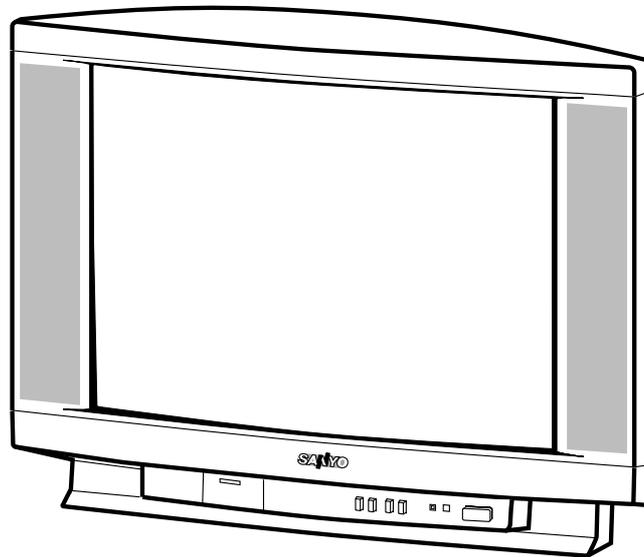


INSTRUCTION MANUAL

CE21DN8-B CE25DN8-B CE28DN8-B

Colour Television



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

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

	CE21DN8-B	CE25DN8-B	CE28DN8-B
Sound output (Continuous)	2 x 3W	2 x 3W	2 x 3W
Picture tubes (inches)	21	25	28
Dimensions (WxHxD mm)	612 x 476 x 482	680 x 543 x 442	736 x 597 x 494
Weight (kg)	21	26	32

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

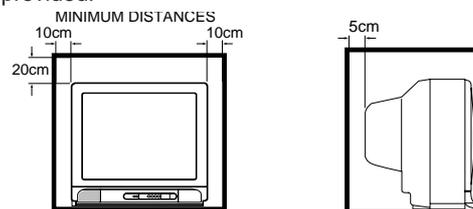
Do not allow anything to rest on the power cord. **Do not** locate this television receiver where the cord will be damaged by people walking on it.

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.

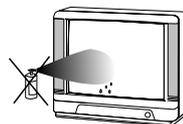


Do not drop or push objects into the television cabinet slots or openings. Some internal parts carry hazardous voltages and contact may result in an electric shock hazard. **Never** spill liquids of any kind on the television receiver. **Do not** place items such as vases containing liquid on top of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

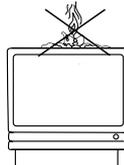
Do not expose the television receiver to rain or use near water. For example, near a bathtub, kitchen sink, in a wet basement, etc. Before cleaning, unplug the television receiver from the wall socket.



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

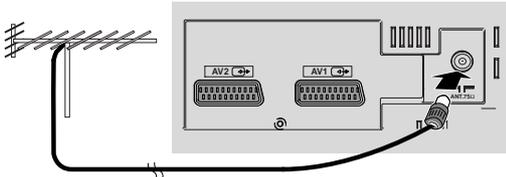
1. The Blue wire must be connected to the terminal which is marked with the letter "N" or coloured BLACK.
2. The Brown wire must be connected to the terminal with the letter "L" or coloured RED.
3. **Do not** connect either wire to the earth terminal in the symbol or coloured GREEN or GREEN and YELLOW.

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

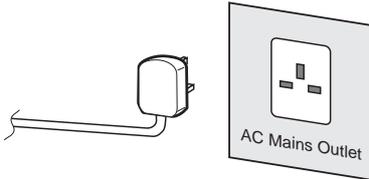
INSTALLATION

Step : 1 Connections (Essential)

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

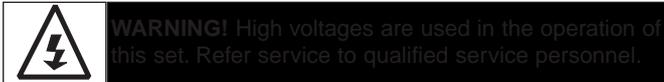


Connect the power cord of the TV set to a wall outlet.



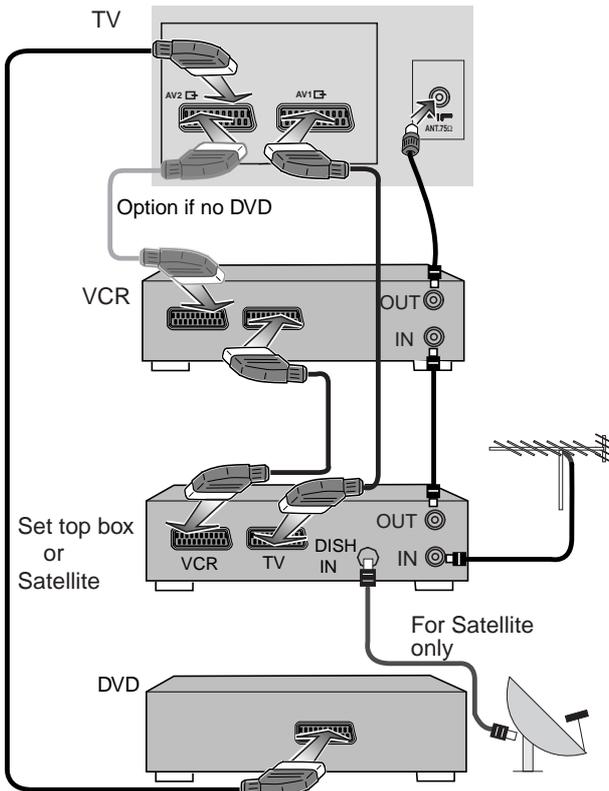
✂ The TV set is prepared for a mains voltage AC220~240V, 50Hz. When the TV set is not to be used for an extended period of time, it is advisable to disconnect the power cord from the power outlet.

✂ For all aerial problems please consult your local dealer.



● 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.

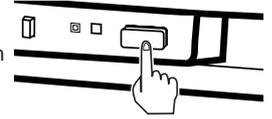
Step : 2 Remote control battery installation

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.

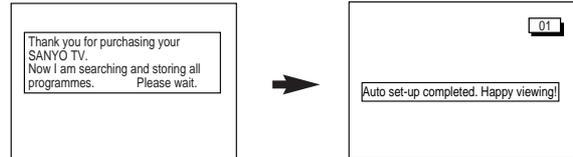
Step : 3 Switching on / Plug & Play

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 **PA**, **PV** or **▲+**, **▲-** buttons.

Now the installation is complete!

After Plug & Play the TV set automatically allocates the following major stations in the UK.

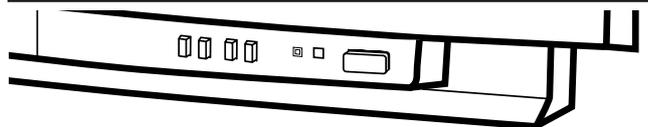
- Position 1 : BBC1
- Position 2 : BBC2
- Position 3 : ITV
- Position 4 : CH4 or S4C
- Position 5 : CH5
- Position 6 : SKY, BBC-World or BBC-Prime

✂ If any other channels are available in your reception area, the remaining stations will be stored from programme position 7 in sequence as found.

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

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

TV front controls / Terminals



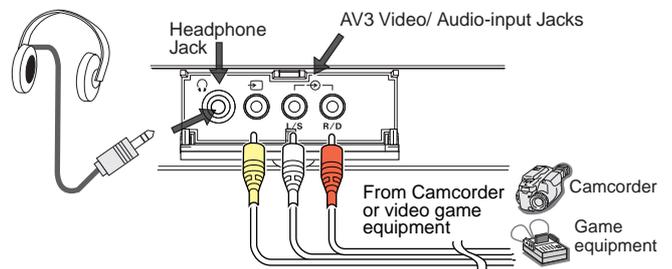
PA or **PV** increases or decreases the programme position.

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

■ Front terminals

✂ To select the AV3 mode press the **TV/E** 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 -> Half 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. <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>Sound Status</p> <ul style="list-style-type: none"> On-timer — STEREO ON 05:30 Off-timer — OFF 01:30 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p style="margin: 0;">03</p> </div> <div style="margin-left: 10px;"> <p>Programme Position No.</p> <p>BBC1 — Station Name</p> </div> </div> <p>You can also select colour systems in AV mode as follows AUTO-> PAL-> NTSC4.43-> NTSC3.58-></p>
	Surround mode selector This TV provides an incredible 3 Dimensional sound effect. Active : Gives the optimum 3D surround effect. Mono : 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.
	Bass expander switch To get an emphasised bass sound.
	Time display In the TV mode, if the teletext is available the teletext clock will be displayed on the screen for 5 seconds.
	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 - Press to store channel selection. (see CS button section).

CS button

To select channels directly. Press button to display current channel number on the screen. Press button repeatedly until **C--** appears and enter number eg. 5 and 9 for channel 59.
If you do not know the channel number press the **P▲** or **P▼** button to start channel searching. Repeat if not desired channel. The channel number changes from white to yellow momentarily when you press the **F/OK** button. This shows the channel is stored.

■ VCR / DVD controls

With selected Sanyo DVD/VCR players you can use this remote. The following table shows all available function buttons for the VCR and DVD. When you use a compatible Sanyo DVD player, first press and hold the DVD button and then press your desired function button.

VCR		DVD (blue symbols)
	Power	Power
	Play	Play
	Pause	Pause
	Stop	Stop
	Fast/Cue	Next chapter selection
	Rewind/Review	Previous chapter selection
	Record, press both buttons at the same time.	
	n/a	DVD command mode selection
	n/a	Enter
	n/a	Cursor selection

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. "Subcode ----" 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.
	Stop - This stops the sub pages from changing. The word "STOP" 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

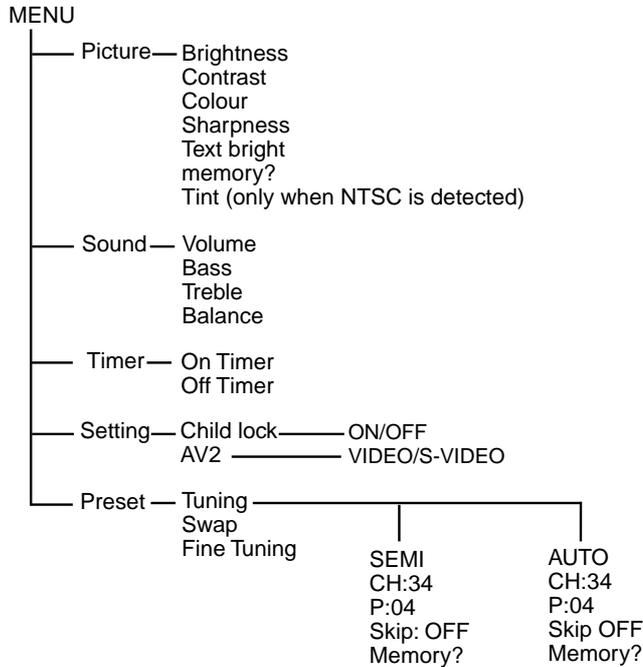
You can change the teletext brightness level. Please return to TV mode. (See Picture menu -Text Bright on page 5).

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.

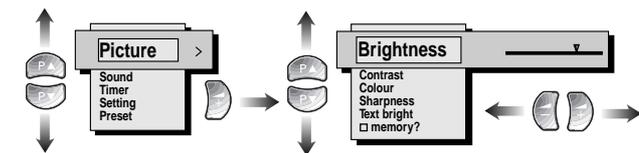


During the menu operation the following buttons are used.

- 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.

Picture menu

Press the **MENU** button and select **Picture - Brightness etc.**



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

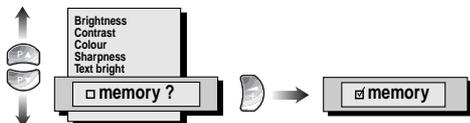
Text bright : Brightness of Teletext screen
MINIMUM / CENTRE / MAXIMUM.

Tint : Colour phase if NTSC equipment is detected.

■ Storing picture preferences

If you have altered any of the settings in the Picture menu you can store them. You can recall them again later by pressing the button.

In the picture menu select **memory**.

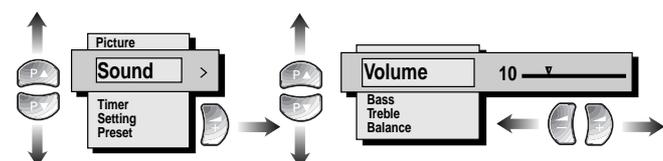


Press the button, a tick appears in the box and the settings are stored.

Sound menu

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

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



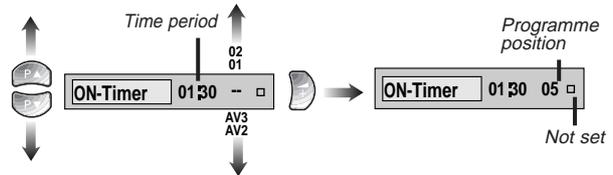
Timer menu

■ On-timer setting

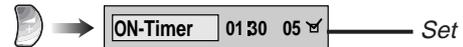
The On-timer will switch the TV on from the standby mode or change programme positions when the selected time period has elapsed.

Press the **MENU** button and select **Timer - ON Timer**.

When the time period --:-- is selected its colour changes to yellow. The time changes in 15 minute steps with a maximum of 24:00hrs.



When the start up programme position -- is selected its colour changes to yellow.



When you are ready to store your settings press the button and both the time period and the start up programme numbers turn green in colour. The tick appears as shown above and turns yellow.

If you switch your TV into standby it will switch on after the time elapses. If you do not switch into standby it will switch to the selected programme position.

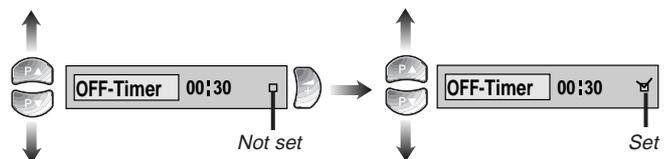
If the TV set is switched on by on timer the TV will automatically switch into Standby after 3hrs if no keys are pressed. This is a safety feature.

■ 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 **Timer - OFF Timer**.

When the time setting column is selected its colour changes to yellow. The time changes in 30 minute steps. The maximum time is 2:00hrs.



When you are ready to store your settings press the button and the setting column numbers colour changes to green. The tick appears as shown above and its colour changes to yellow.

If you have set the off timer, then one minute before the TV switches, a display appears on the screen.

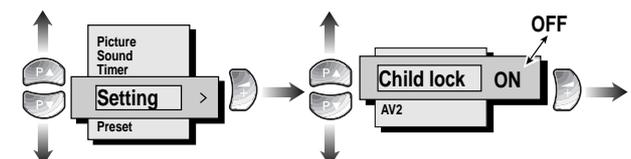
*✓ If the TV set is switched off by the **Mains Switch** , or you enter the preset mode, the timer settings will be cancelled.*

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 - Child lock**



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

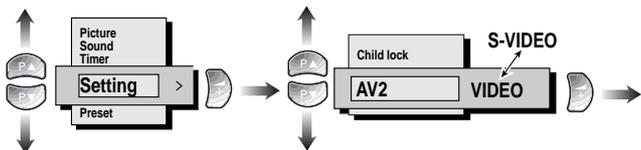
MENU OPERATION

Setting menu

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 - AV2**.



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.

There are two ways to tune in new channels.

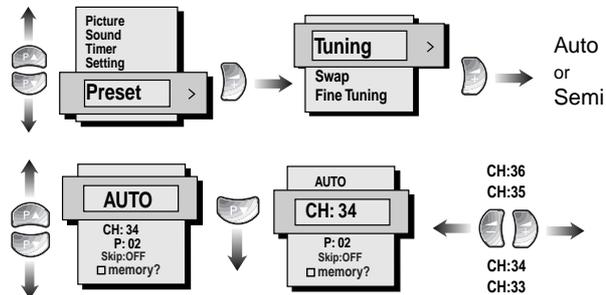
Auto : Searches for all channels and stores them automatically.

Semi : Manual search to add channels.

Tuning - Auto

1. Press the **MENU** button.
2. Select **Preset** press $\blacktriangleleft+$ then select **Tuning - Auto**.

Press the $\blacktriangleleft+$ or $\blacktriangleright-$, all available channels are stored.



To cancel this tuning operation, press the **MENU** button repeatedly.

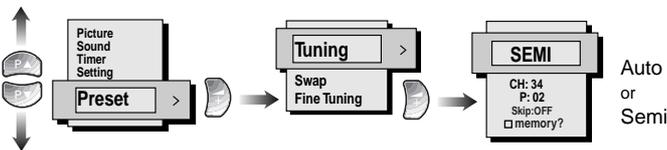
After completing this procedure, the TV set returns to normal TV mode and selects programme position "01".

You can change the order of the station selection, by using the channel swapping function detailed later.

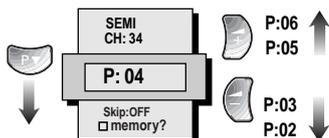
You do not need to use Memory function at this stage as all channels are automatically saved.

Tuning - Semi

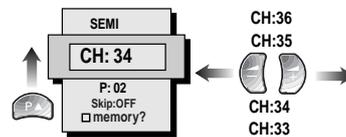
1. Press the **MENU** button.
2. Select **Preset**, press $\blacktriangleleft+$ then select **Tuning**, press the $\blacktriangleleft+$, select **Semi**.



3. Select the programme position where you want to store a channel.



4. Select the channel search and start searching by pressing the $\blacktriangleleft+$ or $\blacktriangleright-$ buttons.



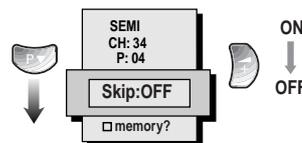
5. When a channel is located searching stops, If you do not want this channel press $\blacktriangleleft+$ or $\blacktriangleright-$ to search again.

You can enter a channel number directly with the 0-9 numeric buttons if you know the number.

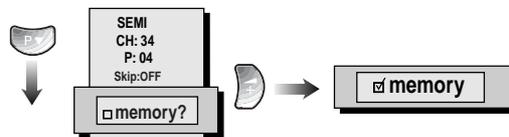
Skip

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.



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



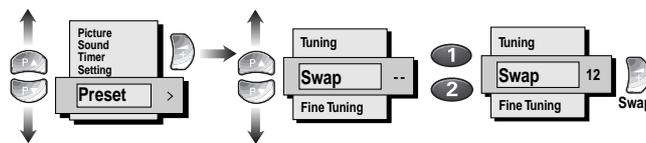
6. Select memory. Press $\blacktriangleleft+$ a tick indicates the channel is now stored.

Swap

Use this channel swapping feature to swap the channels between two stored programme positions. This feature is particularly useful after automatic tuning.

You have to choose a programme that you wish to swap on the TV set. eg. Swap programme position 4 and 12.

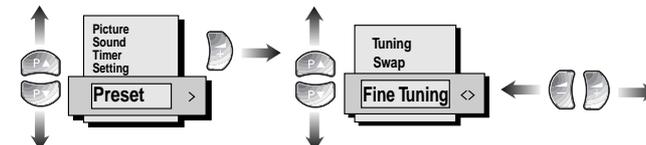
1. Select programme position 4.
2. Press the **MENU** button.
3. Select **Preset**. Follow the diagram below.



4. Enter the programme number, press $\blacktriangleleft+$ and the channels are swapped.

Fine tuning

1. Press the **MENU** button.
2. Select **Preset**. Follow the diagram below.
3. Press $\blacktriangleleft+$ to fine tune channels.



The tuning will be stored when you exit the menu.

■ Switching into /from standby mode

The Standby mode is used for switching the TV set off for short periods of time. In standby mode the TV is switched off but is still receiving mains power.

- To turn the TV set into standby mode, press the **⏻ button**.
The red power indicator illuminates more brightly.
- To turn the TV set ON from standby mode, press any of the following buttons: **⏻, P▲, P▼** or **0-9 buttons**.

If you find the power indicator flashing, please turn the TV set off completely with the Mains ON/OFF switch and contact our Service desk.

This warning is a sign to let you know that the power protection function of this TV set is now operating.

■ Auto shut off

This TV set will automatically switch into the standby mode, 10 minutes after a signal is no longer received. The time until the set will switch off is displayed on the screen.

✍ *When the TV set is switched on by using the ON-Timer function with no signal being received, this function will be ignored.*

Option settings

This TV set allows you to set up the following special functions.

■ Maximum volume setting and prohibition of pre-setting

Sets the current volume as the maximum volume level and prohibition of the tuning.

PROHIBITION OFF or PROHIBITION ON

■ Start up programme position

Presets the programme position when the set is switched on.

START POSITION OFF -> Last programme position start

START POSITION P1 -> Programme position "1" start

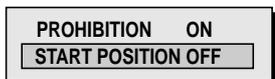
You can use the same procedure for P2, to P7.

START POSITION P8 -> Programme position "8" start

START POSITION AV -> "AV1" start

SETTING PROCEDURE

1. Press and hold the **□▼⏻ button** on the Remote control handset and then press the **P▲ button** on the TV set.
2. Use the **P▲** or **P▼ button** to highlight the desired option item from the menu, and select the mode by pressing the **◀-** or **▶+** button.



3. Press the **□▼⏻ button** to exit from the menu.

Helpful hints

■ NO PICTURE, NO SOUND

- Check if TV is plugged in.
- Try a different channel, if OK, probably station trouble.

■ POOR PICTURE, SOUND OK

- Adjust BRIGHTNESS control.
- Adjust FINE TUNING control.
- Check aerial connections.

■ NO COLOUR, PICTURE OK

- Adjust COLOUR control.
- Adjust FINE TUNING control.
- Is the programme in colour ?

■ WEAK PICTURE

- Check aerial connections on back of set.
- Check aerial for broken wires.
- Re-orient aerial.

The following faults are not caused by the receiver:

"GHOSTS"

Reflections of signals from mountains or high buildings will cause multiple images, called "Ghosts". These abnormal conditions can be reduced to minimum by repositioning aerial or by installing new one suited for your area.

"INTERFERENCE"

Interference may be caused by electrical appliances, car ignition systems, etc. This should normally be a temporary condition, but should this interference persist, contact your dealer.

WARRANTY TO CUSTOMER

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 or 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 inguarantee 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