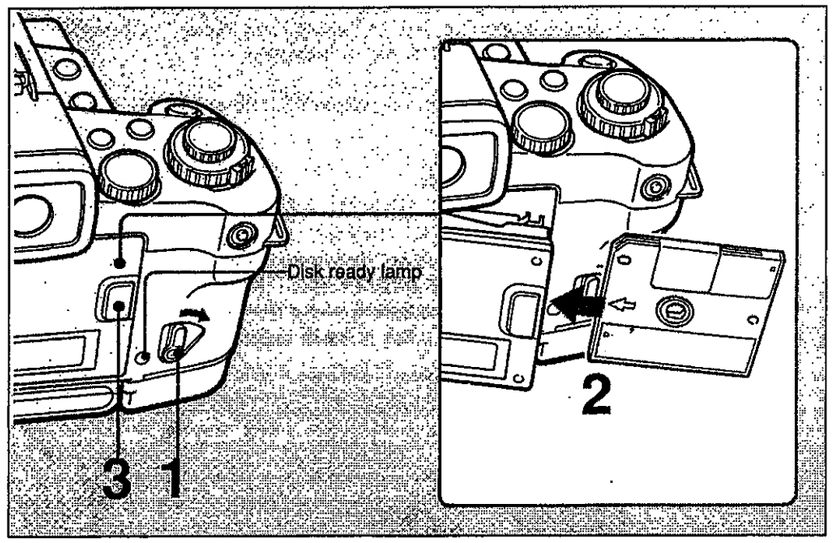
Replace the lithium battery with the battery pack or the AC power adaptor attached to the unit. Otherwise, the memory contents will be lost.

Note on lithium battery
Keep the lithium battery out of the reach of children. Should the battery be swallowed, consult a doctor immediately.

WARNING
Battery may explode if mistreated. Do not recharge, disassemble or dispose of in a fire.

Inserting a Disk

Make sure that the safety tab of a disk is not removed.



1 Slide the EJECT lever in the direction of the arrow.

2 Insert the disk until it locks.

3 Close the disk holder by pushing the disk holder lock button and lock it.

The Disk ready lamp lights up for several seconds. The recorded tracks are detected and the unit stops at the track immediately following the last recorded one.
The remaining shot number or the present track number is displayed on the window.

If the Disk ready lamp does not light up

The disk whose safety tab has been removed is inserted. Use another disk or cover the opening with the seal. (See page 25.)

Ejecting a Disk

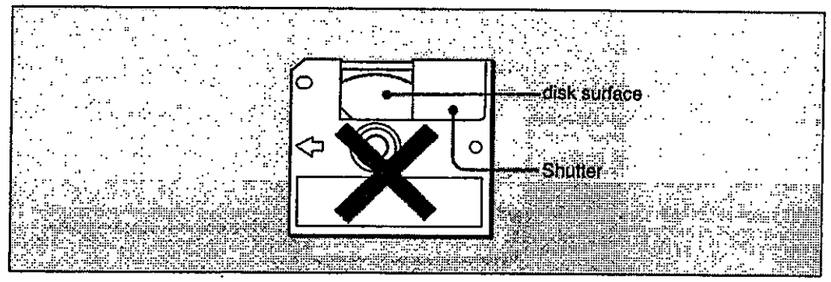
1 Slide the EJECT lever in the direction of the arrow.

2 Take out the disk.

3 Close the disk holder by pushing the disk holder lock button.

Disk Care

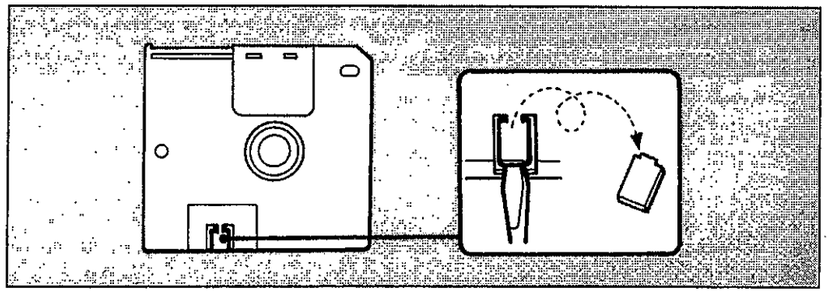
- Do not open the shutter and touch the disk surface, as even the slightest contamination may degrade picture quality.



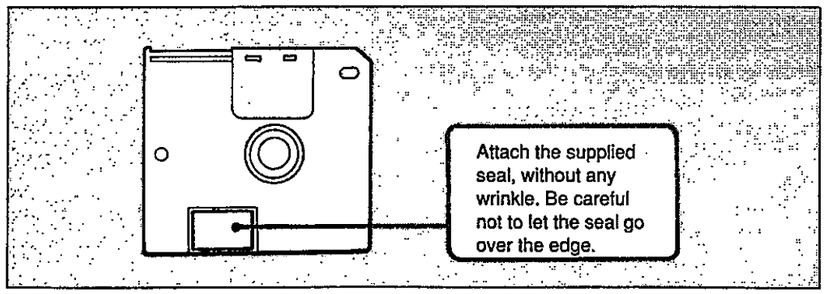
- Keep disks away from magnetic fields generated by loudspeakers, motors, transformers, TV sets, etc., otherwise, data stored on the disk may be erased.
- Do not expose disks to direct sunlight, heat or excessive dust.

On safety tab

- Break off the tab to protect the disk against accidental erasure.



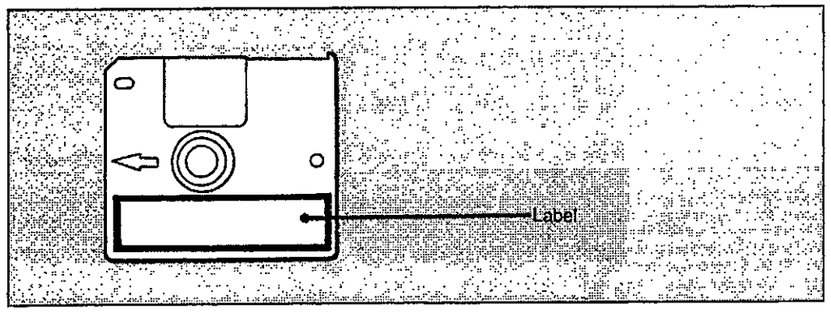
- If you cover the opening where the safety tab was removed with the seal supplied with the disk, you can rerecord or erase the disk.



Inserting a Disk

On label

Write identifying titles on the label supplied with the disk. When there is no more space on the label, peel it off and stick on a new label. **Do not stick a new label over an old one**, and be careful to stick the new label exactly in the space provided.



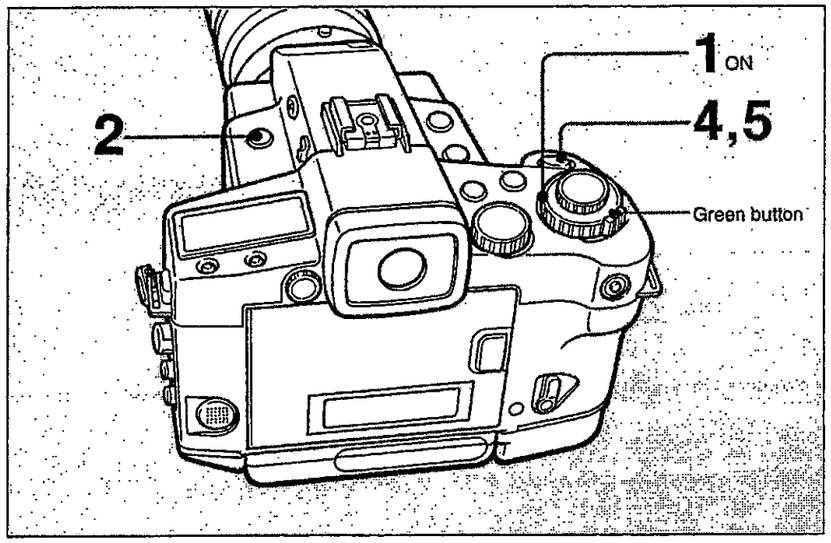
On inserting or removing a disk

Do not insert or remove the disk under conditions where rain, dust or other foreign objects may enter the disk drive unit. If contaminated, the unit may be damaged.

Procedures

Shooting Pictures with Basic Settings

You can easily start shooting pictures without any adjustment. In this section, we will show you how to shoot the pictures using the programmed settings.



1 Turn the Main switch to ON while pressing the green button.

For details on how to use the Main switch, see page 30.

2 Press the RESET button.

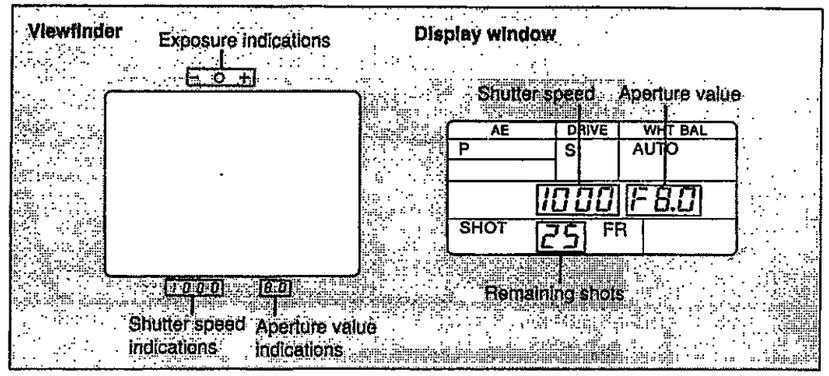
The following items are reset to the programmed settings.

AE: Programmed AE (when using the MCL-913T zoom lens)/Aperture priority AE (when using a Nikkor lens with the MCL-200N lens adaptor) [See pages 33–35.]
EV: No exposure compensation (0EV) [See page 39.]
SENS: Normal (equivalent to ISO 100) [See page 40.]
FR/FLD: FRAME recording (using two tracks for recording a picture) [See page 44.]
DRIVE: Single [See page 41.]
WB: Auto white balance [See page 36.]
AUDIO: Off (no audio recording) [See page 47.]

3 Point the unit at the subject, and turn the focus ring until the subject is in focus.

4 Touch the shutter release button lightly.

The indications will be displayed in the viewfinder and the unit will stand by for recording.

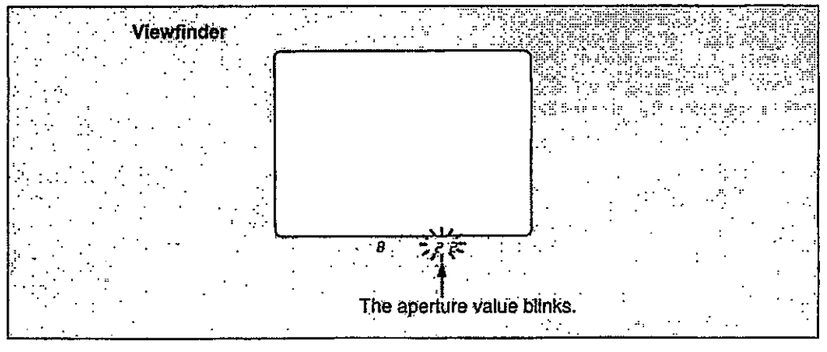


5 Press down the shutter release button completely.

The recording will be made.
The shutter speed and the aperture value are automatically adjusted.

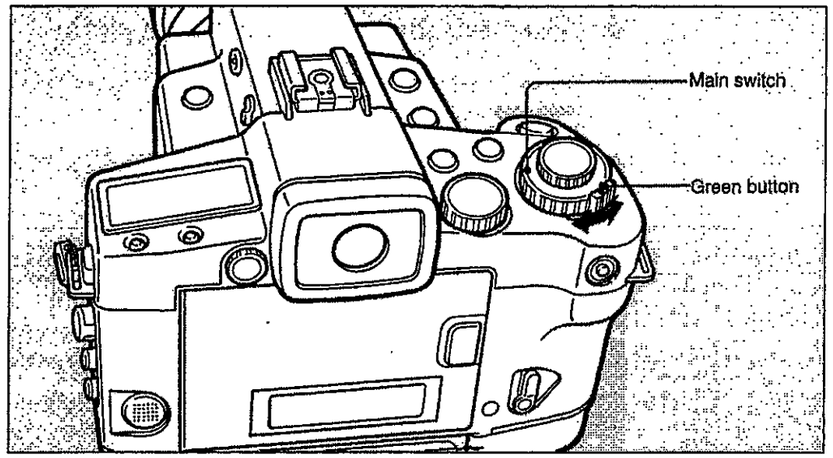
If the aperture value indication in the viewfinder blinks

If the shutter speed is set to less than 1/15 using programmed AE or aperture priority AE, the aperture value indication in the viewfinder will blink. If you record a picture as it is, the picture may become unstable.
In this case, attach a tripod to stabilize the unit (see the instruction manual of the MCL-913T for attaching a tripod) or make the shutter speed faster.



How to Use the Main Switch

The main switch functions mainly as the power switch of this unit. To set to ON, STANDBY, and V.OUT from the OFF position, turn the switch while pressing the green button. In other cases, simply turn the switch.



ON: The power is turned on.
To make the unit ready for shooting, touch the shutter release button lightly. The indications are displayed in the window and in the viewfinder, and the unit enters the standby mode.
To shoot a picture, press the button completely.

OFF: The power is turned off. To turn the switch from this position, **turn it while pressing the green button.**

STANDBY: The unit enters the standby mode, and indications are displayed in the window and in the viewfinder. Set to this position to record the pictures immediately when you press down the shutter release button.

V OUT: The unit outputs the video signal through the VIDEO OUT connector.
Set to this position when you use the unit as a video camera (See page 62.)

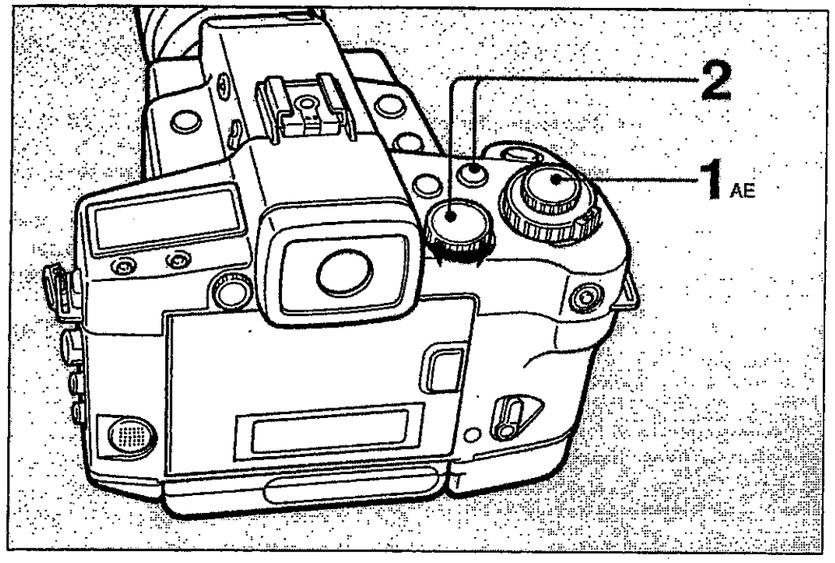
Auto power off function

Your unit employs the auto power off system to conserve the battery. The last settings made will be retained when the power is automatically turned off.

- If you leave the unit on for several seconds, the viewfinder turns off. And then, the display (the shutter speed and the aperture value indication) in the window turns off.
- If you leave the unit for more than 10 minutes with the power turned on, the unit will automatically turn off. To restart the operation, turn the Main switch to OFF, and then turn it to ON again, or reinsert the disk. Or if you simply touch the shutter release button, you can start shooting.
- If you leave the unit more than 1 hour in the standby mode, the standby mode will automatically be canceled. Since the power is still on, you can return to the standby mode by pressing the shutter release button. You can also return to the standby mode, if you reinsert the disk.
- The unit's power will not be turned off during interval recording (see page 41) or while using the VIDEO OUT connector (see page 62).

Setting the Exposure Control System

You can set the exposure control system according to the shooting conditions. The type of exposure you can select when using the unit with the MCL-913T zoom lens is: programmed AE, shutter speed priority AE, aperture priority AE and manual exposure control.



1 Turn the Mode dial and set it to AE.

2 Turn the Shift dial to select the mode (P, S, A or M) while pressing the SHIFT button.

The selected mode will be displayed in the window.

P: Programmed AE. The shutter speed and aperture value are automatically set according to the brightness of the subject.

S: Shutter speed priority AE. When you set the shutter speed, the appropriate aperture value is automatically set. Useful when shooting moving subjects.

A: Aperture priority AE. When you set the aperture value, the appropriate shutter speed is automatically set. Useful when you want to control the depth of field.

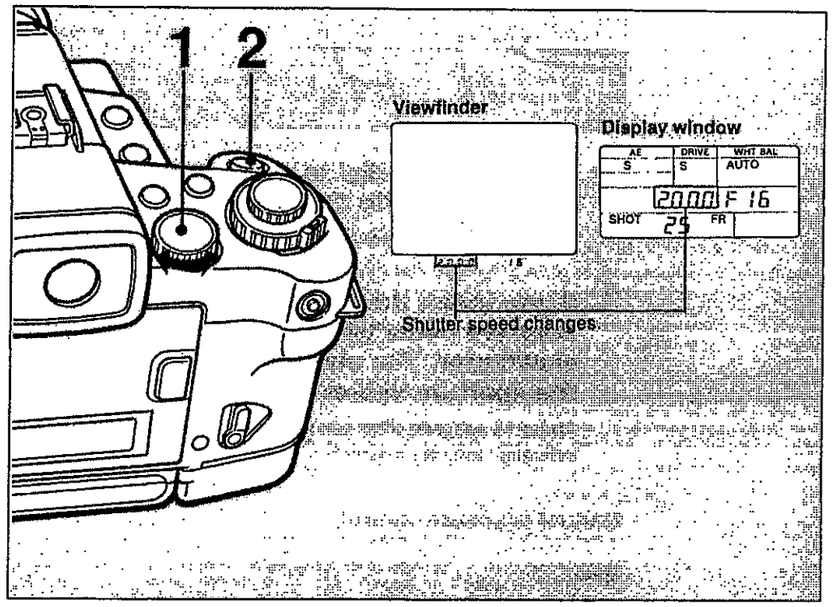
M: Manual exposure control. You can set both the shutter speed and aperture value.

How to Set the Shutter Speed and Aperture Value

Programmed AE

If you touch the shutter release button lightly, the programmed shutter speed and the aperture value will be automatically set. And the shutter speed and the aperture value will be displayed in the window and in the viewfinder.

Shutter priority AE



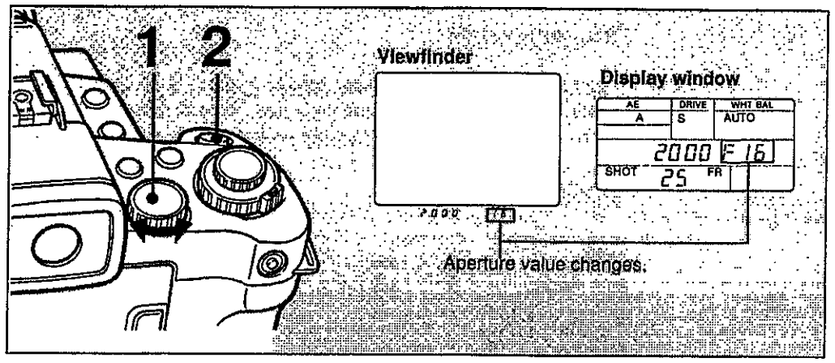
1 Turn the Shift dial to change the shutter speed setting (1/8 –1/2000.)

2 If you touch the shutter release button lightly, the shutter speed you set will be displayed in the viewfinder.

The aperture value will be set according to the shutter speed.

About 10 seconds after you release the shutter release button, the aperture value indication will be turned off.

Aperture priority AE



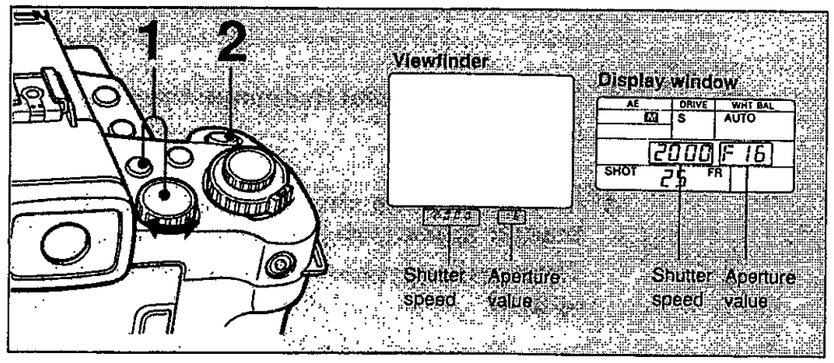
1 Turn the Shift dial to change the aperture value setting (F1.8 – F22: with the MCL-913T zoom lens).

When you use a Nikkor lens with the MCL-200N lens adaptor, see page 35.

2 If you touch the shutter release button lightly, the aperture value you set will be displayed in the viewfinder. The shutter speed will be set according to the aperture value.

About 10 seconds after you release the shutter release button, the shutter speed indication will be turned off.

Manual exposure control



1 Turn the Shift dial to set the shutter speed. And turn the Shift dial while pressing the MANUAL IRIS button to set the aperture value.

2 If you touch the shutter release button lightly, the shutter speed and aperture value you set will be displayed in the viewfinder.

If you cannot get the optimum exposure with your settings

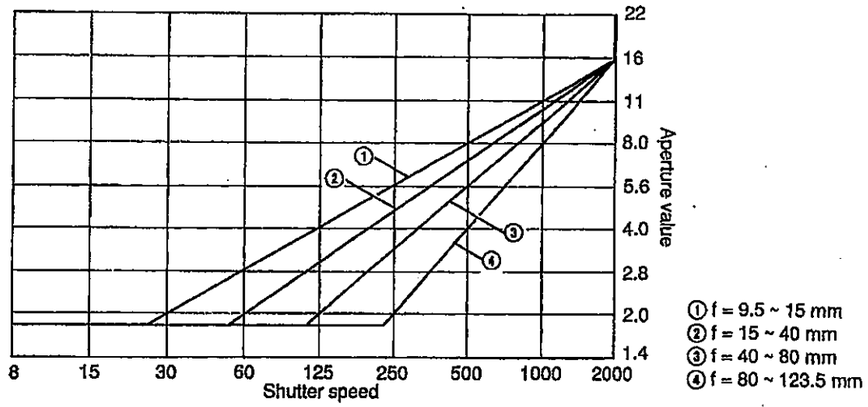
The + (over exposure) or – (under exposure) indication will be displayed in the viewfinder. In this case, change the aperture value or shutter speed setting until you can get the optimum exposure.

When recording under a fluorescent lamp

If the shutter speed is fast, the correct exposure may not be obtained under the flickering of fluorescent lamp. In this case, use the optional MFL-30 electronic flash. (See page 54.)

Four programs used for programmed AE

If you set to programmed AE (with the MCL-913T zoom lens), the combination of shutter speed and aperture value is selected automatically among the four programs. The appropriate combination is selected according to the focal distance of the lens (f).



Setting the exposure control system when you use a Nikkor lens

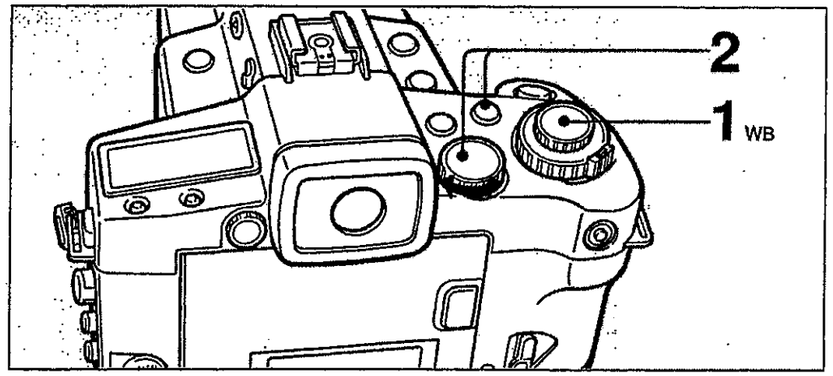
The exposure control systems you can use with a Nikkor lens are the aperture priority AE and manual. The aperture value and the shutter speed are displayed in the window and in the viewfinder.

How to set the aperture value
Set the F No.setting ring on the lens adaptor. And set the aperture value with the aperture ring of the Nikkor lens.

How to set the shutter speed manually
Set the shutter speed on the camera as you do when you use the MCL-913T zoom lens.

Adjusting White Balance

You must adjust the white balance to record a picture in natural color tones under the light source being used.



1 Turn the Mode dial to set it to WB.

2 Turn the Shift dial to select the white balance setting while pressing the SHIFT button.

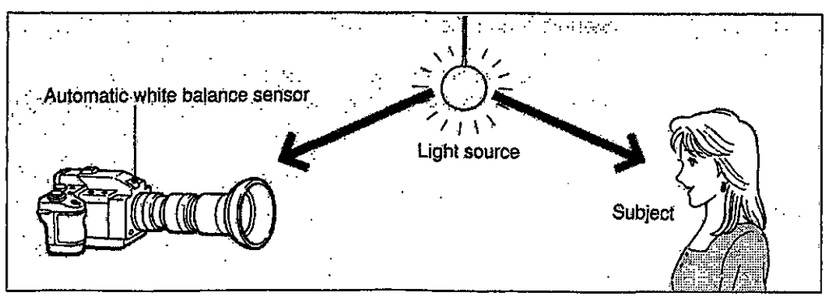
The selected white balance will be displayed in the window.

AUTO: Automatic white balance
MEM: Memory
☀: 5800 K (sunlight)
☼: 3200 K (incandescent lamp)

Hints for Adjusting White Balance

AUTO

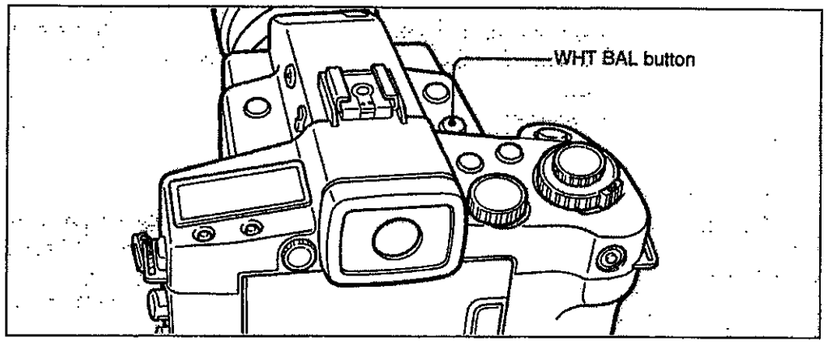
The white balance is automatically adjusted. You can use the AUTO white balance in most cases.
The white balance sensor on the front panel senses the color temperature of the light source and the unit adjusts the white balance. For optimum white balance adjustment, take care that you do not cover the white balance sensor.



You cannot use the AUTO white balance in the following situations
- When the subject and the unit are under different lighting conditions.
- When there is insufficient light when shooting
- When the WB indication blinks in the viewfinder and the AUTO indication blinks in the window.

MEM

The white balance is adjusted according to the color temperature of the light source every time you press the WHT BAL button.
Once the white balance is memorized, you do not have to change the setting if you continue shooting under the same lighting condition.



1 Zoom up on a white object such as a white cloth or white paper.

The white object should be under the same lighting conditions as those under which the recording will be made.

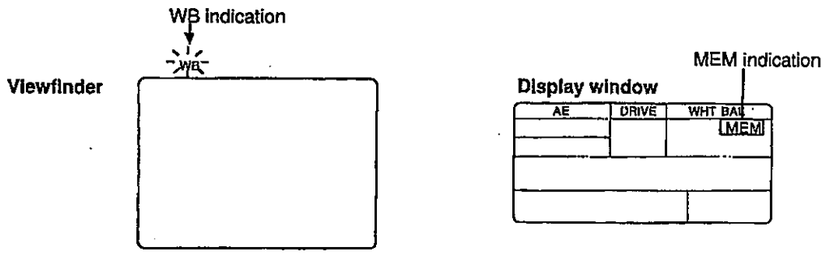
2 Press the WHT BAL button to memorize the white balance.

The adjusted white balance is stored in memory. The MEM indication on the display window lights up. The memorized white balance will remain if you turn off the unit.

To change the setting, repeat the above steps.

Adjusting White Balance

The optimum white balance cannot be obtained if the following indications appear



WB and MEM incitations	Causes and measures
The WB indication blinks 2 times/ second – when you touch the shutter release button – when you set the unit to STANDBY or to V OUT.	The white balance has not been adjusted.
The MEM indication blinks 1 time/ second – when you touch the shutter release button – when you set the unit to STANDBY or to V OUT.	The white balance adjustment has been made, but the optimum white balance cannot be obtained Readjustment is required.
Both the WB and MEM indications blink 1 time/second for 5 seconds when you turn the power on.	The lighting condition has changed. Readjustment is required.

☀(5800 K)

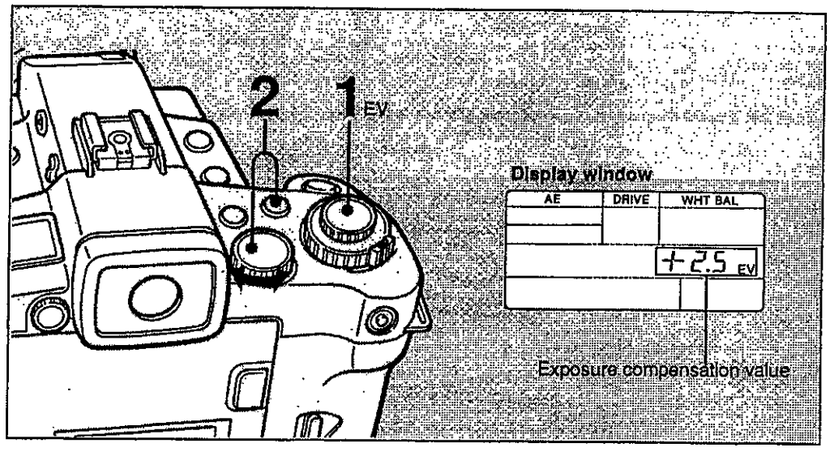
When the subject is outdoors or near a window, and the appropriate white balance cannot be obtained with the AUTO or MEM, select this setting.
The subjects recommended for this setting are sunsets, fireworks, subjects beside a sunny window, etc.

☼(3200 K)

When the subject is indoors, and the appropriate white balance cannot be obtained with the AUTO or MEM, select this setting.
The subjects recommended for this setting are candle flames in darkness, subjects in a spotlight, scenes before sunrise, subjects in a tunnel (illuminated by natrium lamps), neon lights, etc.

Adjusting Exposure Compensation

You can adjust the exposure value in 0.5EV steps between –3.0EV and +3.0EV.
This function is useful in the following conditions.
- When you want to make the tone of the entire scene brighter or darker
- When a subject is too bright against a dark background
- When the background is too bright, making the subject too dark



1 Turn the Mode dial to set it to EV.

2 Turn the Shift dial to set the required value, while pressing the SHIFT button.

The selected value will be displayed in the window.
When you touch the shutter release button, the orange lamp will light up in the viewfinder to show the exposure value is compensated.

To confirm the compensation value

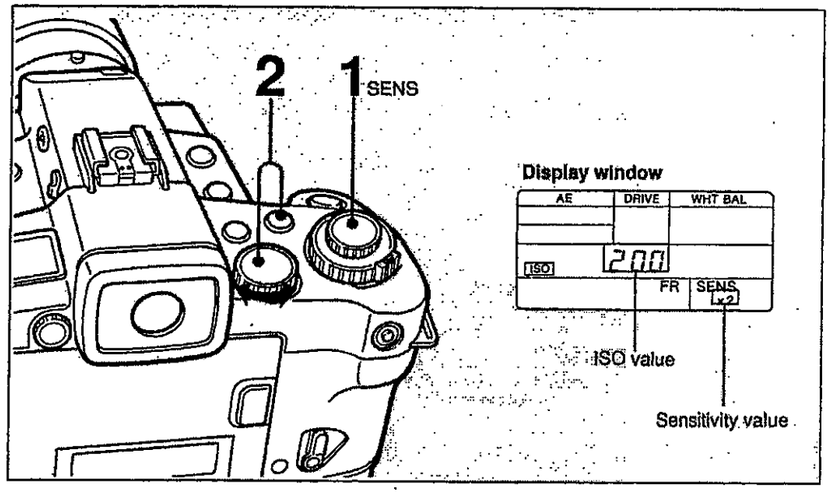
Press the SHIFT button with the Mode dial set to EV.

To reset the compensation value to ZERO

Set the value to +0.0EV.

Setting Sensitivity

You can increase or decrease the sensitivity of the unit. If you increase the sensitivity, you can make the shutter speed faster and raise the aperture value. And if you decrease the sensitivity, the quality of the picture increases.



1 Turn the Mode dial to set it to SENS.

2 Turn the Shift dial to select the value, while pressing the SHIFT button.

The selected SENS and ISO value will be displayed in the window.
When you touch the shutter release button, the orange lamp will light up in the viewfinder to show the sensitivity is increased or decreased.

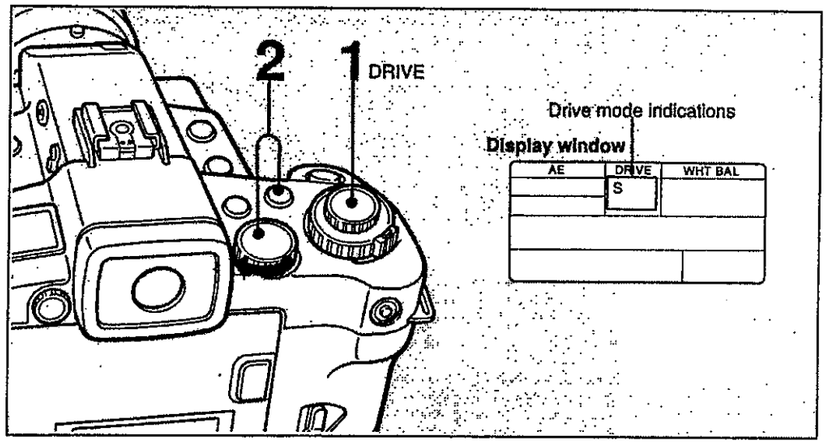
x1/2: ISO 50 (FRAME), ISO 100 (FIELD)
No indication: ISO 100 (FRAME), ISO 200 (FIELD)
x2: ISO 200 (FRAME), ISO 400 (FIELD)

To reset to the normal sensitivity

Select the normal sensitivity by turning off the SENS indication.

Selecting the Drive Mode

You can select the drive mode among single, continuous, self-timer and interval.



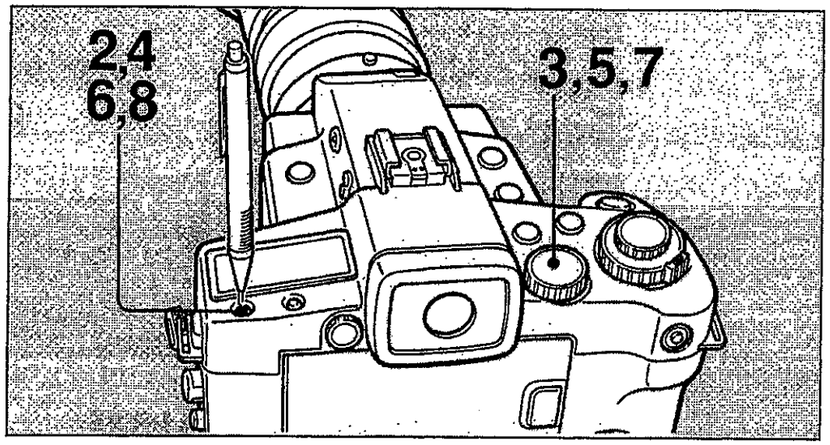
1 Turn the Mode dial to set it to DRIVE.

2 Turn the Shift dial to select the drive mode, while pressing the SHIFT button.

S: Single recording. When you press the shutter release button, recording is made once.
C: Continuous recording. While you keep the shutter release button pressed, recording continues at the rate of approx. three shots per second.
⏲: Self-timer recording. Recording will be made about 10 seconds after you have pressed the shutter release button. The self-timer lamp will blink slowly until 2 seconds before shooting, and after that, the blinking will become faster.
INT: Interval recording. After you press the shutter release button for the first shot, recording will be made every time the preset interval time has passed. The display will count down the preset interval time. To stop the interval recording, press the RESET button, turn off the power, or take out the disk.

How to set the interval time for interval recording

You can set the interval time between 1 second (0.00.01) and 23 hours 59 minutes 59 seconds (23.59.59).



1 Select the interval recording (INT), following the steps on page 41.

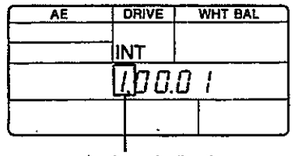
The INT indication will appear in the window.

2 Press the SELECT button with a pointed object.

The display shows "0.00. 01" or the time previously set.

3 Turn the Shift dial to set the hour.

Display window



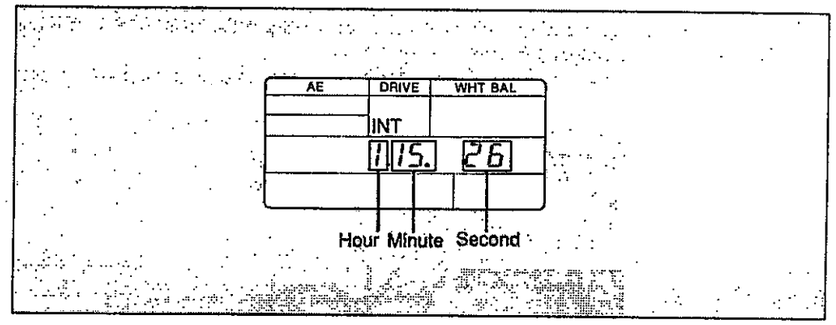
the hour indication

4 Press the SELECT button.

5 Turn the Shift dial to set the minute.

6 Press the SELECT button.

7 Turn the Shift dial to set the second.



8 Press the SELECT button.

The interval time has been set and the time display will disappear.
The actual interval time will be approx. 0.3 seconds longer than the set time. Because it takes approx. 0.3 seconds (it makes a slight difference according to the shutter speed) for the unit to be ready for shooting. For example, if you set the interval time to 5 seconds, the actual interval time will be approx. 5.3 seconds.

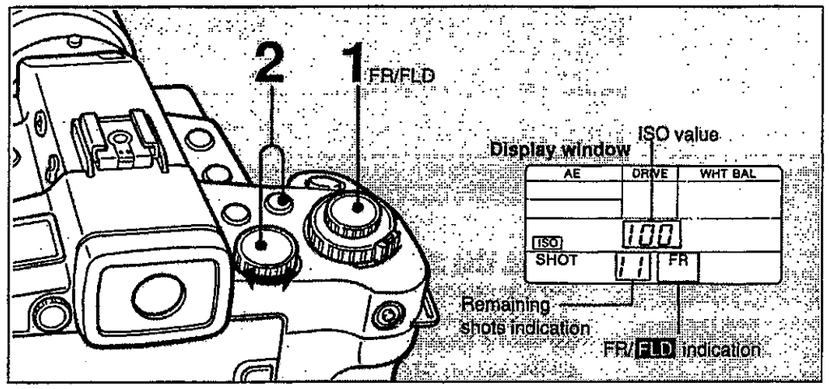
To stop the interval recording, turn the power off, press the RESET button or remove the disk.
To confirm the interval time, turn the Mode dial to set it to DRIVE. Then, turn the Shift dial to select INT, while pressing the SHIFT button. After you select the INT position, press the SHIFT button.
To correct the interval time, press the SHIFT button to display the interval time, and repeat the steps above.

Note on setting the interval time
Setting will be cancelled, if you leave the unit for more than 1 minute while setting the time.

You cannot make the interval time recording
If you set the interval time to "0.00.00", the drive mode will be switched to the single drive mode. However, the last interval time setting you have previously made will remain.

Selecting FRAME or FIELD

You can record up to 25 pictures on a disk, each picture recorded on two tracks (FRAME recording). However, if you want to record as many pictures as possible, you can get up to 50 pictures on a disk (FIELD recording). In this case, as each picture is recorded on only one track, the quality of the picture becomes less detailed than the pictures recorded on two tracks.
FRAME or FIELD selected in recording is automatically detected in playback.



1 Turn the Mode dial to set it to FR/FLD.

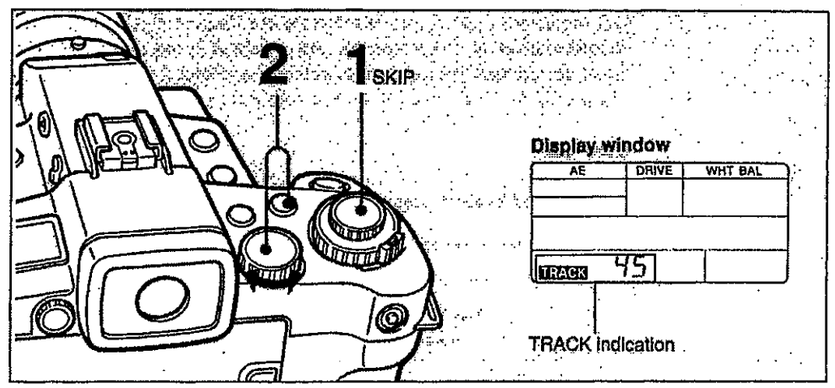
2 Turn the Shift dial to select FRAME or FIELD, while pressing the SHIFT button.

The ISO value and the remaining shots will be changed also.

FR: FRAME recording. Each picture is recorded on two tracks, therefore, up to 25 pictures can be recorded on a disk.
FLD: FIELD recording. Each picture is recorded on one track. Up to 50 pictures can be recorded on a disk.
* Both FRAME and FIELD pictures can be present on a disk.

Designating the Track to be Recorded

Recording starts from the first vacant track. However, you can skip tracks and start recording from the desired track on a disk.



1 Turn the Mode dial to set it to SKIP.

2 Turn the Shift dial to select the desired track, while pressing the SHIFT button.

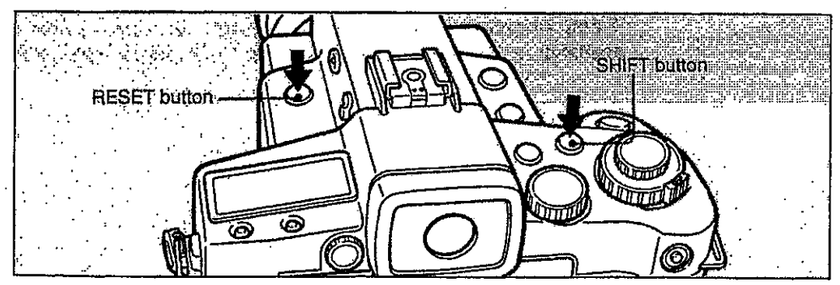
The TRACK indication blinks and the vacant tracks, which you can select, are displayed in the window.

- You cannot select a track that has already been recorded. The recorded tracks are automatically skipped.
- If you make a FRAME recording, you can select only a track with another track immediately following it, because you need two tracks for FRAME recording.

3 Start recording.

If you want to skip to another track, repeat the above steps again.

To cancel skip recording, press the RESET button while pressing the SHIFT button with the Mode dial set to SKIP, or take out the disk.



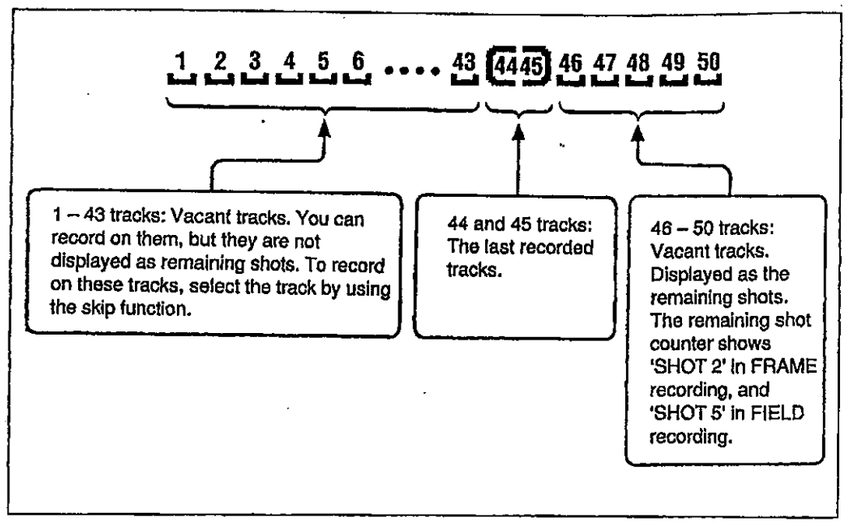
Designating the Track to be Recorded

How the remaining shots are counted when skipping tracks

The unit counts the vacant tracks starting from the end of the disk (track 50) to the last recorded track. And even if there are vacant tracks on a disk before the last recorded track, these tracks are not included in the remaining shots.
So, if you record the pictures skipping the tracks, the remaining shots counter will show only the number of tracks counted from the end to the last recorded track.

Example

When you skipped tracks and recorded on tracks 44 and 45.

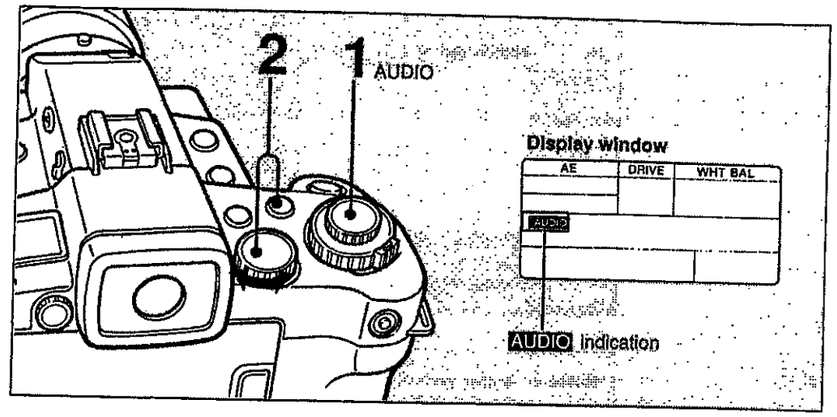


If there are vacant tracks when the remaining shot counter shows "SHOT 0".

The TRACK indication blinks to tell you that there are vacant tracks on a disk. To record on the vacant tracks, select the desired tracks, following the procedures of "Designating the Track to be Recorded".
If the FLD indication blinks together with the TRACK indication when you try to make a FRAME recording, it means there are vacant tracks and you can make FIELD recordings. If you want to record on these tracks, make FIELD recordings.

Recording Audio

You can add audio, such as ambient sound or comments, to the pictures. Or you can reserve a track and add audio later after you have finished recording pictures.
If you want to play back the sound associated with the pictures, you must record the sound just after the picture is recorded.
You can record audio for up to 10 seconds on one track.



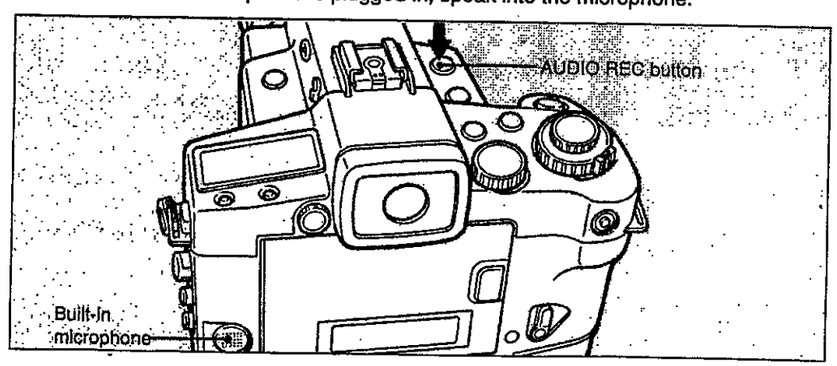
1 Turn the Mode dial to set it to AUDIO.

2 Turn the Shift dial while pressing the SHIFT button.

To record audio, turn the dial until the AUDIO indication lights up.
To reserve a track, turn the dial until the AUDIO indication blinks and 0.0. indication appears. (Skip the following steps and see "To reserve a track" on page 49, for details.)

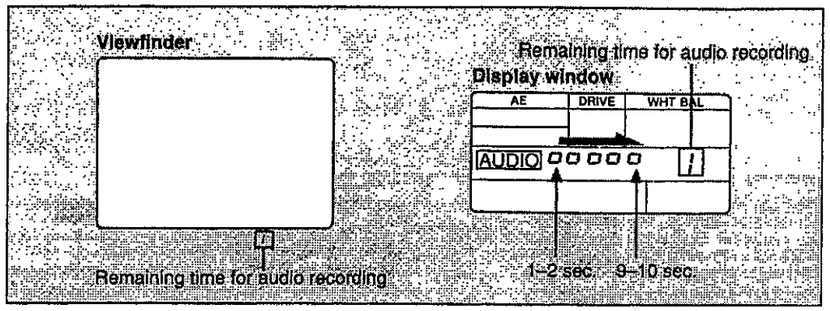
3 If you record audio, keep pressing the AUDIO REC button and speak into the built-in microphone.

The audio recording will be made while you keep the AUDIO REC button pressed. You can record audio for up to 10 seconds on one track. And if you want to record for more than 10 seconds, keep pressing the AUDIO REC button as long as you want. The recording will be made on the following tracks.
If the external microphone is plugged in, speak into the microphone.



Recording Audio

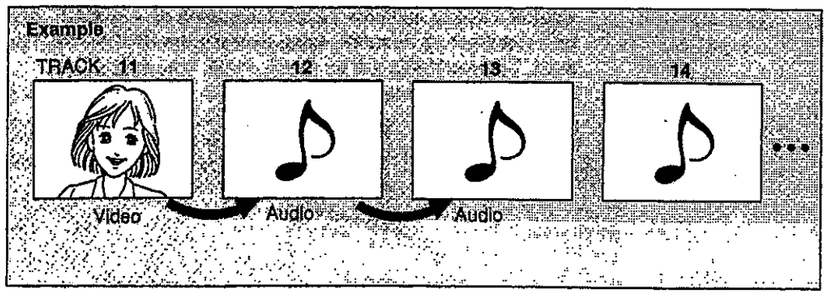
The ▫ indications and the time counter will be displayed in the window and in the viewfinder while recording.
The indication increases by one ▫ mark every 2 seconds.
The time counter counts down from A to 1, and shows the remaining time for audio recording. (The maximum recording time is approx. 10 seconds per track.)



Notes on audio recording
- If you press the shutter release button while recording audio, the audio recording will be stopped and the picture will be recorded instead.
- The number of remaining shots is reduced after you have recorded audio.
- You can start recording audio when you set the unit to STANDBY or to V. OUT.

Where the audio is recorded

The audio is recorded on the track following the picture. (See illustration below.) In this way, you can play back the sound associated with the pictures.
Otherwise, you cannot play back the sound associated with the pictures. For example, if you designate tracks to record a picture by skipping (see page 45), you cannot play back the sound associated with the pictures.



You cannot play back the sound associated with the pictures in the following cases

- When you insert a disk and record audio before the picture is recorded
- When you turn the power on and record audio before the picture is recorded
- When you record audio only after you make a recording of the picture and audio
- When you record audio after you pressed the RESET button
- When you have moved the tracks using the skip function (page 45)

To reserve a track

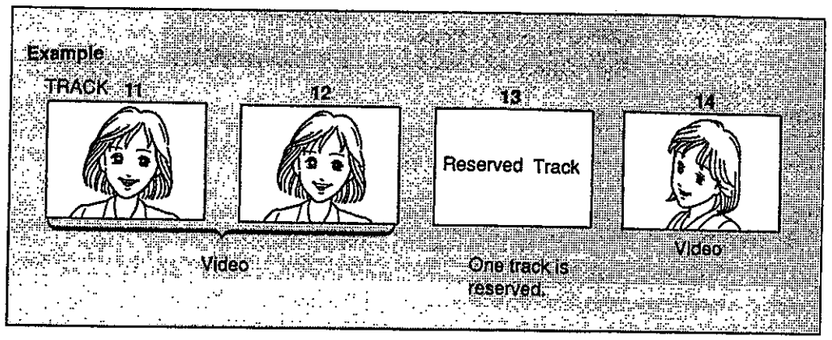
You can reserve a track and insert audio or video later.
Every time you record a picture, the one track immediately following is reserved.

1 Turn the Mode dial to set it to AUDIO.

2 Turn the Shift dial until the AUDIO indication blinks and the 0ᵤ0ᵤ indication appears while pressing the SHIFT button.

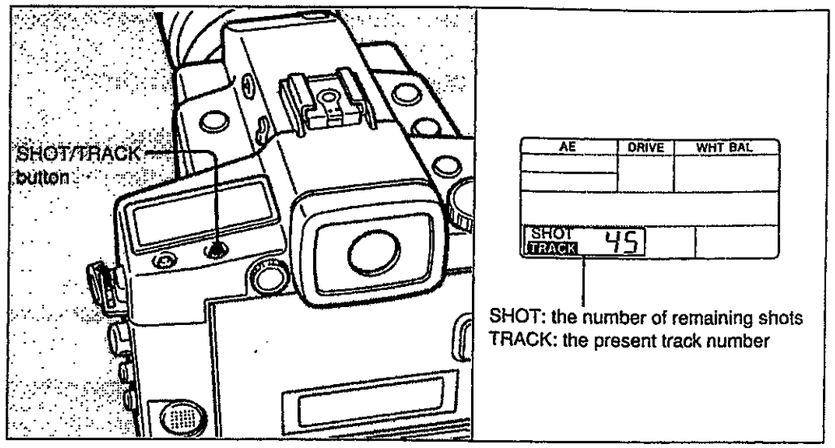
3 Start recording the pictures.

One track is automatically reserved, following the tracks the picture is recorded.
See the illustration below.



Displaying the SHOT/TRACK Indication

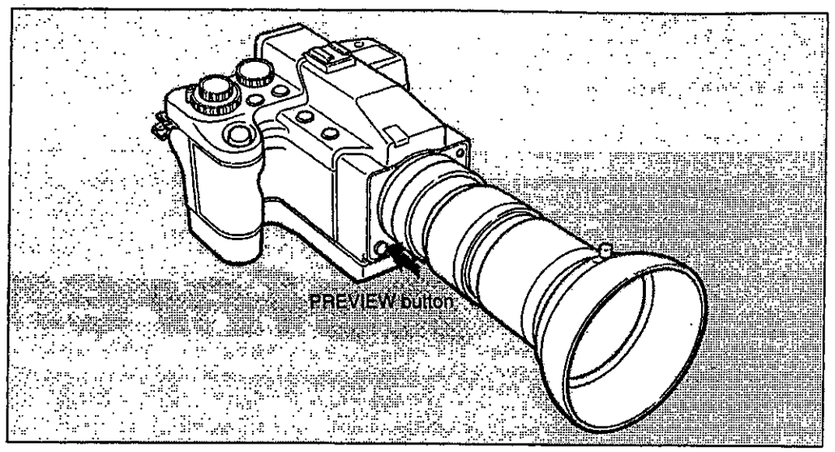
Every time you press the SHOT/TRACK button, the number of remaining shots (SHOT) or the present track number (TRACK) will be displayed alternately.



Reference

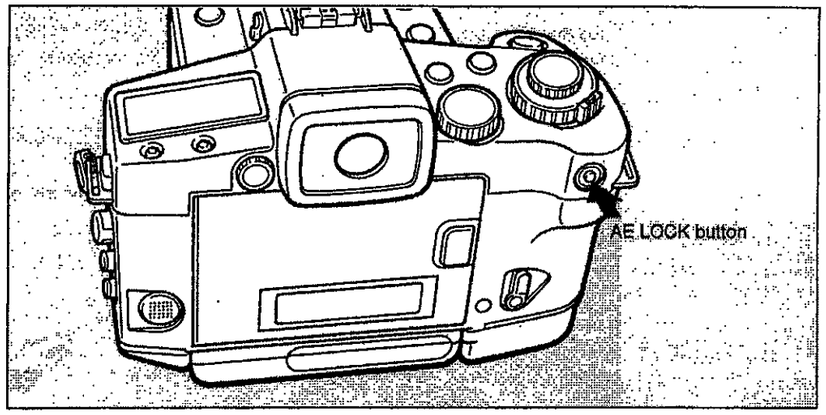
Confirming the Depth of Field

You can confirm the depth of field of the subject being recorded in the standby mode by pressing the PREVIEW button. While you keep the button pressed, the aperture is changed to the actual value and locked so that you can confirm the depth of field before shooting.
You can use this function when you touch the shutter release button lightly and when you set the unit in the standby mode.



Using the Locked AE

When the brightness of the main subject is extremely different from that of the background, you cannot get the optimum exposure. In this case, record with the locked AE. As long as you press the AE LOCK button, the aperture value and the shutter speed are locked.



1 Adjust the focus of the subject.

If you record the picture as it is, the main subject will be under exposed.

2 Zoom up to the main subject, and press the AE LOCK button.

3 While keeping the AE LOCK button pressed, zoom back to achieve your desired framing and press the shutter release button.

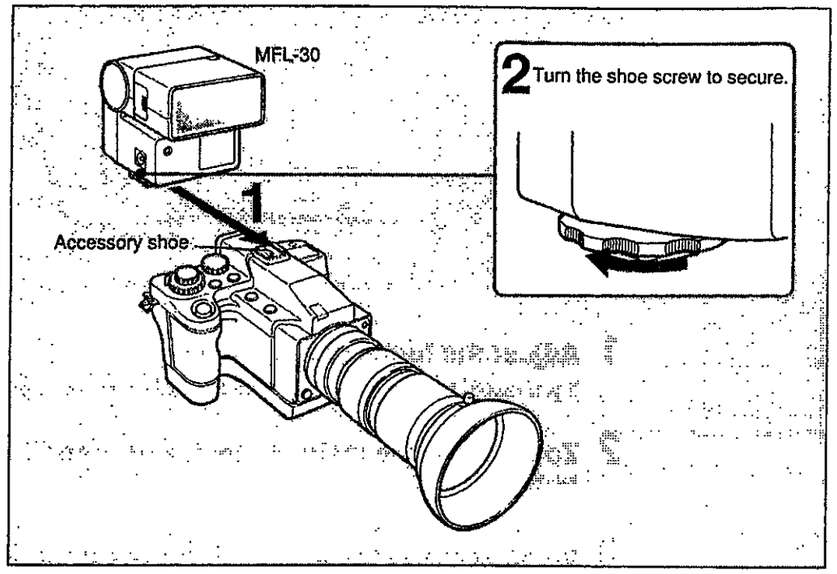
You can get the optimum exposure set in step 2.

Using the Electronic Flash

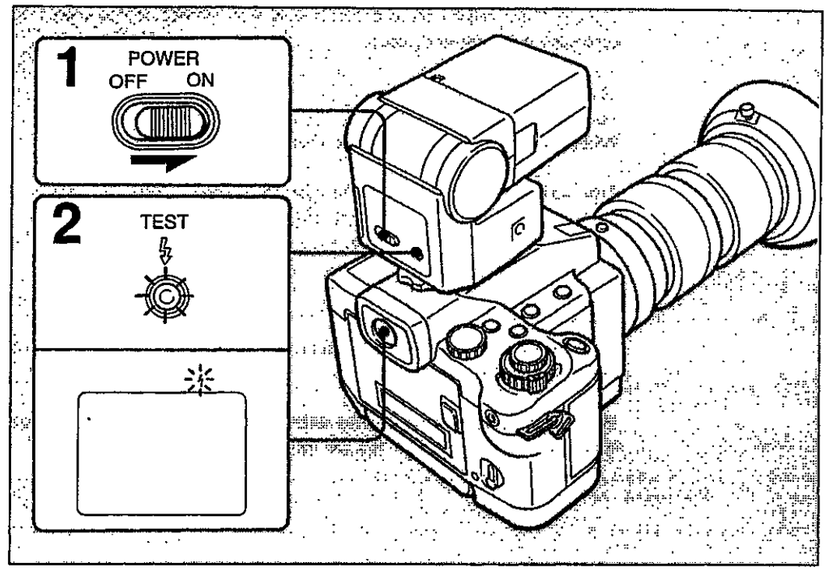
Use the optional MFL-30 electronic flash designed for use with this unit. For details, see the instruction manual of the electronic flash.

Attaching the Flash to the Unit

Turn the Main switch of the unit and the POWER switch of the flash to OFF. Attaching a flash other than the MFL-30 electronic flash to the accessory shoe of this unit cannot be guaranteed.



Operation



1 Turn the flash's POWER switch ON with the camera's Main switch set to ON or STANDBY.

2 Check that the TEST lamp of the flash lights up and the flash charged mark (ϟ) lights up in the viewfinder of this unit.

3 When you press the shutter release button, the flash fires.

Using the Electronic Flash

The shutter speed and aperture value

When you use the MCL-913T zoom lens
The shutter speed and aperture value and white balance are automatically set for the optimum flash photography.

Shutter speed: 1/180
Aperture: F5.6 (FRAME)
White balance: Flash mode (automatic adjustment)

The aperture value will be changed to get the optimum exposure, if you adjust the sensitivity or select the FRAME/FIELD setting.
The shutter speed can be set to less than 1/180 when you use the shutter speed priority AE or manual.

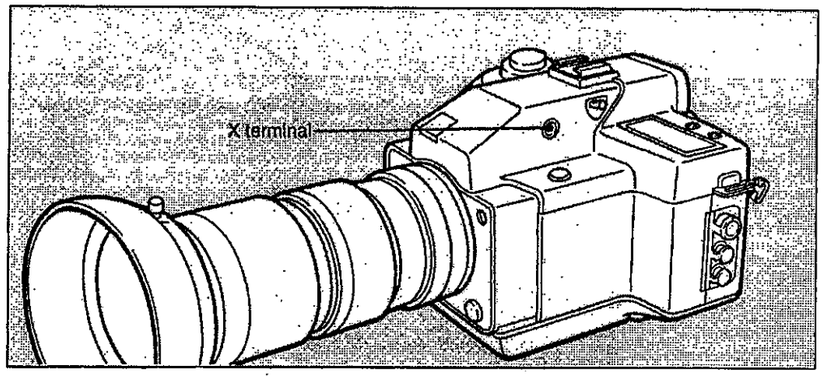
Note
When you zoom up the subject, shoot a picture in less than 72 mm position to get the correct exposure.

When you use a Nikkor lens with the MCL-200N lens adaptor
The aperture value can be set manually on the lens.

How to use an electronic flash other than the MFL-30

If you use an electronic flash other than the MFL-30, attach it to the flash outlet (X terminal). **Do not attach to the accessory shoe of the unit.** The screw encircling the terminal matches a Nikon connector. For details, see the instruction manual of the electronic flash.

1 Attach the flash to the flash outlet (X terminal).



2 Select the manual exposure control (M) on the camera.

3 Set the shutter speed between 1/180 – 1/8 sec.
The flash does not fire when the shutter speed is faster than 1/180 sec.

4 Turn the Mode dial of the camera to set to FR/FLD or SENS so that the ISO value is displayed on the window.

5 Set the displayed ISO value on the flash.

6 Set the aperture value on the camera according to the setting of the flash.

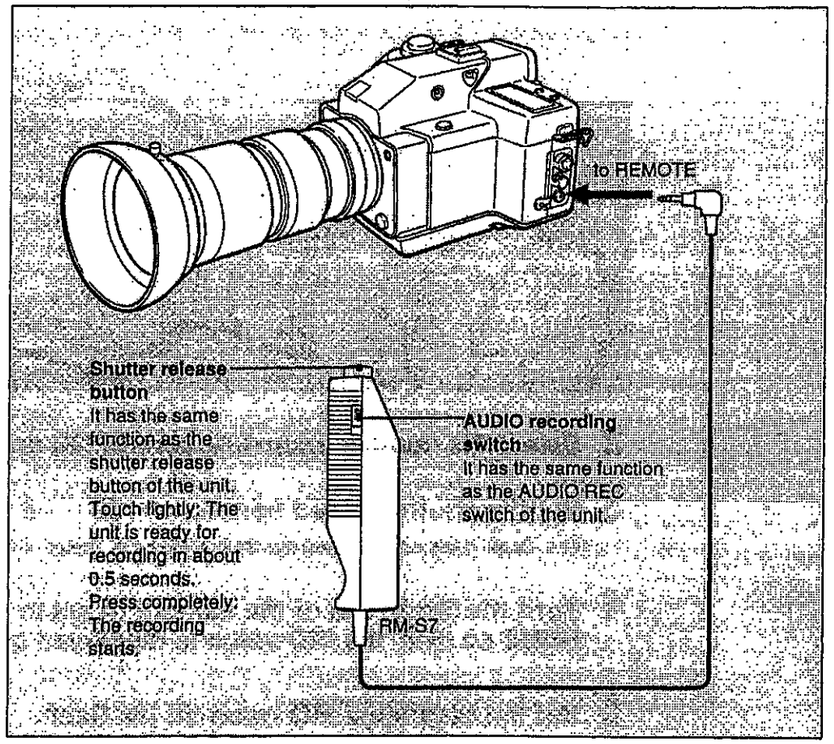
7 Set the white balance on the camera to ☼ (5800K).

8 When you press the shutter release button, the flash fires.
The charged up lamp in the viewfinder does not light up.
To get the correct exposure, we recommend you adjust the exposure compensation value and have a trial shooting. And also we recommend you determine the aperture value from flash-to-subject distance and the guide number.

Remote Control Operation

You can operate the unit from a distance, using an optional RM-S7 remote control unit. When you control the unit remotely, we recommend that you set the unit on a tripod.
For details on the remote control operation, see the instruction manual of the remote control unit.

Note
When you make a recording, press the shutter release button slowly and completely.



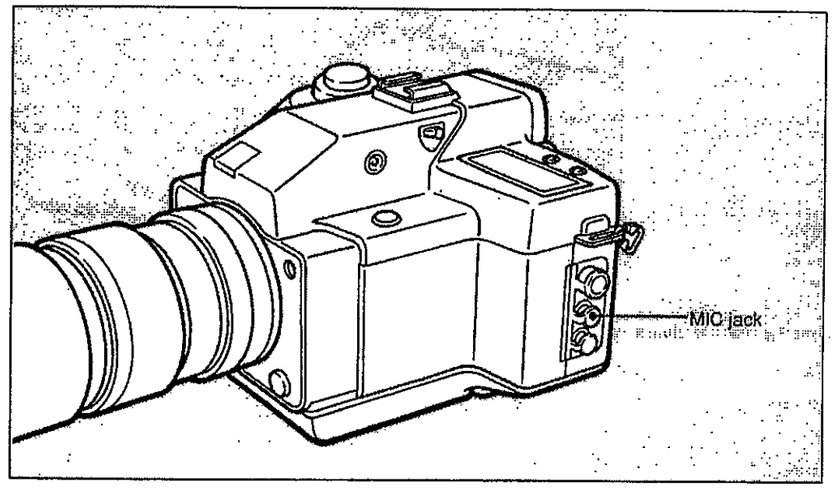
Using an External Microphone

The built-in microphone is a unidirectional monaural type which can pick up the camera operator's voice naturally. To record your own voice, you can also use an optional microphone equipped with a miniplug.

Attaching a Microphone

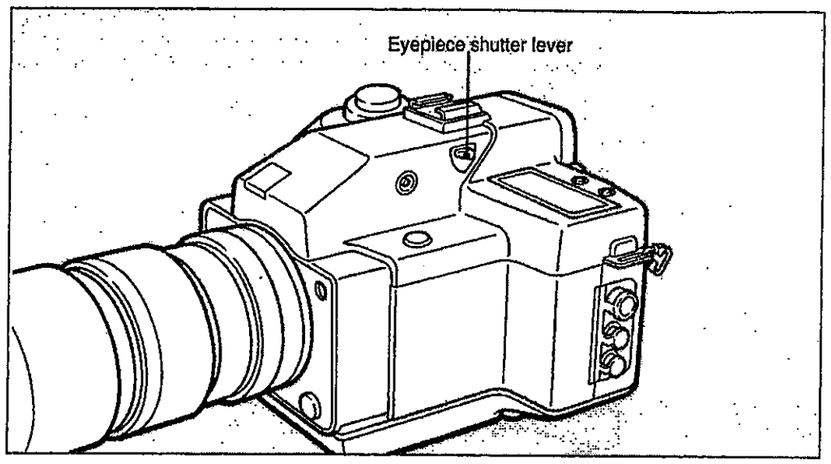
Connect the microphone cable to the MIC jack.
The built-in microphone does not operate when the external microphone is connected to the MIC jack.

Note
Take care that the attached microphone does not cover the automatic white balance sensor.



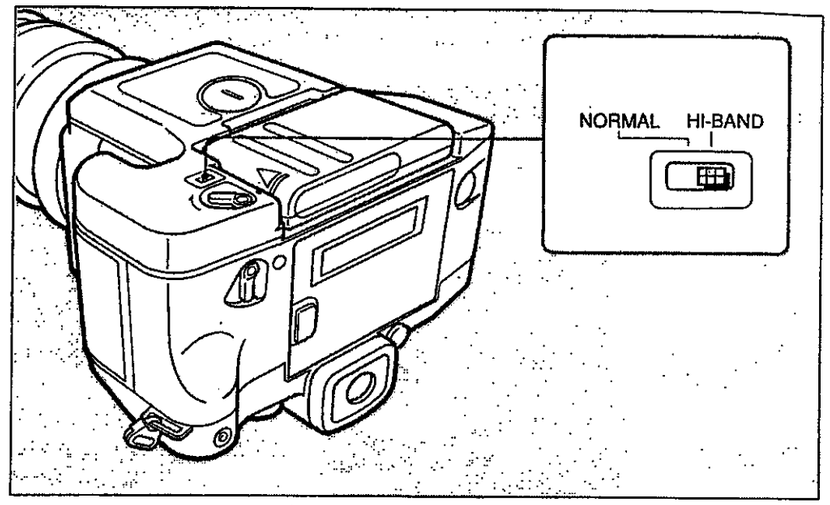
Preventing Light from Affecting Exposure (Eyepiece Shutter Lever)

When you record the pictures without looking into the eyepiece, such as when using a remote control unit, in interval recording, or in self-timer operation, light might enter the unit through the eyepiece. In this case, turn the eyepiece shutter lever down to prevent light from entering. Otherwise, the automatic exposure may not function correctly.



Selecting Hi-Band or Normal Band

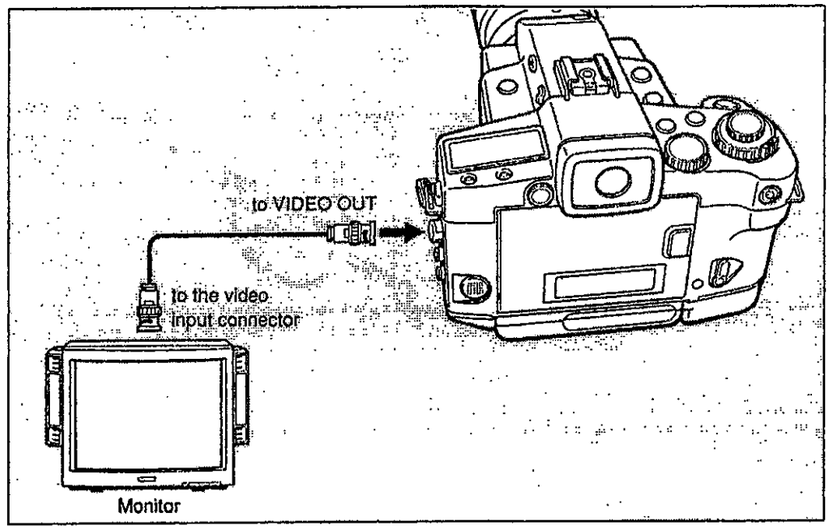
If you play back the pictures on a unit which is not compatible with the Hi-band format (MVR-5500/5500A, MVR-A770), select the NORMAL position. When you change the setting, **be sure to turn the unit off.**



Using the Unit as a Video Camera

If you connect the unit to a monitor, you can use the unit as a video camera. The unit outputs the video signal through the VIDEO OUT connector to the connected monitor. So, instead of looking into the viewfinder, you can see the subjects on the monitor screen. And whenever you press the shutter release button, the picture is recorded on the disk on the spot. This function is suitable for studio-use or for security, since you can confirm the subjects on a monitor screen.

Connection



Operation

When you use the unit with the MCL-913T zoom lens, the type of exposure you can use are shutter speed priority AE (S) and manual (M). However, when you use the unit with a Nikkor lens, you can only use manual exposure.

1 Turn the Main switch to V.OUT.

The VIDEO OUT indication will be displayed in the window. The reflecting mirror clicks up and you cannot see through the viewfinder.

2 Turn the Mode dial to AE.

3 While pressing the Shift button, turn the Shift dial to select S (shutter speed priority AE) or M (manual).

When you use the MCL-913T zoom lens;
The type of exposure you can use is S and M.
When you use a Nikkor lens;
You can only use the manual exposure.

4 Turn the Shift dial to set the shutter speed.

The shutter when you use the unit as a video camera is called 'electronic shutter'. And the shutter speeds which can be selected are: 1/60, 1/100, 1/125, 1/500, 1/1000, 1/2000, and 1/4000.

5 Adjust the aperture value.

When you use the MCL-913T zoom lens
If you select the shutter speed priority AE (S) in step 3, the aperture value is automatically adjusted.
If you select the manual exposure (M), turn the Shift dial while pressing the MANUAL IRIS button.

When you use a Nikkor lens
Adjust the aperture value manually on the lens.

If the flickering of flourescent lamps affect the recording
Set the shutter speed to 1/100 in 50 Hz areas, and set it to 1/60 in 60 Hz areas.

Note
When the brightness of the subject changes frequently, it might take time until the brightness on the monitor screen is properly adjusted.

Recording the picture on the disk

1 Turn the Main switch to ON or STANDBY, or press the shutter release button lightly.

The unit will switch to the still video camera recorder. Confirm the exposure, shutter speed, or aperture value of the still video camera recorder.
When you press the shutter release button lightly, the picture on the monitor screen will disappear and you can see the subject through the viewfinder.

2 Press the shutter release button completely when you want.

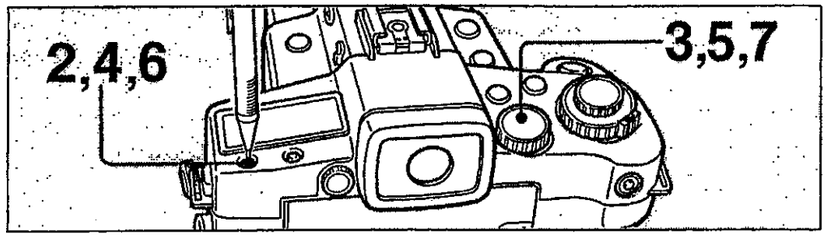
The recording will be made on a disk.

Setting and Recording the Date and Time

You can record the date and time of recording with the pictures. The recorded date will be displayed on the monitor screen when you play back the pictures using the MVP-660 still video player. If you do not set the date and time, the A/P indication blinks alternately for 3 seconds when you turn on the power.

Setting the date

Make sure to turn the Main switch to ON.

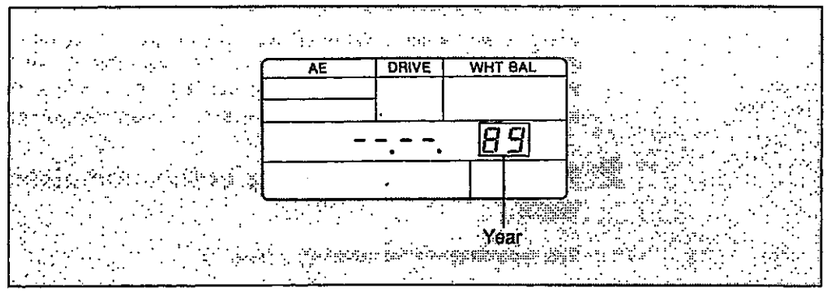


1 Make sure the DRIVE mode is not set to INT (interval recording).

2 Press the SELECT button with a pointed object.

The display shows "--. --. --".

3 Turn the Shift dial to set the year.



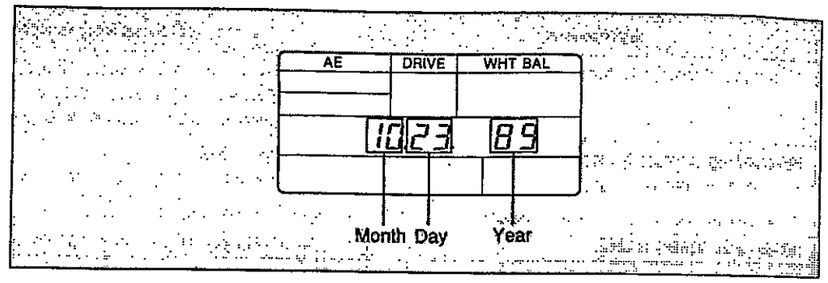
4 Press the SELECT button.

5 Turn the Shift dial to set the month.

6 Press the SELECT button.

7 Turn the Shift dial to set the day.

The date is set. The display shows "-- --". Set the time as follows.



Setting the time

1 Turn the Shift dial to set the hour.

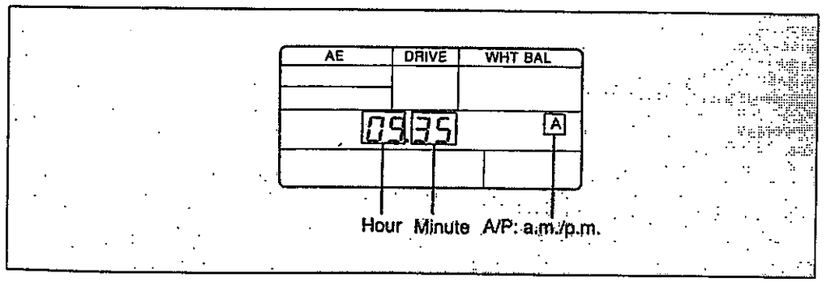
The A (a.m.) or P (p.m.) indication will appear on the right side of the window.

2 Press the SELECT button.

3 Turn the Shift dial to set the minute.

4 Press the SELECT button.

The time counter will start counting from 00 second.



To confirm the date and time, press the SELECT button.
Every time the button is pressed, the date and time will be displayed.
To correct or change the date and time, keep pressing the SELECT button until the display starts blinking. And change the date/time from the beginning.
If you leave the unit for more than 1 minute while setting, the setting will be canceled.

Troubleshooting Guide

The following trouble checks will help you correct the most common problem encountered with your unit. Before proceeding with these trouble checks, first check that the battery is fully charged. Should the problem persist, contact your Sony dealer or local authorized Sony service facility.

Symptom	Cause and remedy
The power does not turn on.	• The battery is not installed. (page 19) • The battery is exhausted. (page 20) • The power source is disconnected. (page 21)
Recording cannot be done when you press the shutter release button.	• The disk is full. • The safety tab of the disk has been removed. (page 25)
The remaining shot counter shows "0" when you insert a disk.	• Remove the disk and reinsert it. (page 24) • The safety tab of the disk has been removed. (page 25)
The image on the viewfinder screen is not clear.	• The position of the viewfinder lens is not adjusted. (page 17)
You cannot see through the viewfinder.	• The Main switch is set to V. OUT. (page 62) • The eyepiece shutter lever is turned down. (page 60)
The recorded pictures have unnatural color tones.	• The white balance sensor is covered. (page 36) • Shooting conditions are not suitable. Set the white balance manually. (page 37)
The remaining shot counter shows "0", though there are the vacant tracks on a disk.	• The vacant tracks located before the last recorded track are not counted when you skipped tracks. – Skip the tracks and find the vacant tracks. (page 45)
The viewfinder or the display window turns off, when the Main switch is set to on.	• The auto power off system functions. (page 31.)

Warning Indications and Error Display

Listing below is the warning and error indications displayed in the display window.

In the viewfinder

Indications	What the indication means	What you should do
WB blinks.	White balance is not adjusted.	Adjust the white balance. (page 36)
+	Over exposure.	Change the aperture value or shutter speed until you can get the optimum exposure. (page 35)
+ and o	Slightly over exposure.	
– and o	Slightly under exposure.	
–	Under exposure.	
b-E and the shutter speed indication blink alternately.	Battery is weak.	Replace with a charged battery. (page 19)
b-E and the time indication light up.	Battery is exhausted.	Replace with a charged battery. (page 19)
The aperture value indication blinks.	The picture might become unstable if you record it as it is.	Make the shutter speed faster. (page 29)

In the display window

Indications	What the indication means	What you should do
CErr	The head is contaminated.	Remove the disk. (page 24)
SErr	Servo error.	Turn the power off and remove the disk. (page 24)
(b-E) blinks.	Battery is weak.	Replace with a charged battery. (page 19)
(b-E) lights up.	Battery is exhausted.	Replace with a charged battery. (page 19)
lights up.	Moisture has condensed.	Remove the disk and leave the unit with the disk holder open until the indication goes off. (page 4)
The A/P indication blinks five times immediately after the power is turned on.	The lithium battery is exhausted.	Replace the battery. (page 23)

Specifications

System	Still video camera for recording only Interchangeable lens, single lens reflex
Recording capacity	Frame recording: 16 frame still pictures with sound, 25 frame still pictures Field recording: 25 field still pictures with sound, 50 field still pictures
Audio recording	480 seconds max. (9.6 sec./track)
Video recording mode	Frame/Field selectable
Drive mode	Single recording, continuous recording of 3 shots/sec., self-timer recording and interval recording.
Imager	Two 2/3" interline transfer CCD (Charge Coupled Device) image sensors
Lens	MCL-913T zoom lens: f=9.5 – 123.5 mm, F1.8 with macro Nikkor lens with the MCL-200N lens adaptor
Shutter speed	Mechanical shutter: 1/8 – 1/2000 sec. (still video recording mode) Electronic shutter: 1/60 – 1/4000 sec. (video out mode)
Viewfinder	TTL optical viewfinder (lens position adjustable), viewing area 92%
Exposure control system (with the MCL-913T zoom lens)	Programmed AE Aperture priority AE Shutter priority AE Manual
Flash mode	Shutter speed: 1/180 sec. Aperture: F5.6 (when using the MFL-30 electronic flash)
EV compensation	±3 EV (0.5 EV step)
Sensitivity	Frame recording: equivalent to ISO 100 Field recording: equivalent to ISO 200
White balance	Self-adjusting automatic white balance, memory, 5800K, 3200K
ID recording	year, month, date/hour, minute, second/aperture value/shutter speed
Memory back-up	Approx. 1 year using the CR2032 lithium battery
Microphone	Built-in electret condenser microphone (uni-directional)

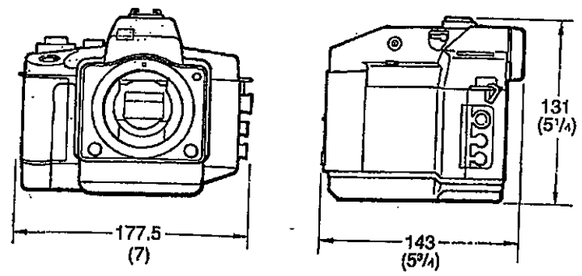
Inputs and outputs

MIC jack	Minijack, –60 dBs, low impedance
Accessory shoe	For the MFL-30 electronic flash
X terminal	JIS7102
REMOTE jack	Special minijack
VIDEO OUT connector	BNC × 1

General

Power requirements	6 V DC: rechargeable battery pack NP-55/NP-77 100 V AC: AC power adaptor AC-V55 12 V or 24 V car battery: AC power adaptor AC-V55 and DCC-16B car battery cord
Power consumption	7.2 W
Weight	1.6 kg (3 lb 8 oz) main unit 3.0 kg (6 lb 10 oz) incl. NP-55 battery pack, a disk and MCL-913T zoom lens
Operating temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	–20°C to +60°C (–4°F to +140°F)

Dimensions



unit=mm (inch)

Accessories supplied

Body cap (1)
Shoulder strap (1)
Lithium battery CR2032 (1)

Optional accessories

Zoom lens MCL-913T
Lens adaptor MCL-200N
Electronic flash MFL-30
Remote control unit RM-S7
Battery pack NP-55/NP-77/NP-77H
AC power adaptor AC-V55
Car battery cord DCC-16B (supplied with the ACCKIT-77 accessory kit)
Still video floppy disk MP-50

Design and specifications subject to change without notice.