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**200T1
220T1
230T1**



EN USER MANUAL

PHILIPS

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***Congratulations on your purchase,
and welcome to the “family!”***

Dear PHILIPS product owner:

Thank you for your confidence in PHILIPS. We'll do everything in our power to keep you happy with your purchase for many years to come.

Know these

safety symbols



This “bolt of lightning” indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.



The “exclamation point” calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, fully insert.

For Customer Use

Enter below the Serial No. which is located on the rear of the cabinet. Retain this information for future reference.

Model No. _____
Serial No. _____

1. Important safety instructions

Read before operating equipment

1. Read and keep these instructions.
2. Heed all warnings.
3. Follow all instructions.
4. Do not insert any strange object into the ventilation slots. This might lead to damage of the TV.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and third grounding prong. The wide blade or third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12.  Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This product may contain lead or mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.
16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:
 - The power supply cord or the plug has been damaged;
 - Objects have fallen, or liquid has been spilled into the appliance;
 - The appliance has been exposed to rain;
 - The appliance does not appear to operate normally or exhibits a marked change in performance;
 - The appliance has been dropped, or the enclosure damaged.
17. Tilt/Stability - All televisions must comply with recommended international global safety standards for tilt and stability properties of its cabinet design.
 - Do not compromise these design standards by applying excessive pull force to the front, or top, of the cabinet which could ultimately overturn the product.
 - Also, do not endanger yourself, or children, by placing electronic equipment/toys on the top of the cabinet. Such items could unsuspectingly fall from the top of the set and cause product damage and/or personal injury.
18. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
19. Power Lines - An outdoor antenna should be located away from power lines.
20. Outdoor Antenna Grounding - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
21. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
22. Battery Usage CAUTION - To prevent battery leakage that may result in bodily injury, property damage, or damage to the unit:
 - Install all batteries correctly, with + and - aligned as marked on the unit.
 - Do not mix batteries (old and new or carbon and alkaline, etc.).
 - Remove batteries when the unit is not used for a long time.
23. For ventilation, leave at least 4" to 6" free all around the TV. Do not place the TV on a carpet.
24. The equipment shall not be exposed to dripping or splashing.
25. The equipment shall not be exposed to rain or moisture and objects filled with liquids, such as vases, shall be placed on the apparatus.
26. The apparatus must be connected to a mains socket outlet with a protected earthed connection.
27. The appliance coupler is used as the disconnect device of this apparatus, the disconnect device shall remain readily operable.

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Safety symbols

Know these safety symbols:



This "bolt of lightning" indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.



The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

If the TV is mounted on a swivel base or swivel arm, ensure no strain is placed on the power cord when the TV is swivelled. Strain on the power cord can loosen connections. This may cause arcing and result in fire.

Pixel characteristics

The LCD panel has a high number of colour pixels. Although it has effective pixels of 99.999% or more. Black dots or bright points of light (red, green or blue) may appear constantly on the screen.

This is a structural property of display (within common industrial standard) and is not a malfunction. This does not affect the performance of the product.

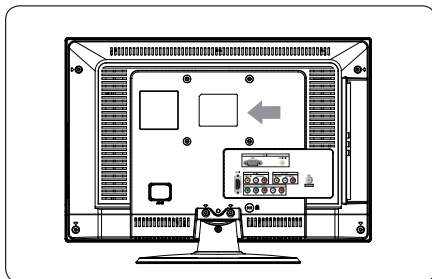
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2. Important

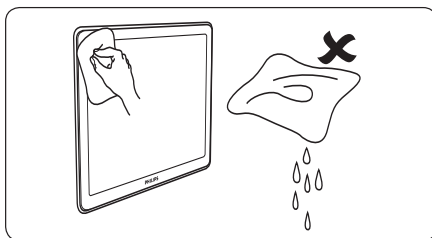
2.1 Product information

The model and serial number are on the rear of the TV and on the packaging.



This TV consumes minimal energy in standby mode to minimise environmental impact. The active power consumption is given on the type plate at the rear of the TV.

2.2 Screen care



- Turn off and unplug the AC power cord before cleaning the screen.
- Clean the screen with a soft, dry cloth. Do not use substances such as household cleaning agents as these may damage the screen.
- To avoid deformations or color fading, wipe off water droplets as soon as possible.
- Do not touch, push, rub or strike the screen with hard objects as this may damage the screen permanently.
- Where possible, avoid stationary images that remain on-screen for extended periods of time. If you must use stationary images, reduce the screen contrast and brightness to avoid screen damage.

2.3 Environmental care



End of life directives - Recycling

Philips has paid a lot of attention to producing an environmentally friendly product. Your new TV contains several materials that can be recycled for new uses. At the end of its life, specialized companies can dismantle and recycle this set. This will minimize the amount of materials being disposed of. Please be sure to dispose of this set in accordance with all state and local regulations.

Recycling your packaging

The packaging of this product is intended to be recycled. Contact your local authorities for information on how to recycle the packaging.

Disposing used batteries

The supplied batteries do not contain mercury or cadmium. Dispose supplied and all other used batteries according to your local regulations.

Power consumption

The TV consumes minimal energy in standby mode to minimise environmental impact. Active power consumption is displayed at the back of the TV.

2.4 Regulatory notices



WARNING

To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture. Objects filled with liquids, such as vases, should not be placed on this apparatus.

2.5 The most updated user manual online

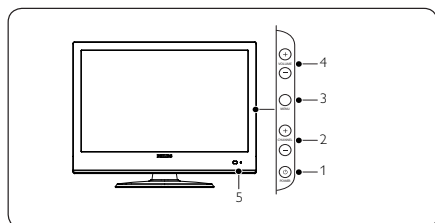
The contents of the user manual are subject to change. Please refer to www.philips.com/support for the most updated user manual info reference.

3. Your LCD Monitor with HD/ Full HD TV

This section gives you an overview of commonly-used TV controls and functions.

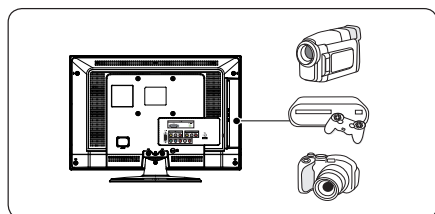
3.1 TV overview

Side controls and indicators



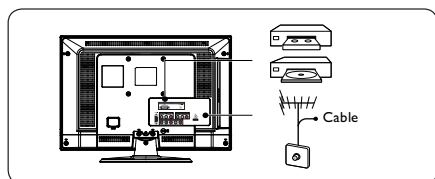
1. **POWER**
2. **CHANNEL +/-**
3. **MENU**
4. **VOLUME +/-**
5. Remote control sensor/ power indicator

Side connectors



Use the TV side connectors to connect to mobile devices such as a camera or game console. You can also connect to the headphone.

Rear connectors

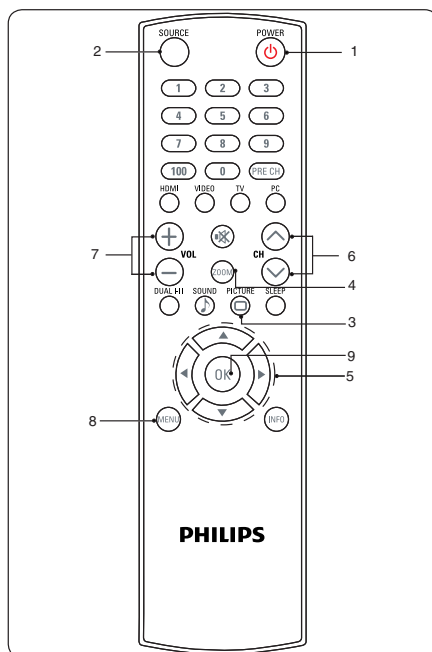


Use the TV rear connectors to connect to the antenna and permanent devices such as a high-definition disc player or DVD player.

Note

For more information about connections, see *Section 7 Connect devices.*

3.2 Remote control



1. Standby / ON
2. SOURCE selection
3. Picture buttons
4. ZOOM button
5. Cursor buttons
6. Channel selection
7. Volume selection
8. MENU button
9. OK button

For more information about the remote control, See *Remote control overview section.*

4. Get started

This section describes how to position and connect your TV, and how to perform your first-time installation.

4.1 Position

WARNING

- Do not insert the power plug into the wall socket before all the connections are made.
- Large screen TVs are heavy. Two people are required to carry and handle the TV.

Wherever you decide to position your TV, ensure that you always have easy access to the AC power cord or plug to disconnect the TV from the power.

If the TV is mounted on a swivel base or swivel arm, ensure no strain is placed on the AC power cord when the TV is swivelled. Strain on the AC power cord can loosen connections. This may cause arcing and result in fire.

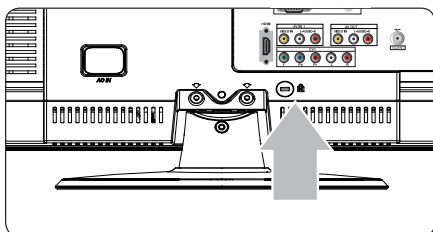
For ideal viewing conditions, position the TV where light does not fall directly on the screen.

The ideal viewing distance for watching TV is three times its screen size.

Kensington security slot

Your TV is equipped with a Kensington Security Slot at the back of the TV.

If you connect an anti-theft Kensington lock (not supplied), position the TV within reach of a permanent object that can be attached to the lock.



4.2 Wall mount

Warning

Wall mounting of the TV should only be performed by qualified installers. Koninklijke Philips Electronics N.V. Bears no responsibility for improper mounting that results in accident or injury.

Step 1 Purchase a VESA-compatible wall bracket

Depending on the size of your TV screen, purchase one of the following wall brackets:

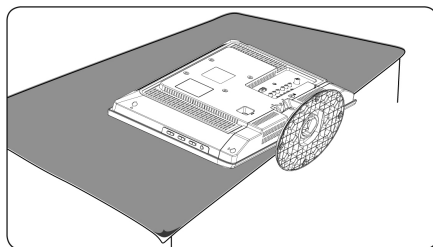
TV screen size (inches)	VESA-compatible wall bracket type (millimeters)	Screw type
20"/22"/23"	100 x 100mm	Metric 4 x 10mm

Step 2 Remove the TV stand

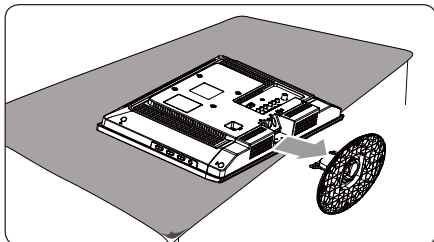
Note

These instructions are only applicable to TV models with mounted stands. If your TV stand is not mounted, skip to *Step 3 Connect cables*.

1. Carefully place the TV face down on a flat, stable surface that is covered by soft cloth. The cloth should be thick enough to protect your screen.



2. Firmly pull the stand from the bottom of the TV. Place both the stand and bolts in a secure location for future reinstallation.



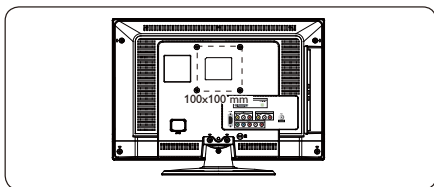
Step 3 Connect cables

Connect the antenna cable, AC power cord and all other devices to the back of the TV as described in the following sections and in *Section 7 Connect devices*.

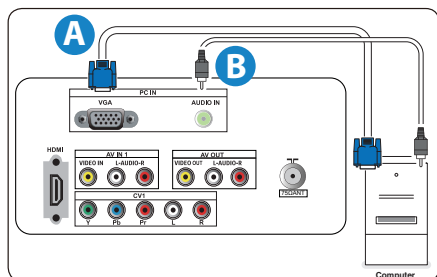
Step 4 Secure the VESA-compatible wall bracket to the TV

Warning
Only use the specified bolts (M4 x 10mm) to secure the VESA-compatible wall bracket to your TV. The specified bolts are designed to match the weight of your TV.

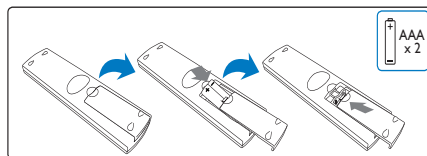
Note
Depending on your VESA-compatible wall bracket, you may need to separate the mounting plate from the wall bracket for easier installation. Refer to your VESA-compatible wall bracket documentation for instructions.



4.3 Connect to your PC



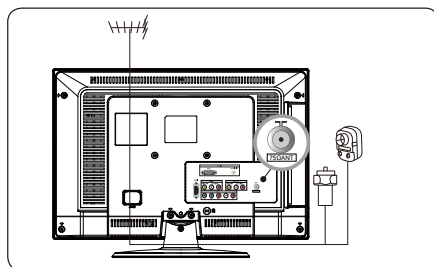
4.4 Install the remote control batteries



1. Open the battery cover on the back of the remote control.
2. Insert the 2 batteries supplied. Make sure the + and - ends of the batteries line up correctly. (inside of case is marked).
3. Close the cover.

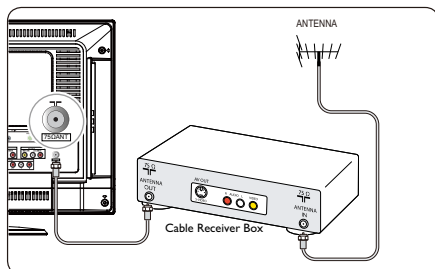
4.5 Connect the antenna or cable

Connect to an antenna



1. Locate the TV ANTENNA connector on the back of the TV.
2. Connect one end of an antenna cable (not supplied) to the TV ANTENNA connectors. Use an adaptor if the antenna cable does not fit.
3. Connect the other end of the antenna cable to your antenna outlet, ensuring that the cable is tightly secured at both ends.

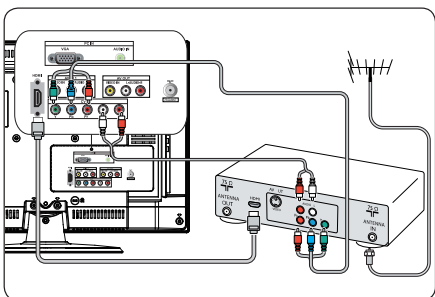
Connect to a cable receiver box



A cable receiver box can be connected to the TV through the following connections:

- ANTENNA (75Ω)
- A/V (Composite Video and Audio)
- S-Video and Audio
- YPbPr (Component Video Input)
- HDMI

Connect a cable receiver box through component video input or HDMI



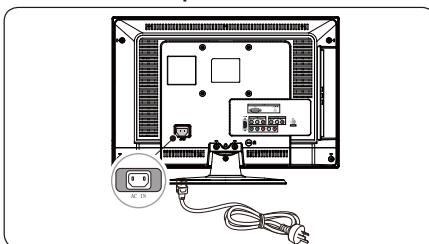
4.6 Connect the AC power cord



Warning

Verify that your voltage corresponds with the voltage printed at the back of the TV. Do not insert the AC power cord if the voltage is different.

To connect the AC power cord



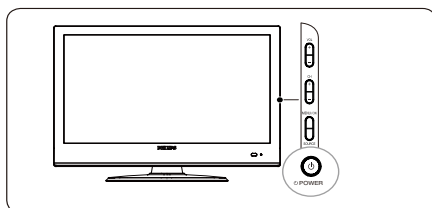
1. Locate the power connector at the back of the TV.

The location of the power connector varies according to TV model.

2. Insert the AC power cord fully into the TV power connector.
3. Connect the AC power cord plug to the power outlet. Ensuring that the cord is tightly secured at both ends.

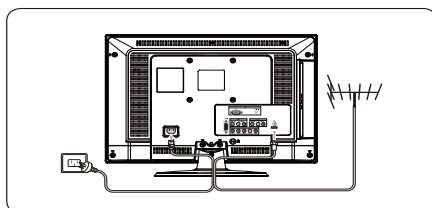
4.7 Switch on the TV

Before you switch on the TV, check that the mains cord is properly connected. Press **POWER** button at the side of the TV, or press power button on the remote control. The TV normally takes 10-15 seconds to start up and the following screen appears the first time you turn on the TV.



4.8 Manage cable

Route your AC power cord, antenna cable and all other device cables through the cable holder at the back of the TV. The holder helps keep your cables tidy and easily manageable.



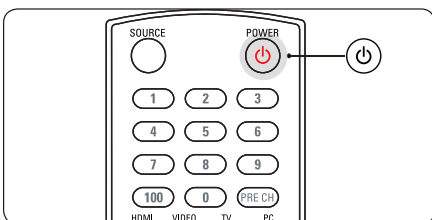
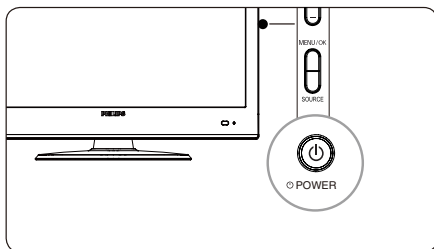
5. Switch on and set up

This section helps you perform basic TV operations.

5.1 Switch your TV on/off or to standby

To Switch the TV on

- If the standby indicator is off, press **POWER** at the side of the TV.
- If the standby indicator is on, press **POWER** on the remote control.



To Switch to standby

- Press **POWER** on the remote control.

To switch on from standby without the remote control.

- Press **POWER** at the side of the TV to switch the TV off.
- Press **POWER** again to switch the TV on.

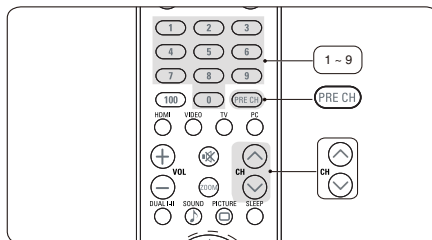
To switch off

- Press **POWER** at the side of the TV.

5.2 Watch TV

Switch channels

- Press a number (1 to 9) or press **CH** $\wedge/\vee$ on your remote control.
- Press **PRE CH** to return to the previously viewed TV channel.

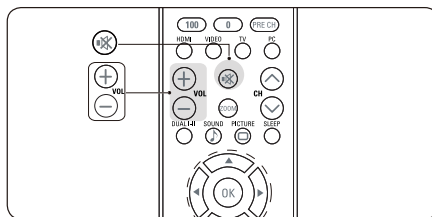


Note

You can also switch channels by pressing **CHANNEL** $\wedge/\vee$ at the side of the TV.

Adjust volume

- Press **VOL+/-** on your remote control.
- Press **MUTE** on your remote control to mute the sound. Press **MUTE** again or press **VOL+/-** to restore the sound.



Note

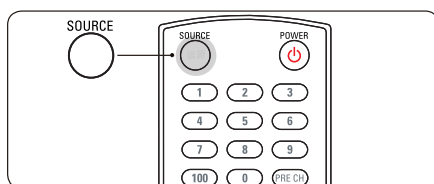
You can also switch volume by pressing **VOLUME** $\pm$ at the side of the TV.

5.3 Watch channels from a cable receiver box

1. Switch on the cable receiver box.
The picture from your cable receiver box might appear automatically on your screen.
2. Use the remote control of your cable receiver box to select channels.

If the picture does not appear

1. Press **SOURCE** repeatedly to select the connected cable receiver box and wait a few seconds for the picture to appear.



2. Press **OK**.
3. Use the remote control of your cable receiver box to select channels.

5.4 Watch a DVD

1. Insert a DVD disc in your player.
2. Press **Play** > on the remote control of your player.
The picture from the player might appear automatically on your screen.

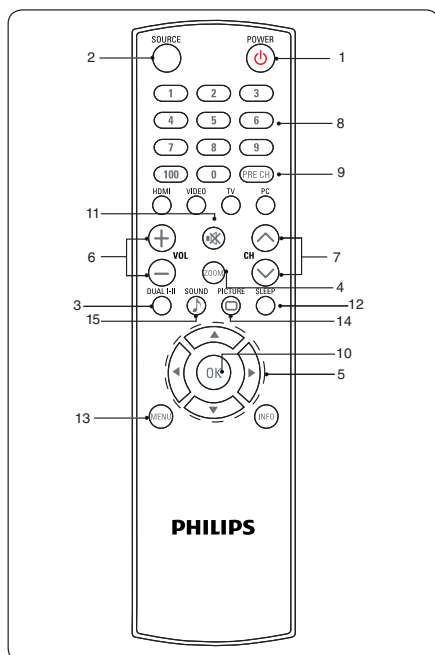
If the picture does not appear

1. Press **SOURCE** repeatedly to select the correct source and wait a few seconds for the picture to appear.
2. Press **OK**.

6. More about the installation

This section describes the advanced features of your TV.

6.1 Remote control overview



5. CURSOR BUTTONS ▲ ▼ ◀ ▶

To navigate through the menus.

6. VOL +/-

Increases or decreases volume.

7. CH ^/v

Switches to the next or previous channel.

8. NUMBER BUTTONS

Selects a channel, page or setting.

9. PRE CH

Returns to the previously-viewed channel.

10. OK

Press to activate a setting.

11. MUTE

Mutes or restores sound.

12. SLEEP

Sets the TV to turn itself off within a certain time.

13. MENU

Toggles the menu on or off.

14. PICTURE

Toggles to select the picture setting.

15. SOUND

Toggles to select the Sound audio setting.

1. POWER

Switches the TV on from standby or back to standby.

2. SOURCE

Selects connected devices.

3. DUALI-II

Selects Mono, Stereo, Dual I, Dual II, Nicam Mono, Nicam Stereo, Nicam Dual I, Nicam Dual II.

Note

The sound mode selections depend on TV program and broadcast TV channel of that region.

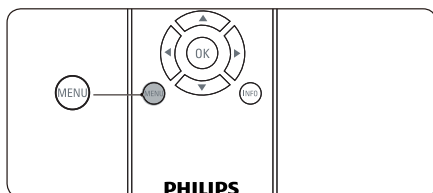
4. ZOOM

Selects a picture zoom.

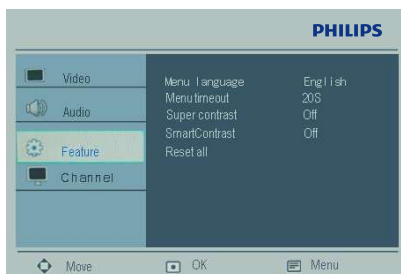
6.2 Use install menu

This section describe how to set the language and store the channel of the TV.

1. Press **MENU** on the remote control to display the main menu.



2. Press **▲** or **▼** to select **Install** and press **►** to enter it.
3. Press **▲** or **▼** to highlight the item you want to adjust and press **►** to confirm the change.
4. Press **MENU** to exit.



Summary of install settings

- **Language** - Select a language of your interface.
- **Auto store** - Automatically sets up the TV for the broadcast or cable channels available in your area.



Note

Immediately after unpacking and plugging in your new television, run the auto store function to set up the TV for the broadcast or cable channels available in your area. If you do not run the auto store function to set up the channels, your television may not operate properly. After you have run auto store, check out the results. Press **CH ▲/▼** on the remote control and see which channels you can select. Remember, an antenna or cable TV signal must

first be connected to your TV.

• Manual store -

- **Manual store:** Activates auto search channel frequency or press number keys to show your desired channel frequency.
- **Prog. no:** Use **▲** or **▼** to adjust the channel number in the manual store menu.
- **Finetune:** Manually fine tunes analogue channels when reception is poor.
- **Store:** Stores or sets the setting of manual store menu.

• Channel setting -

- **Channel edit:** Sets up a favorite list of your own with preferred TV channels.
- **Channel swap:** Exchange the channel. Toggle between **From**, **To**, and **Exchange**.
- **Name edit:** Assigns or changes a channel name to a channel for which a name has not yet been used.

1. Press **▲** or **▼** to edit name and press **►** to move to the next character.
2. Press **◀** to confirm the first character and press **►** to confirm the last character.
3. Press **►** to confirm the name.

- **Channel sort:** Sorts or groups channels.

- **Factory reset** - Allows you to reset most of the picture and sound settings to their default factory levels. Select **No** or **Yes**.



Note

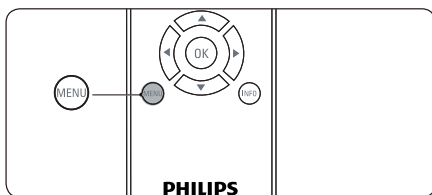
If you reset the TV to the factory settings, all your present setting on picture, sound, and other feature settings will be erased and replaced by the manufacture's default settings. However, your auto lock access code will not be erased.

6.3 Change Video settings

Change video settings

This section describes how to adjust your picture settings.

1. Press **MENU** on the remote control.



2. Press **▼** or **►** to select the **Video** menu.
3. Press **▲** or **▼** to select the one of the video settings, and press **►** to enter the setting.
4. Press **▲** or **▼** to adjust the setting, and press **OK** to confirm the change.
5. Press **MENU** to exit.



Summary of video settings

The following picture settings can be configured. Depending on the format of the picture source, some picture settings might not be available.

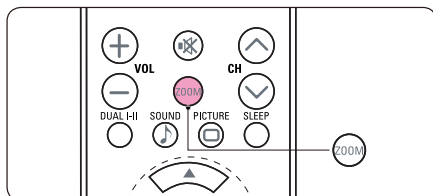
- **Contrast** - Sets the level of white in the picture.
- **Brightness** - Sets the brightness of the picture.
- **Color temp** - Sets the color temperature to **Normal**, **Warm** or **Cool**.
- **Size** - Changes the format of the size.

6.4 Use Preset

1. Press **PRESET MODE** on the remote control to set your TV to a predefined picture and sound setting.
2. Press **▲** or **▼** to select one of the following settings:
 - **Personal** - The customized settings you defined by using the **Picture** menu.
 - **Vivid** - Vivid picture settings and clear sound for high action.
 - **Standard** - For normal TV viewing.
 - **Movie** - Brilliant picture settings for a cinematic experience.
 - **Eco** - Eco friendly settings for lower power consumption.

Change picture format

1. Press **ZOOM** on the remote control to enter the **Picture format** menu.



2. Toggle the "**ZOOM**" button on the RC to select the format that is best fit in with your contents.

6.5 Set the sleep timer

Sleep timer switches the TV to standby after a defined period of time.

1. Press **SLEEP** on the remote control and select one of 30,45,60,90,120 minutes **Sleep timer**

6.6 Reduce the NR

This section describes how to filter out and reduce the image noise and improves picture quality when receiving weak video signals.

1. Press **HDMI**, then **MENU** on the remote control and select **Video > NR**.
2. Press **▶** to enter the list.
3. Press **▲** or **▼** to select on or off.
4. Press **MENU** to exit.

6.7 Use your TV as a PC monitor

Using a VGA cable connects a PC to your TV as a PC monitor.

⚠ Caution

Before you connect your PC, set the PC monitor refresh rate to 60Hz.

6.7.1. Supported screen resolutions

The following screen resolutions are supported in PC mode:

200T1:

Resolution	Refresh rate
640 x 480	60Hz, 72Hz, 75Hz
800 x 600	60Hz, 56Hz, 72Hz, 75Hz
1024 x 768	60Hz, 70Hz, 75Hz
1280 x 720	60Hz, 75Hz
1280 x 768	60Hz, 75Hz
1360 x 768	60Hz, 75Hz
1280 x 1024	60Hz, 75Hz, 72Hz
1400 x 900	60Hz, 70Hz
1600 x 900	60Hz

✳ 1600 x 900 is recommended resolution.

220T1:

Resolution	Refresh rate
640 x 480	60Hz, 72Hz, 75Hz
800 x 600	60Hz, 56Hz, 72Hz, 75Hz
1024 x 768	60Hz, 70Hz, 75Hz
1280 x 720	60Hz, 75Hz
1280 x 768	60Hz, 75Hz
1360 x 768	60Hz, 75Hz
1280 x 1024	60Hz, 75Hz, 72Hz
1400 x 900	60Hz, 75Hz
1680 x 1050	60Hz
1920 x 1080	60Hz

✳ 1920 x 1080 is recommended resolution.

230T1:

Resolution	Refresh rate
640 x 480	60Hz, 72Hz, 75Hz
800 x 600	60Hz, 56Hz, 72Hz, 75Hz
1024 x 768	60Hz, 70Hz, 75Hz
1280 x 720	60Hz, 75Hz
1280 x 768	60Hz, 75Hz
1360 x 768	60Hz, 75Hz
1280 x 1024	60Hz, 75Hz, 72Hz
1400 x 900	60Hz, 75Hz
1680 x 1050	60Hz
1920 x 1080	60Hz

✳ 1920 x 1080 is recommended resolution.

6.8 Select your TV in PC mode

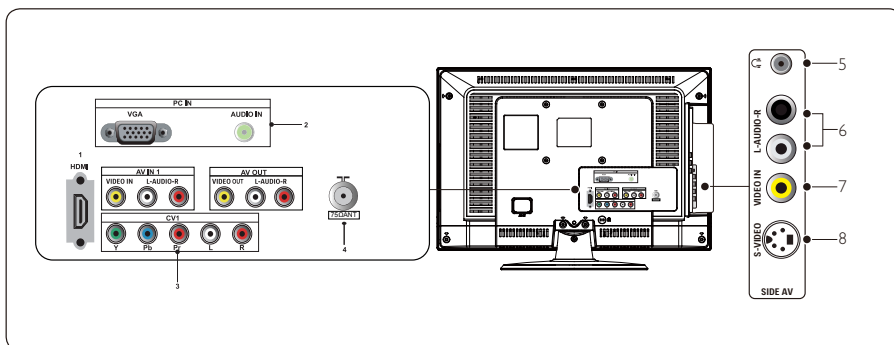
1. Press **MENU** on the remote control and select **Features > Source list**.
2. Select **PC** and press **OK** to confirm your choice.
3. If necessary, adjust the picture settings as described in *Change picture settings* section.
4. Press **MENU** to exit.

✳ Tip

Set the picture format to Full screen or 4:3 in PC mode.

7. Connect devices

7.1 Connection overview



Rear connectors

1. **HDMI**
HDMI input connectors for DVD players, digital receivers, game consoles and other high-definition devices.
2. **PC IN**
VGA, Audio connectors for PC.
3. **CVI**
Component video input (Y Pb Pr) and Audio L/R connectors for DVD, digital receiver or game console, etc.
4. **Antenna input / 75Ω**

Side connectors

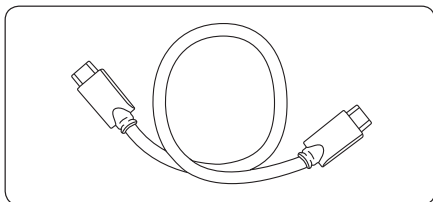
5. **Headphones**
Stereo Mini Jack.
6. **AUDIO L/R**
Audio L/R input connectors for composite and S-Video devices.
7. **VIDEO IN**
Video input cinch connector for composite devices.
8. **S-VIDEO**
S-Video input connector for S-Video devices.

7.2 Select connection quality

This section describes how you can enhance your audio visual experience by connecting your devices with the best possible connectors.

7.2.1. HDMI - Highest quality ★★★★★

HDMI produces the best audio visual quality possible. Both audio and video signals are combined in one HDMI cable, providing an uncompressed, digital interface between your TV and HDMI devices. You must use HDMI to experience full high-definition video.

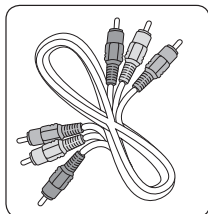


⚙ Tip

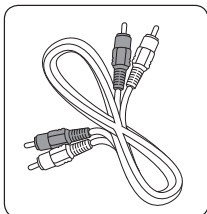
If the device only with a DVI connector, use a DVI-HDMI adaptor to connect your device to a HDMI connector at the back of the TV. You must connect a separate audio cable from the device to the AUDIO L/R at SIDE AV.

7.2.2. Component (Y Pb Pr) - Higher quality ★★★

Component (Y Pb Pr) video provides better picture quality than S-Video or composite video connections. Though component video supports high-definition signals, picture quality is lower than HDMI and is analogue. Also, connect a Audio L/R cable to the red and white Audio L/R input connectors at CVI 1/ CVI 2.



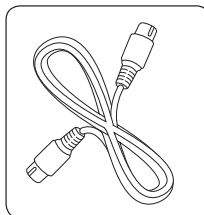
Component video cable
-Red, Green, Blue



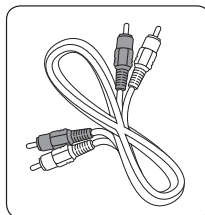
Audio L/R cable
-Red, White

7.2.3. S-Video - Good quality ★★

An analogue connection, S-Video provides better picture quality than composite video. When connecting your device with S-Video, plug the S-Video cable to the S-Video connector on the side of the TV. You must connect a separate Audio L/R cable from the device to the red and white Audio L/R connectors on the side of the TV.



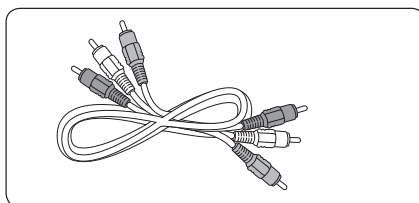
S-Video



Audio L/R cable
-Red, White

7.2.4. Composite - Basic quality ★

Composite video provides basic analogue connectivity, usually combining a (yellow) video cinch cable with (red and white) Audio L/R cinch cable. Match the cable colors when connecting to the composite Video and Audio L/R input connectors on the side of the TV.



Composite audio/video cable
-Yellow, Red, White

7.3 Connect devices

This section describes how to connect a selection of devices with different connectors. Note that different types of connectors may be used to connect a device to your TV. The following sections describe examples only, other configurations are possible.

When connecting composite or component cables, match the cable colors to the connectors on the TV.



Caution

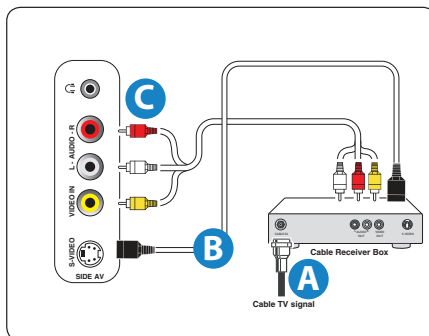
Disconnect the AC power cord before connecting devices.



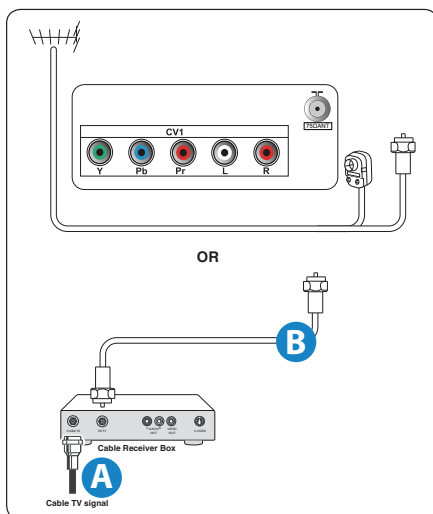
Note

Different types of connectors may be used to connect a device to your TV depending on availability and your needs.

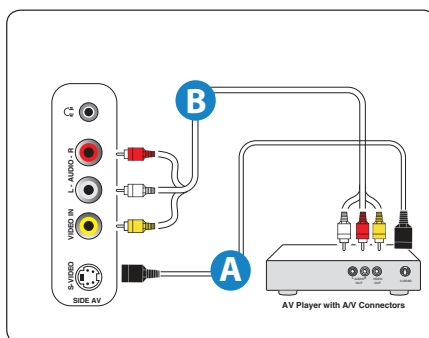
Connect a cable receiver box with Audio/Video output



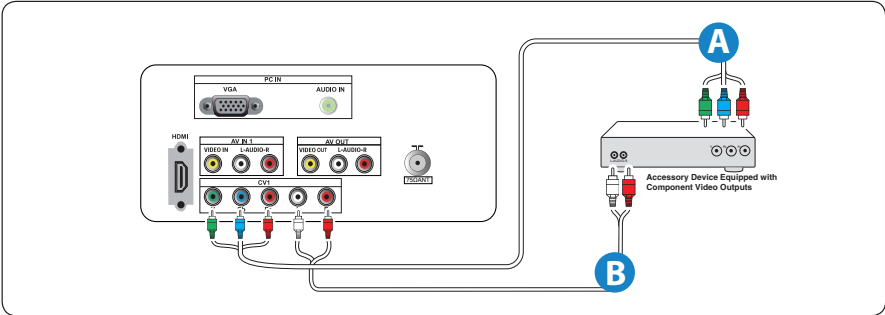
Connect a cable receiver box with RF In/Outputs antenna TV



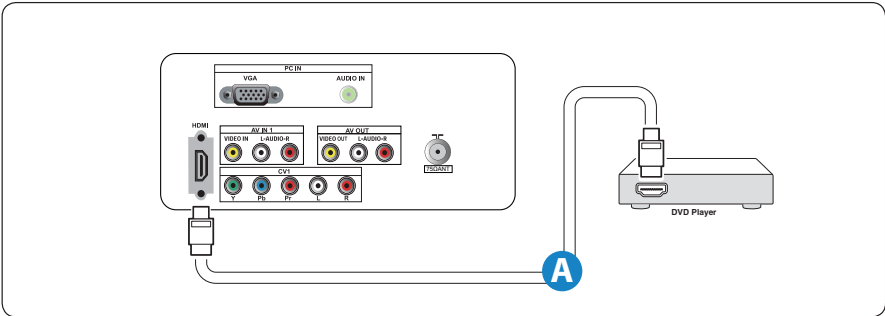
Connect VCR, DVD player, or other devices with RCA connectors



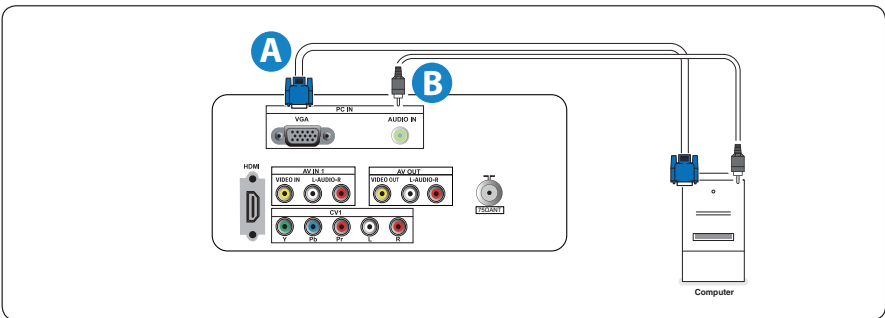
Connect DVD player or other video devices with component video connectors



Connect DVD player with a HDMI connector



Connect PC (monitor) with a VGA connector



8. Glossary

Aspect Ratio	The ratio between the width and height of the TV picture on the screen. In a normal TV set the aspect ratio is 4 to 3 (4:3). The new aspect ratio in HDTV is 16:9 which resembles the aspect ratio in a movie theatre (Widescreen). New TV systems support both 4:3 and 16:9 aspect ratio and can automatically switch between them.
Audio Video (A/V)	A term often used when discussing a channel on a TV receiver or on video equipment, which has been especially designed to accept VCR audio-video signals. This channel automatically activates special circuitry within the TV set to prevent picture distortion and skewing. It is also used for audio-video processors, which handle both types of signals.
CVBS	Composite Video Baseband Signal. In broadcast television this refers to the video signal, including the color information and syncs.
Component Video Input (Y Pb Pr)	Component Video Input is a type of connection that uses a cinch-type connector to allow cable receiver boxes or analog DVD players to connect a signal to the TV. By offering the cinch-type input (YPbPr) the primary colors, red, green and blue are connected from a cable receiver box directly into the TV allowing for the signal to display on the screen.
HDTV	The generally agreed upon definition of HDTV is approximately twice the vertical and horizontal picture resolution of today's NTSC TV, which essentially makes the picture twice as sharp. HDTV also has a screen ratio of 16:9 as compared with most of today's TV screens, which have a screen ratio of 4:3. HDTV offers reduced motion artifacts (i.e. ghosting, dot crawl), and offers 5.1 independent channels of CD-quality stereo surround sound, (also referred to as AC-3).
Progressive Scan	In Progressive Scanning all the horizontal scan lines are scanned on to the screen at one time. The Digital TV and HDTV Standards accept both Interlaced Scan and Progressive Scan broadcast and display methods.
Resolution	Resolution: A measurement of the finest (smallest) detail that is visible in a video image. TV Resolutions may be expressed as number of pixels in an image; or more commonly, As Total Number of (horizontally scanned) Lines used to create the image. Standard Digital TV Resolutions: SDTV: 576i - The picture is 704x576 pixels, 576p - The picture is 720x576 pixels. HDTV: 720p - The picture is 1280x720 pixels, 1080i - The picture is 1920x1080 pixels. 1080p - The picture is 1920 x 1080 pixels.

9. Troubleshooting

Symptoms	Possible cause	What should you do
No power or indicator light.	The TV is not connected to the power.	1. Press POWER at the side of the TV, or press  on the remote control.
		2. Ensure the AC power cord is connected tightly to the TV power connector and to the power socket outlet.
		3. Remove the AC power cord from the power socket outlet, wait 60 seconds and reconnect the AC power cord.
		4. Connect the TV to a different power socket outlet.
Error message on the screen with HDMI connection.	HDCP authentication fail.	1. Ensure that your HDMI cable is certified.
		2. Press SOURCE button on the remote control to switch to another source and then switch back to the HDMI source.
		3. Reset the accessory device and the TV. Turn on the TV Select the HDMI channel Turn on the accessory device
		4. While the TV and the accessory device are powered on, unplug either end of the HDMI cable and then reinsert the cable.
No sound is detected from the PC.	Audio cable is not connected.	1. Connect an audio cable to the PC AUDIO IN port on the TV.
		2. Press SOURCE button on the remote control, and select the PC source.
TV does not respond to the remote control.	Batteries are installed incorrectly, or low battery power.	1. Ensure the indicator light on the TV blinks when the remote control buttons are pressed.
		2. Ensure that you are using the remote control supplied with the TV.
		3. Ensure that the batteries of the remote control are inserted according to the illustration on the remote control and that the batteries do not need to be replaced.
		4. Remove the AC power cord from the power socket outlet, wait 60 seconds and reconnect the AC power cord.
The picture is distorted. It is stretched out, has short, fat, black bars on the side or top.	Broadcast video format.	1. Press the FORMAT button on the remote control to select the best picture format. 2. For some accessory devices, the picture format has to be set in the accessory device.
The picture is mostly red and green, or the picture is missing red when the TV is connected to an accessory device via component cables.	Insecure/incorrect connection.	1. Ensure all the connections are made according to the color code. 2. Push the component cables all the way into the YPbPr sockets on the TV.
No sound on the TV loudspeaker.	Volume level is set to zero.	1. Increase the volume.
	Sound is muted.	2. Press MUTE button on the remote control.
	Headphones are connected.	3. Ensure the headphones are not plugged into the TV.
	Audio cable is not connected.	4. For AV connection, ensure that the Audio L/R cable is connected as described in <i>Connect devices</i> section. If you are using a component cable, ensure that you have not crossed the red audio cable with the red video cable.
	Accessory device audio output setting is incorrect.	5. For HDMI connections, some accessory devices have an HDMI audio output setting that must be turned on for HDMI to HDMI connections.
Bad picture quality with a coaxial connection.	Standard definition channels are not as clear as high definition channels.	1. Connect the devices via component or HDMI cables.
No picture or sound.	Incorrect channel	1. Ensure you have selected the correct channel.
	Incomplete channel installation.	1. If the TV receives channels via an AV connection, set the TV to the correct source input.
		2. If the TV is connected directly to the wall via a coaxial connection, perform the Auto store again.

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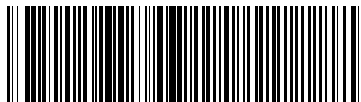
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