



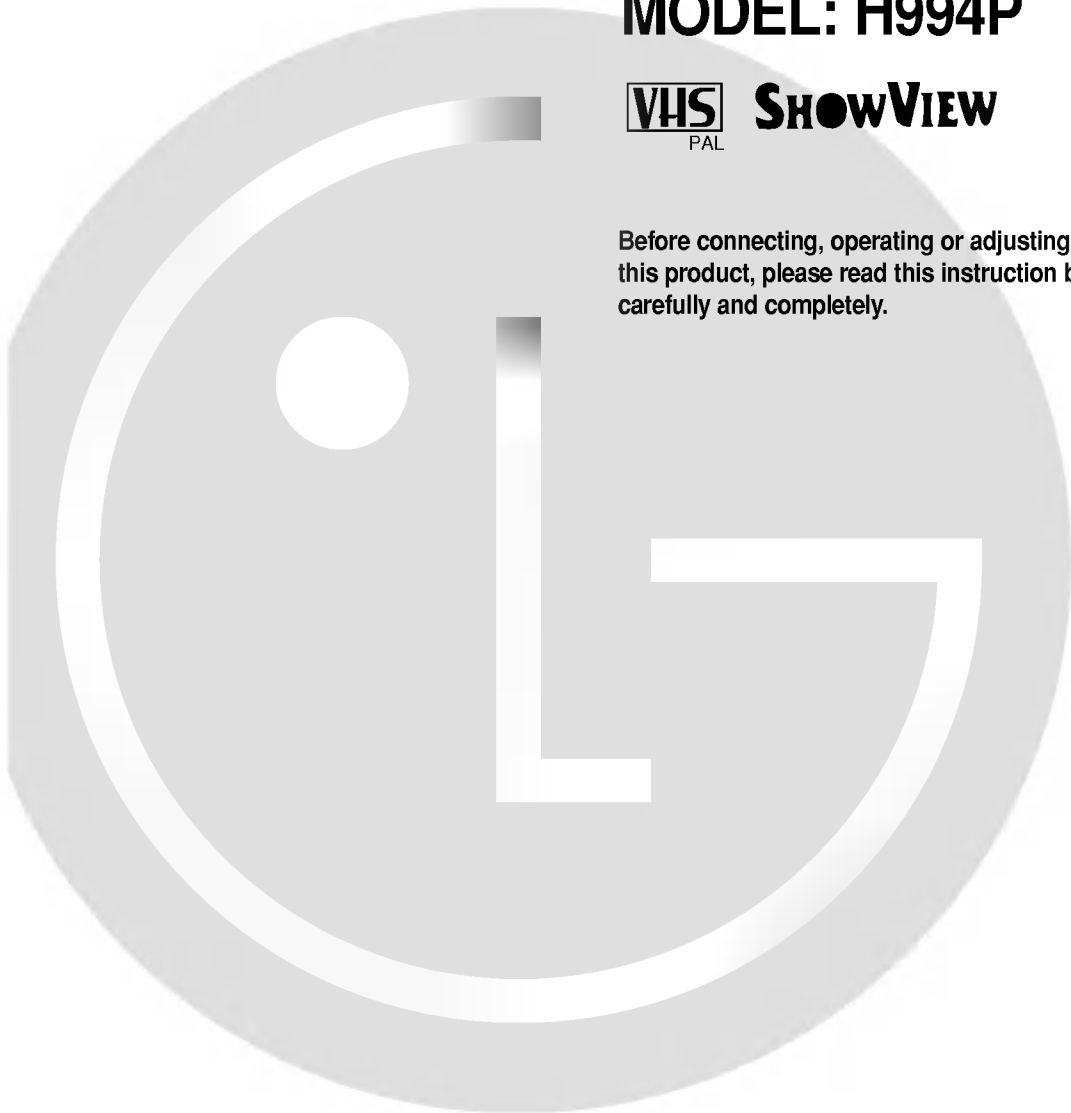
**Hi-Fi
Video Cassette Recorder
with ShowView**

Owner's Manual

MODEL: H994P



Before connecting, operating or adjusting
this product, please read this instruction booklet
carefully and completely.



Welcome to LG

Thank you for buying this LG video cassette recorder Model H994P.

Before using your video recorder you need to be familiar with the names of some of the buttons on the remote control handset (see OPERATING THE VIDEO RECORDER, pages 4 to 6), and you need to set up the video recorder so that it can receive the TV stations in your area and so that your TV set can receive pictures from it (see p 12 to 14).

Installation

POWER

This Video Recorder operates on a mains supply of 100-240V~, 50 Hz.

SERVICE


Never remove the cover of the video recorder. There are no user serviceable parts inside. If it does not operate properly, unplug it and contact your dealer.

PRECAUTIONS

For safe operation and satisfactory performance of your video recorder, keep the following in mind when selecting a place for its installation.

- Shield it from direct sunlight and keep it away from sources of intense heat.
- Avoid dusty or humid places.
- Avoid places with insufficient ventilation for proper heat dissipation. Do not block the ventilation holes of the video recorder. Do not place the video recorder on the carpet because this will block the ventilation holes.
- Install the video recorder in a horizontal position only.
- Avoid locations subject to strong vibration.
- Do not place the video recorder near strong magnetic fields.
- Do not move the video recorder from a cold to a hot location or vice versa.

MOISTURE CONDENSATION

Under special conditions like moving your video recorder from a cold to a warm room, moisture condensation can build up on the head drum, one of the most crucial parts of the video recorder. In order to prevent in such case any damage to your video recorder HEAD DRUM, connect the video recorder power cord to the AC line, press the  button on and allow at least 2 hours for the video recorder to dry out.

CONDENSATION IS LIKELY TO OCCUR WHEN:

The video recorder is moved from a cold room to a warm room or from outdoors to inside your home.

- A cold room is heated quickly.
- The humidity is very high.



This product is manufactured to comply with the radio interference requirements of EEC DIRECTIVE 89/336/EEC, 93/68/EEC and 73/23/EEC.

Feature & Contents

Features

- HQ (High Quality) picture enhancement system
- Full function infra-red remote control handset
- Programmable 80 channel memory with Frequency synthesised tuner
- ACMS (Automatic Channel Memory System) - the channels will be preset & memorized automatically.
- 7 event/1 month programmable timer
- Built-in ShowView programming
- Recording and playback for 16:9 Wide-screen format
- Energy Saving function
- ICON O.S.D (On Screen Display) - Enables menu to display on the blue picture and actual picture.
- NTSC playback on PAL TV
- PREMIERE Compatible
- LP - Long Play - recording and playback
- Shuttle Controls
- Logic & Picture Search
- Child Lock
- Auto Head Cleaner
- Auto Power on and Play
- Fine still, Frame advance & Variable Slow functions
- Real Time Counter
- Quick Start function
- Auto Tracking System
- Reception of Stereo, Bilingual & Mono sound
- Hi-Fi Audio System
- Simulcast Recording

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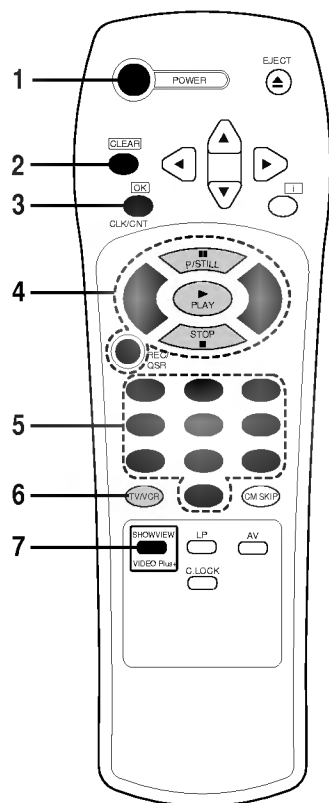
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Operating the video recorder

The Remote Control Handset

This video recorder is designed so that almost all of its functions can be controlled from the REMOTE CONTROL HANDSET. This must have a "line of sight" to the sensor on the front of the video recorder. It must be within an angle of 30 degrees either side of the centre. The maximum operating distance is about 7.5m (25 feet).

Some functions can also be controlled with the controls on the FRONT PANEL of the video recorder.



1 POWER

To switch the video recorder on and off.

2 CLEAR

To reset the tape counter to zero (see p 31).

3 OK/CLK/CNT

- Confirms menu selection (see p 11).
- Calls the on screen display (see p 31).
- To switch the display on the TV screen between the current time, the tape counter (in hours and minutes) and the remaining tape volume (see p 31).

This function will only operate when a tape is loaded.

4 Basic operation buttons;

- P/STILL (see p 19, 23).
- REWIND/REVIEW (see p 20).
- PLAY (see p 19).
- FAST FORWARD/CUE (see p 20).
- STOP (see p 19).
- REC/QSR (see p 23 to 24).

5 NUMBER BUTTONS:

To select programme channels. To programme numeric information into On screen displays.

6 TV/VCR

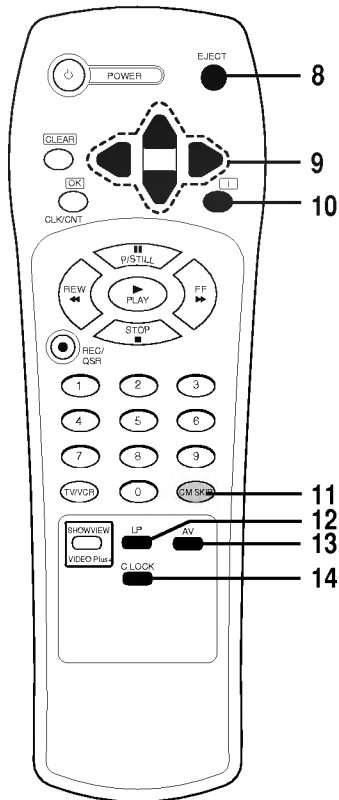
Set this button to;

- **VCR:** To monitor, view playback or view the video recorder's tuner.
- **TV:** To watch TV or view another programme while recording one programme (see p 24).

7 SHOWVIEW

To display the programme menu for ShowView programming on the handset (see p 25 to 26).

Operating the video recorder



8 EJECT BUTTON

To eject a tape (see p 18).

9 CURSORS (▲, ▼, ◀, ▶)

▲▼:

- During OSD menu, for moving the cursor, selection bar up or down.
- Switches one channel programme up or down.
- During playback, tracking control.
- During still playback, adjusting vertical tremble.
- To adjust manual fine tune for receiving normal audio and picture (see p 13).

◀▶:

- During OSD menu, for moving the cursor to the left or right.
- Adjust the playback speed (see p 21).
- To clear data (see p 29).

10 i

To display the on screen display (OSD) menu (see p 11).

11 CM SKIP

To fast forward picture search through 30 seconds of recording (see p 19).

12 TAPE SPEED SELECT (LP)

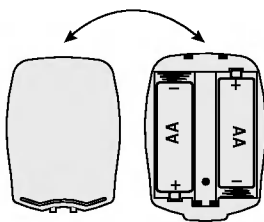
To select the recording speed of the tape (see p 23).

13 AV

To select the input source of a recording (see p 23).

14 CHILD LOCK

To turn the CHILD LOCK function on/off (see p 33).



How to install batteries

The wireless remote control is powered by two "AA" size batteries.

1 Remove the battery compartment lid.

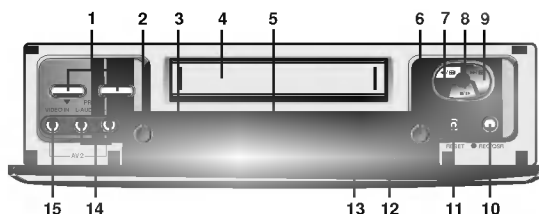
(Lift it up while pressing the tab forward.)






2 Load the new batteries with their polarities (⊕ and ⊖) aligned properly and replace the lid.

- Do not use an old and a new battery together, and never use an alkaline battery with a manganese battery.
- If you do not intend to use the remote control unit for a long period of time, remove the batteries and store them in a cool, dry place.

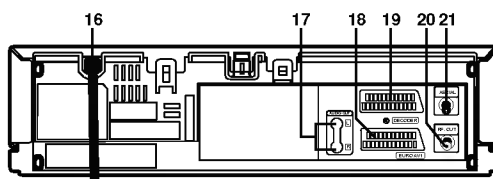
Operating the video recorder

Front view



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| <p>1 PROG. (▼/▲)
Allows you to scan through memorized channels.</p> <p>2 
To switch the video recorder on and off.</p> <p>3 
To stop the tape, or eject it from the video recorder (see p 18).</p> <p>4 VIDEO CASSETTE COMPARTMENT
When a cassette is inserted loading is completed automatically.</p> <p>5 MULTI FUNCTION DISPLAY
Display of time, tape counter or other information about the status of the video recorder.</p> <p>6 
To play the tape (see p 19).</p> <p>7 
To rewind the tape (see p 20).
To see reverse playback picture at high speed (see p 20).</p> <p>8 P/STILL (/ ▶)
Switches to still picture (see p 19), during recording to pause (see p 23).</p> | <p>9 
To rewind the tape forward (see p 20).
To see forward playback picture at high speed (see p 20).</p> <p>10 REC/QSR
Used to record and set the QSR (Quick Set Recording) time (see p 23 to 24).</p> <p>11 RESET
To reset when the VCR occurs error.</p> <p>12 GREEN POWER
To save the energy (see p 18).</p> <p>13 REMOTE CONTROL SENSOR
To receive the signals from the remote control handset.</p> <p>14 AUDIO INPUT TERMINALS (L/R)
To record audio from an external audio source (see p 9).</p> <p>15 VIDEO INPUT TERMINAL
To receive a signal from another video equipment (e.g. Camcorder) (see p 9).</p> |
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Rear view



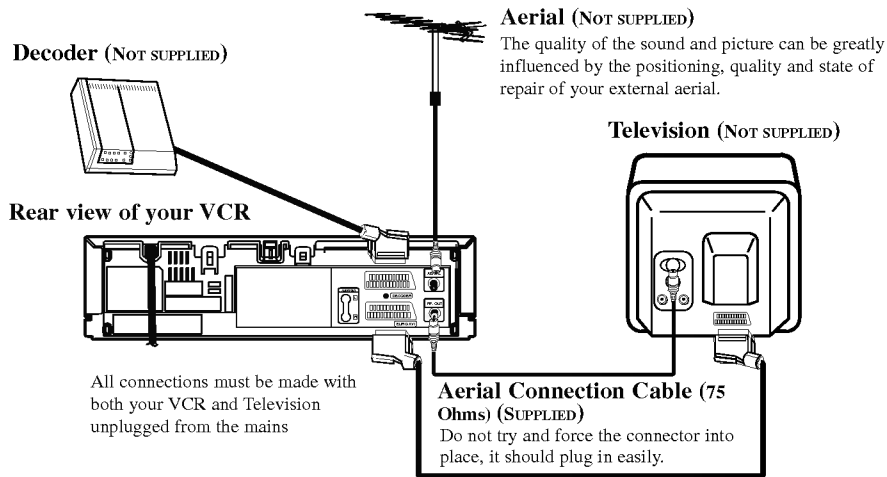
- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>16 MAINS LEAD</p> <p>17 AUDIO OUT TERMINALS (L/R)
Connect your Hi-Fi system to play the video recorder sound (see p 8).</p> <p>18 EURO AV1
To connect the video recorder to your TV set or to another video recorder (see p 35). For recording from EURO AV1, select "AV1" with the "AV" button (see p 23).</p> | <p>19 DECODER
To connect a pay TV decoder (PREMIERE) (see p 7).</p> <p>20 RF.OUT
Connect this terminal to the AERIAL terminal on the back of the TV, using the coaxial RF cable (supplied).</p> <p>21 AERIAL
Connect the external aerial to this terminal.</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Installing your video recorder

IMPORTANT!

The guidance given on the next three pages in the most common forms of connection. However please check with your manufacturers instruction books for specific information. Make sure all connections are made with both your VCR and additional appliance unplugged from the mains to avoid damaging your equipment. Connecting a VCR using a SCART leads is one of the best ways to achieve optimum sound and picture quality from video-tape playback. If you own a stereo TV you will be able to enjoy stereo sound when playing a stereo video tape; you will be unable to enjoy this facility if you connected just a normal aerial lead.

Connecting to a TV & DECODER



SCART Lead (NOT SUPPLIED)

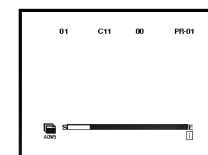
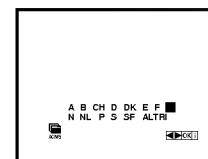
- If you use a SCART lead picture quality will be improved and you will be able to enjoy stereo sound when playing tapes.

INITIAL PRESET

For the following steps we do assume that you have just connected your video recorder for the very first time. In this case the video recorder is on after mains connection. You should not touch any buttons yet. On the connected TV you will now see.

Note - If this menu does not appear, your video recorder was programmed already.

- 1 Select the country according to your area with cursor "◀" and "▶" buttons.
"A": Austria, "B": Belgium, "CH": Switzerland, "D": Germany, "DK": Denmark, "E": Spain, "F": France, "I": Italy, "N": Norway, "NL": Netherlands, "P": Portugal, "S": Sweden, "SF": Finland, ALTRI (Others).
- 2 Press the "OK" button to start the automatic storing of the channels of the TV stations in your area.

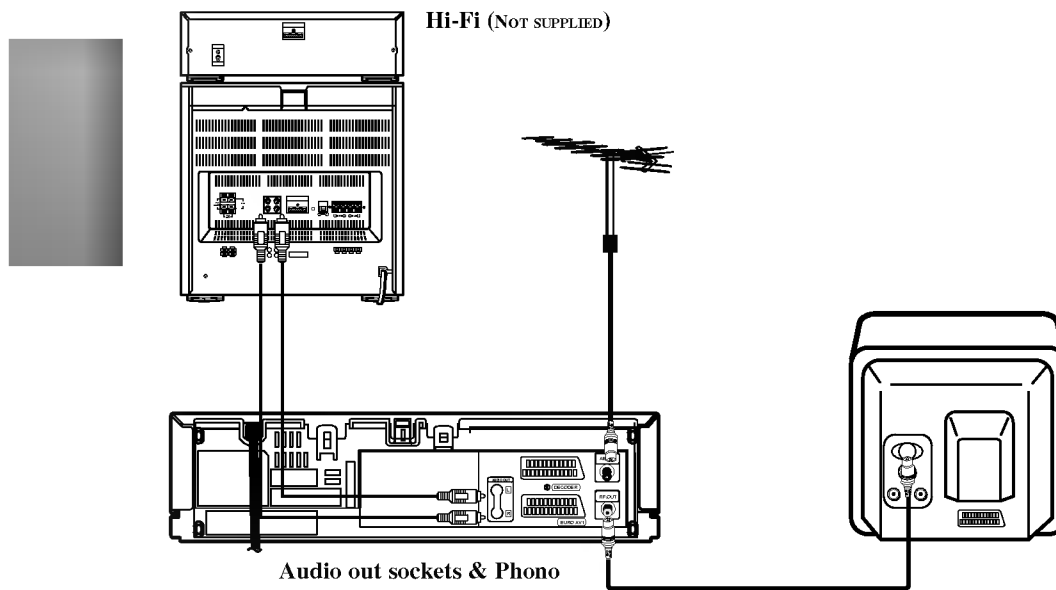


Installing your video recorder

Connecting to your Hi-Fi (Audio out)

An audio system can be connected to the Audio out sockets on the back of your VCR.

Please remember to turn the volume to minimum on your Hi-Fi, then gradually increase the volume; this will prevent damaging your speakers and save you from an extremely noisy shock!



Audio out sockets & Phono Leads (SUPPLIED)

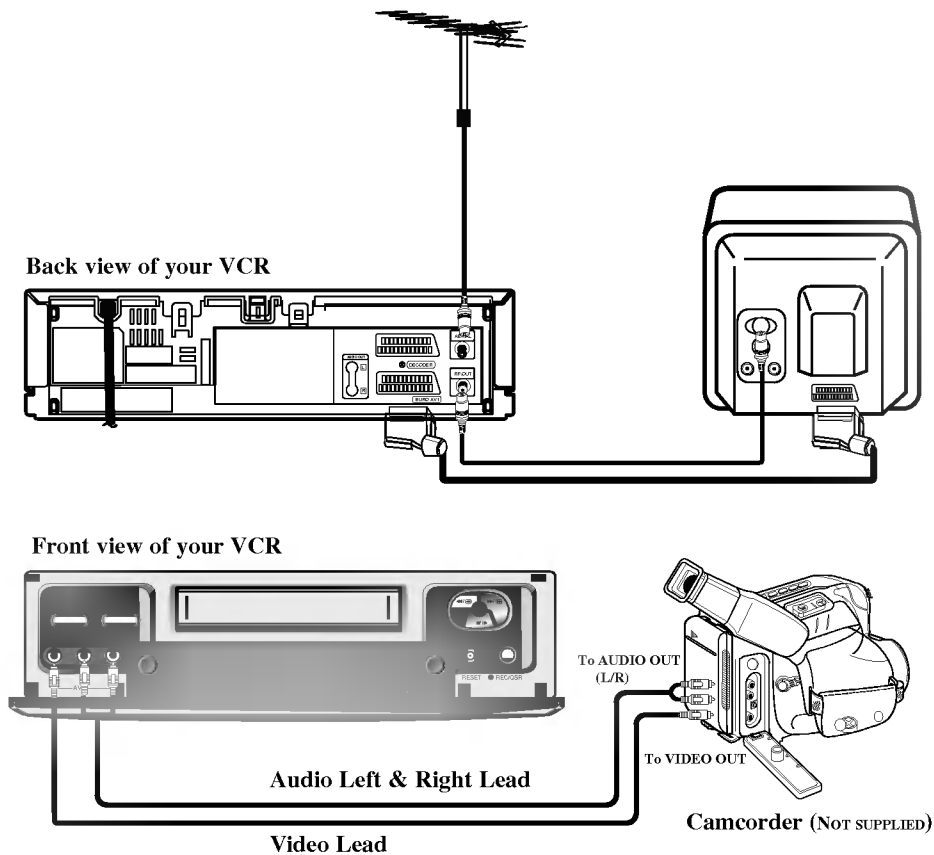
The phono sockets for connecting your VCR to your Hi-Fi are on the back of the set; L = Left sound output, R = Right sound output. You normally have to select the AUX function on your Hi-Fi.

Please note if you press the MUTE button on your TV only the sound from the TV's speaker is switched off, not your Hi-Fi.

Installing your video recorder

Camcorder Connection

Make sure all connections are made with both your VCR and Camcorder unplugged from the mains to avoid damaging your equipment. To make connecting your Camcorder easier we have designed the Audio IN (Left and Right) and Video IN sockets on the front panel of your VCR. You may also use the SCART socket on the rear of your VCR as well.



Whichever socket you choose to use remember to select the appropriate recording input e.g. SC, AV1, AV2. If you are using the sockets on the front panel select source AV2.

Setting the VCR output channel

Your TV set receives the video recorder signal like another TV station. So you have to select a programme number for the video recorder.

Take care to select this programme number, whenever you control the video recorder, or watch a recording. Only if you have selected this programme number, which we call video programme number, you will see the picture from the video recorder on the screen.

If you connect a monitor or a TV set equipped with audio and video terminals, this adjustment will not be necessary. Consult the operating instructions of your TV set.

Connect the video recorder as described in the section on Connections (see on previous page).

Setting the output channel of the VCR

A SETTING THE VIDEO CHANNEL WITH PLAYBACK

The output channel of the video recorder is set at UHF channel 36.

- 1 Turn on the TV set and the video recorder.
- 2 Play any video cassette tape on your video recorder.
- 3 Select the correct channel (36) on your TV set. And then you will see the picture being played in video recorder.
(Note - You will need to look at the instruction manual for your TV set if you do not know how to do this.)

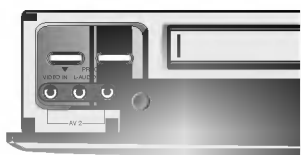
B SETTING THE VIDEO CHANNEL WITH OSD (ON SCREEN DISPLAY)

- 1 Turn on the TV set and the video recorder.
- 2 Repeat above No. 3. And then you will see a blue background picture on the TV screen.
- 3 Store this channel in an unused programme number on your TV set.

Changing the transmitter channel

If the channel 36 is already occupied at your TV set, or if the picture is distorted, you can change the transmitter channel of the video recorder.

- 1 Select an unoccupied channel between 22 and 68 on your TV set.
- 2 During power off mode (only clock display) hold down the PROG. "▼" and "▲" buttons on the VCR for more than 4 seconds. Then, "RF-CH 36" will be displayed on the VCR's display.
- 3 Press the PROG. "▼" or "▲" buttons on the VCR to select another video channel e.g. between channels 22 and 68, until the test pattern shown the left is received.
- 4 Press the "⏻" button when you have finished.



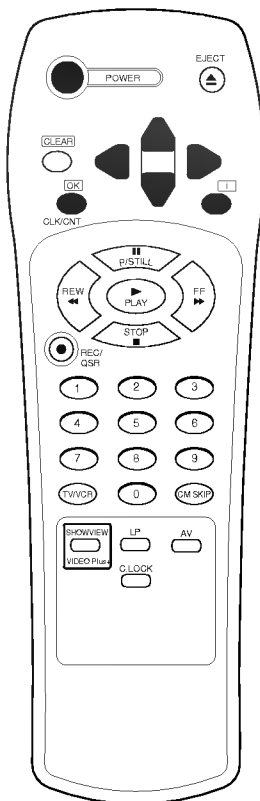
On Screen Display

A number of the features of this video recorder can be set and altered using the handset with On Screen Displays (menus) on the TV screen.

The Main menu

- 1** Switch on your TV set and video recorder by pressing the "POWER" button.
- 2** Press the "i" button to display the Main menu.
- 3** Press the cursor "◀" and "▶" buttons to select the desired menu and press the "OK" button.

Note - After using the menus press the "i" button to remove menus from the TV screen.



REC

Used to record a programme with the timer (see p 27 to 28).

PR SET

Used to view stored TV stations or to set TV station information manually (see p 13 to 14).

ACMS

Used for automatic setting of the TV stations (see p 12).

TIME DATE

To set the clock and date manually (see p 17).

SYSTEM (AUTO → PAL → MESECAM)

Select the colour system used for playback and recording (see p 22).

AUDIO (STEREO, LEFT, RIGHT or MONO)

Used to select the channel for audio output (see p 34).

ABC OSD

Allows you to select the language of the On Screen Display. You can select between English, Deutsch, Français, Italiano and Español.

OSD (On Screen Display)

Switches the on screen display OFF or ON (see p 31).

ON : To display the function OSD of VCR on the TV screen.

OFF : To off the function OSD of VCR on the TV screen.

16:9/4:3

To select the aspect ratio of your TV (see p 33).

- **AUTO:** for playing back wide-screen programmes as wide, normal programmes as normal.
- **16:9:** for recording and playback with a 16:9 Wide-screen format recording.
- **4:3** for recording and playback with a normal format.

DECODER

To use DECODER scart socket for the connection of a pay-TV decoder (see p 22).

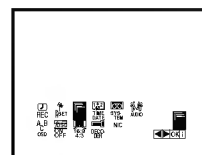
Storing TV stations

Up to 80 TV stations (80 channels) can be stored in the memory of this video recorder. These can be set automatically or manually.

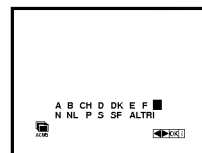
Automatic tuning

To carry out Automatic tuning:

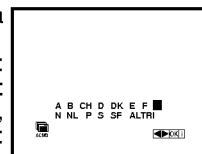
- 1 Turn on the TV and the video recorder (with the "POWER" button).
- 2 Press the "i" button and select "ACMS" by using the cursor "◀" and "▶" buttons.



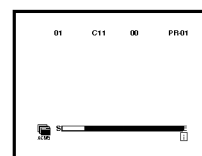
- 3 Press the "OK" button.



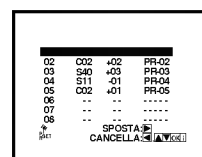
- 4 Select the country according to your area with cursor "◀" and "▶" buttons.
 "A": Austria, "B": Belgium, "CH": Switzerland, "D": Germany, "DK": Denmark, "E": Spain, "F": France, "I": Italy, "N": Norway, "NL": Netherlands, "P": Portugal, "S": Sweden, "SF": Finland, ALTRI (Others).



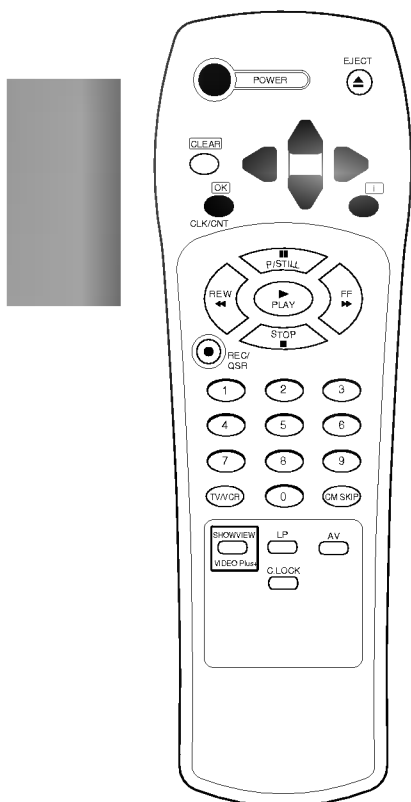
- 5 Press the "OK" button to start the automatic storing of the channels of the TV stations in your area.



- 6 Automatic channel tuning has been completed when the "TV station table" menu appears on the TV screen.



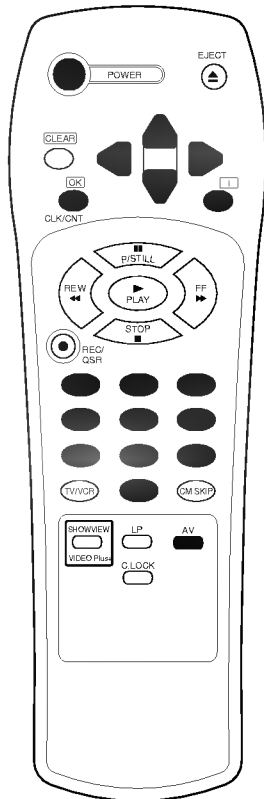
- 7 Press the "i" button to remove the menus from the TV screen.



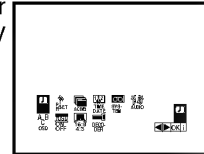
Storing TV stations

Manual tuning

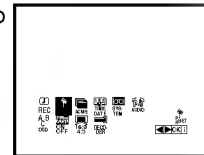
TV station Channel numbers and Station names can be stored manually.



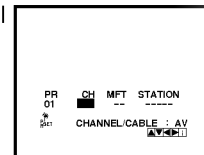
- 1 Press the "i" button on the video recorder handset. The menu will appear on the TV screen.



- 2 Use the cursor "◀" and "▶" buttons to select "PR SET"

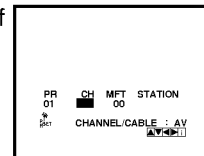


- 3 Press the "OK" button to enter the manual tuning mode.

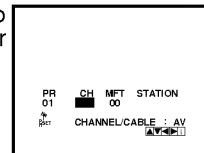


- 4 Press the "AV" button to select the type of TV channels.

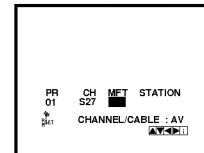
- "C" for standard channels C02-C69.
- "S" for special channels (Cable) S01-S41.



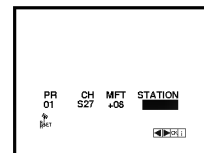
- 5 Enter the channel number that you wish to enter the station with number buttons or cursor "▲" or "▼" buttons.



- 6 Use "▶" button to select "MFT (Manual Fine Tuning)" and control the fine tuning of the station by pressing the cursor "▲" and "▼" buttons.

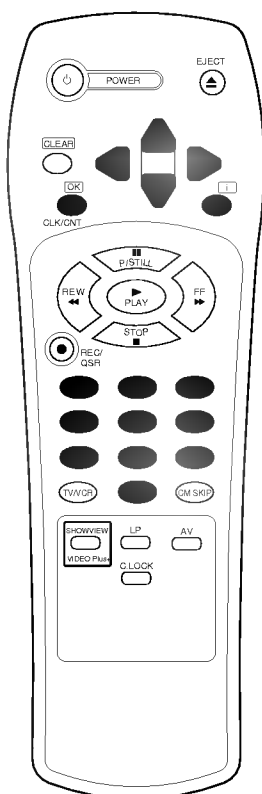


- 7 Use "▶" button to select "STATION".



Storing TV stations

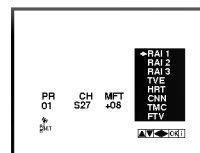
PREPARATION



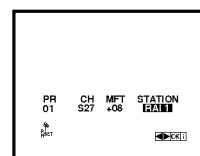
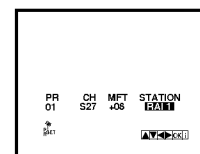
- 8** Press the “OK” and select the cursor “▲” and “▼” buttons to select the station name from list.

NOTE:
Press the use “▶” button to input the station name manually.

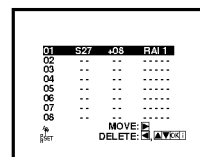
- 1) Enter the first letter of the station name by repeatedly pressing the cursor “▲” and “▼” buttons.
- 2) Now move the cursor with the “▶” to the next position and write in the next letter of the station name.
For corrections move back and forth with the “◀” and “▶” buttons.
- 3) When you have the station name as required press the “OK” button and “i” button.



- 9** Press the “OK” button to select it.



- 10** Press the “i” button.
The “TV station table” menu will be displayed.



- 11** End the station storing by pressing the “i” button.

Selecting stored TV stations

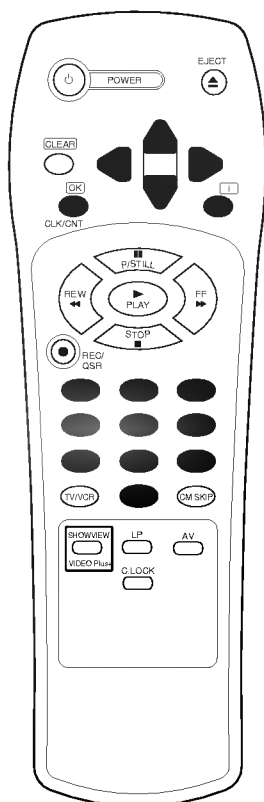
Stored TV stations can be selected in either of two ways.

- 1** Use the “▲” and “▼” buttons to move from one station to another.
- 2** Enter the programme number with the number buttons, to select a station directly. You can enter the stations 1 to 9 with the one digit only. The channel will be selected at once. When the channel is changed, a screen display (of a seconds duration) gives the programme number, and if the broadcast is STEREO or BIL (Bilingual).

Storing TV stations

Moving the programme order of the “TV station table” menu

If you want to move the order of the TV stations you can easily do so as follows:



1 Press the “i” button on the remote control handset. The menu will appear on the TV screen.

2 Select “PR SET” with the cursor “◀” and “▶” buttons and press the “OK” button.

3 Press the “i” button. The “TV station table” menu will be displayed.

4 Move the cursor down or up with the cursor “▲” and “▼” buttons to select the programme that you want to move to another position in the menu (for example “Pr 03”). Now you press the “▶” button to select move.

5 Move the cursor to place the cursor line at the position where to insert the selected programme (example Pr 04).

6 Press the “OK” button. The selected station will be moved to the new programme number.

7 Move other stations, if you wish, by repeating steps 3 to 6.

8 Press the “i” button to remove the menus from the TV screen.

PR	CH	MFT	STATION
01	C03	+08	RAI 1
* CHANNEL/CABLE - AV			

01	C03	+08	RAI 1
02	C02	+02	RAI 2
03	S11	-01	RAI 3
04	S40	+03	TVE
05	C02	+01	HRT
06	--	--	.....
07	--	--	.....
08	--	--	.....
* MOVE [▶] [◀] [OK]			
* DELETE [▶] [◀] [OK]			

01	C03	+08	RAI 1
02	C02	+02	RAI 2
03	S11	-01	RAI 3
04	S40	+03	TVE
05	C02	+01	HRT
06	--	--	.....
07	--	--	.....
08	--	--	.....
* [▶] [◀] [OK]			

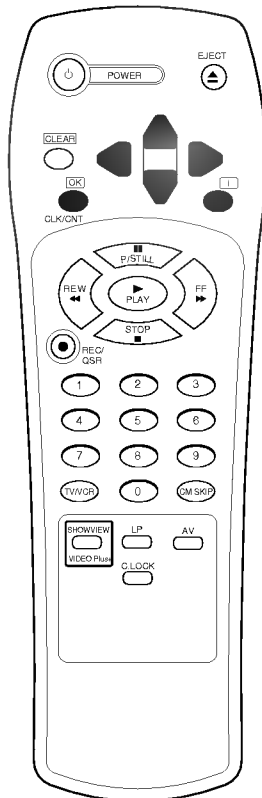
01	C03	+08	RAI 1
02	C02	+02	RAI 2
03	S40	+03	TVE
04	S11	-01	RAI 3
05	C02	+01	HRT
06	--	--	.....
07	--	--	.....
08	--	--	.....
* [▶] [◀] [OK]			

01	C03	+08	RAI 1
02	C02	+02	RAI 2
03	S40	+03	TVE
04	S11	-01	RAI 3
05	C02	+01	HRT
06	--	--	.....
07	--	--	.....
08	--	--	.....
* MOVE [▶] [◀] [OK]			
* DELETE [▶] [◀] [OK]			

PREPARATION

Storing TV stations

PREPARATION



Clearing stations from the “TV station table” menu

If you want to clear a TV station from the video recorder’s memory you can easily do so as follows:

1 Press the “i” button on the remote control handset. The menu will appear on the TV screen.

2 Select “PR SET” with the cursor “◀” and “▶” buttons and press the “OK” button.

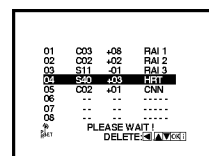
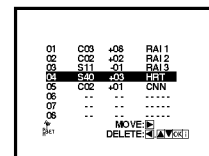
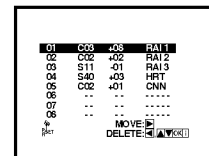
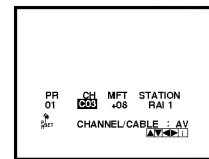
3 Press the “i” button. The “TV station table” menu will be displayed.

4 Move the cursor down or up with the cursor “▲” and “▼” button to select the programme that you want to clear. (for example station “Pr - 04”).

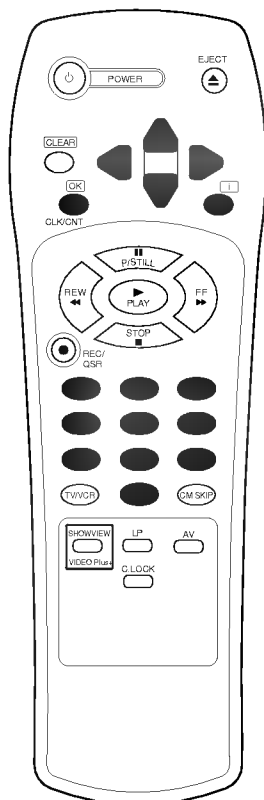
5 Press the “◀” button to delete. After a short while, the selected station will be cleared.

6 Clear other stations, if you wish, by repeating steps 4 and 5.

7 Press the “i” button to remove the menus from the TV screen.



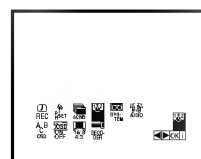
Time and date setting



Setting the video recorder's clock

To manually alter the clock:

- 1** Press the "i" button. The Main menu appears on the TV screen.
- 2** Select "TIME DATE" with the cursor "◀" and "▶" buttons.



- 3** Press the "OK" button.

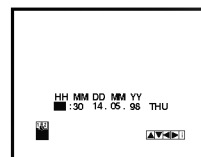


- 4** Use the number buttons or cursor "▲", "▼", "◀" and "▶" buttons alter the Hours, Minutes, Day, Month and Year (using the 24 hour clock).

The day of the week will appear automatically when you have entered the date.

NOTE: Enter 1 as 01, 2 as 02 etc.

- Correct errors during inputting with cursor "◀" and "▶" buttons.



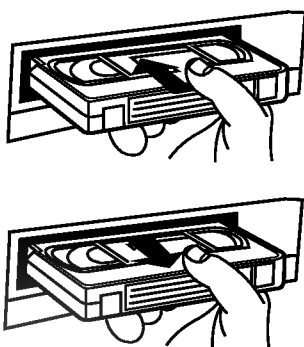
- 5** Press the "i" button to remove the menus from the TV screen.

The set time will appear on the video recorder's Display.

Using the VCR to play back a tape

Note - Loading and unloading of a video cassette is only possible when the video recorder is plugged into a power source.

Loading & Unloading a video cassette



- 1** Insert the cassette into the video recorder with the window side up and the arrow pointing away from you. Do not attempt to insert a cassette which is upside down or back to front.
Gently press the middle of the tape.
- 2** Press the "EJECT" button, on either the handset or the front panel of the video recorder.

The cassette compartment will open and the video cassette will be partially ejected. "EJECT" will appear for a few seconds on the TV screen. It is not necessary to switch on the video recorder, by pressing the "POWER" button before ejecting a video cassette.

Note - It is advisable to remove a video cassette from the video recorder when not in use. Rewind and unload it.

Types of video cassette

Use VHS tapes in this video recorder.

On SP (standard play) the maximum record and playback time is that given on the video cassette.

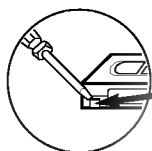
For example E-180 will record/play back for 180 minutes.

For example T-120 will play back for 120 minutes.

On LP (long play) the maximum record and playback time is twice that given on the video cassette.

For example E-180 will record/play back for 360 minutes.

For example T-120 will play back for 240 minutes.



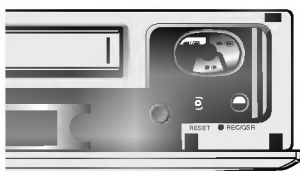
Accidental erasure prevention - If you do not wish to record on a tape, and hence erase what is already recorded on it, then remove the safety tab on the back edge of the video cassette.



Cover the hole with cellophane tape - It is possible to record on a video cassette from which the safety tab has been removed by covering the hole with cellophane tape.

Refer to the instructions included with the video cassette for more information.

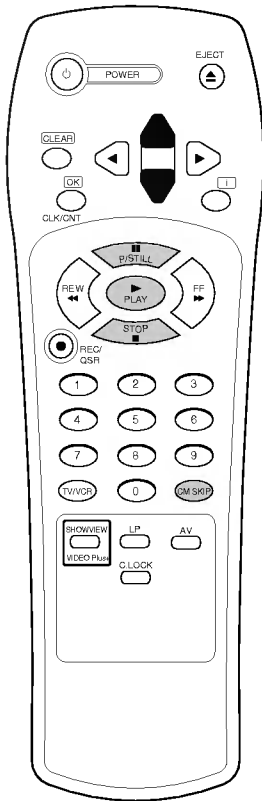
How to using the Energy saving mode



- 1** Press the "GREEN POWER" button on the VCR. All the displays will disappear on the video recorder's display.
- 2** For releasing the energy saving mode, press the "GREEN POWER" button once again.

Note - If you have programmed a recording, the energy saving mode does not work and the timer set TIMER symbol flickers on the display.

Using the VCR to play back a tape



Normal playback

- 1 Press the "PLAY" button to start playing a tape (called Normal playback). "PLAY" will appear for a few seconds on the TV screen.

Automatic tracking - The video recorder will automatically adjust the tracking to give the best quality picture. A.TRK will appear on the video recorder's display while it is doing this.

Standard Play (SP) or Long Play (LP) tape -

The video recorder will automatically recognise whether the tape has been recorded at normal speed (SP) or half-speed (Long Play - LP), and play it back at the correct speed. If it is a long play tape LP will be shown on the video recorder's display.

Automatic playback - If the video cassette has had its safety tab removed, so that it cannot be erased, then the video recorder will automatically start playing the tape.

- 2 Short interruptions of the playback up to 5 minutes can be made with the "P/STILL" button. Continue playback by pressing the "PLAY" button.
- 3 End the playback with "STOP" button.
 - If the end of the tape is reached, the video recorder stops automatically, rewinds, stops, ejects the tape and switches off.

Still picture playback

You can playback and advance a still picture as follows:

- 1 Press the "P/STILL" button during playing back. You see a still picture on the TV screen.
- 2 You can remove the vertical tremble with the cursor "▲" and "▼" advance the still picture by pressing the "P/STILL" button. By repeatedly pressing this button the picture advances one frame at a time.
- 3 To switch off the still picture, press the "PLAY", or the "STOP" buttons.

The still playback will only continue for about 5 minutes, after which the video recorder will return to stop mode, to avoid damage of the tape.

CM (Commercial Message) Skip

(While in play mode) Pressing "CM SKIP" button on the remote control skips commercials or other programme material.

Pressing 1, 2, 3, or 4 times skips 30, 60, 90, or 120 seconds, respectively. CM SKIP skips at full 120 seconds of commercials in a few seconds, then resumes normal playback.

Other playback features

This video recorder will allow you to rapidly wind a tape forwards or backwards, search a cassette tape, view individual frames on a tape, and play back a tape in slow motion.

Fast forward (FF)

Pressing the fast forward (" FF ") button with the tape on stop, will rapidly wind the tape forward. "FF" will appear for a few seconds on the TV screen.

Rewind (REW)

Pressing the rewind (" REW ") button with the tape on stop, will rapidly wind the tape backwards. " REW " will appear for a few seconds on the TV screen.

LOGIC search

If you hold down either of the search buttons (" REW " or " FF ") during fast forwarding or rewinding the tape, the picture will be seen at about 9 times (NTSC recorded tape: 7 times) the normal playback speed. This enables you to see where you are on the tape. When you release the button the video recorder continues fast forward or rewind.

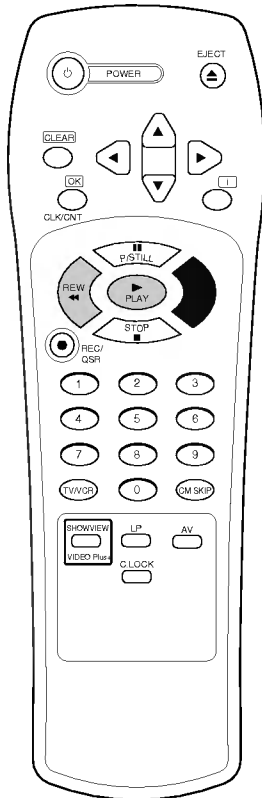
Picture search - CUE & REVIEW

You can also quickly carry out a visual search for a desired section on a tape using the CUE and REVIEW functions. During playing back press either the fast forward (" FF ") or rewind (" REW ") button.

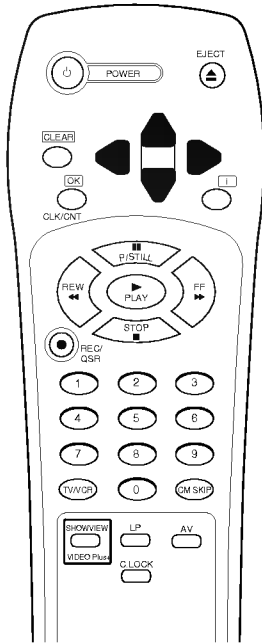
The tape will be played forward or backwards at about 9 times (NTSC recorded tape: 7 times) the normal playback speed. When the desired point on the tape has been reached press the " PLAY " button and the video recorder will continue to play back the tape at the normal speed.

Picture search will only continue for about 3 minutes, after which the video recorder will return to normal playback mode.

Note - During a visual search or still playback, the sound is muted and there will be some "noise streaks" on the TV screen.



Other playback features



Slow motion playback, Shuttle

This video recorder is equipped with a slow motion and shuttle features.

- 1** During playing back or still picture press the cursor “◀” or “▶” button.
- 2** You can reach the following playback speeds: -9X play, -7X play, -3X play, -play, -1/19 slow, still, 1/19 slow, play, 2X play, 7X play, 9X play.
- 3** If distortions can be seen in the picture, remove them with the cursor “▲” and “▼” buttons.
- 4** To switch off the slow motion, press the desired function, e.g. playback, search, still picture or stop.

The slow motion playback will only continue for about 3 minutes (-slow: 30 secs), after which the video recorder will return to normal playback mode, to avoid damage of the tape.

When using the special playback effects (logic, picture search, still and slow motion playback) with a tape recorded in LP, there will be a loss of colour and there may be noise bars on the picture.

NOTE:

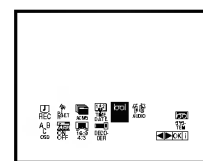
During Slow or Still playback, the noise bars can be appeared on the picture according to status of tape (especially NTSC recorded tape). In these cases adjust the tracking to playback a tape with the optimum picture quality. You can adjust the tracking with the cursor “▲” and “▼” buttons.

Other playback features

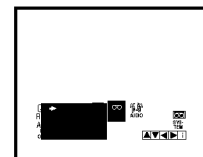
Selection of the colour system

Because your video recorder is equipped with dual colour standard, you can playback recordings in PAL B/G and SECAM B/G. During playback your video recorder detects the recorded colour system automatically. Only if there are colour problems with very weak recordings, you should select the colour system manually:

- 1 Press the "i" button to display the Main menu.
- 2 Press the cursor "◀" and "▶" buttons to select the "SYSTEM".



- 3 Press the "OK" button.



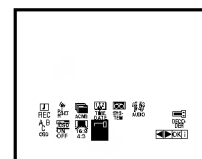
- 4 Use the cursor "▲" and "▼" buttons to select the desired colour system.
 "AUTO": automatic colour selection,
 "PAL": PAL recordings
 "MESECAM": SECAM B/G recordings

- 5 Press the "i" button to remove the menus from the TV screen.

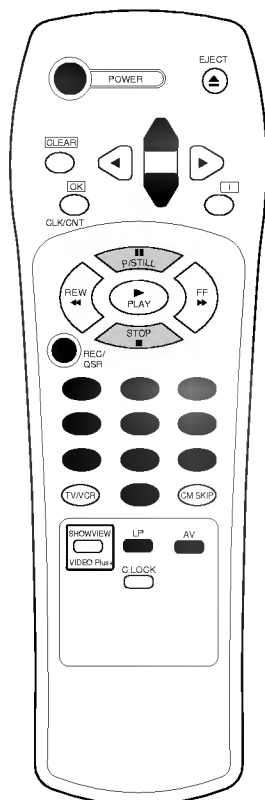
Recording with decoder

We have already described, how to connect a decoder for pay-TV stations like PREMIERE on page 7.

- 1 Press the "i" button and select the "DECODER" with the cursor "◀" and "▶" buttons.



- 2 Press the "OK" button and select to "ON" by pressing the "▲" and "▼".
- 3 Press the "i" button to remove the menus from the TV screen.



Using the video recorder to record

Introduction to the recording features

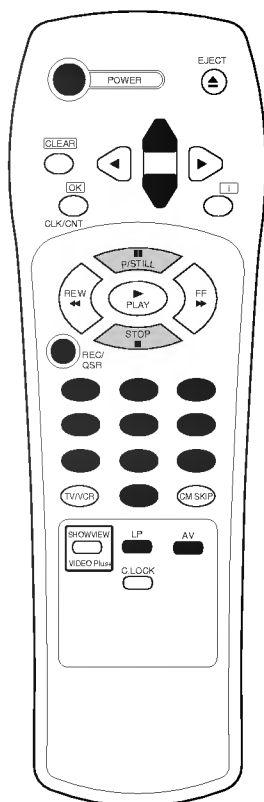
There are a variety of recording modes available to you on this video recorder.

- 1** You may record immediately (a programme you may be watching).
- 2** You may record immediately for a set period of time of up to 9 hours. This is called Quick Set Recording (QSR).
- 3** You may record at a later time (up to 1 month from the present) using the built-in timer. Up to 7 of these automatic recordings may be set at the same time -provided, of course, that there is sufficient time on the video cassette.

There are two ways in which you can programme the video recorder for automatic recording.

- 1** You can use the ShowView feature, which is built into this video recorder (see p 25 to 26).
- 2** You may set the times manually, using either the on screen display (OSD) (see p 27 to 28).

Note - Ensure that the safety tab has not been removed from the video cassette on which you wish to record.



To record

- 1** Switch on the TV set and video recorder.
- 2** Insert a video cassette with the window side up, and the arrow pointing away from you, or if a video cassette is already loaded switch on the video recorder by pressing the "POWER" button.
- 3** Select the programme channel with the number buttons or cursor "▲" and "▼" buttons.

NOTE:

If you want to record from the EURO SCART socket on the back of the video recorder, or from the AUDIO/VIDEO input terminals on the front, press the "AV" button to the correct position, as shown by the display on the TV screen (see p 6).

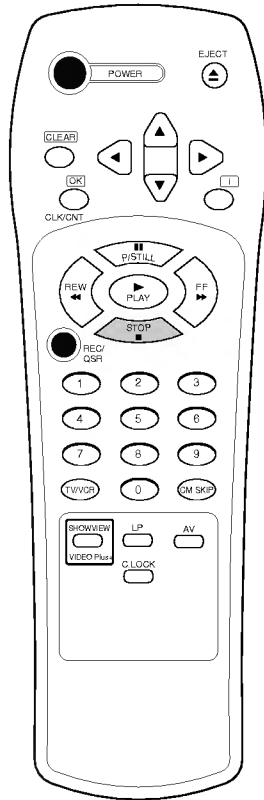
"SC": for Hi-Fi audio recording from AUDIO IN (L/R) (14) terminals of your audio system.

"AV1": for recording from EURO AV1 scart socket.

"AV2": for recording from VIDEO IN (15) and AUDIO IN (L/R) (14) terminals.

- 4** Select LP with the "LP" button, if you want to record in Long Play mode.
- 5** Press the "REC/QSR" button to start recording. "RECORD" will appear for a few seconds on the TV screen.
- 6** If you want to avoid recording unwanted scenes press the "P/STILL" button. "RECP" will appear for a few seconds on the TV screen. To continue recording press the "P/STILL" button again.
- 7** Press the "STOP" button to stop recording. "STOP" will appear for a few seconds on the TV screen.

Using the video recorder to record



Recording one TV programme while watching another

You can record one programme while watching another by selecting the channel you watch on your TV set.

- 1** Start a recording by following above steps 1 to 5.
- 2** Select the TV station you want to watch with the programme channel selector on your TV set.

Immediate timer (QSR)

When making a recording you can set your video recorder to stop after a set period of time.

- 1** Press the "REC/QSR" button to start recording.
- 2** Press the "REC/QSR" button several times until the desired recording time is shown on the video recorder's Display.

Each time you press this button the QSR time will be extended by 30 minutes. The maximum time that can be set is 9 hours.

When the QSR recording have been completed, the video recorder will stop and switch itself off.

- 3** To cancel a QSR recording, press the "POWER" or the "STOP" button.

Programming the video recorder timer

The timer allows you to record broadcasts automatically. Up to 7 recordings within one month can be programmed at the same time.

Introduction to ShowView

ShowView programming lets you set the video recorder to record programmes, by simply entering a ShowView Code. These ShowView Codes are published in TV listings in almost all newspapers and TV Guides. They can vary from one to nine digits.

The ShowView Codes contain all the information needed by the video recorder (programme start and stop date and time and programme number). It is easy to alter the information programmed into the video recorder by a ShowView Code if you wish to do so. For example you may wish to extend the stop time in case the programme is running late.

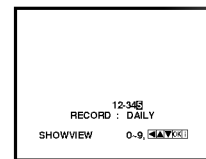
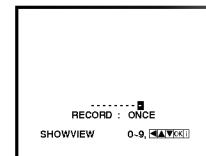
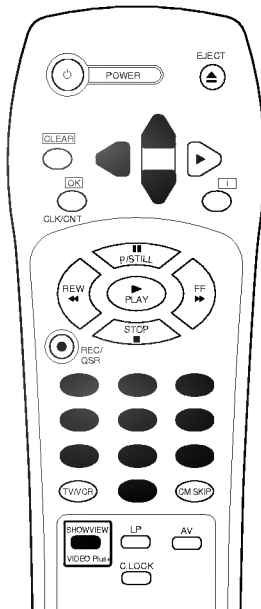
SHOWVIEW is a trademark applied for by Gemstar Development Corp.

SHOWVIEW System is manufactured under license from Gemstar Development Corporation.

ShowView programming on the TV screen

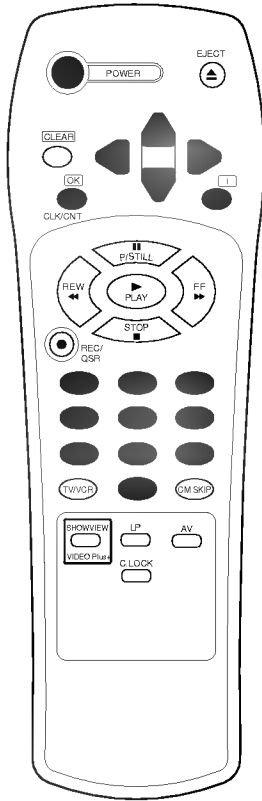
These new timer programming feature is very easy to use:

- 1 Press the SHOWVIEW button. The "SHOWVIEW" menu appears.
- 2 Select the recording type by repeatedly pressing the "▲" and "▼" buttons. It select between:
 - ONCE:** To record a programme once only.
 - DAILY:** To record a programme every day (except Saturday and Sunday) at the same.
 - WEEKLY:** To record a programme at the same time every week.
- 3 Use the number buttons to enter the ShowView number of the broadcast you want to record, exactly as it is shown in your TV magazine.
 - If you enter incorrect number, press the "◀" button to erase it, and enter the correct number.



RECORDING

Programming the video recorder timer



5 Enter the start and end times using the number buttons.

- For setting programme times you must use the 24 hour clock.
- Errors can be corrected with the “◀” and “▶” buttons.

6 Press the “▶” button and select the recording speed by using the cursor “▲” and “▼” buttons.

- LP: for Long play.
- SP: for Standard play.

7 Finish your timer inputs with the “i” button.

A menu of the timer programmes set into the video recorder will be displayed on the TV screen.

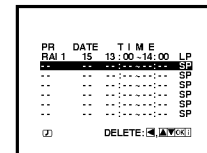
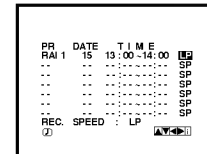
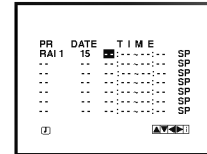
- If “PLEASE CORRECT THE DATA !” is displayed, you have entered a wrong data. Please correct the data.

8 Press the “i” button to remove the menus from the TV screen.

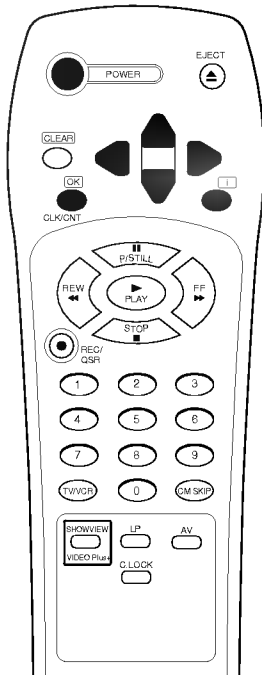
9 Make sure that there is a video cassette in the video recorder and switch the video recorder off with the “POWER” button.

The timer set TIMER symbol is shown on the video recorder.

NOTE: *Timer recordings do not work during energy saving mode and power on mode.*



Programming the video recorder timer



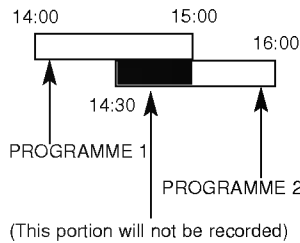
Checking and clearing stored timer programmes.

The stored timer programmes can easily be viewed on the TV screen, and can also be cleared if not wanted.

- 1** Press the "i" button and select "REC" with the cursor "◀" and "▶" buttons.
- 2** Press the "OK" button. The timer programmes list will be displayed on the TV screen.

PR	DATE	TIME	LP
RAI 1	15	19:00-14:00	SP
..	SP
..	SP
..	SP
..	SP
..	SP
DELETE: [▲] [▼]			

- 3** If you wish to clear any of the programmes on the list, select it with the cursor "▲" and "▼" buttons, and press the "◀" button to clear.
- 4** If you wish to change any of the data for any of the programmes on the list, select it with the cursor "▲" and "▼" buttons. Then, press the "OK" button and change the data as described on previous page.
- 5** Press the "i" button twice to remove the menus from the TV screen.



Overlapping timer programmes.

When timer programmes overlap, the programme which is already recording continues to its scheduled end time.

Hence the beginning of the second programme will not be recorded.

Note - If you wish to stop a timer recording which has already started, press the "POWER" button.

RECORDING

Other features

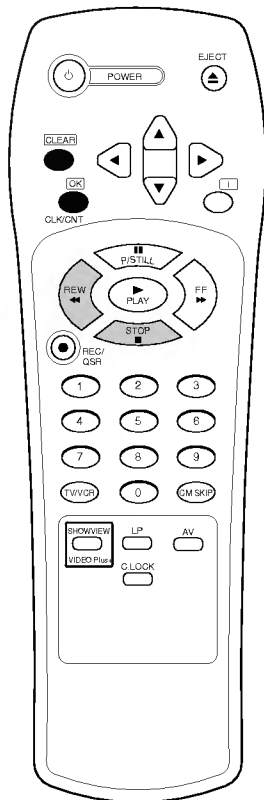
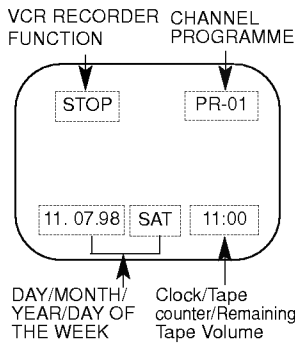
Introduction

This video recorder has a number of other features which make it easier and more convenient to use. Some of these are described in this section of the manual. Later sections describe the connection of the video recorder to other equipment, and features relating on the video recorder.

The features described here are:

- 1** The On Screen Display of the time or tape counter, date, programme channel and operation mode of the video recorder.
- 2** The Digital Tape Counter and Remaining Tape Volume indicator.
- 3** The Memory Stop facility that can be used during rewind to stop the tape at a preset point.
- 4** The tracking control that optimises the picture quality.
- 5** The Automatic Playback facility which plays back a tape, rewinds and ejects it and switches off the video recorder.
- 6** Automatic Memory Power Shut Off when a video cassette is rewound.
- 7** Automatic Switch Off when the TV station stops broadcasting.
- 8** A Child Lock facility so that the video recorder can be controlled only from the handset.
- 9** The 16:9 wide-screen recording and playback.
- 10** Self-diagnosis.

Other features



ON SCREEN DISPLAY OF THE TIME OR TAPE COUNTER, REMAINING TAPE VOLUME, DATE, PROGRAMME CHANNEL AND OPERATION MODE OF THE VIDEO RECORDER.

When the "OK/CLK/CNT" button is pressed, a display occurs on the TV screen of the current time or the tape counter and the remaining tape volume, the date, year and day of the week, the programme channel and the operation mode of the video recorder.

The tape counter and the volume of the tape remaining appear only while a tape is loaded. After two seconds the clock display or the tape counter and the volume of tape remaining will only remain. If you press the "OK/CLK/CNT" once again within two seconds the clock display changes to the tape counter and the volume of the tape remaining or vice versa. Press the "OK/CLK/CNT" button again to remove the display from the TV screen.

Note - If a recording is taking place these On Screen displays will not be recorded onto the tape.

Digital Tape Counter/Remaining Tape Volume

The Digital Tape Counter and Remaining Tape Volume can be displayed on the TV screen instead of the time by repeatedly pressing the "OK/CLK/CNT" button.

The Digital Tape Counter gives you the relative positions of recordings on the tape. If you set the counter to 0:00:00 at the beginning of a tape, you can note the counter reading at the beginning of each separate recording.

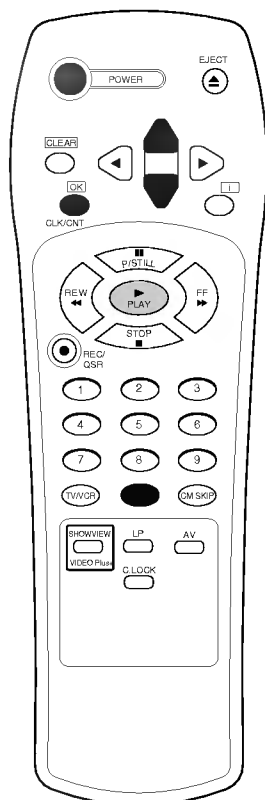
To set the counter to M 0:00:00 press the "CLEAR" button.

The memory stop facility

Memory Stop automatically stops a tape when the tape counter is 0:00:00. This feature may be used to return the tape to a pre-selected position immediately after making a recording, or to repeatedly playback a portion of a tape.

- 1** Press the "OK/CLK/CNT" button to set the display to the counter.
- 2** Before playback or recording, press the "CLEAR" button. The counter will read M 0:00:00.
- 3** Begin the playback or recording. The tape counter gives the actual time in hours, minutes and seconds.
- 4** Press the "STOP" button when playback or recording is completed.
- 5** Press the "REW" button. The tape will rewind and automatically stop when the counter returns to M 0:00:00.

Other features



Tracking Controls

Tracking distortions show up as streaks or an unstable picture. This video recorder can set the tracking automatically. You can also set the tracking manually if you need to do so.

Automatic tracking - The automatic tracking adjusts the tracking to playback a tape with the optimum picture quality. As soon as you start to playback a tape the tracking will be adjusted if necessary.

A. TRK is shown on the video recorder's display.

Manual tracking - If the quality of the recording is poor, or if the tapes are damaged, the automatic tracking will not be able to work correctly. In these cases you will have to remove tracking distortions manually.

You can adjust the tracking during playback with the cursor "▲" and "▼" buttons. Press them repeatedly until the distortions have been eliminated.

You can switch on the automatic tracking again after using the manual tracking feature by pressing the "0" button. When you change a video cassette, the automatic tracking will always be switched on again.

Automatic Playback

Automatic Playback is a very convenient automatic action of this video recorder. It occurs whenever you insert into the video recorder a video cassette from which the safety tab has been removed (e.g. a video cassette which you have hired).

Automatic Playback carries out the following procedures:

It automatically switches on the video recorder's power and starts to playback the tape.

At the end of the tape, it automatically rewinds.

The tape is ejected automatically.

The video recorder switches itself off.

Automatic Memory Power Shut-Off

This feature of the video recorder enables you to initiate switching off the video recorder during tape rewind. Hence you do not have to wait until a tape has rewound before you can switch the video recorder off.

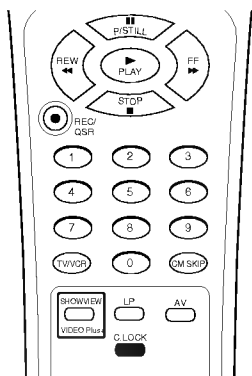
To activate Automatic Memory Power Shut Off press the "POWER" button during tape rewind. The tape will rewind to the beginning and the video recorder will switch itself off.

Pressing any of the control buttons (e.g. "POWER" or "PLAY") after setting Automatic Memory Power Shut Off will cancel it.

Automatic Switch Off

The video recorder will turn itself off after 8 minutes when not receiving a TV signal. This will occur when TV broadcasts have finished.

Other features

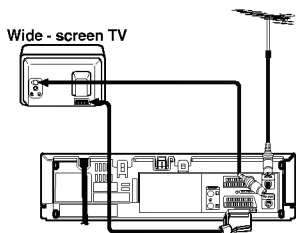


The Child Lock

The control buttons on the front of the video recorder are inoperative. The video recorder can be controlled only from the handset.

- 1** Press the "C.LOCK" button. "Lock on" appears on the video recorder's Display.
The control buttons on the front of the video recorder are inoperative (except for "STOP/EJECT"). The video recorder can be controlled only from the handset.
If any of the other controls on the video recorder are pressed "Lock on" flickers on the video recorder's Display.
- 2** To switch off the locking, press the "C.LOCK" button again. "Lock on" disappears on the video recorder's Display.

16:9 Compatibility (Wide - screen TV)



This video recorder can be recorded and played back the 16:9 wide aspect ratio programmes.

Select the required position in the main menu as described on page 11:

To record in a wide-screen format, you have to set to "16:9", or if you set to "4:3" the video recorder will be recorded in normal format.

When you set to "AUTO", the video recorder will be automatically played back the wide-screen programmes as wide, the normal programmes as normal.

NOTE:

When the picture disappears on the TV screen while playing back a 16:9 programme or recording in 16:9 format, set the TV to "AV" mode.

Self-Diagnosis

This function informs you of an error messages for solving the problems more easily.

These error messages will be shown on the video recorder's display or on the TV screen.

STATUS OF DISPLAY	SOLUTION
no TAB	Insert a cassette with it's safety intact.
PLEASE CHECK ANTENNA CONNECTION!	Connect the video recorder to your TV aerial and TV set.
DUST ON THE HEAD!	Try to clean the video head.

The Hi-Fi stereo sound system

Introduction

This video recorder will record and playback Hi-Fi stereo sound. There are, therefore, several possible ways of recording and playing back the sound. These are described below.

The audio tracks

Video cassette tapes recorded on this video recorder will have a normal mono audio track and two VHS Hi-Fi stereo audio tracks. These allow you to make audio recordings in Hi-Fi stereo or bilingual mode from a TV broadcast, a stereo audio system, a video disc or another video recorder.

Using your video recorder in combination with a Hi-Fi audio system will enhance the sound quality of video tapes.

TYPE OF BROADCAST	AUDIO TRACKS		
	MONO TRACK	Hi-Fi TRACKS	
		L-CH	R-CH
STEREO	L-CH+R-CH	L-CH	R-CH
BILINGUAL	L-CH (Main)	L-CH (Main)	R-CH (Sub)
MONO	MONO	MONO	MONO

Stereo, bilingual, mono

STEREO AUDIO RECORDING- A TV broadcast being transmitted in stereo sound mode will display STEREO on the TV screen. During recording stereo sound will automatically be recorded on the Hi-Fi stereo tracks of the video tape, and in mono on the mono track.

BILINGUAL AUDIO RECORDING- A TV broadcast being transmitted in bilingual sound will display BIL on the TV screen. Both audio channels will automatically be recorded on the Hi-Fi stereo tracks of the video tape, and the main channel (left) will be recorded on the mono track.

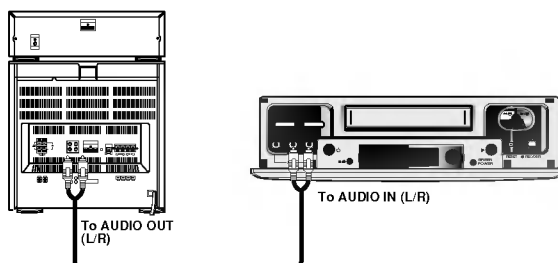
Audio output during playback

The audio output mode during playback is that chosen "AUDIO" in the main menu. The choice is STEREO, L-CH (left channel), R-CH (right channel) or MONO.

Note - that whilst adjusting the auto tracking control Hi-Fi stereo sound may revert to mono sound

BILINGUAL AUDIO OUTPUT - If the audio output is bilingual the primary language is output from the left channel, and the secondary language is output simultaneously from the right channel when the audio setting is STEREO. The primary language is output from both channels when the audio setting is MONO.

Recording from another equipment



Simulcast stereo recording and playback Recording

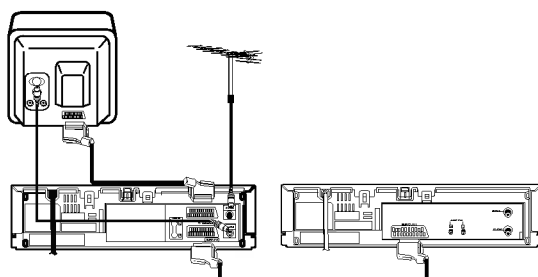
Some TV programmes are also broadcast in stereo sound on FM radio. For these simulcast broadcasts you can record the picture from the TV programme, and the sound from your audio system as follows:

- 1 Connect your audio system to the "AUDIO IN (L/R)" (14) on the front of the video recorder.
- 2 Select "SC" mode with the "AV" button (13) on the remote control handset.
- 3 Select the programme to be recorded with the handset.
- 4 Turn on your audio system and tune in to the sound broadcast.
- 5 Start recording.

NOTE: The Simulcast Stereo audio will be recorded on the Hi-Fi Audio tracks.
The Normal (Mono) audio track will record the TV programme FM mono sound.

PLAYBACK

You can play back the stereo sound through a stereo TV set. To playback the stereo sound through your audio system, connect it to the "AUDIO OUT" terminals on the back of the video recorder. Turn off the sound on your TV set.



Recording from a second video recorder (for tape copying)

- 1 A second video recorder (for tape copying) should be connected to the "AUDIO IN (L/R)" and VIDEO IN terminals on the front of the video recorder or one of the EURO SCART sockets on the back.
- 2 The appropriate audio/video mode should be set with the "AV" button.
- 3 Insert a blank tape into this video recorder, and if you are copying another tape insert it into the second video recorder.
- 4 Start recording on this video recorder, and if appropriate, the playback at the second video recorder.

NOTE - *Unauthorised recording of copyrighted TV programmes, films video cassette and other materials may infringe the rights of copyright owners and be contrary to copyright laws.*

Specifications

General

Power	: 100-240V~, 50Hz.
Power consumption	: Approx. 19 watts (Energy saving mode: 3 watts)
Video Head system	: Double azimuth 4 heads, helical scanning system
Tape speed	: 23.39 mm/sec (SP mode)/11.69 mm/sec (LP mode)
Tape format	: Tape width 1/2" (12.7 mm high density VHS tape)
Maximum recording time	: 4 hours in SP mode/8 hours in LP mode (with E-240 tape)
Rewind time	: Approx. 150 sec. (with E-180 tape)
Dimensions (W X H X D)	: 14.2" X 3.6" X 11.8" (360 X 92 X 290 mm)
Weight	: 9.0lbs. (4.1 kg)
Operating temperature	: 41°F-95°F (5°C-35°C)
Operating humidity	: Less than 80 %
Timer	: 24 hours display type

Video

Television system	: CCIR standard (625 lines, 50 fields) PAL/SECAM colour signal
Recording format	: PAL/MESECAM
RF reception	: PAL B/G, SECAM B/G
RF OUT	: PAL G
Input level	: VIDEO IN (Scart, RCA type) 1.0 Vp-p, 75 ohm, unbalanced
Output level	: VIDEO OUT (Scart type) 1.0 Vp-p, 75 ohm, unbalanced
Signal to noise ratio	: More than 43 dBm
RF modulator	: UHF channels 22-68 (Adjustable)

Audio

Input level	: AUDIO IN (Scart, RCA type) Scart type: 0 dBm, more than 10 k Ω RCA type: -6.0 dBm, more than 47 k Ω
Output level	: AUDIO OUT (Scart, RCA type) Scart type: 0 dBm, less than 1 k Ω RCA type: -6.0 dBm, less than 1 k Ω
Audio track	: Mono track & Hi-Fi track
Audio frequency response	: Normal: 100 Hz-10 kHz (-6/+3 dB) Hi-Fi: 20 Hz-20 kHz (-3/+3 dB)
Audio signal to noise ratio	: Hi-Fi audio: More than 70 dB (JIS A filter)
Audio dynamic range	: Hi-Fi audio: More than 80 dB (JIS A filter)

- *Design and specifications are subject to change without notice!*

Before calling for service...

Please check to see if any problem which you may have with your video recorder is described here before taking it for service or calling a service engineer.

Problem	Possible solution?
No mains power to the recorder	<ul style="list-style-type: none"> Is the video recorder plugged into the mains? Is the mains supply on and switched on?
TV programmes cannot be recorded	<ul style="list-style-type: none"> Can you get a picture on the TV screen? If not, are the aerial and RF lead connected? Are the TV channels properly tuned in? Has the safety tab been removed from the video cassette to prevent recording?
A timer recording does not take place	<ul style="list-style-type: none"> Is POWER off?(Is the TIMER showing in the display?) Is stand by LED light? Were the recording start and end times set correctly? Are the timer settings in the timer menu? Was the power interrupted after setting the timer? If so the time setting will be erased and timer recordings will not take place.
AUTO PLAY does not work	<ul style="list-style-type: none"> Has the safety tab been removed from the video cassette?
There is no picture on playback, or it is noisy and streaky	<ul style="list-style-type: none"> Are the TV channels properly tuned in? Try another video cassette. Can you minimise the noise bars to an acceptable level with the "0" or "▲" and "▼" buttons?
The top of the playback picture is unstable	<ul style="list-style-type: none"> Is the video cassette damaged? Try another one. Adjust the horizontal hold control on your TV set. Insure that you are using the "video" channel on your TV set example 0, 8, 9 or 12.
Video cassettes cannot be inserted	<ul style="list-style-type: none"> Is the cassette compartment empty? Are you trying to insert the cassette the right way round?
No Hi-Fi sound	<ul style="list-style-type: none"> Switch "AUDIO" in the main menu to "STEREO".

Video Head Cleaning

- Whenever a video cassette is inserted into or ejected from this video recorder the video head is automatically cleaned.
- Therefore additional head cleaning should not be necessary. However dirt accumulating on the head after a long period can cause the playback picture to become blurred or broken up.
- High quality video cassette tapes will not normally deposit dirt onto the video head, but old or damaged tapes might.



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