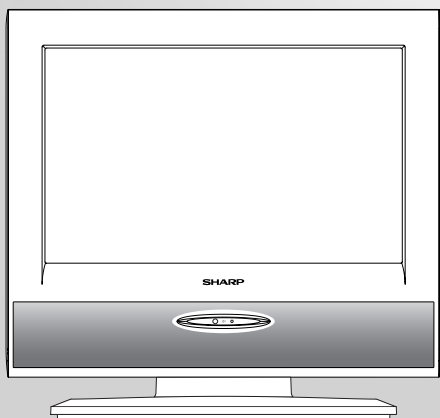# SHARP®

LC-17SH1E

LCD COLOUR TELEVISION

OPERATION MANUAL

Introduction / Safety is Important

Introduction

Thank you for purchasing this product which has been designed and manufactured to give you many years of trouble-free service.

You may already be familiar with using a similar product, but do please take time to read these instructions - they have been written to ensure you get the very best from your purchase.

Safety is Important

To ensure your safety and the safety of others, please ensure you read the Safety Instructions **before** you operate this product.

Keep this information in a safe place for future reference.

This apparatus complies with the requirements of Council Directives 89/336/EEC and 73/23/EEC as amended by Council Directive 93/68/EEC.

SPECIAL NOTE FOR USERS IN THE U.K.

The mains lead of this product is fitted with a non-rewireable (moulded) plug incorporating a 3A fuse. Should the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked ▽ or ⬦ and of the same rating as above, which is also indicated on the pin face of the plug, must be used.

Always refit the fuse cover after replacing the fuse. Never use the plug without the fuse cover fitted.

In the unlikely event of the socket outlet in your home not being compatible with the plug supplied, cut off the mains plug and fit an appropriate type.

DANGER: The fuse from the cut-off plug should be removed and the cut-off plug destroyed immediately and disposed of in a safe manner.
Under no circumstances should the cut-off plug be inserted elsewhere into a 13A socket outlet, as a serious electric shock may occur.

To fit an appropriate plug to the mains lead, follow the instructions below.

IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:
Blue : Neutral   Brown : Live

As the colours of the wires in the mains lead of this product may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows;
- The wire which is coloured blue must be connected to the plug terminal which is marked N or coloured black.
- The wire which is coloured brown must be connected to the plug terminal which is marked L or coloured red.

Ensure that neither the brown nor the blue wire is connected to the earth terminal in your three-pin plug.

Before replacing the plug cover make sure that:
- If the new fitted plug contains a fuse, its value is the same as that removed from the cut-off plug.
- The cord grip is clamped over the sheath of the mains lead, and not simply over the lead wires.

IF YOU HAVE ANY DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

Safety Precautions

PLEASE READ ALL THE SAFETY INFORMATION BEFORE USE.

Safety Considerations

- Position the power supply lead so that it cannot be walked on or pinched by items placed on or against it.

- Do not use the unit in humid or damp conditions.

- Do not allow the unit to get wet.

- Do not expose the unit to splashing or dripping.

- Do not place water filled objects or naked flame sources, such as candles, on top of the unit.

High Voltage

- Do not remove the rear cover as high voltage components are accessible.

- Disconnect the unit from the power supply when the unit is not to be used for a prolonged period of time.

Cleaning

- Disconnect the unit from the power supply before you clean it.

- Do not use liquid or aerosol cleaners.

- Clean your unit with a soft, damp (not wet) cloth.

Ventilation

- The slots and openings on the unit are for ventilation. Do not cover or block them as it may cause overheating.

- NEVER let children push anything into the holes or slots on the case.

Safety Precautions

Servicing

- There are no user serviceable parts in this unit.

- When servicing, refer to qualified service personnel.

- Consult your dealer if you are ever in doubt about the installation, operation or safety of this unit.

Battery Disposal

- Do not dispose of batteries in fire or in normal household waste - please contact your local authorities to advise how to best dispose of used batteries in the area where you live. Do not attempt to recharge non-rechargeable batteries, such as those supplied with this product. If you are not going to use the product for an extended period of time, it is best to remove the batteries to avoid leakage.

Warning

To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

Contents

Getting Started

Carefully remove the television and all other items from the box. You may wish to store the packaging for future use.

Please read these instructions thoroughly before use.

In the Box

Inside this package you should have:

- LCD Television
- Remote Control with two AA size batteries
- AC Cord with AC Adapter
- User Guide set

TOP

POWER ⏻ button

MENU button

CHANNEL UP/DOWN buttons

VOLUME UP/DOWN buttons

Left Side　　**Front**

Headphone

EXT3 (VIDEO/AUDIO (L/R) IN) socket

PC AUDIO (L/R) IN socket

PC IN

Standby ⏻ indicator

Remote sensor

Speakers (Left and Right)
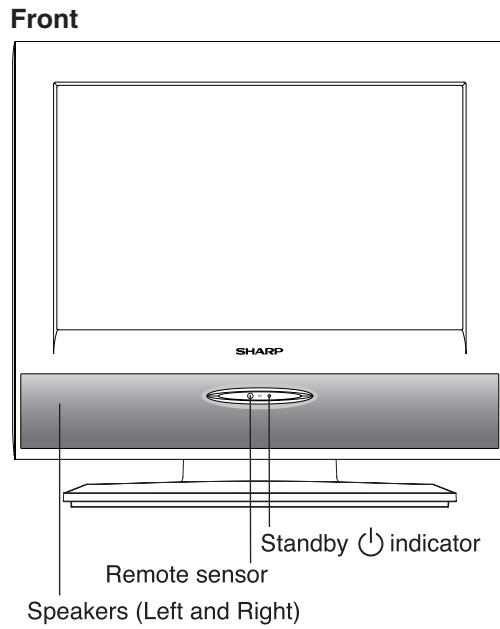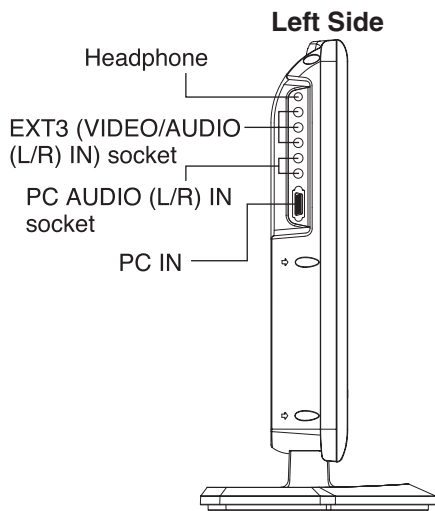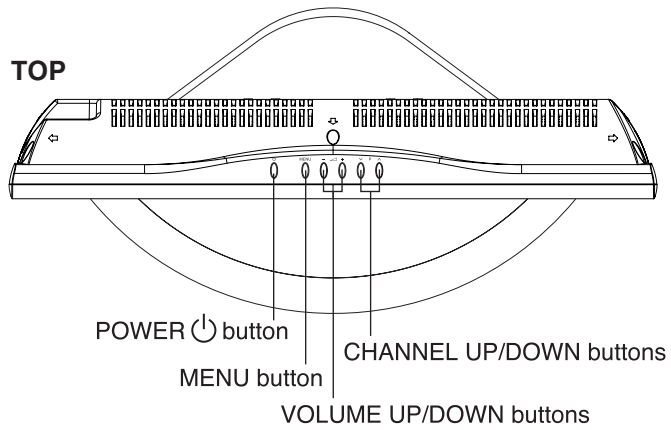
Location of Controls

Rear

EXT1(SCART) input socket

Aerial socket

POWER (DC) input socket

EXT2(SCART) input socket
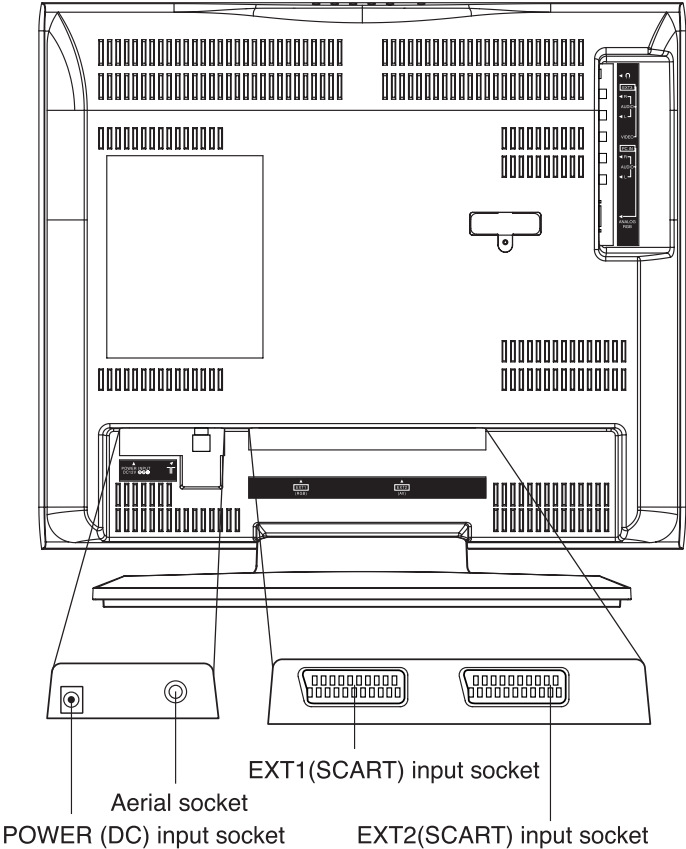
Variable TV-screen angle

Approx. 10˚ — 0˚ — Approx. 5˚
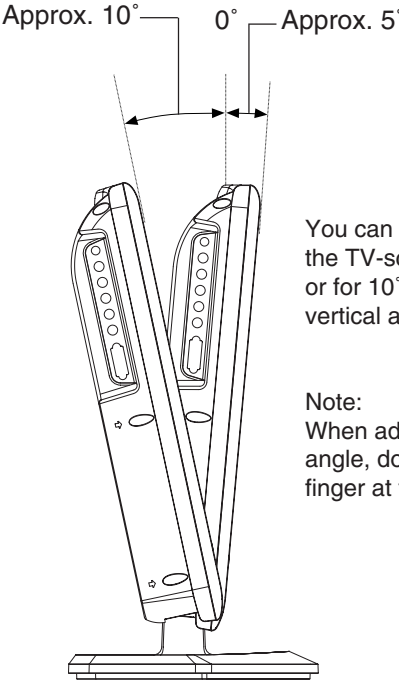
You can adjust the angle of the TV-screen for 5˚ forward or for 10˚ backward from vertical angle.

Note:
When adjusting the stand angle, do not pinch your finger at the openings.

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Power on/off (See page 14)

Set the SLEEP time (See page 21)

Mute (See page 21)

Audio Select (I/II) mode
(See page 23)

Enter information in the menu/
Select option in the menu

Cursor Left

Reset input data in the
setting mode (See page 23)
Magnifying in the Teletext
(See page 33)

TEXT/MIX/TV (See page 32)

Reveral (See page 33)

Hold (See page 32)

Subtitle (See page 32)
Subpage (See page 33)

Select screen-picture format
(See page 26)

Display TV operation status
(See page 21)

Volume Up/Down
(See page 20)

Channel Up/Down
(See page 20)

TV/EXT/PC input (See page 13)

Cursor Up

Cursor Right

Cursor Down

Display menu of setup
(See page 15)

Direct channel selection of TV
(See page 20)/Input setting

Flash Back (See page 21)

Four coloured Teletext Buttons
(See page 32)

SHARP

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Remote Control

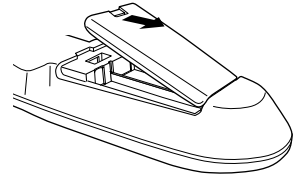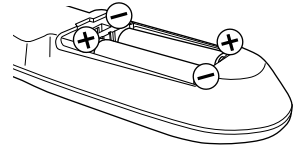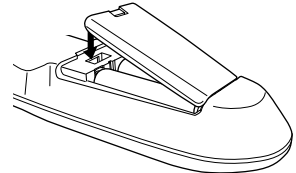## Inserting Battery

• Open the battery compartment cover in the direction of the arrow.

• Install two "AA" batteries (supplied), paying attention to the polarity diagram in the battery compartment.
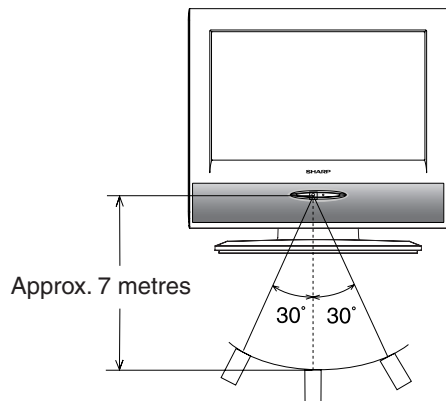
• Replace the compartment cover.

Operation

• Aim the remote control at the remote sensor and press control buttons to operate.
• Operate the remote control within 30° angle on either side of the remote sensor, up to a distance of Approx. 7 meters.

Approx. 7 metres

30˚   30˚

Notes:
• Do not leave the remote control unit exposed to direct sunlight or in hot or humid places.
• The remote control unit uses infrared beams to transmit signals, so sunlight or fluorescent light on the remote sensor may shorten the operating distance.
• Incorrect use of batteries may cause them to leak or burst. Read the battery warnings and use the batteries properly.
• Do not mix old and new batteries.
• Remove batteries if the remote control will not be operated for an extended period of time.

TO USE AC POWER

1. Connect the AC cord to the AC adaptor.
2. Connect the AC adaptor plug into this unit's DC input socket.
3. Connect the AC cord into an AC socket.
4. The Standby ⏻ indicator will light.

Household power outlet

AC cord (supplied)

AC adaptor (supplied)
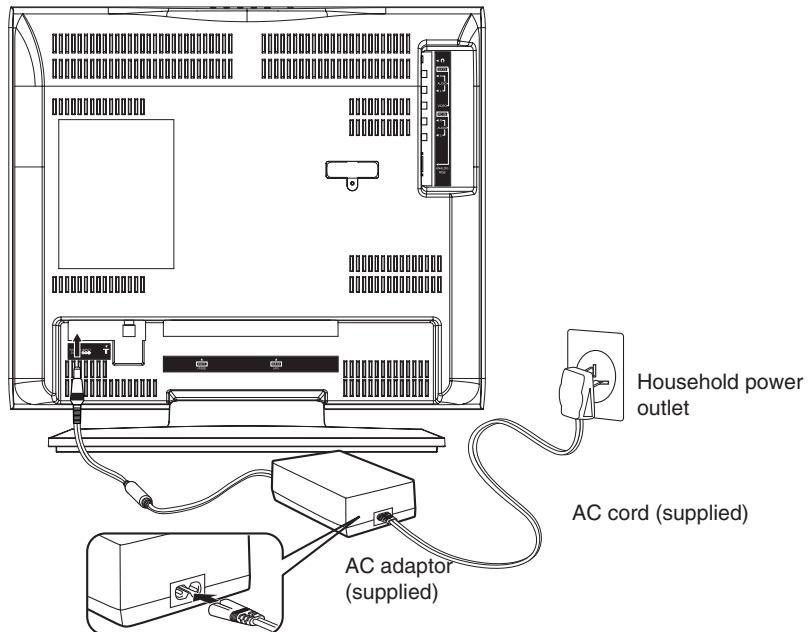
NOTES:
• Please make sure to insert the plug of each cord securely.
• During use the AC adaptor becomes warm. This is not a malfunction.

WARNING:
• DO NOT CONNECT THIS UNIT TO THE POWER USING ANY DEVICE OTHER THAN THE SUPPLIED AC ADAPTOR OR POWER LEAD. THIS COULD CAUSE FIRE, ELECTRICAL SHOCK, OR DAMAGE.
• DO NOT USE WITH A VOLTAGE OTHER THAN THE POWER VOLTAGE DISPLAYED. THIS COULD CAUSE FIRE, ELECTRICAL SHOCK, OR DAMAGE.

CAUTION:
• DO NOT USE THE AC ADAPTOR IF IT IS COVERED BY A CLOTH ETC., OR PRESSED INTO A NARROW AREA. THIS RESULTS IN POOR DISSIPATION OF HEAT AND MAY CAUSE FIRE, ELECTRICAL SHOCK, OR DAMAGE.
• WHEN THIS UNIT IS NOT USED FOR A LONG TIME, (E.G., AWAY ON A TRIP) IN THE INTEREST OF SAFETY, BE SURE TO UNPLUG IT FROM THE AC SOCKET.
• DO NOT PLUG/UNPLUG THE PLUG WHEN YOUR HANDS ARE WET. THIS MAY CAUSE ELECTRICAL SHOCK.
• IF YOU NEED TO REPLACE THE SUPPLIED AC ADAPTOR OR AC CORD, THE SPECIFIED ONE IS RECOMMENDED. IN THIS CASE, CONTACT THE DEALER THAT YOU PURCHASED THE UNIT FROM.

Aerial Connection

Connect the aerial cable as shown below. We recommend that you connect this set to an outdoor aerial that has been installed by a specialist - do not attempt to install this by yourself.
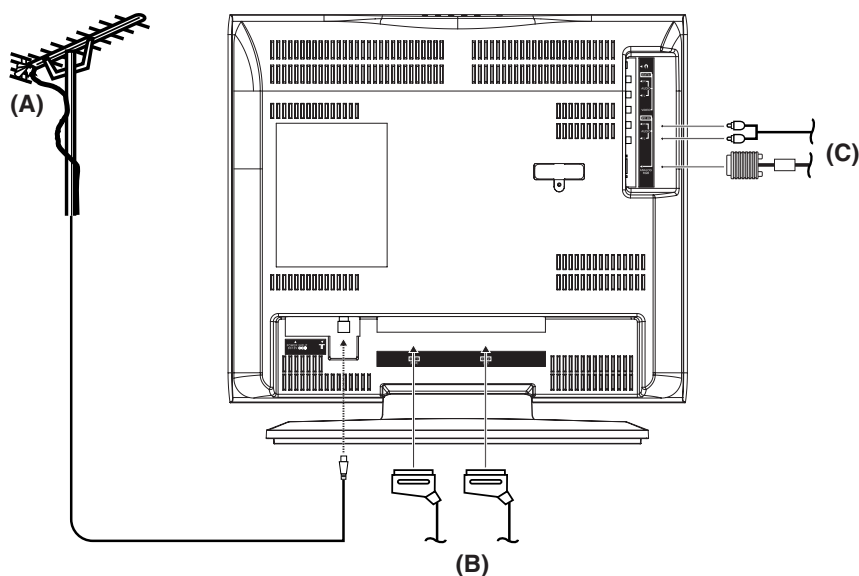
(A) Outdoor aerial
Connect your main aerial to this set.

(B) EXT1/EXT2 (Scart) socket
The SCART sockets can be used to connect satellite / digital TV decoders, VCRs, DVD recorders or other similar devices.
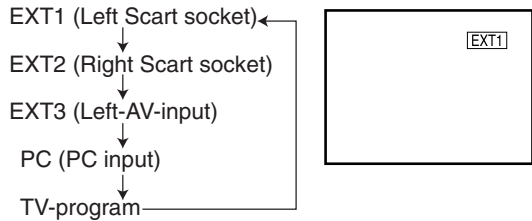
(C) PC Monitor input (PC)
See page 29.

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Input Selection

If you connect the unit to a VCR, camcorder or games console, you can select this input by pressing the ⇥ **(INPUT)** button.

Press the ⇥ **(INPUT)** button repeatedly to select EXT1, EXT2 or EXT3.

EXT1 (Left Scart socket)
↓
EXT2 (Right Scart socket)
↓
EXT3 (Left-AV-input)
↓
PC (PC input)
↓
TV-program

EXT1

1. To connect the unit to a VCR

Press the ⇥ **(INPUT)** button to select EXT1 to use the TV as a monitor.

Rear lower left of unit (EXT1 IN)

Scart Socket

To Scart socket of VCR

Scart cable (not supplied)
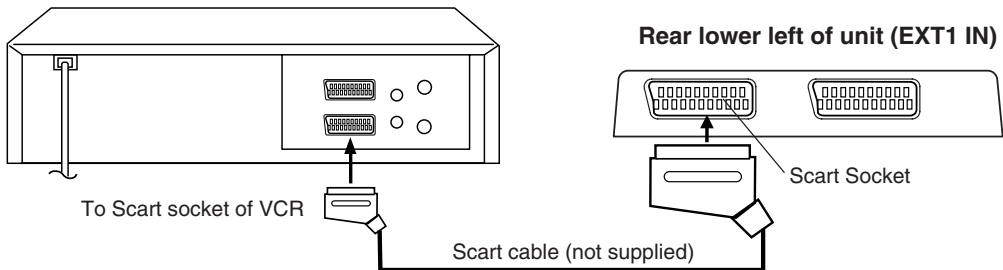
2. To connect the unit to a TV Game

The unit can also be used as a display device for many video games. However, due to the wide variety of different types of signal generated by these devices and subsequent hook-up variations required, they have not all been included in the suggested connection diagrams. Press the ⇥ **(INPUT)** button to select EXT2 to use the TV as a monitor. You'll need to consult each component's Owner's Manual for additional information.

Rear lower right of unit (EXT2 IN)

TV GAME

To Audio/ Video OUT

Scart Socket

Audio/Video cord (not supplied)
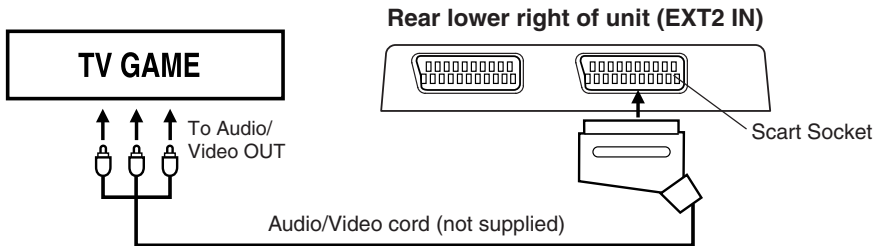
3. To connect the unit to a camcorder

Connect the camcorder to the unit as shown.

Press the ⇥ **(INPUT)** button to select EXT3 to use the TV as a monitor.

AUDIO IN (R)
AUDIO IN (L)

Left SIDE of unit (EXT3 IN)

Camcorder

VIDEO IN

To Audio/ Video OUT

Audio/Video cord (not supplied)
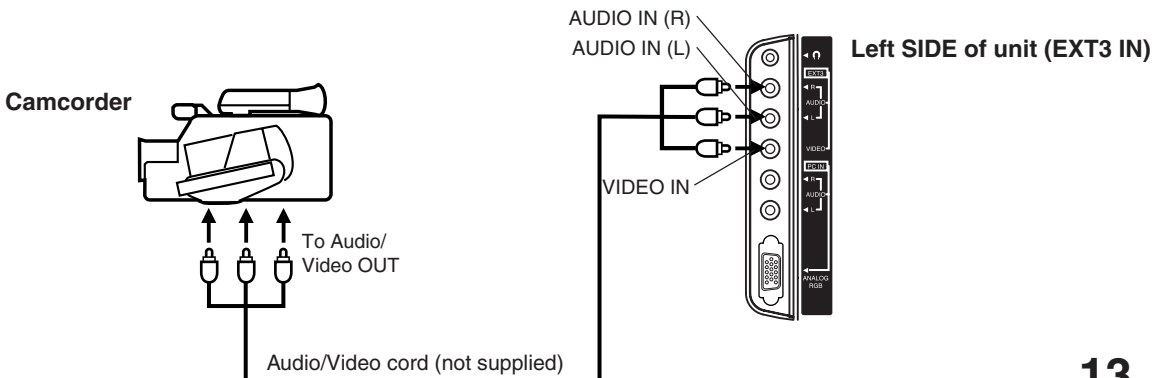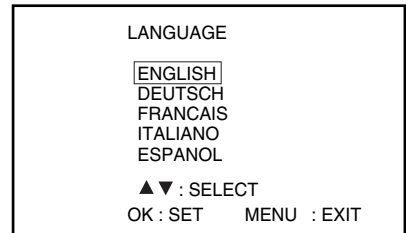
Automatic Search System

Your television has an Automatic Search System which makes tuning in your television easy. This Automatic Search System scans the entire reception range in your area and automatically stores all available channels of suitable signal strength in the correct order e.g. BBC1 will tune into channel 1, BBC2 will tune into channel 2, etc.

THE AUTOMATIC SEARCH PROCESS WILL ONLY START BY ITSELF THE FIRST TIME YOU SWITCH THE SET ON.
HOWEVER YOU CAN RESTART THIS PROCESS VIA THE MENU SYSTEM.

1. Press ⏻ **(Power)** on the top of the unit or press ⏻ **(Power)** on the remote.
   Language select menu will appear first.

2. Press ▲ or ▼ to select desired language.
   Then press **OK**.

```
            LANGUAGE

          ENGLISH
          DEUTSCH
          FRANCAIS
          ITALIANO
          ESPANOL

          ▲▼ : SELECT
      OK : SET     MENU  : EXIT
```

3. Press **OK** to start automatic tuning.
   Your TV will now automatically tune in all available channels.

```
      CONNECT AERIAL TO TV

      THEN  PRESS OK TO

      START AUTO TUNING

            MENU : EXIT
```

```
      AUTOMATIC SEARCH

            MENU : EXIT
```
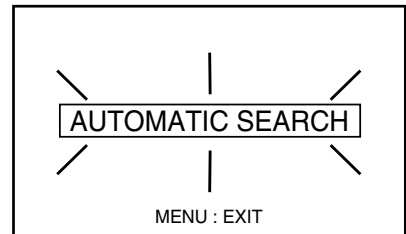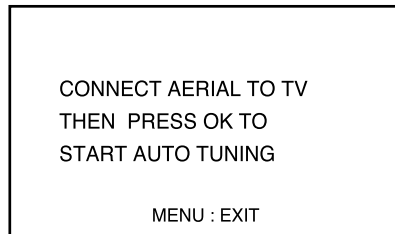
When the programme on the screen stops changing and the sound comes on, the search process is complete.

Note:
If you use a loop aerial, weak channels may not be stored automatically. You will need to tune these manually.

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Preparation
Press ⏻ **(Power)** on top of the unit or remote control to turn on the unit.

Learn the basic MENU-operation. Here, we explain the basic MENU-operation. About the following each MENU-operations, we abbreviate these basic MENU-operations.

Example : Select the AUTOMATIC SEARCH menu.
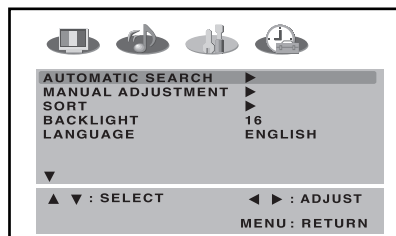
1. Press **MENU**.

PICTURE menu   AUDIO menu   SETUP menu   OPTION menu

Each setting option

BRIGHTNESS	25
CONTRAST	25
COLOUR	25
TINT	0
SHARPNESS	25
DNR	OFF
BLUE SCREEN	ON

Remote key-guide

▲ ▼ : SELECT   ◄ ► : ADJUST

MENU : EXIT

2. Press ◄ or ► to select 🔧 .

AUTOMATIC SEARCH   ►
MANUAL ADJUSTMENT   ►
SORT   ►
BACKLIGHT   16
LANGUAGE   ENGLISH

▼

▲ ▼ : SELECT   ◄ ► : ADJUST

MENU : EXIT

3. Press ▲ or ▼ to select AUTOMATIC SEARCH.

... the other items shown in the Menu are shown on the following pages.

AUTOMATIC SEARCH   ►
MANUAL ADJUSTMENT   ►
SORT   ►
BACKLIGHT   16
LANGUAGE   ENGLISH

▼

▲ ▼ : SELECT   ◄ ► : ADJUST

MENU : RETURN

4. Press **MENU** to return to the normal TV screen.
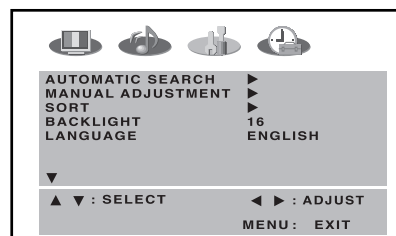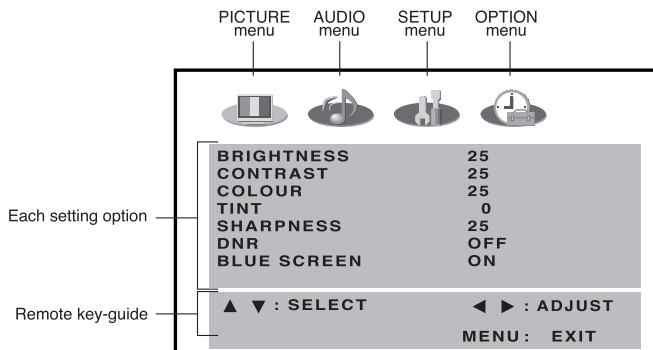
Note:
Each time you press ⇥, the EXT(AV) mode will change as follows:

TV ⟶ EXT1 ⟶ EXT2 ⟶ EXT3 ⟶ PC

Language Setting

This unit has 5 different languages for MENU set up which can be selected through ON Screen Display:
English, German, French, Italian or Spanish.

1. Select LANGUAGE.
To select the desired language, English (ENGLISH), German
(DEUTSCH), French (FRANCAIS), Italian (ITALIANO) or Span-
ish (ESPANOL), press ◄ or ►.

```
AUTOMATIC SEARCH      ►
MANUAL ADJUSTMENT     ►
SORT                  ►
BACKLIGHT            16
LANGUAGE        ENGLISH
        ENGLISH/DEUTSCH/FRANCAIS
          ITALIANO/ESPANOL
▼

▲ ▼ : SELECT        ◄ ► : ADJUST
                    MENU : RETURN
```
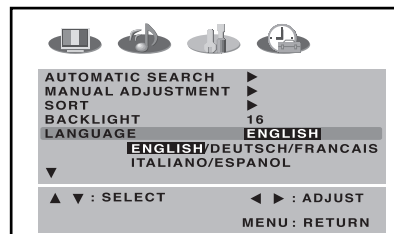
2. Press **MENU** to return to the normal TV screen.

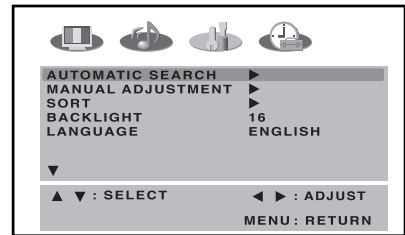Once you have connected up this unit, you will need to search in the channels in order to watch TV stations. There are two ways that you can do this:

- Automatic Search All stations should be stored in the correct sequence for your region - however if you do need to change the order of some stations, please refer to the Manual tuning process.

- Manual Tuning In this mode the TV searches until a picture appears. If it is a station that you want to keep, you can choose which channel preset you want to store it on. You repeat this procedure for each station until you have stored all the desired stations.

Automatic Search

1. Select AUTOMATIC SEARCH.

```
AUTOMATIC SEARCH    ▶
MANUAL ADJUSTMENT   ▶
SORT                ▶
BACKLIGHT           16
LANGUAGE            ENGLISH
▼

▲ ▼ : SELECT          ◀ ▶ : ADJUST
                        MENU : RETURN
```

2. Press ▶.
All available channels in your area are automatically scanned and stored in the memory of the unit.
After scanning, the previous step 1 screen appears.

```
AUTOMATIC SEARCH

MENU : EXIT
```
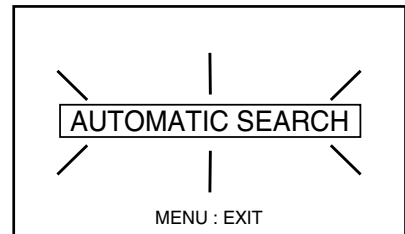
3. Press **MENU** twice.
The unit will return to normal TV screen.

4. The automatic search will not necessarily store the channels in the correct order (BBC1 on CH 1 etc.). If you want to change the order of the stored channels, please see page 19.
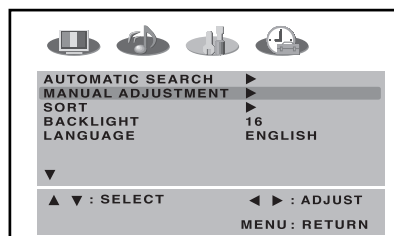
Notes:
• If you want to skip any channels, refer to page 21.
• When the unit is in the EXT mode, you can't preset the channels.
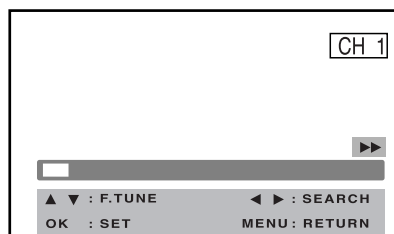
Presetting the Channels

Manual Tuning

How to tune a station to channel 2 position.

1. Select MANUAL ADJUSTMENT. Then press ▶.

```
🖥️  🎵  ⛏️  🕐

AUTOMATIC SEARCH      ▶
MANUAL ADJUSTMENT     ▶
SORT                  ▶
BACKLIGHT             16
LANGUAGE              ENGLISH

▼

▲ ▼ : SELECT          ◀ ▶ : ADJUST

                      MENU : RETURN
```

2. Press ◀ or ▶ until the picture appears on screen. If this is not your desired channel, press ◀ or ▶ until your desired channel appears. If you need to make the picture clearer, use ▲ or ▼ (FINE TUNING). Then press **OK**.

```
                                    CH 1

                                    ▶▶

▲ ▼ : F.TUNE          ◀ ▶ : SEARCH
OK   : SET            MENU : RETURN
```

3. Press ▲ or ▼ to select channel position No.2, then press **OK**.

```
                                    CH 2

▲ ▼ : SELECT
OK   : SET            MENU : RETURN
```
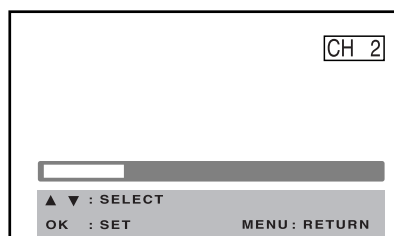
4. Repeat steps 2 through 3 until all the required channels have been stored.

5. When all desired channels have been set in your required position, press **MENU** three times to return to normal TV screen.

Note:
It is recommended that you store the stations you tune in the order shown in the table below.
If you have your Satellite/Cable, etc. connected via a SCART lead to this VCR, then press ⤳ **(INPUT)** to select it, rather than tuning it in to channel 6.
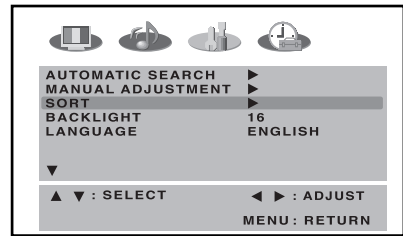
Channel Position	1	2	3	4	5	6
Station	BBC 1	BBC 2	ITV	Channel 4	Channel 5	Satellite/Cable[(if available)]

To change the Channels

Example: Changing of channel position from CH40 and CH5.

1. Select SORT.
Then press ▶.

```
AUTOMATIC SEARCH      ▶
MANUAL ADJUSTMENT     ▶
SORT                  ▶
BACKLIGHT             16
LANGUAGE              ENGLISH

▼

▲ ▼ : SELECT        ◄ ► : ADJUST
                     MENU : RETURN
```

2. Press ▲ or ▼ to select the channel position No. (broadcasting) which you want to change. Then press **OK**.

```
                              CH 40

SORT                          CH  1




▲ ▼ : SELECT
OK  : SET           MENU : RETURN
```
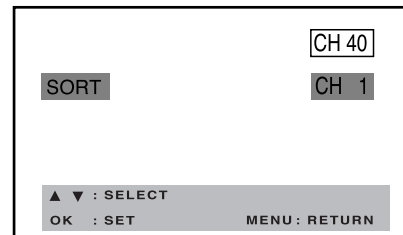
3. Press ▲ or ▼ to select the channel allocation No. that you want to change to. Then press **OK**.

```
                              CH 40

SORT                          CH 5




▲ ▼ : SELECT
OK  : SET           MENU : RETURN
```
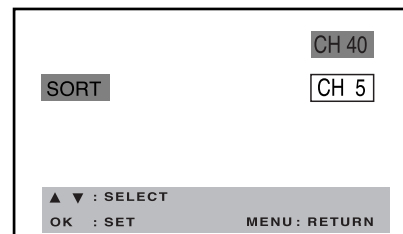
4. The numbers of the stations are changed. Repeat steps 3 - 4 to change the order of other channels.

```
                              CH 5

SORT                          CH 40




▲ ▼ : SELECT
OK  : SET           MENU : RETURN
```
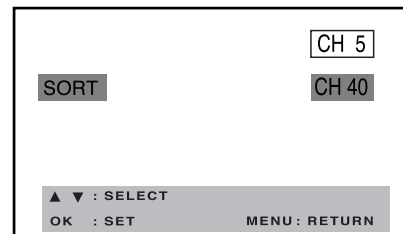
5. Press **MENU** three times to return to normal TV screen.

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TV Operations

After completing the connection and presetting the channels, follow these steps for viewing.

1. Press Power ⏻ on the top of the unit or remote control to turn on the unit.
The standby ⏻ indicator will go off.

2. Direct Channel Selection buttons (0-9).
Press **Direct Channel Selection buttons** on the remote control.

1-9 CH: Press your required number only.
10-80 CH: Press the two digits in accordance to the channel numbers required.

P ∧ / ∨
Press **P** ∧ or ∨ on the remote control.

```
                                              CH 29




```
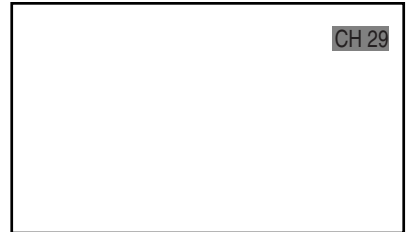
3. The VOLUME can be adjusted by pressing the ◿ **+** or **–** on the remote control.

```



  VOLUME                        25
  ▮▮▮▮▮▮▮▮▮▮▮
```
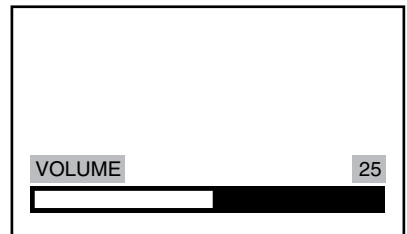
Note:
On screen display will disappear after 4 seconds.
Automatic Power Shut Off
If a station being viewed stops broadcasting for about 15 minutes, the unit will automatically shut itself off and go into standby mode.

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Convenient Functions

The following functions are available from the remote control handset only.

TV/EXT(AV) Selection
For receiving the desired signal: Press ⟶ **(INPUT)** to select the TV or EXT(AV) mode.

TV position - to view a normal TV.

CH 5

EXT(AV) position - to receive through the direct Video input. EXT1 (from 21 pin SCART socket on the rear left), EXT2 (from 21 pin SCART socket on the rear right), EXT3 (from Audio/Video in sockets on the left side) or PC (from PC IN socket on the left side) indicator appears on the screen in AV mode.

EXT1

⇆ (FLASH BACK)
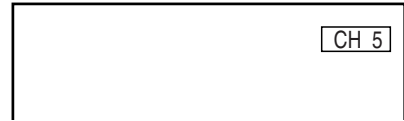This button allows you to go back to the previous channel by pressing ⇆ **(FLASH BACK)**. Press this button again to return to the channel you were watching.

DISPLAY
When you press ⊞ **(DISPLAY)** once, the channel number and screen picture size etc. will appear. The display will disappear in 4 seconds.

MUTE
When ⊠ **(MUTE)** is pressed, the TV sound will be turned off completely. To disable this function, press the button again or ◢ **+** or **−**.

SLEEP
To set the unit to turn off, press **SLEEP** on the remote control. The clock will count down 10 minutes each time the button is pressed in the order of 120, 110, 100,...20, 10, 0. After the sleep time is programmed, the display will disappear and will reappear momentarily at every 10 minutes. To confirm the sleep time setting, press **SLEEP** once and the remaining time will be momentarily displayed.
To cancel the sleep time, press **SLEEP** repeatedly until the display turns to 0.

SKIP FUNCTION
After all channels available in your area have been set in memory, you can skip unwanted channels as follows.

1. Press **P** ∧ or ∨ to select the channel which you want to skip.
2. Press **SKIP**.
    When a channel is skipped, the channel number will blink.
3. Skip all unwanted channels the same way following steps 1-2.

Note:
To cancel the SKIP function, press **Direct Channel Selection buttons** to select the channel which you want to cancel, then press **SKIP** again.

ON/OFF Timer

The on timer feature allows you to automatically turn on your TV after a preset amount of time (up to 12 hours and 59 minutes) on the selected channel.
The off timer also allows you to turn off your TV after a preset amount of time. You can set the off timer in conjunction with the on timer.

1. Select ON TIMER.
Then press **OK**.

```
ON TIMER          SET
                  00:00          CH 1
OFF TIMER         SET
                  00:00


▲ ▼ : SELECT
OK   : SET        MENU : RETURN
```
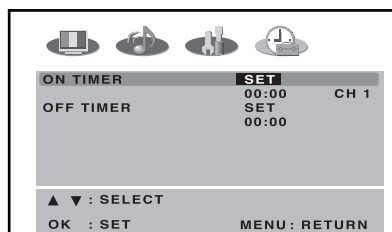
2. Press ▲ or ▼ to enter the hours and minutes at which you want your TV to automatically switch on.

- For rapid time change in ten minute intervals, press and hold ▲ or ▼.

Press ▶.

```
ON TIMER          SET
                  10:30          CH 1
OFF TIMER         SET
                  00:00


▲ ▼ : ADJUST      ◀ ▶ : SELECT
OK   : SET        MENU : RETURN
```
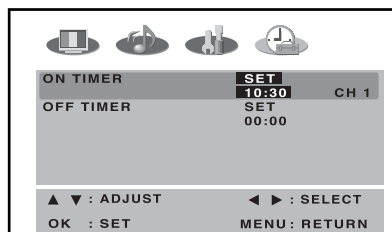
3. Press ▲ or ▼ to select the channel you wish to display when your TV switches on.
Press **OK**.

```
ON TIMER          SET
                  10:30          CH 1
OFF TIMER         SET
                  00:00


▲ ▼ : ADJUST      ◀ ▶ : SELECT
OK   : SET        MENU : RETURN
```
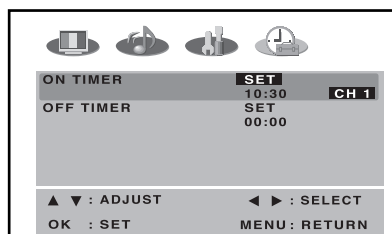
Put your TV into Standby mode by pressing ⏻❘ on the remote control.

If you wish to set the OFF TIMER, press ▲ or ▼ to select OFF TIMER at step 1.

NICAM Stereo Sound

The unit is fitted with a NICAM stereo decoder. NICAM refers to the digital stereo system broadcast by television stations. NICAM provides a new dimension to unit by enhancing the sound quality to the point where it compares with hi-fi audio systems.

1. Select NICAM.
Press ◀ or ▶ to select AUTO or OFF.

```
┌─────────────────────────────────────┐
│  🖥   🔊   🎛   ⏰                   │
│                                      │
│  NICAM              AUTO/OFF         │
│  BASS                25              │
│  TREBLE              25              │
│  BALANCE              0              │
│                                      │
│                                      │
│  ▲ ▼ : SELECT       ◀ ▶ : ADJUST    │
│                     MENU : RETURN    │
└─────────────────────────────────────┘
```
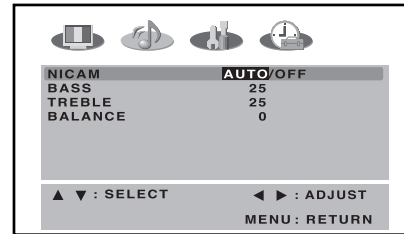
2. Press **MENU** to return to the normal TV screen.

In case of 2 channel-sound reception, you can select the desired sound with ▽/⟳ I / II .

Each time you press the ▽/⟳ I / II (Audio Select), the both sound channels alternate with each other.

NICAM-2 channel-Sound reception

```
┌─────────────────────────────────────┐
│   NICAM  M1/M2                       │
│                                      │
│                                      │
└─────────────────────────────────────┘
                    ↕
┌─────────────────────────────────────┐
│   NICAM  M1/M2                       │
│                                      │
│                                      │
└─────────────────────────────────────┘
```
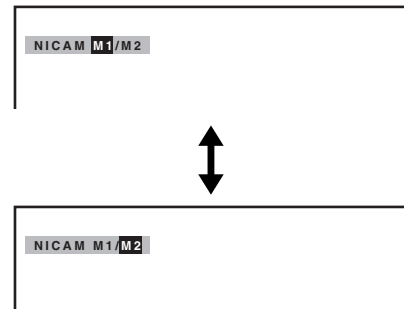
Bass, Treble and Balance

1. Select BASS.
Then press ◀ or ▶ to adjust the BASS.

```
┌─────────────────────────────────────┐
│  🖥   🔊   🎛   ⏰                   │
│                                      │
│  NICAM              AUTO             │
│  BASS                25  ◀─────▶     │
│  TREBLE              25              │
│  BALANCE              0              │
│                                      │
│  ▲ ▼   : SELECT     ◀ ▶ : ADJUST    │
│  NORMAL : RESET     MENU : RETURN    │
└─────────────────────────────────────┘
```
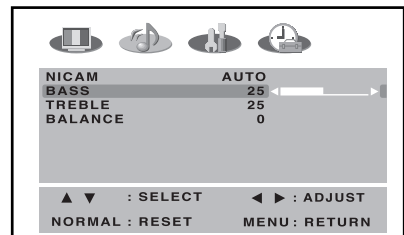
If you wish to adjust the Treble or Balance, press ▲ or ▼ to select desired option at step 1.

2. Press **MENU** to return to the normal TV screen.

Notes:
- The audio settings can only be adjusted when they are displayed on screen.
- When the audio adjustments are shown on the screen, pressing **NORMAL** will return all the settings to their factory preadjusted levels.

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Brightness, Contrast, Colour and Sharpness / DNR

The picture settings have been adjusted at the factory under optimum signal reception conditions. However, you can adjust for BRIGHTNESS, CONTRAST, COLOUR and SHARPNESS to your preference.

1. Select BRIGHTNESS.
Then press ◀ or ▶ to adjust BRIGHTNESS.

```
BRIGHTNESS      25
CONTRAST        25
COLOUR          25
TINT             0
SHARPNESS       25
DNR            OFF
BLUE SCREEN     ON

▲ ▼     : SELECT      ◀ ▶ : ADJUST

NORMAL : RESET         MENU: RETURN
```
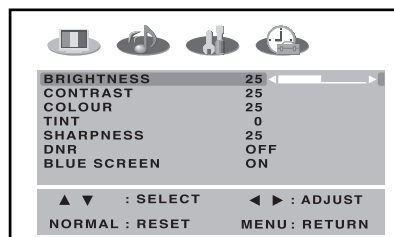
If you wish to adjust the Contrast, Colour, Tint or Sharpness press ▲ or ▼ to select desired option at step 1.

2. Press **MENU** to return to the normal TV screen.

Notes:
• The picture settings can only be adjusted when they are displayed on screen.
• When the picture adjustments are shown on the screen, pressing **NORMAL** will return all the settings to their factory preadjusted levels.

DNR

DNR (Digital Noise Reduction) can reduce the roughness of the picture.

1. Select DNR.
Then press ◀ or ▶ to select ON or OFF.

```
BRIGHTNESS      25
CONTRAST        25
COLOUR          25
TINT             0
SHARPNESS        3
DNR          ON/OFF
BLUE SCREEN     ON

▲ ▼     : SELECT      ◀ ▶ : ADJUST

NORMAL : RESET         MENU: RETURN
```

2. Press **MENU** to return to the normal TV screen.

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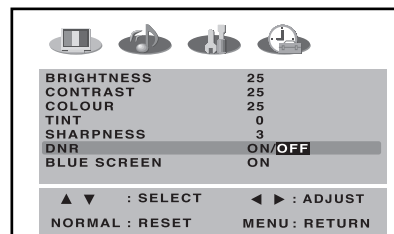
Blue screen

When you select a channel where the broadcast has finished or no broadcast is set, the TV screen will automatically appear blue.

1. Select BLUE SCREEN.
Then press ◀ or ▶ to select ON or OFF.

```
 🖵   🎧   🛠   ⏰

BRIGHTNESS          25
CONTRAST            25
COLOUR              25
TINT                 0
SHARPNESS           25
DNR                OFF
BLUE SCREEN        ON/OFF

▲ ▼    : SELECT    ◀ ▶ : ADJUST
NORMAL : RESET      MENU: RETURN
```
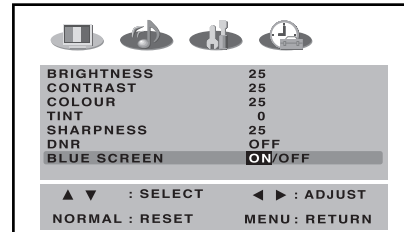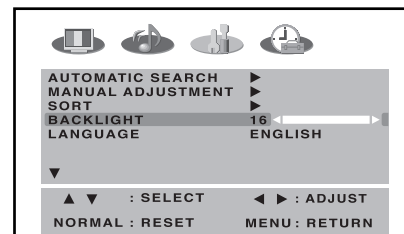
2. Press **MENU** to return to the normal TV screen.

Backlight

If your TV is in a bright room, the screen image may be difficult to see. You can use the Backlight feature to adjust the screen brightness for improved picture clarity.

1. Select BACKLIGHT.
Then press ◀ or ▶ to adjust BACKLIGHT.

```
 🖵   🎧   🛠   ⏰

AUTOMATIC SEARCH    ▶
MANUAL ADJUSTMENT   ▶
SORT                ▶
BACKLIGHT           16
LANGUAGE         ENGLISH

▼
▲ ▼    : SELECT    ◀ ▶ : ADJUST
NORMAL : RESET      MENU: RETURN
```

2. Press **MENU** to return to the normal TV screen.

Note:
Pressing **NORMAL** will return Backlight adjustment to factory preadjusted levels.

Wide-screen picture formats

Select a wide mode to change the picture format. You can enlarge the picture to fill the wide TV screen (16:9 aspect ratio). In addition, you can stretch a normal picture (4:3 aspect ratio) to fill the wide TV screen.

Note:
The picture format information of the present broadcasting programme may be received as WSS (Wide Screen Signalling). When AUTO mode is selected for wide mode and the WSS signal is received, this TV automatically selects the optimum wide mode corresponding to the WSS signal. However, in the case of weak WSS signal reception, this function may not work correctly. In this case, select the optimum wide mode manually.

Automatic wide selection (AUTO mode)
Press ◄►► (WIDE MODE) repeatedly to select AUTO. Your TV automatically selects the optimum wide mode to suit the current programme's picture format.
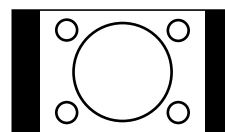
Note:
This function may not work correctly depending on the programme. In this case, select the optimum wide mode manually.

Manual format selection
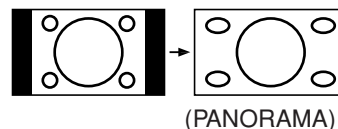Press ◄►► (WIDE MODE) repeatedly to select a wide mode.

4:3
Use to view a normal picture (4:3 aspect ratio) unchanged.

PANORAMA:
Stretches the left and right sides of a normal picture to fill the screen, in a way that does not appear unnatural.

(PANORAMA)

FULL
Use to expand a widescreen picture equally on the whole screen.

(FULL)
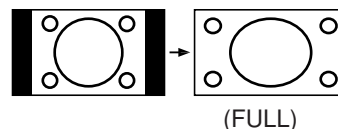
14:9
Use to expand a picture with a 14:9 aspect ratio.

(14:9)

Notes:
• The WIDE MODE feature is not available in the PC mode.
• If the signal is transmitted in letterbox format the black bars top and bottom will remain.

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Auto 4:3 Default function

In case AUTO mode is selected for wide mode and any WSS signal is not received, you can preset beforehand either " 4:3 " or "PANORAMA" as the wide mode for the normal picture (4:3 aspect ratio).
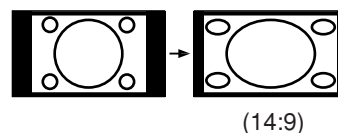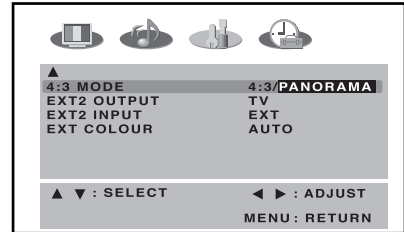
1. Select 4:3 MODE in the SETUP menu.
Then press ◀ or ▶ to select 4:3 or PANORAMA.

```
▲
4:3 MODE              4:3/PANORAMA
EXT2 OUTPUT           TV
EXT2 INPUT            EXT
EXT COLOUR            AUTO


▲ ▼ : SELECT          ◀ ▶ : ADJUST
                      MENU : RETURN
```
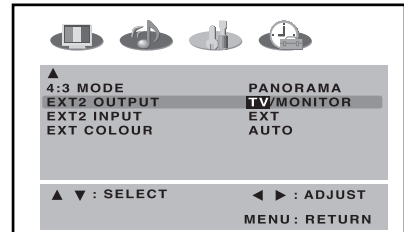
2. Press **MENU** to return to the normal TV screen.

EXT2 OUTPUT/INPUT

When you connect another TV set or S-Video VCR etc. to the rear EXT2 socket on your set with a 21 pin scart lead, you may have to use the EXT2 SET menu.
OUTPUT defines what is sent to the other TV and INPUT describes the type of VCR.

1. Select EXT2 OUTPUT or EXT2 INPUT.

```
▲
4:3 MODE              PANORAMA
EXT2 OUTPUT           TV/MONITOR
EXT2 INPUT            EXT
EXT COLOUR            AUTO


▲ ▼ : SELECT          ◀ ▶ : ADJUST
                      MENU : RETURN
```

2. **In case of OUTPUT selection**
Then press ◀ or ▶ to select TV (the most recent channel position) or MONITOR (the picture on the screen).

In case of INPUT selection
Then press ◀ or ▶ to select EXT (conventional VCR) or S-VIDEO (S-Video VCR).

```
▲
4:3 MODE              PANORAMA
EXT2 OUTPUT           TV
EXT2 INPUT            EXT/S-VIDEO
EXT COLOUR            AUTO


▲ ▼ : SELECT          ◀ ▶ : ADJUST
                      MENU : RETURN
```
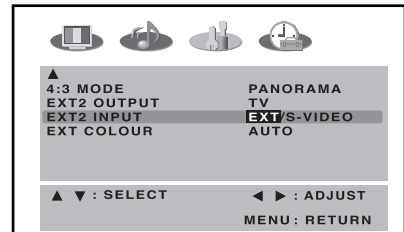
3. Press **MENU** to return to the normal TV screen.

EXT Colour

This unit has two COLOUR SYSTEM (PAL and NTSC 4.43/3.58/PAL 60) which allows you to watch Video Laser disc, DVD and Recorded videotapes. To watch NTSC laser disc, DVD or recorded tapes, appropriate equipment with NTSC playback must be used.
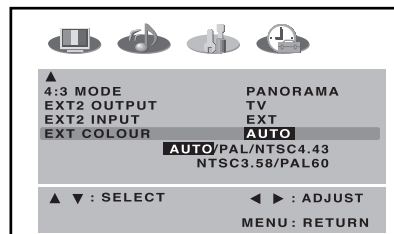
1. Select EXT COLOUR in the SETUP menu.
    Press ◄ or ► to select correct colour system.


```
▲
4:3 MODE              PANORAMA
EXT2 OUTPUT          TV
EXT2 INPUT           EXT
EXT COLOUR           AUTO
                     AUTO/PAL/NTSC4.43
                     NTSC3.58/PAL60

▲ ▼ : SELECT         ◄ ► : ADJUST
                     MENU : RETURN
```

2. Press **MENU** to return to the normal TV screen.

PC-Setting

If you use your unit as a computer monitor, connect the cable from the output of your computer's video graphics adapter card to the unit's PC video input. When the unit and computer are switched on, the unit will automatically detect and adapt to the resolution of the graphics adapter.
The maximum resolution that can be attained is 1280 by 768 pixels.
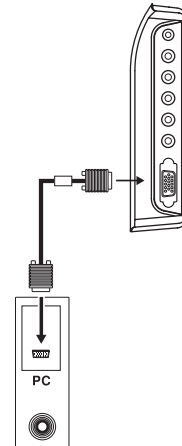
Selecting Monitor (PC) mode

1. Press ⤺ **(INPUT)** repeatedly until "PC" appears on the TV screen.

Note:
Each time you press ⤺ **(INPUT)**, the EXT mode will change as follows:

$$\rightarrow \text{TV} \rightarrow \text{EXT1} \rightarrow \text{EXT2} \rightarrow \text{EXT3} \rightarrow \text{PC} \rightarrow$$

You are now in Monitor(PC) mode. The resolution of your video graphics adapter is automatically detected by the unit. Subsequently, whenever the set is switched on it will automatically be in Monitor mode.

2. To switch back to TV mode, press P ∧ once or press ⤺ **(INPUT)**.

Monitor Display Mode

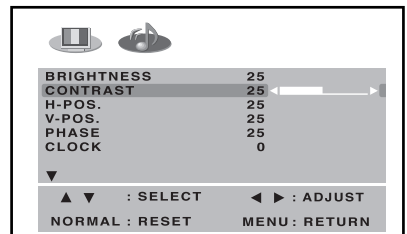| Mode	Resolution	Refresh rate
VGA	640 X 480	60 Hz
	720 X 400	70 Hz
SVGA	800 X 600	56.3 Hz
	800 X 600	60.3 Hz
XGA	1024 X 768	60 Hz
WXGA	1280 X 768	60 Hz
	1280 X 720	60 Hz

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PC-Setting

PC Monitor Menu
There are a number of picture and audio settings you can adjust to optimize the performance of the unit in PC mode.

1. Press **MENU** during PC mode. The PC Monitor Menu will appear on the TV-screen.

```
BRIGHTNESS        25
CONTRAST          25
H-POS.            25
V-POS.            25
PHASE             25
CLOCK              0
▼
▲ ▼ : SELECT    ◄ ► : ADJUST
                  MENU : EXIT
```
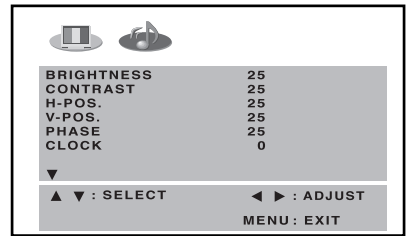
2. Press ▼ to select CONTRAST.
Then press ◄ or ► to adjust contrast.

```
BRIGHTNESS        25
CONTRAST          25
H-POS.            25
V-POS.            25
PHASE             25
CLOCK              0
▼
▲ ▼    : SELECT   ◄ ► : ADJUST
NORMAL : RESET     MENU: RETURN
```

3. Press **NORMAL** to return to the factory preadjusted level.

Description about the each setting option:

Picture menu
BRIGHTNESS: To adjust the brightness of PC Monitor-screen. To centralize this, press **NORMAL**.
CONTRAST: To adjust the contrast of PC Monitor-screen. To centralize this, press **NORMAL**.
H-POS.: To adjust the horizontal position of the image on the PC Monitor-screen. Each video standard will require a different value for this setting.
V- POS.: To adjusts the vertical position of the image on the PC Monitor-screen. Each video standard will require a different value for this setting.
PHASE: This must be adjusted after the frequency has been set to optimize picture quality.
CLOCK: To adjust the number of dot clock.
RED/GREEN/BLUE: To adjust the colour temperature of PC Monitor-screen. To centralize this, press **NORMAL**.
**WXGA INPUT:** When you connect with WXGA-PC, select this option to "ON".

Audio menu
BASS/TREBLE/BALANCE: To adjust the PC-Audio. To centralize this, press **NORMAL**.

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Reception Interference

The most common types of television interference are as follows.

IGNITION
Black spots and horizontal streaks may appear, the picture may flutter or drift. This is usually caused by interference from car ignition system, neon lamps, electric drills or other electrical appliances.
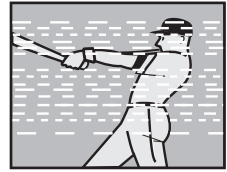
IGNITION

GHOSTING
Ghosting is caused by the TV signal following two paths. One is the direct path and the other is reflected from tall buildings, hills or similar obstruction. Changing the direction and/or position of the aerial may improve reception.
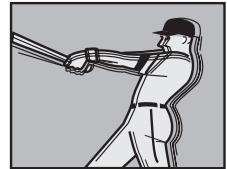
GHOSTING

SNOW
If your TV is located on the fringe area of a TV station, where the signal is weak, your picture may be affected by the appearance of small dots (SNOW). It may be necessary to install a stronger aerial to improve the picture.
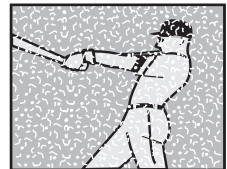
SNOW

RADIO FREQUENCY INTERFERENCE
This kind of interference produces moving ripples or diagonal streaks and in some cases loss of contrast in the picture.

RADIO FREQUENCY INTERFERENCE

Teletext

Most broadcasting stations offer a Teletext service in addition to their standard TV program.
Teletext offers news, weather forecast, winning Lotto numbers, TV listings and other interesting news.
The text is received page by page, as soon as you select the broadcasting station. A single page can be displayed on the screen. The pages are numbered and broadcasted one by one. Therefore you'll have to wait a certain time until the selected page is displayed on the screen. The page will be displayed as soon as it is broadcast.
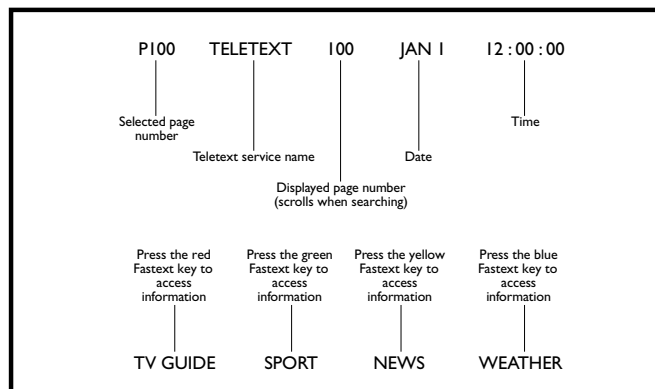Certain pages can be displayed more easily by pressing one of the **FOUR COLOURED TELETEXT** buttons.

Basic operation
1. Select the broadcasting station, whose text you want to read. In order to do so, select the station's channel with the remote handset.
2. Push ▤/▨/▢ **(TEXT/MIX/TV)**.
   The first push on ▤/▨/▢ **(TEXT/MIX/TV)** switches the Teletext on.
   The second push on ▤/▨/▢ **(TEXT/MIX/TV)** displays the TV program and the Teletext together (MIX).
   The third push on ▤/▨/▢ **(TEXT/MIX/TV)** switches the Teletext off and returns the screen back to the TV program.

The first operation of the teletext normally opens the page 100 with the table of contents.

Example for a teletext page:


```
P100    TELETEXT    100     JAN I     12:00:00

Selected page                                     Time
   number
        Teletext service name            Date

              Displayed page number
              (scrolls when searching)


Press the red    Press the green   Press the yellow   Press the blue
Fastext key to   Fastext key to    Fastext key to     Fastext key to
   access           access            access             access
 information      information        information        information


TV GUIDE          SPORT             NEWS              WEATHER
```

Select the desired teletext page from the broadcasting station's table of contents.

HOLD
Some pages hold more text than can be displayed on one page. The broadcasting station separates these pages into sub-pages, which are broadcasted one by one automatically. To study one sub-page thoroughly push ▤ **(HOLD)**. The HOLD-symbol will be displayed.
The associated sub-pages will scroll through automatically, when you push ▤ **(HOLD)** a second time to release it.

SUBTITLE
1. Push ⊡ **(SUBTITLE)** to display the subtitle. Subtitle is updated by the information sent by the broadcasting station.
   To stop updating Subtitle automatically, push ▤ **(HOLD)**.
2. Push ⊡ to exit the subtitle screen.

Note: Subtitle will not be displayed when the service does not contain the subtitle information.

To call a teletext page
Leaf through the pages with **P∧/∨** (forward or backward).

Note: You will not necessarily find a page for every page number you enter. E.g. you have entered page no. 116 but it does not offer this page. Available page numbers can be found on the Index page (most stations offer this page 100).

Enter the three-digit page number with the number buttons.
Example: You want to display page 300.
Enter: 3 then 0 and 0.
If you enter an incorrect digit, complete all three digits with any numbers, then you can enter the correct page number.

How to call a specific sub-page
Push ⊟⦿ **(SUB PAGE)** (0000).

The screen's upper left corner will display: – – – –

To call sub-page 2 enter: **0 0 0 2** .
Your input will be displayed in the upper left corner: **0002**.

It may take some time until sub-page 2 is broadcast.
The sub-page can only be displayed when the broadcaster transmits it.

To leave sub-page mode push ⊟⦿ **(SUB PAGE)** again.

Within the sub-page mode no other pages other than the sub-pages of the selected page can be called. To call other teletext pages you must leave the sub-page mode.

Magnifying
To magnify the letters push ⊟� **(F/T/B)**.

You can magnify either the upper or the lower half of the screen.

Each push on ⊟� **(F/T/B)** switches between the screen's upper and lower half and the full screen. (F/T/B = Full / Top / Bottom)

REVEAL
Pushing ⊟? **REVEAL** will give you the hidden answers to the questions on a Quiz-page.

Not every broadcasting station offers Quiz-pages and they are not constantly offered.

Before Requesting Service / Specifications

If your unit does not work properly check the following before calling a service engineer.

| SYMPTOMS	CAUSE	SOLUTION	PAGE
POWER			
No power.	The AC cord is not connected.	Connect AC cord to AC socket.	**11**
	POWER button is OFF.	Set it to ON.	**14**
TV BROADCAST RECEPTION			
No picture, no sound.	The AC cord is disconnected.	Connect the AC cord to the AC socket.	**11**
	Aerial connector is not connected or wires are broken.	Check aerial connections or broken wires.	**12**
	POWER button is off.	Press the POWER button.	**14**
	Possibly station trouble.	Try another channel.	**20**
Sound OK, poor picture.	Possibly station trouble.	Try another channel.	**20**
	Aerial connector is not connected or wires are broken.	Check aerial connections or broken wires.	**12**
	Possibly local interference.	Move the aerial away from the source of interference.	**31**
Picture OK, poor sound.	Possibly station trouble.	Try another channel.	**20**
	Possibly local interference.	Move the aerial away from the source of interference.	**31**
	Volume control set at minimum position.	Increase VOLUME control.	**20**
Poor reception.	Aerial connector is not connected or wires are broken.	Check aerial connections or broken wires.	**12**
	Possibly station trouble.	Try another channel.	**20**
Poor colour or no colour.	Aerial connector is not connected or wires are broken.	Move the aerial away from the source of interference.	**12**
	Possibly station trouble.	Try another channel.	**20**
	Possibly local interference.	Move the aerial away from the source of interference.	**31**
	Colour control is not adjusted.	Adjust the colour settings.	**24**
REMOTE CONTROL			
Remote control does not work.	It is not aimed at the remote sensor.	Aim it at the remote control sensor.	**10**
	Distance too far or there is too much light in the room.	Operate within 7 metres and reduce the light of the room.	**10**
	Obstacle in the path of beam.	Clear the path of the beam.	**10**
	Batteries are weak.	Replace batteries.	**10**
	Polarities of the batteries, + or –, are not inserted correctly.	Install batteries correctly.	**10**

Specifications

GENERAL
Power supply: AC 220~240V 50/60Hz
Power consumption: Operation : 45W / Stand by : 1.6W
Weight: 5.5 kg (12.1 lbs) without stand / 7.0 kg (15.4 lbs)
Dimensions: 456 (W) x 385.5 (H) x 70 (D) without stand / 456 (W) x 429.5 (H) x 315 (D) mm
Operating temperature: 0°C to + 40°C
Storage temperature: -20°C to + 60°C
Operating humidity: Less than 80%

TELEVISION
Type: 17" (434.4 mm Visible)
Display method: Transmission TFT colour LCD panel
Number of Pixels: 1280 (H) x 768 (V)
Viewing angle: Left/Right : 88/88 degree / Up/Down : 88/88 degree
Tuner type: Quartz PLL Frequency Synthesized
Receiving channels: VHF Low : E2~S6, VHF High : S7~S36, UHF : S37~E69
Aerial input: VHF/UHF In 75 ohm coaxial
Speaker: 38 mm x 69 mm, 16 ohms x 2
Audio output power: 1.5W + 1.5W

ACCESSORIES: Remote control / Batteries (AA type) x 2 / AC adapter / AC cord

Weight and Dimensions are approximate. Because we continually strive to improve our products we may change specifications and designs without prior notice.

Unit : mm

374.5

385.5

225.5

430.5

277.3

45

SHARP

362.5

456

150.6

80.6

70

215

100

54.8

100
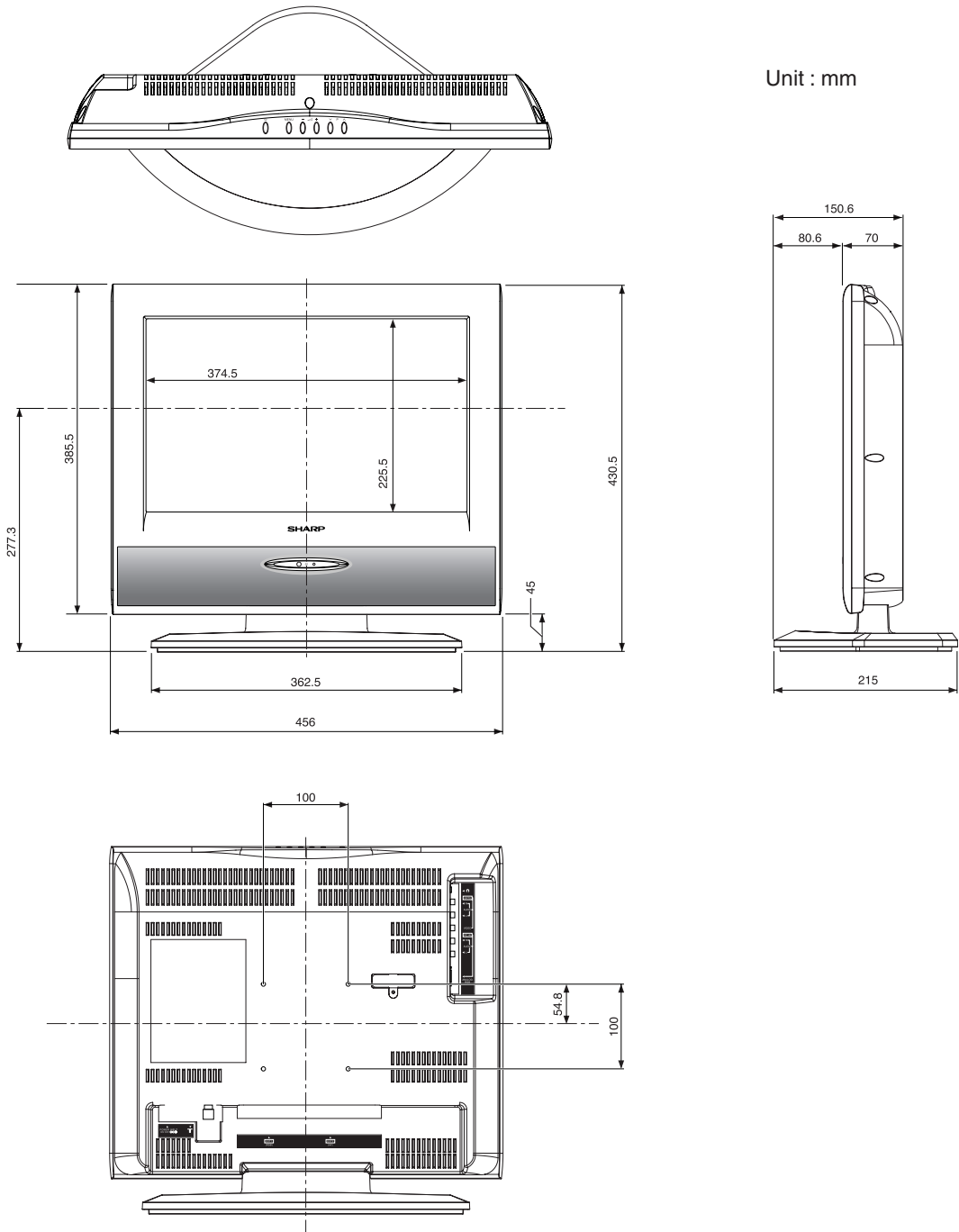
Attention: Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household waste. There is a separate collection system for these products.

A. Information on Disposal for Users (private households)

1. In the European Union

Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin!

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.
Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge*. In some countries* your local retailer may also take back your old product free of charge if you purchase a similar new one.
*) Please contact your local authority for further details.

If your used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.

By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

2. In other Countries outside the EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

For Switzerland: Used electrical or electronic equipment can be returned free of charge to the dealer, even if you don't purchase a new product. Further collection facilities are listed on the homepage of www.swico.ch or www.sens.ch.

B. Information on Disposal for Business Users

1. In the European Union

If the product is used for business purposes and you want to discard it:

Please contact your SHARP dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

For Spain: Please contact the established collection system or your local authority for take-back of your used products.

2. In other Countries outside the EU

If you wish to discard of this product, please contact your local authorities and ask for the correct method of disposal.

The Consumer Electronics Industry has initiated a commitment to improve the energy efficiency of TVs.

SHARP has signed this commitment and as a result this TV may have a label on the front of the product informing the customer of the energy consumption in various operating modes.
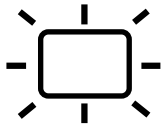
"ON" – The energy consumption (W) of the set when operating with picture and sound (measured according to IEC 62087:2002)

"Standby" – The energy consumption (W) of the set when in standby, no picture or sound (measured according to IEC 62087:2002)

An estimated annual energy consumption (kWh) based on a duty cycle of 4 hours "on" and 20 hours in "standby" for 365 days

Note: The IEC 62087:2002 measurement standard sets brightness and sound levels that may not be the same as the TV in "shipped" condition. Therefore the power consumption as measured at "on" is purely indicative and may not be the same value as in the "shipped" condition.

Memo

Memo

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