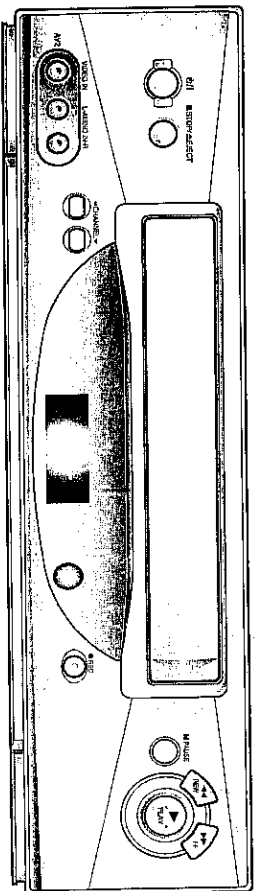


SANYO

INSTRUCTION MANUAL

VHR-VK810A

Video cassette recorder



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

VHS
PAL NTSC

Precaution & features

Information

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 5.)

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 back 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.

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

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.

Just to name a few examples of the extraordinary features:

- Programmable 80 channel memory with Frequency synthesised tuner
- ACMS (Automatic Channel Memory System)
- 7 events/1 month programmable timer
- Long Play (LP or EP) - recording & playback
- DPC (Digital Picture Control)
- Friendly User Guide
- Auto Power on and Play
- Fine still, Frame advance & Fixed Slow functions
- Super Multi System
 - PAL (B/G, D/K)
 - SECAM (B/G, D/K)
 - MESECAM/NTSC
- 3.58/NTSC 4.43
- NTSC playback on PAL TV
- Logic & Picture Search
- Child Lock
- Auto Head Cleaner
- Real Time Counter
- Quick Set Recording
- ICON OSD (On Screen Display)
- Hi-Fi Audio System
- Simulcast Recording & Playback
- Auto Tracking System
- Save Energy

Welcome to SANYO

Thank you for buying this SANYO video cassette recorder (VCR) Model VHR-VK810A.

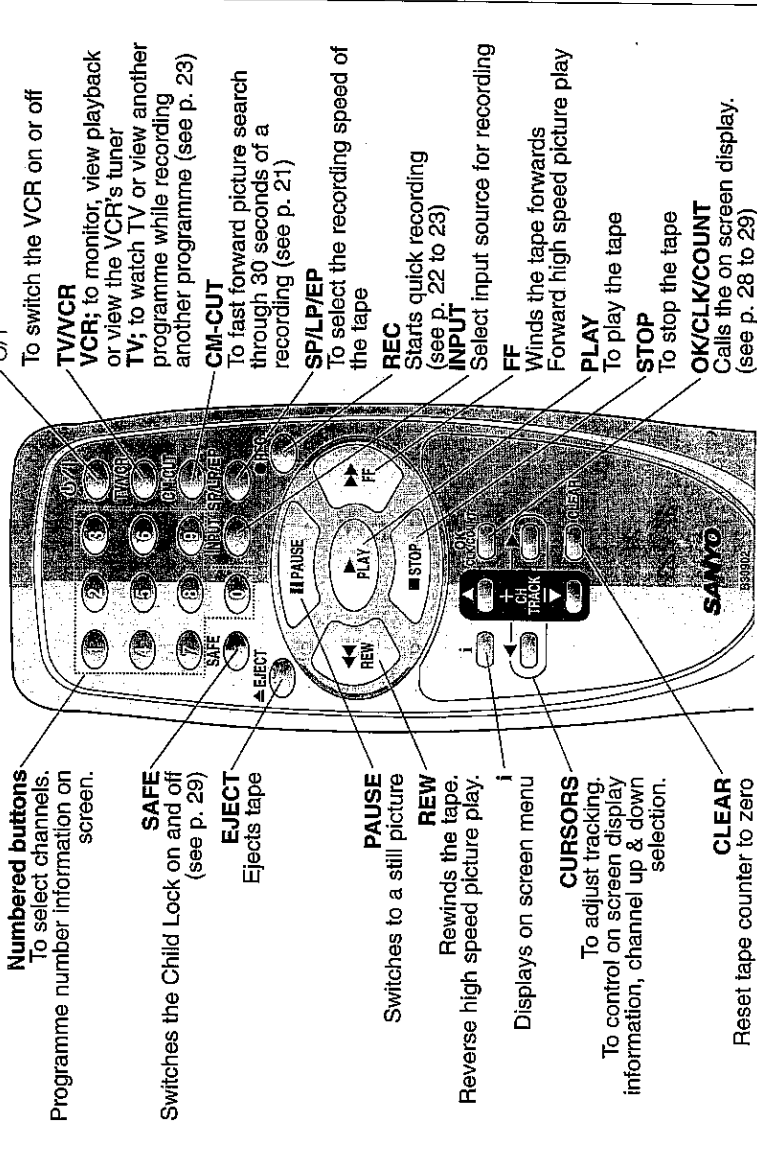
Description	2 - 5	Advanced Operations	26 - 31
Precaution & Features Information	2	Timer Recording Using On Screen Display	26 - 27
Remote Control Location & functions	4	Save Energy	28
Your VCR's Controls	5	On Screen Display	28
Setting Up	6 - 17	Tape Counter Memory Stop	29
Connecting to a TV	6	Child Lock	29
Connecting to your Hi-Fi & Camcorder	7	Automatic Shut-Off	30
Tuning in a video channel On your TV	8 - 9	Friendly User Guide (Video Doctor)	30
How to Using the main menu	10	Hi-Fi Stereo Sound System	31
Tuning in TV Stations Automatically	11		
Tuning in TV Stations Manually	12 - 13	Helpful Hints	32 - 34
Changing the order of TV Stations	14	Tape Copying	32
Deleting TV Stations	15	Specifications	33
To set the Colour System	16-17	Troubleshooting Check List	34
Basic Operations	18 - 25		
Playback a tape	18 - 19		
Other Playback features	20 - 21		
• CM (Commercial Message) Skip	21		
• DPC (Digital Picture Control)	21		
Recording TV programmes	22 - 23		
Simulcast Recording & Playback	24		
Setting the Clock Manually	25		

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 that 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.

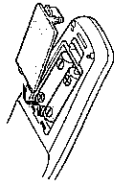


- Numbered buttons**
To select channels.
Programme number information on screen.
- SAFE**
Switches the Child Lock on and off (see p. 29)
- EJECT**
Ejects tape
- PAUSE**
Switches to a still picture
- REW**
Rewinds the tape.
Reverse high speed picture play.
- CURSORS**
To adjust tracking.
To control on screen display information, channel up & down selection.
- CLEAR**
Reset tape counter to zero

To install batteries:

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

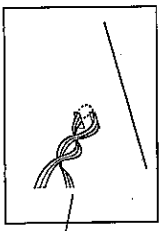
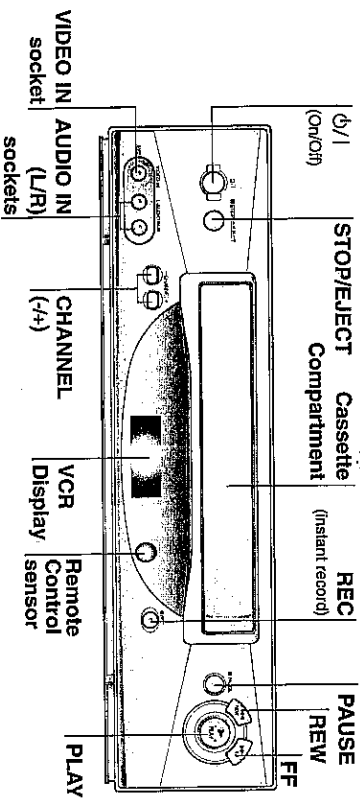
1. To insert them, push the tab backwards and lift off the cover of the handset.
2. Put the two batteries into the compartment making sure the \oplus and \ominus are correctly positioned.
3. Replace the cover.



Your VCR's

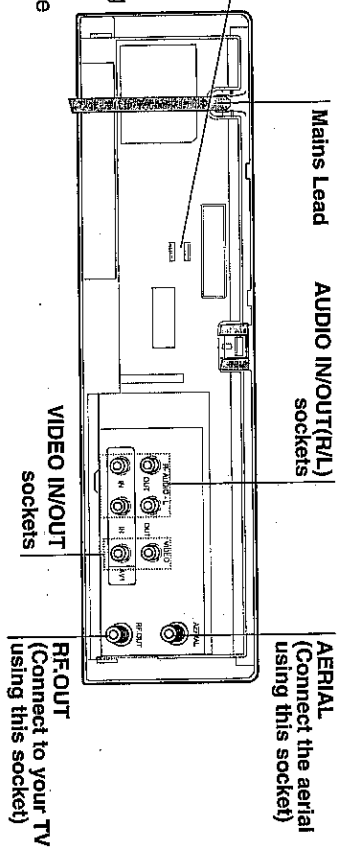
Controls

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



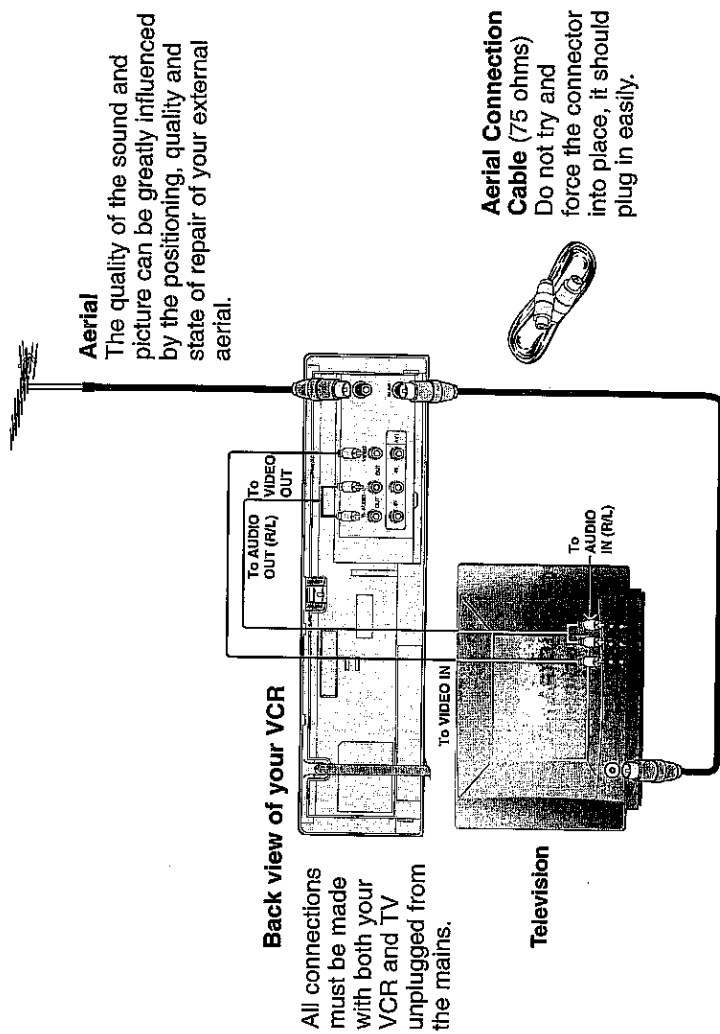
WARNING:

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

The guidance given on the next two pages is 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.



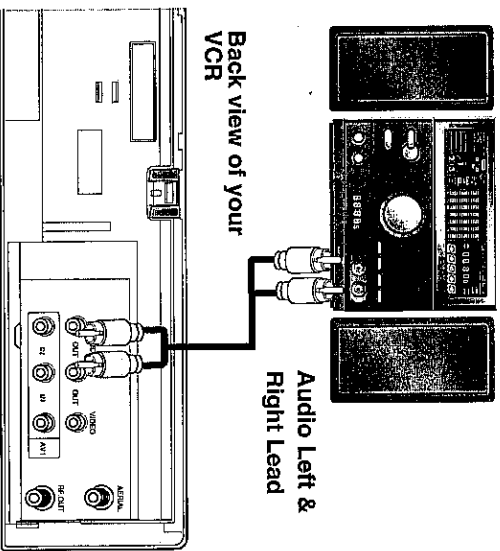
MAINS LEAD

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.

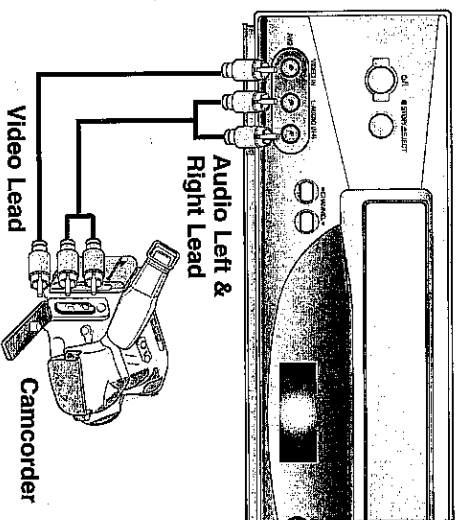
Connecting To your Hi-Fi & Camcorder

An audio system can be connected to the **AUDIO OUT** terminals 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!

Hi-Fi



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** terminals on the front panel of your VCR.



Audio out terminals & RCA Leads

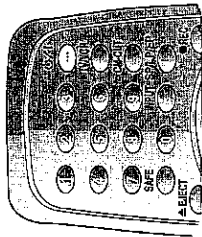
The RCA terminals for connecting your VCR to your Hi-Fi are on the back of the set; L = Left sound output, R = Right sound output. You normally have to select the AUX function on your Hi-Fi.

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 **AUDIO** and **VIDEO** cables 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.



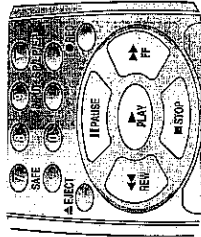
Press $\odot/1$ to turn on your VCR.

Turn on your TV.

The output frequency of this VCR is set at UHF channel 68. If channel 68 is already used by another TV station, or if the picture is distorted, you can change the transmitter channel of your VCR. Stages 5 ~ 8 will show you how to change the output frequency of your VCR.

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 videos.

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.

If you have used **AUDIO** and **VIDEO** cables you will not have to tune your TV, simply select the **AV** channel. The **AV** channel is already pre-tuned for optimum video playback on your TV.

4

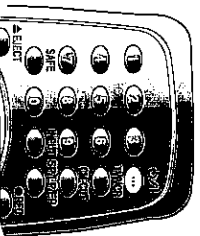
Store this channel on your TV.

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

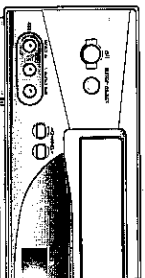
5 Only carry out stages 5 ~ 8 if you cannot obtain clear video playback as described in stages 1 ~ 4.

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

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



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

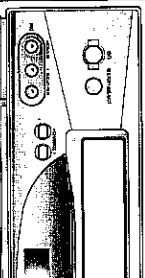


CH68 will appear in the VCR display.

The following picture will be displayed on the TV screen.



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



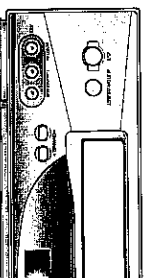
You may select any channel number between 28 and 68.

8 Select a TV channel number on which you wish to watch videos.

Tune this channel so that a bright blue screen appears.

Store this channel on your TV.

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



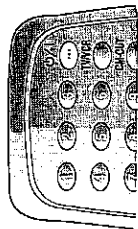
9 Make sure that you have correctly installed your VCR and successfully tuned in a dedicated video channel on your TV. If you do not tune in a dedicated video channel on your TV you will be unable to view and record video tapes!

How to Using 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

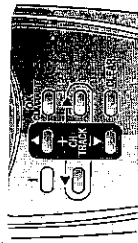
Switch on your TV set and VCR by pressing the ϕ /I button.



2

Press **i** button.

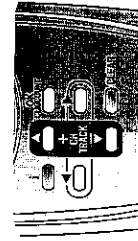
The main menu will appear on the TV screen.



3

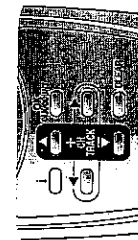
Press **◀** and **▶** to select the desired menu.

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



4

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



- **REC** - Timer recording setting (see p. 26 to p. 27).
- **PR** - Manual tuning setting (see p. 12 to p.13).
- **ACMS** - ACMS (Automatic Channel Memory System) (see p. 11).
- **TIME DATE** - Date & clock setting (see p. 25).
- **SYSTEM** - To set the Colour TV System (see p. 16 to p. 17).
- **ABC OSD** - To change the language setting for OSD (see left).

- **DR** - To check a problem with your VCR (see p. 30).
- **AUDIO** - To select the channel for audio output (see p. 31).
- **FOSD ON/OFF** - To display the operational mode of your VCR (see p. 28)
- **DRac** - To improve the playback picture (see p. 21).

LANGUAGE SELECTION

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

Tuning in TV Stations Automatically

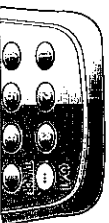
Auto channel Tuning
Important: This VCR has the following channels preset when it is shipped from the factory.

Channel Indication	1	2	3	4	5	6	7	8	9	10	11-27	28
Channel Number	-	2	-	-	-	-	7	-	9	10	-	28

It must be noted that by entering the Auto Channel Tuning mode (ACMS), all factory preset channels and manually stored channels will be automatically erased, therefore, if you wish to add any channels to the factory preset channels, refer to the manual tuning section.

1

Press **CH/1** to turn on your VCR.



2

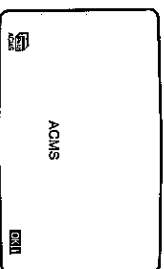
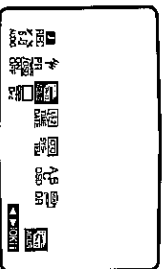
Press **i**.

The main menu will appear on the TV screen.



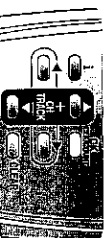
Press **▲** or **▼** to select the **ACMS**.

Press **OK**.

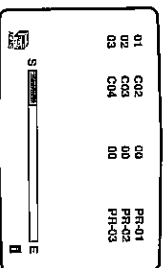


3

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



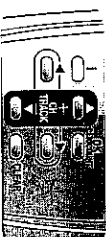
Press **OK** again to start the automatic tuning process.



4

The **TV STATION TABLE** will appear when tuning is complete.

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



01	CH2	00	PR-01
02	CH3	00	PR-02
03	CH4	00	PR-03
04	CH5	00	PR-04
05	CH6	00	PR-05
06	CH7	00	PR-06
07	CH8	00	PR-07
08	CH9	00	PR-08
09	CH0	00	PR-09
10	CH1	00	PR-10
11	CH2	00	PR-11
12	CH3	00	PR-12
13	CH4	00	PR-13
14	CH5	00	PR-14
15	CH6	00	PR-15
16	CH7	00	PR-16
17	CH8	00	PR-17
18	CH9	00	PR-18
19	CH0	00	PR-19
20	CH1	00	PR-20
21	CH2	00	PR-21
22	CH3	00	PR-22
23	CH4	00	PR-23
24	CH5	00	PR-24
25	CH6	00	PR-25
26	CH7	00	PR-26
27	CH8	00	PR-27
28	CH9	00	PR-28

MOVE: **i** **TV STATION**
DELETE: **i** **TV STATION**

Tuning in TV Stations Manually

In certain areas of the country broadcast signals may be too weak for your VCR's automatic tuning process to find or assign TV stations correctly. You must tune in these weaker broadcast stations manually in order for your VCR to store them.

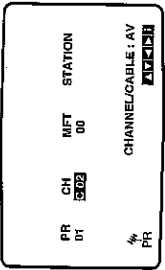
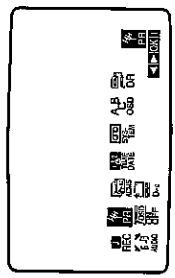
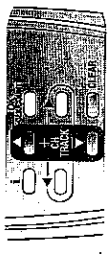
1

Press **i**.

The main menu will appear on the TV screen.

Press **◀** or **▶** to select the **PR**.

Press **OK**.

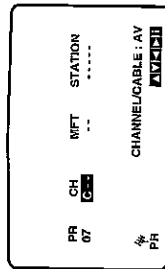
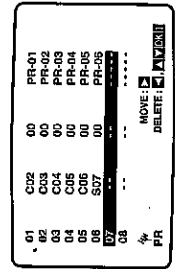


2

Press **i**.

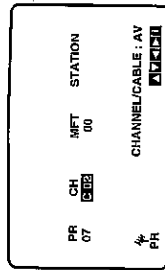
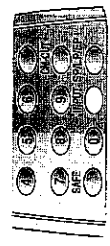
Press **▲** or **▼** to select the programme number that you want to tune (for example, PR 07).

Press **OK**.



3

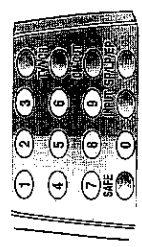
Press **INPUT** to select **C** (Standard stations) or **S** (Cable stations): **C00 - C70, S01 - S41**



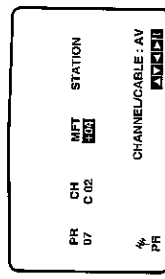
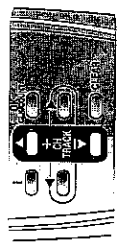
4

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

Searching will stop when it locates a station.



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



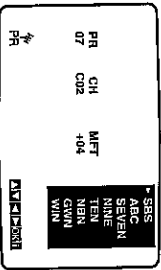
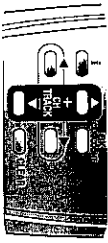
5

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**

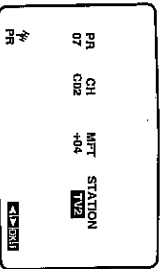
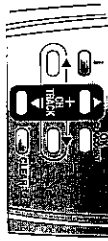
You can change a TV station name manually rather than using the "standard" names.

Press **▶**.

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

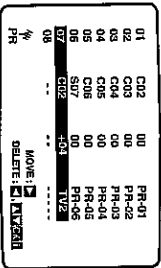
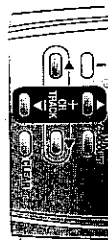
Press **▲** or **▶** to move back and forth between characters.

Press **OK**.

**7**

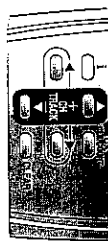
Press **i**, confirm the station placement.

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 against! The instructions given on this page will show you how you can simply move them into your desired order.

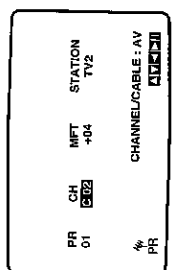
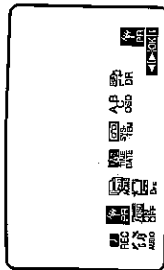
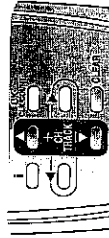
1

Press **i**.

The main menu will appear on the TV screen.

Press **◀** or **▶** to select the **PR**.

Press **OK**.

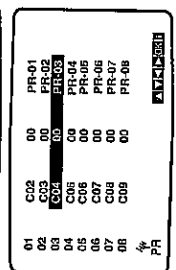
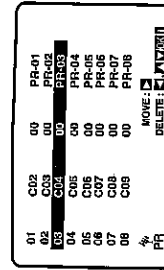


2

Press **i**.

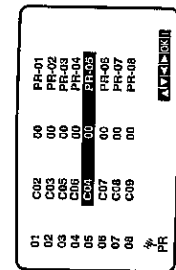
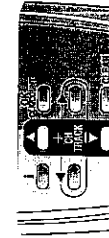
Press **▲** or **▼** to select the **programme number** you want to move (for example, PR 03).

Press **▶**.



3

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



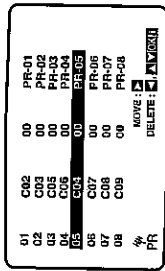
4

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 menu 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 easily delete any unwanted TV stations.

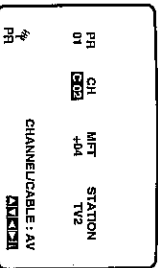
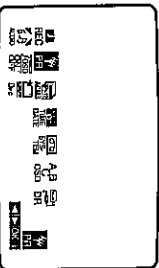
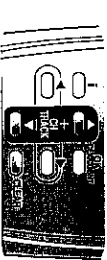
1

Press **i**.

The main menu will appear on the TV screen.

Press **▲** or **▼** to select the **PR**.

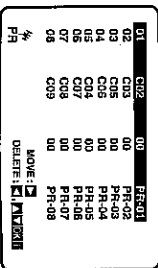
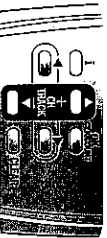
Press **OK**.



2

Press **i**.

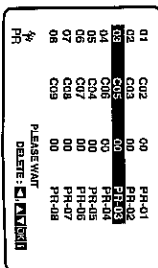
Press **▲** or **▼** to select the **programme number** you want to delete.



3

Press **▲**.

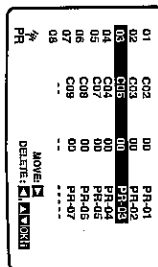
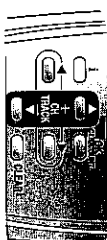
After a short while, the selected station will be deleted.



4

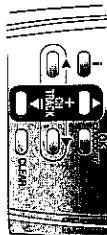
Press **i** to remove the menus from the TV screen.

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

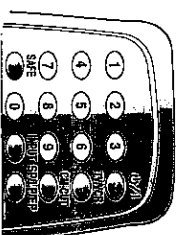


How to selecting Stored TV stations:
Stored TV stations can be selected in either of two ways.

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.



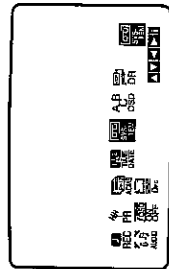
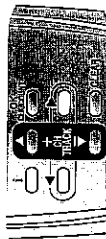
To set the Colour System



Press **i**.

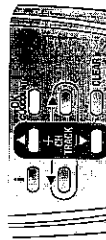
The main menu will appear on the TV screen.

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



Press **OK**.

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



PAL settings

To record or play

AUTO:

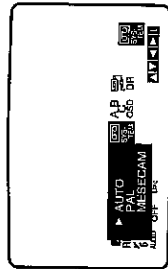
Allows PAL or MESECAM signals to be distinguished automatically.

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.



NTSC settings

During playback:

NTSC PB:

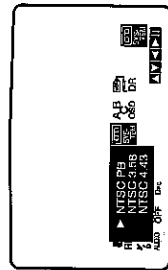
Use when playing back a tape recorded in the NTSC system on PAL TV.

NTSC-3.58:

Use when playing back a tape recorded in the NTSC system in 3.58 mode.

NTSC 4.43:

Use when playing back a tape recorded in the NTSC system in 4.43 mode.



When you are happy in PCV you may receive a message about the end of the PCV line. You will see a message that says "PCV line is ending".

When you are happy in PCV you may receive a message about the end of the PCV line. You will see a message that says "PCV line is ending".

NTSC settings (cont)

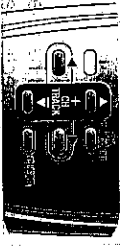
Set NTSC to record

NTSC 3.58: Use when recording NTSC 3.58 signals.

NTSC 4.43: Use when recording NTSC 4.43 signals.



Press **1** to remove the menus from the TV screen.



Press **1** to remove the menus from the TV screen.

SHARP TV

Remove the PCV line from the TV screen. Press **1** to remove the menus from the TV screen.



When you are happy in PCV you may receive a message about the end of the PCV line.

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When you are happy in PCV you may receive a message about the end of the PCV line.



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 a 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 **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.

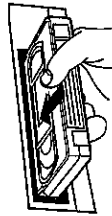
Press **0**/I to turn on your VCR.



2

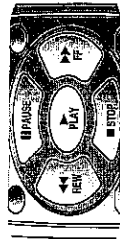
Insert the video cassette into your VCR.

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



3

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).

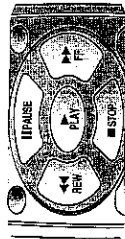
AUTO TRACKING

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

4

Press **PAUSE** to still a picture.

Press **PAUSE** repeatedly to advance the tape frame by frame. If you hold down **PAUSE**, the picture will be slowed down at about 1/19 times the normal playback.

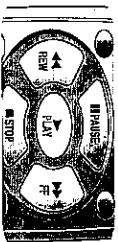


Tapes can be paused for up to 5 minutes. After 5 minutes your VCR will stop the tape to prevent damaging the tape or your VCR.

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

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



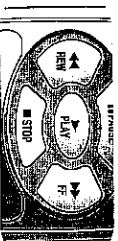
Picture search:

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



6

Press **STOP** to end playback.



Press EJECT.

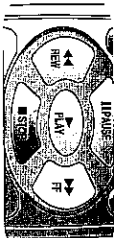


If the end of the tape is reached, your VCR will stop playback automatically, rewind, stop, eject the tape and place itself into power off mode.

Fast Forward (FF):

Press **FF**.

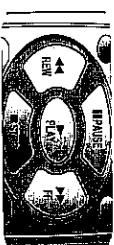
The tape will rapidly wind forwards. **FF** will appear for a few seconds on the TV screen.



Rewind (REW):

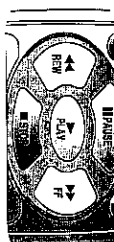
Press **REW**.

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.



Other Playback features

Your VCR incorporates a number of tape search features that enable you to quickly search a tape for your particular recording.

1 During playing back of still picture, press **◀** or **▶** repeatedly to obtain different playback speeds: **1/19** slow, **play**, **2xplay**, **7xplay**.



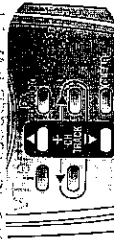
You can reach the following playback speeds:

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.

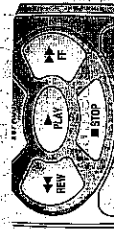
2 Press **▲** or **▼** to improve picture quality.



3 Press **PLAY** to play your tape back at normal speed.



4 Press **STOP**. A **STOP** will appear for a few seconds on the TV screen.



VCR Operation mode:

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

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.

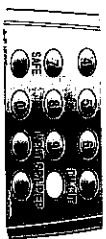
Please note you may set Dpc only when playing a tape.

Press i to remove the menus from the TV screen.

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 another programme material).



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

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

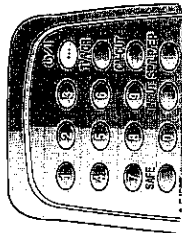
Recording TV programmes

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.

1

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

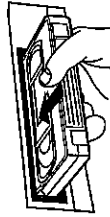
Press $\phi/1$ to turn on your VCR.



2

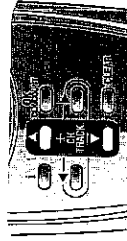
Insert a video cassette with protection tab into your VCR.

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

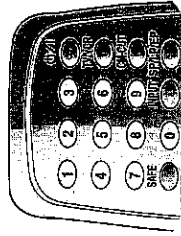


3

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 external source from the VIDEO IN and AUDIO IN(L/R) set the pre-set number to "SC", "AV1" or "AV2" by pressing **INPUT**.

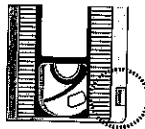


SC01 Hi-Fi Sound only recording using the AUDIO IN(L/R) terminals on the front of your VCR.

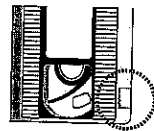
AV 1 Sound and Picture recording using the VIDEO IN and AUDIO IN (L/R) on the back of your VCR.

AV 2 Sound and Picture recording using the VIDEO IN and AUDIO IN (L/R) on the front of your VCR.

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.



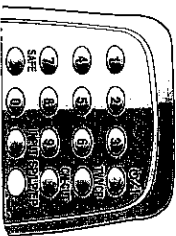
Your VCR incorporates Long Play (LP or EP) which enables you to record up to twice (LP) or three times (EP) the amount of time on a video cassette.

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

5

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

LP: PAL colour system.
EP: NTSC colour system.



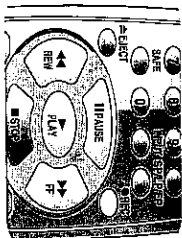
6

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.

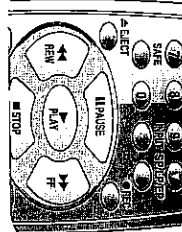


7

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

Press **PAUSE** to continue recording.

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



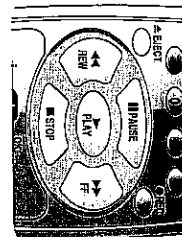
8

Press **STOP** to end recording.

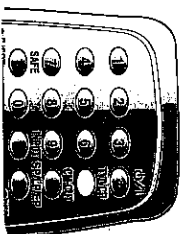
Press **EJECT**.

EJECT will appear on the TV screen.

If the end of the tape is reached, your VCR will stop recording automatically, rewind, stop, eject the tape and place itself into power off.



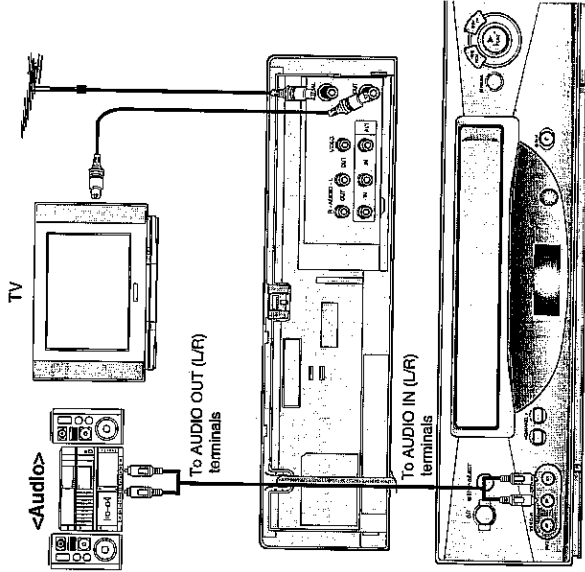
Remember you can record one programme while watching another by starting your instant recording, press **TV/VCR** to select TV mode and then selecting a different channel on your TV.



NOTE:
If you press **PAUSE** during **QSR**, the VCR will enter the normal recording mode(QSR is cancelled.)

Simulcast Recording & Playback

This feature enables you to simulcast sound transmitted by an audio source and the picture transmitted by the TV station.



Simulcast Stereo Recording

- 1 Connect the stereo tuner or receiver to the left and right **AUDIO IN** connectors (AV2) on the front panel of the VCR.
- 2 Press **INPUT** to select **SIMULCAST (SC)**.
- 3 Adjust the stereo sound quality on your stereo tuner or receiver.
- 4 Other operations are the same as for general recording.

Simulcast Stereo Playback

- 1 Connect the VCR and TV.
- 2 If the VCR is connected both to a stereo TV and your audio system, turn on your audio system and set the TV sound to minimum.
- 3 Other operations are the same as general playback.

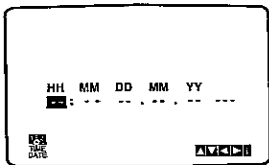
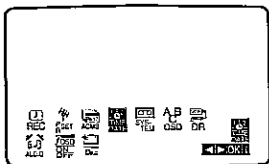
Setting the clock Manually

1

Press **i**.

Press **◀** or **▶** to select
TIME DATE.

Press **OK**.

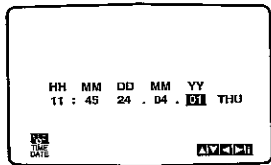


2

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

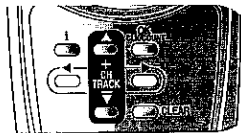
Please note your VCR uses a 24 hour clock.
e.g. 1pm will be displayed as 13:00.

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.



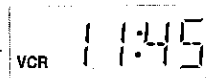
4

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)



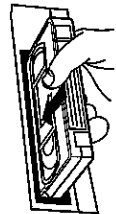
Timer recording Using On Screen Display

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 stations you have tuned 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.

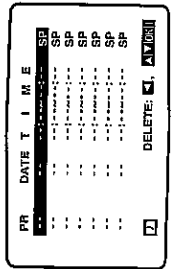
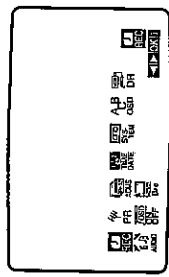
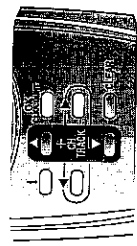


2

Press **i**.

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

Press **OK**.

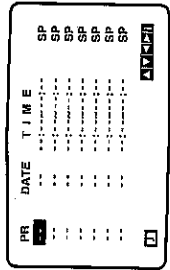
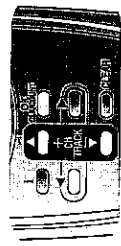


3

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

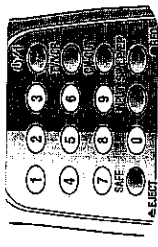
If all timer record events are full press **▲** or **▼** to select the event that you wish to remove and replace.

Press **◀** to delete the event.



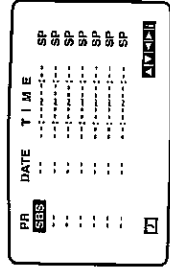
4

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 **▶**.

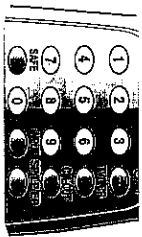
If you wish to record external source using the **AUDIO IN** and **VIDEO IN** set the pre-set number to "AV1" or "AV2" by pressing **INPUT** on the remote control.



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.

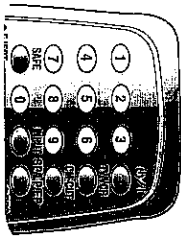
DLV To record every day (except Saturday and Sunday) at the same time.
Weekly To record at the same time every week.

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

TV **DAY** SU MO TU WE TH FR SA **OK**

6

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



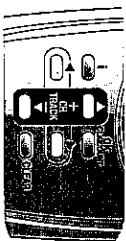
Please note your VCR uses a 24 hour clock; e.g. 1pm will be displayed as 13:00. You may also select the start and end times by pressing ▲ or ▼.

PR	DATE	TIME	SP	SP
SSS	16	13:00-20:00	SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP

TV **DAY** SU MO TU WE TH FR SA **OK**

7

Press ▲ or ▼ and press ▲ or ▼ if you wish to record in Long Play (LP or EP).



PR	DATE	TIME	SP	SP
SSS	76	19:00-20:00	SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP

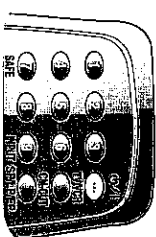
TV **NEG. SPEED** : SP **OK**

8

Check that the timer event details are correct. Press i twice.

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

Press **0** to switch your VCR Standby.



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

PR	DATE	TIME	SP	SP
SSS	76	19:00-20:00	SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP
---			SP	SP

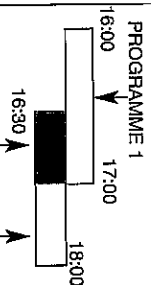
TV **NEG. SPEED** : SP **OK**

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 $\phi/|$ on the VCR.

The VCR and clock will appear on the VCR's display.



2

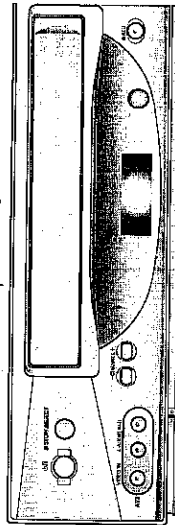
Press $\phi/|$ on the VCR again and your VCR will go into **Save Energy**.

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

Press $\phi/|$ to switch off **Save Energy**.

The VCR can be in Save Energy mode using only the $\phi/|$ button on the VCR.

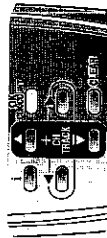
Press $\phi/|$ on the remote control to switch to the standby mode.



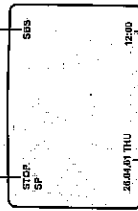
You may easily display the current time or tape counter and amount of tape left, day, month, year, day of week, programme channel, tape speed and operational mode of your VCR on the TV screen. If a recording is taking place these On Screen Displays will not be recorded onto the tape.

1

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



VCR Function/ Tape Speed



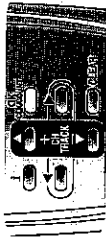
Day/Month/ Year/Day of Week

Clock/Tape Counter & Amount of Tape Left

2

After 3 seconds the display will clear only leaving the clock or tape counter and amount of tape left 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 on E-180 and E-240 tapes. The amount of tape left indicator may not be displayed correctly depending on the type or condition of tape. Also, the amount of tape left indicator is not displayed just after you insert a cassette, or playback or recording begins.

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

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/CNT** on the remote control. The Digital Tape Counter indicates the relative positions of recordings on the tape.

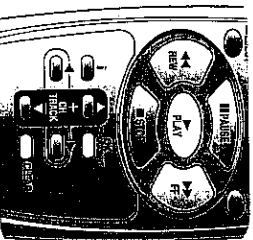
1

Press **OK/CLK/CNT**.

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.

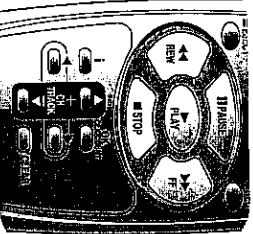


2

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.



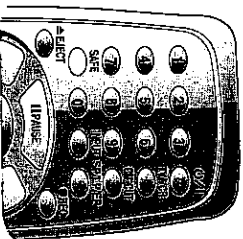
1

Press **SAFE**.

SAFE will appear on 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.

SAFE will disappear on the TV screen.

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

Automatic Shut-Off

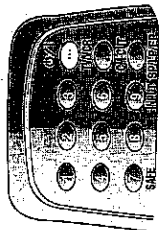
Friendly User Guide (Video Doctor)

Automatic Shut-Off

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



Press **REW** during tape rewind.



REW and **SP/LP/EP** indicator flashes on the TV screen during Automatic Shut-Off.



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

Switch on your VCR.

Friendly User Guide (Video Doctor)

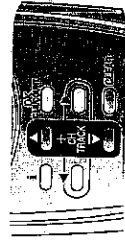
This feature informs you that there is a problem with your VCR. These error messages will appear on the TV screen.



Press **i**.

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

Press **OK**.



Press **▲** or **▼** 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

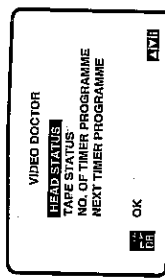
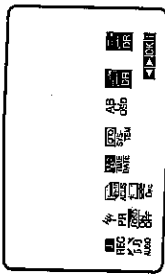
NO. OF TIMER PROGRAMME

● **2**
Shows the number of timer recording.

NEXT TIMER PROGRAMME

● **1 26 10:00~11:00**
Shows the current status of timer recording.

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



Your VCR will record and playback Hi-Fi stereo sound. 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 allows you to enjoy broadcasts with 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

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

BIL

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.

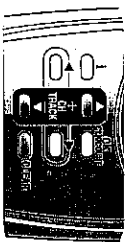
2

Switch on your VCR.

Press i.

Press ◀ or ▶ to select **AUDIO**.

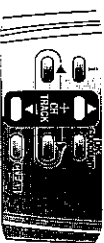
Press OK.



3

Press ▲ or ▼ to select **AUDIO**.

The choice is **STEREO**, **L-CH** (left channel), **R-CH** (right channel) and **MONO**.



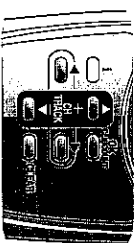
In **BIL**, playback the primary language is output on the left channel and the secondary channel is output

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.



Hi-Fi Stereo
Sound System
ADVANCE

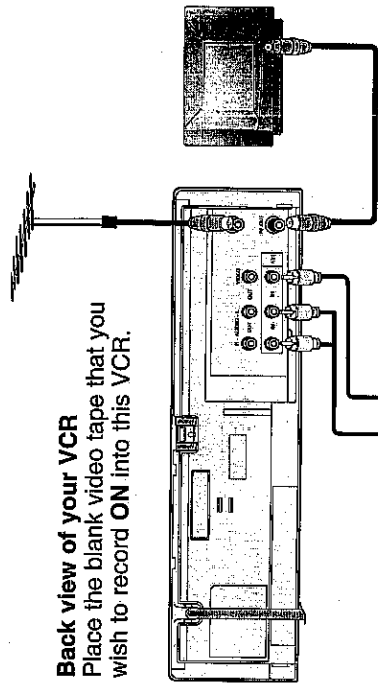
Tape Copying

A second VCR (for tape copying) should be connected to the **AUDIO IN (L/R)** and **VIDEO IN** sockets on the front of your VCR or from the back of your VCR. Remember to select the appropriate audio/video mode by pressing the **INPUT** button on the remote control.

Back view of your VCR

Place the blank video tape that you wish to record **ON** into this VCR.

All connections must be made with both your VCR's and TV unplugged from the mains.



AUDIO and VIDEO cables
If you use **AUDIO** and **VIDEO** cables picture quality will be improved and you will be able to enjoy stereo sound when playing tapes.

Back view of playing VCR

Place the video tape that you wish to record **FROM** into this VCR.



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.

Specifications

General

Power	100-240 V ~, 50/60 Hz
Power consumption	Approx. 14 Watts (Save Energy mode: 3 Watts)
Video heads	4 heads
Tape speed	PAL/MESECAM: 23.39 mm/s (SP mode) 11.69 mm/s (LP mode) NTSC: 33.35 mm/s (SP mode) 16.67 mm/s (LP mode: Playback only) 11.12 mm/s (EP mode)
Maximum recording time	4 hours (SP mode, E-240 tape) 8 hours (LP mode, E-240 tape) 8 hours (EP mode, T-160 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

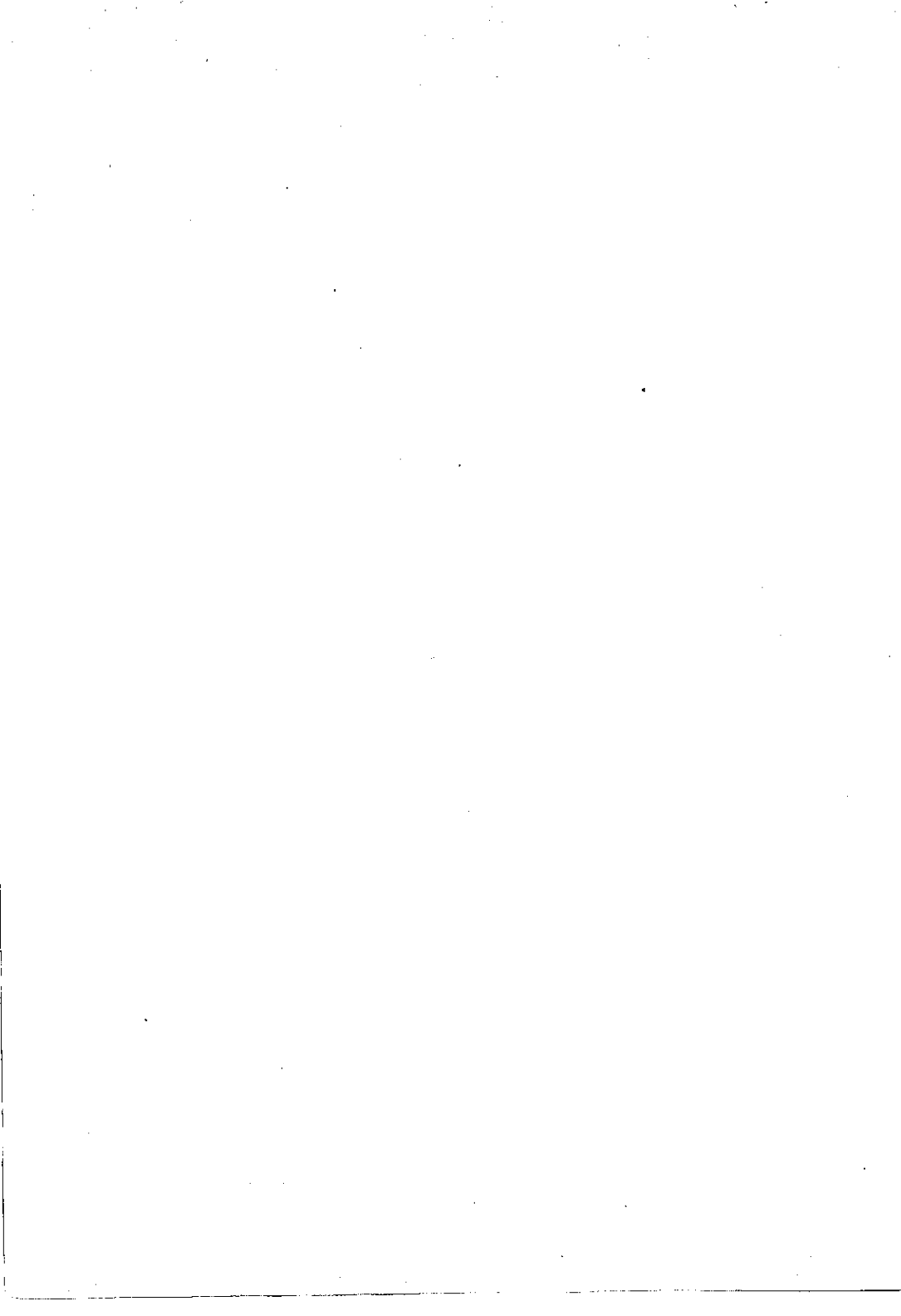
Television system	CCIR standard (625 lines, 50 fields) PAL (B/G, D/K)/SECAM (B/G, D/K) colour signal
Recording format	PAL/MESECAM/ NTSC3.58/NTSC4.43
RF OUT	G
RF Modulator	UHF-28-68 (Adjustable)
Input level	VIDEO IN (RCA type) 1.0 V(p-p), 75 Ohms, unbalanced
Output level	VIDEO OUT (RCA type) 1.0 V(p-p), 75 Ohms, unbalanced
Signal to noise ratio	More than 43 dB
Audio	AUDIO IN (RCA type) -3.8 dBm, more than 47 kohms
Input level	AUDIO OUT (RCA type) -3.8 dBm, less than 1.5 kohms
Output level	Mono track & HI-FI track
Track	Normal: 100 Hz-10 KHz (-6/+3 dB)
Frequency response	HI-FI: 20 Hz-20 KHz (-3/+3 dB)
Signal to noise ratio	Normal: More than 43 dB (at SP mode) HI-FI: More than 70 dB (at SP mode)
Dynamic range	HI-FI: More than 80 dB (at SP mode)

Troubleshooting Check List

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



SANYO

SANYO Electric Co., Ltd.
Printed in Indonesia

3834RP0063F
KR4HN/A2 (0401)