HITACHI

Users Guide
C28W440N
CL28W440AN

HITACHI

Contents

Remote Control Buttons

① ⏻ = Stand By

② **0 - 9** = Direct Program

③ **I-II** = Mono/Stereo - Dual I-II

④ ▣ **MENU = MENU**

⑤ **P** = Programme Up (Cursor Up)

⑥ **+◢** = Cursor Right / Volume +

⑦ **TV** = TV / Quit Menu

⑧ ◁〗 (**Red**) = Sound Menu

⑨ ▭ (**Green**) = Picture Menu

⑩ **F** (**Yellow**)= Feature Menu

⑪ ◇ (**Blue**)= Install Menu

Teletext Buttons

⑫ ▤ = Time

⑬ ▤ = Hold / 16:9

⑭ ▤? = Reveal

⑮ ▤i / ⓘ = Index Page / Information Menu

⑯ ▣ = Teletext

⑰ **AV** = External Source

    (AV1, AV2, AV-2 S, AV3, RGB)

⑱ **P** = Programme Down (Cursor Down)

⑲ **◢** = Cursor Left / Volume -

⑳ **- -** = Two Digit Program Number Entry

㉑ ◁✕ = Mute

Picture Mode Change Button

⑬ **16:9** (▤) = Auto / 4:3 / Widescreen /
                 Letterbox / 14:9L / 14:9 Zoom

HITACHI

Control Panel Buttons
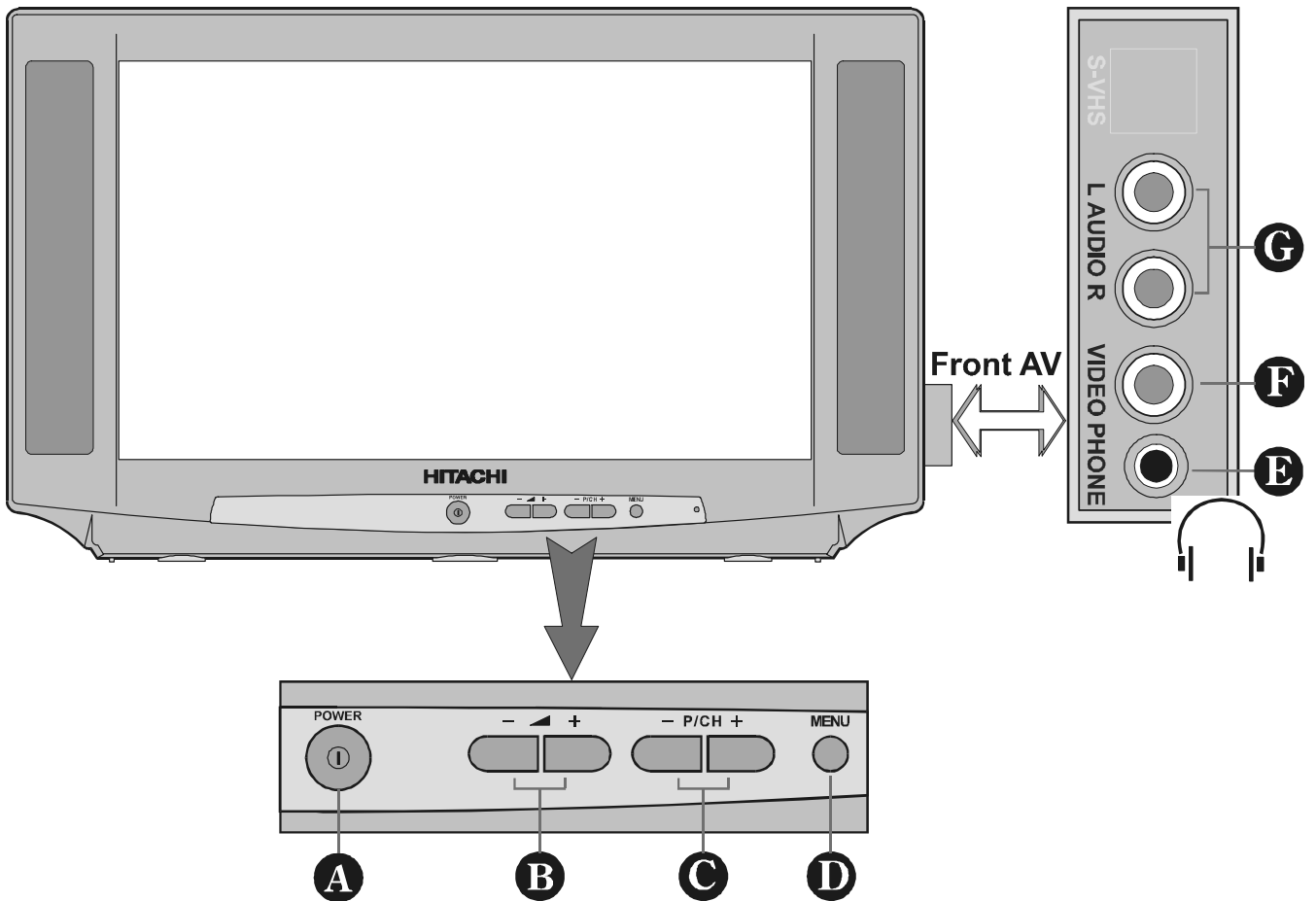
Front AV input

A **POWER** / ① = Power On / Off

B **−◢** / **◢+** = Volume - / Volume +

C **- P / P +** = Program - / Program +

D **MENU** = Menu

E

F **VIDEO** = VCR (yellow)

G **AUDIO L / R** = Audio left (white) / right (red)

Connect Peripheral Equipment

There is a wide range of audio and video equipment that can be connected to your TV.
The connection diagrams show the back of the TV where the different equipment should be connected.

REAR PANEL

ANT.

EXT.2

EXT.1

Ⓐ
Ⓑ
Ⓒ

Ⓐ ANTENNA

Ⓑ External 1

Ⓒ External 2

CAMERA

VIDEO

VIDEO AUDIO OUT   LOW HIGH   ANT.IN   RF OUT
IN

HEADPHONE

AUDIO

DECODER

VIDEO AUDIO OUT   IN

ANTENNA

FOR SATELLITE RECEIVER

VIDEO AUDIO OUT   IN
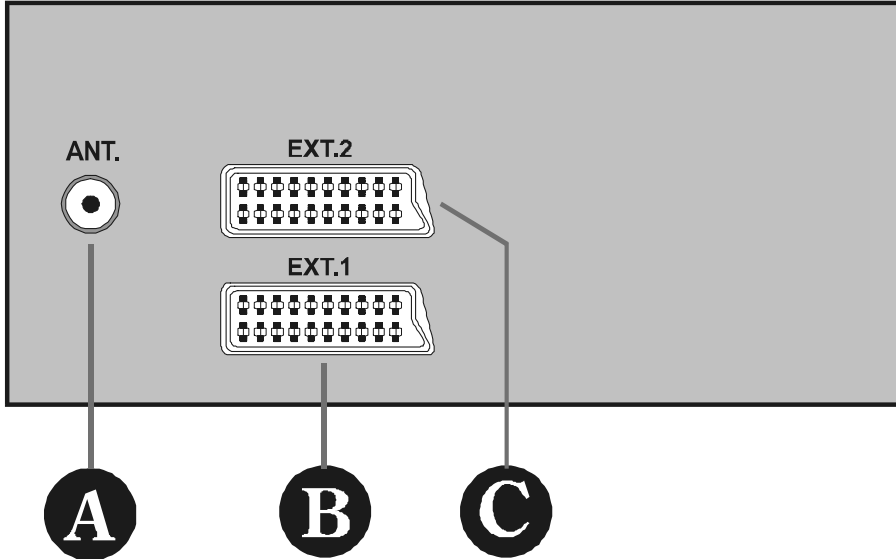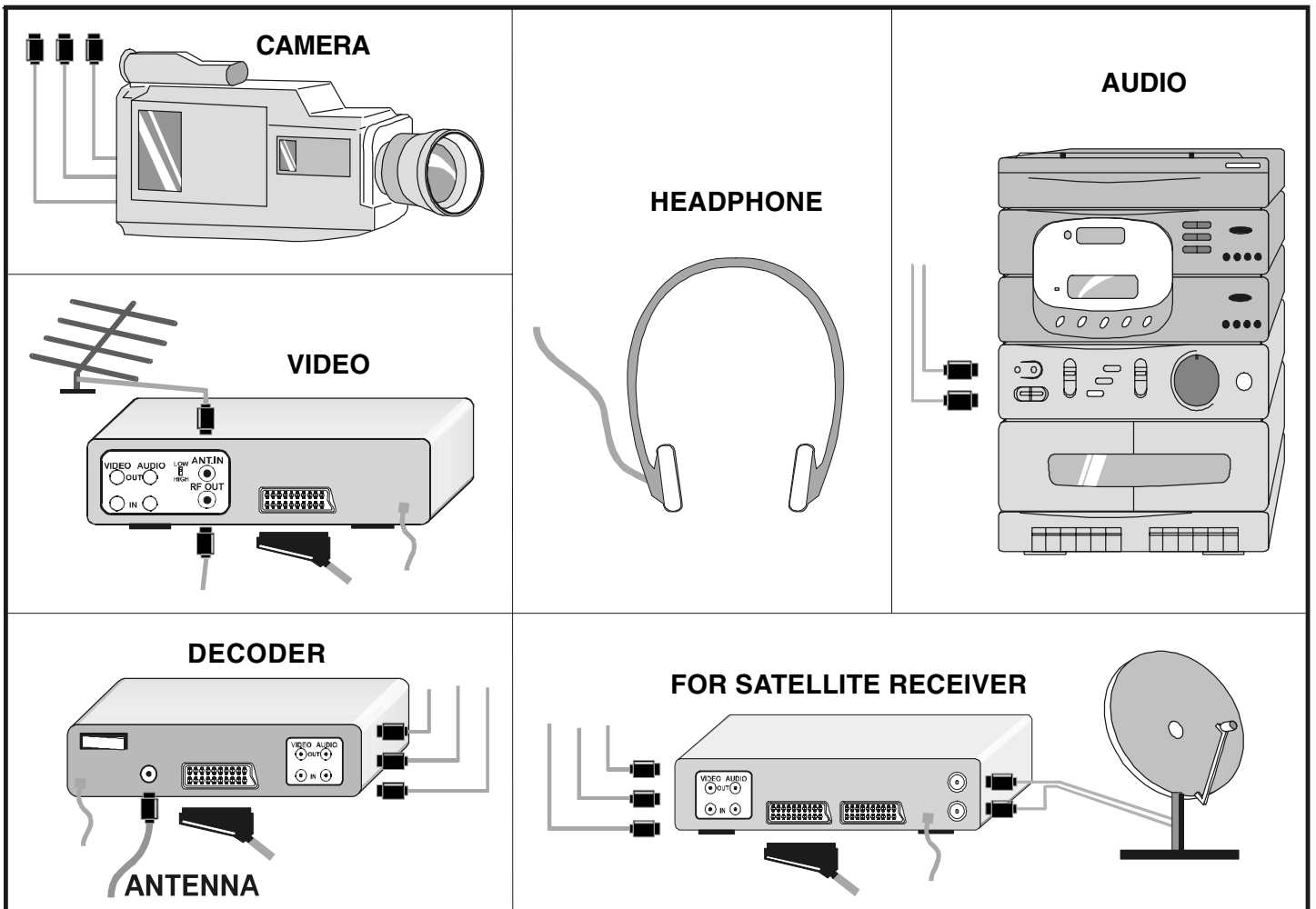
Via the SCART connector

Your TV set has two SCART connector sockets. This is for the connection of equipment which is fitted with a SCART socket e.g. video machine or satellite receiver.

AV-2 S Mode

If the equipment connected to your TV set supports S-Video (Y/C) output from SCART, you can have a better picture quality by selecting **AV-2 S** mode and connecting your equipment to the **EXT.2** terminal of TV. See your equipment's booklet to check if your equipment has such feature.

RGB mode

If an equipment can output the **RGB** signals, connect it to the **AV-1 (EXT.1)** terminal.

• Select the **RGB** mode to watch images from that equipment.

• When not in the **RGB** mode, turn the **RGB** signals output equipment off.

Via Aerial Input

If the equipment you want to connect to your TV e.g. video machine or satellite receiver does not have a SCART socket, you should connect it to the aerial (ANT) socket on your TV.

Decoder

Cable TV offers you a wide choice of programs. Most of them are free, others are to be paid for by the viewer. This means that you will need to subscribe to the broadcasting organization whose programmes you wish to receive. This organization will supply you with a corresponding decoder unit to allow the programmes to be unscrambled.

For further information ask your dealer. See also the booklet supplied with your decoder.

Connecting a decoder with an aerial socket to the TV

• Connect the aerial cable.

Connecting a decoder without an aerial socket to the TV

• Connect the decoder to your TV with a SCART lead to **EXT.1** or **EXT.2**. When your decoder has a SCART connector you can obtain better picture quality if you connect a SCART lead to **EXTERNAL**.

• Then select the appropriate AV mode by pressing the "**AV**" button.

TV and Video Recorder

• If your video machine has a SCART socket please connect it to the TV using a SCART lead. Your TV should also be connected to your video machine using the aerial RF output socket.

Please note using a SCART lead will produce better qualitiy pictures.

Playback of NTSC recordings

This TV can display video recordings played back in the NTSC 3.58 / 4.43 mode.

Connect a VCR which is capable of playing a NTSC recording to the SCART socket located on the back of your TV or the phono or RCA sockets located on the front of the TV.

Then press the "**AV**" button to select either AV1, AV2, AV-2 S, AV3 or RGB.

Copy Facility

Source selection for VCR recording.

Select **TV Setup** Menu in the **Install** Menu.

• Select **AV-2 OUTPUT** source pressing " ◢ " or " ◣ " button.

Search for and store the test signal of the video recorder

• Unplug the aerial cable from the aerial socket **"ANT"** of your video recorder.

• Switch on your TV and put the video recorder on the test signal. (See the handbook for your video recorder.)

• Enter the Tuning menu via the Install menu.

• Search for the test signal of your video recorder in the same way as you searched for and stored the TV signals. See Tuning, Search and Store TV channels. Store the test signal either under programme number 0 or between 55 and 99.

• Replace the aerial cable in the aerial socket **"ANT"** of your video recorder once you have stored the test signal.

Camera and Camcorder

To connect to Front-AV input

Connect your camcorder to the front of your TV.

• Connect your equipment to the TV via **VIDEO** (yellow)**, AUDIO R** (red) and **AUDIO L** (white) inputs . You should connect the jacks to the input of the same colour.

Connect the decoder to the video recorder

Some video recorders have a special SCART connector for decoder.

• Connect a SCART lead to the SCART connector of your decoder and to the special SCART connector of your video recorder. See also the handbook of your video recorder.

• To connect your video recorder to the TV, see TV and Video Recorder section.

If you want to connect more equipment to your TV, consult your dealer.

Connecting Headphones

Use the stereo headphone socket (HP) to connect headphones. This socket is located on the front / right hand side of the television.

Preparation

Place the TV on a solid surface.

If placing the TV into a cabinet or alcove, ensure there is at least a 100mm (10cm) gap to the sides and rear and top of the TV. This is to allow for adequate ventilation during operation. Please read below for more safety information before installation.

Features

• Remote controlled colour television.

• 100 programmes from VHF, UHF bands or cable channels can be preset.

• Menu system for easy control of the television.

• Two SCART connector sockets for external equipment (video machine, audio equipment, video games, etc.

• Stereo sound system.

• Full function Teletext.

• Headphone socket for personal listening.

• APS (Automatic Programming System).

• All programmes can be named.

• Forward or Backwards automatic tuning.

• Sleep timer.

• Child Lock.

• Zoom mode.

• Automatic sound Mute when there is no transmission.

• TV automatically goes to stand-by 5 minutes after the end of broadcasting.

Safety Precautions

IMPORTANT SAFETY INFORMATION ON OPERATING YOUR TV

Do's and Don'ts

DO's

This Television has been designed and manufactured to meet international safety standards, but like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.

DO read the operating instructions before you attempt to use the equipment.

DO consult your dealer if you are in any doubt about installation, operation or safety of your equipment.

DO be careful with glass panels or doors on equipment.

This TV is supplied with a fitted mains plug. This plug must not be cut off as it may contain a special radio interference filter, the removal of which could lead to impaired performance. If you wish to extend the lead, obtain an appropriate safety approved extension lead or consult your dealer.

Observe the manufacturers instructions when connecting extension leads to the TV. Check the fuse rating on the new plug, this should be fitted with a 5 Amp fuse which conforms to either ASTA or BSI (BS1 362) approvals, these are easily identifiable by either the ⬦ASA or ♡S symbols. If you are in any doubt about the installation of an extension lead, please consult a competent electrician.

DON'Ts

DON'T continue to operate the equipment if you are in any doubt about it working normally, or if it is damaged in any way switch off, withdraw the mains plug and consult your dealer.

DON'T place water filled vessels on top of T.V. cabinets.

DON'T remove any fixed cover as this may expose dangerous voltages.

DON'T leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a stand-by mode. Switch off using the switch on the equipment and make sure your family know how to do this. Special arrangements may need to be made for infirm or handicapped people.

DON'T use equipment such as personal stereos or radios so that you are distracted from the requirements of traffic safety. It is illegal to watch television whilst driving.

DON'T obstruct the ventilation of the equipment, for example with curtains or soft furnishings. Overheating will cause damage and shorten the life of the equipment.

DON'T use makeshift stands and NEVER fix legs or stands to the TV with any screws other than those provided - to ensure complete safety always use the manufacturers approved stand with the fixings provided.

DON'T allow electrical equipment to be exposed to rain or moisture.

• •

ABOVE ALL

- *NEVER let anyone, especially children push anything into holes, slots or any other opening in the case - this could result in a fatal electric shock.*

- *NEVER guess or take chances with electrical equipment of any kind - it is better to be safe than sorry!*

• •

1. Power Cord

The power supply cable should be placed so that it is not likely to be walked on or pinched by items placed on or against it. Pay particular attention to the cable
Where it enters the plug, power outlet, and the point where it emerges from the receiver.

2. Moisture and Water

Do not use this equipment in a humid, damp place (avoid the bathroom, the sink in the kitchen, and near the washing machine). Do not expose this equipment to rain or water, as this would be dangerous.

3. Cleaning

Before cleaning, unplug the receiver from the main supply outlet. Do not use liquid or aerosol cleaners. Clean with a soft dry cloth.

4. Lightning

To prevent damage during a storm, lightning or when going on holiday, disconnect the power lead and aerial from the wall outlet and disconnect the aerial plug from the back of the television.

5. Ventilation

The slots and openings on the receiver are intended for ventilation and to ensure reliable operation. To prevent overheating, these openings must not be blocked or covered in anyway.

6. Replacement Part

When replacement parts are required, be sure the service technician has used replacement parts which are specified by the manufacturer or have the same specifications as the original one. Unauthorized substitutions may result in fire, electrical shock, or other hazards.

7. Servicing

Please refer all servicing to qualified personnel. Do not remove the back cover as this may result in an electric shock.

8. X-rays

This television has sheilding for protection against the emission of X-rays.

Warning!

Any intervention contrary to regulations, in particular, any modification of high voltage or a replacement of the picture tube may lead to an increased concentration of x-rays. Any television modified in this way no longer complies with license and must not be operated.

Instructions for waste disposal:

Packaging and packaging aids are recyclable and should principally be recycled. Packaging materials, such as foil bag, must be kept away from children.

CAUTION

RISK OF ELECTRIC SHOCK
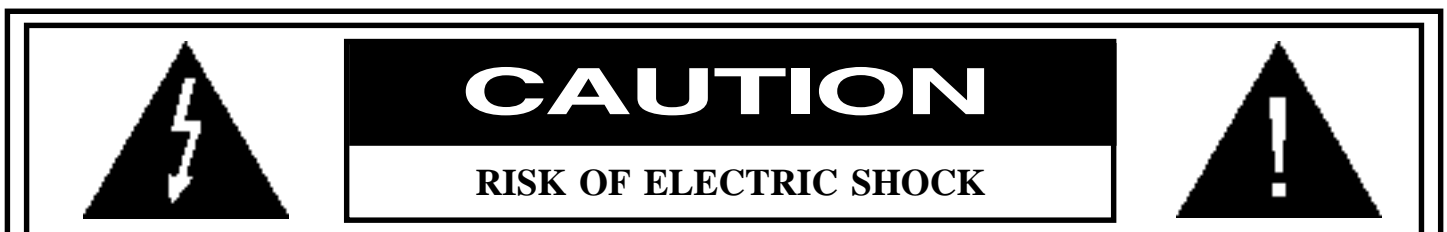
The lightning flash with the arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage"
within the product' enclosure that may be of sufficient magnitude to constitute a risk of an electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

SET TOP BOX OPERATION

If you are watching a Digital TV broadcast and you wish to change to a normal TV broadcast, press the TV button* on your Set Top Box handset to revert to normal TV operation. If you do not, you may experience a "rolling" of the picture on your TV. (An example is shown in the illustration opposite)

* PLEASE NOTE :   The TV button on your Set Top Box handset will be labelled "TV, TV/SAT or TV/DTV", whichever is appropriate to your type of Set Top Box.

"DO NOT LEAVE YOUR TV IN STAND-BY OR OPERATING WHEN LEFT UNATTENDED FOR A LONG TIME"

Before Switching on your TV

Power connection

IMPORTANT: The TV set is designed to operate on **220-240V AC, 50 Hz.**

• After unpacking, allow the TV set to reach the ambient room temperature before you connect the set to the mains.

Aerial Connections

• Connect the aerial plug to the aerial input socket located at the back of the TV.

How to connect other devices

IMPORTANT: Switch off the TV before connecting any external device.

Sockets for external connections are on the back of the TV.

For connection of other devices via SCART connector (or RCA Jack) refer to the manuals of the related devices.

Inserting batteries in the remote control handset

• Remove the battery cover located on the back of the handset by gently sliding it in the direction shown below.

• Insert two **MN2400 AAA** or equivalent type batteries inside.

• Replace the battery cover.
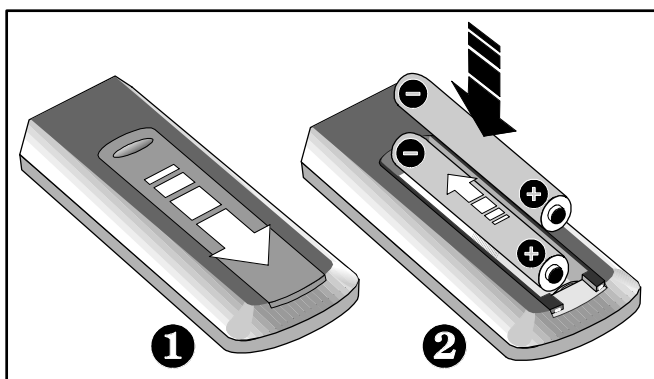
Note: Remove the batteries from the remote control handset when it is not going to be used for a long time. Otherwise it could be damaged if the batteries leak.

Switching the TV ON/OFF

You can operate your TV either using the remote control handset or directly using the buttons on the TV.

To switch the TV on

Your TV will switch on in two steps:

1- Press the power button located on the front of the TV. Then the TV switches itself to standby mode and the **RED LED** located below the TV turns on.

2- To switch on the TV from stand-by mode either:

Press a digit button on the remote control so that a programme number is selected,

or,

Press Programme Up and Down buttons on the front of the TV or on the remote control respectively, so the TV will switch on and the **RED** Led will turn **GREEN**.

To switch the TV off

• Press the stand-by button on the remote control, so the TV will switch to stand-by mode and the **GREEN LED** will become **RED**, or,

• Press the power button located on the front of the TV.

Operating the TV

You can operate your TV in two ways. First by using the remote control handset and second by using the controls on the TV.

APS (Automatic Programming System)

The Auto programming system automatically programmes your TV according to the correct transmission system in your area.

When you turn on your TV for the first time, the "**Auto Setup**" menu will be displayed. In this menu if the language setting is incorrect, use either " ▲ " or " ▼ " buttons to highlight "**Language**" and select the most suitable language using the " ◄ " or " ► " buttons. Then use either of the " ▲ " or " ▼ " buttons to highlight "**Country**". If the country setting is incorrect, use either of the " ◄ " or " ► " buttons to select the correct one. Finally use " ▲ " or " ▼ " buttons to highlight "► **Start**" and press either of the " ◄ " or " ► " buttons to start the "**Auto-Programming**". The "**Auto-Programming system**" (APS) can be cancelled by pressing the "**TV**" button located on the remote control handset.
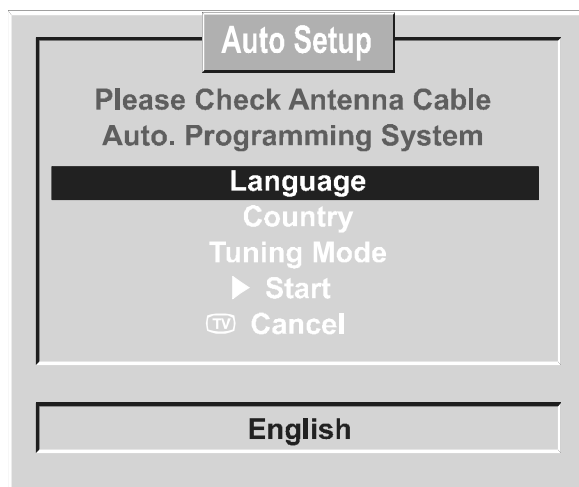
When the APS has finished a table of stored stations will be displayed on the screen with number 1 highlighted in red. In the table you will see programme numbers and names assigned to the stations, they will be listed in a predetermined order.

If you wish to check the stations press the " ▽ " button to move the red flashing number and name down to the programme you wish to view and press the red button on the remote control hand set to select the programme.

MANUAL SETUP

01 ----	11 ----	21 ----
02 ----	12 ----	22 ----
03 ----	13 ----	23 ----
04 ----	14 ----	24 ----
05 ----	15 ----	25 ----
06 ----	16 ----	26 ----
07 ----	17 ----	27 ----
08 ----	18 ----	28 ----
09 ----	19 ----	29 ----
10 ----	20 ----	30 ----

| Select | Delete |
| Insert | Auto Tune |
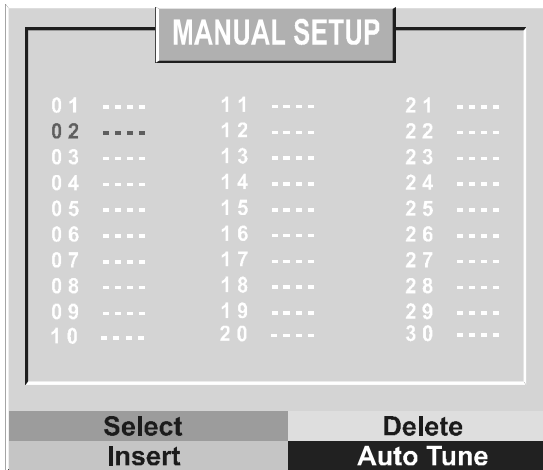
• If you would like to change the order of the table, you can rearrange it. To rearrange the table, press the menu button to display the install menu, then in the install menu select the **TUNING** menu. To use the Tuning menu please refer to the Tuning sub menu section that is located in the install menu part of this manual.

• After selecting the Tuning Mode if you want to start APS, by pressing the " ▲ " or " ▽ " buttons, come to the "▶ **Start**" item and by pressing " ▬◢ " or " ±◢ " button start the APS.

• If you do not want to start APS, you can cancel it by pressing the **"TV"** button on your remote control.

• When you start APS the below menu will appear on the screen.

Auto-Tuning Please Wait
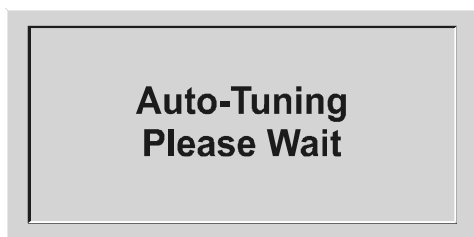
Operating the button controls on the TV

Setting of the volume level and selection of the programme can be done using the controls on the front of the TV.

Volume Setting

• To decrease or increase the volume press either the ''▬◢'' or "◢ **+**" volume buttons. A volume level scale will appear on the screen.

Programme Selecting

• The next programme can be selected by pressing the "**P+**" or "**P-**" buttons.

Entering Main Menu

• Press "**MENU**" button to enter main menu. In the main menu select submenu using "**P +**" or "**P -**" button and enter the submenu using "◢ **+**" or "**─ ◢**" button. To learn the usage of the menus, refer to the **Menu System** section of this manual.

Operating with the Remote Control

The remote control handset of your TV is designed to control all it's functions.

These functions will be described along with the menu system of your TV.

Volume Setting

• Press " ±◢ " button to increase volume.

• Press " ▬◢ " button to decrease volume.

Programme Selecting
(Previous or next programme)

• Press " ▲ " button to select the next programme.

• Press " ▽ " button to select the previous programme.
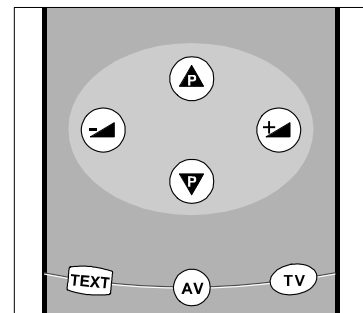
Programme Selecting (direct access):

To select programmes between 0 and 9 use the numbered buttons on the remote control handset

For selection of programmes between 10 and 99 press the "- -" button. The symbol "- -" will be displayed on the TV screen. Next press the numbers for the programme you wish e.g. 2 and 7 for programme number 27.
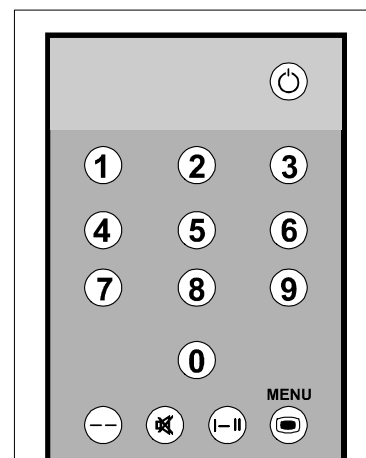
Menu System

Your TV is provided with a menu system that simplifies the operation of the TV.

Selecting the commands displayed on the screen controls the TV.

The use of the menu system is described below.

Press the "⬤ MENU" button to display the main menu on the screen.

Each option is identified on the remote control handset by a different coloured button. To select an option press the button with the same colour.

E.g. for Sound setting press the **RED** button, for picture settings the **GREEN** button.

Information Menu

When you press the "ⓘ" in any menu an explanation is given of how to:

Select and go to a submenu.

Select and change items.

Go to the previous.

Exit that menu.

▲▼	To Move Up/Down
◄ ►	To Go to Submenu
TV	To Exit Menu
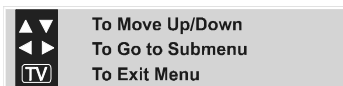
When you press the information menu button "ⓘ" in any of the submenu an explanation is given of how to:

• Select and change item

• To Change Item

• Select and go to submenu

• Exit menu

▲▼	To Move Up/Down
◄ ►	To Go to Submenu
M	To Go To Previous Menu
TV	To Exit Menu

MENU

Sound
Picture
Features
Install

If the "ⓘ" button is pressed when none of the menus are activated, the TV status including "Program number, name and Sound Mode" will be displayed.

In all the other menus, one of the items can be selected by pressing either of the " ▲ " or " ▼ " buttons. Pressing either of the " ◢ " or " ◺ " buttons will allow the item to be changed or you can go to the submenu. Pressing the "⬤ MENU" button will take you to the previous menu and you can exit the menu display by pressing the "**TV**" button.

Sound Menu

To change sound settings

• To make changes to the sound settings you will have to enter the sound menu.

There are two ways of entering the sound menu:

• You can enter the Sound Menu directly by pressing the red "▢" button

  or

• You can press the "⬤ MENU" button, which takes you to the main menu, then select sound using the " ▲ " or " ▼ " buttons and then enter the sound menu pressing either of the " ◢ " or " ◺ " buttons

Setting Volume:

As you enter the sound menu, Volume will be the first selected option.

Pressing the " ◺ " button will increase the volume.

Pressing the " ◢ " button will decrease the volume.

Alternatively you can change the volume setting by pressing either of the " ◺ " or " ◢ " buttons on the remote control handset.

SOUND

Volume
Bass
Treble
Balance
Effect
Headphone
Store
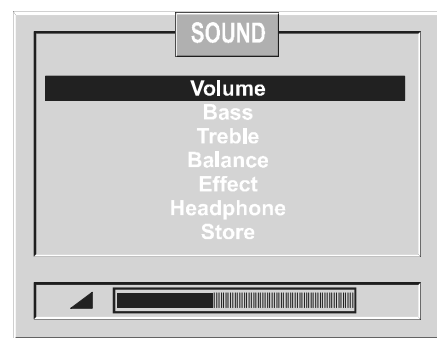
Setting Bass Level:

• Using " ▲ " or " ▼ " button select Bass.

• Press " ◺ " button to increase bass level.

• Press " ◢ " button to decrease bass level.

SOUND

Volume
Bass
Treble
Balance
Effect
Headphone
Store
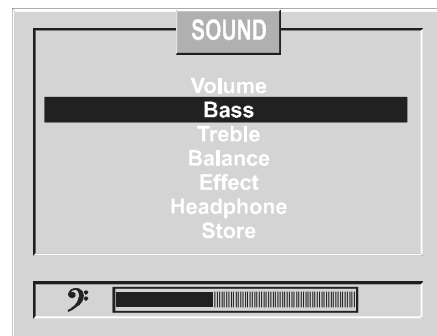
Setting Treble Level:

• Using " ▲ " or " ▼ " button select Treble.

• Press " ◺ " button to increase treble level.

• Press " ◢ " button to decrease treble level.

SOUND

Volume
Bass
Treble
Balance
Effect
Headphone
Store
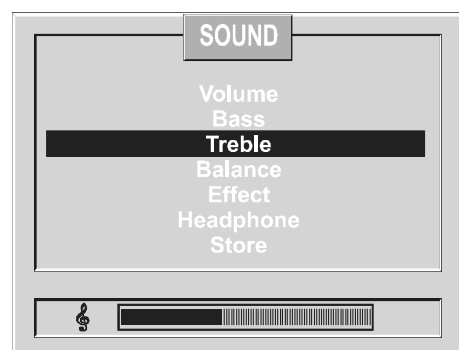
Setting Balance:

• Using " ▲ " or " ▼ " button select Balance.

• Press " ±◢ " button to change balance rightwards.

• Press " ◢ " button to change balance leftwards.

```
            ┌─── SOUND ───┐
            │   Volume     │
            │    Bass      │
            │   Treble     │
            │   Balance    │
            │    Effect    │
            │  Headphone   │
            │    Store     │
            │              │
            │ ◣◢ ▮▮▮▮▮▮▮▮  │
            └──────────────┘
```

Setting Sound Effect:

You can use this feature to switch on and off sound effect. Pressing " ◢ " or " ±◢ " button will turn on and off this feature. If the current sound system is **MONO** and the sound effect is set ON, then the sound will be heard as if it is **STEREO**. If the current sound system is **STEREO**, switching this effect on will make the sound deeper. Switching it off will make no change in **MONO** and **STEREO**.

```
            ┌─── SOUND ───┐
            │   Volume     │
            │    Bass      │
            │   Treble     │
            │   Balance    │
            │    Effect    │
            │  Headphone   │
            │    Store     │
            │              │
            │   ◖◗  Off     │
            └──────────────┘
```

To Store the Settings:

• Using " ▲ " or " ▼ " button select Store. Press " ◢ " or " ±◢ " button to store current sound settings. The stored values will be valid for all the programmes.

To Change Headphone Sound Settings:

When using headphones, you can change the sound setting in the headphone Menu. To do this select headphones using the " ▲ " or " ▼ " buttons and then enter the headphone menu by pressing either of the " ◢ " or " ±◢ " buttons.

Setting Headphone Volume:

• As you enter the Headphone sound menu, Volume will be the first selected option.

• Press " ±◢ " button to increase volume.

• Press " ◢ " button to decrease volume.

```
            ┌── H.PHONE ──┐
            │   Volume     │
            │    Mode      │
            │    Store     │
            │              │
            │ ◢ ▮▮▮▮▮▮▮▮   │
            └──────────────┘
```

Setting Headphone Sound Mode:

• Using " ▲ " or " ▼ " button select Mode.

Pressing " ◢ " or " ±◢ " button will change the current sound mode. (e.g.: If the current sound mode is stereo, it will be stereo or visa versa).

In case of bilingual broadcast, you can select original or dubbed language again using mode menu. So when somebody listens to the original language from the loud-speakers, somebody else can listen to the dubbed language from headphone.

To Store the Settings:

• Use the " ▲ " or " ▼ " buttons to select store. Press either the " ◢ " or " ±◢ " buttons to store the current sound settings.

• These stored values will be valid for all the programmes.

Picture Menu

To change picture settings:

• To make changes to the picture settings you will have to enter the picture menu.

There are two ways of entering the picture menu:

• You can enter the Picture Menu directly by pressing the Green " ▭ " button.

or

• You can press the " ◉ **MENU**" button, which takes you to the main menu, then select picture using the " ▲ " or " ▼ " buttons and then enter the picture menu pressing either of the " ◢ " or " ±◢ " buttons.

Setting Brightness:

• As you enter the picture menu, Brightness will be the first selected option.

• Press " ±◢ " button to increase brightness.

• Press " ◢ " button to decrease brightness.

```
            ┌─── PICTURE ───┐
            │   Brightness   │
            │    Colour      │
            │   Contrast     │
            │  Sharpness     │
            │     Hue        │
            │     CTI        │
            │ Black Stretch  │
            │    Store       │
            │                │
            │ ☀ ▮▮▮▮▮▮▮▮▮    │
            └────────────────┘
```

Setting Colour:

• Using " ▲ " or " ▼ " button select Colour.

• Press " ±◢ " button to increase colour level.

• Press " ◢ " button to decrease colour level.

```
            ┌─── PICTURE ───┐
            │   Brightness   │
            │    Colour      │
            │   Contrast     │
            │  Sharpness     │
            │     Hue        │
            │     CTI        │
            │ Black Stretch  │
            │    Store       │
            │                │
            │ ◉ ▮▮▮▮▮▮▮▮▮    │
            └────────────────┘
```
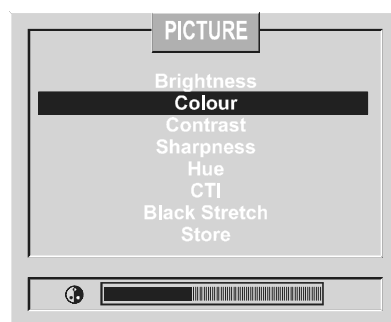
Setting Contrast:

• Using " ▲ " or " ▼ " button select Contrast.

• Press " ±◢ " button to increase contrast level.

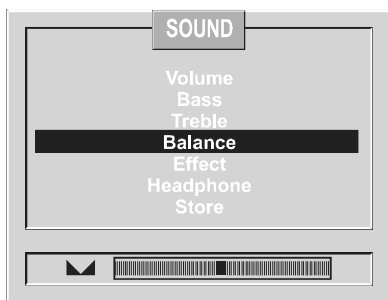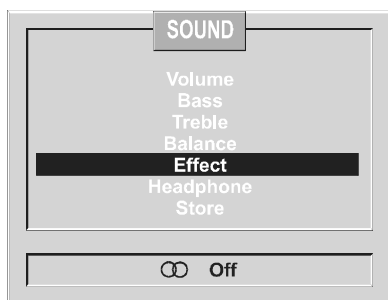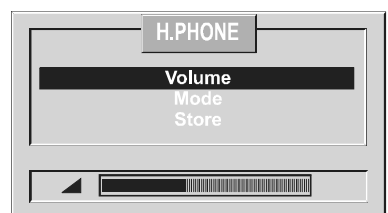• Press " ◢ " button to decrease contrast level.
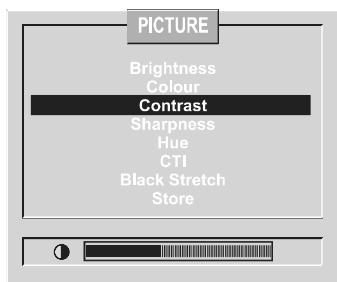
Setting Sharpness:

• Using " ▲ " or " ▼ " button select Sharpness.

• Press " ±◢ " button to increase sharpness level.

• Press " ◢ " button to decrease sharpness level.
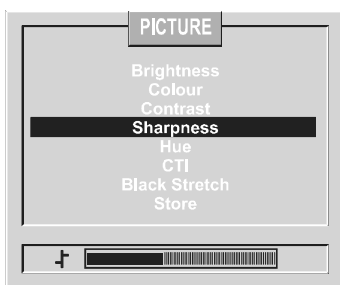
Setting Hue:

(AV mode only. If your TV has NTSC playback Hue will be added to the picture menu list)

• Enter the picture menu and using the " ▲ " or " ▼ " buttons select Hue.

• Pressing the " ±◢ " button will increase the hue level.

• Pressing the " ◢ " button will decrease the hue level.
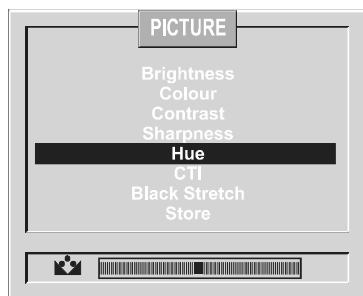
Setting CTI:

You can use this feature to switch color transient improvement on or off. When CTI is on, color transitions are sharpened.
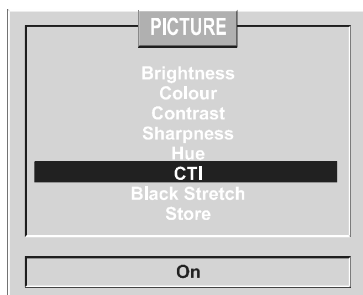
Setting Black Stretch:

You can use this feature to switch black stretch on or off. Black Stretch enhances the black level of the picture.
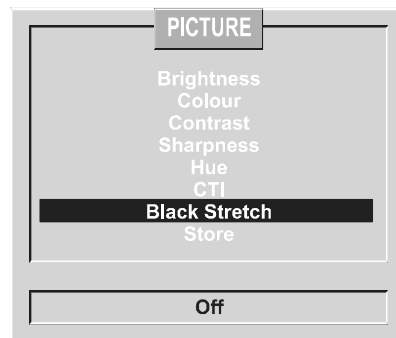
To Store the Settings:

• Using either of the " ▲ " or " ▼ " buttons select store. Press either the " ◢ " or " ±◢ " volume buttons to store the current picture settings. The stored values will be valid for all the programmes. The Picture Mode settings are stored for each individual programme.

Feature Menu

• Enter the Feature Menu directly, by pressing the **YELLOW** button "**F**" or,

• Press the "▣ **MENU**" button, you are now in the main menu. In the main menu, select **FEATURE**, using either of the " ▲ " or " ▼ " buttons. Then enter the feature menu by pressing either of the " ◢ " or " ±◢ " buttons.

Sleep Timer:

• The Sleep Timer is the first selected option in the feature menu.

• By pressing either of the " ◢ " or " ±◢ " buttons you can set the amount of time the TV will remain operating before it goes to stand-by. The selectable setting are **0:15, 0:30, 0:45, 1:00, 1:15, 1:30, 1:45** and **2:00** hours.
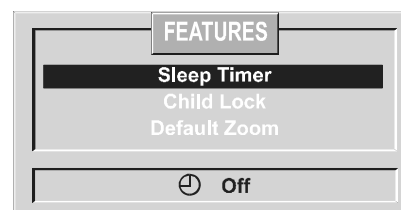
Child Lock:

You can use this feature to stop the controls on the front of the television being used. When the Child Lock is set to ON only the remote control will control the TV.

- The Child Lock feature may be set to either On or Off. When Off is selected, there will be no difference in the operation of your TV. When On is selected, the TV can only be controlled by the remote control handset. In this case, the front panel buttons (except the Switch On/Off button) will not work.

```
            FEATURES
          Sleep Timer
          Child Lock
          Default Zoom

          ⊓○  Off
```
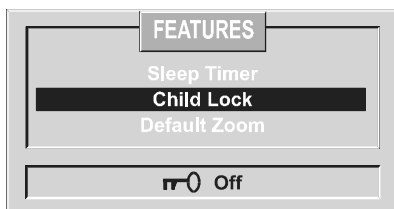
Default Zoom:

The default zoom feature is used to switch to one of the four picture modes selected by the user. If there is no picture mode data at broadcast and if picture mode is selected as Auto, picture mode switches automatically to the default zoom mode. The options for default zoom mode are 4:3, Widescreen, 14:9 Zoom and Panaromic.

```
            FEATURES
          Sleep Timer
          Child Lock
          Default Zoom

              Auto
```

Install Menu

The **Install Menu** consist of the **Tuning**, **Manual Setup** and **TV Setup** submenus.

```
            INSTALL
            Tuning
          Manual Setup
          TV Setup
```

Tuning Menu

- Press the "⬛ MENU" button, this takes you to the main menu, then select Install using the " ⬛ " or " ⬛ " buttons.

- Press the "⬛ MENU" button, you are now in the main menu. In the main menu, select **INSTALL**, using either of the " ⬛ " or " ⬛ " buttons. (To enter the Install menu directly just press the Blue button on the remote control hand set.)

- The Tuning submenu is selected by using the " ⬛ " or " ⬛ " buttons and entered by pressing either of the " ⬛ " or " ⬛ " buttons.

```
            TUNING
          Programme
            Name
          Tuning Mode
          Standard
          Frequency
           Search
            Store

      P4   PR04   S05   BG
```
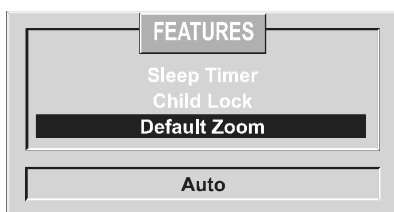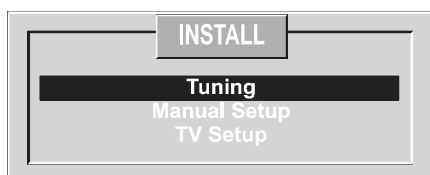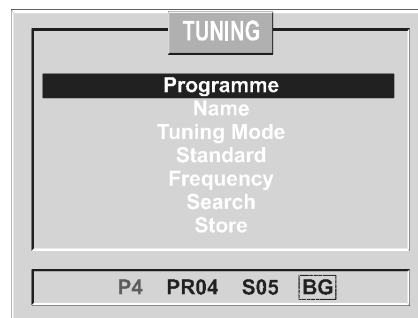
Automatic Search

- Programme is the first item on the list in the **Tuning** Menu. It is entered by pressing either of the " ⬛ " or " ⬛ " buttons.

- Then decide the programme number where you want the station to be stored by pressing either of the " ⬛ " or " ⬛ " buttons. (You may instead type in the programme number using the digit buttons.)

- Next select Band by using the " ⬛ " or " ⬛ " buttons and using the " ⬛ " or " ⬛ " buttons select the band to be searched. (VHF-L, VHF-H or UHF)

```
            TUNING
          Programme
            Name
          Tuning Mode
            Band
           Channel
          Standard
          Fine Tuning
           Search
            Store

           Channel
```
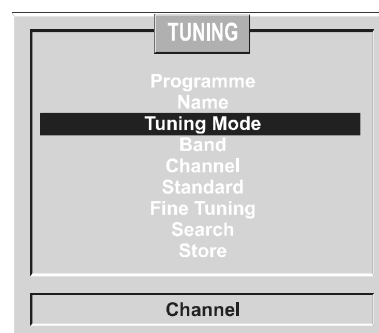
- Select Search With the " ⬛ " or " ⬛ " buttons. Search can be made either forward, by pressing " ⬛ " button or backward by pressing the " ⬛ " button.

- When the tuning stops and the tuned station is not the desired one, you can continue searching by pressing either of the " ⬛ " or " ⬛ " buttons again.

- When the desired station is tuned, select **STORE** using the " ⬛ " or " ⬛ " buttons and store it to the programme number you previously selected by pressing either of the " ⬛ " or " ⬛ " buttons.

- To stop searching before a station is found, press the reverse direction button (for example when searching forwards press the backward direction button).

To name a Programme

- First select the programme number you want to name.

- Then select the name option using the " ⬛ " or " ⬛ " buttons.

- Next press either of the " ⬛ " or " ⬛ " buttons to set the position of the letter to be changed and then press either of the " ⬛ " or " ⬛ " buttons to change that letter.

Then select and change the remaining letters and when finished select **STORE** using the " ⬆ " or " ⬇ " buttons and store using the either of the " ◄ " or " ►◄ " buttons.

To change Standard

(You can change this menu only between st andards which your TV set supports.)

Pressing " ⬆ " or " ⬇ " button selects the Broadcast Standard required. Then select the standard you want pressing " ◄ " or " ►◄ " button. When changing the standard this way, if the previous channel is not defined for the new selected standard, then also the channel will be changed to the first defined channel of that standard (For example: When changing BG to K1 and the previous channel is C12, after changing the standard, the channel will be C4, because the first defined channel of standard K1 is C4).After that, if it is returned to the previous standard back, the channel will not be changed to the previous one anymore (That means, in the example above, when it is returned from K1 to BG again, the channel will not change to C12 anymore and keep C4). Defined channels for different standards are given as following:

B/G : C01-C83, S01-S41
D/K : C01-C12, C21-C69, S01-S19, S22-S41
I* : C01-C17
I** : C01-C17, C21-C73, S01-S19, S22-S41
L/L' : C01-C76, S01-S41
K1 : C04-C09
* U.K. I (UHF)
** IRELAND I (VHF, UHF)

Note : Channel Search Tuning Mode uses a channel table. The channels and stations at the table may vary from table to table and from country to countr y. Each channel has an exact frequency on the table.

Frequency Search Tuning Mode does not use a channel table and it is slower than Channel Search Tuning Mode.

Channel Search Tuning Mode is recommended for the countries which uses standard channel table.

Frequency Search Tuning Mode recommended for the countries which uses non-standard channel table and recommended to use instead of VST TUNERs.

Direct Channel Access

If you know the broadcast band and channel number of the station you want to tune, you do not need to make search; select **Band**, using " ⬆ " or " ⬇ " button in the TUNING menu. Select the band of the station, pressing " ◄ " or " ►◄ " button. Then select **Channel** pressing " ⬆ " or " ⬇ " button. Press " ◄ " or " ►◄ " button to find the channel number or directly type it using the digit buttons. As you change the channel numbers the corresponding stations will be displayed.

To store the station to the programme number selected, select **STORE** option using " ⬆ " or " ⬇ " button and then press " ◄ " or " ►◄ " button to store it.
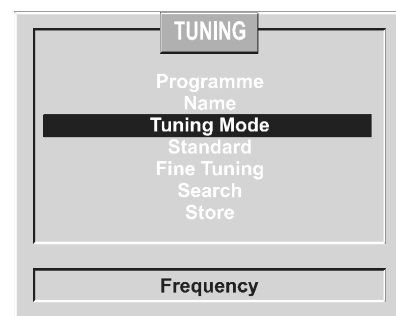
Now as you had selected the **"Channel Search"**, the

tuning mode of the program is stored as Channel Search Mode.

Fine Tuning

In areas where the reception is weak the quality of the picture and sound may be poor. In such cases, the picture and sound quality can sometimes be improved by fine-tuning. Fine Tuning is done as follows:

Go to the Tuning menu and using the " ⬆ " or " ⬇ " buttons select Fine Tuning. Then press and hold the " ►◄ " button will cause the fine tuning to be carried out in the forwards direction, pressing the " ◄ " button with cause the tuning to be carried out in the opposite direction. When you are satisfied with the reception of the transmission store it. To store, select **STORE** using the " ⬆ " or " ⬇ " buttons and store it by pressing either of the " ◄ " or " ►◄ " buttons.

When you select **"Frequency Search"** , the display of the Tuning menu will be as below :

```
         ┌─────────────────────┐
         │      TUNING         │
         │                     │
         │     Programme       │
         │       Name          │
         │    Tuning Mode      │
         │     Standard        │
         │    Fine Tuning      │
         │      Search         │
         │       Store         │
         │                     │
         │     Frequency       │
         └─────────────────────┘
```

As **"Frequency Search"** is selected, TV will search according to the channel frequencies.

With the " ⬆ " or " ⬇ " button, select **Search**. Search can be made either forward, pressing " ►◄ " button or backwards, pressing " ◄ " button.

The search will be done with steps of 0.25MHz. in each step.

If the tuned station is not the desired one, you can continue searching pressing " ◄ " or " ►◄ " button again.

When the desired station is tuned, select **"Store"** using " ⬆ " or " ⬇ " button and store it to the programme number you selected pressing " ◄ " or " ►◄ " button.

Now as you had selected the **"Frequency Search"**, the tuning mode of the program is stored as Frequency Search Mode.

Direct Frequency Access

If you know the broadcast band and the channel frequency of the station you want to tune, you do not need to make search; select Frequency , using " ⬆ " or " ⬇ " button in the Frequency Mode Tuning Menu. You can type the first 3 digits of the frequency using the digit buttons, and then you can select the decimal part of the frequency by using " ◄ " or " ►◄ " buttons with 250kHz steps. For example if you want to tune the station at frequency 224.25 MHz; first you can directly type 224. The bar at bottom of the menu will show 224.00 . Then by increasing or decreasing with

0.25 MHz steps using "◄" or "►" buttons, you can select the 224.25MHz .When you type and select the frequency, the corresponding station will be displayed.

To store the station to the programme number selected, select **"Store"** option using " ▲ " or " ▼ " button and then press " ◄ " or " ► " button to store it.

Now as you had selected the **"Frequency Search"**, the tuning mode of the program is stored as Frequency Search Mode.

Manual Setup

The **Manual Setup Menu** displays the programme names and numbers. You can use this menu to delete or insert a channel and to auto store the programmes. This menu can be accessed directly via the " ⓘ **INFO** button provided the TV is not already displaying a menu.

The **Manual Setup Menu** can be reached via **Install** in the **Main Menu.**

Press the Blue button on the remote control handset this will display the **Install** menu then select **Manual Setup** using the " ▲ " or " ▼ " buttons. Next press either of the " ◄ " or " ► " buttons.

When you have entered the **Manual Setup** all the programme names and numbers will be displayed on the screen. Programme number one (1) will be in red and flashing while all the others are in white. By using the " ▲ " or " ▼ " buttons you can move the flashing display to select another programme number and name.

Pressing the **RED** button on the remote control will re-tune the channel on the flashing programme number.
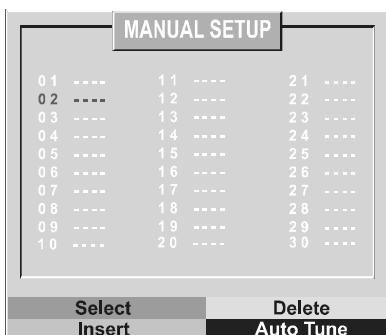
To delete a channel from a programme number:

To move the red flashing display on to the channel you want to delete.

Press the **YELLOW BUTTON** on the remote control. Now the channel will be deleted and all the other channels below this programme number will be moved up one position.

To insert a channel into a programme number:

Move the red flashing display on to the channel you want to insert.

Press the **RED BUTTON** on the remote control. That channel will now be displayed on the screen.

Move the red flashing display on to the required programme number position.

Press the **GREEN BUTTON** on the remote control this will insert the channel shown on the screen into that programme number position. The channel that was occupying that position will be moved down one and the position from where the selected channel was moved from will be filled by the channel below.

APS (Automatic Programming System)

The APS menu appears when you switch on your TV for the first time.

APS automatically tunes your TV into the TV channels received in your area.

If you wish to run the APS at another time you will have to do the following.

Press the **BLUE** button on the remote control handset this will display the Install menu then select **MANUAL SETUP** using the " ▲ " or " ▼ " buttons. Next press either of the " ◄ " or " ► " buttons.

You are now in the **MANUAL SETUP** menu.

Press the **BLUE** button on the remote control handset. This will select AutoTune and start APS. (Pressing the TV button on the remote control can stop this operation.)

When APS has finished a table of all the channels tuned in will be displayed on the screen. If you are not happy with the line up of the channels this can be changed. Please refer to the section on how to delete and insert a channel from a programme number located in the **MANUAL SETUP** section.
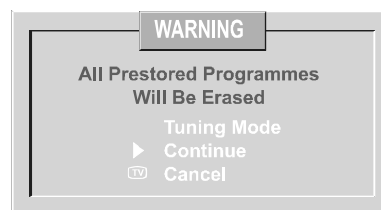

If you do not want the stations to be stored automatically, cancel APS pressing **"TV"** button.

If you want to continue, then first by pressing the " ▲ " or " ▼ " buttons, come to the **"Tuning Mode"** item and select the mode at which your TV will run the APS. If you select Channel Tuning Mode, APS will run according to Channel Tuning Mode and will auto-search according to the Channel numbers of the stations in your area. If you select Frequency Tuning Mode, APS will run according to Frequency Tuning Mode and will auto-search according to the frequencies of the stations in your area. Selected tuning mode will appear in the highlightened bar at the bottom of the **WARNING** menu.

Then, after selecting the Tuning Mode if you want to start APS, by pressing the " ▲ " or " ▼ " buttons, come to the "► **Start**" item and by pressing " ◄ " or " ► " button start the APS.

When you start APS the below menu will appear on the screen.

```
Auto-Tuning
Please Wait
```
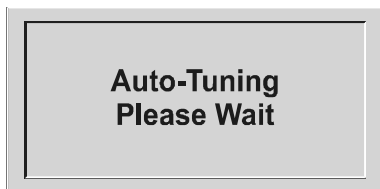
After APS is finalized, a rank list will appear on the screen. In the rank list you will see the programme numbers and names, assigned to the programmes. First the programme with programme number 1 will be displayed and the programme number 1 will be flashing. Using " ▲ " or " ▼ " or " ◄ " or " ►▲ " key you can move the flashing number and then display the programme corresponding to the flashing number pressing RED button.

If you do not accept the correspondence between programme numbers and names and want to change them, press " ⬤ MENU" button and then **BLUE** button, so that you enter the Install menu. In the Install menu select **TUNING** menu and enter it. To use tuning menu, refer to the Tuning submenu in the Install Menu section of this manual.

TV Setup Menu

This menu is used to select the Menu Language, the Country name and to select source of AV-2 Out (Scart2).

```
         TV SETUP

         Language
         Country
         AV-2 Output


         English
```
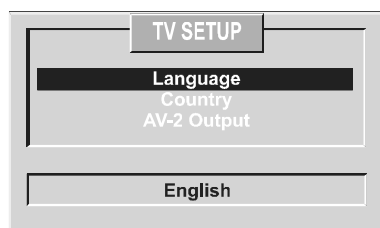
Selecting Menu Language

To select menu language:

Press the " ⬤ MENU " button so that you enter the main menu.

In the main menu select Install using the " ▲ " or " ▼ " buttons.

Open the install menu by pressing either of the " ◄ " or " ►▲ " buttons.

(The Install menu can be entered directly by pressing the blue button on the remote control handset.)

In the Install Menu select **TV SETUP** using the " ▲ " or " ▼ " buttons.

Open the **TV SETUP** Menu using either of the " ◄ " or " ►▲ " buttons.

In the **TV SETUP** Menu select language and you can change the language to the one you require, using either of the " ◄ " or " ►▲ " buttons. As soon as you change the language, the menu items will be displayed in the selected language.

Selecting the Country

Press the " ⬤ MENU " button so that you enter the main menu.

In the main menu select **Install** using the " ▲ " or " ▼ " buttons.

Open the **Install menu** by pressing either of the " ◄ " or " ►▲ " buttons.

(To open the **Install Menu** directly, do not enter the main menu just press the **BLUE** button located on the remote control handset.)

In the install menu select **TV Setup** using the " ▲ " or " ▼ " buttons.

In the **TV Setup** menu select **Country** using the " ▲ " or " ▼ " buttons.

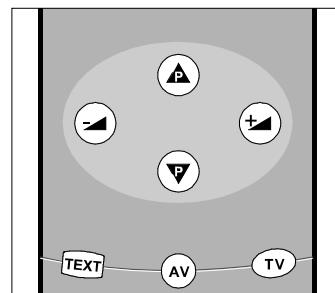The country can be changed by pressing either of the " ◄ " or " ►▲ " buttons.

Setting External Source Output

You can use this menu to select the internal or external source that will be output at euroscart2.
To set AV-2 Output:

Press " ⬤ MENU" button so that you enter the main menu.

In the main menu select **Install** using " ▲ " or " ▼ " button.

Open the **Install Menu** pressing " ◄ " or " ►▲ " button. (To open the **Install Menu** directly, do not enter the main menu but only press the BLUE button).

In the **Install Menu** select **TV Setup** using " ▲ " or " ▼ " button.

Open the **TV Setup** menu using " ◄ " or " ►▲ " button.

In the **TV Setup** menu select AV-2 Output using " ▲ " or " ▼ " button. Then select the source you want to be output at scart2 pressing " ◄ " or " ►▲ " button (one of the sources: TV, AV-1 (Scart1) or AV-3 (Front AV).
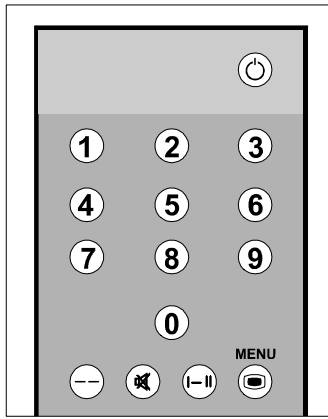
Other Features

Sound Mute

To cut off the TV sound, press the "⣹" button. This will mute the sound.

To bring back the sound, press the "⣹" button or press either of the " ◄ " or " ►▲ " buttons. The sound will return to its previous level.

Blue Background During No-Signal

In case, no valid signal is detected (in TV or AV mode) Blue Background is activated.

Bilingual Broadcast

- If the TV channel you are watching broadcasts in two languages (e.g. Eurosport), you can select the dubbed or the original language, pressing the **I-II** button.

On Screen Information

- After the selection of a TV programme from external equipment, e. g. VCR,
- DVD player or satellite receiver. The following information will appear on your TV screen.
- The programme number and name of the selected TV channel.
- The currently selected mode (not with a programme coming from external equipment).
- The "☒" sound sign will also be displayed when the sound is turned off.

Teletext

Teletext is an information system that displays text on your TV screen. You can use the Teletext system to view a page of information on a subject that is available in the list of contents (index).

Please note that while displaying teletext information there will be no on screen displays and that the contrast, brightness and colour controls will not operate.

The volume control will however function correctly.

Teletext Operation

- Select a TV station on which teletext is being transmitted. Press the Teletext "TEXT" button. Usually a list of contents will be displayed.
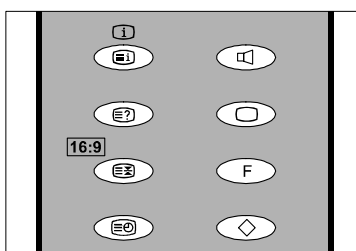
To select a Teletext page

- Press the appropriate digit buttons for the required Teletext page number.

- The selected page number will then be displayed in the top left corner of the screen and the page counter then searches until that page number is located. When located the page will be displayed.
- Pressing the " ▲ " button will move the Teletext page forward by one page.
- Pressing the " ▼ " button will move the Teletext page backward by one page.
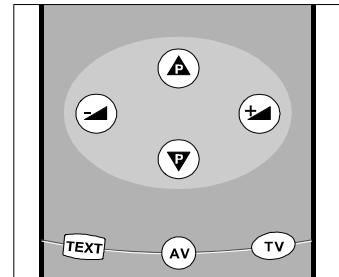
Index Page Selection

- Pressing the "☰i" button will display the main index page.

To Reveal "concealed" Information

- Pressing the "☰?" button once will reveal answers on a quiz or games page. Pressing that button again will conceal the answers.

To Stop the Automatic Sub-page Change

The teletext page you have selected may contain more information than shown on the screen; the rest of the information will be displayed shortly.

- Press the "☰✕" button to stop the automatic sub-page change.
- Pressing the "☰✕" button again will allow the next page to be displayed.

Sub-page Selection

Sub-pages are subsections of long Teletext pages that can only be displayed on the screen one section at a time.

- Select the required Teletext page.
- Press the "☰0" button.
- The required Sub-page number is select by pressing the corresponding numbers four numbers have to be pressed (e.g. 0001).
- When the selected sub-page is found the Teletext page number will be displayed in the upper left corner of the screen.

7 Page Fastext and Toptext

Teletext mode will be selected according to transmission automatically.

Your CTV supports the 7 page Teletext system. When the page number of any of the 7 pages in memory is entered, the system will not search for the requested page; instead it will display the page automatically.

- Press " ▲ " button to move the Teletext screen forward one page at a time.

• Press "▽" button to move the Teletext screen back-ward one page at a time.

For Fastext and Toptext

The subject-heading for the information may have a particular colour or can be in a form located in a coloured box.

• Press an appropriate **RED, GREEN, YELLOW** or **BLUE** button in order to reach the relevant page quickly.

For Toptext

If a Toptext transmission is present, colour coded but-tons will appear in a status row.

If Toptext transmission is not present, status row will not appear.

In Toptext mode the "▲" or "▽" commands will re-quest the next or previous page. If Toptext transmission is not available, in case of operation of these com-mands, wraparound occurs. For example page 100 appears to be one greater than page 199.

To exit Teletext

• Press the "**TV**" button. The screen will change back to the TV mode.

To Display the Time

• While watching a TV programme that has Teletext, pressing the "▤" button will display the current time in the upper right corner of the screen.

• If the programme being watched does not have Tele-text a blue box will be displayed in the upper right cor-ner of the screen.

• If the "▤" button is pressed the time information will disappear.

The time information will disappear if a menu is entered but will return when you exit that menu.

To Change the Picture Mode

You can change the picture mode by pressing the **16:9** (▤) button. Available picture modes are; Auto, 4:3, Widescreen, Letterbox, 14:9L and 14:9 Zoom.
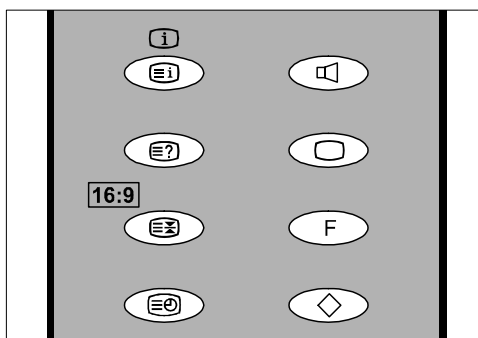
Tips

Care of the Screen:

The screen is best cleaned with a damp soft cloth. Using an abrasive material or solvents will damage the sur-face of the TV screen.

Poor Picture:

• Make sure that you have selected the correct TV Band. Is your TV located too close to loud speakers, heating radiators or fluorescence lights.

• Mountains or high building can sometimes cause double pictures or ghost images.

• The picture quality can sometimes be improved by changing the direction of the aerial.

• The picture quality may be degraded if two pieces of external equipment are connected to the TV at the same time. In such a situation disconnect one of the pieces of equipment.

No Picture:

• Is the aerial connected properly?

• Do the aerial plugs tightly fit the aerial sockets.

• Are the plugs tightly connected to the aerial cable.

• Is the aerial cable damaged.

• Have suitable plugs been used to connect the aerial to the TV.

• If you are in any doubt, consult your dealer.

• No picture means that your TV is not receiving any transmission. Have you pressed the correct buttons on the remote control? Try once more.

Sound:

Sound is coming from only one of the speakers. Is the balance set to one direction extreme? See SOUND menu.

Remote Control not operating the TV:

If your TV does not respond to the remote control do the following.

• Press the "**TV**" button on the remote control once more.

• Check the batteries, they may be exhausted. If so you can still use the controls on the front of the TV.

• Have you selected the wrong menu? Pressing the "**TV**" button will return the TV to the TV mode or press the "▣ **MENU**" button to return to previous menu.

No solution:

Switch your TV set OFF then back ON again. If this does not work, call your dealer; never attempt to repair the TV by yourself.

Specifications

TV BROADCASTING STANDARD .... PAL SECAM B/G D/K L/L'   (CL28W440AN)

RECEIVING CHANNELS .... VHF (BAND I/III)
                                                  UHF (BAND U)
                                                  HYPERBAND
                                                  CABLE TV (BG: S01-S41 - DK: S01-S19 / S22-S41 - LL':S01-S41)

NUMBER OF PRESET CHANNELS 100

CHANNEL INDICATOR .... On Screen Display

RF AERIAL INPUT .... 75 Ohm (unbalanced)

OPERATING VOLTAGE .... **220-240V AC, 50 Hz.**

AUDIO OUTPUT .... German + Nicam Stereo

AUDIO OUTPUT POWER
 ($W_{RMS.}$) (%10 THD) .... 2 x 12

POWER CONSUMPTION (W) (nom.) 150

ST-BY POWER CONSUMPTION (W) .... <3

PICTURE TUBE .... 28" 16:9 (66 cm.)

DIMENSIONS (mm)

D 532
L 777
H... 468
WEIGHT (kg) 33.4

HITACHI

Hitachi, Ltd. Tokyo, Japan
International Sales Division
THE HITACHI ATAGO BUILDING,
No. 15 –12 Nishi Shinbashi, 2 – Chome,
Minato – Ku, Tokyo 105-8430, Japan.
Tel: 03 35022111

HITACHI EUROPE LTD,
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire
SL6 8YA
UNITED KINGDOM
Tel: 01628 643000
Fax: 01628 643400
Email: **consumer-service@hitachi-eu.com**

HITACHI EUROPE S.A.
364 Kifissias Ave. & 1, Delfon Str.
152 33 Chalandri
Athens
GREECE
Tel: 1-6837200
Fax: 1-6835964
Email: **service.hellas@hitachi-eu.com**

HITACHI EUROPE GmbH
Munich Office
Dornacher Strasse 3
D-85622 Feldkirchen bei München
GERMANY
Tel: +49-89-991 80-0
Fax: +49-89-991 80-224
Hotline: +49-180-551 25 51 (12ct/min)
Email: **HSE-DUS.service@hitachi-eu.com**

HITACHI EUROPE S.A.
Gran Via Carlos III, 86, planta 5
Edificios Trade - Torre Este
08028 Barcelona
SPAIN
Tel: +34 93 409 2550
Fax: +34 93 491 3513
Email: **atencion.cliente@hitachi-eu.com**

HITACHI EUROPE srl
Via Tommaso Gulli N.39, 20147
Milano, Italia
ITALY
Tel: +39 02 487861
Tel: +39 02 38073415 Servizio Clienti
Fax: +39 02 48786381/2
Email: customerservice.italy@hitachi-eu.com

HITACHI Europe AB
Box 77 S-164 94 Kista
SWEDEN
Tel: +46 (0) 8 562 711 00
Fax: +46 (0) 8 562 711 13
Email: **csgswe@hitachi-eu.com**

HITACHI EUROPE S.A.S
Lyon Office
B.P. 45, 69671 BRON CEDEX
FRANCE
Tel: +33 04 72 14 29 70
Fax: +33 04 72 14 29 99
Email: **france.consommateur@hitachi-eu.com**

HITACHI EUROPE LTD (Norway) AB
STRANDVEIEN 18
1366 Lysaker
NORWAY
Tel: 67 5190 30
Fax: 67 5190 32
Email: **csgnor@hitachi-eu.com**

HITACH EUROPE AB
Egebækgård
Egebækvej 98
DK-2850 Nærum
DENMARK
Tel: +45 43 43 6050
Fax: +45 43 60 51
Email: **csgnor@hitachi-eu.com**

HITACHI EUROPE AB
Neopoli / Niemenkatu 73
FIN-15140 Lahti
FINLAND
Tel : +358 3 8858 271
Fax: +358 3 8858 272
Email: **csgnor@hitachi-eu.com**

Hitachi Europe Ltd
Bergensesteenweg 421
1600 Sint-Pieters-Leeuw
BELGIUM
Tel: +32 2 363 99 01
Fax: +32 2 363 99 00
Email: **sofie.van.bom@hitachi-eu.com**

HITACHI EUROPE LTD
Na Sychrove 975/8
101 27 Praha 10 – Bohdalec
CZECH REPUBLIC
Tel: +420 267 212 383
Fax: +420 267 212 385
Email: **csgnor@hitachi-eu.com**

www.hitachidigitalmedia.com