

You must tune your television for the VCR only if you are not using a RCA cable.

- To view pictures from your VCR when a RCA cable is used, the television must be set to the audio/video mode (AV). >
- 1 Switch on the television.
- 2 Switch on the VCR by pressing STANDBY/ON on the front of the VCR or STANDBY/ON on the remote control.
- **3** Select a programme position on the television to be reserved for use with your VCR.
- 4 Insert the video cassette in the VCR. Check that the VCR starts reading the cassette; if not, press ► button. Start a scan on your television or set the television to
- Result: The INSTALLATION menu is displayed. 4 Press the corresponding riangle or riangle buttons, until the cursor is placed in front of the TV SYSTEM option. **5** Press the \triangleleft or \triangleright buttons to select G or K.

You must choose the sound mode (G or K)

1 Press MENU on the remote control

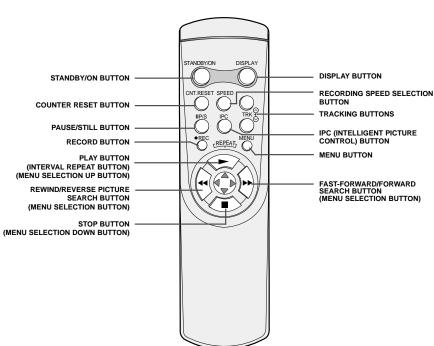
3 Press \bigtriangledown button to select this option.

the INSTALLATION option.

according to the TV set connected to your VCR.

6 On completion, press MENU twice to exit the menu. Then tune your television again.

Infrared Remote Control



Inserting Batteries in the Remote Control

You must insert or replace the batteries in the remote control when

- Purchase the video cassette Recorder ٠
- Find that the remote control is no longer working correctly 1 Push the tab in the direction of the arrow to release the battery
- compartment cover on the rear of the remote control. 2 Insert two AA, R6 or equivalent batteries, taking care to respect the
- polarities + on the battery with + on the remote control - on the battery with - on the remote contro
- **3** Replace the cover by aligning it with the base of the remote control and pushing it back into place.
- Do not mix different battery types (manganese and alkaline for example)



This function allows you to play back any pre-recorded cassette.

- 1 Switch on both the television and your VCR.
- 2 Select the AV input on the television for use with your VCR.
- Insert the video cassette to be played. If the safety tab on the cassette is intact, press ▶ button. Otherwise, the cassette is played automatically.
 ➤ When a cassette is loaded, the tape position is optimized automatically to reduce disturbance (Digital Auto Tracking). When playing a cassette, if the end of the tape is reached, the cassette is

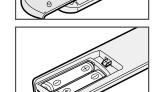
4	То	Then press
	Stop the playback	(STOP).
	Eject the cassette	(EJECT).

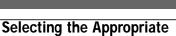
Adjusting Picture Alignment Manually

The Fine Adjustment feature allows you to adjust the alignment manually to obtain the best possible picture.

When noise bars or streaks appear during playback, adjust alignment manually by pressing the TRK (or O) buttons until the picture is clear and stable. The tracking bar appears.

Intelligent Picture Control





System Standard

required system standard. Otherwise, the system automatically selects the reception standard when

- - compatible), set NT4.43 and you can record NT4.43

- **2** Press the corresponding \triangleleft or \triangleright buttons, to select
- **3** Press the \bigtriangledown button to select this option.
- Result: The USER SET menu is displayed
- 4 Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the COLOUR SYSTEM option.
- **5** Press the \triangleright button to select AUTO \rightarrow PAL \rightarrow
- MESECAM \rightarrow B/W or NT4.43 \rightarrow NTPB. AUTO When playing back a cassette, the system B/W Black and White
- 6 On completion, press MENU twice to exit the menu.

- Result: The programming menu is displayed. **2** Press the corresponding \triangleleft or \triangleright buttons, to select Result:
 - The image is adjusted.
 - The tracking bar disappears when you release the button.

Before recording a cassette, you can select the

- you select AUTO. \succ
 - When playing back a cassette, the standard is automatically selected by the VCR.
 When you playback an NTSC-recorded tape on this VCR make a setting on the color system according to your TV. If your TV is a PAL system only TV, set NTPB. If your TV is Multi System TV (NTSC 4.43 compatible) set NT4 43 and you can record NT4 43

1 Press MENU on the remote control. <u>Result</u>: The programming menu is displayed

- the USER SET option

- standard is automatically selected by the VCR.

rewound automatically

-	10	men press
	Stop the playback	(STOP).
	Eject the cassette	▲ (EJECT).

- UHF channel 36
- 6 Fine tune the television until the pictures and sound are obtained clearly.
- 7 If you cannot find the pictures and sound, or there is interference from nearby channels, change the VCR OUTPUT CHANNEL to adjust the frequency.
- **8** When the picture and sound are perfectly clear store this channel at the desired programme position on the television. <u>Result</u>: That programme is now reserved for use with your VCR.

Setting the VCR Output Channel

Your VCR output channel may need to be changed if the pictures suffers from interference or if your TV cannot find the pictures. Also, you can change the VCR output channel to adjust the frequency in which information is displayed on the screen.

- 1 Press MENU on the remote control. Result: The programming menu is displayed
- $\textbf{2} \hspace{0.1 cm} \text{Press the corresponding} \hspace{0.1 cm} \triangleleft \hspace{0.1 cm} \text{or} \hspace{0.1 cm} \triangleright \hspace{0.1 cm} \text{buttons, to select}$ the INSTALLATION option.
- 3 And then press \bigtriangledown button to select this option Result: The INSTALLATION menu is displayed
- **4** Press the \triangle or \bigtriangledown buttons, until the cursor is placed in front of the VCR OUTPUT CH option.
- 5 Select the required output channel (CH21~CH69) by pressing the \triangleleft or \triangleright buttons.
- 6 On completion, press MENU twice to exit the menu. Then tune your television again.

Intelligent picture control feature allows you to adjust the sharpness of the image automatically according to your own preferences.

1 During playback, press the MENU button on the remote control

Result: The menu is displayed.

- $\textbf{2} \hspace{0.1 cm} \text{Press the corresponding} \hspace{0.1 cm} \triangleleft \hspace{0.1 cm} \text{or} \hspace{0.1 cm} \triangleright \hspace{0.1 cm} \text{buttons, to select}$ the USER SET option.
- 3 Press the \bigtriangledown button to select this option Result: The USER SET menu is displayed
- 4 Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the IPC option.
- ${\bf 5}~$ Press the $\,\triangleright\,$ button to select the IPC (intelligent picture control) option.
 - Press the IPC button on the remote control.
 - Result: The **PICTURE** menu appears on the display.
 - \succ When intelligent picture control mode is **on**, the sharpness of the image is adjusted automatically
- **6** To adjust the sharpness manually, press the \bigtriangledown button to turn the IPC mode OFF.
- **7** Press the \triangleleft or \triangleright buttons until the picture is displayed according to your preferences. To adjust the sharpness manually press the SHARPNESS \blacktriangle or \checkmark button on the front of the VCR.
 - \succ If you do not press a button within ten seconds, the PICTURE menu disappears automatically.

8 On completion, press the MENU button again.

Playing a Sequence Frame by Frame

You can

- Stop the cassette at a given frame (image)
- Advance one frame at a time
 No sound is heard when playing back frame by frame

1 Press

- to start playing the cassette
- IIP/S to stop the tape at a given frame IIP/S to advance frame by frame
- 2 To return to normal playback, press ►
- When you have been using the Frame-by-Frame function for more than about five minutes, the VCR will automatically play to protect the cassette and video heads.
- Vertical stability: When playing back frame by frame, interference may be seen on the screen. Press the TRK (\bigotimes or \bigotimes) buttons to minimize this >effect.

Using the Tape Counter

The tape counter

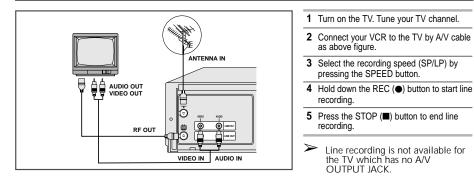
- Indicates the elapsed time in the play and record modes
- Is reset when a cassette is inserted in the VCR Allows you to find the beginning of a sequence easily
- If the remaining time is to be calculated correctly you must indicate the type of cassette being used

1 Insert a cassette in your VCR.

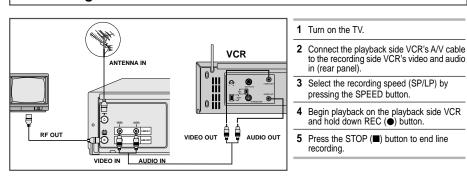
- 2 Press DISPLAY.
- The tape counter does not necessarily start from zero at the beginning of the tape.
- ${\bf 3}~$ To set the tape counter to zero at the beginning of a
- sequence: Press DISPLAY twice to display the counter
 Press CNT.RESET when you want to set the tape counter to zero
- 4 When you are ready, ◆ Start playback or Recording.

 - ♦ Press the button. To fast-forward or rewind to the sequence at which
- the counter was set to zero, press \blacktriangleleft or \blacktriangleright . <u>Result</u>: The VCR stops automatically when the counter
- reaches zero.
- Some VCR information, such as the counter, can be displayed on the television screen Press DISPLAY
 - Once to display the current function, recording
 - speed and counter
 - Twice to display the counter only Three times to display the time remaining on the
 - cassette
 - Four times to clear the display

Recording From TV



Recording from Another VCR



Selecting the Recording Speed

- You can record a cassette at two different speeds: SP (Standard Play)
- ◆ LP (Long Play)
- In Long Play modes:
- Each cassette lasts twice as long The recording is of a slightly lower quality ٠

To record a cassette	Press the SPEED button on the remote control, until
n standard play mode	sp is displayed.
n long play mode	LP is displayed.

Туре	Recording Time (in SP)
E-180	180 mins. or 3 hours
E-240	240 mins. or 4 hours
E-260	260 mins. or 4 hours and 20 mins.
E-300	300 mins. or 5 hours

Selecting the Cassette Type

If you wish to use the tape counter to display the time remaining on a cassette, you must indicate the type of cassette inserted.

- 1 Press MENU on the remote control. Result: The menu is displayed.
- **2** Press the \triangleleft or \triangleright buttons, to select the USER SET option.
- 3 Press the ▽ button to select this option. <u>Result</u>: The USER SET menu is displayed
- **4** Press the \triangle or \bigtriangledown buttons, until the cursor is placed in front of the TAPE SELECT option.
- **5** Press the \triangleleft or \triangleright buttons as many times as required, until the correct cassette length is displayed.
 - ► E180 ---- E240 - E 300 🛥 E260 🛥
- 6 Press MENU twice to exit the menu.

Auto Power Off

The Auto Power Off feature automatically turns off your VCR if no signal is received and you do not press any button for the selected time.

- 1 Press MENU on the remote control. Result: The menu is displayed.
- **2** Press the corresponding \triangleleft or \triangleright buttons, to select the EASY OPERATION option.
- 4 Press the corresponding riangle or riangle buttons, until the cursor is placed in front of the AUTO POWER OFF option.
- 5 Press the ▷ button, until you select the time of Auto Powter off intervate 2HOUR 3HOUR OFF
- 6 On completion, press MENU twice to exit the menu.

Interval Repeat Play

You can set interval repeat play to repeat the cassette several times for special interval.

- 1 Press MENU on the remote control. Result: The menu is displayed.
- 2 Press the corresponding ⊲ or ▷ buttons, to select the EASY OPERATION option.
- **3** Press the \bigtriangledown button to select this option. Result: The EASY OPERATION menu is displayed.
- 4 Press the corresponding △ or ▽ buttons, until the cursor is placed in front of the NO. OF INTERVAL REPEAT option.

5	То	Press ▷, until
	Interval repeat play	5, 10, 15, off is displayed. (choose repeat time 5 times, 10 times, 15 times)
	Cancel interval repeat play	OFF is displayed.

- 6 On completion, press MENU twice to exit the menu.
- 7 To select interval during playback, press the REPEAT button at the desired start point. <u>Result:</u> "INTERVAL REPEAT SETTING" is displayed. Press the REPEAT button one more time at the desired end point Result: The tape is automatically rewound to the start point. "INTERVAL REPEAT" is displayed.

Auto Repeat Play

You can set repeat play to repeat the tape continuously from beginning to end

- 1 Press MENU on the remote control Result: The programming menu is displayed
- **2** Press the corresponding \triangleleft or \triangleright buttons, to select the
- EASY OPERATION option. **3** Press the \bigtriangledown button to select this option.
- Result: The EASY OPERATION menu is displayed.
- $\textbf{4} \hspace{0.1 cm} \text{Press the corresponding} \hspace{0.1 cm} \bigtriangleup \hspace{0.1 cm} \text{or} \hspace{0.1 cm} \bigtriangledown \hspace{0.1 cm} \text{buttons, until the}$ cursor is placed in front of the REPEAT PLAY option.
- 5 То... Press *4* or *▶*, until... Repeat play ON is displayed. Do not wish to OFF is displayed. repeat play
- 6 On completion, press MENU twice to exit the menu.

Displaying/Hiding On-Screen Information

Your VCR displays most information both on the VCR and the television.

You can choose to display or hide this information on the television screen.

- 1 Press MENU on the remote control Result: The programming menu is displayed
- **2** Press the corresponding \triangleleft or \triangleright buttons, to select the USER SET option.
- 3 Press the \bigtriangledown button to select this option. Result: The USER SET menu is displayed
- 5 To.. Press *⊲* or *▷*, until... Display on-screen on is displayed information Hide on-screen OFF is displayed.
- 6 On completion, press MENU twice to exit the menu.

information

Technical Specifications

Design and specifications are subject to change without notice.

Format	VHS PAL standard	
Heads	Video: 2 rotary heads / Audio/Control: 1 stationary head	
	Erase: 1 full track erase head	
Television system	STANDARD G, K	
Luminance	FM azimuth recording	
Colour system	PAL/MESECAM/NT4.43: Down converted subcarrier phase shifted direct	
	recording	
	NTSC PB on PAL TV	
Tape speed	(PAL/MESECAM) (NTSC)	
	SP: 23.39 mm/sec SP: 33.35 mm/sec	
	LP: 11.69 mm/sec SLP: 11.12 mm/sec	
Recording/playback time	SP: 3 hours (E-180 Tape)	
	LP: 6 hours (E-180 Tape)	
REW time	About 60 sec in REW with E-180	
VIDEO		
Input	0.5 to 2.0 Vp-p; 75 ohm unbalanced	
Output	1.0 ± 0.2 Vp-p; 75 ohm unbalanced	
AUDIO		
Input	-8 dBm, 47 Kohm unbalanced	
Output	-8 ± 3 dBm, 1 Kohm unbalanced	
Frequency response	100Hz - 8KHz	
Power requirement	110-240V~50/60 Hz	
Power consumption	Approx. 13 watts	
Operation temperature	41°F-104°F (5°C-40°C)	

You can copy a cassette to your VCR from another video source, such as another VCR.

- It is an infringement of copyright laws to copy prerecorded cassettes or to re-record them in any form without the permission of the owners of the corresponding copyright
- \succ Video cassettes have a safety tab to prevent accidental erasure. When this tab has been removed, you cannot record on the tape.
 - If you wish to protect a cassette, break off the tab using a small screwdriver.
 - To re-record over a protected cassette (safety tab broken), cover the hole with adhesive tape.

Operation numbers	10%-75%	
Weight	2.8 Kg (net)	
Dimensions (WxHxD)	360 x 94 x 240 mm	