

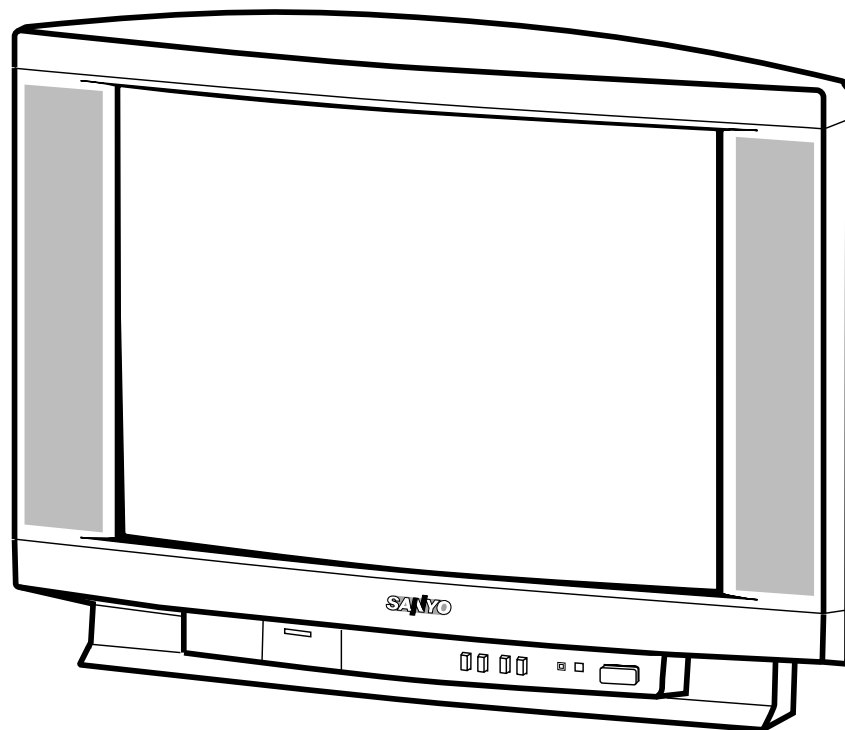
SANYO

INSTRUCTION MANUAL

CE21DN9-B
CE25DN9-B



Colour Television



**Please read this Instruction book before using your television.
We wish you many hours of pleasure from your new television.**

SAFETY PRECAUTIONS

CAUTION: Please read and retain for your safety. This unit has been engineered and manufactured to assure your personal safety. But improper use can result in potential electric shock or fire hazards. In order not to defeat the safeguards incorporated in this receiver observe the following basic rules for its installation, use and servicing.

Installation

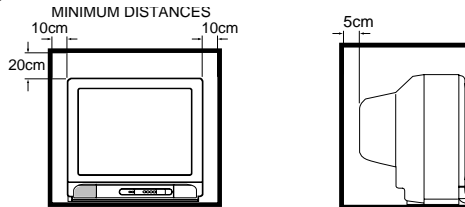
Do not allow anything to rest on the power cord. **Do not** locate this television receiver where the cord will be damaged by people walking on it.

Do not overload wall outlets and extension cords as this can result in fire or electric shock.

Slots and openings in the cabinet and in the back or bottom are provided for ventilation to ensure reliable operation and to protect it from overheating. These openings **must not** be blocked or covered. The opening **should never** be covered with a cloth or other material, and the bottom openings **should not** be blocked by placing the television receiver on a bed, sofa, rug, or other similar surface. This television receiver **should never** be placed near or over a radiator or heater.

Do not place your television receiver on an unstable stand, shelf or table. Serious injury to an individual, and damage to the television may result if it should fall. Your sales person can recommend approved stands or shelf and wall mounting instructions.

This television receiver **should not** be placed in a built-in installation such as a bookcase unless proper ventilation is provided.



If the television is built into a unit, or enclosed, the minimum distances for ventilation must be maintained. Heat build up can reduce the life of your television, and can be dangerous.

Servicing

Your television is fully transistorised and does not contain any user serviceable components.

You must not remove the rear cover of the TV by yourself. The apparatus is working with high voltages and could damage objects or even endanger people. Leave all required repair and service jobs to an authorised service technician. He will exclusively use such spare parts that are complying with the same safety standards as applicable to the original parts. The use of original spare parts can prevent fire, shock and other hazards.

Unplug the television receiver from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- If the power cord or plug is damaged.
- If liquid has been spilt into the television receiver.
- If television receiver has been exposed to rain or water.
- If the television receiver has been dropped or the cabinet has been damaged.
- If the television receiver exhibits a distinct change in performance.
- If the television receiver does not operate normally by following the operating instructions.



Adjust only those controls that are covered in the operating instructions as improper adjustment of other controls may result in damage. This will often require extensive work by a qualified technician to restore the television receiver to normal operation.

Use

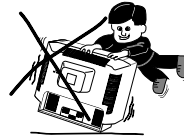
This television receiver should be operated only from the type of power source indicated on the television or as indicated in the Operating Instructions. If you are not sure of the type of power supply in your home, consult your sales person or your local power company.

Never add accessories that have not been specifically designed for this television.

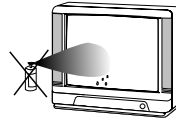


Do not drop or push objects into the television cabinet slots or openings. Some internal parts carry hazardous voltages and contact may result in an electric shock hazard. **Never** spill liquids of any kind on the television receiver. **Do not** place items such as vases containing liquid on top of the TV set.

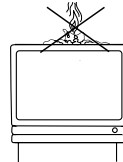
Do not expose the television receiver to rain or use near water. For example, near a bathtub, kitchen sink, in a wet basement, etc. Before cleaning, unplug the television receiver from the wall socket.



Never stand on, lean on or push the television or its stand. **Never** allow children to play with the television or its stand. Serious injury may result if it should fall.



Do not apply liquid cleaners or aerosol cleaners directly onto the television receiver. Use a damp cloth for cleaning.



Do not place candles or hot objects upon the TV, next to it or behind it. Open flames must never be used near the TV set.

Important:

This equipment is fitted with an approved non rewirable UK mains plug. To change a fuse in this type of plug proceed as follows:

1. Remove the fuse cover and fuse.
2. Fit a new fuse which should be a BS1362 5Amp A.S.T.A. or BSI approved type.
3. Ensure that the fuse cover is correctly refitted.

If the fuse cover is lost or damaged the plug must **NOT** be used but replaced with a serviceable plug.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place. If the mains plug contains a fuse, this should have a rating of 5 Amp, ensure the fuse cover is correctly fitted. If a plug without a fuse is used, the fuse at the distribution board should not be greater than 5 Amp.

Note: The severed plug must be destroyed to avoid a possible shock hazard should it be inserted into a 13Amp socket elsewhere.

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

Blue -----> **Neutral**
Brown ----> **Live**

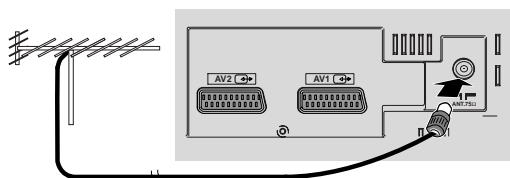
1. The Blue wire must be connected to the terminal which is marked with the letter "N" or coloured BLACK.
2. The Brown wire must be connected to the terminal with the letter "L" or coloured RED.
3. **Do not** connect either wire to the earth terminal in the symbol or coloured GREEN or GREEN and YELLOW.

Before replacing the plug cover, make certain that the cord grip is clamped over the sheath of the lead - not simply over the wires.

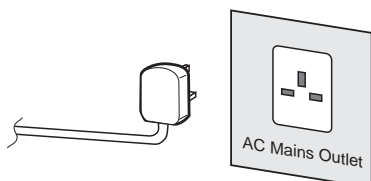
INSTALLATION

Step : 1 Connections (Essential)

Connect your aerial cable into the back of the TV set.



Connect the power cord of the TV set to a wall outlet.



✂ The TV set is prepared for a mains voltage AC220~240V, 50Hz and is fitted with a single pole mains ON/OFF switch. To completely switch off from the mains, or when the TV set is not to be used for an extended period of time it is advisable to disconnect the power cord from the power outlet.

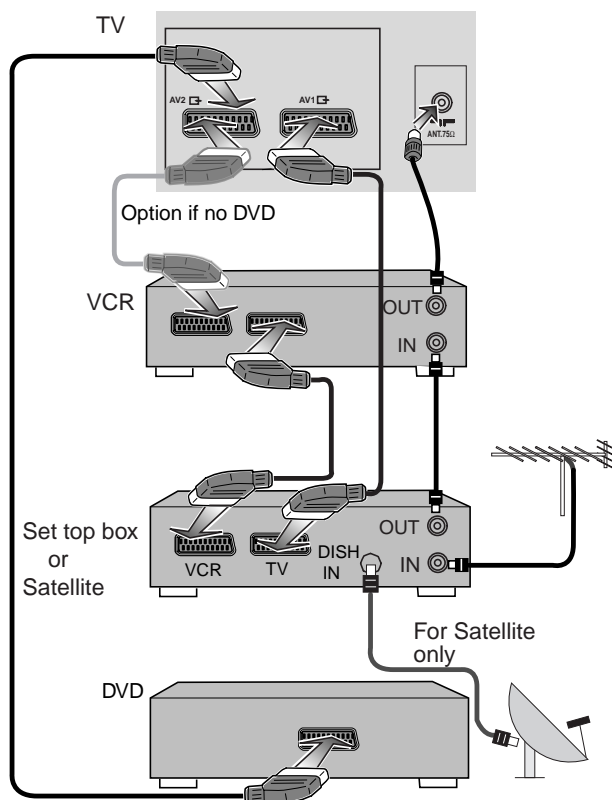
✂ For all aerial problems please consult your local dealer.



WARNING! High voltages are used in the operation of this set. Refer service to qualified service personnel.

● Connecting DVD / VCR player/ Satellite receiver or Set top box.

We recommend that you connect all other equipment before Plug and Play. The following example is our recommended standard connection. For further information please consult your local dealer.



Please refer to individual Instruction Manuals for each piece of equipment for their connection suggestions.

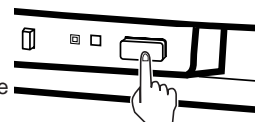
Step : 2 Remote control battery installation

Install two "AA" 1.5 volt batteries so that the "+" and "-" marks on the batteries match the "+" and "-" marks inside the unit into the remote control handset.

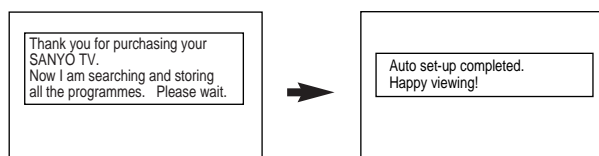
Step : 3 Switching on / Plug & Play

Press the **Mains on off switch** on the front of the TV set.

This TV set provides a self- automatic tuning function called Plug and Play which automatically searches and stores all of the available TV stations in your reception area.



A welcome message will appear, once this has finished the following screen appears.



To remove the completed message press the **MENU** button.

Now the installation is complete!

After Plug & Play the TV set will automatically sequence the following major stations in the UK starting from programme position 1.

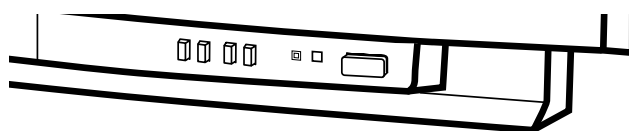
- BBC1
- BBC2
- ITV
- CH4
- CH5
- SKY, BBC-World, or BBC-Prime.

✂ Any other channels found will be stored sequentially as they are found after the major stations.

✂ If you move to another city or cable is installed, please follow the description "PRESET". (on page 6).

✂ This procedure only appears the first time you switch on.

TV front controls / Terminals



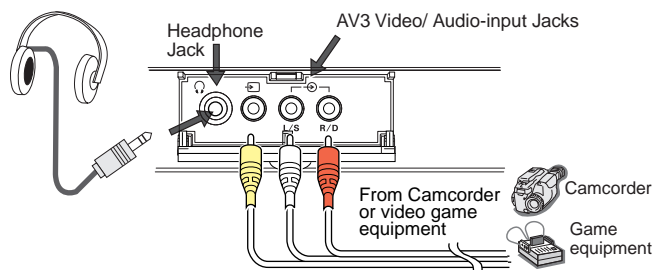
▶▲ or P▼ increases or decreases the programme position.

▲+ or ▼- increases or decreases the sound volume.

■ Front terminals







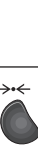








✂ To select the AV3 mode press the **TV/□** button repeatedly.




✂ When the headphones are inserted the sound from the TV speakers are muted.














GENERAL OPERATION - REMOTE CONTROL

General use

	Standby / Power on-off - To switch the TV ON and OFF.
	Direct programme selector For direct access to programmes using (0-9) numeric buttons. For selection of programme position 10-99, eg.23, first press -/- button and press 2 and 3 numeric buttons.
	TV/AV switch - To switch to TV, AV1, AV2 or AV3 mode press repeatedly.
	Sound mute To mute the sound from the speakers. The sound changes as follows; Normal volume -> Mute
	16:9 format signal reception - Press the WIDE button and select Full or Squeeze to change your picture shape if the transmission received is 16:9 instead of 4:3.
	Nicam/Bilingual selector To switch the sound mode as follows; NICAM or Mono for nicam stereo programmes. A,B or Mono for nicam bilingual programmes. You can also select the sound track L (left), R (right) or L/R in AV mode.
	Picture mode selection Press the →← button repeatedly to select the following picture modes. Personal - Personal preference mode. Standard - Normal viewing mode. Eco - Suitable for dimly lit rooms and gives a cinema - like effect. Dynamic - Suitable for brightly lit rooms.
	Programme information call To display the programme information.  You can also select colour systems in AV mode as follows AUTO -> PAL -> SECAM -> NTSC4.43 -> NTSC3.58 ->
	Surround mode selector This TV provides an incredible 3 Dimensional sound effect. Max : Gives the optimum 3D surround effect. Mid : For Nicam-mono broadcasting. Off : To cut off 3D surround effect. Optimum positioning Sit at a distance of approximately 2 to 4 meters from the TV set. Listen facing the centre of the TV set. Remove any obstructions between you and the TV set.
	Virtual Sub woofer On / Off To get an emphasised bass sound.
	Time display In the TV mode, if the teletext is available the teletext clock will be displayed press repeatedly to switch on and off.
	Programme swap To switch between current and previous programme position watched.
	Menu - See pages 5 and 6.
	Programme down/up To select the next programme number or previous programme number. Also operates as up and down cursor.

	Level up/down To adjust the sound volume level. Also operates as left and right cursor.
	F/OK button - Use in Menu option.
	CS button Press button once to scan through all current channels already tuned in (except skipped channels). Press any button again to cancel.

Teletext

	Teletext - This is a free service to give you lots of varied information such as news, sports results, weather and travel features.
	 To access this feature press the TXT/TV button the picture changes from TV - TXT - MIX and back to TV.
	 Direct access to a page All the numeric buttons can be used to select a page number directly. If you need page 301, press 3 then 0 and then 1.
	 Direct access to subject headings Coloured boxes are displayed at the bottom of the screen. the 4 coloured buttons give access to the corresponding subjects or pages.
	Index page selector - This selects one of the teletext index pages.
	Up / down page access - Press the button to select the next page or previous page number.
	Sub page access Some text pages are made up of several sub pages which rotate automatically if you wish to view P4 of 8 press the sub page button. "S----" will appear. Enter 0004.
	Cancel - To view the TV picture in the teletext mode while waiting for sub page to change or page to update.
	Hold - This stops the sub pages from changing. The word "HOLD" will appear instead of the page number.
	Size switch - This will make either the top half or the bottom half of the page expand to fill the whole screen.
	Reveal switch - This reveals hidden items on the teletext page eg: a hidden answer to a quiz question.
Teletext reception If your aerial signal is poor, the teletext reception operation may be erratic.	
Teletext brightness level You can change the teletext brightness level. Please return to TV mode.(See Picture menu -Text Brightness on page 5).	
Sound volume control In teletext mode sound volume and muting can be controlled. However they are not displayed on the screen.	





MENU OPERATION

Many of your TV's functions are controlled through the menu function.

Main menu

Sound	Volume	
	Balance	
	Bass	
	Treble	
	Surround	Mid / Max / Off
Picture	Brightness	
	Contrast	
	Colour	
	Sharpness	
	Tint (only when NTSC is detected)	
	Dyn. skin tone	On / Off
	Picture level	Personal / Standard / Eco / Dynamic
	Text brightness	Maximum / Centre / Minimum
Setting	Child lock	On/Off
	AV2	S-Video / Video
	Off Timer	Off / 5 / 10 / 15 - 120
Preset	Program sort	▶
	Auto sort	OK?
	Program pos.	12
	Program name	Sky
	Frequency	799.12 MHz
	Skip	Off / On





During the menu operation the following buttons are used.

- MENU**  : To enter the menu function.
-  : To go back and to exit the menu function.
-  : To navigate up and down in the menus.
-  : To navigate forwards to the next screen or to activate settings.

Sound menu

Press the **MENU** button and select **Sound - Volume etc.**





Select and adjust to obtain the best sound settings for your environment.

Sound	
◆ Volume	25 
Balance	1 
Bass	2 
Treble	-2 
Surround	Off / Mid / Max

Picture menu

Press the **MENU** button and select **Picture**.

Select and adjust to obtain the best picture settings for your environment.

Picture	
◆ Brightness	20 
Contrast	25 
Colour	26 
Sharpness	22 
Dyn. skin tone	On / Off
Picture level	Personal / Standard / Eco / Dynamic
Text brightness	Minimum / Centre / Maximum

Tint : Colour phase if NTSC equipment is detected.

Dyn. Skin tone: Makes the skin tone more realistic.

Picture Level: Rotates between your **Personal** settings, **Standard**, **Eco** and **Dynamic** .

Text brightness : Brightness of Teletext screen Minimum / Centre / Maximum.

Setting menu

■ Child lock

You can prevent small children from operating the TV with the front buttons of the TV set.

Press the **MENU** button and select **Setting** and then **Child lock**.

Setting	
Child lock	On / Off
AV2	S-Video / Video
Off timer	Off / 5 / 10.....120

The child lock mode will be reset to "Off" when the TV set is switched off with the **Mains ON/OFF (I)** switch.

■ Setting of AV2 input mode

If you use a VCR which has S-VHS, you should connect it to AV2 and change the AV2 menu to S-Video.

Press the **MENU** button and select **Setting** and then **AV2**. Change to S-Video or Video.

■ Off-timer setting


The Off timer will switch the TV set into the standby mode when the selected time has elapsed.

Press the **MENU** button select **Setting** and then **Off timer**.

◆ Off Timer	Off / 5 / 10...../120
-------------	-----------------------

The time changes in 5 minute steps. The maximum time is 2:00hrs.

Once set the time will show on the screen with the remaining time.

⚡ If the TV set is switched off by the **Mains Switch (I)**, or  button on the remote control, or during Auto sort, the timer settings will be cancelled.

MENU OPERATION

Preset menu

The preset menu can be used to tune new channels, to reorder channels and their programme positions, and to make fine adjustments to the tuning.

The preset menu is used for the following.

Program sort : To rearrange channel positions after Auto sort.

Auto sort: To automatically search, sort and store in the order relevant to the **country** you are in and choose (see Country section).

Frequency : To manually search and add channels. To fine tune existing channels.

Preset	
◆ Program sort	▶
Auto sort	Busy / OK?
Program pos.	6
Program name	Sky
Frequency	631.25 MHz
Skip	On / Off

✎ Preset function can be disabled, see Hotel mode on page 7.

■ Program sort

1. Press Menu button and select **Preset**.
2. Select **Program sort**. Using ◀+, ▶- buttons and P▲ or P▼ buttons. Select which channel you want to move eg. Programme position 4. (highlighted yellow). Press (Green) Move button, the programme position number turns green. Screen shows Move to at the bottom.

Program sort		
1	7	13
2	8	14
3	9	15
4	10	16
5	11	17
6	12	18
▲ ▼ ◀ ▶ ■ Move ■ Delete		

3. Select programme position to move to eg. 2 . Press **Green Move** button again to move.
4. To delete a channel. Select the Programme position. ie.17. Press **Red** button. (highlights number red). Press **Red** button again to delete. Programme position 17 is now deleted.

Exit menu by pressing **MENU button** repeatedly.

■ Auto sort

1. Press the **MENU** button and select **Preset**.
2. Select **Auto sort** by pressing P▲ or P▼ buttons. Press the **F/OK** button to start automatically tuning, sorting and storing all available channels.

After completion Auto sort changes from Busy to OK?

3. Press the **MENU** button repeatedly to exit.

Note : Auto sort can be cancelled at any time by pressing any button except for the **F/OK** button.

: You can change the order of the station selection, by using the Program sort function.

■ Tuning - Frequency (Manual)

1. Press the **MENU** button and select **Preset**.
2. Select **Programme position** using the P▲ or P▼ buttons and select the programme position where you wish to preset a channel using the **0-9, -/+,** buttons or ◀+, ▶- buttons.
3. Select **Programme name** using the P▲ or P▼ buttons. Press the ◀+ button, the first character space turns yellow. Press the P▲ or P▼ buttons until the number or first letter you require appears (0-9, A-Z, a-z, ?, !, -, +). Press the ◀+ button to select the second character.

You can assign 7 characters of information. When finished press the ◀+ button repeatedly until no character is highlighted.

4. Select **Frequency** by using the P▼ button.

You can either...

- a) Enter the frequency using the 0-9 buttons.
- b) Press and hold the ◀+ or ▶- buttons until the frequency starts scanning (about 5 seconds), scanning will stop when a channel is found.
- c) Keep pressing to de-tune the frequency.

Repeat above until the correct channel is found.

5. Press the **F/OK** button to store the new frequency (it turns green).
6. Repeat for other programme positions if required.

■ Skip

Skip ON : In normal operation when the P▲ or P▼ button is pressed this position will be skipped.

Skip OFF : Position is not skipped when P▲ or P▼ button is pressed.

1. Press the **MENU** button select **Preset - Program. Pos.**
2. Select a program position that you wish to Skip.
3. Select **Skip** by pressing the P▼ button. Using ◀+ or ▶- buttons select On / Off.

Press **Menu** button repeatedly to exit.

✎ You can still view a programme position that has been skipped by using the numeric buttons to select the programme position directly.

WARRANTY TO CUSTOMER

TV Specifications

Common specification

Power source	AC 220~240V 50Hz
Television system	System I
Colour system	PAL/NTSC4.43 (PAL/NTSC4.43/NTSC3.58 in AV mode)
Channel coverage	UHF: 21-69,
Aerial input impedance	75 ohm
AV terminal	
AV1:	CENELEC Standard
Input:	Composite video, RGB and audio-L/R
Output:	TV-output with composite video and audio-L/R
AV2:	CENELEC Standard
Input:	Composite video, S-VHS and audio-L/R
Output:	Monitor-output with composite video and audio-L/R
Front AV terminal	
AV3:	RCA jacks
Input:	Composite video and audio-L/R

	<u>CE21DN9-B</u>	<u>CE25DN9-B</u>
Sound output (Continuous)	2 x 3W	2 x 3W
Picture tubes (inches)	21	25
Dimensions (WxHxD mm)	612 x 476 x 482	680 x 543 x 442
Weight (kg)	21	26

Sanyo U.K. Sales Ltd. (the company) warrants 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 of misuse by the user, is specifically excluded.
- 3: Unauthorised repairs, or any modification to the equipment which has not been expressly approved by the Company, shall render this warranty null and void.
- 4: Failure due to fair wear and tear of any item is specifically excluded.

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

Note: This warranty supersedes any other form of guarantee that may inadvertently have been enclosed with or attached to the product.

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 WARRANTY.
- 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 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.

Service Department,
Sanyo UK Sales,
(A Division of SANYO Europe Ltd.), Sanyo House,
Otterspool Way,
Watford, Hertfordshire, WD2 8JX.
Tel: 01923 246363