

SANYO

INSTRUCTION MANUAL

VHR-H100E

Video cassette recorder

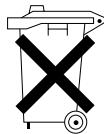


Before connecting, operating or adjusting this product,
please read this instruction booklet carefully and completely.

Hi-Fi

VHS
PAL

Precaution & Plug wiring Information



Used batteries: The batteries in the remote control of your VCR do not contain mercury. However, SANYO recommends that you do not dispose of used batteries with domestic refuse. Please, contact your dealer or your local authorities for information regarding the disposal of used batteries or take them to your nearest collection point.

Ensure that your VCR is placed in a position to allow a free flow of air.

DANGER:

This VCR contains live parts. Do not remove the cabinet.

WARNING:

To prevent fire or shock hazard, do not expose this product to rain or moisture. Do not drop the tying band of the mains lead into the unit. Doing so might cause a fire or an electrical shock. (See page 6.)

CAUTION:

Do not put your hand or other objects in the cassette loading slot because of the risk of injury or an accident. Keep small children away from the VCR.

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

Position your VCR so that no bright light or sunlight falls directly onto it.

Care should be taken not to expose your VCR to any unnecessary vibration, moisture, dust or heat. During electrical storms it is advisable to unplug both the aerial cable and mains plug to prevent accidental damage to your VCR and TV.

Do not operate your VCR if it is damaged.

Your VCR should not be repaired by anyone except qualified service personnel.

Never remove the cover of your VCR as this can expose you to very high voltage and other hazards. If your VCR does not operate properly, please check the Troubleshooting Check List (see p. 34). If your VCR still does not operate properly, unplug it and call your dealer.

This appliance is supplied with BS 1363 approved 13 Amp fused mains plug. When replacing the fuse always use a 5 Amp BS 1362 approved type. Never use this plug with the fuse cover omitted.

To obtain a replacement fuse cover contact your supplying dealer.

If the mains sockets in your home differ, or are not suitable for the type of plug supplied then the plug should be removed and a suitable type fitted.

If the mains plug becomes severed from the mains lead it must be destroyed. A mains plug with bared wires is hazardous if engaged in a mains output line socket.

If a 13 Amp BS 1363 plug is not suitable or any other type of plug used, then this appliance must be protected by a 5 Amp fuse.

Should you need to change the plug

The wires in this mains lead are coloured in accordance with the following codes

BLUE ~ Neutral

BROWN ~ Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug proceed as follows :
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLUE or BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured BROWN or RED.

DO NOT connect either wire to the EARTH terminal.

Just to name a few examples of the extraordinary features:

- Programmable 88 channel memory with Frequency synthesised tuner
- ACMS (Automatic Channel Memory System)
- 7 events/1 month programmable timer
- Long Play (LP) - recording & playback
- Extended Play (EP) - playback
- DPC (Digital Picture Control)
- Friendly User Guide
- Save Energy Mode
- Video System
 - PAL(I)
 - MESECAM
 - NTSC playback on PAL TV
- Auto Power on and Play
- Shuttle Controls
- Auto Tracking System
- Auto Head Cleaner
- Logic & Picture Search
- Wide Screen (16:9) - recording & playback
- Child Lock
- Real Time Counter
- Quick Set Recording
- ICON OSD (On Screen Display)
- Hi-Fi Stereo Audio System

Beware of 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.

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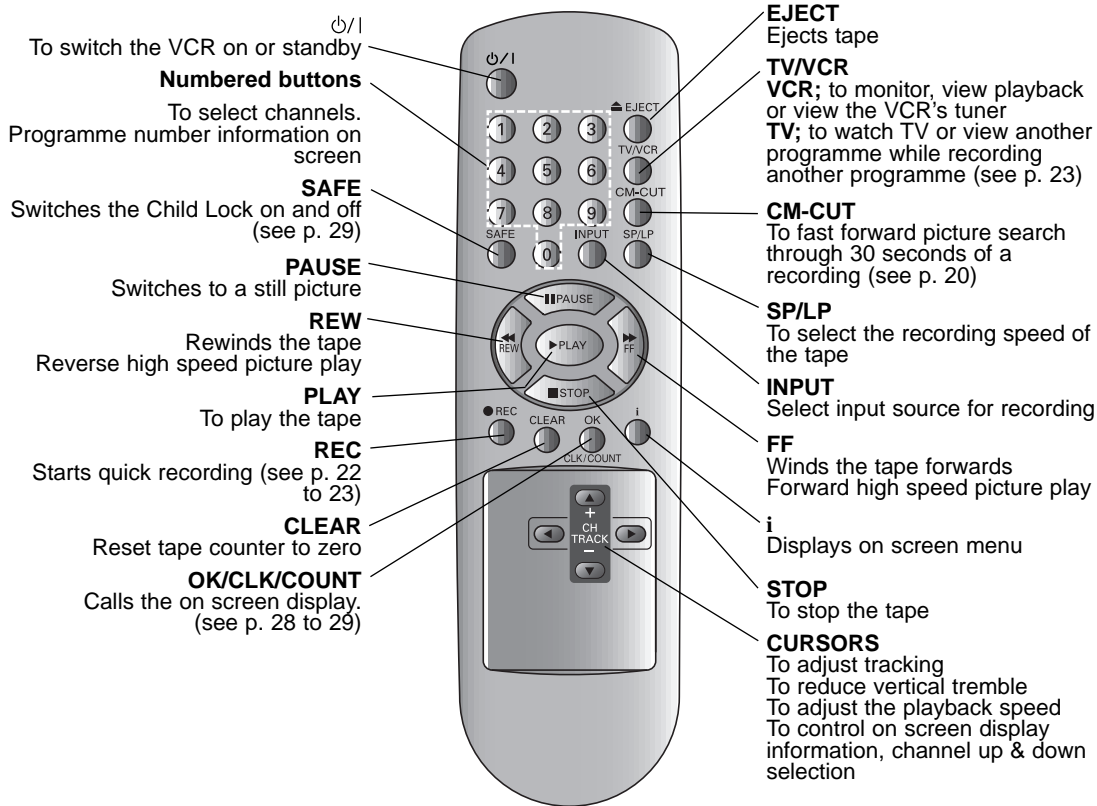
Thank you for buying this SANYO video cassette recorder(VCR) Model **VHR-H100E**.

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Remote Control Location & functions

Your VCR is designed so that almost all of its features can be controlled from the REMOTE CONTROL HANDSET. Some features can also be controlled from the FRONT PANEL of the VCR. The maximum operating distance from which you may control your VCR is about 7 metres (23 feet). It must also be within an angle of 30 degrees either side of the REMOTE SENSOR on the front of your VCR.

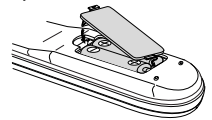
To avoid damage from possible battery leakage, remove the batteries if you do not plan to use the remote control handset for an extended period of time. Do not use batteries of differing age or type. Always discard batteries safely.



To install batteries:

Your REMOTE CONTROL HANDSET is powered by two AA type batteries.

1. To insert them, push the tab backwards and lift off the cover of the handset.
2. Put the two batteries into the compartment making sure the ⊕ and ⊖ are correctly positioned.
3. Replace the cover.

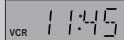


Your VCR'S Controls

ABOUT $\phi/1$ BUTTON

When you press $\phi/1$ on the VCR and remote control while the VCR is in power on mode, each button works differently.

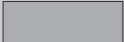
Power on mode



On the VCR

When you press $\phi/1$, the VCR enters Save Energy mode.

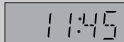
Save Energy mode



On the Remote control

When you press $\phi/1$, the VCR enters Standby mode.

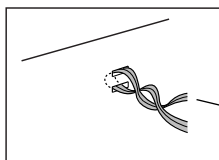
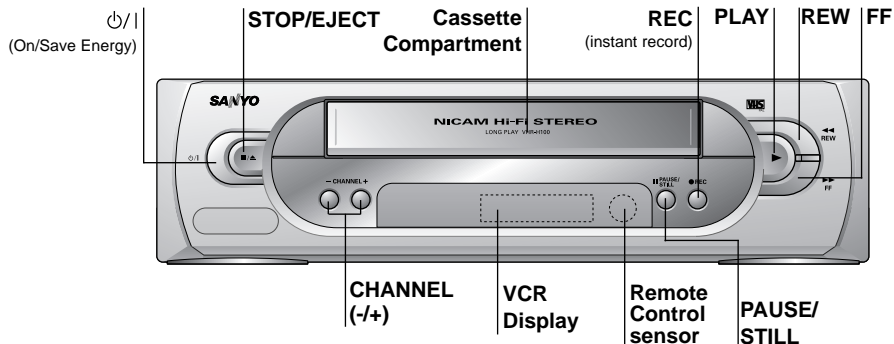
Standby mode (dimmer)



Each button on your VCR has the same function as its corresponding button on the remote control handset.

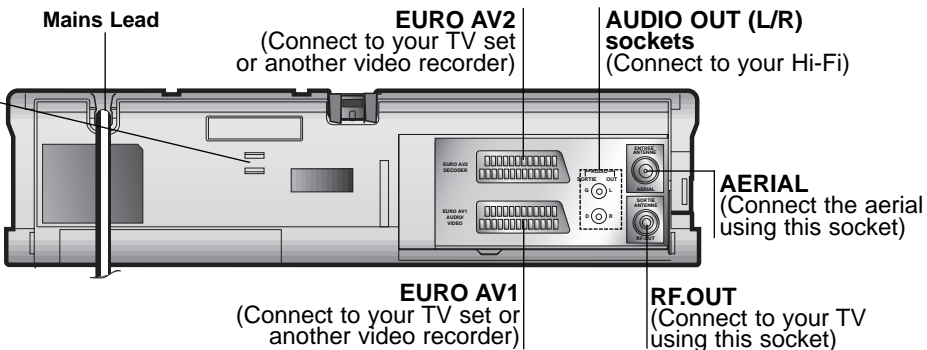
NOTE:

The EURO AV2 socket is used for signal input only. DECODER is shown but this unit does not have it.



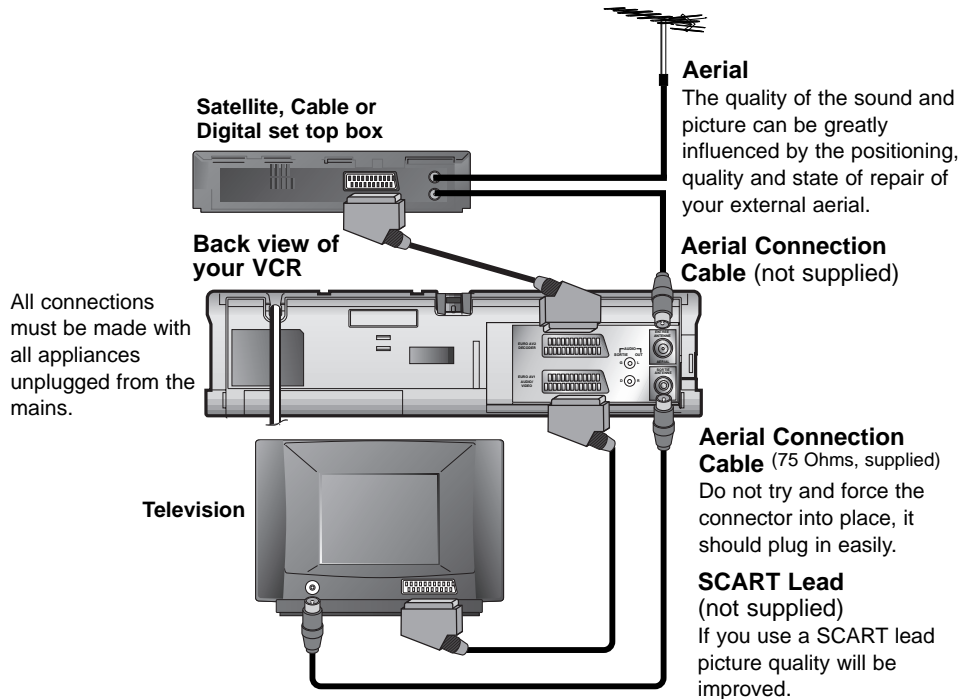
WARNING:

Do not drop the tying band of the mains lead into the unit. Doing so might cause a fire or an electrical shock.



Connecting To a TV & Satellite Receiver

The guidance given on this page is the most common form of connection. However please check with your manufacturer's 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 lead is one of the best ways to achieve optimum sound and picture quality from video-tape playback.

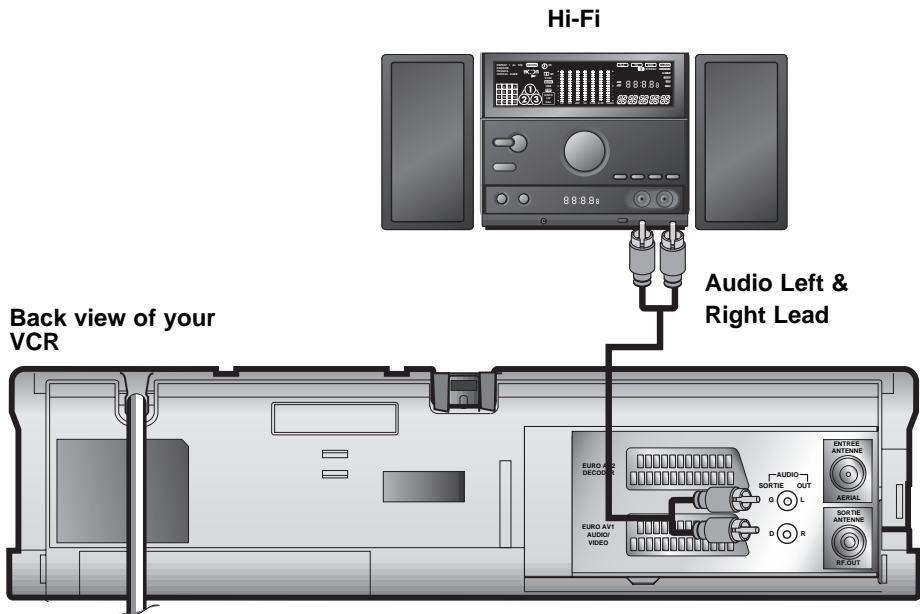


MAINS LEAD

Do not forget that even in the power off state there is an electrical voltage inside the VCR as long as it is connected to a wall socket. Disconnect the mains lead from the wall socket if the VCR is not to be used for a long time.

Connecting To a Hi-Fi

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

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.

Tuning in a Video channel On your TV

Your TV receives signals from the VCR like another TV station. You have to select a channel number on your TV and tune it in so that you may watch video tapes. If you have used a **SCART** lead then your TV should already have a dedicated video channel built into it, usually called **AV**.

1

Make sure that you have correctly installed your VCR as described earlier in this book.

Press $\phi/1$ to turn on your VCR.

The VCR and --:-- will appear on the VCR's display.

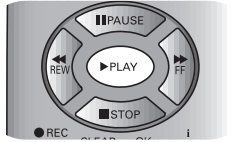


Turn on your TV.



2

Insert a pre-recorded video tape into your VCR and press **PLAY** on the remote control.



Select a TV channel number on which you wish to watch video's.

Don't worry if you don't have a video-tape to play at this stage!
If you switch your VCR on and continue stages **3 ~ 4**, instead of seeing video playback tune your TV until you see a bright blue screen.

3

Tune this channel until the video picture is sharp and the sound is clear on your TV.

If you have used a **SCART** lead you will not have to tune your TV, simply select the **AV** channel. The **AV** channel will provide optimum video playback on your TV.

4

Store this channel on your TV.

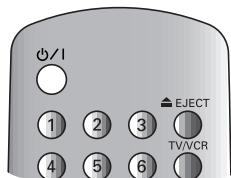
You will need to look at the TV instruction book if you do not know how to do this.

Make sure that you have correctly installed your VCR and successfully tuned in a dedicated video channel on your TV. If you do not tune in a dedicated video channel on your TV you will be unable to view video tapes!

5 Only carry out stages 5 ~ 8 if you cannot obtain clear video playback as described in stages 1 ~ 4.

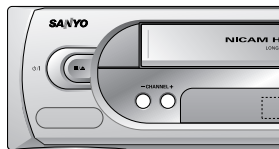
Select a TV channel number on which you wish to watch video's.

Make sure that your VCR is in **STANDBY** by pressing $\phi/1$ on the remote control. (The clock indicator will be dimmed and VCR indicator will disappear on the VCR's display.)



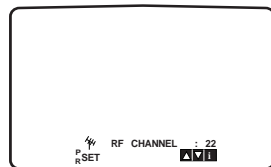
10

6 Hold down **CHANNEL -** or **+** on the front of your VCR for more than 4 seconds.



RF 22 will appear in the VCR display.

The following picture will be displayed on the TV screen.



7 Press **CHANNEL -** or **+** to select another video channel.



You may select any channel number between 22 and 68.

8 Select a TV channel number on which you wish to watch video's.

Tune this channel so that a bright blue screen appears.

Store this channel on your TV.

Press $\phi/1$ on the front of your VCR when you have finished.



Using your VCR for the Very first time

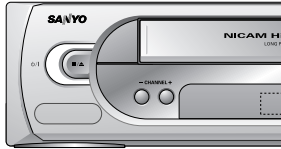
For the following steps we assume that you have just connected your video recorder for the very first time. To make tuning TV stations an easy task your VCR incorporates the **Automatic Channel Memory System (ACMS)**.

1

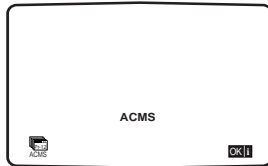
Make sure that you have correctly installed your VCR.

2

Press **⏻/I** to turn on your VCR.

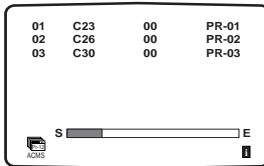


If the initial Menu Screen doesn't appear on screen, make sure that you have tuned your TV to a video channel. Or if this is correct it may mean that your VCR is already tuned.



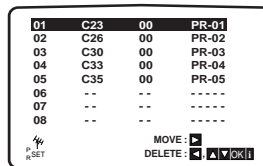
3

Press **OK** to start the automatic tuning process.



4

Press **i** to remove the menus from the TV screen.

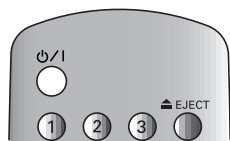


How to Use the main menu

This VCR can easily be programmed by using the menus displayed on screen.
The menus are controlled from the REMOTE CONTROL HANDSET.

1

Switch on your TV set and VCR by pressing the $\phi/1$ button.



2

Press **i**.

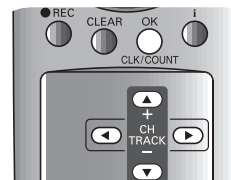
The main menu will appear on the TV screen.



3

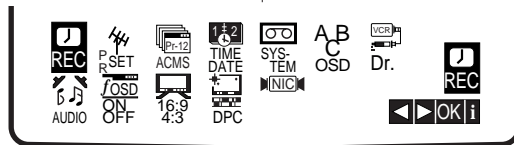
Press **◀** and **▶** to select the desired menu.

Press **OK** and press **▲** or **▼** to select.



4

Press **i** to remove the menus from the TV screen.



LANGUAGE SELECTION

You can select the language from English, Russian, German, French and Polish.

- **REC** - Timer recording setting (see p. 26 to p. 27).
- **PR SET**- Manual tuning setting (see p. 14 to p.15).
- **ACMS** - ACMS (Automatic Channel Memory System) (see p. 13).
- **TIME DATE** - Date & clock setting (see p. 24).
- **SYSTEM** - To set the Colour TV System (see p. 21).
- **ABC OSD** - To change the language setting for OSD (see left).
- **Dr.** - To check a problem with your VCR (see p. 31).

- **AUDIO** - To select the channel for audio output (see p. 25).
- **fOSD ON/OFF** - To display the operational mode of your VCR (see p. 28)
- **16:9/4:3** - To select the aspect ratio of your TV (see p. 30).
- **DPC** - To improve the playback picture (see p. 20).
- **NIC** - To activate or deactivate the NICAM digital sound (see p. 25).

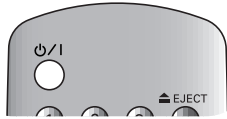
Tuning in TV Stations Automatically

The guidance given on page 9 is for first time use of your VCR.

Should you wish to perform the **Automatic Channel Memory System (ACMS)** again please follow the guidance given on this page. You may tune up to 88 TV stations into your VCR.

1

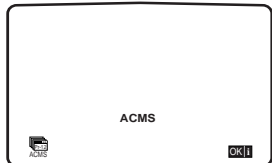
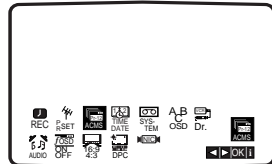
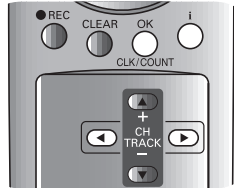
Press **⏻/I** to turn on your VCR.



2

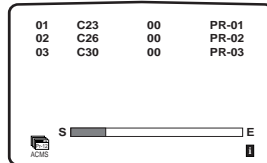
Press **i**.
The main menu will appear on the TV screen.

Press **◀** or **▶** to select **ACMS** and press **OK**.



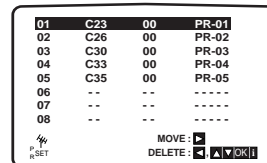
3

Press **OK** again to start the automatic tuning process.



4

Press **i** to remove the menus from the TV screen.

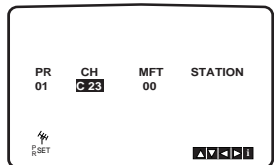
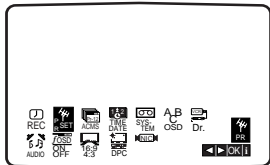
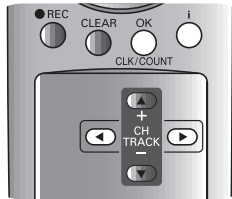


Tuning in TV Stations Manually

1

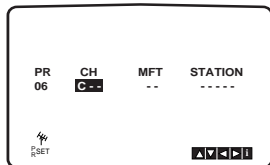
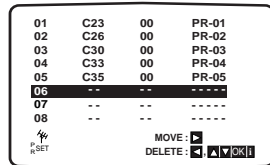
Press **i**.
The main menu will appear on the TV screen.

Press **◀** or **▶** to select **PR SET** and press **OK**.



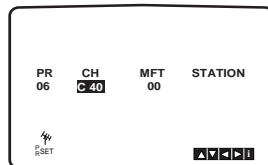
2

Press **i** and press **▲** or **▼** to select the program-me number that you want to tune (for example, PR 06). Press **OK**.



3

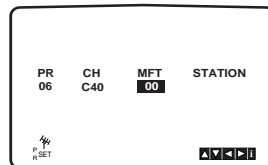
Enter the channel number of station that you want to tune with the **numbered buttons**.



4

Searching will stop when it locates a station.

Control the fine tuning of the station by pressing **▲** or **▼**.



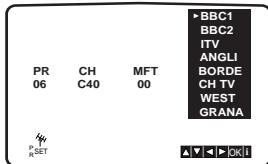
5

Press **▶** to select **STATION** and press **OK**

The TV station name list will appear.

Press **▲** or **▼** to select a station name from the list and press **OK** to select it.

If your station name isn't on the list do not press OK, but go to stage 6.

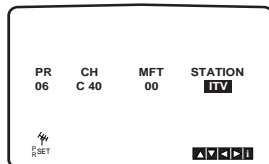
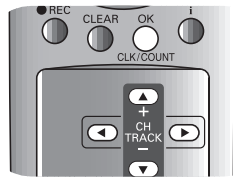


6

You can change a TV station name manually rather than using the "standard" names.

Press **▶** and press **▲** or **▼** to select **letters** and **numbers** for the new station name.

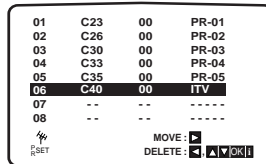
Press **◀** or **▶** to move back and forth between characters. Press **OK**.



7

Press **i**, confirm the station placement.

If you wish to manually tune other stations repeat stages 1 - 7.



8

Press **i** to remove the menus from the TV screen.

Your new TV station has now been tuned into your VCR.



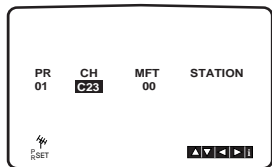
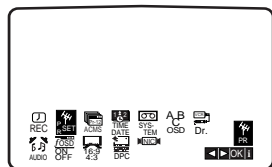
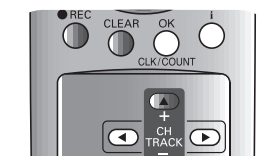
Changing the order of TV Stations

After tuning TV stations into your VCR you may wish to **change** the order in which they are stored without having to retune them again. The instructions given on this page will show you how you can simply move them into your desired order.

1

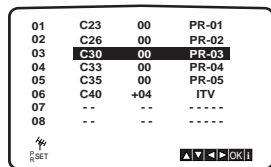
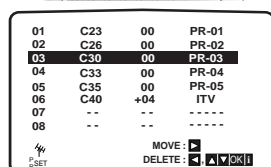
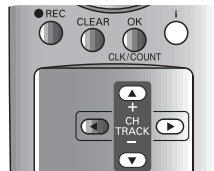
Press **i**.
The main menu will appear on the TV screen.

Press **◀** or **▶** to select **PR SET** and press **OK**.



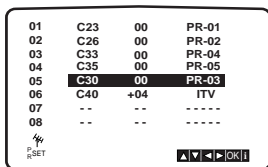
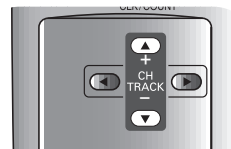
2

Press **i**.
Press **▲** or **▼** to select the **programme number** you want to move (for example, PR 03). Press **▶**.



3

Press **▲** or **▼** to select the **programme number** you want to move to (for example, PR 05).

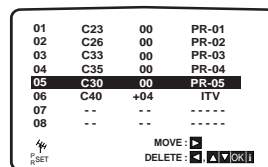


4

Press **OK**.
The selected **programme** will be moved to the **new programme number**.

If you wish to move other TV stations repeat stages 1 - 4.

Press **i** to remove the menus from the TV screen.



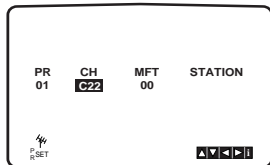
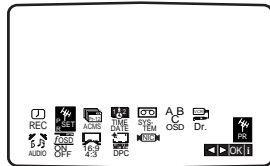
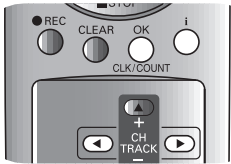
Deleting TV Stations

After tuning TV stations into your VCR you may wish to **delete** a station. The instructions given on this page will show you how to easily delete any unwanted TV stations.

1

Press **i**. The main menu will appear on the TV screen.

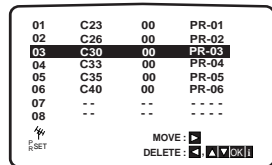
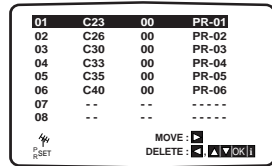
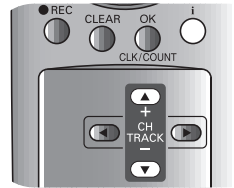
Press **◀** or **▶** to select **PR SET** and press **OK**.



2

Press **i**.

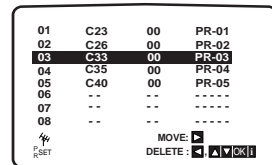
Press **▲** or **▼** to select the **programme number** you want to delete.



3

Press **◀**.

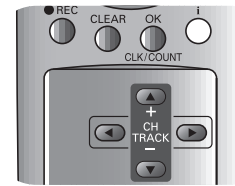
After a short while, the selected station will be deleted.



4

Press **i** to remove the menus from the TV screen.

If you wish to delete other TV stations repeat stages **1 - 3**.



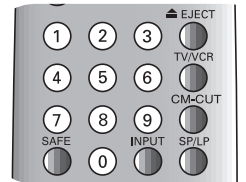
How to select Stored TV stations:

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

Press **▲** or **▼** to select different stations that are tuned into your VCR.



You may also directly select stations using the **numbered buttons** on the remote control.



Playback a tape

You will only be able to load and eject video cassettes when your VCR is plugged into the mains. Your VCR may also playback an NTSC tape (on PAL TV).


Getting a better picture

When a cassette is inserted and playback started, the automatic tracking function works to get the best possible picture automatically. If the quality of the recording is poor, repeatedly press ▼ or ▲ on the remote control to manually adjust the tracking until any distortions have been removed. Press numbered button 0 on the remote control to switch automatic tracking back on again.

1

Make sure that you have correctly connected your VCR as described earlier in this book.

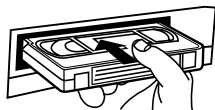
Turn on your TV and select the video channel for video playback.

Press /I to turn on your VCR.



Insert the video cassette into your VCR.

The video cassette should have the window side facing up and the arrow facing away from you.



2

Press **PLAY** to start playing your tape.



If you load a video cassette which has had its record protection tab removed (playback of the cassette will start automatically).

AUTO TRACKING

Your VCR will automatically adjust the tracking to give the best picture quality.

3

Still picture :

Press **PAUSE** to freeze a picture.



Press **PAUSE** repeatedly to advance the still picture frame by frame.

Press ▲ or ▼ to reduce the vertical tremble during still picture.



Tapes can be paused for up to 5 minutes. After 5 minutes your VCR will stop the tape to prevent damage to the tape or your VCR.

4

Press **PLAY** to continue playing your tape.

Picture search:

During playback press either **FF** or **REW** and this will enable you to rapidly wind the tape (PAL: 7 times normal playback speed) and see where you are on the tape.



Your VCR will automatically recognise whether the tape has been recorded at normal speed (SP) or half-speed (Long Play-LP/Extended Play-EP(NTSC)), and play it back at the correct speed.

5

Slow motion playback, Shuttle :

During playback or still picture press ◀ or ▶.



You can reach the following playback speeds.

(-7xplay, -3xplay, -play, still, 1/19 slow, play, 2xplay, 7xplay)

To switch off the slow motion and shuttle, press the desired function.

During slow motion and shuttle, the noise bars may appear on the picture according to the status of tape.

If distortions can be seen in the picture, reduce them with ▲ or ▼.

6

Press **STOP** to end playback.



Press **EJECT**.



If the end of the tape is reached, your VCR will stop playback automatically, rewind, stop, eject the tape and place itself into Standby mode.

Fast Forward (FF):

Press **FF**.

The tape will rapidly wind forwards. FF will appear for a few seconds on the TV screen.



Rewind (REW):

Press **REW**.

The tape will rapidly wind backwards. REW will appear for a few seconds on the TV screen.



Logic search:

During fast forwarding or rewinding press and hold **FF** or **REW** the picture will be played back at 7 times normal playback speed (PAL).



Other Playback features

CM (Commercial Message) CUT:

When playing back tapes, this feature lets you skip through commercial breaks by fast-forwarding, and then resume normal playback.

While tape is playing press **CM-CUT** on the remote control to skip commercial (or other programme material).



Repeatedly press **CM-CUT** to skip:

The tape will fast forward picture search through 30 seconds of recording.

- 1 Press 30 seconds
- 2 Presses 60 seconds
- 3 Presses 90 seconds
- 4 Presses 120 seconds
- 5 Presses 150 seconds
- 6 Presses 180 seconds

DPC (Digital Picture Control):

This feature automatically improves playback picture quality by adjusting your VCR to the condition of the tape.

Press **i**.

Press ◀ or ▶ to select **DPC** and press **OK**.



Press ▲ or ▼ repeatedly to select: **OFF**, **SOFT** or **SHARP**.

*Please note you may set **DPC** only when playing a tape.*

Press **i** to remove the menus from the TV screen.

VCR Operation mode:

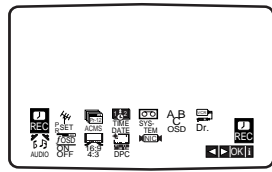
VCR DISPLAY	STATUS OF OPERATION
PLAY	playback
STOP	stop
FF	fast forward
REW	rewind
CLUE	forward search
REW	rewind search
STL	still picture
REC	record
RECP	record pause
SLW	slow motion
-PB, 3	3x play backward
-PLAY	play backward
PB, 2	2x play

To set the Colour System

Your VCR is equipped with dual colour standard, you can play back a tape in PAL and MESECAM. During playback your VCR detects the colour system automatically. If there are some colour problem please select the colour system manually.

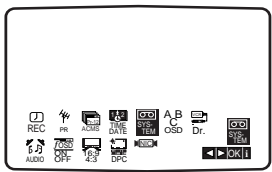
1

Press **i**.
The main menu will appear on the TV screen.



2

Press **◀** or **▶** to select the **SYSTEM**.
Press **OK**.



3

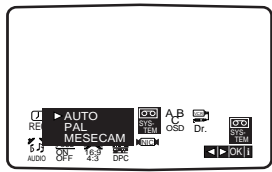
Press **▲** or **▼** to select according to the **COLOUR** system used.



AUTO:
Allows PAL or MESECAM signals to be distinguished automatically.

PAL:
Use when receiving PAL signals or use when playing back a tape recorded in PAL system.

MESECAM:
Use when receiving MESECAM signals or use when playing back a tape recorded in MESECAM system.



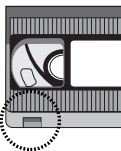
4

Press **i** to remove the menus from the TV screen.



Recording TV programmes

If you do not wish to record on a tape (this can happen quite easily by accident!) remove the protection tab on the back edge of the video cassette.



It is possible to record on a video cassette with the record protection tab removed by covering the hole with self adhesive tape.



Your VCR allows you to make recordings using a variety of simple methods:
Quick Set Recording (QSR) start recording immediately for a set period of time or until the video cassette runs out.
Timer Recording you may record at a later time (up to 1 month from the present). Up to 7 of these automatic recordings may be set.

1

Make sure that you have correctly connected your VCR as described earlier in this book.

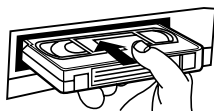
Press $\phi/1$ to turn on your VCR.



2

Insert a video cassette with protection tab into your VCR.

The video cassette should have the window side facing up and the arrow facing away from you.



3

Press \blacktriangle or \blacktriangledown to select the **programme number** you wish to record.

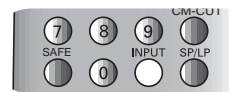


You may also directly select programme number using the **numbered buttons** on the remote control.



4

If you wish to record directly from the SCART sockets repeatedly press **INPUT** until the socket you wish to record from is displayed.



AV1 Sound and Picture recording using the lower EURO AV1 socket on the back of your VCR.

AV2 Sound and Picture recording using the upper EURO AV2 socket on the back of your VCR.

Your VCR incorporates Long Play (LP) which enables you to record up to twice (LP) the amount of time on a video cassette.

Please note there will be a slight loss in picture and sound quality when using LP.

5

Press **SP/LP** if you wish to record in Long Play (LP) or Standard Play.



6

Press **REC** to start recording.

RECORD will appear on the TV screen.

Quick Set Recording

Press **REC** several times. Each successive press will increase the record time by 30 minutes until you reach a maximum of 9 hours.



7

Press **PAUSE** to avoid recording unwanted scenes.

Press **PAUSE** to continue recording.

Tapes can be paused for up to 5 minutes; RECP will be displayed when a tape is paused. After 5 minutes your VCR will stop recording to prevent damaging the tape or your VCR.



8

Press **STOP** to end recording.

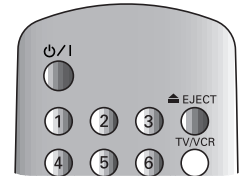
Press **EJECT**.

EJECT will appear on the TV screen.

If the end of the tape is reached, your VCR will stop recording automatically, rewind, stop at the top of the tape, eject the tape and place itself into Standby mode.



Remember you can record one programme while watching another by starting your instant recording, press **TV/VCR** to select TV mode and then selecting a different channel on your **TV**.



NOTE: If you press **PAUSE** during QSR, the VCR will enter the record pause mode and QSR is cancelled.

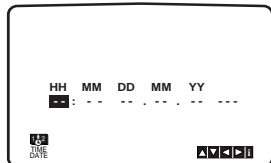
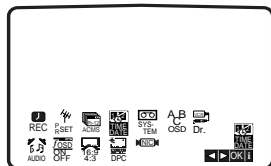
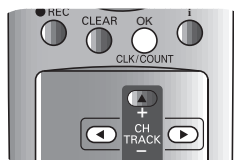
Setting the Clock Manually

The clock in your VCR controls time, day and date settings for your VCR.

1

Press **i**.

Press **◀** or **▶** to select **TIME DATE** and press **OK**.

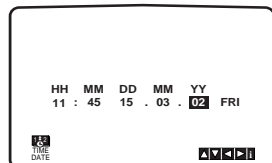


2

Press **OK** and press **numbered buttons** or press **▲** or **▼** on the remote control to alter the **HOURS, MINUTES, DAY, MONTH** and **YEAR**.

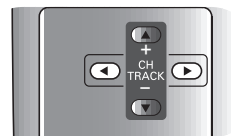
Please note your VCR uses a 24 hour clock. e.g. 1pm will be displayed as 13:00.

The day of the week will appear automatically when you enter the year.



3

If you make a mistake press **◀** or **▶** and enter the correct details.



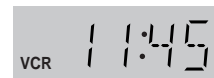
4

Press **i** to remove the menus from the TV screen.

Your new clock settings are stored and will appear on your VCR's Display.



(VCR's Display)



Hi-Fi Stereo Sound System

Your VCR will record and playback Hi-Fi stereo sound. In addition it has a NICAM digital stereo sound decoder. This allows you to record and playback the sound in several different ways. Video cassettes recorded on your VCR will have a normal mono audio track and two VHS Hi-Fi stereo audio tracks. These stereo tracks allow you to make audio recordings in Hi-Fi stereo or bilingual mode from a TV broadcast, stereo audio system, video disc or another Hi-Fi VCR.

1

Your VCR's NICAM digital sound decoder allows you to enjoy broadcasts with NICAM sound, as well as standard stereo, bilingual and mono sound. The particular type of sound received or that recorded will be briefly displayed on the TV screen for a couple of seconds:

STEREO NICAM

Sound is automatically recorded on the Hi-Fi stereo and mono tracks of the video tape.

BIL NICAM

Both audio channels will be recorded on the Hi-Fi stereo tracks. The primary language channel (left) will be recorded on the mono track of the video tape.

MONO

The sound is recorded on the Hi-Fi tracks and the mono track of the video tape without any separation.

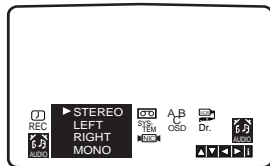
2

Switch on your VCR.

Press **i**.

Press **◀** or **▶** to select **AUDIO**.

Press **OK**.



3

Press **▲** or **▼** to select **AUDIO**.

The choice is **STEREO**, **LEFT** (left channel), **RIGHT** (right channel) and **MONO**.

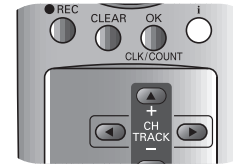


In **BIL NICAM** playback the primary language is output on the left channel and the secondary language is output simultaneously from the right channel when audio output is set to **STEREO**. The primary language will be output from both channels when the audio setting is **MONO**.

Please note that when adjusting the tracking control Hi-Fi stereo sound may revert to **MONO**.

4

Press **i** to return to a TV picture.



NOTE:

If the quality of stereo sound being received is poor, the broadcast is automatically received in monaural with better quality. Still, if the quality of the sound is poor, set **NIC** in the main menu to **OFF** (see p. 12). **NICAM** broadcasts will be detected.

Timer Recording Using On Screen Display

Intelligent LP Recording

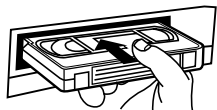
When you set the tape speed to "IP", the recorder automatically switches to LP mode to allow complete recording if there is not enough tape to record the entire programme while timer-recording in SP mode.

You may set up to seven timer record events within one month of the current date.
PLEASE NOTE! before setting the timer make sure that you have set the VCR clock correctly and you know which channels you have tuned to TV stations on your VCR.

1

Insert a video cassette with protection tab into your VCR.

The video cassette should have the window side facing up and the arrow facing away from you.

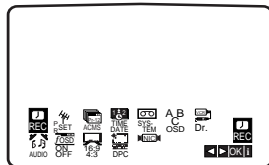


2

Press **i**.

Press **◀** or **▶** to select **REC.**

Press **OK.**



PR	DATE	TIME	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP

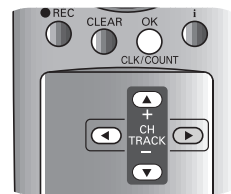
DELETE: **◀** **▶** **OK** **i**

3

Press **OK** to start setting the timer record event.

If all timer record events are full press **▲** or **▼** to select the event that you wish to remove and replace.

Press **◀** to delete the event.



PR	DATE	TIME	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP

▶ **◀** **OK** **i**

4

Press the **numbered buttons** to enter the station that you wish to record.



When selecting stations 1 - 9, press 0 first, then the channel number; for example Stations 3 - 03. You may also select Channels by pressing **▲** or **▼**. Once selected press **▶**.

If you want to record from either of the SCART sockets on the back of VCR, repeatedly press **INPUT** for the correct display (AV1 or AV2).

PR	DATE	TIME	SP
CH4	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP
--	--	----	SP

▶ **◀** **OK** **i**

If at a later date you wish to **delete** or **change** any of the settings in timer event memory you may do so without having to enter all the timer event information again. Simply display the timer event screen. Press ▲ or ▼ to select the event that you wish to **delete** or **change**. Press ◀ to delete the event...or Press **OK** to change; then press ◀ or ▶ to select; Station, Date, Start and End times and LP. Press ▲ or ▼ to enter the correct information.

5
Press the numbered buttons to enter the date of the programme.



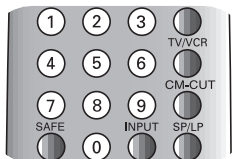
If you press **OK** before entering the date you may select one of the following automated recording features. Press ◀ or ▶ to select, then press **OK** to confirm.

DLY To record every day (except Saturday and Sunday) at the same time.

Weekly To record at the same time every week.

PR	DATE	T I M E	
CH4	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
DLY	SU MO TU WE TH FR SA		

6
Press the numbered buttons to enter the recording start and end times of the programme that you wish to record.

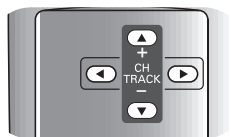


Please note your VCR uses a 24 hour clock. e.g. 1pm will be displayed as 13:00. You may also select the start and end times by pressing ▲ or ▼.

PR	DATE	T I M E	
CH4	16	19:00-20:00	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP

7
Press ▶ to select the recording speed and press ▲ or ▼ if you wish to record in SP, IP or LP.

• IP (Intelligent LP recording) on page 26.
SP will produce improved picture and sound quality, however LP will provide twice as much recording time as SP.

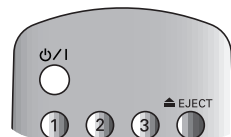


PR	DATE	T I M E	
CH4	16	19:00-20:00	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP
--	--	-----	SP

8
Check that the timer event details are correct.

Press **i** twice.
If **PLEASE CHECK** is displayed, you have entered incorrectly and will need to re-enter the data.

Press **⏻/I** to switch your VCR Standby.

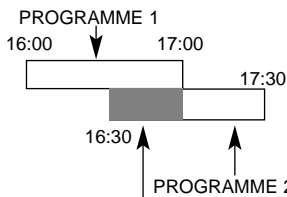


TIMER will appear in the VCR's display while your VCR waits to make the recording.

If Timer record events Overlap...

Do not overlap programmes, since overlapping portions of the conflicting programmes will not be recorded. Earlier recording times have priority over later recording times as shown in the diagram.

Example:
Programme 1 will be recorded in its entirety, but only the last 30 minutes of Programme 2 will be recorded.



(This portion will not be recorded.)

If two programmed timer recordings overlap at midnight 00:00 a.m., programme 2 will not be recorded.

Save Energy On Screen Display

Your VCR has a Save Energy feature which if set will place your VCR into an economic power save where the clock display will disappear. If you have programmed a recording, this feature will not work.

1

Press **⏻/I** on the VCR while in Power on or Standby mode.

Your VCR will go into **Save Energy**.

All indicators will turn off in the VCR's display.



2

Press **⏻/I** to switch off **Save Energy**.

The VCR can be put into Save Energy mode using only the **⏻/I** on the VCR.

Press **⏻/I** on the remote control to switch to the standby mode.

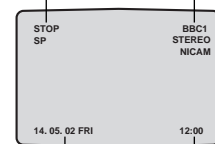
You may easily display the current time or tape counter and amount of tape remaining, day, month, year, day of week, programme channel, tape speed and operational mode of your VCR on the TV screen. If a recording is taking place these On Screen Displays will not be recorded onto the tape.

1

Press **OK/CLK/COUNT** to display.



VCR Function/
Tape Speed Channel
Programme



Day/Month/
Year/Day of
Week Clock/Tape
Counter &
Amount of
Tape Remaining

Press **OK/CLK/COUNT** repeatedly to display the tape counter when a tape inserted. During playback or recording, the amount of tape remaining is displayed with the tape counter.

2

After 3 seconds the display will clear from the TV screen, leaving only the clock or tape counter and amount of tape remaining on the TV screen. Press **OK/CLK/COUNT** again to remove all displays from the TV screen.



The amount of tape left will only be accurate for E-180 and E-240 tapes. The tape remaining indicator may not be accurate, since it depend on the type and condition of tape used. Also, the tape remaining indicator is not displayed just after a cassette has been inserted, or after playback or recording has begun.

Tape Counter Memory Stop

Child Lock

The **Digital Tape Counter** can be displayed on your TV screen instead of the time by pressing **OK/CLK/COUNT** on the remote control. The Digital Tape Counter indicates the relative positions of recordings on the tape.

1

Press **OK/CLK/COUNT** repeatedly until the counter is displayed on the TV screen.

Press **CLEAR** to set the counter to 0:00:00.

Press **PLAY** or start recording.

The tape counter will display the actual play time in hours, minutes and seconds.



2

Press **STOP** when playback or recording is complete.

Press **REW**.

The tape will rewind and automatically stop when the counter returns to 0:00:00.

Please note while minus counter mode press **FF**, the tape will not stop.



1

Press **SAFE**.

SAFE will appear from the TV screen.

SAFE will flicker in your VCR's display for a few seconds.

None of the buttons on the front of your VCR will work.

If any buttons on the front of your VCR are pressed **SAFE** will flicker in your VCR's display for a few seconds.



2

Press **SAFE** again to switch off the child lock.

OFF will flicker in your VCR's display for a few seconds.

Wide Screen Compatibility (16:9)

Your VCR can record and play back wide screen aspect ratio programmes (16:9). To record a wide screen format programme successfully the correct type of wide screen signal must be broadcast by the TV station.

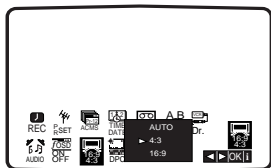
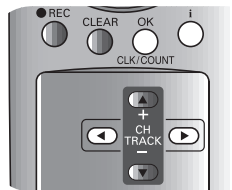
1

Switch on your VCR.

Press **i**.

Press **◀** or **▶** to select **16:9/4:3**.

Press **OK**.



2

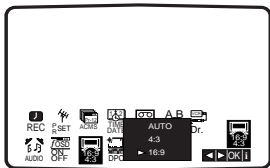
Press **▲** or **▼** repeatedly to select : **AUTO, 4:3** or **16:9**.



AUTO:
Automatically plays back Wide-Screen programmes as Wide-Screen and Normal programmes as normal.

4:3:
Only for playing back and recording Normal format recordings (4:3).

16:9:
Only for playing back and recording Wide-Screen format recordings (16:9).



3

Press **i** to remove the menus.



To enjoy Wide-Screen playback you must connect your VCR to the TV using a SCART lead.

Automatic Shut-Off

Friendly User Guide (Video Doctor)

Automatic Shut-Off

This feature of your VCR enables you to switch your VCR Standby automatically after tape rewind has been completed.

1

Press ϕ /I during tape rewind.



REW indicator flashes on the TV screen during Automatic Shut-Off.

2

The tape will rewind to the beginning and your VCR will automatically switch itself Standby.

Switch on your VCR.

Friendly User Guide (Video Doctor)

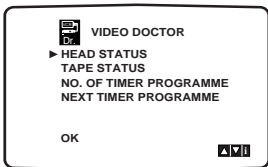
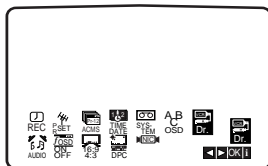
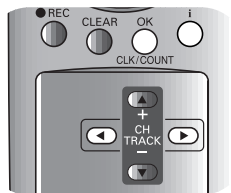
This feature informs you that there is a problem with your VCR. These error messages will appear on the TV screen.

1

Press **i**.

Press \blacktriangleleft or \blacktriangleright to select **Dr.**

Press **OK**.



2

Press \blacktriangle or \blacktriangledown to check a problem.

HEAD STATUS

● PLEASE CLEAN:

Clean your video heads using the video head cleaning cassette. If noise still remains in the playback picture, contact your SANYO authorized service agent.

TAPE STATUS

● NOT RECORDABLE:

Insert a tape with its protection tab in place

NO. OF TIMER PROGRAMME

● 2

Shows the number of timer recording.

NEXT TIMER PROGRAMME

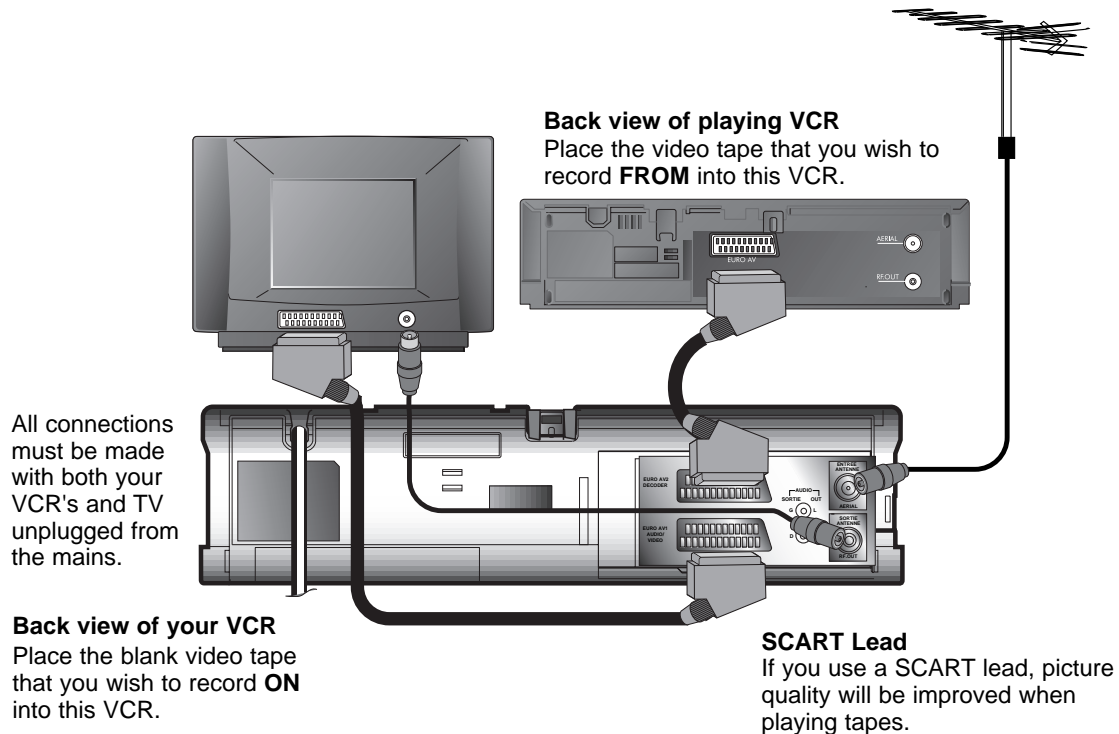
● BBC1 26 10:00~11:00

Shows the current status of timer recording.

Press **i** to remove the menus from the TV screen.

Tape Copying

A second VCR (for tape copying) should be connected to one of the SCART sockets on the back of your VCR. Remember to select the appropriate audio/video mode by pressing **INPUT** on the remote control.



Unauthorised recording of copyrighted TV programmes, film, video cassettes and other materials may infringe the rights of copyright owners and be contrary to copyright laws.

The design and specifications are subject to change without notice.

General

Power	200-240 V ~, 50 Hz
Power consumption	Approx. 12 W (Save Energy mode: 2 W)
Video heads	4 heads
Tape speed	PAL/MESECAM; 23.39 mm/s (SP mode) 11.69 mm/s (LP mode) NTSC (Playback only); 33.35 mm/s (SP mode) 16.67 mm/s (LP mode) 11.12 mm/s (EP mode)
Maximum recording time	4 hours (SP mode, E-240 tape) 8 hours (LP mode, E-240 tape)
Rewind time	Approx. 65 sec. (E-180 tape)
Dimensions	360 x 94.5 x 270 mm (W x H x D)
Weight	3.4 kg
Operating temperature	5°C - 35°C
Operating humidity	Less than 80%
Timer	24 hours display type

Video

Television system	CCIR standard (625 lines, 50 fields) PAL I colour signal
Recording format	PAL
RF OUT	I
RF Modulator	UHF 22-68 (Adjustable)
Input level	VIDEO IN (SCART type) 1.0 V(p-p), 75 ohms, unbalanced
Output level	VIDEO OUT (SCART type) 1.0 V(p-p), 75 ohms, unbalanced
Signal to noise ratio	More than 43 dB

Audio

Input level	AUDIO IN (SCART) -6.0 dBm, more than 10 kohms
Output level	AUDIO OUT (SCART, RCA) SCART : -6.0 dBm, less than 1 kohm RCA : -6.0 dBm, less than 1 kohm
Track	Mono track & Hi-Fi track
Frequency response	Normal: 100 Hz-10 kHz (-6/+3 dBm) Hi-Fi: 20 Hz-20 kHz
Signal to noise ratio	Hi-Fi : More than 70 dB (JIS A filter)
Dynamic range	Hi-Fi : More than 85 dB (JIS A filter)

Video Head Cleaning

Whenever a video cassette is inserted into or ejected from your VCR the video head is automatically cleaned. This should mean that additional head cleaning should not be necessary. However dirt accumulating on the head after a long period of time 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.

Symptom	Check points	Symptom	Check points
No picture & no sound	<p>Is the mains plug plugged in and switched on? Is the TV switched on? Try another channel, maybe a weak signal. Check the aerial. Is it connected? Check the aerial. Is the cable broken or damaged? Have you tuned in a dedicated channel on your TV to watch video on? If you have used a SCART lead to connect your VCR and TV have you selected the AV channel on your TV? Check tuning, carry out Automatic Tuning again.</p>	Video cassette cannot be inserted	<p>Is the cassette compartment empty? Are you trying to insert the cassette the right way round?</p>
No playback or poor picture	<p>Are the TV channels tuned in properly? Have you tried using another cassette? Can you minimise the noise bars to an acceptable level with the numbered button 0 or ▲ or ▼?</p>	Remote control does not work	<p>Is the mains plug plugged in and switched on? Is the VCR switched on? Check the batteries in remote control.</p>
TV programmes cannot be recorded	<p>Can you get a picture on the TV? Are the aerial leads and special RF connector lead between your VCR and TV connected? Are the TV channels tuned in properly; are they tuned in order? Has the safety tab on the video cassette been removed to prevent recording? Try another station, maybe a weak signal. Check the aerial. Is it connected to the TV?</p>	The top of the playback picture is unstable	<p>Is the video cassette damaged, have you tried using another one? Adjust the horizontal control on your TV. Check the aerial. Is it connected to the VCR? Check the aerial. Is the cable broken or damaged? Check for local interference. Make sure that you are using a dedicated TV channel on your TV.</p>
		Auto Play does not work	<p>Has the safety tab been removed from the video cassette?</p>
		No NICAM sound recording	<p>Make sure NICAM in the menu is set to AUTO for the station to be recorded.</p>
		No Hi-Fi sound	<p>Switch "AUDIO" in the menu to STEREO.</p>

GUARANTEE TO CUSTOMER

Sanyo Europe Ltd. (the Company) guarantees to the initial retail purchaser that if this equipment is or becomes defective and that, in the opinion of the Company, the defect is due to faulty material or workmanship the Company will, for a period of 12 calendar months from the date of sale to the original purchaser repair or replace, at its sole option, free of charge, any such defective component part of the equipment, always provided that:-

1. The equipment has at all times been used in accordance with the operating instructions issued by the Company, and has not been connected to an electrical mains supply for which it has not been adjusted.
2. Accidental damage, or damage caused by negligence or misuse by the user, including leakage from exhausted batteries, is specifically excluded.
3. Unauthorised repairs, or any modification to the equipment which has not been expressly approved by the Company, shall render this guarantee null and void.
4. Failure due to fair wear and tear of any item, such as batteries, record playing styli, and tape recording, playback and erase heads and head cleaning is specifically excluded.

This guarantee is not transferable and is only applicable within the United Kingdom (and the Republic of Ireland). Nothing in this express guarantee affects the statutory rights available to the purchaser of this equipment.

Dear Customer

Thank you for buying Sanyo. This equipment should give you many years of pleasure and faithful service but in the event that a fault occurs, the following notes for your guidance may be helpful:-

1. PLEASE RETAIN YOUR PURCHASE RECEIPT WHICH WILL BE REQUIRED FOR SERVICE DURING GUARANTEE.
2. If your Sanyo equipment proves faulty during the period of guarantee, take it or send it back to the dealer who originally supplied it together with this guarantee and the proof of purchase. We have made arrangements with our approved dealers under which they will carry out in guarantee service repairs on our behalf. In this way, we hope to reduce to a minimum the amount of time you will be without your equipment.
3. If for some reason it is impossible to return the equipment to the original supplier, please contact our Service Administration Department at the address below for further advice.
4. Should the equipment require servicing after the expiry of the guarantee period, take or send it to the original supplier or any other Sanyo dealer. He will be pleased to give you a quotation for the repair. If you are in any doubt about what to do, write to us at the address below or telephone:

Sanyo Europe Ltd.
Sanyo House Otterspool Way, Watford, Hertfordshire WD25 8JX Tel: (01923) 246363

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