JVC

Memory Recorder

KA-MR100G   INSTRUCTIONS

MENU   INFO/CLR

POWER
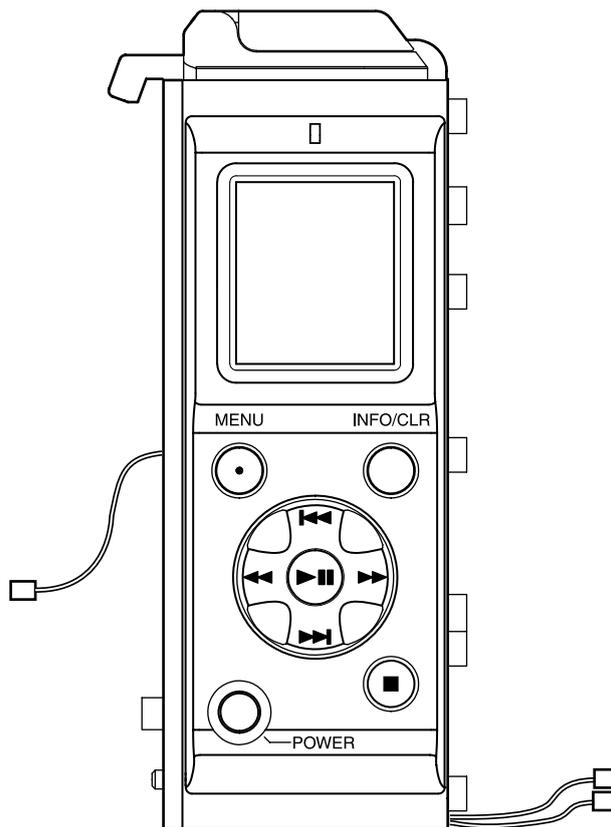
Thank you for purchasing this JVC product. Before beginning to operate this unit, please read the instructions carefully to ensure the best possible performance.

For Customer Use:
Enter below the Serial No. which is located on the body. Remain this information for future reference.
Model No. : KA-MR100G
Serial No. :

Getting Started

I

Safety Precautions

Safety Precautions (continued)

FOR EUROPE

This equipment is in conformity with the provisions and protection requirements of the corresponding European Directives. This equipment is designed for professional video appliances and can be used in the following environments:

● Controlled EMC environment (for example, purpose-built broadcasting or recording studio), and rural outdoors environments.

In order to keep the best performance and furthermore for electromagnetic compatibility we recommend to use cables not exceeding the following lengths:

	Cable	Maximum Cable Length
IEEE1394 CABLE	Shield Cable	0.2 m

Caution:
Where there are strong electromagnetic waves or magnetism, for example near a radio or TV transmitter, transformer, motor, etc., the picture and the sound may be disturbed. In such case, please keep the apparatus away from the sources of the disturbance.

Dear Customer,

This apparatus is in conformance with the valid European directives and standards regarding electromagnetic compatibility and electrical safety.

European representative of Victor Company of Japan, Limited is:
JVC Technical Services Europe GmbH
Postfach 10 05 04
61145 Friedberg
Germany

Sehr geehrter Kunde, sehr geehrte Kundin,

dieses Gerät stimmt mit den gültigen europäischen Richtlinien und Normen bezüglich elektromagnetischer Verträglichkeit und elektrischer Sicherheit überein.

Die europäische Vertretung für die Victor Company of Japan, Limited ist:
JVC Technical Services Europe GmbH
Postfach 10 05 04
61145 Friedberg
Deutschland

Information for Users on Disposal of Old Equipment [European Union]
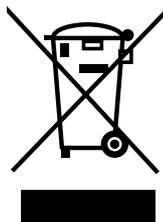
Attention:
This symbol isonly valid in the European Union.

This symbol indicates that the electrical and electronic equipment should not be disposed as general household waste at its end-of-life. Instead, the product should be handed over to the applicable collection point for the recycling of electrical and electronic equipment for proper treatment, recovery and recycling in accordance with your national legislation.
By disposing of this product correctly, you will help to conserve natural resources and will help prevent potential negative effects on the environment and human health which could otherwise be caused by inappropriate waste handling of this product. For more information about collection point and recycling of this product, please contact your local municipal office, your household waste disposal service or the shop where you purchased the product. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

(Business users)
If you wish to dispose of this product, please visit our web page http://www.jvc.eu to obtain information about the take-back of the product.

[Other Countries outside the European Union]
If you wish to dispose of this product, please do so in accordance with applicable national legislation or other rules in your country for the treatment of old electrical and electronic equipment.

FOR USE IN CHINA ONLY

《电子信息产品污染控制管理办法》规定的表示内容

关于环保使用期限

● 此图标表示了中国《电子信息产品污染控制管理办法》规定的环保使用期限。只要用户在使用本产品时遵守注意事项中的各项规定，从制造日期开始到此图标标出的期限为止（环保使用期限）既不会污染环境也不会产生对人体有害的物质。

环保使用期限

关于产品中的有毒、有害物质

零件名称	有毒或有害物质、元素					
	铅（Pb）	水银（Hg）	镉（Cd）	六价铬（Cr6+）	多溴联苯（PBB）	多溴二苯醚（PBDE）
线路板组件	×	○	○	×	○	○
机箱	×	○	○	×	○	○
液晶显示屏	×	○	○	×	○	○
其他附件	×	○	○	×	○	○

○：此零件中的每个均匀材料所含有毒、有害物质的量在SJ/T 11363-2006标准规定的范围之内。
×：此零件中至少有一种均匀材料含有有毒、有害物质的量超过了SJ/T 11363-2006标准的规定。

Features

This is a memory recorder to record and play back HD-format video images and audio signals on an SxS memory card via the IEEE1394 interface.

Use of SxS Memory Card

The use of MPEG-2 Long GOP compression format and SxS memory card enables long-duration recording and high-speed transfer as described below.
- Supports long-duration recording of HD images up to 180 minutes (when capacity is 32 GB and mode is set to 720p).
- Enables high-speed data transfer to a computer, thus enhancing workflow efficiency.

Attachment to Professional HD Camcorders

- This memory recorder can be attached to the GY-HD200/HD250 HD camcorder series to enhance shooting that requires a high level of mobility.
- Besides recording to SxS memory cards, hybrid recording and series recording through combined use with cassette tapes are also supported.

Use of MP4 File Format ※1

- MP4 file format, compliant file format used on the "XDCAM EX".
- ※ Play back compatibility may be not guaranteed on the different type products, due to variation of supported recording mode.
- ※1: MP4 File Format
  This format adopts the Professional Memory Card System Format licensed from Sony Corporation.

Contents

The following are included in the bundled CD-ROM.
<Softwares>
- SxS memory card device driver software for computers
- Computer application software (JVC ProHD Clip Manager)
- Plugin software for Final Cut Pro (JVC ProHD Log and Transfer Plugin) ※1

※1: "Final Cut Pro" is a video editing software developed by Apple Inc.

<Documents>
- KA-MR100G instruction manual
  (Japanese, English, German, French, Italian, Spanish, Russian, and Chinese versions)
- SxS memory card device driver software installation guide
- JVC ProHD Clip Manager user's guide/JVC ProHD Log and Transfer Plugin user's guide.
  For procedures on how to install the application software on a computer, please refer to the user's guide or instruction manual.

Copyrights

How to Read this Manual

■ Symbols used in this manual

Note	: States precautions to be taken during operation.
Memo	: States restrictions on the functions or use of this equipment. For reference purposes.
☞	: Indicates the page numbers or items to refer to.

■ Contents of this manual

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- Product names of other companies described in this manual are trademarks or registered trademarks of the respective companies. Symbols such as ™, ® and © are omitted in this manual.
- Design, specifications and other contents described in this manual are subject to change for improvements without prior notice.
- XDCAM EX is Sony Corporation's brand name for its professional video camera series.
- Windows is a registered trademark of Microsoft Corporation in the U.S.
- Mac OS and Final Cut Pro are trademarks of Apple Inc., registered in the United States and other countries.

Precautions

Storage and Operating Environment

■ **Do not store this product in the following environments.**
Doing so may result in malfunction or failure.
● Hot or cold locations beyond the allowable operating temperature range of 0 ℃ to 40 ℃.
● Locations beyond the allowable operating humidity range of 30 % RH to 80 % RH (no condensation)
● Near equipment that emits strong magnetic fields, such as transformers or motors
● Near equipment that emits radio waves, such as transceivers and mobile phones
● Locations with excessive dust and sand
● Locations that are subjected to strong vibrations
● Locations prone to moisture, such as window side
● Locations that are subjected to steam or oil, such as kitchens
● Locations that are subjected to radiation, X-rays, or corrosive gases

Precautions for Handling the Memory Recorder

● When connecting and recording with a camcorder other than GY-HD200/GY-HD250, the recording may not work properly.
● Playing back clips that are created on devices other than the KA-MR100G Memory Recorder may result in distorted images and choppy sound.
● Please do not use the battery that cannot be connected with this product.
● Make sure that the power switch is turned off before removing the battery. Failure to do so may result in malfunction of the memory recorder or SxS memory card.
● Do not unplug the IEEE1394 cable during recording or playback.
● When power is not supplied for a prolonged period of time (three months or longer), the initial setting screen appears when the power is next turned on.
● Do not place objects on the memory recorder.
● This product cannot be used by connecting the IEEE1394 terminal of the KA-UM100G adapter (sold separately) to the computer.
● Please contact our authorized dealers if inspection of the interior components or repair is required.

Fire Hazard, Electrical Shock and Injury

● Do not place this product on unstable surfaces as it may fall and lead to injuries or malfunction of the product. When this product is attached to a camcorder, carry it by holding the handle of the camcorder.
● Do not remove or modify the cover of this product. It might result in fire, electrical shock or malfunction of the product.
● Do not insert objects other than the memory card into the card slot. Inserting a metallic or flammable object may result in fire, electrical shock or malfunction of the product.

Accessories

■ **To use the ExpressCard slot on the computer, installation of the SxS memory card device driver software is required. The driver can be found in the bundled CD-ROM.**
■ **To copy a video clip to the computer, installation of the computer application software (JVC ProHD Clip Manager) is required. This program can be found in the bundled CD-ROM.**

■ **To load recorded video clips to Apple Inc.'s video editing software, Final Cut Pro, installation of the Final Cut Pro plugin software (JVC ProHD Log and Transfer Plugin) is required. This software can be found in the bundled CD-ROM.**
■ **For procedures on how to install the software, please refer to the user's guide and instruction manual in the bundled CD-ROM.**

Precautions for Handling SxS Memory Cards

■ **Make sure that the SxS memory card is formatted on this memory recorder. SxS memory cards that are formatted on another product cannot be used on this memory recorder.**
■ **Formatting an SxS memory card erases all clips that are stored on the card.**
■ **Make sure to close the card slot cover before using the memory card.**
■ **Do not operate the write-protect switch of the SxS memory card when it is inserted into the memory recorder.**
■ **For details, please refer to the instruction manual of the SxS memory card.**

Precautions for Handling Recorded Video Clips

■ **We do not guarantee against damage of the recorded video clips if the SxS memory card is removed from the slot while data is being accessed (e.g., during recording, playback or formatting). Remove the card only when the access lamp of the memory recorder lights up in green.**
■ **We do not guarantee against damage of the recorded video clips in the following cases:**
● when this product is used in places subject to static electricity or electrical noises;
● when the battery or IEEE1394 cable is removed while data is being accessed;
● when this product is used in sandy or dusty places, or when a dirty SxS memory card is used.
■ **The recovery feature does not guarantee successful recovery of the damaged files.**

> JVC shall not be liable for any damage or loss of the recorded video clips. (We strongly recommend that you create a backup for important video clips.)

Maintenance

■ **Turn off the power before performing maintenance.**
■ **Wipe this product using a soft cloth. Wiping with thinner or benzene may melt or tarnish its surface. For tough stains, wipe using a cloth that is dipped into a neutral detergent diluted with water, followed by wiping with a dry cloth.**
■ **Contact with rubber or plastic products over an extended period of time may cause the outer surface of the product to deteriorate or the paint to peel off.**

Saving Energy

■ **If this product is not to be used for a long time, turn off the power of the system for safety and energy conservation reasons.**

Name and Function of Parts
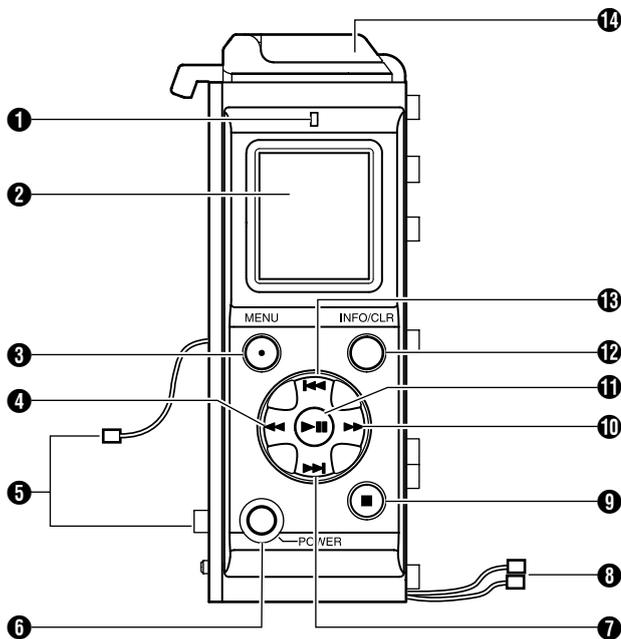
❶ Access lamp

Displays the status of the SxS memory card.

Light off : SxS memory card is not inserted

Green light : Data in the card is not being accessed

Red light : Data is currently being accessed (e.g., recording, playback or formatting in progress)

● Before removing the SxS memory card, make sure that the access lamp lights up in green color.

❷ LCD panel

Displays the status, clip selection and menu screens. (☞ Page 5, 10, 11)

Memo:
● The contrast and backlight settings of the LCD panel can be specified on the [LCD] setting screen of the menu screen.
"LCD panel contrast and backlight settings" (☞ Page 12)

❸ [MENU] button

Displays the menu screen. Press this button again to restore the original screen display.

❹ [REV] button

● Fast reverses the selected clip.
● When the Time Code, Date/Time or Clip Name setting screen is displayed, use this button to select a setting.

❺ Camcorder connector

To connect the memory recorder with a camcorder, connect this connector to the memory recorder connector of the KA-UM100G adapter (sold separately).

❻ [POWER] button

Turns On/Off the power of the memory recorder. To do so, press and hold the button for at least one second.

❼ [NEXT] button

● Skips the currently selected clip to the next clip.
● When the clip selection screen is displayed, use this button to select a clip to play back.
● When the menu screen is displayed, use this button to select a menu item or setting value.

❽ Battery connector

For connecting to the battery adapter connector of the camcorder.

❾ [STOP] button

● Stops recording or playback.
● When the menu screen is displayed, press this button to return to the menu screen without altering the settings.

❿ [FWD] button

● Fast forwards the selected clip.
● When the Time Code, Date/Time or Clip Name setting screen is displayed, use this button to select a setting.

⓫ [PLAY/STILL] button

● Pauses or starts playback.
● When the menu screen is displayed, press this button to confirm an item or setting value selection.

⓬ [INFO/CLR] button

● Switches the clip information display. (☞ Page 5)
● When the utility execution screen is displayed, use this button to execute a process. On other setting screens, pressing this button restores the default settings.

⓭ [PREV] button

● Skips to the beginning of the selected clip or the previous clip.
● When the clip selection screen is displayed, use this button to select a clip to play back.
● When the menu screen is displayed, use this button to select a menu item or setting value.

⓮ Card slot

Open the cover and insert the SxS memory card. (☞ Page 8)

LCD Panel Displays

During Recording or Stop Mode

Displays the status screen.

```
①─────────  ■STOP        052  ─────── ⑦
②─────────  REMAIN      090M
③─────────  D  01 / 01 / 08
④─────────  T  01 : 15 : 27
⑤─────────              720P60
            🔒  ABCD1234  ──── Card protect mark
⑥─────────  00 : 00 : 00 : 00  ──── ⑧
```
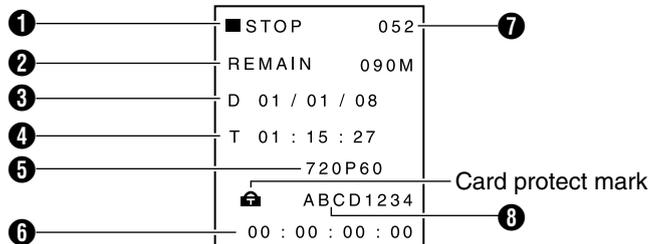
❶ Modes

---	SxS memory card is not inserted
■STOP	Stop
●REC	Recording
❙❙STBY	Standby (pause)

❷ Remaining capacity

Displays the remaining time (minutes) of the SxS memory card.

❸ Date

Shows the date of the built-in clock. The month/day/year display format can be specified on the [CLOCK2]-[DATE STYLE] screen of the menu screen.
"Setting the Date/Time" (☞ Page 7, 13)

❹ Time

Shows the time of the built-in clock. The time display format (12-hour/24-hour) can be specified on the [CLOCK2]-[TIME STYLE] screen of the menu screen.
"Setting the Date/Time" (☞ Page 7, 13)

❺ Video format

Shows the video format selected on the [SYSTEM] screen of the menu screen.
"Video format settings" (☞ Page 12)

❻ Time code/User bit

Displays the time code or user bit to be recorded. Press the [INFO/CLR] button to toggle the display.
00:00:00:00 : Time code
0F 0F 0F 0F : User bit

Memo:
● The time code display differs depending on whether non drop frame or drop frame mode has been selected in the [DROP FRAME] setting.

Non drop frame mode	00:00:00:00
Drop frame mode	00:00:00:00

❼ Total number of clips

Displays the total number of clips recorded in the SxS memory card.

❽ Clip name

Displays the name of the clip that is going to be recorded. The clip name can be specified on the [CLIP NAME] screen of the menu screen. "Changing clip name or resetting the clip number" (☞ Page 13)

Memo:
● A "NO CARD" message is shown when an SxS memory card is not inserted.
● A "CARD PROTECT" mark 🔒 is shown before the clip if the write-protect switch of the SxS memory card is turned on.

During Playback Mode

Displays the clip selection screen.

```
⑨─────────  ❙❙ S      051/052  ─────── ⑭
⑩─────────              720P60
            ABCD1232
⑪─────────  >∨ABCD1233 ok
            ∨ABCD1234
⑫─────────
⑬─────────  00 : 00 : 00 : 00
```
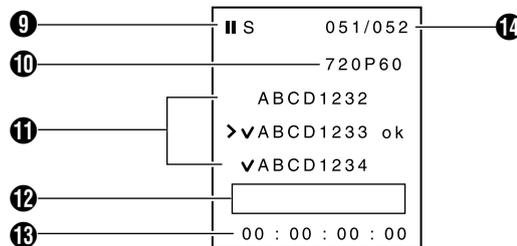
❾ Modes

❙❙S	Still	▶P	Playing
▶▶F1	Fast forward (low speed)	◀◀R1	Fast reverse (low speed)
▶▶F2	Fast forward (high speed)	◀◀R2	Fast reverse (high speed)

❿ Video format

Displays the video format of the selected clip.
"Video format settings" (☞ Page 12)

⓫ Clip name

● The clip indicated by the cursor (>) is the selected clip.
● A "NO CLIP" message is shown when no clip is found.

∨ mark	A check mark (∨) appears before clips that are playable.
ok mark	Appears after the clip name. You can specify the "ok mark" on the [OK CLIP] screen of the menu screen. "Menu screen's [OK CLIP] settings" (☞ Page 12)

⓬ Playback position bar

Displays the progress of the currently played clip in the form of a bar.
"Memory recorder's time code settings" (☞ Page 12)

⓭ Clip information

Displays various information related to the selected clip. Press the [INFO/CLR] button to toggle the clip information display.

00:00:00:00 : Playback time code

0F 0F 0F 0F : Playback user bit

RD 09/07/08 : Date on which clip is recorded (month/day/year)

RT 11:11:11 : Time on which clip is recorded (hour:minute:second)

Dr 00:10:00 : Clip length (duration) (hour:minute:second)

Note:
● The playback time code value is not an accurate representation. Use it as a guide for the playback position.

⓮ Selected clip/Total number of clips

Attaching the Memory Recorder to a Camcorder

Check the IEEE1394 connection method before attaching the memory recorder to the camcorder.
For details, please refer to "Connecting IEEE1394" (☞ Page 7)

Note:
● The KA-MR100G adapter (sold separately) is required to attach the memory recorder to a camcorder.

Memo:
● Two different types of battery adapters, manufactured by IDX and Anton Bauer respectively, are available, depending on the country/region where the camcorder is purchased.

1 Remove the battery from the camcorder

2 Remove the battery adapter from the camcorder

Follow the steps illustrated in ① ~ ③ below to remove the battery adapter, followed by the plate (for IDX adapters only) and rubber sheet from the camcorder.

Rubber sheet
(included with the camcorder)
③ Remove screw B (x4)
Battery adapter
Screw A
① Remove screw A (x4)
Screw B
Screw A
Plate (for IDX adapters only)
Connector
Battery adapter for Anton Bauer
② Remove connector (x2)
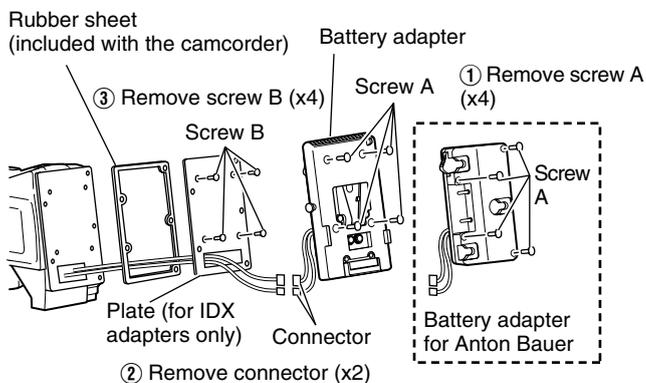
Memo:
● Battery adapters manufactured by Anton Bauer do not come with a plate.

3 Attach the KA-UM100G adapter (sold separately) to the camcorder

Align the screw holes at the back of the camcorder with the holes on the rubber sheet. Next, follow the steps illustrated in ① ~ ② to attach the KA-UM100G adapter.
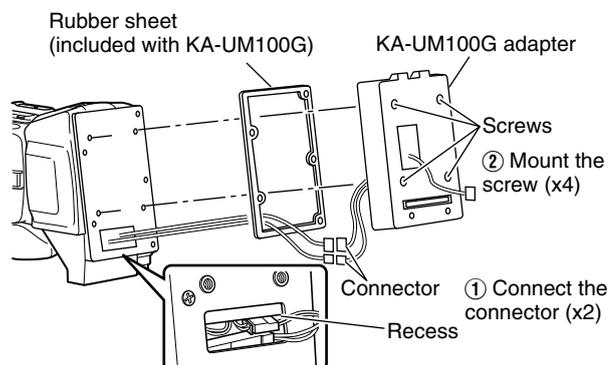
Rubber sheet
(included with KA-UM100G)
KA-UM100G adapter
Screws
② Mount the screw (x4)
Connector
① Connect the connector (x2)
Recess

Note:
● Store the connection wires and connectors properly so that they do not protrude from the groove or recess.

4 Attach the memory recorder to the KA-UM100G adapter

Align the screw holes at the back of the KA-UM100G adapter with the holes on the rubber sheet. Next, follow the steps illustrated in ① ~ ④ to attach the memory recorder.
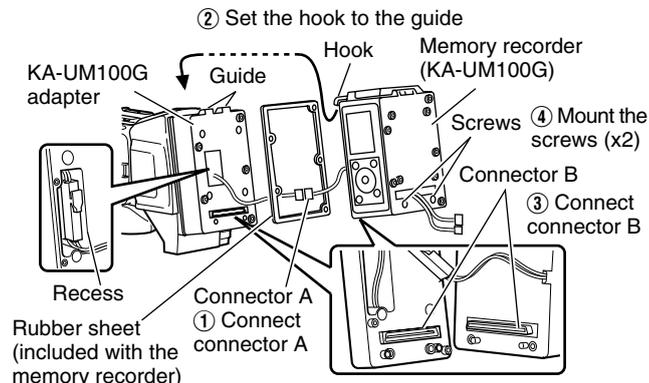
② Set the hook to the guide
KA-UM100G adapter
Guide
Hook
Memory recorder (KA-UM100G)
Screws
④ Mount the screws (x2)
Connector B
③ Connect connector B
Recess
Connector A
① Connect connector A
Rubber sheet (included with the memory recorder)

Note:
● Store the connection wires and connectors properly so that they do not protrude from the groove or recess.

5 Attach the battery adapter to the memory recorder

Align the screw holes at the back of the memory recorder with the holes on the rubber sheet. Next, follow the steps illustrated in ① ~ ③ to attach the rubber sheet, plate (for IDX adapters only) and battery adapter.
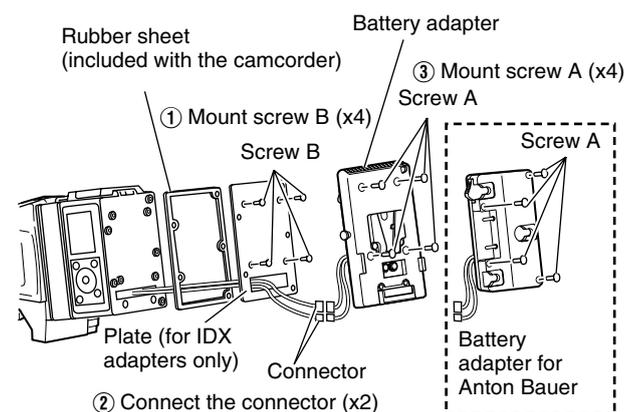
Rubber sheet
(included with the camcorder)
Battery adapter
③ Mount screw A (x4)
Screw A
① Mount screw B (x4)
Screw B
Screw A
Plate (for IDX adapters only)
Connector
Battery adapter for Anton Bauer
② Connect the connector (x2)

Note:
● Store the connection wires and connectors properly so that they do not protrude from the groove or recess.

Memo:
● Battery adapters manufactured by Anton Bauer do not come with a plate.

6 Attach the battery to the camcorder

Note:
● Do not use the battery that cannot be connected with this product.
For details, please refer to the instruction manual of the camcorder.

6

Connecting IEEE1394

There are 2 ways to connect the IEEE1394.

Connecting via IEEE1394 Cable

● Connect the IEEE1394 cable to the KA-UM100G adapter and the IEEE1394 terminal of the camcorder.
● Set the [INT/EXT] switch to "EXT".

[INT/EXT] switch

KA-UM100G adapter
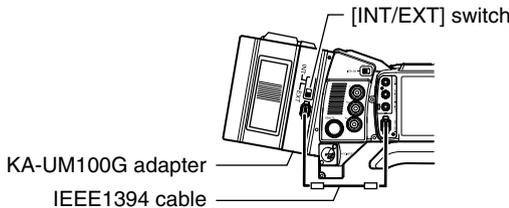
IEEE1394 cable

Memo:
● When the switch is set to [INT], signal input and output is disabled.
● For information on where to purchase an IEEE1394 cable, please consult our authorized dealers.

Connection via Internal Wiring

Changes need to be made to the internal wire connections of the camcorder.
Memo:
● When making a connection with the switch set to [INT], it is necessary to alter the internal wire connections of the camcorder. For details, please consult our authorized dealers.
● When making a connection with internal wiring, the IEEE1394 terminal of the adapter is disabled.

[INT/EXT] Switch	Description
INT	● For recording data to or playing data from the SxS memory card. ● When the switch is set to [INT], the IEEE1394 terminal on the camcorder is disabled.
EXT	● For connecting the IEEE1394 terminal on the camcorder to a computer or other devices. ● When the switch is set to [EXT], the internal connection between the memory recorder and the camcorder is disabled.

Turning On/Off the Power

Turning On the Power

1 Set the [POWER] switch of the camcorder to "On"

2 Press and hold down the [POWER] button of the memory recorder for at least one second

● The power of the memory recorder turns on. After a message indicating "KA-MR100 POWER ON" appears on the LCD panel for several seconds, the status screen is displayed.
Memo:
● It is necessary to set the built-in clock immediately after purchasing this product or when it has not been used for a prolonged period of time (three months or longer). After the power of the memory recorder turns on, a message indicating "CLOCK SETUP MENU" appears for several seconds. Next, the [CLOCK1] setting screen is automatically displayed. "Setting the Date/Time" (☞ Page 7)

7

Turning Off the Power

1 Press and hold down the [POWER] button of the memory recorder for at least one second

● The power of the memory recorder turns off.
Memo:
● You can turn off the power of the memory recorder using the [POWER] switch of the camcorder by setting [DR-HD100 A.OFF] on the OTHERS[2/2] menu screen of the GY-HD200/HD250 series camcorder to "On".
Note:
● Make use of a battery to supply power to the memory recorder. Power cannot be supplied from the DC INPUT terminal of the camcorder.

Setting the Date/Time

Set the time of the built-in clock on the [CLOCK1] setting screen of the menu screen.

```
■ - - CLOCK1 - - -
> TIME ZONE
    UTC-05:00
  DATE
    - - / - - / - -
  TIME
    - - : - - : - -
```
<[CLOCK1] Setting Screen>
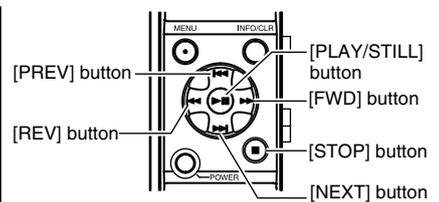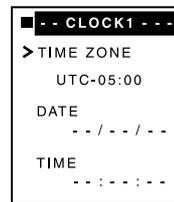
MENU   INFO/CLR
[PREV] button   [PLAY/STILL] button
[REV] button   [FWD] button
                       [STOP] button
POWER   [NEXT] button

<Buttons to use>

1 Select the item to set ("TIME ZONE", "DATE" or "TIME")

● Press the [PREV] or [NEXT] button to select an item.
● After making a selection, press the [PLAY/STILL] or [FWD] button to confirm.

2 Set the respective items

Set the items listed in the table below.
Memo:
● Be sure to set the "TIME ZONE" before setting the "DATE" and "TIME"".
● The memory recorder does not support daylight savings time.

Item	Description
TIME ZONE	For setting the time difference with the UTC (Universal Time Coordinate). The values of the "DATE" and "TIME" items will be automatically adjusted when this item is altered. "UTC Time Difference Chart by Region" (☞ Page 17)
DATE	For setting the date (month/day/year).
TIME	For setting the time (hour:minute:second).

● Press the [PREV] or [NEXT] button to select a value, followed by using the [PLAY/STILL] button to confirm the selection.
● When setting DATE, press the [FWD] or [REV] button to jump between month, day, and year. When setting TIME, press the same button to jump between hour, minute and second.

3 Press the [MENU] button to return to the status screen

Inserting/Removing the SxS Memory Card

Note:
● This product does not support the USB interface ExpressCard. Use a recommended SxS memory card. ("Specifications" ☞ Page 16)
● Do not insert the SxS memory card in the reverse direction. The card slot is designed such that the card cannot be inserted in the reverse direction. Do not force the card into the card slot as this will cause malfunction.

Inserting the SxS memory card

1 **Slide the tab of the card slot cover horizontally to open the cover**

2 **Insert the SxS memory card into the card slot**
● Insert the card with the label facing you as illustrated below.
● The access lamp lights up in red. When the card is ready to be used, the light turns green.
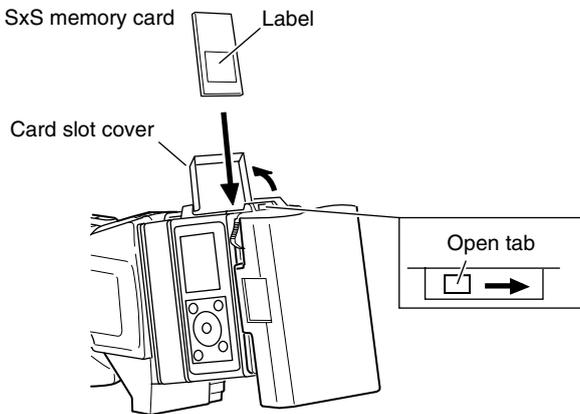
3 **Close the card slot cover**

Memo:
● If a "FORMAT" message appears on the LCD panel, make sure to format (initialize) the card using the memory recorder. ("Menu screen's [MEDIA]-[FORMAT] settings" (☞ Page 13)

Note:
● SxS memory cards that are formatted using another product cannot be used on this memory recorder.

Write-protect Switch of SxS Memory Card

To disable recording or deletion of video clips to or from the SxS memory card so as to protect the recorded clips, set the write-protect switch at the side of the SxS memory card to "WP". When using a write-protected SxS memory card, a message indicating "WRITE PROTECT!" will appear on the status screen of the LCD panel for about three seconds. For details, please refer to the instruction manual of the SxS memory card.

Note:
● Do not operate the write-protect switch of the SxS memory card when it is inserted into the memory recorder.

Removing the SxS Memory Card

Note:
● Do not remove the SxS memory card when the memory recorder lights up in red. Before removing the card, make sure that the access lamp lights up in green color.

1 **Slide the tab of the card slot cover horizontally to open the cover**

2 **Press the [EJECT] button at the side of the slot to unlock**

3 **Press [EJECT] button again, and remove the SxS memory card**
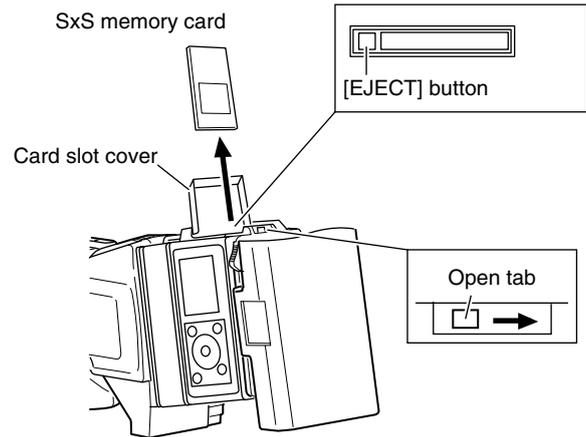
4 **Close the card slot cover**

Maximum Recording Time of SxS Memory Card

The maximum recording time of an SxS memory card varies according to the format of the input signals as shown in the table below.

When using a 32 GB SxS memory card

Mode	Video Format	Max. Recording Time
HD1	720 (50p/25p/60p/30p/24p)	Approx. 180 mins
HD2	1080 (50i/60i)	Approx. 140 mins

Memo:
● The values in the table are for reference and are not guaranteed values. These are not the maximum possible duration during continuous recording. The maximum duration for continuous recording when the battery is fully charged varies according to the battery type.

Recording Video Images of the Camcorder Using the Memory Recorder

To record video images of the camcorder using the memory recorder, operate using the REC trigger button on the camcorder. Each time a recording is started and stopped, a clip is created in the SxS memory card.

Settings Prior to Recording

Before recording, it is necessary to configure the camcorder and memory recorder settings.

■ Camcorder settings

1 **Set to the "CAM" mode using the [CAM/VTR] button**

2 **Set the [IEEE1394] switch to the "HDV" end**
● The memory recorder does not support the DV format.

3 **Set the video format (e.g., 720/60p)**
● Set according to the video format settings of the memory recorder.

Memo:
● The GY-HD200 (B) series camcorders can record in the 1080 format. Check the name plate on the camcorder.

4 **Select a method for recording to the SxS memory card**
● Select the method to record to the SxS memory card from the [1394 REC TRIGGER] item of the OTHERS[2/2] menu screen.

Setting	Recording Method
OFF	Records only to the cassette tape of the camcorder. ※ Data is not recorded in the SxS memory card.
SYNCRO	For hybrid recording
SPLIT	Records only to the SxS memory card
SERIES	For series recording

※ For details, please refer to the instruction manual of the camcorder.

■ Memory recorder settings
For procedures to set the menu screen, refer to page 11.

1 **Set the video format according to the camcorder setting**
● Set the RESOLUTION and FRAME/RATE under the [SYSTEM] settings on the menu screen. (☞ Page 12)

2 **Set the time code recording method for the SxS memory card**
● Set the three items below on the [TC SET1] setting screen of the menu screen. (☞ Page 12)

Setting item	Description
TC SOURCE	For setting the source of the time code
GENERATOR	For setting the run mode of the time code generator of the memory recorder.
DROP FRAME	For selecting either "NON DROP" or "DROP" frame (enabled only when the frame rate is set to 60 or 30.)

Set the preset time code and user bit values on the [TC SET2] setting screen of the menu screen. (☞ Page 13)

Recording to the SxS Memory Card
● When the memory recorder is in the play mode, press the [STOP] button to stop playback.
● There are three REC trigger buttons on the camcorder (on the lens, at the side, and on the handle). The REC trigger button to enable recording to the SxS memory card varies according to the [1394 REC TRIGGER] settings.
● A "TRIGGER TO HDV" message is shown on the camcorder panel display when the REC trigger button is pressed.

■ Hybrid recording with cassette tape (when the "SYNCRO" setting is enabled)
For recording data to both the cassette tape of the camcorder and the memory recorder.

1 **Press any one of the REC trigger buttons on the lens, at the side, or on the handle of the camcorder to start recording to the SxS memory card**

2 **Press the REC trigger button of the camcorder to switch between the recording and standby modes**

3 **Press the [STOP] button on the memory recorder to stop recording**

Memo:
● When a cassette tape is not inserted into the camcorder, data will only be recorded to the SxS memory card.

■ Recording only to the SxS memory card (when the "SPLIT" setting is enabled)
For recording to the SxS memory card by pressing the REC trigger button at the side of the camcorder.

1 **Press the REC trigger button at the side of the camcorder to start recording to the SxS memory card**

2 **Press the REC trigger button of the camcorder to switch between the recording and standby modes**

3 **Press the [STOP] button on the memory recorder to stop recording**

■ Series recording (when the "SERIES" setting is enabled)
Recording to the SxS memory card starts automatically when the remaining capacity of the cassette tape falls below three minutes.

1 **Press any one of the REC trigger buttons on the lens, at the side, or on the handle of the camcorder to start recording to the cassette tape**
● Recording to the SxS memory card starts automatically when the remaining capacity of the cassette tape falls below three minutes.

2 **Press the [STOP] button on the memory recorder to stop recording**

Memo:
● When there is no remaining space left on the SxS memory card, a "CARD FULL!" message will appear for about three seconds.

Camcorder Panel Display

Remaining time
Memory recorder
When connected: White color
During recording: Red color
1394 REC TRIGGER mode
R: OFF   Y: SYNCRO
R: SPLIT   F: SERIES
When connected: Red blinking
During recording: Red color

<Camcorder's STATUS 0 screen>
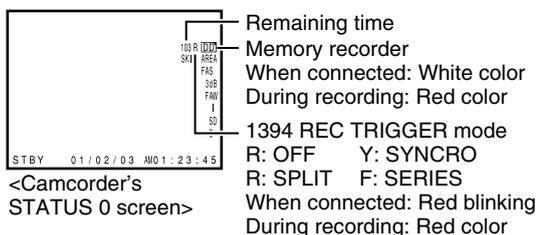
Playing Video Images Recorded in the Memory Recorder

To play back video images recorded by the memory recorder, select a clip from the clip selection screen on the LCD panel of the memory recorder. The selected video clip is played back on the LCD monitor and viewfinder of the camcorder.

Memo:
- Before playing back video images recorded by the memory recorder, stop the playback of the cassette tape in the camcorder.
- Images on the LCD monitor and viewfinder of the camcorder may be distorted when in the Still and Fast forward/Fast reverse modes.

Settings Prior to Playback

Before playing, it is necessary to configure the camcorder and memory recorder settings.

■ Camcorder settings

1 **Set to the "VTR" mode using the [CAM/VTR] button**

2 **Set the [IEEE1394] switch to the "HDV" end**

■ Memory recorder settings

For procedures to set the menu screen, refer to page 11.

1 **Set the video format**
- Set the RESOLUTION and FRAME/RATE under the [SYSTEM] settings on the menu screen. (☞ Page 12)

Note:
- Set according to the format settings of the camcorder. Playback cannot be executed if the camcorder and memory recorder settings are different from each other.

Playing a Clip from the SxS Memory Card

If the memory recorder is in the standby mode, press the [STOP] button on the recorder to switch to the stop mode.

```
■ STOP        052
REMAIN      090M
D  01 / 01 / 08
T  01 : 15 : 27
        720P60
🔒  ABCD1234
00 : 00 : 00 : 00
```
<LCD Panel>

[PREV] button
[REV] button
MENU   INFO/CLR
[PLAY/STILL] button
[FWD] button
[STOP] button
POWER
[NEXT] button

<Buttons to use>
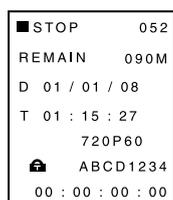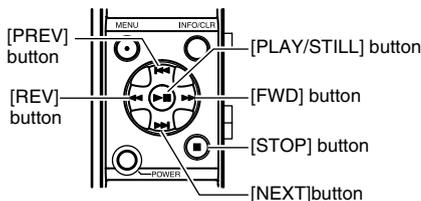
Normal playback

1 **Press the [PLAY/STILL] button**

Memo:
- Playable clips are indicated by a check mark (∨) at the front of their names.
- The clip indicated by the cursor (>) is the selected clip. "LCD Panel Displays" (☞ Page 5)

2 **Press the [NEXT] or [PREV] button to select a clip to play**
- Select a clip that has a check mark.
- To play back a clip without a check mark, it is necessary to configure the camcorder and memory recorder according to the video format settings, which are displayed when the clip is selected.

3 **Press the [PLAY/STILL] button to start playback**
- The video clip is played back on the LCD monitor and viewfinder of the camcorder.
- The progress bar on the LCD panel of the memory recorder moves to indicate the current playback position.
- Press the [PLAY/STILL] button during playback to switch to the still mode. Press the button again to resume playback.

Memo:
- When multiple video clips are stored in the SxS memory card, the playable clips are played back continuously in sequence. Playback switches to the still mode at the end of the last clip.

4 **Press the [STOP] button to stop playback of the clip**

The LCD panel display switches to the status screen.

Fast forward/Fast reverse

Fast forwards or fast reverses the selected clip. It will switch to still mode at the end or beginning of the selected clip. To switch to the still mode during fast forward or fast reverse, press the [PLAY/STILL] button.

■ Pressing the [FWD] button in the still mode, during playback or fast reverse

Switches to the low speed fast forward (F1) mode. Press the [FWD] button again to switch to the high speed fast forward (F2) mode.

■ Pressing the [REV] button in the still mode, during playback or fast forward

Switches to the low speed fast reverse (R1) mode. Press the [REV] button again to switch to the high speed fast reverse (R2) mode.

Skip

Skips to the next or previous playable clip.

■ Pressing the [NEXT] button in the still mode or during fast reverse

Doing so switches automatically to the still mode after skipping to the beginning of the next clip. Pressing the button twice switches to the still mode after skipping to the beginning of the second clip from the current one.

■ Pressing the [PREV] button in the still mode or during fast reverse

Pressing this button during playback of the clip switches automatically to the still mode after skipping to the beginning of the selected clip. Pressing the button again skips to the beginning of the previous clip and remains in the still mode.

■ Pressing the [NEXT] button during playback or fast forward

Pressing the button starts playback automatically from the beginning of the next clip. Pressing the button twice starts playback from the beginning of the second clip from the current one.

■ Pressing the [PREV] button during playback or fast forward

Pressing this button during playback of the clip starts playback automatically from the beginning of the selected clip. Pressing the button at the beginning of the clip starts playback from the beginning of the previous clip.

Setting the Menu Screen

[MENU] button — MENU INFO/CLR — [INFO/CLR] button

[PREV]button — — [PLAY/STILL] button

— [FWD] button

[REV] button —

— [STOP] button

POWER

— [NEXT] button

Procedures for Setting Values

1 Press the [MENU] button

```
■ - - SYSTEM - - -     — Menu screen
> RESOLUTION           — Setting item
              720      — Current setting value
FRAME / RATE
              60p
```

2 Move the cursor (>) to the item to be set by pressing the [NEXT] or [PREV] button

3 Press the [PLAY/STILL] or [FWD] button

```
■ RESOLUTION          — Current selected setting item

                      — Cursor
>  720                — Current selected setting value
   1080
                      — Set using [PLAY/STILL] button
                      — Return to the menu screen without setting
▶ll SET  ■ BACK         using [STOP] button
```

4 Move the cursor (>) to the value to be set by pressing the [NEXT] or [PREV] button

5 Press the [PLAY/STILL] button to confirm the setting

● The menu screen appears after the setting is changed.

Memo:
● When the setting screen is displayed, pressing the [STOP] or [REV] button returns the display to the menu screen without altering the setting value.

6 Press the [MENU] button to exit the menu screen display

Procedures for Executing the Utilities

1 Select a menu item to display the execution screen of the corresponding utility

The different utility items are shown below.
● [NOW CLIP] and [ALL CLIP] of the [DELETE] setting screen
● [ALL OK] and [ALL NONE] of the [OK CLIP] setting screen

● [NUMBER] of the [CLIP NAME] setting screen
● [FORMAT] and [RESTORE] of the [MEDIA] setting screen
● [ALL RESET] of the [OTHERS] setting screen

```
■ FORMAT              — Utility item being selected
          050

FORMAT  OK ?          — Execute with [INFO/CLR] button
CLR : YES
■   : NO              — Return to the menu screen without
                        setting using [STOP] button
```

2 Press the [INFO/CLR] button to execute the selected item

● When [FORMAT] or [RESTORE] is completed, "COMPLETE" appears on the LCD display.
● When [FORMAT] or [RESTORE] is in progress, "EXECUTE" appears on the LCD display. If failure occurs, "ERROR" is displayed.
● After the execution message appears, the display returns to the menu screen.
● All operations are disabled during execution of a utility.

Memo:
● Press the [STOP] button to return to the menu screen without executing the selected item.

Procedures for Setting Time Code/ User Bit Preset, Clip Name and Date/Time

1 Select a menu item from Time Code/User Bit Preset, Clip Name and Date/Time

● Time Code Preset/User Bit Preset :
[TC PRESET]/[UB PRESET] of the [TC SET2] setting screen
● Clip Name setting :
[PREFIX] of the [CLIP NAME] setting screen
● Date/Time setting :
[DATE]/[TIME] of the [CLOCK1] setting screen

```
■ TC PRESET
   H   M   S   F      — Reset to "00:00:00:00" with [INFO/CLR]
   ▲                    button
  00 : 00 : 00 : 00   — Current selected setting item
   ▼
                      — Set using [PLAY/STILL] button

                      — Return to the menu screen without setting
▶ll SET  ■ BACK         using [STOP] button
```
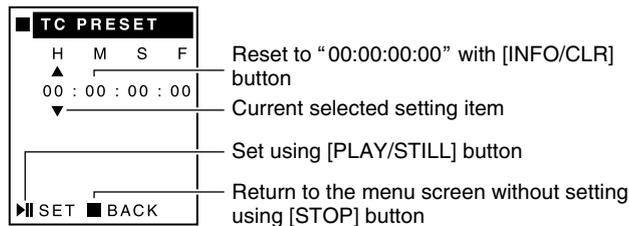
Memo:
● During setting of the time code, user bit or time, pressing the [INFO/CLR] button sets all digits to "00". In the clip name setting, the default clip name is shown.

2 Press the [FWD] or [REV] button to select the item to set

3 Alter the value of the selected item by pressing the [NEXT] or [PREV] button

4 Press the [PLAY/STILL] button to confirm the new value

● The menu screen appears after the setting is changed.

Memo
● When the setting screen is displayed, pressing the [STOP] button returns the display to the menu screen without altering the setting value.

Menu Screen Configurations and Functions

Values indicated in parentheses in the table below are default settings.

Setting Item		Setting Values	Functions
SYSTEM			For setting the format of the video to be recorded or played back. Make sure that the settings are consistent with those of the camcorder. Otherwise, recording and playback cannot be executed.
	RESOLUTION	(720), 1080	For setting the resolution.
	FRAME/RATE	RESOLUTION: When 720 is set (60p), 30p, 50p, 25p, 24p	For setting the frame rate. The configurable frame rate may vary according to the [RESOLUTION] setting.
		RESOLUTION: When 1080 is set (60i), 50i	
LCD			For setting the contrast and backlight of the memory recorder's LCD panel.
	CONTRAST	MAX, +4, +3, +2, +1, (0), -1, -2, -3, -4, MIN	For adjusting the contrast.
	BACKLIGHT	OFF (ON) AUTO	OFF : Backlight is turned off at all times. ON : Backlight is turned on at all times. AUTO: Backlight turns on when the buttons are operated. Light turns off automatically about five seconds after the buttons are operated.
DELETE			For deleting a clip. ● This function is disabled when recording is in progress. ● Clips indicated with an "ok mark" cannot be deleted.
	NOW CLIP	NO YES	Deletes the currently selected clip when in the play mode. Deletes the clip that is last recorded when in the stop or standby mode. YES : Delete clips. (Press the [INFO/CLR] button.) NO : Do not delete clips. (Press the [STOP] button.)
	ALL CLIP	NO YES	Deletes all clips. YES : Delete clips. (Press the [INFO/CLR] button.) NO : Do not delete clips. (Press the [STOP] button.)
OK CLIP			For important clips or clips that you do not want to delete, specify them as "OK clip". Upon specifying a clip as an "OK clip", an "ok mark" will appear to the right of the clip name on the clip selection screen.
	NOW CLIP	NONE OK	For specifying a selected clip as an "OK clip" when in the playback mode. For specifying the clip that is last recorded as an "OK clip" when in the stop or standby mode. NONE: Do not specify an "OK clip". (Press the [PLAY/STILL] button.) OK : Specify an "OK clip". (Press the [PLAY/STILL] button.)
	ALL OK	NO YES	For specifying all clips as "OK clips". YES : Specify as "OK clips". (Press the [INFO/CLR] button.) NO : Retain current settings. (Press the [STOP] button.)
	ALL NONE	NO YES	Cancels all "OK clip" specifications. YES : Cancel "OK clip" specifications. (Press the [INFO/CLR] button.) NO : Retain current settings. (Press the [STOP] button.)
TC SET1			For configuring settings related to the time code of the memory recorder.
	TC SOURCE	(INT) EXT	For selecting the source of the time code. INT : The time code runs according to the value of the memory recorder's time code generator. EXT : The time code runs according to the value of the time code from the camcorder. When [EXT] is selected, make sure to set the [TC GENE.] switch of the camcorder to "FREE".
	GENERATOR	FREE (RECRUN) REGEN	For selecting the run mode of the time code generator. ● Setting is enabled when [TC SOURCE] is set to "INT". FREE : The time code runs according to the preset value in the free run mode. RECRUN : The time code runs according to the preset value when in the recording mode. REGEN : The time code runs continuously according to the last time code on the SxS memory card.
	DROP FRAME	(NON DROP) DROP	For selecting the non drop frame or drop frame mode. ● Setting is enabled when [TC SOURCE] is set to "INT". ● Setting is enabled when the frame rate is set to 60 or 30. NON DROP : Non drop frame mode DROP : Drop frame mode

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Menu

Setting Item			Setting Values	Functions
TC SET2				For presetting the time code generator of the memory recorder.
	TC PRESET		(00:00:00:00) ~ 23:59:59:29 or (00:00:00:00) ~ 23:59:59:24	The number of frames that can be specified are as shown below, depending on the setting of the frame rate. (e.g., when the frame rate is 60, you can specify the number of frames up to a value of 58.) Frame rate: 60 / 50 / 30 / 25 / 24 Number of frames: 58 / 48 / 29 / 24 / 23
	UB PRESET		(00:00:00:00) ~ FF FF FF FF	For presetting the user bit. (8 digits)
CLIP NAME				For specifying the first four characters of the clip name before recording, or resetting the clip number. ● An eight-digit clip name is automatically configured. ● Serial numbers are automatically appended as the last four digits whenever a clip is created. Serial numbers are automatically appended even when SxS memory card is replaced or after changing the first four characters of the clip name at "PREFIX".
	PREFIX		(Last three digit of the serial number + K)	For specifying the first four characters of the clip name. (Usable characters: A to Z, a to z, 0 to 9, -, _) The default clip name is set as the "last three digits of the serial number + K". Example: If the serial number is 00001234, then the default clip name is 234K.
	NUMBER RESET		YES NO	You can reset the clip number (0001) after changing the clip name at "PREFIX". If clips already exist on the SxS memory card, the smallest available number will be used. Example: If 0001 exists on the SxS memory card, then 0002 will be used. YES : Reset clip number. (Press the [INFO/CLR] button.) NO : Do not reset clip number. (Press the [STOP] button.)
CLOCK1				For configuring settings related to the clock of the memory recorder.
	TIME ZONE		UTC-12:00 ~ (UTC-05:00) ~ UTC+14:00	For setting the time difference with the UTC (Universal Time Coordinate). "UTC Time Difference Chart by Region" (☞ Page 17) When the setting of this item is altered, the [DATE]/[TIME] values below will be automatically adjusted.
	DATE		(--/--/--)	For setting the date (month/day/year). The last two digits of the western calendar is used. Press the [INFO/CLR] button to display the default setting.
	TIME		(--:--:--)	For setting the time (hour:minute:second). Press the [INFO/CLR] button to display the default setting.
CLOCK2				For setting the date or time display mode.
	DATE STYLE		YY/MM/DD (MM/DD/YY) DD/MM/YY	For specifying the display style of the date. ● Altering the setting of this item also changes the [DATE] display mode on the [CLOCK1] setting screen. YY/MM/DD : Year/Month/Day MM/DD/YY : Month/Day/Year DD/MM/YY : Day/Month/Year
	TIME STYLE		12 (24)	For specifying the display style of the time. ● Altering the setting of this item also changes the [TIME] display mode on the [CLOCK1] setting screen. 12 : 12-hour display (AM/PM display) 24 : 24-hour display
MEDIA				For setting processes related to the SxS memory card.
	FORMAT		YES NO	Starts the formatting (initialization) of the SxS memory card. ● When formatting is performed, all clips stored inside the SxS memory card will be cleared. YES : Format. (Press the [INFO/CLR] button.) NO : Do not format. (Press the [STOP] button.)
	RESTORE		YES NO	Scans the SxS memory card and makes attempts to restore damaged clips. ● However, success of the restore process is not guaranteed. YES : Execute. (Press the [INFO/CLR] button.) NO : Do not execute. (Press the [STOP] button.)
OTHER				For configuring settings related to the control buttons and menus of the memory recorder.
	OPERATION		(UNLOCK) LOCK	You can disable the button control of the memory recorder to avoid misoperations during shooting. UNLOCK: Enables all buttons. LOCK : Button control is disabled, with the exception of the following. ● Record/Standby (REC trigger button of the camcorder) ● Menu screen display ([MENU] button) ● Power On ([POWER] button)
	ALL RESET		YES NO	For resetting the menu settings of the memory recorder to the default values. YES : Restore default settings. (Press the [INFO/CLR] button.) NO : Do not restore default settings. (Press the [STOP] button.)

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Warning Messages

When warning messages appear on the LCD panel, take the following actions.

WRITE
PROTECT! —— Warning Messages

Message	Description
CLOCK SETUP MENU	Appears when the clock is not set. Action: Set the clock when the [CLOCK1] setting screen appears.
WRITE PROTECT!	Appears when the write-protect switch of the SxS memory card is set to the "WP" end. Action: Set the write-protect switch to "Off" before recording or deleting a clip.
CARD FULL!	Appears when there is no more space left on the SxS memory card. Action: Take any of the following actions. ● Use an SxS memory card with sufficient space. ● Delete unwanted clips or format the card to create space.
OPERATION LOCK !	Appears when buttons other than the [MENU] button is pressed with the [OPERATION] menu set to "LOCK". Action: Change the [OPERATION] menu setting to "UNLOCK".

Error Messages

Battery and Signal Error Messages

An error message appears at the first line of the LCD panel display when the battery is weak or when there is an input signal error. When an error message appears, take the following actions.

Message	Description
BAT. ALARM !	Appears when the remaining battery level is insufficient. Action: Charge the battery.
SHUT DOWN !	Appears immediately before the battery runs out completely. The memory recorder will shut down a few seconds after the message is displayed. Action: Charge the battery.
NO SIGNAL ! (*1)	Appears when there is no signal input. Action: Check the connection of the IEEE1394 cable and the camcorder settings.
Other SIGNAL (*1)	Appears when the format of input signals is different from that of the memory recorder. Action: Make sure that the memory recorder settings are consistent with those of the camcorder. (☞ Page 9)

(*1) Appears during the recording or stop mode.

Card Error Messages

When an SxS memory card incompatible with the memory recorder is detected, an "ERROR CARD!" message and a message indicating the cause of the card error will appear alternately at the first line of the LCD panel display. (For approximately two seconds) When an error message appears, take the following actions.

Message	Description
NO SUPPORT!	Appears when a media not supported by the memory recorder is inserted. Action: Replace it with a recommended SxS memory card.
FORMAT!	Appears when the card has already been formatted by another device. Action: Execute "FORMAT" using this memory recorder. "Menu screen's [MEDIA]->[FORMAT] settings" (☞ Page 13)
CARD CHANGE	Appears when errors are found in the clip. Action: Execute "RESTORE" or "FORMAT" using this memory recorder. If doing so does not eliminate the error, it may be due to malfunction of the SxS memory card. Replace the SxS memory card.
RESTORE !	Appears when the clip may be damaged. Action: Execute "RESTORE" using this memory recorder.

Card error message appears when the following operations are performed.
● When an SxS memory card is inserted
● When power is turned on with an SxS memory card inserted

■ **When in the stop, standby or still mode**

Status screen (stop or standby)

<LCD Panel>
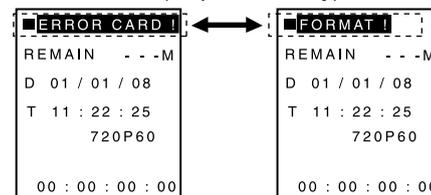
Clip selection screen (still)

<LCD Panel>
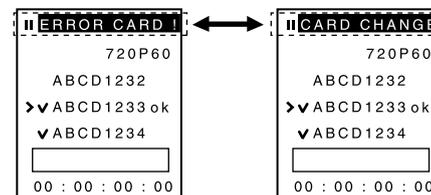
■ **When in the menu screen display**

<LCD Panel>

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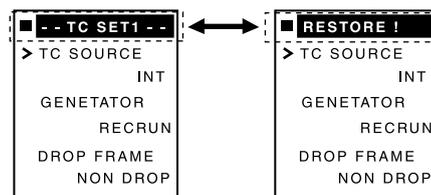
Troubleshooting

Symptom	Cause(s)	Actions	Refer to
Power does not turn on	Power is supplied from the DC INPUT terminal of the camcorder.	Attach the battery. The power of the memory recorder cannot be supplied from the DC INPUT terminal of the camcorder.	☞ Page 7
	Only the power of the camcorder is turned "On".	It is necessary to turn on the power of the memory recorder at the same time.	☞ Page 7
	Remaining battery level is insufficient.	Charge the battery.	☞ Page 14
Unable to record or play clip	The IEEE1394 cable is not connected.	Connect a GY-HD200/HD250 series camcorder to the KA-UM100G adapter using an IEEE1394 cable.	☞ Page 7
	The [INT/EXT] switch setting of the KA-UM100G adapter is inappropriate.	● Set to "EXT" during normal use. (When IEEE1394 connection is made internally without the use of an external cable, set to "INT".) ● If the "NO SIGNAL" message does not disappear even if the setting is correct, set the switch again to select the setting. If the message remains displayed, turn off and on the power again.	☞ Page 7
	The video formats of the camcorder and memory recorder are not consistent with each other.	Ensure that the video format of the camcorder and memory recorder are consistent with each other.	☞ Page 9
	The [IEEE1394] switch of the camcorder is set to the "DV" end.	Set the [IEEE1394] switch to the "HDV" end. If the "NO SIGNAL" message does not disappear even after setting to "HDV", set the switch again. If the message remains displayed, turn off and on the power again.	☞ Page 9 ☞ Page 10
Recording does not start	The camcorder is set to the "VTR" mode.	Set to the "CAM" mode using the [CAM/VTR] button.	☞ Page 9
	The [1394 REC TRIGGER] item on the OTHERS[2/2] menu screen of the camcorder is set to "OFF" or "SERIES".	Set [1394 REC TRIGGER] to "SYNCRO" or "SPLIT". When this is set to "SERIES", recording starts when the remaining capacity of the cassette tape falls below three minutes.	☞ Page 9
	The memory recorder is set to the playback mode.	Press the [STOP] button to stop playback.	☞ Page 9
	The write-protect of the SxS memory card is enabled.	Set the write-protect switch to "Off" before recording or deleting a clip.	☞ Page 14
	There is no space left on the SxS memory card.	Use an SxS memory card that has sufficient space.	☞ Page 14
Unable to play clip	The camcorder is set to the "CAM" mode.	Set to the "VTR" mode using the [CAM/VTR] button.	☞ Page 10
	The cassette tape is currently being played back.	Stop playback of the cassette tape before playing back data on the SxS memory card.	☞ Page 10
	A clip without the check mark (v) is selected.	Set the camcorder and memory recorder according to the video format displayed when a clip is selected.	☞ Page 10
	The memory recorder is in the recording or standby mode.	Press the [STOP] button to stop playback.	☞ Page 10
	The clip may be damaged.	Execute "RESTORE" using this memory recorder.	☞ Page 14
No response when a button is pressed	The [OPERATION] menu is set to "LOCK".	Change the [OPERATION] menu setting to "UNLOCK".	☞ Page 14
	A multiple number of buttons are pressed at the same time, or the same button is hit repeatedly.	Insert a short pause between each button operation.	—
Access lamp does not turn on	The SxS memory card is not completely inserted into the card slot.	Make sure that the SxS memory card is fully inserted into the slot.	☞ Page 8
	The SxS memory card is inserted with the label facing the opposite direction.	Identify the face of the SxS memory card with the label, and make sure that the card is correctly oriented before inserting.	☞ Page 8
SxS memory card cannot be used	A SxS memory card that is formatted by another device is used.	Execute "FORMAT" using this memory recorder.	☞ Page 13
	A media that is not supported is inserted.	Replace it with a recommended SxS memory card.	☞ Page 14
	The clip is faulty.	Execute "RESTORE" or "FORMAT" using this memory recorder. If doing so does not eliminate the error, replace it with a recommended SxS memory card.	☞ Page 14
Error message appears on the camcorder panel display	"DR-HD100 POWER ?" appears when the memory recorder is not powered on or is not connected.	Connect and turn on the power of the memory recorder.	☞ Page 6 ☞ Page 7
	"HDD NO 1394 SIGNAL" appears if the camcorder is set to the "CAM" mode when the memory recorder is in playback mode.	Set the camcorder to the "VTR" mode.	☞ Page 10
	"HDD SPACE LOW" appears when the space on the SxS memory card is insufficient or an SxS memory card is not inserted.	Use an SxS memory card that has sufficient space.	—

Specifications

■ Media slot

Supported media	SxS memory card
Number of slot	1 slot
Interface	ExpressCard/34-compliant (supports only PCI Express, USB is not supported)

■ Video format

Recording format	MP4
Recording time	HD1 mode: Approx. 180 mins HD2 mode: Approx. 140 mins (recording time when using a 32 GB card)
File system	FAT32 (SxS format)
Maximum file size	4 GB
OS compatibility	Windows XP/Vista/Mac OS/X

■ Input signal format

Video	<HD1 mode> MPEG-2 (MP@H-14) 720/50p/25p/60p/30p/24p (8 bit 19.5 Mbps CBR) <HD2 mode> MPEG-2 (MP@H-14) 1080/50i/60i (8 bit 25 Mbps CBR)
Audio	16 bit/48 kHz 2ch, 384 kbps (MP2)
Time code signal	Compliant with SMPTE/EBU standard

■ Overall

Power supply	DC 12 V (DC 10.5 V to 17 V)
Power consumption	6 W
External dimensions	90 mm x 57 mm x 131 mm (W x D x H)
Weight	0.42 kg
Operating temperature	0 ℃ to 40 ℃
Operating humidity	30 % to 80 % RH
Storage temperature	-20 ℃ to 60 ℃
Storage humidity	85 % RH and below

■ Others

Accessories	Instruction manual ×1, Rubber sheet ×1, Warranty (USA and CANADA only) ×1, CD-ROM ×1,
Connectable HD camcorders	GY-HD200 and GY-HD250 series
Optional products	KA-UM100G adapter (Mount kit for connecting a GY-HD200/GY-HD250 series HD camcorder to a memory recorder.)
Recommended products	<SxS memory card> SBP-8 (8 GB), SBP-16 (16 GB) and SBP-32 (32 GB) <IEEE1394 cable> CFS-6R016R09-07 etc. Please consult your authorized dealers.

Dimension [Unit: mm (inch)]

KA-MR100G
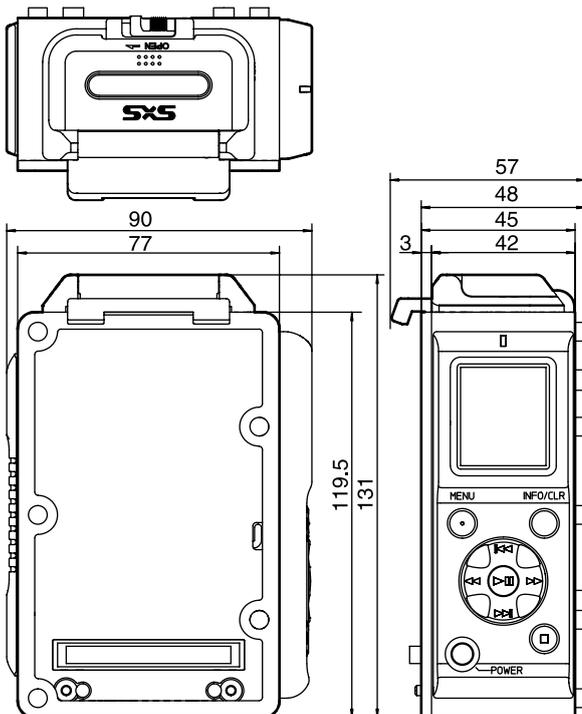
KA-UM100G adapter (sold separately)

Weight: 0.145 kg
● Power, temperature, humidity and environment conforming to KA-MR100G.
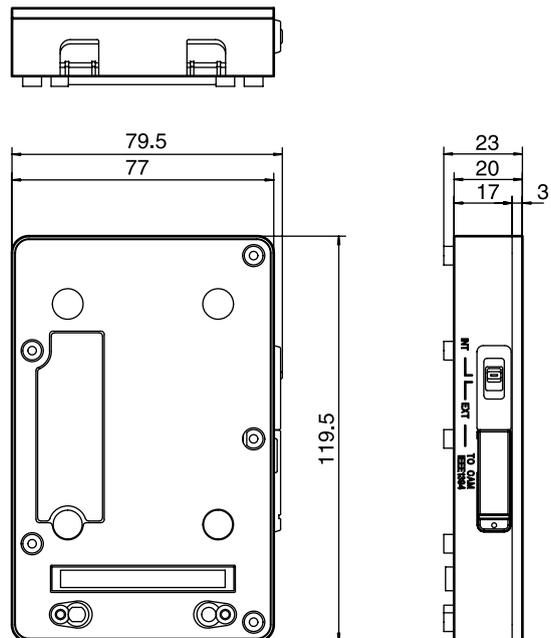
※ Specifications and appearance of this memory recorder and related products are subject to change for further improvement without prior notice.

16

UTC Time Difference Chart by Region

Setting Values	Time Zone	Setting Values	Time Zone
UTC+14:00		UTC 00:00	Greenwich
UTC+13:30		UTC-00:30	
UTC+13:00		UTC-01:00	Azores
UTC+12:30		UTC-01:30	
UTC+12:00	New Zealand	UTC-02:00	Mid-Atlantic
UTC+11:30	Norfolk Island	UTC-02:30	
UTC+11:00	Solomon Islands	UTC-03:00	Buenos Aires
UTC+10:30	Lord Howe Is.	UTC-03:30	Newfoundland
UTC+10:00	Guam	UTC-04:00	Halifax
UTC+09:30	Darwin	UTC-04:30	
UTC+09:00	Tokyo	UTC-05:00	New York
UTC+08:30		UTC-05:30	
UTC+08:00	Beijing	UTC-06:00	Chicago Denver
UTC+07:30		UTC-06:30	
UTC+07:00	Bangkok	UTC-07:00	Denver
UTC+06:30	Rangoon	UTC-07:30	
UTC+06:00	Dhaka	UTC-08:00	Los Angels
UTC+05:30	Bombay	UTC-08:30	
UTC+05:00	Islamabad	UTC-09:00	Alaska
UTC+04:30	Kabul	UTC-09:30	Marquesa Islands
UTC+04:00	Abu Dhabi	UTC-10:00	Hawaii
UTC+03:30	Tehran	UTC-10:30	
UTC+03:00	Moscow	UTC-11:00	Midway Island
UTC+02:30		UTC-11:30	
UTC+02:00	Eastern Europe	UTC-12:00	Kwajalein
UTC+01:30			
UTC+01:00	Central Europe		
UTC+00:30			

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