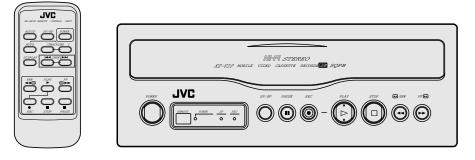
JVC



MOBILE VIDEO CASSETTE RECORDER

GRABADORA DE VIDEOCASSETTE MÓVIL MAGNETOSCOPE MOBILE





For installation and connections, refer to the separate manual. Para la instalación y las conexiones, refiérase al manual separado. Pour l' installation et les raccordements, se référer au manuel séparé.



MANUAL DE INSTRUCCIONES MANUEL D'INSTRUCTIONS

For customer Use:

Enter below the serial No. which is located on the rear of cabinet. Retain this information for future reference.

Model No. KZ-V10

Serial No.

Dear Customer,

Thank you for purchasing the JVC VHS video cassette recorder. Before use, please read the safety information and precautions contained in the following pages to ensure safe use of your new VCR.





The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. CAUTION:

This video cassette recorder should be used with DC 12V only. To prevent electric shocks and fire hazards, DO NOT use any other power source.

This Class B digital apparatus meets all requirements of the Canadian Interference–Causing Equipment Regulations.

"Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada."

VHS SQPB

- Cassettes marked "VHS" (or "S-VHS") can be used with this video cassette recorder. However, S-VHS recording is not possible with this model.
- This model is equipped with SQPB (S-VHS QUASI PLAY-BACK) that makes it possible to play back S-VHS recordings with regular VHS resolution.

Failure to heed the following precautions may result in damage to the VCR, remote control or video cassette.

- 1. DO NOT place the VCR . . .
 - ... in an environment prone to extreme temperatures or humidity.
 - ... in direct sunlight.
 - ... in a dusty environment.
 - ... in an environment where strong magnetic fields are generated.
 - ... on a surface that is unstable or subject to vibration.
- 2. DO NOT block the VCR's ventilation openings.
- 3. DO NOT place heavy objects on the VCR or remote control.
- 4. <u>DO NOT</u> place anything which might spill on top of the VCR or remote control.
- 5. AVOID violent shocks to the VCR during transport.

**MOISTURE CONDENSATION

Moisture in the air will condense on the VCR when you move it from a cold place to a warm place, or under extremely humid conditions—just as water droplets form on the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the VCR's power turned on for a few hours to let the moisture dry before inserting a tape.

**ABOUT HEAD CLEANING

Accumulation of dirt and other particles on the video heads may cause the playback picture to become blurred or interrupted. Be sure to contact your nearest JVC dealer if such troubles occur.

Cautions on operation

- When the car is parked under the blazing sun or in an extremely cold place for a long time, wait a while to use this unit after the temperature of the cabin drops to the normal temperature.
- Use this unit as the engine is running. If this unit is used as the engine is stopping, it depletes the car battery and, if worst comes to worst, the battery fails in starting the engine.
- If this unit is disconnected during operation (playback, fastforward, rewind, etc.), it may cause a machine failure.
 When disconnecting this unit, be sure to remove the video cassette from the unit beforehand.
- When the engine key is turned off, this unit is also turned off at the same time. To operate this unit again, turn it on once more after starting the engine.

CAUTION:

Change or modifications not approved by JVC could void user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Tabel of contents

CAUTIONS
Features 4 Dew sensor circuit 4 High temperature sensor circuit 4 Tape protection circuit 4 ACCESSORIES 4
Inserting/removing cassette 5 Inserting cassette into recoder 5 Removing cassette from recorder 5 For protection of important recording 5 How to playback VHS-C cassette tape 5 recorded by Video Movie 5
For playing back pictures clearly all the time (Use of head cleaning cassette)
FRONT VIEW7
REAR VIEW8
REMOTE CONTROL UNIT
Indications on the screen 11
Playback
Playing back
Fast-forwarding/Rewinding
Fast-forwarding/Rewinding
Fast-forwarding/Rewinding 12 Fast-forwarding/Rewinding 12 while looking at picture 12 Still playback/Frame-to-frame playback 12 /Slow playback 12
Fast-forwarding/Rewinding 12 Fast-forwarding/Rewinding 12 Stast-forwarding/Rewinding 12 Still playback/Frame-to-frame playback 12 Store playback 12 Repeated playback 12 Search playback 12 Search playback 13 Playing back from the beginning of each program-Search playback 13 How to choose (specify) the address (index) 13
Fast-forwarding/Rewinding 12 Fast-forwarding/Rewinding 12 Fast-forwarding/Rewinding 12 Still playback/Frame-to-frame playback 12 Still playback/Frame-to-frame playback 12 Repeated playback 12 Search playback 13 Playing back from the beginning of each program-Search playback 13 How to choose (specify) the address (index) of a program 13 Connection to other apparatus Connection to Mobile Color Monitor System KV-M65 14

Features

- 4-heads stereo Hi-Fi video cassette recorder
- Cassette door with danger preventive dustproof cover
- Mountable in either vertical or horizontal posture thanks to the highly reliable vibration-resistant design
- Remote sensor unit extends the range to install the video cassette recorder.

Caution on recording in running

 Recording in running occasionally brings an unsatisfactory result because noise is frequently recorded in running and considerable vibration of the car makes recording disorder.

Protection circuits (self-diagnosing circuits)

This video cassette recorder incorporates some protection circuits inside.

If this video cassette recorder is used as it is dewed, it may damage the tape and video heads.

Dew sensor circuit

- When the cabin whose temperature is considerably low is rapidly heated or the humidity in the cabin is considerably high, insides of the windscreen and cabin windows are sometimes fogged. At the same time, inside of the video cassette recorder mounted on the car is dewed.
- In such the case (dewed condition), the dew sensor circuit functions to stop machine operation with indication of blinking POWER indicator lamp. When the machine falls into such the status, wait for several hours until the POWER indicator lamp stops blinking and lights continuously.

High temperature sensor circuit

■ When the temperature of the machine becomes considerably high, the high temperature sensor circuit functions to stop machine operation with indication of blinking POWER indicator lamp. When the machine falls into such the status, turn off the machine and wait for a while until the POWER indicator lamp stops blinking while leaving it in a cool place to lower the temperature. When turning on the machine again, make sure that the POWER indicator lamp does not blink before starting operation.

Tape protection circuit

When the machine remains in the still playback, slow playback or recording pause mode for 5 minutes or longer, the tape protection circuit functions to turn off the machine for protecting the tape.

ACCESSORIES

• Check to see if the following accessories are supplied with the video cassette recorder.



AV cord (5 m/16.7ft. long)



Power cord (5m/16.7ft. long)



Mounting bracket x 2 Tapping screw (¢ 5 x 20 mm) x 4 Screw (M5 x 8 mm) x 4 Velcro tape x 2 sets



Remote sensor unit (5m/16.7ft. long)



Remote control unit (RM-RK20)

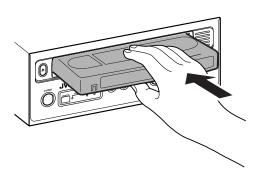


Remote control data cord (5m/16.7ft. long)

AA-size battery x 2 (for operation check)

Inserting/removing cassette

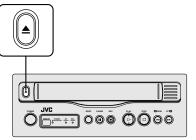
Inserting cassette into recorder



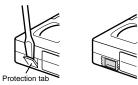
Open the dust-proof cover and insert a video cassette with the tape side up into the cassette compartment by gently pressing the center part.

- With insertion of a video cassette into the cassette compartment, the recorder is automatically turned on. (Automatic power on function)
- The tape counter is reset to 0:00:00. (Automatic counter reset function)
- When a video cassette whose recording protection tab is broken is inserted, the machine automatically starts playback of the cassette. (Automatic playback function)
- When the car is shaking, it is hard to insert a casette because the machine is apt to hold the cassette firmly to prevent the cassette form vibration. In such a case, insert the cassette strongly or pull the cassette out of the recorder once and again try to insert it.
- When a video cassette is completely inserted, close the dust-proof cover.

Removing cassette from recorder



For protection of important recording



Open the dust-proof cover and press the EJECT button in the STOP mode.

- Don't insert fingers or foreign substances into the cassette compartment. When a little child is near the video cassette recorder, pay heed to him/her not to do so.
- If a video cassette is inserted in wrong posture, it is automatically ejected by the function of the protection circuit. If it happens, wait for a few seconds and try to insert it correctly once again.
- After removing a cassette from the recorder, close the dustproof cover without fail.

Break the recording protection tab of the cassette.

• If you want to use the cassette whose recording protection tab was broken for recording, cover the broken part with adhesive tape double.

How to play back VHS-C cassette tape recorded by Video Movie





• Use an optional VHS cassette adapter C-P6U to play back VHS-C cassette tape.

For playing back pictures clearly all the time (Use of head cleaning cassette)

- If this video cassette recorder is used for a longtime, it makes playback pictures rough. In such a case, clean the video heads with an optional head cleaning cassette.
 - When the following symptom is observed:
 - Playback picture is rough.
 - Playback picture is unclear or no picture is reproduced on the screen.



What to do on such the occasions.

- Clean the video heads with a dry type head cleaning cassette.
- Factors to soil heads
- High temperature, high humidity (in the rainy season, etc.)



· Damaged or soiled tape



If playback picture is still rough after the video heads are cleaned by the head cleaning cassette, consult the store that you got this recorder at or the nearest JVC dealer about the matter.

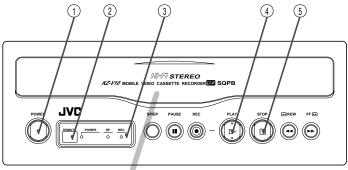
Dust in air



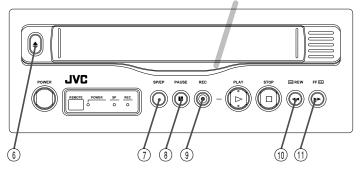
• Long-time operation, etc.



FRONT VIEW



Dustproof cover (cassette door) Pull the dustproof cover to open it.



1 POWER button

Press this button to turn on or off this video cassette recorder.

② REMOTE (remote sensor)

Aim the remote control unit at this part for operating this video cassette recorder with the remote controller.

③ Indicator lamps

Each indicator lamp is on when its related function is in operation.

POWER : Power supply indicator lamp (red lamp) SP : Standard play (SP) indicator lamp (green lamp) REC : Recording indicator lamp (red lamp)

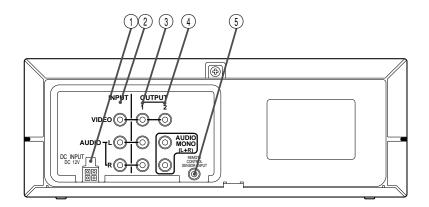
④ PLAY button

Press this button to play back a video cassette.

STOP button

Press this button to stop playback operation.

- (6) ▲ (eject) button
 Press this button to eject a video cassette.
- ⑦ SP/EP (standard play/extended play) selector button Press this button to change the recording speed.
- (8) PAUSE button Press this button to suspend recording or playback temporarily.
- ③ REC (recording) button Press this button together with the PLAY button for recording.
- REW (rewind) button Press this button to rewind the tape.
- (1) FF (fast-forward) button Press this button to fast-forward the tape.



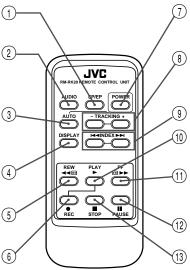
- ① POWER CORD CONNECTOR
- 2 INPUT (video and audio input) terminals
- ③ OUTPUT-1 (video and audio [stereo] output) terminals Connect the video and stereo audio input terminals of a TV set to these terminals.
- ④ OUTPUT-2 (video and audio [monaural] output) terminals Connect the video and monaural audio output ter-

Connect the video and monaural audio output terminals of a TV set to these terminals. ③ REMOTE CONTROL SENSOR INPUT terminal Connect a supplied Remote sensor unit to this terminal.

While a Remote Sensor unit is connected to this terminal, the video cassette recorder cannot be operated by wireless remote control through the Remote sensor on the front panel.

For connecting the JVC AV control receiver (KD-SX1000R, etc.) with the Remote control data cord supplied as an accessory, refer to the instructions of the JVC AV control receiver.

REMOTE CONTROL UNIT



 SP/EP (standard play/extended play) selector button When the standard play (SP) is selected, the SP indicator on the front panel is on.

Through recording SP and EP cannot be switched by the remote control unit.

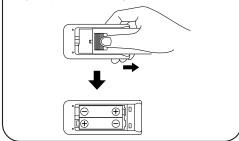
- AUDIO selector button
 Press this button to select a desired audio output.
 Selected audio output is shown on the screen.
 HI-FI: Hi-Fi audio output
 L: Audio output on left channel only
 R: Audio output on right channel only
 NORM: Normal audio output
 MIX: Mixed audio output
- ③ AUTO (automatic tracking) button Press this button to switch on/off automatic tracking.
- ④ DISPLAY selector button Press this button to select display of tape counter or tape remainder (by time).
- REW (rewind) button
 Press this button to rewind tape.
- (6) REC (recording) button Press this button together with the PLAY button to start recording.

- ⑦ POWER button Press this button to turn on/off the video cassette recorder.
- (3) TRACKING +/- buttons Press these buttons for manual tape tracking. Before pressing these buttons, be sure to switch off automatic tracking with the AUTO button.
- INDEX buttons Press these buttons to search the beginning of a program.
- PLAY button
 Press this button to play back tape.
- (1) FF (fast-forward) button Press this button to fast-forward tape.
- PAUSE button
 Press this button to suspend recording/playback temporarily.
- STOP button
 Press this button to stop playback.

9

How to set batteries in the battery compartment

• Set two AA-size (SUM-3, R6P) batteries in the battery compartment following the indications.



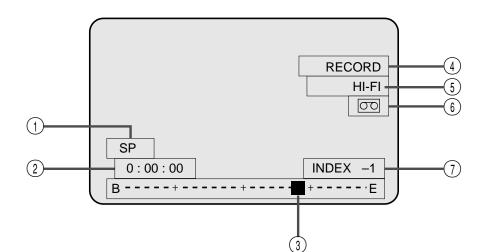
- Cautions on batteries
- Since batteries supplied with the Remote control unit are just for operation check, they don't work for a long time.
- If the Remote controller won't be used for a considerably long time, remove batteries from it.
- Batteries need replacement in the following condition.
- If the controllable distance of the Remote control unit becomes short, it shows that the batteries are consumed and they will be dead. In such a case, replace the batteries with new ones.
- When replacing batteries:
- Replace batteries with two new AA-size batteries (alkaline batteries are recommended).
- Be sure to replace two batteries with new ones at the same time.

(Don't use used batteries or different brands together.)

- Pay heed to the orientation (+ and polarities) of each battery and set two batteries following the indications inside the battery compartment.
- Carefully read instructions appearing on the battery.
- The Remote control unit conforms to the "A" code.

Indications on the screen

Operation and status of the video cassette recorder can be checked by indications appearing on the screen. Each time an operation button is pressed, operation of the video cassette recorder is shown for about 5 seconds.



- Recording/Playback tape speed indication (SP/EP)
- ② Tape counter/Tape remainder indication (by time) Indication of tape counter or tape remainder is switchable by the DISPLAY button on the remote controller.
- ③ Present tape position indication
- Tape status indication (PLAY/RECORD/FF/REW/PAUSE)
- Audio output indication
 HI-FI: Hi-Fi audio output
 L: Audio output on left channel only
 R: Audio output on right channel only
 NORM: Normal audio output
 MIX: Mixed audio output
- 6 Cassette indication
- Program index indication (Indication of "MARK" blinks for about 2 seconds.)

Tape counter

0:00:00

Tape remainder



Indication of tape remainder is just a reference. Some kind of cassette needs a considerable long time to indicate the remainder of tape or fails in indicating the remainder.

Playback

Playing back

Preparation: Turn on a Monitor set or TV set connected with the video cassette recorder and set it to an external input mode (VIDEO 1, VIDEO 2, etc.).

- 1 Press the POWER button of the video cassette recorder to turn it on.
- 2 Insert a video cassette into the video cassette recorder.

When a video cassette whose recording protection tab is broken is inserted, the video cassette recorder automatically starts playback.

- 3 Press the PLAY button.
- Playback starts.
- Tape tracking is automatically adjusted.
- Press the STOP button to discontinue playback.
- When noise is generated in playback, press the AUTO button on the remote control unit to switch off the automatic tracking mode and manually adjust tape tracking with the TRACKING + and - buttons.

Fast-forwarding/Rewinding

Press the FF button or REW button when the tape remains stopping.

- Fast-forwarding or rewinding stops when the tape reaches its end or beginning.
- If the POWER button is pressed within 2 seconds after the REW button is pressed, the video cassette recorder is turned off after the tape is completely rewound to its beginning.

If the PLAY button is pressed within 2 seconds after the REW button is pressed, the video cassette recorder starts playback of the tape.

Fast-forwarding/Rewinding while looking at picture

Momentarily press the FF button or REW button in playback.

- The video cassette recorder starts search playback in the normal (FF button) or reverse (REW button) direction at a speed 7 times as fast as the normal in the SP mode or 21 times as fast as the normal in the EP mode.
- To play back the tape normally, press the PLAY button.
- If the FF button or REW button is continuously pressed for 2 seconds or longer in playback, the tape is fast played back in the normal (FF button) or reverse (REW button) direction (5 times as fast as the normal in the SP mode or 7 times as fast as the normal in the EP mode). When the FF or REW button is released from pressing, playback speed reverts to the normal.

Still playback/Frame-to-frame playback/Slow playback

Press the PAUSE button in playback.

- The playback picture becomes still.
- When the still picture fluctuates up and down, adjust tracking with the TRACKING +/- button on the remote controller so that the picture be comes stable.

Press the PAUSE button in the still playback mode.

- Each time the PAUSE button is pressed in the still playback mode, pictures are played back from frame to frame.
- If the same operation is performed in the reverse playback mode, pictures are played back from frame to frame in the reverse direction.

Continuously press the PAUSE button in playback for 2 seconds or longer.

- Playback speed goes down to 1/6 of the normal speed (slow playback).
- When noise is generated in this operation, adjust tracking with the TRACKING +/- button on the remote controller so that noise is minimized.
- If the same operation is performed in the reverse playback, slow playback is operated in the reverse direction.
- To return to the normal playback from the slow playback, press the PLAY button.
- In playback at a speed different from the normal (in fast/slow playback), no sound is output from the video cassette recorder.
- If noise is generated in the fast playback, reverse playback or slow playback, it does not come from machine trouble.
- If still playback or slow playback is continuously operated for 5 minutes or longer, the video cassette recorder automatically stops playback for protecting the tape.
- If a badly recorded video tape or tape on which recording was performed by a different machine is played back, tracking adjustment occasionally results in failure.
- Automatic tracking is automatically activated the moment the video cassette recorder is turned on or a cassette is inserted.

Repeated playback

Press the PLAY button in playback for 5 seconds or more. (The PLAY indication blinks.)

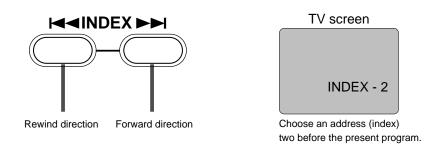
- The tape is repeatedly played back from the beginning to the end 20 times, and the 20th playback ends at the end of the tape.
- To discontinue repeated playback halfway, press the STOP button.

Search playback

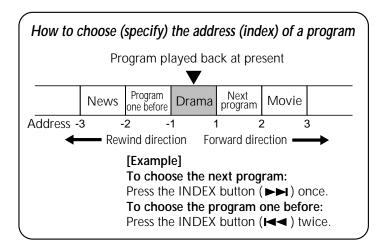
Playing back from the beginning of each program – Search playback

To start playback from the beginning of a program, search the index recorded at the beginning point of each program. Video cassette tapes recorded by JVC machine have automatically recorded the index marks.

1 Choose a desired address (index) with the INDEX button on the remote control unit.



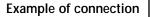
- Search a desired address (index) for automatic playback of the program.
- Each time the right button is pressed, the number of index increases. On the other hand, each time the left button is pressed, the number of index decreases.
- Maximum nine programs can be chosen at a time.
- To discontinue search playback halfway, press the STOP button.



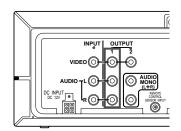
Connection to other apparatus Connection to Mobile Color Monitor System KV-M65

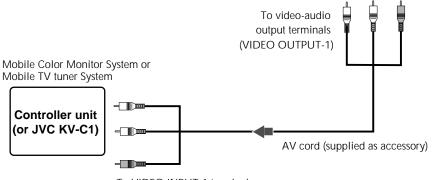
Connect the KV-M65 to the controller unit of the Mobile Color Monitor System KV-M65.

- Connect the video-audio output terminals (VIDEO OUTPUT-1) of the KV-M65 and the video-audio input terminals (VIDEO INPUT-1) of the tuner unit of the KV-M65 with the AV cord supplied as an accessory.
- 2 When the JVC TV tuner system KV-C1 is used, the same applies to it.



Signal flow





To VIDEO INPUT-1 terminal

Connection to a video camera

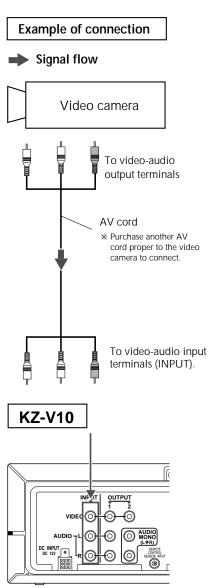
If a video camera is connected to this video cassette recorder, picture and sound can be recorded by the machine. However, there are some video cameras that cannot be connected to this video cassette recorder. For details, refer to the instructions of the video camera.

- Connect the audio-video output terminals of the camera to the audio-video output terminals of this video cassette recorder.
- 2 Insert a video cassette whose recording protection tab is not broken.
- The video cassette recorder is automatically turned on.
- Choose a recording speed of SP or EP with the SP/ EP button.
- 3 While pressing the PAUSE button, press the REC button to enter the machine into the pause mode.
- The REC indicator lamp blinks.
- 4 Press the PLAY button the moment you want to record the scene.
- The machine starts recording.
- To suspend recording temporarily, press the PAUSE button.
- To discontinue recording, press the STOP button.



• If the machine remains in the pause mode for 5 minutes or longer, the pause mode is automatically canceled and the machine stops operation for protecting the video head.

 The copyright law forbids you to use matters that you recorded by the video cassette recorder without permission of the copyright holder except the case you use them for private enjoyment.



Troubleshooting

When you doubt if there is something wrong in the machine, check the symptom and cause referring to the following table.

 No power supply ☆ Power cord is disconnected. ○ Tightly plug the power cord into the jack.
 Machine does not work though power is normally supplied. (POWER indicator lamp is blinking.) Machine is dewed inside, or high temperature sensor circuit is in operation. When the machine is dewed, wait for several hours until the inside becomes dry. When the high temperature sensor circuit is functioning, cool the cabin to lower the machine temperature.
Indications don't disappear from the screen. ○ Press the DISPLAY button on the remote control unit.
 ■ Noise appears in a part (or some parts) of playback picture. ☆ Abnormal tracking. ☆ If noise appears in the same part of playback picture all the time, the tape is damaged by the part. ○ Press the AUTO button on the remote control unit to cancel automatic tracking and manually adjust tracking with the TRACKING + and - buttons.
■ Still picture fluctuates up and down. ☆ Vertical hold is maladjusted. ○ Adjust tracking with the TRACKING + and - buttons on the remote control unit.
 Abnormal color No video output No audio output Carefully read the instructions of the TV set connected to the video cassette recorder.
 ■ Playback picture is rough or frosted. ☆ Video heads are soiled. ○ Clean the video heads with the head cleaning cassette.

Specifications General

 Power supply Dimensions Mass Allowable working temperature Allowable relative humidity Allowable conservation temperature 	: DC12 V (11-16V allowable) Negative ground : 10-1/4 ''x3-3/4'' x10-11/16'' (259 x 94 x 270 mm) (width x height x depth) : 7.1 lbs (3.2 kg) : 0°C to + 40°C (32°F to 104°F) : 35% to 80% : -20°C to +60°C (-4°F to 140°F)
Video • Recording/playback system • Video signal	: VHS format (with SQPB), Hi-Fi 4-heads helical scan : NTSC standard signal
Audio • Recordinga system • Audio track	: VHS stereo Hi-Fi audio : 2 Hi-Fi audio channels and 1 normal audio channel
Remote control unit	: A code (A code and B code are switchable automatically in the main unit.)

Design and specifications subject to change without notice.



