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ΞN	User	Manu	al

ES Manual del Usuario

FR Manuel d'Utilisation

- If you read this User Manual for **50PFL5601** and your television's serial number starts with:
- DS1 and DS2 Please start to read from next page.
- DS3 or higher number Please start to read from p.58.
- Si lee este Manual de Usuario para 50PFL5601 y el numero de serie de su television comienza con:
- DS1 y DS2 Por favor comience a leer desde la siguiente página.
- DS3 o número más alto Por favor comience a leer desde la
- Si vous lisez ce Manuel d'Utilisation pour le 50PFL5601 et que le numero de serie de votre televiseur commence par
- DS1 et DS2 Veuillez commencer a lire a partir de la page suivante
- DS3 ou un nombre plus élevé Veuillez commencer a lire a partir de la p.58.

- For further assistance, call the customer support service in your country.
- To obtain assistance, contact Philips Customer Care Center: In the U.S.A., Canada, Puerto Rico, or the U.S. Virgin Islands 1866 202 5960

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- Para obtener más información, llame al servicio de soporte al cliente de su país.
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Dans le États-Unis, au Canada, à Puerto Rico ou aux Îles Vierges américaines; **1 866 202 5960**

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 $[\]boldsymbol{\cdot}$ Displays and illustrations may differ depending on the product you purchase.

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Know these **Safety** symbols



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The caution marking is located on the rear or bottom of the cabinet.



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



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

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. WARNING:

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids,

such as vases, shall be placed on the apparatus.

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

ATTENTION: Pour éviter les choc électriques, introduire la lame la plus large de la fiche dans la borne

correspondante de la prise et pousser jusqu'au fond.

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CHILD SAFETY:

PROPER TELEVISION PLACEMENT MATTERS

THE CONSUMER ELECTRONICS INDUSTRY CARES

- Manufacturers, retailers and the rest of the consumer electronics industry are committed to making home entertainment safe and enjoyable.
- As you enjoy your television, please note that all televisions – new and old- must be supported on proper stands or installed according to the manufacturer's recommendations. Televisions that are inappropriately situated on dressers, bookcases, shelves, desks, speakers, chests, carts, etc., may fall over, resulting in injury.

TUNE IN TO SAFETY

- **ALWAYS** follow the manufacturer's recommendations for the safe installation of your television.
- ALWAYS read and follow all instructions for proper use of your television.
- NEVER allow children to climb on or play on the television or the furniture on which the television is
- **NEVER** place the television on furniture that can easily be used as steps, such as a chest of drawers.
- ALWAYS install the television where it cannot be pushed, pulled over or knocked down.
- ALWAYS route cords and cables connected to the television so that they cannot be tripped over, pulled or grabbed.

CTA.tech/safety Consumer Technology Association[®]

WALL OR CEILING MOUNT YOUR TELEVISION

- ALWAYS contact your retailer about professional installation if you have any doubts about your ability to safely mount your television.
- ALWAYS use a mount that has been recommended by the television manufacturer and has a safety certification by an independent laboratory (such as UL, CSA, ETL).
- ALWAYS follow all instructions supplied by the television and mount manufacturers.
- ALWAYS make sure that the wall or ceiling where you are mounting the television is appropriate. Some mounts are not designed to be mounted to walls and ceilings with steel studs or cinder block construction. If you are unsure, contact a professional installer.
- Televisions can be heavy. A minimum of two people is required for a wall or ceiling mount installation.

MOVING AN OLDER TELEVISION TO A NEW PLACE IN YOUR HOME

- Many new television buyers move their older CRT televisions into a secondary room after the purchase of a flat-panel television. Special care should be made in the placement of older CRT televisions.
- ALWAYS place your older CRT television on furniture that is sturdy and appropriate for its size and weight.
- **NEVER** place your older CRT television on a dresser where children may be tempted to use the drawers to climb.
- **ALWAYS** make sure your older CRT television does not hang over the edge of your furniture.

Important safety instructions

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- **4.** Follow all instructions.
- **5.** Do not use this apparatus near water.
- **6.** Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's 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 a third grounding prong. The wide blade or the third prong are provided for your safety. If 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 the 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.

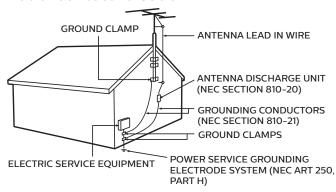


- **13.** Unplug this apparatus during lightning storms or when unused for long periods of time.
- **14.** Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Note to the CATV system installer:

This reminder is provided to call the CATV system. installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Example of antenna grounding as per NEC -National Electric Code



Wall mount bracket kit

	Brand	Model #	Screw dimension
50PFL5601	SANUS VuePoint	F80b	M6 x 0.472" (12mm)

- Your TV meets the VESA standard for wall mounting. Consult with your local dealer for a wall mount bracket which is compatible with your TV
- · The recommended wall mount bracket kit (sold separately) allows the mounting of the TV on the wall
- · For detailed information on installing the wall mount, refer to the wall mount Instruction book.
- Funai is not responsible for any damage to the product or injury to yourself or others if you elect to install the TV wall mount bracket or mount the TV onto the bracket on your own.
- The wall mount bracket must be installed by experts.

Funai is not liable for these types of accidents or injuries noted below.

- · Install the wall mount bracket on a sturdy vertical wall.
- · If installed onto a ceiling or slanted wall, the TV and wall mount bracket may fall which could result in a severe injury.
- Do not use screws that are longer or shorter than their specified length. If screws too long are used this may cause mechanical or electrical damage inside the TV set. If screws too short are used this may cause the TV set to fall.
- Do not fasten the screws by excessive force. This may damage the product or cause the product to fall, leading to an injury.
- · For safety reasons use 2 people to mount the TV onto a wall mounting
- Do not mount the TV onto the wall mounting bracket while your TV is plugged in or turned on. It may result in an electrical shock injury.

When installing the unit on the wall, allow this much space.

: 11.8 inches (30cm) Left and right side : 5.9 inches (15cm) **Bottom** : 3.9 inches (10cm)

1 Notice

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Funai reserves the right to change products at any time without being obliged to adjust earlier supplies accordingly.

The material in this Owner's Manual is believed adequate for the intended use of the system. If the product or its individual modules or procedures are used for purposes other than those specified herein, confirmation of their validity and suitability must be obtained. Funai warrants that the material itself does not infringe any United States patents. No further warranty is expressed or implied.

Funai cannot be held responsible neither for any errors in the content of this document nor for any problems as a result of the content in this document. Errors reported to Funai will be adapted and published on the Funai support website as soon as possible.

Pixel characteristics

This LCD product has a high number of color 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 the display (within common industry standards) and is not a malfunction.

Warranty

No components are user serviceable. Do not open or remove covers to the inside of the product. Repairs may only be done by Service Centers and official repair shops. Failure to do so shall void any warranty, stated or implied.

Any operation expressly prohibited in this manual, any adjustments or assembly procedures not recommended or authorized in this manual shall void the warranty.

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B Digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Declaration of conformity

Trade name : PHILIPS

Responsible party : FUNAI CORPORATION, Inc.

Model : 50PFL5601

Address : 19900 Van Ness Avenue, Torrance, CA 90501

U.S.A.

Telephone number : 1866 202 5960

Modifications

This apparatus may generate or use radio frequency energy. Changes or Modifications to this apparatus may cause harmful interference.

Any Modifications to the apparatus must be Approved by Funai.

The user could lose the authority to operate this apparatus if an unauthorized Change or Modification is made.

Cables

Connections to this device must be made with shielded cables with metallic RFI / EMI connector hoods to maintain compliance with FCC Rules and Regulations.

FCC statutory notice for Wireless LAN adapter.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Country Code Statement

For product available in the USA market, only channel 1~11 can be operated. Selection of other channels is not possible.

To maintain compliance with FCC RF exposure requirements, use only belt-clips, holsters or similar accessories that do not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements and should be avoided.

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Hotlist, Samba, Samba TV and associated logos are trademarks of Free Stream Media Corp.

Portions of this software are copyright © The FreeType Project (www.freetype.org).

The American Academy of Pediatrics discourages television viewing for children younger than two years of age.

Some features may require an always-on broadband internet connection, firmware update and/or a minimum bandwidth. Internet services vary by location.

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2 Important

Positioning the TV

- Large screen TVs are heavy. 2 people are required to carry and handle a large screen TV.

 Make sure to hold the upper and
- bottom frames of the unit firmly as illustrated.
- Install the unit in a horizontal and stable position
- Do not install the unit in direct sunlight or in a place subject to dust or strong vibration.
- Depending on the environment, the temperature of this unit may increase slightly. This is not a malfunction.

- Avoid a place with drastic temperature changes.

 Do not place anything directly on top or bottom of the unit.

 Depending on your external devices, noise or disturbance of the picture and / or sound may be generated if the unit is placed too close to them. In this case, please ensure enough space between the external devices and the unit.

 Do not insert the AC power cord into the power socket outlet
- before all the connections are made.
- Ensure that you always have easy access to the AC Power Cord and Outlet to disconnect the TV from the AC Outlet.
- Before you move the TV, disconnect attached Cables to prevent damage to Connectors, especially the TV Tuner. Be sure to Unplug the AC Power Plug from the AC outlet
- before moving or carrying the unit.

 When moving the TV and then Setting it down, please be careful not to pinch the AC Power Cord under the unit.

 Do not place this unit in an area where it may be exposed to
- water, oil or grease such as: near a bathtub, basin, kitchen sink, washing tub, swimming pool, kitchen exhaust fan, etc., or in a damp basement.

Regulatory notices

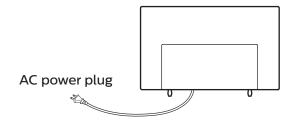
Do not place the unit on the furniture that is capable of being tilted by a child and an adult leaning, pulling, standing or climbing on it. A falling unit can cause serious injury or even death. This apparatus should not be placed in a built-in installation such

as a bookcase or rack unless proper ventilation is provided.

Make sure to leave a space of 4 inches (10cm) or more around this

Press to turn the unit On and go into Standby mode. To completely turn Off the unit, you must unplug the AC power Plug from the AC Power Outlet.

Disconnect the AC Power Plug to shut the unit Off when trouble is found or not in use. The AC Plug shall remain readily available.



Never use a gas duster on this TV.

WARNING:

The gas trapped inside of this unit may cause ignition and explosion.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

Batteries (battery pack or battery installed) should

not be exposed to excessive heat such as sunshine,

fire or the like.

WARNING: To prevent injury, this apparatus must be securely

attached to the furniture / wall in accordance with the instructions. Tipping, shaking or rocking the unit

may cause injury / death.

Environmental care



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

For product recycling information, please visit www.recycle.philips.com

End of life directives

Philips pays a lot of attention to produce environmental-friendly products in green focal areas. Your new TV contains materials which can be recycled and reused. At the end of its life, specialized companies can dismantle the discarded TV to concentrate the reusable materials and to minimize the amount of materials to be disposed of. Please ensure you dispose of your old TV according to local regulations.

Disposal of Used Batteries

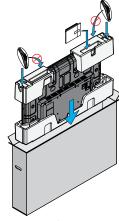
In certain localities, disposing batteries with household waste is not permitted. Please ensure you dispose of batteries according to local regulations.

Batteries usage

- · Do not mix old and new batteries.
- Do not mix alkaline, standard (carbon-zinc) or rechargeable (ni-cad, ni-mh, Li-ion, etc.) batteries.

Preparing to move / ship the unit

Please pack the Unit properly by following the Diagram on the Carton (as noted below)



To avoid damage to the Screen, do not pack the Stand on the same side as the TV screen, refer to the illustration above.

English

2 Getting started

Features

DTV / Analog TV / CATV

You can use your remote control to select channels which are broadcast in digital format and conventional analog format. Also, cable and satellite subscribers can access their TV channels.

Information display

You can display on the TV screen the title, contents (DTV only) and other information on the current

Autoprogram

This unit automatically scans and memorizes channels available in your area, eliminating difficult setup procedures.

This unit lets you enjoy internet services. Use the remote control to browse the Net TV pages. You can play movies and much more, all from your TV screen.

Child lock

This feature allows you to block children's access to inappropriate programs.

Closed caption decoder

Built-in closed caption decoder displays text for closed caption supported programs.

• MTS / SAP tuner

Audio can be selected from the remote control.

Auto standby

If there is no input signal and no operation for 15 minutes, the unit will go into standby mode automatically

· Sleep timer

You can set the unit to go into standby mode after a specific amount of time.

Choices for on-screen language

Select your on-screen language: English, Spanish or French.

· Stereo sound function

PLL frequency synthesized tuning

Provides free and easy channel selection and lets you tune directly to any channel using the number and decimal point " $\,$ " keys on the remote control.

Various adjustments for picture and sound

Customizes picture quality suitable for your room and sets your sound preference

• EasyLink via HDMI link

EasyLink allows your other HDMI link devices to be controlled by the HDMI cable connected to your TV.

HDMI input

HDMI-DVI input

If your video device has a DVI output jack, use an HDMI-DVI conversion cable to connect the

AV input

Audio and video input from an external device.

USB terminal

The picture, music and video files stored on a USB memory stick can be played back on this unit.

• Digital audio output

Headphone audio output

Headphone 3.5mm stereo jack for personal listening.

Supplied accessories

User Manual Quick Start guide







Remote Control

Caution Sheet

TV base and Screws





Screws packed with this Unit.

Model	Quantity	Size
50PFL5601	4	M4 x 0.787"(20mm)



Note(s)

- If you lose the screws, please purchase the above-mentioned Phillips head screws at your local
- If you need to replace these accessories, please refer to the part name or No. with the illustrations and call our toll free customer support line found on the cover of this User manual.

When using a universal remote control to operate this unit.

- Make sure the component code on your universal remote control is set to our brand. Refer to the instruction book accompanying your remote control for more details.
- We do not guarantee 100% interoperability with all universal remote controls.

Symbols used in this User manual

The following is the description for the symbols used in this User manual. Description refers to:

Digital TV operation

Cable / NTSC (Analog) TV operation

· If neither symbol appears, the operation is applicable to both.

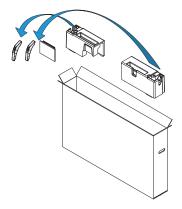
Unpacking

It is recommended that two or more people remove the TV set from the box. Be careful not to injure your fingers and keep children away during assembly.

1 Open the top flaps of the box.



2 Remove all accessories.



Prepare a table and cover the top of it with a table cloth, blanket or such to avoid damage to the TV set. Support both sides of the TV set and, move it onto the table.

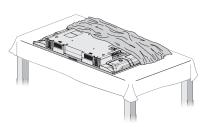


4 Carefully lay the TV set, with the screen side down, on the table.

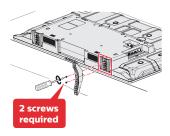


Installing the stands

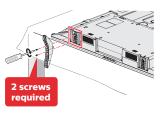
1 Remove the tape on the bottom of the TV set and the plastic bag.



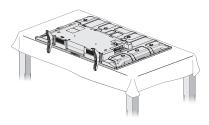
2 Fasten the matching stand to the TV with 2 screws (included). While fastening the screws, hold the stand to prevent it from falling. Also, make sure to attach the stand parallel to the bottom of the TV set, as shown in the enlarged illustration.



3 Fasten the other stand to the TV with 2 screws (included). While fastening the screws, hold the stand to prevent it from falling.



4 Both stands should now be securely fastened.

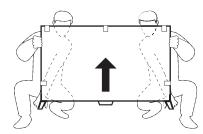




- · A wide open space is recommended for assembly.
- A Phillips-head screwdriver is required to fasten the stands to the TV set.
- When attaching the stand, ensure that all screws are tightly fastened. If the stand is not properly
 attached, it could cause the unit to fall, resulting in injuries as well as damage to the unit.
- To remove the stand from this unit, unscrew the Phillips-head screws by reversing the procedure. Be careful not to drop the stand when you remove it.

Lifting the TV set

Carefully lift the TV set as shown in the illustration and place it onto a stable, level surface.

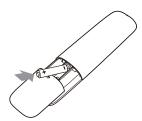


Removing cardboard

Remove the cardboard attached to the screen. You are now ready to set $% \left\{ x_{i},x_{j}\right\} =0$ up and enjoy your Philips TV.



Installing the remote control batteries

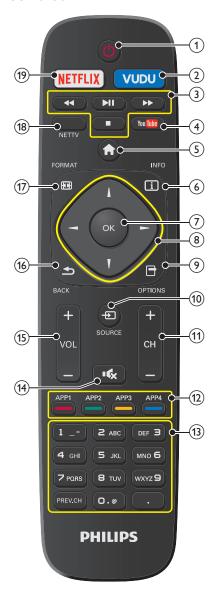


- Slide the battery cover off the back of the remote control.
- Insert two batteries (AAA, 1.5V). Be sure the + and ends of the batteries line up with the markings inside the case.
- Slide the cover back into position.



• Remove the batteries if not using the remote control for an extended period of time.

Remote control



① (POWER)

Turns the TV on from standby or off to standby.

2 VUDU

Access directly to VUDU.

(3) EasyLink buttons

: Searches backward or forward through the disc.

: Starts, pauses or resumes playback.

: Stops the disc playback

Note(s)

 \bullet Pause may not work properly on some devices even if they are EasyLink (HDMI CEC)

(4) YouTube

Access directly to YouTube.

(Home)

Displays the main menu.

(6) **(i)** INFO

Displays information about the current program.

Press to decide the command of setting when the Home menu is displayed.

(8) ▲▼◀► (NAVIGATION buttons)

Moves the cursor, selects the on-screen menu items.

(9) ☐ OPTIONS

Displays a list of menu items applicable to the highlighted object or screen

10 + SOURCE

Selects connected devices

(11) CH + / -

Selects a channel

(12) Apps (APP1 / APP2 / APP3 / APP4) buttons

Works as direct access to user specified net apps.

(13) 0 - 9 (NUMBER buttons)

Used to enter a channel / program number.

: Use with **0-9** to select digital channels. · (DOT)

For example, to enter 2.1, press



PREV.CH: Returns to the previously viewed channel.

(14) • (MUTE)

Turns the sound on and off.

(15) VOL + / -

Adjusts the volume.

Returns to the previous menu operation.

17 EF FORMAT

Adjusts the picture size on the TV screen.

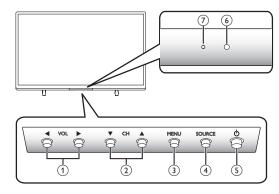
(18) NETTV

Access to Net TV menu directly.

(19) NETFLIX

Access directly to Netflix.

Control panel



VOL ◀/▶

Adjusts the volume. In the menu screen, moves the cursor left (◀) / right (►)

VOL ◀ : Volume down : Volume up **VOL**▶

(2) CH ▲ / ▼

Selects a channel. In the menu screen, moves the cursor up (▲) / down (▼).

(3) MENU

Opens the main on-screen menu:

(4) SOURCE Selects connected devices.

(5) (b) (POWER)

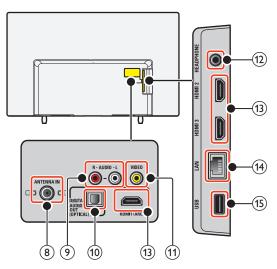
Turns the TV on or switches the TV into standby mode.

Remote control sensor

Receives IR signal from remote control.

Power on / Standby indicator (On: no light, Standby: lights in red)

Terminals



(8) 75 ohm cable / Antenna connection

Signal input from an antenna or cable / satellite set-top boxes.

(9) Analog audio (L/R) input jacks

Connect analog audio signals from;

- HDMI-DVI / Analog audio (L/R) jacks signal
- -Composite video / Analog audio (L/R) jacks signal
- (10) Digital audio output jack

Digital audio (S/PDIF) output to home theaters and other digital audio svstems

(11) Composite video (VIDEO) input jack

Connect composite analog video signal.

(12) Headphone audio output jack

Headphone 3.5mm stereo jack for personal listening.

(13) HDMI input jack(s)

Digital audio and video input from high definition digital devices such as DVD / Blu-ray disc players, cable / satellite set-top boxes, PC's,

* For HDMI 1 only In addition to normal HDMI and HDMI-DVI functionality, it outputs TV audio to an HDMI-ARC-compliant device, such as a home theater system.

(14) Ethernet port

For internet connection using an Ethernet cable with an RJ-45 connector.

(15) USB terminal

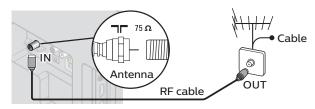
Data input from USB memory stick only. Do not connect any device to this terminal such as digital camera, keyboard, mouse, etc.

Connecting Antenna or Cable / Satellite / IPTV set-top box

Be sure your antenna or another device is connected properly before plugging in the AC power cord.

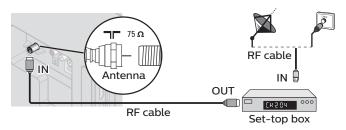
If connecting to an antenna through an RF cable

Any DTV programs that are broadcast in your area can be received for free through an antenna connection.



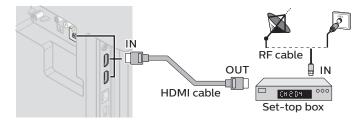
If connecting Cable / Satellite / IPTV set-top box using an RF cable

If the TV is connected to a cable or set-top box via a coaxial connection, set the TV to channel 3/4 or the channel specified by the service provider



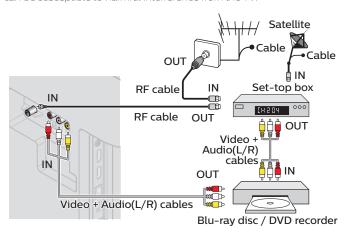
If connecting Cable / Satellite / IPTV set-top box using an HDMI cable

If the TV is connected to a cable / satellite set-top box via an HDMI cable, make sure you select the correct source by using • SOURCE.



Connecting a Cable / Satellite / IPTV set-top box, Bluray disc / DVD recorder via composite connectors and analog audio

Do not place your recorder too close to the screen because some recorders can be susceptible to harmful interference from the TV.





- If you have any question about the DTV's antenna, visit **www.antennaweb.org** for further information.
- Depending on your antenna system, you may need different types of combiners (mixers) or separators (splitters) for HDTV signal. The minimum RF bandpass on these devices is 2,000MHz or 2GHz
- For your safety and to avoid damage to this unit, please unplug the RF coaxial cable from the antenna input jack before moving the unit.
- If you did use an antenna to receive analog TV, it should also work for DTV reception. Outdoor
 or attic antennas will be more effective than a set-top box or inside antenna.
- To turn on your reception source easily between antenna and cable, install an antenna selector
- If you are not receiving a signal from your cable service, contact the cable provider

Plugging in the AC power cord

Make sure that the AC power cord must be plugged to an AC outlet after all the necessary connections are made.



Caution(s)

- Connect the analog audio signal cables from the external device to the analog audio L/R input jacks.
- If you have an amplifier, connect the HDMI cable to the HDMI input via your amplifier.



Note(s)

Each time you plug in the AC power cord, no operations will be performed for several seconds.
This is not a malfunction.

No supplied cables are used with these connections:

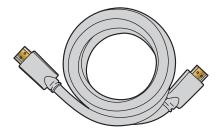
Please purchase the necessary cables at your local store

Before you connect the AC power cord:

Be sure other devices are connected properly before plugging in the AC power cord.

Selecting your connection quality

HDMI - Highest quality



Supports high-definition digital signals and gives highest picture and sound quality. Video and audio signals are combined in one cable. You must use HDMI for full high-definition video and to enable EasyLink(HDMI CEC).



- Phillips HDMI supports HDCP (High-bandwidth Digital Contents Protection). HDCP is a form of digital rights management that protects high-definition content in Blu-ray discs or DVDs.
- The HDMI-ARC connector on the TV features HDMI-ARC functionality. This allows output of TV audio to an HDMI-ARC-compliant device.

Composite - Basic quality

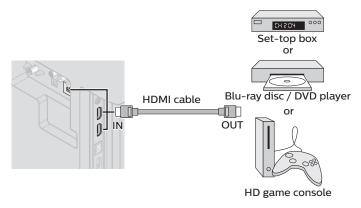


For analog connections. Composite video / Audio analog cable usually combine a yellow video cable with red / white audio (L/R) cables.

Connecting your devices

HDMI digital connection

HDMI connection offers the highest picture quality. HDMI (High-Definition Multimedia Interface) transports high-definition digital video and multi-channel digital audio through a single cable.



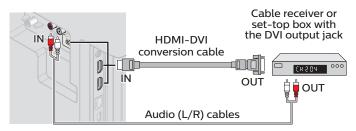


Note(s)

- If there are issues with picture/color and/or sound when connecting an external device using the HDMI port, please try switching the **HDMI mode**. (Refer to **HDMI mode** \Rightarrow **p. 33**)
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications
- Use an HDMI cable with the HDMI logo (a certified HDMI cable). High speed HDMI cable is recommended for the better compatibility.
- The unit accepts 480i/480p/720p/1080i, 1080p, 2160p 24/30/60Hz of video signals, 32kHz/44.1kHz and 48kHz of audio signals.
- This unit accepts LPCM, AC-3, DD+ audio signal.
- This unit accepts only signals in compliance with EIA861.

HDMI-DVI connection

This unit can be connected to your device that has a DVI terminal. Use an HDMI-DVI conversion cable for this connection and it requires audio cable for analog audio signal as well.



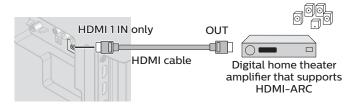


Note(s)

- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.
- Use an HDMI cable with the HDMI logo (a certified HDMI cable). High speed HDMI cable is recommended for the better compatibility.
- The unit accepts 480i, 480p, 720p, 1080i, 1080p and 2160p video signals
- HDMI-DVI connection requires separate audio connections as well and the audio signals are output as analog (L/R) audio.
- DVI does not display 480i image which is not in compliance with EIA/CEA-861/861B.

HDMI-ARC connection

HDMI-ARC allows you to use EasyLink to output TV audio directly to a connected audio device, without the need for an additional digital audio cable.



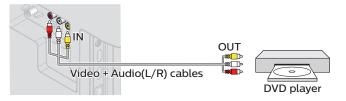


- The HDMI 1 connector is HDMI Audio Return Channel (ARC) compliant. Use it to output digital audio to an HDMI home theater system.
- Be sure that the device is HDMI CEC and ARC compliant and that the TV is connected to the device using an HDMI cable attached to HDMI-ARC connectors.

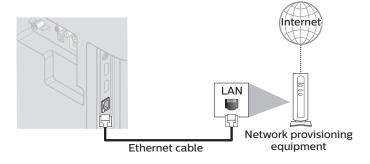
Composite analog video connection

Composite analog video connection offers standard picture quality for video devices connected to the unit.

If you connect to the unit's composite video (VIDEO) input jack, connect audio cables to the audio (L/R) input jacks. When the audio is monaural, then only connect to the audio L input jack.



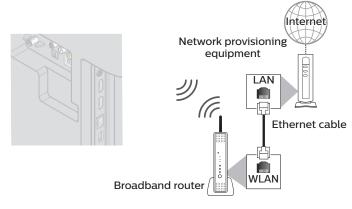
Connecting the TV to the internet using an Ethernet cable





- Please purchase shielded Ethernet cables at your local store and use them when you connect to network equipment
- After connecting an Ethernet cable, set up necessary network settings. Connect to network ⇒ p. 38
- Do not insert any cable other than an Ethernet cable to the Ethernet port to avoid damaging the unit.
- If your telecommunications equipment (modem, etc.) does not have broadband router functions, connect a broadband router.
- If your telecommunications equipment (modem, etc.) has broadband router functions but there
 is no vacant port, then add a hub.
- For a broadband router, use a router which supports 10BASE-T / 100BASE-TX.
- Do not connect your PC directly to the Ethernet port of this unit.

Connecting the TV to the internet using a wireless LAN



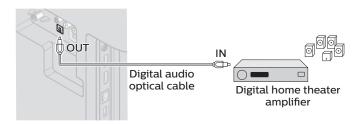


- After you make the wireless connection, set up the necessary network settings. Connect to network → p. 38
- Use a wireless LAN Access Point (AP) (e.g. broadband wireless router) which supports IEEE 802.11 b/g/n. (n is recommended for stable operation of the wireless network)
- · This unit does not support Ad-hoc mode
- Other radio devices or obstacles may cause interference to the wireless network connection

Digital audio output connection

If you connect this unit to an external digital audio device, you can enjoy multi-channel audio like 5.1ch digital broadcasting sound.

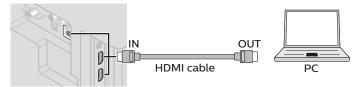
Use a digital audio optical cable to connect the unit to external digital audio devices.



PC connection

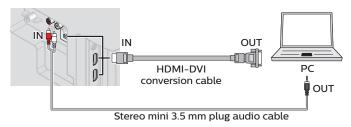
HDMI connection

This unit can be connected to your PC that has an HDMI terminal. Use an HDMI cable for this digital connection.



HDMI-DVI connection

This unit can be connected to your PC that has a DVI terminal. Use an HDMI-DVI conversion cable for this video digital connection and it requires stereo mini 3.5mm plug audio cable for analog audio signal as well



The following PC-input video signals can be displayed:

Format	Resolution	Refresh rate
VGA	640 x 480	
SVGA	800 x 600	
XGA	1,024 x 768	60Hz
WXGA	1,280 x 768	
WAGA	1,360 x 768	
FHD	1,920 x 1,080	
UHD	3,840 x 2,160	24/30/60Hz
OHD	4,096 x 2,160	

Other formats or non-standard signals will not be displayed correctly.



- \bullet Please purchase a HDMI-DVI conversion cable that has a ferrite core
- The following operations may reduce noise.
- Attach a ferrite core to the AC power cord of your PC.
- Unplug the AC power cord and use the built-in battery of your portable / laptop PC.
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.
- Use an HDMI cable with the HDMI logo (a certified HDMI cable). High speed HDMI cable is recommended for the better compatibility.
- The unit accepts 480i, 480p, 720p, 1080i, 1080p and 2160p video signals only when using the HDMI connection and HDMI-DVI connection.
- HDMI-DVI connection requires separate audio connections as well and the audio signals are output as analog (L/R) audio.
- DVI does not display 480i image which is not in compliance with EIA/CEA-861/861B.

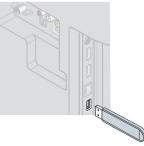
USB memory stick

This unit offers easy playback of picture, music and video files.

Insert the USB memory stick into the USB terminal shown below.

For a complete list of file formats and specifications supported, refer to







- The unit recognizes only a USB memory stick.
- Do not use a USB hub or an extension cable to connect an external hard disk drive to the unit. (Not supported.)
- · Always insert a USB memory stick directly to this unit.
- \bullet A USB memory stick is not supplied with this unit.
- ${\mbox{\ensuremath{\bullet}}}$ We do not guarantee that all USB memory sticks can be supported by this unit.
- Be sure to keep a backup copy of the original files on your USB device before you play them back on this unit. We have no responsibilities for damage or loss of your USB stored data.
- To protect your USB memory stick files from being erased place the write protect sliding tab in the protect position (if available).
- When you are ready to remove a USB memory stick, set the unit to go into standby mode to avoid any damage to your data and the unit.
- A USB memory stick that requires its own driver or the device with a special system such as
 fingerprint recognition are not supported
- This unit is not allowed to use the USB memory stick which requires an external power supply (500mA or more).

English

These operations are accessible by remote control. Some may also be accessible by the main unit's control panel

Initial setup

This section will guide you through the unit's Initial setting which includes selecting a language for your on-screen menu, country, location and Autoprogram, which automatically scans and memorizes viewable channels. You can also set the network connection in this setting.

Before you begin:

Make sure the unit is connected to an antenna or cable.

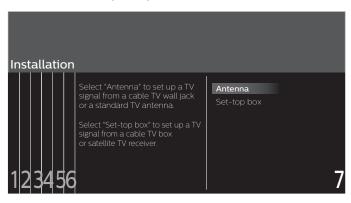
- 1 After making all the necessary connections, press ${\color{dkgray}\Phi}$ to turn on the unit
 - · It may take a few moments to turn on the unit for the first time.
 - · Initial setup menu appears automatically after the unit is turned on.
- 2 Use ▲▼ to select the on-screen language, country, TV placement and location in the middle of the TV screen, then press OK.
 - You must set Home in location setting. Otherwise, Picture and Sound settings you adjusted will not be memorized after the unit goes into standby mode.
- 3 Use **◄►** to select **Skip** or **Next** on network setup screen.
- 4 Use ▲ ▼ to select Wireless or Wired, then press OK.



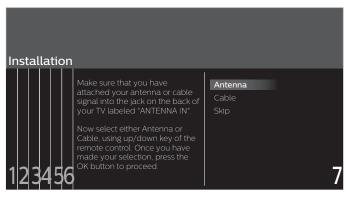
If you have a wireless router, select Wireless to connect to the internet.
If you connect with an Ethernet cable, select Wired to connect to the internet.

- If you have a router with easy connect function, select Wireless and use ▲ ▼ to select Easy Connect, then press OK.
- 5 Follow the on-screen instructions to complete the installation.
 - When you select On in the selection screen for Auto software update, A message will appear later if there is the latest software on the network server.

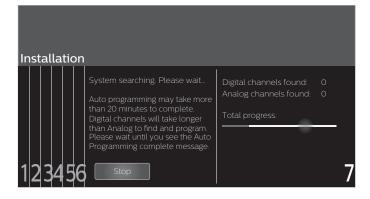
- 6 Use ▲▼ to select the signal type.
 - If the TV is connected to a cable or satellite set-top box, select the 2nd one and skip to step 8.



7 Use ▲ ▼ to select Antenna for TV channels or Cable for CATV channels, then press OK.



- When Antenna is selected, the TV detects antenna signals. It searches for DTV and analog TV channels available in your area.
- When Cable is selected, the TV detects signals supplied by cable.
 It searches for DTV, analog TV and cable channels available in your area.
- · Auto programming will begin.



8 Use $\blacktriangle \blacktriangledown$ to select your preferred picture setting, then press **OK**.



9 Use ▲▼ to select your preferred sound setting, then press OK.



10 After Picture and sound setup is completed, a message will appear if there is the latest software on the network server.



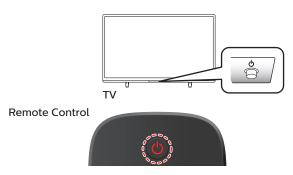
- If you are not receiving a signal from your cable service, contact the cable provider.
- If you press **b** during Autoprogram, this setup of TV channels will be cancelled.
- The initial Autoprogram function can be executed for either **Antenna** or **Cable** only once. When you change the connection (Antenna / Cable), select **Search for channels** again. **p. 35**

After an initial setup is completed...

- · If you want to scan the channels automatically again. Search for channels → p. 35
- · If you want to change to another language. Language → p. 33
- · If you want to change the country setting. Country → p. 48
- If you want to change the location setting. Location → p. 33
- $\boldsymbol{\cdot}$ If you want to change the network setting. Connect to network → p. 38
- · If you want to restore the picture and sound setting. Picture and sound setup → p. 28

3 Use your TV

Switching on your TV and putting it in standby mode



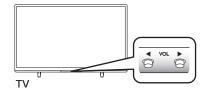
To turn the TV on from standby or off to standby

· Press (on the TV or the remote control.



 Energy consumption contributes to air and water pollution. When the AC power cord is plugged in, your TV consumes energy with a very low standby power consumption.

Adjusting volume



Remote Control



To decrease or increase volume

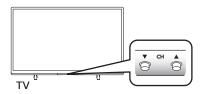
Press VOL ◀/▶ on the TV or press VOL + / – on the remote control.

VOL ◄ (-) : Volume down **VOL ▶** (+) : Volume up

To mute or unmute sound

- · Press ᢏ on the remote control to mute the sound.
- · Press again or VOL + / to recover the original sound.

Switching channels



Remote Control



To select channels by using $CH \blacktriangle / \blacktriangledown$ or CH + / -

To select channels by using the NUMBER buttons

Digital TV operation

- For digital channels, press a number followed by a dot "•" and the corresponding sub channel number.
 - When selecting digital channel 11.1
 Be sure to press before entering the subchannel number.



Cable / NTSC (Analog) TV operation

- When selecting cable or analog channel 11



Press **PREV.CH** to return to the previously viewed channel.



- To select the non-memorized channels, use the NUMBER buttons.
- Channel not available or No signal will appear on the TV screen after the subchannel broadcast is over.
- Audio only message will appear on the TV screen, when you receive only sound signal.

Watching channels from an external device

Switching each input mode can easily switch with the remote control between TV and external devices when they are connected to the unit.

1 Turn on the set-top box or the connected device.



① Press ★ SOURCE and use ★ to select the set-top box or the connected device and wait a few seconds till the picture appears.



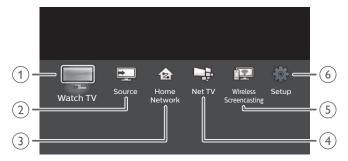
② Use the remote control of the set-top box or the connected device to select channels.

Access the Home menu

1 Press 🛖



Guide to Home menu



- 1) Watch TV
- : Switches back to the TV source if another source is selected.
- (2) Source
- : To select connected devices.
- (3) Home Network
- : Accesses Home network menus.
- (4) Net TV
- : Accesses Net TV menus.
- 6 Setup
- **Wireless Screencasting**: Accesses Wireless Screencasting menus.
 - : Accesses menus that allow you to change picture, sound and other TV
 - settings.

Lock or unlock your device from the Home menu

This section describes how to lock or unlock specified device.

- 1 Press SOURCE on the remote control.
- 2 Use **◄►** to select a device to lock or unlock.
- 3 Press OPTIONS on the remote control.
- 4 Use ▲ ▼ to select Lock or Unlock, then press OK
 - If device lock is unlocked, Lock will be displayed. If device lock is locked, Unlock will be displayed at the top right of the device icons.
- 5 Enter your PIN. Change PIN → p. 37

Changing device type

You can change device icons displayed in the source list.

- 1 Press SOURCE on the remote control.
- 2 Use ◀► to select the desired device.
- **3** Press **red** button on the remote control.
- 4 Use ▲ ▼ to select the desired type, then press OK.

To reset the type

Press OPTIONS on the remote control at step 3, then select Original icon

Scan connections

You can rescan TV connections and update the source list.

Before you begin:

You must set On in Master EasyLink. - p. 34

- 1 Press DOURCE on the remote control.
- 2 Use ◀▶ to move the cursor to any device.
- 3 Press GOPTIONS on the remote control.
- 4 Use ▲ ▼ to select Scan connections, then press OK.

Create a list of favorite channels

You can create lists of your preferred TV channels so that you can find those channels easily.

- 1 Press **OK** while viewing a TV program.
- 2 Use ▲▼◀► to select the desired channel, then press **yellow** button.
- 3 Use ▲ ▼ to select the desired favorite list (Favorites 1 Favorites 4), then press OK to add or remove on the list of favorite channels.
 - \cdot \square indicates that the channel is added.
 - $\cdot \square$ indicates that the channel is removed.
 - The channel will be marked with � icon.

Display the list of favorite channels

- 1 Press **OK** while viewing a TV program.
- 2 Use ▲▼◀► to select Favorites.

To change the favorite list

- 1 Press blue button.
- 2 Use ▲ ▼ to select the desired favorite list (Favorites 1 Favorites 4).

To remove a channel from the favorite list

- 1 Select the desired channel, then press **yellow** button.
- 2 Use ◀► to select Yes, then press OK.

Changing Picture format

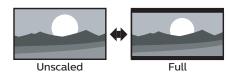
Display modes can be selected when your TV receives a 16:9 or 4:3 video signal.

Three types of display modes can be selected for a PC input signal.

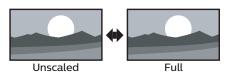
Press FORMAT repeatedly to switch the TV aspect ratio.



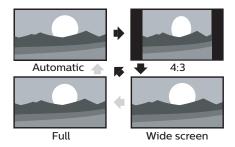
For 16:9 video signal (4096 x 2160p)



For 16:9 video signal (3840 x 2160p)

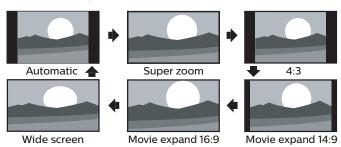


For 16:9 video signal (not 2160p)



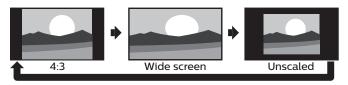
Automatic	Other than DTV and HDMI connected devices, enlarges the picture to best fit the screen. DTV and HDMI connected devices display the picture at its original size. The subtitles may remain visible.
4:3	Displays a 16:9 picture at a 4:3 size; the picture is shortened horizontally. Sidebars appear on both edges of the screen.
Wide screen	Displays a 16:9 picture that is stretched horizontally and vertically.
Unscaled	Displays a 16:9 picture at its original size.
Full	Displays a scaled 16.9 picture. Bars appear on both the upper and lower portions of the screen depending on the type of video signal.

For 4:3 video signal



Automatic	Other than DTV and HDMI connected devices, enlarges the picture to best fit the screen. DTV and HDMI connected devices display the picture at its original size. The subtitles may remain visible.
Super zoom	Displays a 4:3 picture at a 16:9 size; the picture is stretched horizontally and vertically and its left and right edges are enlarged. This crops out some of the top and bottom of the picture.
4:3	Displays a 4:3 picture at its original size. Sidebars appear on both edges of the screen.
Movie expand 14:9	Displays a 4:3 picture at a 14:9 size; the picture is stretched horizontally and vertically. This crops out some of the top and bottom of the picture. Sidebars appear on both edges of the screen.
Movie expand 16:9	Displays a 4:3 picture at a 16:9 size; the picture is stretched horizontally and vertically. This crops out some of the top and bottom of the picture.
Wide screen	Displays a picture that is stretched out of proportion to fill the screen.

For PC input signal



- This unit can also be connected to your PC that has a DVI terminal.
 Use an HDMI-DVI conversion cable for this video connection and it
 requires stereo mini 3.5mm plug audio cable for analog audio signal as
 well.
- Refer to 16:9 video signal on this page if the PC has HDMI output.

4:3	Displays a proportionately stretched picture. Sidebars appear on both edges of the screen.
	Displays a picture that is stretched out of proportion to fill the screen.
Unscaled	Displays a picture in its original size.

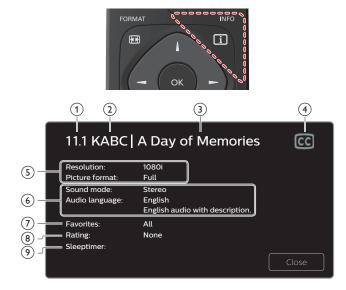
If the signal source has side or top-bottom bars inserted into the picture, the Picture format function will not eliminate them.

TV screen information

You can display the currently selected channel or other information such as the aspect ratio on the TV screen.

In the digital mode, the detailed broadcasting information for the current off-the-air channel such as program title and program guides are displayed.

1 Press Info.



(1) Channel number / Input mode

Switching channels - p. 19

Watching channels from an external device → p. 20

- (2) Broadcast station
- (3) Program title (for DTV only)
- (4) CC (not available if Closed caption is set to **Off**)

Caption settings → p. 31

5 Program's image aspect ratio

Changing Picture format → p. 21

6 Audio language (DTV) / Audio mode (Analog TV)

Sound → p. 30

(7) Favorites

Create a list of favorite channels - p. 21

(8) Child lock rating

Child lock p. 36

(9) Remaining time on sleep timer

Sleeptimer - p. 32

Press IINFO to hide the information.



- While the program guide is displayed, the closed caption function is interrupted.
- The information display will automatically disappear in 5 seconds.

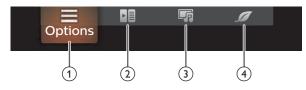
Using options menu

You can access to some TV settings directly by using GOPTIONS

1 Press GOPTIONS to display options menu, then press OK.



2 Use ▲▼◀▶ to select a desired setting, then press **OK**.



(1) Options

Following settings can be configured.

Closed captions	To choose the Closed captions display setting. Closed captions p. 31
Digital audio language	To Select the language according to your preference. (It differs depending on the program.) Digital audio language p. 37
Mono/Stereo	To Select an audio format. Mono/Stereo → p. 37

(2) Controls

If you have our brand products such as Blu-ray disc player or DVD recorder that are compatible with EasyLink functions, connect them to this unit via an HDMI cable so you can simply operate various items from this unit's remote control.

Before you begin:

select a device connected to an HDMI connection. - p. 20

You must set On in Master EasyLink. → p. 34
Otherwise, LINK does not work even if you connected our brand devices to this unit.

- Press GOPTIONS to display options menu.
- Use **◄▶** to select **Controls** then press **OK**.
- 3 Use $\triangle \nabla$ to select the desired item, then press **OK**.

Device-menu	Controls the menu of your connected EasyLink device.
Device-contents	Controls the top menu of your DVD or Blu-ray discs.
Device-favorite	Controls the pop-up menu of your Blu-ray discs.



- $\bullet \ \mathsf{Some} \ \mathsf{of} \ \mathsf{EasyLink} \ \mathsf{functions} \ \mathsf{may} \ \mathsf{not} \ \mathsf{be} \ \mathsf{available} \ \mathsf{depending} \ \mathsf{on} \ \mathsf{your} \ \mathsf{EasyLink} \ \mathsf{devices} \ \mathsf{or}$ discs.
- You must connect this unit to our brand EasyLink devices and be sure its EasyLink (HDMI CEC) setting is also set to On.
- We do not guarantee 100% interoperability with other brands of HDMI link compliant devices.

(3) Picture and sound

Following settings can be configured

rottowing settings can be configured.		
Auto picture	To set predefined picture mode. Picture → p. 28	
Auto sound	To set predefined sound mode. Sound → p. 30	
Headphone volume	To adjust headphone volume. Sound p. 30	
TV speakers	To Select the audio output from the unit's speakers or not. Sound → p. 30	
Picture format	To switch the TV aspect ratio. Changing Picture format → p. 21	
Setup	To display setup menu.	

(4) ECO settings

Following settings can be configured.

	You can turn off the unit automatically when there is no operation for specified time. In spite of this setting, the unit goes into standby mode automatically if there is no signal input and no user operation for 15 minutes.
Switch off timer	Press ▲ repeatedly to change the amount of time (increases the time by 30 minutes up to 240 minutes).
	Each press of ▼ will decrease the time by 30 minutes.
	To cancel the timer, press $\overline{\mathbf{V}}$ repeatedly until " 0 " is displayed.

USB

Your TV is fitted with a USB connection that enables you to view photos, listen to music or watch video files stored on a USB memory stick.

- 1 Press **SOURCE** and use **►** to select **USB**, then press **OK**.
- 2 Use ▲▼◀▶ to select the desired file, then press **OK**.



· These recorded files must meet specifications shown below:

Picture (JPEG / Progressive JPEG)			
JPEG Upper limit 4000x4000 pixels			
Progressive JPEG	Upper limit	1024x768 pixels	

Music (MP3 / WAV / AAC)				
MP3	Sampling frequency	16 kHz - 48 kHz		
IVIFS	Constant bit rate	8 kbps - 320 kbps		
WAV	Sampling frequency	8 kHz - 48 kHz		
VVAV	Constant bit rate	64 kbps - 1.5 Mbps		
AAC	Sampling frequency	8 kHz - 48 kHz		
AAC	Constant bit rate	-		

Video (MPEG / VOB / AVI / MP4)						
Maximum video	H.2	H.264, H.265/HEVC: 3840x2160@30fps, MPEG: 1920x1080@60fps				
Extension	.avi .mpg, .ts, .vob .mp4 .mkv				.mkv	
Video codec Audio codec	MPEG1, MPEG2, MPEG4, H.264	MPEG1, MPEG2, MPEG4	MPEG1, MPEG2, H.264, H.265/ HEVC	MPEG1, MPEG2	MPEG1, MPEG2, MPEG4, H.264, H.265/ HEVC	MPEG1, MPEG2, MPEG4, H.264, H.265/ HEVC
Dolby Digital	YES	YES	YES	YES	YES	YES
MPEG1/2 audio layer1/2/3	YES	YES	YES	YES	NO	YES
LPCM	YES	YES	YES	YES	YES	YES
AAC-LC	YES	YES	YES	YES	YES	YES



- This unit accepts USB memory stick only. Other storage devices such as external HDD by USB bus power will not work
- Do not use an extension cord and/or USB hub to connect devices to this unit. Always directly insert the USB flash memory stick to this unit directly.
- We cannot be held responsible if your USB memory stick is not supported, nor will we accept any liability for damage or loss of stored data.
- The USB memory stick is not supplied with this TV.
- · A maximum of 1,023 folders or files can be recognized.
- A file name exceeding 256 characters or contains a dot character is not supported on this TV.
- A USB memory stick that required its own driver or the device with a special system such as fingerprint recognition are not supported.
- Be sure to keep a backup copy of the original files on your USB device before you play them back on this unit. We have no responsibilities for damage or loss of your USB stored data.
- To avoid damaging the USB memory stick and the unit always turn off the unit before you remove the USB memory stick.
- This unit is not allowed to use the USB memory stick which requires external power supply (500 mA or more).
- This unit does not support MTP (Media Transfer Protocol) or the file other than FAT16 and FAT32 file system. If the file is not supported, an error message appears.
- When the unit does not recognize the USB memory stick, try reconnecting it.
- · Playing the files recorded with high bit rates, the images can be interrupted in some occasions.
- This unit does not support external subtitles.
- This unit cannot play back a file which goes over the limit of file restriction limit.

Viewing photos

- 1 Use **◄►** to select **Photo**, then press **OK**.
- 2 Use \P to select the desired item, then press OK.
- 3 Press **OK** or ►**II** to start a slide show of the files.
 - Press **OK** or **▶ ||** to pause the slide show.
 - The **II** icon appears.

 - Press **S BACK** or **■** to stop the slide show.
 - Press $\underline{\bullet}$ OPTIONS to display the optional menu, then use $\underline{\blacktriangle}$ $\underline{\blacktriangledown}$ to select the desired item.

	Off	Sets repeat playback to off.	
Repeat *1	One	Sets repeat playback for a selected image file.	
Nepedi 1	All	Sets repeat playback for all image files in the current folder.	
	Short	Switches to the next image in 5 seconds.	
Slide time *1	Medium	Switches to the next image in 10 seconds.	
	Long	Switches to the next image in 15 seconds.	
	None	No effect when switching images.	
	Dissolve	Overlaps the next image on the current image.	
	Wipe right	Pushes the current image out from left.	
	Wipe left	Pushes the current image out from right.	
Transitions *1	Wipe up	Pushes the current image out from bottom.	
	Wipe down	Pushes the current image out from top.	
	Box in	The next image comes to the center from the outside.	
	Box out	The next image goes to the outside from the center.	
	0	Displays an image in its original direction.	
Rotate *2	90	Rotates an image 90 degrees clockwise.	
Rotate 2	180	Rotates an image 180 degrees clockwise.	
	270	Rotates an image 270 degrees clockwise.	
	1X	Displays an image in its original size.	
Zoom *2	2X	Magnifies a current image by 2 times.	
	4X	Magnifies a current image by 4 times.	
Auto picture *1	Selects the picture mode according to your preference. (Standard, Natural, Vivid, Sports, Movie, Game, Energy savin and Internet video)		

You can set **Repeat**, **Slide time**, **Transitions** and **Auto picture** when images are in slide show.

Playing music

- 1 Use ◀► to select Music, then press OK.
- 2 Use **◄►** to select the desired item, then press **OK**.
- 3 Press **OK** or ►**II** to play the selected files.
 - Press **OK** or **▶ ||** to pause, then press **OK** or **▶ ||** again to resume.
 - Press >> to fast-forward search.
 - Press **◄** to fast-backward search.
 - Press **t**o stop playback.
 - Press $\begin{tabular}{l} \begin{tabular}{l} \be$

	Off	Sets repeat playback to off.	
Repeat	One	Sets repeat playback for a selected music file.	
	All	Sets repeat playback for all music files in the current folder.	
	Off	Sets shuffle playback to Off.	
Shuffle	On	Sets shuffle playback for all music files in the current folder.	
	Off	The sound will not be output from the unit's speakers.	
On TV Speakers Speakers EasyLink		The sound will be output from the unit's speakers.	
		You can control audio output from your connected EasyLink compliant devices with VOL + / – by using this unit's remote control.	
Auto sound	Selects the sound mode according to your preference. (Standard, Vivid, Sports, Movie, Music and News)		

^{*2} You can set Rotate and Zoom when slide show is in pause mode.

Playing movies

- 1 Use **▼** to select **Movie**, then press **OK**.
- 2 Use $\blacktriangleleft \blacktriangleright$ to select the desired item, then press \mbox{OK}_{\cdot}
- 3 Press **oK** or ►**II** to play the selected files.
 - · Press **OK** or **▶ ||** to pause, then press **OK** or **▶ ||** again to resume.
 - Press >> to fast-forward search.

 - Press \blacksquare to stop playback.

Press $\blacktriangleright II$ to resume from the point at which playback was stopped. Press OK to play from the beginning of the file.

• Press \boxdot OPTIONS to display the optional menu, then use \blacktriangle \blacktriangledown to select the desired item.

	Off	Sets repeat playback to off.		
Repeat	One	Sets repeat playback for a selected video file.		
	All	Sets repeat playback for all video files in the current folder.		
	Off	The sound will not be output from the unit's speakers.		
TV speakers	On	The sound will be output from the unit's speakers.		
, r speakers	Speakers EasyLink	You can control audio output from your connected EasyLink compliant devices with VOL + / – by using this unit's remote control.		
Auto picture	Selects the picture mode according to your preference. (Standard, Natural, Vivid, Sports, Movie, Game, Energy saving and Internet video)			
Auto sound	Selects the sound mode according to your preference. (Standard, Vivid, Sports, Movie, Music and News)			



- The resume information will be kept even when the unit is Turned off.
- If you play another file while the previously viewed file is being resumed, the resume information
 of the previously viewed file will be deleted.
- The file or the folder in resume stop mode will be highlighted in gray on **List** or **Thumbnails**.

4 Getting more from your TV

This section describes the overview of the **Setup** menu displayed when you press \spadesuit and use \blacktriangleleft to Select **Setup**.

The **Setup** menu consists of the function setting items below.

1 Press 🏫 to display the Home menu.

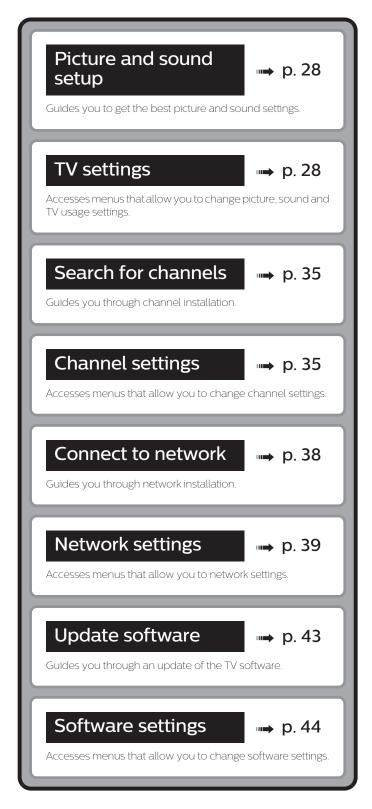


2 Use **◄►** to select **Setup**, then press **OK**.



3 Use $\Delta V \blacktriangleleft \triangleright$ to select the desired menu and an item, then press **OK**.





Picture and sound setup

Before you begin:

You must set **Home** in **Location**. **p. 33**

Otherwise, personalized picture and sound settings will not be memorized after the unit goes into standby mode.

1 Press ♠ and use ◀▶ to select **Setup** then press **OK**.

2 Use ▲▼◀▶ to select Picture and sound setup, then press OK.

3 Follow steps 8 to 9 in Initial setup \implies p. 18

TV settings

Picture

Before you begin:

You must set **Home** in **Location**. **→ p. 33**

Otherwise, personalized picture and sound settings will not be memorized after the unit goes into standby mode.

1 Press ♠ and use ◀▶ to select **Setup** then press **OK**.

2 Use ▲▼◀► to select TV settings, then press OK.

3 Use ▲▼ to select Picture, then press OK.

Picture Sound Features Installation	Auto picture Backlight Contrast Brightness Color Tint Sharpness Pixel Plus Ultra HD Advanced settings Picture format Mode selection Horizontal position Vertical position	
--	---	--

4 Use ▲▼◀▶ to select the item you want to adjust, then press **OK**. The following picture settings can be configured. Depending on the format of the picture source, some picture settings are not available.

	To set your TV to a predefined picture setting.		
	Personal	The customized settings you defined using the Picture menu.	
	Standard	For normal TV viewing.	
	Natural	Ideal picture mode for viewing high quality content without any picture enhancements.	
Auto picturo	Vivid	Enhanced picture contrast and sharpness for viewing in a well-lit room.	
Auto picture	Sports	Brilliant picture settings for high action.	
	Movie	Deep picture settings for a cinematic experience.	
	Game	Optimized for PCs and game consoles.	
	Energy saving	Eco TV settings for low power consumption.	
	Internet video	Optimized for low bit-rate internet video.	

When you adjust the following settings, Personal picture will be set automatically.

	Cursor ▼	Cursor ▲		
Backlight	To reduce power consumption and brightness	To increase power consumption and brightness		
Contrast	To decrease contrast	To increase contrast		
Brightness	To decrease brightness	To increase brightness		
Color	To decrease color intensity	To increase color intensity		
Tint	To add green	To add red		
Sharpness	To soften	To sharpen		
Pixel Plus Ultra HD	Enters sub-menus to adjust the following settings (Dynamic contrast, Color enhancement, Black			
Advanced settings	Enters sub-menus to adjust the following settings: (Color alignment, Custom color management, Gamma, Blue stretch and Film mode)			
	Automatic			
	Super zoom			
	4:3			
Picture format	Movie expand 14:9	Changing Picture		
Picture format	Movie expand 16:9	format 🛶 p. 21		
	Wide screen			
	Full			
	Unscaled			
Mode selection	PC	To turn off image enhancement features which makes the TV to act purely as a monitor		
Mode Selection	HDTV	To enable image enhancement features to improve picture quality		
	Cursor ▼	Cursor ▲		
Horizontal position	To move PC screen left	To move PC screen right		
Vertical position	To move PC screen down	To move PC screen up		

You may adjust picture quality and enhancement settings using Pixel Plus Ultra HD and Advanced settings sub menus.

Auto picture	Dynamic contrast	Off
Backlight	Color enhancement	Minimum
Contrast	Black stretch	Medium
Brightness	Perfect Motion Rate	Maximum
Color	4K UHD Upscaling	
Tint	Macro Dimming	
Sharpness	Noise reduction	
Pixel Plus Ultra HD	MPEG artifact reduction	
Advanced settings		
Picture format		
Mode selection		
Horizontal position		
Vertical position		

Dynamic contrast	To select the desired setting, then press OK (Off, Minimum, Medium and Maximum)		
Color	Off	To set color enhancement to off	
enhancement	On	To make colors more vivid and bright	
Black stretch	To select the desired setting, then press OK (Off , Minimum , Medium and Maximum)		
Perfect Motion Rate	To select the desired setting, then press OK (Off, Minimum, Medium and Maximum)		
4K UHD Upscaling	To select the desired setting, then press OK (Off , Minimum , Medium and Maximum)		
Macro Dimming	To select the desired setting, then press OK (Off , Minimum , Medium and Maximum)		
Noise reduction	To select the desired setting, then press OK (Off , Minimum , Medium and Maximum)		
MPEG artifact reduction	To select the desired setting, then press OK (Off, Minimum , Medium and Maximum)		

Auto picture	Color alignment	Mode
Backlight	Custom color management	Red gain
Contrast	Gamma	Green gain
Brightness	Blue stretch	Blue gain
Color	Film mode	Red offset
Tint		Green offset
Sharpness		Blue offset
Pixel Plus Ultra HD		
Advanced settings		
Picture format		
Mode selection		
Horizontal position		
Vertical position		

	Mode	To set the color temperature to Personal Cool, Normal and Warm. When you adjust the following settings, Personal will be set automatically.			
		Cursor ▼	Cursor 🛦		
	Red gain	To decrease red contrast	To increase red contrast		
Color alignment	Green gain	To decrease green contrast	To increase green contrast		
dugiment	Blue gain	To decrease blue contrast	To increase blue contrast		
	Red offset	To decrease red brightness	To increase red brightness		
	Green offset	To decrease green brightness	To increase green brightness		
	Blue offset	To decrease blue brightness	To increase blue brightness		
	1	To select the desired setting, then press OK (Red , Yellow , Green , Cyan , Blue and Magenta)			
		Cursor ▼	Cursor ▲		
Custom color	Tint	Cursor ▼ To rotate only selected color tint in clockwise direction	Cursor ▲ To rotate only selected color tint in counterclockwise direction		
Custom color management	Tint Saturation	To rotate only selected color tint in	To rotate only selected color tint in counterclockwise		
		To rotate only selected color tint in clockwise direction To decrease color with only selected	To rotate only selected color tint in counterclockwise direction To increase color with only selected		
	Saturation Brightness To select the	To rotate only selected color tint in clockwise direction To decrease color with only selected color To decrease brightness with only selected color desired setting, then poon, Dark Room, Norr	To rotate only selected color tint in counterclockwise direction To increase color with only selected color To increase brightness with only selected color		
management	Saturation Brightness To select the (Very Dark Ro Very Bright R	To rotate only selected color tint in clockwise direction To decrease color with only selected color To decrease brightness with only selected color desired setting, then poon, Dark Room, Norr	To rotate only selected color tint in counterclockwise direction To increase color with only selected color To increase brightness with only selected color oress OK mal, Bright Room and oress OK		
management Gamma	Saturation Brightness To select the (Very Dark Ro Very Bright R	To rotate only selected color tint in clockwise direction To decrease color with only selected color To decrease brightness with only selected color desired setting, then poom, Dark Room, Norroom) desired setting, then poom, Dark Room, Norroom)	To rotate only selected color tint in counterclockwise direction To increase color with only selected color To increase brightness with only selected color oress OK mal, Bright Room and oress OK mum)		



- Mode selection is available only if
- The external input modes are selected HDMI 1, HDMI 2 or HDMI 3.
- $-\!$ The connected HDMI device is outputting a video signal.

Sound

Before you begin:

You must set **Home** in **Location**. **p. 33**

Otherwise, personalized picture and sound settings will not be memorized after the unit goes into standby mode.

1 Press ♠ and use ◀▶ to select **Setup** then press **OK**.

2 Use ▲▼◀► to select TV settings, then press OK.

3 Use $\blacktriangle \blacktriangledown$ to select **Sound**, then press **OK**.

Picture Sound Features Installation	Auto sound Equalizer Balance Sonic Emotion Premium Auto volume leveling TV speakers Headphone volume Digital output format Delta volume	
-------------------------------------	---	--

4 Use ▲▼◀▶ to select the item you want to adjust, then press **OK**. The following sound settings can be configured. Depending on the format of the broadcasting, some sound settings are not available.

or the producasting, some sound settings are not available.			
	To set your TV to a predefined sound setting. When you adjust the following settings (Equalizer , Sonic Emotion Premium and Auto volume leveling), Personal sound will be set automatically.		
	Personal	The customized settings you defined using the Sound menu.	
	Standard	For normal TV viewing.	
Auto sound	Vivid	Enhanced sound.	
	Sports	Clear sound for high action.	
	Movie	Powerful sound settings for a cinematic experience.	
	Music	Optimized for music playback.	
	News	Set the anchor's voice at a comfortable volume.	

Adjust the tonal quality for each frequency.

	Cursor ▲	Cursor ▼
Equalizer	To adjust each level of to	onal quality
	Press S BACK to go back to the previous menu.	

Adjust the speakers to suit your listening preference.

Balance	Cursor ▲	Cursor ▼
Batarice	To adjust the balance of t	he right and left speakers

This selects sound modes for more spatial or surround sound reproduction.

	Sonic	Off	To set Sonic Emotion to off
	Emotion	On	To set Sonic Emotion to on
	Dialog	Off	To set Dialog Enhancement to off
Sonic Enhancer	Enhancement	On	To set Dialog Enhancement to on
Premium	Bass	Off	To set Bass Enhancement to off
	Enhancement	On	To set Bass Enhancement to on
	Absolute 3D	Off	To set Absolute 3D Sound to off
	Sound	On	To set Absolute 3D Sound to on

This function keeps a constant Loudness differential between the TV commercials and the programs.

Auto volume	Off	To remove the Auto volume leveling
leveling	On	To reduce volume differences between the TV commercials and the programs

You can select the audio output from the unit's speakers or not. If your amplifier is HDMI link function compatible and connected by an HDMI cable to this unit, some sound operations such as volume up can be changed by using this unit's remote control. Make sure **Master EasyLink** is set to **On**. \implies **p. 34**

TV speakers	Off	No output sound from the unit's speakers
	On	To output sound from the unit's speakers
. i spaaners	Speakers EasyLink	To control audio output from your connected EasyLink compliant devices with VOL+/ – by using this unit's remote control.

Adjust headphone volume

Headphone volume	Cursor ▲	Cursor ▼
	To decrease or increase volume	

You can set the digital audio output format from SPDIF/ARC.

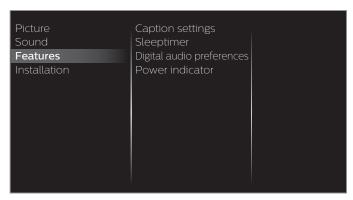
	PCM	To output PCM format
Digital output format		To output audio in its native format as Bitstream to connected audio receiver

If a channel or input device is too loud or too soft, navigate to that channel or input device.

· · · · · · · · · · · · · · · · · · ·			
	Cursor ▲	Cursor ▼	
	Provides the ability to set a custom volume level for the current channel or input source.		
Delta volume If the source volume is too loud, set a value (-1 to -12)		oo loud, set a negative	
	If the source volume is too soft, set a positive value $(+1 \text{ to } +12)$		

Features

- 1 Press ♠ and use ◀► to select Setup then press OK.
- Use ▲▼◀▶ to select TV settings, then press OK.
- 3 Use ▲▼ to select Features, then press OK.



4 Adjust the following items.

Caption settings

Closed captions displays the audio portion of the program as superimposed text over the video.

Use $\blacktriangle \blacktriangledown$ to select **Caption settings**, then press **OK**.

Caption settings	Closed captions	Off
Sleeptimer	Caption service	On
Digital audio preferences	Digital caption service	CC w/ mute
Power indicator	Digital caption options	

Closed captions	Off	Closed caption is not displayed.
	On	Closed caption is always displayed.
	CC w/ mute	Closed caption is displayed when the sound is off.

Digital TV operation

In addition to the basic closed caption, DTV has its own closed caption called digital caption service. Use this menu to change the settings for digital caption service.

Digital caption	1	Select one of these before changing any other item in Caption
service	C3-110 C3-0	changing any other item in Caption settings menu. Choose CS-1 under normal conditions.

You can choose the size, font, color, background and other characteristics of the caption text.

'		
Digital caption options	Reset to default	You can reset the status of digital caption options.
	You can change closed captioning font style, size, color and transparency. (Font style, Font size, Font color and Font opacity)	
	transparency	ge background color and of the displayed caption. color and Background opacity)
	displayed cap	ge edge color and type of the stion text. nd Edge type)

Picture display



Background

(Background color and Background opacity)

• Review your setting choice made above by looking in the upper left corner of the displayed setting box (not all selections show the differences selected).

Cable / NTSC (Analog) TV operation

Caption service	CC-1 and T-1	The primary closed captions and text services. The closed captions or text is displayed in the same language as the program's dialog (up to 4 lines of script on the TV screen).
	CC-3 and T-3	Serve as the preferred data channels. The closed captions or text is often a secondary language.
	CC-2, CC-4, T-2 and T-4	Rarely available and broadcasters use them only in special conditions, such as when CC-1 and CC-3 or T-1 and T-3 are not available.

· There are 3 display modes according to programs:

Paint-on	Displays characters on the TV screen immediately.	
	Once characters are stored in memory, they are displayed all at once.	
Roll-up Displays the characters continuously by so (max. 4 lines).		



- Digital caption service that you can switch differs depending on the broadcast description
- Closed captioning service may not be controlled by this unit's menu options if you are watching
 television through an external cable or satellite set-top box. In which case you will need to use
 the menu options on the external set-top box to control closed captioning.
- The captions do not always use correct spelling and grammar.
- Not all TV programs and product commercials include closed caption information. Refer to your area TV program listings for the TV channels and times of closed caption shows. The captioned programs are usually noted in the TV listings with service marks such as CC.
- Not all captioning services are used by a TV channel during the transmission of a closed caption program.
- · Closed caption will NOT be displayed when you are using an HDMI connection.
- To show the closed caption on your TV screen, broadcast signal must contain the closed caption data.
- Not all TV programs and commercials have the closed caption or all types of the closed caption.
- · Caption's and text may not exactly match the TV voice.
- Changing channels may delay the closed caption for a few seconds.
- · Adjusting or muting the volume may delay the closed caption for a few seconds.
- Abbreviations, symbols and other grammatical shortcuts may be used in order to keep pace with the on-screen action. This is not a malfunction.
- The caption or text characters will not be displayed while the Home menu or functions display is shown
- If a black box appears on the TV screen, this means that the closed caption is set to the text mode. To clear the box, select CC-1, CC-2, CC-3 or CC-4.
- If the unit receives poor quality television signals, the captions may contain errors or there might be no captions at all. Some possible causes of poor quality signals are:
- Automobile ignition noise
- Electric motor noise
- Weak signal reception
- Multiplex signal reception (ghosts or screen flutter)
- Data dropout and pixelation (for DTV only)
- The unit retains the closed caption setting if the power fails.
- When the unit receives special effects playback signal (e.g. search, slow and still) from a VCR's video output channel (ch3 or ch4), the unit may not display the correct caption or text.
- The EUT setting that satisfies § 79.102 (e) is as follows:
- Font: Mono-font
- Character size: Large

Sleeptimer

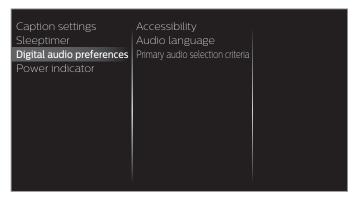
Sleep timer can set the unit to go into standby mode after an incremental period of time.

- 1 Use ▲ ▼ to select Sleeptimer, then press OK.
- 2 Use ▲ repeatedly to change the amount of time (increases the time by 5 minutes up to 180 minutes)
 - · Each press of **▼** will decrease the time by 5 minutes.
 - Press in INFO once to call up the display for checking the remaining time
 - To cancel the sleep timer, press ▲ ▼ repeatedly until "0" is displayed.

Digital audio preferences

You can set the interpretive broadcasting by an audio explanation.

1 Use ▲ ▼ to select **Digital audio preferences**, then press **OK**.

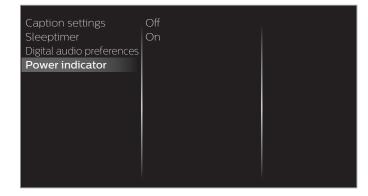


Accessibility	To prioritize VI-Visually Impaired streaming or HI-Hearing Impaired streaming: The setting for handicapped users (Main audio, Visually Impaired or Hearing Impaired).
Audio language	To set your preferred language in the audio streaming (English , Spanish or French).
Primary audio selection criteria	To set TV priority based on either of the above settings: (Accessibility or Audio language).

Power indicator

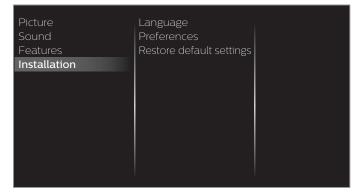
To set power indicator on or off.

1 Use ▲ ▼ to select Power indicator, then press OK.



Installation

- 1 Press ★ and use ★ to select Setup then press OK.
- 2 Use ▲▼◀▶ to select TV settings, then press OK.
- 3 Use ▲ ▼ to select Installation, then press OK.

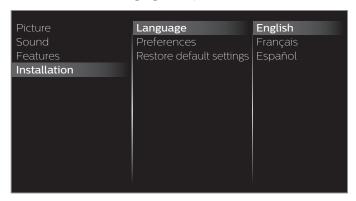


4 Adjust the following items.

Language

You can set the language for the on-screen display

1 Use $\blacktriangle \nabla$ to select **Language**, then press **OK**.



2 Use ▲▼ to select English, Español or Français, then press OK.



Note(s)

- If you need the English menu instead of the Spanish or French menu's, press ♠. Use ◀► to select Configuración or Configuration, then press OK
 Use ▲ ▼ ◀► to select Ajustes de TV or Réglages de la télévision, then press OK
 Use ▲ ▼ to select Instalación or Installation, then press OK
 Use ▲ ▼ to select Idioma or Langue, then press OK
 Use ▲ ▼ to select English, then press OK

- Press 🏫 to exit the Home menu.

Preferences

You can set the unit to reduce the power consumption or adjust the backlight brightness in Location setting

EasyLink allows you to operate your connected EasyLink device.

Setting your location to home

Choosing Home gives you full flexibility to change predefined settings for picture and sound

- Use ▲ ▼ to select Preferences, then press OK.
- 2 Use ▲▼ to select Location, then press OK.

Language Preferences Restore default settings	Location EasyLink HDMI mode TV placement Retail Demo	Retail Home

Use ▲ ▼ to select Home, then press OK

Retail	The unit will be set up with predefined settings for retail displays. In this setting, you can set the backlight brighter.
Home	The unit is set to maximize the energy efficiency for home setting and it can be adjusted through a choice of picture and sound quality selections according to your preference.



Note(s)

You must set Home in the menu. Otherwise, personalized picture and sound settings will not be memorized after the unit goes into standby mode.

HDMI mode

If there are issues with picture/color and/or sound when connecting an external device using the HDMI port, please try switching the HDMI mode following the instructions below.

- Press **↑** and use **♦** to select **Setup**, then press **OK**.
- Use ▲▼◀▶ to select TV settings, then press OK.
- 3 Use $\triangle \nabla$ to select **Installation**, then press **OK**.
- 4 Use ▲ ▼ to select Preferences, then press OK
- 5 Use ▲▼ to select HDMI mode, then press OK.
- 6 Use ▲▼ to select HDMI1, HDMI2 or HDMI3, then press OK.
- Use $\blacktriangle \blacktriangledown$ to select **Normal** or **Legacy (Compatibility)** depending on the output capabilities of the external device, then press **OK**.
 - When switching the HDMI configuration (Legacy \Leftrightarrow Normal), the screen will black out for a moment, then come back on.



Note(s)

- \bullet For HDMI1, HDMI2, and HDMI3, Legacy (Compatibility) is the default setting.
- The HDMI connector with HDMI mode set to Legacy (Compatibility) supports up to UHD 30P, while The HDMI connector with HDMI mode set to Normal supports up to UHD 60P.
- Switching the HDMI mode between Normal and Legacy (Compatibility) may cause loss of HDMI CEC functionality in certain cases.

TV placement

To apply the best settings for your TV, select wall mount or stand mount.

- Use ▲ ▼ to select Preferences, then press OK
- Use $\blacktriangle \nabla$ to select **TV placement**, then press **OK**.
- 3 Use $\blacktriangle \blacktriangledown$ to select Wall mounted or On a TV stand, then press OK.

Retail Demo

When you set Location to Retail, E-sticker (Electronic Sticker) is displayed. E-sticker can be turned off using procedure below

- Use ▲ ▼ to select **Preferences**, then press **OK**.
- Use ▲ ▼ to select **Retail Demo**, then press **OK**.
- Use ▲ ▼ to select Off, then press OK

Use Philips EasyLink

Your TV supports Philips EasyLink, which enables one-touch play and one-touch standby between EasyLink-compliant devices. Compliant devices must be connected via an HDMI connector.

One-touch play

When you connect your TV to devices that support one-touch play, you can control your TV and the devices with one remote control. For example, when you press ► (Play) on your DVD remote control, your TV automatically switches to the correct channel to show the DVD content.

One-touch standby

When you connect your TV to devices that support standby, you can use your TV remote control to put your TV and all connected HDMI devices in standby mode. You can perform one-touch standby using the remote control from any of the connected HDMI devices.

System audio control

When you connect your TV to HDMI CEC compliant devices, your TV can switch automatically to play audio from the connected device. To use one-touch audio, you must map the audio input from the connected device to your TV. You can use the remote control from the connected device to adjust the volume.

Remote control (RC) key forwarding

RC key forwarding allows you to control EasyLink-compliant devices using your TV remote control.

HDMI-ARC (Audio Return Channel) (HDMI 1 only)

HDMI-ARC allows you to use Philips EasyLink to output TV audio directly to a connected audio device, without the need for an additional digital audio cable. Be sure that the device is HDMI CEC and ARC compliant, and that the TV is connected to the device using an HDMI cable attached to both HDMI-ARC connectors.



Note(s)

- Philips does not guarantee 100% interoperability with all HDMI CEC devices.
- The EasyLink-compliant device must be switched on and selected as the source

EasyLink (HDMI CEC)

This function allows you to operate the linked functions between our brand devices with a EasyLink feature and this unit connecting through an HDMI cable. You must connect this unit to our brand EasyLink devices and be sure its EasyLink (HDMI CEC) setting is also set to on.

- 1 Use ▲▼ to select **Preferences**, then press **OK**.
- 2 Use ▲▼ to select EasyLink, then press OK.
- 3 Use $\triangle \nabla \blacktriangleleft \triangleright$ to select the item you want to adjust, then press **OK**.



Set the **Master EasyLink** to **On** or **Off**. The following additional settings will be grayed out when you set them to **Off**.

	Off	Disables all EasyLink.
Master EasyLink	On	Selects if you have connected an external device that is compatible with the EasyLink function.

This unit will turn on when the power on signal is sent from your connected EasyLink device.

Auto TV On	Off	This unit stays in Standby mode even if you turn on your connected EasyLink device.
Auto IV OII	On	This unit turns on automatically when you turn on your connected EasyLink device.

You can operate some functions such as disc playback or call up the menu of the connected devices, by using this unit's remote control.

	Off	Disable RC key forwarding.
RC key forwarding	On	PLAY, PAUSE ► II / STOP II / FWD ► ► / REV ◄ ✓ / VOL + / - / II / (MUTE) / ☐ OPTIONS / A ▼ ▼ ► / OK / ⇒ BACK / the NUMBER buttons can be used to control your connected EasyLink devices by this unit's remote control.



 Pause may not work properly on some devices even if they are EasyLink (HDMI CEC) compliant.

HDMI-ARC allows you to use Philips EasyLink to output TV audio directly to a connected audio device, without the need for an additional digital audio cable.

	Off	Disable HDMI-ARC.
HDMI-ARC (HDMI 1 only)	On	You can output TV audio through the HDMI cable solely, provided both the TV and device are HDMI-ARC compliant.

Return your settings to default values

You can return settings to their default values.

Use ▲ ▼ to select **Restore default settings**, then press **OK**.

2 Use ▲ ▼ to select Reset AV settings or Reset all settings, then press OK

Reset AV settings	Return picture and sound settings to their default values. The channel installation settings are not affected.
Reset all settings	Return all the settings to their default values.

Search for channels

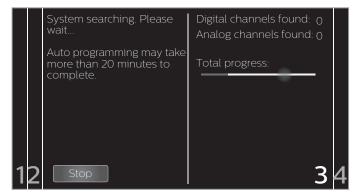
Be sure the RF cable is correctly connected to this unit and you are registered with your cable TV provider when you install cable channels.

- 1 Press ♠ and use ◀▶ to select **Setup**, then press **OK**.
- 2 Use ▲▼◀► to select Search for channels, then press OK.
- 3 Use ◀► to select Start, then press OK.

Install channels

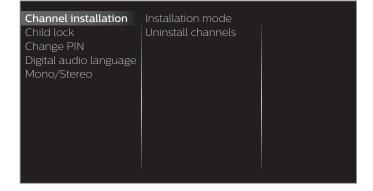
You can search and store all channels. If you move the unit to a different area after the initial setting, it is recommended to perform Autoprogramming.

- 4 Use ▲ ▼ to select Antenna or Cable, then press OK.
- 5 Press OK on Start.
 - When the scanning and memorizing of available channels is completed, the lowest memorized channel will be displayed.
- 6 Follow the on-screen instructions to complete the installation.



Channel settings

- 1 Press ♠ and use ◀▶ to select Setup, then press OK.
- 2 Use ▲▼◀► to select Channel settings, then press OK.
- **3** Adjust the following items.



Channel installation

Be sure the RF cable is correctly connected to this unit and you are registered with your cable TV provider when you install cable channels.

Installation mode

- 1 Use $\blacktriangle \nabla$ to select **Channel installation**, then press **OK**.
- 2 Use $\blacktriangle\,\blacktriangledown$ to select <code>Installation mode</code>, then press <code>OK</code>.
- $\mathbf{3}$ Use $\mathbf{A}\mathbf{\nabla}$ to select **Antenna** or **Cable**, then press **OK**.
 - When Antenna is selected, the TV detects antenna signals. It searches for DTV and analog TV channels available in your area.
 - When Cable is selected, the TV detects signals supplied by cable.
 It searches for DTV, analog TV and cable channels available in your area

Uninstall channels

The channels selected here can be skipped when selecting the channels using $\mathbf{CH}+\mathbf{/-}$.

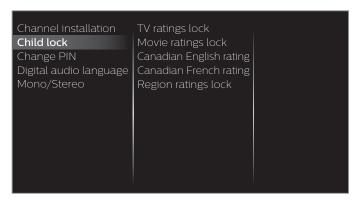
Those channels can still be selected with the NUMBER buttons.

- 1 Use $\blacktriangle \blacktriangledown$ to select **Channel installation**, then press **OK**.
- 2 Use $\blacktriangle \blacktriangledown$ to select **Uninstall channels**, then press **OK**.
- $\mathbf{3}$ Use $\mathbf{A}\mathbf{V}$ to select the channel you want to remove, then press \mathbf{OK} .
 - The removed channels are not displayed on the list of favorite channels.
 - To reactivate a removed channel, use ▲ ▼ then press OK.

Child lock

You can prevent your children from watching certain programs or certain channels by locking the TV controls and by using ratings.

1 Use ▲ ▼ to select Child lock, then press OK.



- 2 Use the NUMBER buttons to enter the 4-digit numbers for your PIN code
 - · When you have not set up your PIN code, enter 0, 0, 0, 0.
 - When the PIN code is correct, Child lock menu is displayed.
 See the following description for setting each item.

Channel installation Child lock Change PIN	TV ratings lock Movie ratings lock Canadian English rating	☐ All ☑ None ☐ TV-Y
Digital audio language Mono/Stereo	Canadian French rating Region ratings lock	☐ TV-Y7 ☐ TV-G ☐ TV-PG ☐ TV-14 ☐ TV-MA



- When you set the **All** to \square all ratings return to \square automatically.
- Region ratings lock will be available when the unit receives a digital broadcast using the new rating system.
- \bullet To block any inappropriate programs, set your limits in TV ratings lock, Movie ratings lock and Region ratings lock
- For the United States, the unit may download the region ratings lock table, if required.
- The Canadian rating systems on this unit are based on CEA-766-A and CRTC policy.

Setting TV and movie ratings

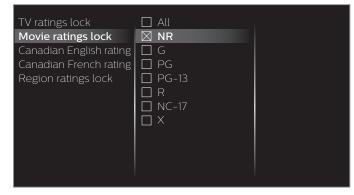
Movie ratings lock is the rating system created by MPAA. TV ratings lock has controlled access to individual programs based on their age ratings and content rating.

- 3 Use ▲▼ to select TV ratings lock or Movie ratings lock, then press OK.
- 4 Use ▲ ▼ to select the desired rating, then press **OK** repeatedly to switch between block and view.
 - **⋈** indicates that the rating is locked (Blocked).
 - \cdot \square indicates that the sub rating is locked (Blocked).
 - ☐ indicates that the rating is not locked (Viewable).

TV ratings lock

TV ratings lock	☐ All	
Movie ratings lock	None Non	
Canadian English rating	☐ TV-Y	
Canadian French rating	☐ TV-Y7	
Region ratings lock	☐ TV-G	
	□ TV-PG	
	☐ TV-14	
	☐ TV-MA	

Movie ratings lock



US movie ratings	US TV ratings	Description
All		All ratings locked including no rating
NR	None	No rating
_	TV-Y	Appropriate for all children
_	TV-Y7	Appropriate for all children 7 and older
G	TV-G	General audience
PG	TV-PG	Parental guidance suggested
PG-13	_	Unsuitable for children under 13
_	TV-14	Unsuitable for children under 14
R	_	Restricted under 17 requires accompanying parent or adult guardian
NC-17	_	No one under 17 admitted
X	TV-MA	Mature audience only

To set the sub ratings (displayed in the right column)

For TV ratings lock, you can further set the sub ratings to block specific elements of programming. To set the sub ratings, follow the step below.

Use $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$ to select the desired rating, then press **OK** repeatedly to switch between \boxtimes and \square



US TV ratings	Sub rating
TV-Y7	Fantasy Violence
TV-PG	Violence
TV-14	Sex Language Dialog
TV-MA	Violence Sex Language



- Blocked sub rating's will appear beside the main rating category in TV ratings lock menu.
- You cannot block a sub rating if the main rating is set to \square .
- Changing the category to \blacksquare or \blacksquare automatically changes all its sub ratings to the (\blacksquare or \blacksquare).

Canadian English or Canadian French ratings

You can select the rating for Canadian English or Canadian French broadcasting.

- 3 Use ▲ ▼ to select Canadian English rating or Canadian French rating, then press OK.
- 4 Use ▲ ▼ to select the desired rating, then press OK repeatedly to switch between block and view.
 - ullet indicates that the rating is locked (Blocked).
 - ☐ indicates that the rating is not locked (Viewable).

Canadian English rating	Canadian French rating	Description
,	All	Locked all ratings
	E	Exempt program
С	_	For all children
C8+	_	For all children 8 and older
G		General audience
_	8 ans+	Unsuitable for ages under 8
PG	-	Parental guidance suggested
_	13 ans+	Unsuitable for ages under 13
14+	_	Unsuitable for ages under 14
_	16 ans+	Unsuitable for ages under 16
18+	18 ans+	Adult audience only



• The V-Chip can block non rated programs as per "CEA-608-E sec. L.3". If the option to block NR, None or E programs are used in Movie ratings lock, TV ratings lock, Canadian English rating or Canadian French rating accordingly "unusual results may occur and the unit may not receive emergency bulletins or other types of programming". / Emergency bulletins (Such as EAS messages, weather warnings and others) / Locally originated programming / News / Political / Public service announcements / Religious / Sports / Weather.

Change PIN

Although the default PIN code (0000) is supplied with the unit, you can set your own PIN code.

- 1 Use $\blacktriangle \blacktriangledown$ to select **Change PIN**, then press **OK**.
- 2 Press the NUMBER buttons to enter the current 4-digit PIN code.
- 3 Press the NUMBER buttons to enter the new 4-digit PIN code
 - · Enter PIN code again to confirm.



- Make sure new PIN code and confirm PIN code must be exactly the same. If they are different, the space is cleared for reentering.
- If you have forgotten your PIN code, enter 0711 to reset the PIN code

Digital audio language

You can select the audio language while your TV is receiving the digital broadcasting.

1 Use $\blacktriangle \blacktriangledown$ to select **Digital audio language**, then press **OK**.

Digital audio	To select the language according to your preference. (It differs depending on the program.)
---------------	--

Mono/Stereo

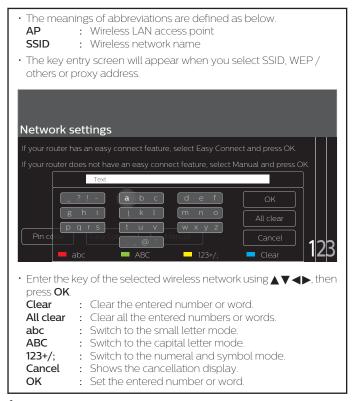
Cable / NTSC (Analog) TV operation

You can select an audio format while your TV is receiving the analog broadcasting.

- 1 Use ▲▼ to select Mono/Stereo, then press OK.
- 2 Use ▲ ▼ to select Mono, Stereo or SAP (Second Audio Program), then press OK.

Connect to network

Setup network connection settings in order to use Net TV or network upgrade functions.



- 1 Press ♠ and use ◀▶ to select Setup, then press OK.
- 2 Use ▲▼◀► to select Connect to network, then press OK.



3 Adjust the following items.

Wireless setting

Select to use a wireless LAN to connect to the internet by a wireless connection

- 1 Use ▲▼ to select Wireless, then press OK.
- 2 Use **◄►** to select the desired setting, then press **OK**, and follow the on-screen instructions.

Easy Connect	Select this setting if your router has an easy connect button. Start scanning for wireless networks on the TV after pressing the easy connect button on your router. If connection test fails, refer to the router's manual for more details.
Scan	Search for wireless networks automatically and select the wireless network name (SSID) from the list.
Manual entry	Set up the connection to the wireless LAN Access Point (AP) (e.g. wireless router) manually by entering the wireless network name (SSID).

^{*} Easy Connect cannot be used when the security protocol is set to WEP. Change the Access Point's security mode from WEP to others (recommended).

Wired setting

Select to use an Ethernet cable to connect to the internet by a wired connection. Please purchase shielded Ethernet cables at your local store and use it when you connect to network equipment.

- 1 Use ▲▼ to select Wired, then press OK.
 - · Connection test will start automatically. p. 41

Network settings

- 1 Press ★ and use ◆ to select Setup, then press OK.
- 2 Use ▲▼◀► to select Network settings, then press OK.
- **3** Adjust the following items.

Manual network settings

1 Use $\blacktriangle \blacktriangledown$ to select Manual network settings, then press OK.

Manual network settings	Network selection	
Connection test	Wireless network setting	
Setting status	IP configuration	
Home network	Proxy configuration	
Wake-on-LAN(DIAL)		
Net TV		
Samba interactive TV settings		
Reset network settings		

Network selection

Use ▲▼ to select Network selection, then press OK.
 Use ▲▼ to select the desired setting, then press OK.

	If you connect to an Ethernet cable, select Wirec to connect to the internet.	
Wireless	If you have a router with easy connect function, select Wireless to connect to the internet.	

Wireless network setting

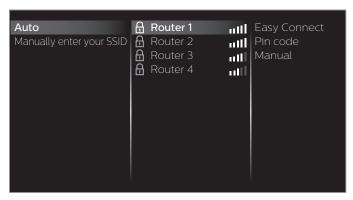
This menu is displayed only when you set **Wireless** in **Network selection**. In order to use a wireless network, you must set up a connection to the AP (e.g. wireless router).

2 Use ▲▼ to select Wireless network setting, then press OK.

Auto

3 Use ▲▼ to select Auto, then press OK.

The list of wireless networks will be displayed. Use \blacktriangle \blacktriangledown to select the appropriate the SSID, then press **OK**.



- If you select the SSID with A, WEP·2/ others Key entry screen will
 appear. Enter the WEP·2/ others key of the selected wireless
 network using ▲▼◀▶, then press OK.
- If you select the SSID has an easy connect, the easy connect setting screen will appear. Use ▲ ▼ ◀ ▶ to select a setting, then press OK.

server with appeals of a value of a server of the server o		
Easy Connect	Select this setting if your router has an easy connect button. Start scanning for wireless networks on the TV after pressing the easy connect button on your router. If connection test fails, try Easy Connect again.*1 If it fails then refer to the router's manual for more details.	
Pin code	Select this setting if your router has an easy connect feature but does not have an easy connect button. Enter the 8-digit PIN code shown on your TV in the Router settings menu via PC before Connect is selected.	
Manual	If your wireless network with authentication setting (WEP $^{\bullet}$ 2, others), WEP $^{\bullet}$ 2 / others Key entry screen will appear. Enter the WEP $^{\bullet}$ 2 / others key of the selected wireless network using \blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright , then press OK .	

- *1 Easy Connect cannot be used when the security protocol is set to WEP. Change the Access Point's security mode from WEP to others (recommended).
- *2 WEP is not recommended to be used due to its major security flaws. Change the security protocol on the wireless router to others (recommended) mode.

Confirmation message will appear. Select **OK** to complete the settings.



- For a wireless network with authentication setting, key icon appears to the right hand of the SSID.
- Signal icon shows the strength of the signal.
- WEP-2 / others key appears as asterisks on the confirmation screen.
- The wireless LAN supports following specifications.
- Wireless standards: IEEE 802.11 a/b/g/n/ac
- Frequency spectrum: 2.4GHz / 5GHz
- Security protocol: WEP*2 / others

Manually enter your SSID

Set up the connection to the AP (e.g. wireless router) manually by entering the SSID

- Use ▲▼ to select Manually enter your SSID, then press OK.
 AP (e.g. wireless router) SSID entry screen will appear.
 Enter the SSID using ▲▼ ◆▶, then press OK.
- 4 Use ▲ ▼ to select the authentication setting of the selected wireless network.
 - For a wireless network with authentication setting, select the authentication setting, according to the security type of the wireless network.

Auto	XXXXXXXXXXXXX	None
Manually enter your SSID		WEP
		Others

None Set the authentication setting to None.	
WEP	Set the authentication setting to WEP* .
Others	Set the authentication setting to Others .

- · For a wireless network without authentication setting, select None.
- If you select WEP* or Others, WEP* / others Key entry screen will appear.
 Enter the WEP* / others key of the selected wireless network using
 T
 then press OK.
- · Confirmation message will appear. Select **Yes** to complete the settings.
- * WEP is not recommended to be used due to its major security flaws. Change the security protocol on the wireless router to others (recommended) mode.

IP configuration

In following cases, select **IP configuration** to set each setting as necessary.

- When connection test failed with the setting of **Connection test**.
- When instructed by your Internet service provider to make specific settings in accordance with your network environment.
- 2 Use ▲▼ to select IP configuration, then press OK
- 3 Use $\blacktriangle \blacktriangledown$ to select a setting, then press **OK**.

Network selection	IP setting mode	Auto
Wireless network setting	IP address	Manual
IP configuration	Subnet mask	
Proxy configuration	Default gateway DNS setting mode Primary DNS Secondary DNS MAC address	

IP setting	Auto	Sets the IP setting automatically.	
mode	Manual	Sets the IP setting manually.	
IP address *1, 3		A set of numbers which are assigned to devices participating in a computer network.	
Subnet mask *1, 3		A mask which is used to determine what subnet an IP address belongs to.	
Default gateway *1, 3		IP address of the network device (such as router) which provides internet access.	
DNS setting	Auto	Sets the DNS setting automatically.	
mode Manual		Sets the DNS setting manually.	
Primary DNS *2,3		A server which handles the name and IP address over the internet.	
Secondary DNS *2, 3		A server which handles the name and IP address over the internet.	
MAC address		An address which recognizes the devices connecting to the network. It is also called hardware address.	

- *1 Items can be selected only when IP setting mode is set to Manual.
- *2 Items can be selected only when **DNS setting mode** is set to **Manual**.
- *3 Use ▲ ▼ or the NUMBER buttons to input numbers. When you use ▲ ▼ to input numbers, then press OK or input the triple digits by using the NUMBER buttons, the cursor moves to the next entry field. When you use ▲ ▼ to input numbers, then press OK or input the triple digits by using the NUMBER buttons at the rightmost entry field, numbers will be stored and go back to the previous menu.



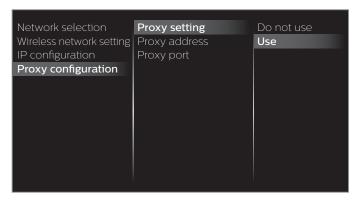
Note(s)

- The range of input numbers is between 0 and 255.
- If you enter a number larger than 255, the number will automatically be 255.
- \bullet The manually entered number will be saved even if you change the setting to $\pmb{\mathsf{Auto}}$
- If you want to enter 1 or 2 digit number in one cell, press \mathbf{OK} to move on to the next cell.
- If the entered IP address or the default gateway or primary DNS number is same as the default setting, IP address setting will be set to Auto. (The manually entered number will be saved).
- When IP address setting is set to Manual, the setting of DNS setting will automatically be Manual and when IP address setting is set to Auto, you can set either Auto or Manual for DNS setting.

Proxy configuration

Use $\blacktriangle \nabla$ to select **Proxy configuration**, then press **OK**.

3 Use $\Delta \nabla$ to select a setting, then press **OK**.



- · Do not use is selected for default settings.
- If you need to change the proxy setting as instructed by your internet service provider to set the designated proxy address and port, select Use.

Proxy setting	Do not use	Does not use the proxy server.
Proxy setting	Use	Uses the proxy server.
Proxy address *		Selects the number or word by using ▲ ▼ ◀▶, then press OK .
Proxy port *		Use ▲ ▼ or the NUMBER buttons to input numbers.

* Items can be selected only when Proxy setting is set to Use.



- The range of input numbers for the port number is between 0 and 65535. (If you enter a number larger than 65535, it will be regarded as 65535.)
- For proxy port, the selected ports may be blocked and not be able to use depending on your
- If the proxy address is entered with blank only, proxy server setting will be set to Do not use.

Connection test

Perform the following steps to test your internet connection after you have connected an Ethernet cable or entered network settings such as IP address, DNS settings, etc. manually.

- Use ▲ ▼ to select Connection test, then press OK.
 - $\boldsymbol{\cdot}$ Connection test will start automatically and the test result for home network and internet will appear right after the connection test
 - · "Testing..." is displayed while the connection test is in progress.

Home network	Internet	Description	
Pass	Pass	Connection test is successfully completed.	
Fail	-	Connection test for home network failed. Check the connection settings.	
Pass	Fail	Connection test for internet failed. Check the connection settings.	

- \cdot If the connection test for internet passes, speed test will start automatically.
- Press **OK** to go to the list on network status confirmation screen.



- ${\color{blue} \bullet}$ If the connection test for both home network and internet pass, you are ready to use Net TV or network upgrade functions using the internet without making any additional settings
- · If the connection test fails, check if the Ethernet cable is connected to this TV properly or if you have entered all the required details for the wireless LAN connection properly.

Setting status

You can check the status of network settings.

- 1 Use $\blacktriangle \blacktriangledown$ to select **Setting status**, then press **OK**.
 - · Network setting list will be displayed.
 - · MAC address of this unit will be displayed in the list.

Home network

You can turn your TV into a Digital Media Renderer (DMR), which can play video, music and photo files stored on certified home media servers connected to your home network.

- 1 Use ▲▼ to select Home network, then press OK.
- 2 Use ▲▼◀▶ to select the item you want to adjust, then press OK.

	Off	Disable DMR.	
Renderer	l ()n	Enable this unit to play files using DMC.	
Renderer name	Change the display name of this TV to other devices on the home network.		

Wake-on-LAN(DIAL)

You can turn your TV on when you use remote control via IP.

- 1 Use ▲▼ to select Wake-on-LAN(DIAL), then press OK.
- 2 Use ▲ ▼ to select On or Off, then press OK.

Off	To set Wake-on-LAN(DIAL) to off.
On	To set Wake-on-LAN(DIAL) to on.

Net TV

Displays the deactivation setting for Net TV and Netflix ESN information.

Netflix deactivation

Displays the deactivation setting for Netflix

- 1 Use ▲▼ to select **Net TV**, then press **OK**.
- 2 Use ▲ ▼ to select **Net TV deactivation**, then press **OK**.
- 3 Use ▲▼ to select Netflix, then press OK.
- 4 Use **◄►** to select the desired option, then press **OK**.

Yes	Deactivate the connection to Netflix.	
No	Activate the connection to Netflix.	

VUDU deactivation

Displays the deactivation setting for VUDU

- 1 Use ▲▼ to select Net TV, then press OK.
- 2 Use ▲ ▼ to select Net TV deactivation, then press OK.
- 3 Use ▲▼ to select VUDU, then press OK.
- 4 Use **▼** to select the desired option, then press **OK**.

Yes	Deactivate the connection to VUDU.
No	Activate the connection to VUDU.

YouTube deactivation

Displays the deactivation setting for YouTube.

- 1 Use ▲▼ to select **Net TV**, then press **OK**.
- 2 Use ▲ ▼ to select Net TV deactivation, then press OK.
- 3 Use ▲▼ to select YouTube, then press OK.
- 4 Use **◄►** to select the desired option, then press **OK**.

Yes	Deactivate the connection to YouTube.
No	Activate the connection to YouTube.

Netflix ESN

Displays the ESN information.

- 1 Use ▲▼ to select **Net TV**, then press **OK**.
- 2 Use ▲ ▼ to select Netflix ESN, then press OK.
 - Displays the ESN (Electronic Serial Number) to get any services from Netflix.

Netflix software version

Displays the Netflix version.

- 1 Use ▲▼ to select **Net TV**, then press **OK**.
- 2 Use ▲ ▼ to select Netflix software version, then press OK.

Samba interactive TV settings

Displays the setting for Samba TV.

To learn more about Samba TV, please visit https://www.samba.tv/

- 1 Use $\blacktriangle \blacktriangledown$ to select **Samba interactive TV settings**, then press **OK**.
- 2 Use ▲▼◀▶ to select the desired option, then press OK.



• Samba interactive TV settings item is displayed only when the country setting is USA.

Reset network settings

You can reset the status of network settings.

- 1 Use ▲▼ to select Reset network settings, then press OK.
- 2 Use **◄**► to select the desired option, then press **OK**.

Update software

Philips continuously tries to improve its products and we strongly recommend that you upgrade the TV software when upgrades are

New software can be downloaded from our website at www.philips.com/support using the model number of your TV to find information.

You can update the software through these methods:

- · Update with USB memory stick
- · Update from digital broadcast Software auto-update p. 44

This section describes how to upgrade the software by using USB memory

Preparing for the software upgrade

You require the following equipment:

- A PC with web browsing capability
- An archive utility that supports the ZIP-format (e.g. WinZip for Windows or Stufflt for Mac OS)
- An empty clean formatted USB memory stick



Note(s)

- Only FAT / DOS-formatted portable memory is supported.
- Use only software upgrades that can be found on the Philips web site.



! Warning

- · When the software upgrade is running, don't press any buttons.
- · Do not remove the USB memory stick during the software upgrade.
- If an error occurs during the upgrade, retry the procedure or for further assistance, please contact

Downloading the software

Find information and software related to your TV and download the latest software upgrade file to your PC.

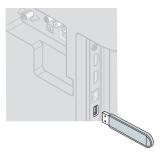
Prepare a blank USB memory stick for software update. Access www.philips.com/support and download the latest version software to a blank USB memory stick using a PC by following the directions described on the website

- Use a blank USB memory stick, download the software on your PC and write the software in the root directory of the USB memory stick.
- · For more details on how to download the software, please refer to the

USB upgrade

You can upgrade the software by using USB memory stick.

Connect your USB memory stick with the upgrade file to the USB terminal on the side of your TV.



- 2 Press ♠ and use ◀▶ to select Setup, then press OK.
- Use $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$ to select **Update software**, then press **OK**.
- Use $\blacktriangle \blacktriangledown$ to select **USB**, then press **OK**.
- Use ▲▼◀▶ to select the desired update file, then press **OK**.
- Use **◄▶** to select **Yes**, then press **OK**.
 - · Read the on-screen instructions and confirm that you want to continue with the installation.



- When the software upgrade is completed, press $\boldsymbol{\Phi}$ to set the unit into standby mode, then remove the USB memory stick.
- Unplug the AC power cord for a few seconds from AC outlet and plug it again.
- Press \odot again to turn the unit on.
 - · The TV starts up with the new software.
 - · For further assistance, please contact call center.

Network updates

You can update the software by connecting the unit to the internet.

- 1 Press ♠ and use ◀► to select Setup, then press OK.
- 2 Use ▲▼◀► to select Update software, then press OK.
- 3 Use ▲▼ to select Network, then press OK.
- 4 Use **◄►** to select **Yes**, then press **OK**.
 - This unit will then start checking for the latest FirmWare (software) version.
- 5 Confirmation message will appear.
 - Use **◄▶** to select **Yes**, then press **OK**.
 - The unit will start downloading the latest FirmWare (software) version.
 - The unit will start updating the FirmWare (software) version.
 - · It may take a while to complete the updating.
- 6 When the software update is complete, press to make sure the unit goes to standby mode.
- 7 Unplug the AC power cord for a few seconds from AC outlet and plug it again.
- 8 Press & again to turn the unit on.
 - The TV starts up with the new software. For further assistance, please contact call center.



• In order to update software via the Internet, you must connect the unit to the Internet and set up necessary settings

Connect to network → p. 38 Network settings → p. 39

- Please do not unplug the AC power cord or Ethernet cable while executing the Network updates
- All settings will remain the same even if you update the software version.
- The version of net service will also be updated if newer version of net service is available when
 updating the firmware.
- When you start up the TV or a net service after executing the software update, a message may
 appear on the screen prompting for software update again. In this case, please select Update
 to start USB update or network update. For further assistance, please contact call center.

Software settings

Software

- 1 Press ♠ and use ◀► to select **Setup**, then press **OK**.
- 2 Use ▲▼◀▶ to select Software settings, then press OK.
- 3 Use $\blacktriangle \blacktriangledown$ to select **Software**, then press **OK**.

Checking your current software version number

- 1 Use $\blacktriangle \blacktriangledown$ to select **Software information**, then press **OK**.
 - · The version and a description of the current software is displayed.

Software auto-update

You can download the latest software through the air and update this unit automatically while the unit is in standby mode.

- 1 Use $\blacktriangle \blacktriangledown$ to select **Software auto-update**, then press **OK**.
- 2 Use ▲▼ to select the desired option, then press OK.

Off	Disable auto-update for latest software.	
ı On	A message will appear if there is the latest software on the network server.	

License

Displays the licenses of open source software used in this unit.

- 1 Use ▲ ▼ to select License, then press OK.
 - · Licenses of open source software used in this unit are displayed.

Digital rights management

This product contains technology subject to certain intellectual property rights of Microsoft. Use or distribution of this technology outside of this product is prohibited without the appropriate license(s) from Microsoft.

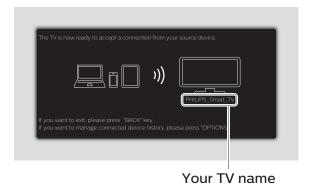
- 1 Use ▲▼ to select **Digital rights management**, then press **OK**.
 - · Digital rights management is displayed

Wireless Screencasting

You can wirelessly cast or mirror the screen of your Smartphone, Tablet or PC to the TV directly using Wireless Screencasting.

Using Wireless Screencasting

- 1 Press ★ and use ★► to select Wireless Screencasting, then press OK.
 - · Wireless Screencasting mode screen appears.



- 2 Activate Wireless Screencasting feature on your device.
 - For the operation of your device, please check the instruction manual of the device.
 - · Select Your TV name on your device if needed.
 - If PIN code is required on your device, please enter the 8-digit code appearing in the left-hand side of the TV screen.
- 3 Once connected, the screen of your device will appear on your TV screen.
 - Press in INFO to display your device name at the bottom of TV screen.

Using Wireless Screencasting device list

In Wireless Screencasting device list, you can find the connected devices.

- Press DOPTIONS on remote when Wireless Screencasting mode is on the TV screen.
 - · Only the connected device names are listed.
 - It will be sorted from newest connection to oldest connection. A maximum of 64 connections can be recognized.
 - If you would like to delete a listed connection, press ▲ ▼ to select
 the device name, then press OK first. Once the confirmation
 message appears, please use ◀ ► to select Yes, then press OK.



 FUNAI CORPORATION, Inc. does not warrant Wireless Screencasting compatibility with all source devices such as smartphones, tablets, laptops, etc. due to large variability in hardware, firmware, drivers, software and implementation of wireless casting applications on these source devices. Although FUNAI CORPORATION, Inc. will strive to enhance compatibility and performance across a range of source devices, FUNAI CORPORATION, Inc. does not warrant compatibility with specific source devices.

View photos, play music and watch videos using home network

On your TV you can play video, music and photo files stored on home network certified home media servers connected to your home network. In order to use this feature, you must connect this unit to the internet.

It is recommended that files to be played back in this unit are recorded under the following specifications:

Picture (JPEG / Progressive JPEG)			
JPEG Upper limit 4000x4000 pixels			
Progressive JPEG	Upper limit	1024x768 pixels	

Music (MP3 / WAV / AAC)			
MP3	Sampling frequency	16 kHz - 48 kHz	
	Constant bit rate	8 kbps - 320 kbps	
WAV	Sampling frequency	8 kHz - 48 kHz	
	Constant bit rate	64 kbps - 1.5 Mbps	
AAC	Sampling frequency	8 kHz - 48 kHz	
AAC	Constant bit rate	-	

Video (MPEG / VOB / AVI / MP4)						
Maximum video	H.264, H.265/HEVC: 3840x2160@30fps, MPEG: 1920x1080@60fps					
Extension	.avi	.mpg, .mpeg	.ts, .trp, .tp	.vob	.mp4	.mkv
Video codec Audio codec	MPEG1, MPEG2, MPEG4, H.264	MPEG1, MPEG2, MPEG4	MPEG1, MPEG2, H.264, H.265/ HEVC	MPEG1, MPEG2	MPEG1, MPEG2, MPEG4, H.264, H.265/ HEVC	MPEG1, MPEG2, MPEG4, H.264, H.265/ HEVC
Dolby Digital	YES	YES	YES	YES	YES	YES
MPEG1/2 audio layer1/2/3	YES	YES	YES	YES	NO	YES
LPCM	YES	YES	YES	YES	YES	YES
AAC-LC	YES	YES	YES	YES	YES	YES



- A maximum of 1,023 folders or files can be recognized.
- For the home server list, maximum of 16 servers can be displayed.
- The 10th and deeper hierarchies cannot be displayed.
- Unplayable files in the home server will not be displayed in the file list.
- · For some files, playback is not available even if displayed in the file list.
- In order to play back the contents in home servers, the player and the servers must be connected to the same access point.
- $\hbox{\Large \bullet Compatibility and available playback function may differ depending on the home server.}$
- · Video files with unsupported audio format will be skipped.
- The quality of the playback picture or audio differs depending on your network condition

Before using home network

Follow the procedure below before using home network.

1 Connect this unit to the internet.

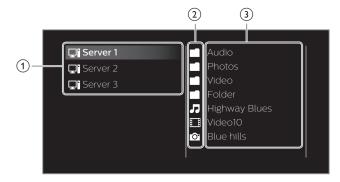
Connecting the TV to the internet using an Ethernet cable \implies p. 15 or Connecting the TV to the internet using a wireless LAN \implies p. 15

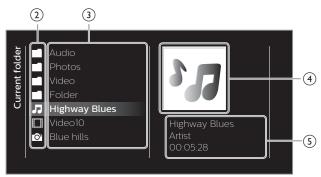
- · Broadband internet connection of 8Mbps or faster is required.
- 2 Set up the necessary network connection settings. Connect to network p. 38

Using home network

- 1 Start home network media servers in your home network.
 - For details, refer to the instruction book of the home network certified device.
- 2 Press non the remote control.
- 3 Use **▼** to select **Home Network**.
 - · This unit will start loading the home server list.
- 4 After loading, home server list will appear. Select a home server you want to access, then press **OK**.

Guide to home network





- (1) Home server list
- (2) Folder / media icon
- (3) Group (folder) / file list
- (4) Image
- (5) Current file info

View your pictures using home network

- 1 Press ▲ ▼ to select a file or a folder
- 2 Press **OK** or ►**II** to start a slide show of the files.
 - Press OK or ► II to pause the slide show.
 The II icon appears.

 - Press

 BACK or
 to stop the slide show.
 - Press \bigcirc **OPTIONS** to display the optional menu, then use \triangle \bigvee to select the desired item.

	Off	Sets repeat playback to off.		
Repeat *1	One	Sets repeat playback for a selected image file.		
	All	Sets repeat playback for all image files in the current folder.		
	Short	Switches to the next image in 5 seconds.		
Slide time *1	Medium	Switches to the next image in 10 seconds.		
	Long	Switches to the next image in 15 seconds.		
	None	No effect when switching images.		
	Dissolve	Overlaps the next image on the current image.		
	Wipe right	Pushes the current image out from left.		
	Wipe left	Pushes the current image out from right.		
Transitions *1	Wipe up	Pushes the current image out from bottom.		
	Wipe down	Pushes the current image out from top.		
	Box in	The next image comes to the center from the outside.		
	Box out	The next image goes to the outside from the center.		
	0	Displays an image in its original direction.		
Rotate *2	90	Rotates an image 90 degrees clockwise.		
Rotate 2	180	Rotates an image 180 degrees clockwise.		
	270	Rotates an image 270 degrees clockwise.		
	1X	Displays an image in its original size.		
Zoom *2	2X	Magnifies a current image by 2 times.		
	4X	Magnifies a current image by 4 times.		
Auto picture *1	Selects the picture mode according to your preference. (Standard, Natural, Vivid, Sports, Movie, Game, Energy saving and Internet video)			

- *1 You can set **Repeat**, **Slide time**, **Transitions** and **Auto picture** when images are in slide show.
- *2 You can set **Rotate** and **Zoom** when slide show is in pause mode.

Listen to music using home network

- 1 Press $\Delta \nabla$ to select a file or a folder
- 2 Press OK or ►II to play the selected files.
 - · Press **OK** or **▶ ||** to pause, press **OK** or **▶ ||** again to resume.
 - Press ▶ to skip up the next file.

 - Press 🔳 to stop playback.
 - Press $\begin{tabular}{l} \begin{tabular}{l} \be$

	Off	Sets repeat playback to off.	
Repeat	One	Sets repeat playback for a selected music file.	
	All	Sets repeat playback for all music files in the current folder.	
	Off	Sets shuffle playback to Off.	
Shuffle	On	Sets shuffle playback for all music files in the current folder.	
TV Speakers	Off	The sound will not be output from the unit's speakers.	
	On	The sound will be output from the unit's speakers.	
	Speakers EasyLink	You can control audio output from your connected EasyLink compliant devices with VOL + / – by using this unit's remote control.	
Auto sound	Selects the sound mode according to your preference. (Standard, Vivid, Sports, Movie, Music and News)		

Watch videos using home network

- 1 Press $\blacktriangle \blacktriangledown$ to select a file or a folder
- 2 Press OK or ►II to play the selected files.
 - Press OK or ►II to pause, press OK or ►II again to resume.
 - Press ▶▶ to fast-forward search.

 - Press

 to stop playback.
 - Press > II to resume from the point at which playback was stopped.
 Press OK to play from the beginning of the file at which playback was stopped.
 - Press CH + to play the next file.
 - Press CH to play the current file at the beginning.
 Press CH twice within 5 seconds to play the previous file.
 - Press \boxdot OPTIONS to display the optional menu, then use \blacktriangle \blacktriangledown to select the desired item.

	Off	Sets repeat playback to off.	
Repeat	One	Sets repeat playback for a selected video file.	
	All	Sets repeat playback for all video files in the current folder.	
	Off	The sound will not be output from the unit's speakers.	
TV speakers	On	The sound will be output from the unit's speakers.	
	Speakers EasyLink	You can control audio output from your connected EasyLink compliant devices with VOL + / – by using this unit's remote control.	
Auto picture	Selects the picture mode according to your preference. (Standard, Natural, Vivid, Sports, Movie, Game, Energy saving and Internet video)		
Auto sound	Selects the sound mode according to your preference. (Standard, Vivid, Sports, Movie, Music and News)		



Note(s)

- \bullet The resume information will be kept even when the unit is Turned off.
- If you play another file while the previously viewed file is being resumed, the resume information
 of the previously viewed file will be deleted.
- $\bullet \ \, \text{The file or the folder in resume stop mode will be highlighted in gray on } \textbf{List} \ \text{or } \textbf{Thumbnails}.$

English

Net TV

Net TV offers internet services for your TV. Use the TV remote control to browse the Net TV pages. You can play movies, listen to music and much more, all from your TV screen.

- Because Net TV is an online system, it can be modified over time to better serve its purpose.
- Some Net TV services can be added, changed or stopped after some
- You cannot download and save files or install plug-ins.

Before using Net TV

Follow the procedure below before using Net TV.

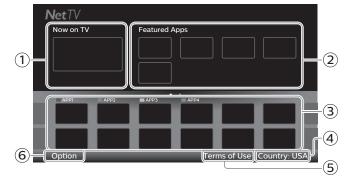
- Connect this unit to the internet.
- Set up the necessary network connection settings. (Refer to Connect to network → p. 38)

Using Net TV

- Press **NETTV**
 - Net TV screen will appear, then use ▲ ▼◀▶ to select service icon.
 - For the first time only, **Terms of Use** screen will appear. After confirming the content, use ▲ ▼ to select Agree, then press OK.

Guide to Net TV menu screen

Net TV start screen



1 Now on TV

: Displays the image of the input under present tuning.

(2) Featured Apps

: Displays fixed net service icons.

(3) Selected Apps

: Displays movable net service icons.

(4) Country

: Selects what country you live in.

(5) Terms of Use

: Displays a copy of net service.

(6) Option

: Remove or move App.

My Apps functions

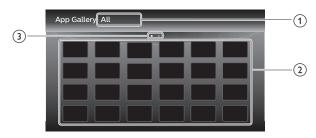
Remove App

- Use ▲▼◀▶ to select the desired App, then press OPTIONS.
- 2 Use ▲▼ to select Remove App, then press OK.
 - · The selected App will be removed from My Apps list.

Move App

- Use ▲▼◀▶ to select the desired App, then press 🗗 OPTIONS.
- Use $\blacktriangle \blacktriangledown$ to select **Move App**, then press **OK**.
 - · The selected App icon will be smaller
- Use $\triangle \nabla \blacktriangleleft \triangleright$ to the point you want to place, then press **OK**.

Guide to App Gallery



- (1) Category menu: List of category menu.
- Icon list: Displays unregistered net service icons on My

Displays the order of pages. The current page (3) Page guide:

will be highlighted.

- Press **NETTV**, then use $\triangle \nabla \blacktriangleleft \triangleright$ to select **App Gallery**
- Use ▲▼◀▶ to select the desired App in My Apps list, then press
 - You can also choose from Category menu. Use ▲ ▼ ◆ ▶ to select **All**, then use $\blacktriangle \blacktriangledown \mathsf{OK}$ to select the desired category.
 - · If you select Add, the selected App icon will be placed at the end of My Apps list.
 - If you select **Add and move**, the selected App icon will be smaller and use $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$ to the point you want to place, then press **OK**.

Even if you press **SACK** to cancel this function, the selected App icon will be placed at the end of My Apps list.

Information on network services

For detailed information on 3rd party internet services, please visit the service providers website:

Netflix : http://www.netflix.com **VUDU** : http://www.vudu.com

For additional help, refer to the Frequently Asked Questions FAQs at www.philips.com/support.

Select TV and enter your model number.

Pandora® operations

With this unit, you can instantly listen to personalized radio stations streamed over the internet from Pandora.

To learn more about Pandora, please visit www.pandora.com

Activating Pandora

In order to listen to internet radio streamed from Pandora via the internet, you must create a Pandora account and activate this unit.

- 1 Press **NETTV**, then use **▲▼ ◆ ▶** to select **PANDORA**.
- 2 Use ▲▼ to select I am new to Pandora., then press OK.
- 3 Note the activation code and website address displayed on the TV screen.
- 4 On your PC, visit the website address noted at step 4.
- 5 Follow directions on the website to create your account.
- 6 On this unit, select Go Back and press OK to complete activation.

Adding Pandora user accounts

You can add the Pandora user account.

- Press **NETTV**, then use ▲ ▼ ◆ ► to select **PANDORA**
- 2 Use ▲ ▼ to select I have a Pandora account., then press OK.
- 3 Enter your e-mail address, then press **OK** while **OK** is selected.
- 4 Enter a password, then press OK while OK is selected.
- 5 Use ▲▼ to select Sign In, then press OK.
 - Your account is added to the user list and player screen appears on the TV screen.



- · Pandora is available only in the United States.
- You can add up to 5 accounts.

Creating a new station

By entering your favorite artists or tracks, Pandora selects music and creates a new station for you on the basis of the entered information.

- 1 On the station list screen, Use ▲ ▼ ◆ ▶ to select New Station, then press OK
- 2 Enter a name of your favorite artist or tracks, then press OK while OK is selected.
 - · Search result will appear on the right side of the TV screen.
 - If the selection screen with the result type appears, use ▲▼ to select the desired type, then press OK.
- 3 Use ▲▼ to select the desired station, then press OK to start the playback.

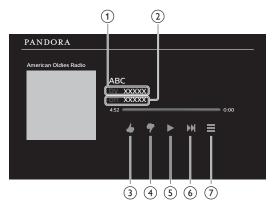
►/II	Resumes the playback / pause the playback.	
•	Resumes the playback.	
Pauses the playback.		
>>	Skips to the next track.	



On the Tool Menu, you can delete or rename the currently selected station.

Guide to the player screen

On the player screen, you can set various options to the currently playing track.



1 Artist name : Displays artist name.

2 Album name : Displays album name.

: Give thumbs up to the currently playing track.
 Pandora will play tracks similar to the track.
 Give thumbs down to the currently playing

track. Pandora will skip and will not play the track.

5 Useful tips

FAQ

Question	Answer
	Check the antenna or cable connection to the main unit.
	Check the batteries on the remote control.
	Check if there is an obstacle between the infrared sensor window and the remote control.
	• Test the IR signal output use IR signal check . → p. 53
My remote control does not	If okay, then possible infrared sensor trouble.
work. What should I do?	Aim the remote control directly at the infrared sensor window on the front of the unit.
What should I do!	Reduce the distance to the unit.
	\cdot Re-insert or replace the AAA batteries with their polarities (+/ $-$) as indicated on the remote control battery area.
	 When there is an infrared-equipped device such as PC near this unit, it may interrupt the remote control signal on this unit. Move the infrared-equipped device away from this unit, change the angle of the device's infrared sensor or turn off the infrared communication function.
How come the initial setup	
appears every time I turn on this unit?	Make sure to complete the initial setup before the unit goes into standby mode.
triis uriit:	Autoprogram must be completed when you set up the unit for the first time or move it to a location where previously
	unavailable channels are broadcast.
	 Make sure auto programming has been completed. → p. 35
	• The selected channel may not be broadcasting.
Why can I not watch some RF signal TV programs?	When Auto programming is interrupted and not completed, some channels will not be received. Make sure to complete
signal iv programs?	the Autoprogram. 🖦 p. 35
	• The selected channel cannot be viewed by the Child lock setting. 🛶 p. 36
	• The unit requires some kind of antenna input. An indoor antenna (Digital or VHF / UHF), an external antenna (Digital or
	VHF / UHF) or an RF coaxial cable from your wall cable or set-top box needs to be plugged into the unit.
How come there is no image from the connected external	• Check if the correct input mode is selected by pressing → SOURCE. → p. 20
devices?	Check the antenna, cable or other input connection to the unit.
When I enter a channel	Many digital channels have alternate channel numbers. The unit changes the numbers automatically to the ones signifying
number, why does it change	the broadcasting station's channel number. These basic numbers used for the previous analog broadcasts. (e.g., input
automatically?	digital ch# 30 automatically changes to digital ch# 8.1)
Why are captions not displayed entirely?	• Closed captions that are delayed a few seconds behind the actual dialog are common for live broadcasts. Most captioning
Or why are captions delayed	production companies can display a dialog to maximum of 220 words per minute. If a dialog exceeds that rate, selective
behind the dialog?	editing is used to insure that the closed captions remain up-to date with the current TV screen dialog.
How can I set the clock?	There is no clock function on this unit.
My PIN code no longer	• Although the default PIN code (0000) is supplied with the unit, the PIN code will be required once you set a PIN code in
works, how can I change the	Child lock p. 36 When you forget your DIN so do enter 0711 in Change DIN to reset the DIN so do p. 27
child lock setting? When I start up the TV or a	When you forget your PIN code, enter 07 11 in Change PIN to reset the PIN code. → p. 37
net service, a message	. When you start up the TV as a pet conice offer executing the software unclate a massage may appear on the access of the conice
appears on the screen	 When you start up the TV or a net service after executing the software update, a message may appear on the screen prompting for software update again. In this case, please select Update to start USB update or network update.
prompting for software	10. 30. cmare aparte again. The insteade select operate of start out aparte of fictivory aparte.
update again.	

Troubleshooting tips

If the unit does not perform properly when operated as instructed in this manual,

Please check the following Troubleshooting tips and all connections once before calling for service.

No power

- · Make sure the AC power cord is plugged in.
- · Make sure that the AC outlet supplies the proper voltage, plug another electrical appliance into the AC outlet to ensure that the AC outlet operates normally
- If a power failure occurs, unplug the AC power cord for 1 minute to allow the unit

Remote

Control buttons do not work.

- Do NOT press more than one button at the same time.
- · Ensure that no buttons on the remote control are depressed and move freely.

Universal remote control does not work properly.

Refer to the User manual of the universal remote control for the Philips code.

Power is on but no screen image.

- · Check whether the connection for the antenna, cable or set-top box is connected correctly
- · Check whether all the cables to the unit are connected to the correct output jack on your separate device like Blu-ray disc / DVD recorder
- Make sure that the selected input mode is connected to the working input jack. · Check if your computer is NOT in sleep mode when the input mode on this unit
- is in PC mode. Tap any key on the computer keyboard to wake it up
- Check if the correct input mode is selected by pressing * SOURCE

- · View other TV channels. The problem might be limited to the broadcasting

- · Adjust Contrast and Brightness in Picture settings. 🛶 p. 28
- For the best picture quality, watch "High Definition" wide screen programs. If the HD content is not available, watch "Standard Definition" programs instead.

You see pixelation on the screen.

 When the capabilities of the unit exceed the capabilities of the digital broadcasting, the signal will be increased to match the capabilities of the display on the unit. This may cause pixelation, noise or trash.

Unusual picture appears and the TV does not operate.

- · Press the power button first. If it does not solve, follow the procedure below
- ① Press the buttons on the remote control in the order shown below ▶→ ▲ → ▼ → む
- (2) Unplug the AC power cord, then wait for 1 minute, and then plug it in again.

Sound

No sound is heard when using the HDMI digital connection.

Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.

No sound, distorted sound or incorrect audio sound is heard when using the HDMI-DVI connections.

- · Make sure that the analog audio signals from the HDMI-DVI device are connected to the analog audio input L/R jacks.
- When using Composite analog video, make sure that the analog audio (L/R) connectors are mounted into the audio (L/R) input jacks.

Sound intermittent or no sound.

Check if the audio cable is connected into the unit correctly.

You switch to a different input and the volume changes.

- · This unit will memorize the volume level from the last time you adjusted it.
- · If the volume of the sound from another device is higher or lower, then the loudness will change
- Make sure Auto volume leveling is set to On. p. 30

Picture & Sound

No sound with distorted picture occurs when using the HDMI digital connection.

· Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications

No picture or sound

- · Check if the power is on.
- · Check whether all the cables to the unit are connected to the correct output jack on your separate device like Blu-ray disc / DVD recorder.
- · View other TV channels. The problem might be limited to the broadcasting station
- · Unplug the AC power cord and wait for about 1 minute, then plug the AC power cord and turn on the unit again.
- Check whether the connection of the antenna or cable / satellite set-top box is connected correctly.
- Make sure that the selected input mode is connected to the working input jack.
- $\boldsymbol{\cdot}$ Check if your computer is NOT in sleep mode when the input mode of this unit is in PC mode. Tap any key on the keyboard to wake up your computer
- Make sure that the sound is not muted. Press 🍇 so that the volume bar and current volume level will appear on the TV screen
- Make sure that the volume is NOT set to **0** or If so, use **VOL + / -** to adjust to the desired volume
- Make sure that the headphone is NOT connected to the headphone audio output jack.
- · Make sure that the TV speakers is NOT set to Off.
- If there are issues with picture/color and/or sound when connecting an external device using the HDMI port, please try switching the HDMI mode. (Refer to HDMI mode 🖚 p. 33)

Adjusted Picture or Sound settings are not effective every time the unit is turned

• You must set **Home** in **Location**. \implies **p. 33** (Otherwise, the settings you adjusted will not be memorized after the unit goes into standby mode.)

You see a distorted picture or hear an unusual sound. (Analog TV - NTSC

- You may be getting NTSC (Analog) TV signal (not HDTV signal) interference from electrical appliances, automobiles, motorcycles or fluorescent lights.
- Try moving the unit to another location to see if this is the cause of the problem.

Ghosts, lines or streaks in picture.

- · Electrical interference from nearby appliances may affect picture quality
- View other TV channels. The problem might be limited to the broadcasting station or weak signal strength.

Picture poor, sound intermittent or no sound

View other TV channels. The problem might be limited to the broadcasting station or weak signal strength.

Child and rating lock

Forgotten PIN code.

· Enter "0711" to clear your password.

Screen

You switch to a different input and the screen size changes.

• This unit will memorize the viewing mode from the last time you used the particular input modes

The display image does not cover the entire screen.

- · If you are using the unit as a PC monitor, make sure that Horizontal position and Vertical position in Picture are set correctly. → p. 28
 • If you are watching TV or using the Composite video or HDMI with 480i input.
- press FORMAT repeatedly to switch to various screen modes.

Different color marks on the TV screen

 View other TV channels. The problem might be limited to the broadcasting station, missing data or pixelation due to weak signal strength.

Closed captions

Closed captions are displayed as a white box. No closed captions are displayed in the closed captions-supported program.

- Interference from buildings or weather conditions may cause closed captions to be incomplete if watching analog TV signals.
- · Broadcasting station may shorten the program to insert advertisements. The closed caption decoder cannot read the information of the shortened

Black box is displayed on the TV screen.

The text mode is selected for caption. Select CC-1, CC-2, CC-3 or CC-4.

Software update

A message appears on the screen prompting for software update again.

 When you start up the TV or a net service after executing the software update a message may appear on the screen prompting for software update again. In this case, please select **Update** to start USB update or network update. **p. 43**

Cannot connect to the network.

- · Check if the Ethernet cable connection is properly made. Turn on the broadband router and/or modem.
- Check the network settings.
- Check if the broadband router and/or modem is correctly connected

Sometimes video quality is poor when using the wireless LAN.

The wireless network connection quality varies depending on the distance or obstacles (e.g. wall, basement, 2nd floor) between the TV wireless LAN adapter and the wireless router (access point), from other wireless networks, and brand and type of the wireless router (access point). When using the wireless LAN of the TV, it is suggested to place the wireless router as close as possible to the

Wireless LAN connection fails or wireless connection is poor.

- Check the installation location of the TV and wireless router (access point). Signal quality may be affected for the following reasons.
- Interference of other wireless devices, microwaves, fluorescent lights, etc., are placed nearby.
- There are floors or walls between the wireless router and TV.
- If the problems continue even after checking the above, try making a wired LAN connection

Cannot use the wireless connection.

- Check if the wireless LAN Access Point (AP) (e.g. wireless router) is oriented properly or not placed too close between them.
- · Once you have activated the wireless connection please wait 30 seconds for the connection to be established after turning on the unit, before trying to access network features such as Net TV.

Cannot use Netflix feature.

- · Check if the network connection is properly made.
- Visit http://www.netflix.com on your PC and become a Netflix member.
- Some network services may not be available in your country

Cannot add movies or TV episodes to the Instant Queue.

· Visit www.netflix.com on your PC

Even though the speed of the internet connection improves during playback,

the picture quality of Netflix streaming movie does not improve.

· The picture quality does not change during playback. It differs depending on the speed of internet connection at the time of loading.

Cannot use VUDU feature.

- · VUDU is available only in the United States and Mexico.
- · Check if the network connection is properly made.

Cannot rent or buy movies / TV episodes on VUDU.

- You need to activate the VUDU account. For detailed information, please visit the service providers website at http://www.vudu.com
- Log into your account at http://my.vudu.com and check your payment information.

The picture quality of a streaming movie (Netflix or VUDU) is poor.

Check the speed of your internet connection. You need speeds of at least 8 Mbps to this player for high quality uninterrupted playback.

Streaming movie (Netflix or VUDU) often stops or starts buffering during playback.

 Contact your internet service provider to troubleshoot your internet connection. for speed and line quality. Consistent line quality and speed are very important for internet video playback

Cannot connect to the network while my PC is connected to the network.

• Check the content of your internet service contract to see if your internet service provider prevents multiple terminals connecting at the same time.

Cannot use Easy Connect to connect to the access point.

- Connect the unit to the access point using scan or manual entry mode. If the access point's security mode is set to WEP*, change the setting to others (recommended), then try Easy connect again. (For access point configuration, please consult its user manual or manufacturer.)
 - WEP is not recommended to be used due to its major security flaws. Change the security protocol on the wireless router to others (recommended) mode.

Folder or files stored on home network media server are not displayed in the file list or cannot be played back.

- · Check the setting on your home media server. (Refer to the user manual of the home media server.)
- Check the network connection and settings.

Cannot use Pandora feature.

- · Check if the network connection is properly made
- · Pandora is available only in the United States
- · You must create a Pandora account and activate this unit.

Activating Pandora - p. 49

Wireless Screencasting

- Connectivity with all Wireless Screencasting compatible devices is not guaranteed
- Devices that do not comply with Wireless Screencasting standards may have compatibility issues.



- The LCD screen is manufactured to provide many years of useful life Occasionally a few non active pixels may appear as a fixed point of blue, green
- This is not to be considered a defect in the LCD screen.
- Some functions are not available in specific modes, but this is not a malfunction.
 Read the description in this manual for more details on correct operations.

For additional troubleshooting, refer to the Frequently Asked Questions or FAQs on www.philips.com/support.

3 English

6 Information

Glossary

Analog TV (NTSC)

Acronym that stands for National Television Systems Committee and the name of analog broadcasting standards.

Off the air analog TV signals are no longer being sent by major broadcasting stations in the USA.

ARC (Audio Return Channel) (HDMI 1 only)

HDMI-ARC allows you to use Philips EasyLink to output TV audio directly to a connected audio device, without the need for an additional digital audio cable. Be sure that the device is HDMI CEC and ARC compliant, and that the TV is connected to the device using an HDMI cable attached to both HDMI-ARC connectors.

Aspect ratio

The width of a TV screen relative to its height. Conventional TVs are 4:3 (in other words, the TV screen is almost square); widescreen models are 16:9 (the TV screen is almost twice as wide as its height).

CEC (Consumer Electronics Control)

This allows you to operate the linked functions between our brand devices with CEC feature and this unit. We do not guarantee 100% interoperability with other brands of CEC compliant devices.

Dolby Digital

The system developed by Dolby Laboratories to compress digital sound. It offers stereo sound (2ch) or multi-channel audio.

DTV (ATSC)

Abbreviation that stands for Advanced Television Systems Committee and the name of the digital broadcasting standards.

E-sticker

E-sticker is showing set features, technical information, etc on this TV set that is displayed on the TV screen mainly used by TV retailers. Previously the information was on a printed sticker that was put on the display.

HDMI (High-Definition Multimedia Interface)

Interface that supports all uncompressed, digital audio / video formats including set-top box, Blu-ray / DVD recorder or digital television, over a single

HDTV (High-Definition TV)

Ultimate digital format that produces high resolution and high picture quality.

PIN code

A stored 4-digit number that allows access to parental control features.

SAP (Secondary Audio Program)

Second-audio channel delivered separately from the Main-audio channel. This audio channel is used as an alternate in bilingual broadcasting.

SDTV (Standard Definition TV)

Standard digital format that is similar to the analog TV picture quality.

Sonic Emotion Premium

Sonic Emotion Premium fills your surroundings with the right ambience, clarifies voice, and details the sound stage, making your experience more immersive and enjoyable.

Maintenance

Cleaning

- Clean the front panel and other exterior surfaces of the unit with a soft microfiber cloth or lens brush. Before cleaning the panel, disconnect the AC power cord.
- Never use a solvent or alcohol. Do not spray insecticide liquid near the unit. Such chemicals may cause damage and discoloration to the exposed surfaces.
- Do not spray any liquids on the screen or other exterior surfaces of this unit. If liquids enter the unit, they could cause shorts, electric shocks or fire damage.



Servicing

Should your unit become inoperative, do not try to correct the problem yourself. There are no user serviceable parts inside. Call our toll free customer support line found on the cover of this User manual to locate an authorized service center.

IR signal check

If the remote control is not working properly, you can use a digital or cell phone camera to see if it is sending out an infrared signal.



e.g.) With a digital camera:

Point the digital camera towards the remote control infrared diode at the front of the remote control. Press and hold any key on the remote control and look at the camera display. If an infrared pulsating light appears on the display, the remote control is sending out an IR signal.

Note: Some cameras may have an IR filter or dual camera cell phones may have an IR filter in one of the camera's and both will not display the IR signal.

7 Specifications

Picture	Model #		50PFL5601	
Diagonal screen Size Aspect ratio 178° (V) by 178° (H)	Picture			
Diagonal screen size Aspect ratio 49.5" / 16.9	Туре		UHD (Ultra HD) (3840 x 2160 pixels 60Hz)	
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Power output (RMS watts) 10W x 2 Equalizer 5 Band Ease of use	Mono / Stereo		Mono, Stereo, Sonic Emotion Premium	
Equalizer Ease of use Ficture format		MS watts)		
Bill Bill				
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Picture format HD (16:9 source) (16:9 source) Automatic / 4:3 / Wide screen / Full / Unscaled Photo slide show Music playback MP3. WAV. AAC Video playback Video playback MP3. WAV. AAC Channel Channel coverage Cover-the-Air DTV VIHF: 2-13 (ATSC) UHF: 14-69 (Each channel may have e.g. 2.1-2.9, 3.1-3.9, etc) CATV (Analog NTSC) Over-the-Air Analog VHF: 2-13 (NTSC) UHF: 14-69 CATV (Analog NTSC) CATV (Analog W+1-W+84). A-5-A-1, 5A Tuning system Channel frequency synthesized tuning system Channel access Channel frequency synthesized tuning system Channel reguency synthesized tuning system Channel reguency synthesized tuning system Channel vity Supporting HDMI video signal system Channel reguency synthesized tuning system Direct access number keyboard, programmable scan, Channel +(up) / -(down) and PREV. CH (Previous channel) Supporting HDMI video signals : 480i/p, 720p, 1080i @60Hz, 1080p, 2160p @24/30/60Hz Supporting HDMI digital audio signals : 4PCM, AC3, DD+ Supporting HDMI	Luse of use	SD (4·3 source)	Automatic / Super zoom / 4·3 / Movie expand 14·9 / Movie expand 16·9 / Wide screen	
Number Full Unscaled	Picture format	HD		
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Temperature	Power			
	Power requireme	ents	120V~ +/- 10%, 60Hz +/- 0.5%	
Operating temperature 41 °F (5 °C) to 104 °F (40 °C)	Temperature			
	Operating tempe	rature	41 °F (5 °C) to 104 °F (40 °C)	

[·] Specifications are subject to change without prior notice.

8 Warranty

LIMITED WARRANTY ONE (1) YEAR

WARRANTY COVERAGE:

This warranty obligation is limited to the terms as set forth below.

WHO IS COVERED:

This product warranty is issued to the original purchaser or the person receiving the product as a gift against defects in materials and workmanship as based on the date of original purchase ("Warranty Period") from an Authorized Dealer. The original sales receipt showing the product name and the purchase date from an authorized retailer is considered such proof.

WHAT IS COVERED:

This warranty covers new products if a defect in material or workmanship occurs and a valid claim is received within the Warranty Period. At its option, the company will either (1) repair the product at no charge, using new or refurbished replacement parts, or (2) exchange the product with a product that is new or which has been manufactured from new, or serviceable used parts and is at least functionally equivalent or most comparable to the original product in current inventory, or (3) refund the original purchase price of the product.

Replacement products or parts provided under this warranty are covered against defects in materials and workmanship from the date of the replacement or repair for ninety (90) days or for the remaining portion of the original product's warranty, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes company property. When a refund is given, your product becomes company property.

Note: Any product sold and identified as refurbished or renewed carries a ninety (90) day limited warranty.

Replacement product can only be sent if all warranty requirements are met. Failure to follow all requirements can result in delay.

WHAT IS NOT COVERED - EXCLUSIONS AND LIMITATIONS: This Limited Warranty applies only to new company manufactured products that can be identified by the trademark, trade name, or logo affixed to it. This Limited Warranty does not apply to any hardware product or any software, even if packaged or sold with the product, as manufacturers, suppliers, or publishers may provide a separate warranty for their own products packaged with the bundled product.

The company is not liable for any damage to or loss of any programs, data, or other information stored on any media contained within the product, or other additional product or part not covered by this warranty. Recovery or reinstallation of programs, data or other information is not covered under this Limited Warranty.

This warranty does not apply (a) to damage caused by accident, abuse, misuse, neglect, misapplication, or non-supplied product, (b) to damage caused by service performed by anyone other than company approved Authorized Service Location, (c) to a product or a part that has been modified without written company permission, or (d) if any serial number has been removed or defaced, or (e) product, accessories or consumables sold "AS IS" without warranty of any kind by including refurbished product sold "AS IS" by some retailers.

This Limited Warranty does not cover:

- · Shipping charges to return defective product.
- Labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna/signal source systems outside of the product.
- Product repair and/or part replacement because of improper installation or maintenance, connections to improper voltage supply, power line surge, lightning damage, retained images or screen markings resulting from viewing fixed stationary content for extended periods, product cosmetic appearance items due to normal wear and tear, unauthorized repair or other cause not within the control of the company.
- Damage or claims for products not being available for use, or for lost data or lost software.
- Damage from mishandled shipments or transit accidents when returning product.
- A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- A product used for commercial or institutional purposes (including but not limited to rental purposes).
- Product lost in shipment and no signature verification receipt can be provided.
- Failure to operate per Owner's Manual.

TO OBTAIN ASSISTANCE... Contact the Customer Care Center at: 1-866-202-5960

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You should write to

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FUNAI CORPORATION, Inc. 19900 Van Ness Avenue, Torrance, CA 90501

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Register your product and get support at

www.philips.com/welcome

ES Manual del Usuario

FR Manuel d'Utilisation

- $\ensuremath{\mathsf{EN}}$ For further assistance, call the customer support service in your country.
- To obtain assistance, contact Philips Customer Care Center; In the U.S.A., Canada, Puerto Rico, or the U.S. Virgin Islands 1866 202 5960

México D.F. and Área Metropolitana; **58 87 97 36** Interior de la Republica; **01 800 839 19 89**

- ES Para obtener más información, llame al servicio de soporte al cliente de su país.
 - Para obtener asistencia, comuníquese con Centro de atención al cliente de Philips;

En los Estados Unidos, en Canadá, Puerto Rico o en las Islas Vírgenes de los Estados Unidos; **1 866 202 5960**

México D.F. y Área Metropolitana; **58 87 97 36** Interior de la Republica; **01 800 839 19 89**

- FR Pour obtenir de l'aide supplémentaire, communiquez avec le centre de service à la clientèle de votre pays.
- Pour obtenir de l'aide, communiquez avec le centre de service à la clientèle Philips au;

Dans le États-Unis, au Canada, à Puerto Rico ou aux Îles Vierges américaines; **1 866 202 5960**

México D.F. et Área Metropolitana; **58 87 97 36** Interior de la Republica; **01 800 839 19 89**

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[•] Displays and illustrations may differ depending on the product you purchase.

Register online today at www.philips.com/welcome today to get the most benefits from your purchase.

Registering your model with Philips makes you eligible for all of the valuable benefits listed below, so don't miss out. **Register Online at www.philips.com/welcome** to ensure:

*Product safety notification

By registering your product, you'll receive notification - directly from the manufacturer - in the rare case of a product recall or safety defect.

*Additional benefits

Registering your product guarantees that you'll receive all of the privileges to which you're entitled, including special money-saving offers.

Know these **Safety** symbols



REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The caution marking is located on the rear or bottom of the cabinet.



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



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

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids,

such as vases, shall be placed on the apparatus.

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

ATTENTION: Pour éviter les choc électriques, introduire la lame la plus large de la fiche dans la borne

correspondante de la prise et pousser jusqu'au fond.

PHILIPS

For fastest support visit us online for chat and self service solutions at www.philips.com/support

CHILD SAFETY:

PROPER TELEVISION PLACEMENT MATTERS

THE CONSUMER ELECTRONICS INDUSTRY CARES

- Manufacturers, retailers and the rest of the consumer electronics industry are committed to making home entertainment safe and enjoyable.
- As you enjoy your television, please note that all televisions – new and old- must be supported on proper stands or installed according to the manufacturer's recommendations. Televisions that are inappropriately situated on dressers, bookcases, shelves, desks, speakers, chests, carts, etc., may fall over, resulting in injury.

TUNE IN TO SAFETY

- ALWAYS follow the manufacturer's recommendations for the safe installation of your television.
- ALWAYS read and follow all instructions for proper use of your television.
- **NEVER** allow children to climb on or play on the television or the furniture on which the television is placed.
- **NEVER** place the television on furniture that can easily be used as steps, such as a chest of drawers.
- ALWAYS install the television where it cannot be pushed, pulled over or knocked down.
- ALWAYS route cords and cables connected to the television so that they cannot be tripped over, pulled or grabbed.

CTA.tech/safety Consumer Technology Association

WALL OR CEILING MOUNT YOUR TELEVISION

- ALWAYS contact your retailer about professional installation if you have any doubts about your ability to safely mount your television.
- ALWAYS use a mount that has been recommended by the television manufacturer and has a safety certification by an independent laboratory (such as UL, CSA, ETL).
- ALWAYS follow all instructions supplied by the television and mount manufacturers.
- ALWAYS make sure that the wall or ceiling where you are mounting the television is appropriate. Some mounts are not designed to be mounted to walls and ceilings with steel studs or cinder block construction. If you are unsure, contact a professional installer.
- Televisions can be heavy. A minimum of two people is required for a wall or ceiling mount installation.

MOVING AN OLDER TELEVISION TO A NEW PLACE IN YOUR HOME

- Many new television buyers move their older CRT televisions into a secondary room after the purchase of a flat-panel television. Special care should be made in the placement of older CRT televisions.
- ALWAYS place your older CRT television on furniture that is sturdy and appropriate for its size and weight.
- NEVER place your older CRT television on a dresser where children may be tempted to use the drawers to climb.
- ALWAYS make sure your older CRT television does not hang over the edge of your furniture.

Important safety instructions

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- **5.** Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- **7.** Do not block any ventilation openings. Install in accordance with the manufacturer's 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 a third grounding prong. The wide blade or the third prong are provided for your safety. If 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 the 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.

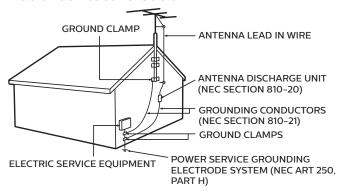


- **13.** Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Note to the CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Example of antenna grounding as per NEC - National Electric Code



Wall mount bracket kit

	Brand	Model #	Screw dimension
50PFL5601	SANUS VuePoint	F80b	M6 x 0.472" (12mm)

- Your TV meets the VESA standard for wall mounting. Consult with your local dealer for a wall mount bracket which is compatible with your TV model
- The recommended wall mount bracket kit (sold separately) allows the mounting of the TV on the wall.
- For detailed information on installing the wall mount, refer to the wall mount Instruction book.
- Funai is not responsible for any damage to the product or injury to yourself or others if you elect to install the TV wall mount bracket or mount the TV onto the bracket on your own.
- · The wall mount bracket must be installed by experts.

Funai is not liable for these types of accidents or injuries noted below.

- · Install the wall mount bracket on a sturdy vertical wall.
- If installed onto a ceiling or slanted wall, the TV and wall mount bracket may fall which could result in a severe injury.
- Do not use screws that are longer or shorter than their specified length.
 If screws too long are used this may cause mechanical or electrical damage inside the TV set. If screws too short are used this may cause the TV set to fall.
- Do not fasten the screws by excessive force. This may damage the product or cause the product to fall, leading to an injury.
- For safety reasons use 2 people to mount the TV onto a wall mounting bracket.
- Do not mount the TV onto the wall mounting bracket while your TV is plugged in or turned on. It may result in an electrical shock injury.

When installing the unit on the wall, allow this much space.

Top : 1.8 inches (30cm)
Left and right side : 5.9 inches (15cm)
Bottom : 3.9 inches (10cm)

1 Notice

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Funai reserves the right to change products at any time without being obliged to adjust earlier supplies accordingly.

The material in this Owner's manual is believed adequate for the intended use of the system. If the product or its individual modules or procedures are used for purposes other than those specified herein, confirmation of their validity and suitability must be obtained. Funai warrants that the material itself does not infringe any United States patents. No further warranty is expressed or implied.

Funai cannot be held responsible neither for any errors in the content of this document nor for any problems as a result of the content in this document. Errors reported to Funai will be adapted and published on the Funai support website as soon as possible.

Pixel characteristics

This LCD product has a high number of color 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 the display (within common industry standards) and is not a malfunction.

Warranty

No components are user serviceable. Do not open or remove covers to the inside of the product. Repairs may only be done by service centers and official repair shops. Failure to do so shall void any warranty, stated or implied.

Any operation expressly prohibited in this manual, any adjustments or assembly procedures not recommended or authorized in this manual shall void the warranty.

Federal communications commission notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- · Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Declaration of conformity

Trade name : PHILIPS

Responsible party : FUNAI CORPORATION, Inc.

Model : 50PFL5601

Address : 19900 Van Ness Avenue, Torrance, CA 90501

U.S.A.

Telephone number : 1866 202 5960

Modifications

This apparatus may generate or use radio frequency energy. Changes or modifications to this apparatus may cause harmful interference.

Any modifications to the apparatus must be approved by Funai.

The user could lose the authority to operate this apparatus if an unauthorized change or modification is made.

Cables

Connections to this device must be made with shielded cables with metallic RFI / EMI connector hoods to maintain compliance with FCC Rules and regulations.

FCC statutory notice for wireless LAN adapter.

FCC caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Country code statement

For product available in the USA market, only channel 1~11 can be operated. Selection of other channels is not possible.

To maintain compliance with FCC RF exposure requirements, use only belt-clips, holsters or similar accessories that do not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements and should be avoided.

Positioning the TV

- · Large screen TVs are heavy. 2 people are required to carry and handle a large screen TV.
- Make sure to hold the upper and bottom frames of the unit firmly as illustrated.
- · Install the unit in a horizontal and stable position.
- · Do not install the unit in direct sunlight or in a place subject to dust or strong vibration.
- · Depending on the environment, the temperature of this unit may increase slightly This is not a malfunction.
- Avoid a place with drastic temperature changes.
- · Do not place anything directly on top or bottom of the Unit.
- Depending on your external devices, noise or disturbance of the picture and / or sound may be generated if the unit is placed too close to them. In this case, please ensure enough space between the external devices and the unit
- · Do not insert the AC power cord into the power socket outlet before all the connections are made.
- · Ensure that you always have easy access to the AC power cord and outlet to disconnect the TV from the AC outlet.
- · Before you move the TV, disconnect attached cables to prevent damage to connectors, especially the TV tuner.
- · Be sure to unplug the AC power plug from the AC outlet before moving or carrying the unit.
- · When moving the TV and then setting it down, please be careful not to pinch the AC power cord under the unit.
- · Do not place this unit in an area where it may be exposed to water, oil or grease such as: near a bathtub, basin, kitchen sink, washing tub, swimming pool, kitchen exhaust fan, etc., or in a damp basement.

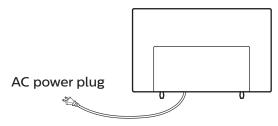
Regulatory notices

Do not place the unit on the furniture that is capable of being tilted by a child and an adult leaning, pulling, standing or climbing on it. A falling unit can cause serious injury or even death.

This apparatus should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided. Make sure to leave a space of 4 inches (10 cm) or more around this apparatus.

Press \odot to turn the unit on and go into standby mode. To completely turn off the unit, you must unplug the AC power plug from the AC power outlet.

Disconnect the AC power plug to shut the unit off when trouble is found or not in use. The AC plug shall remain readily available.



Never use a gas duster on this TV.

The gas trapped inside of this unit may cause ignition and explosion.

WARNING: To prevent injury, this apparatus must be securely attached to the furniture / wall in accordance with the instructions. Tipping, shaking or rocking the unit may cause injury /

Environmental care



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

For product recycling information, please visit - www.recycle.philips.com

End of life directives

Philips pays a lot of attention to produce environmental-friendly products in green focal areas. Your new TV contains materials which can be recycled and reused. At the end of its life, specialized companies can dismantle the discarded TV to concentrate the reusable materials and to minimize the amount of materials to be disposed of. Please ensure you dispose of your old TV according to local regulations.

▲ Batteries usage

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

WARNING: Batteries (battery pack or battery installed) should not be exposed to excessive heat such as sunshine, fire or the like.

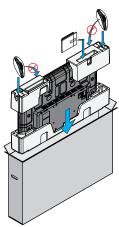
- · Do not mix old and new batteries.
- Do not mix alkaline, standard (carbon-zinc) or rechargeable (ni-cad, ni-mh, Li-ion, etc.) batteries.

Disposal of used batteries

In certain localities, disposing batteries with household waste is not permitted. Please ensure you dispose of batteries according to local regulations

Preparing to move / ship the unit

Please pack the unit properly by following the diagram on the carton (as noted below).



· To avoid damage to the screen, do not pack the stand on the same side as the TV screen refer to the illustration above

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The American Academy of Pediatrics discourages television viewing for children younger than two years of age.

Some features may require an always-on broadband internet connection, firmware update and/or a minimum bandwidth. Internet services vary by location.

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2 Getting started

Features

DTV / Analog TV / CATV

You can use your remote control to select channels which are broadcast in digital format and conventional analog format. Also, cable and satellite subscribers can access their TV channels.

Information display

You can display on the TV screen the title, contents (DTV only) and other information on the current

Autoprogram

This unit automatically scans and memorizes channels available in your area, eliminating difficult setup procedures.

This unit lets you enjoy internet services. Use the remote control to browse the Net TV pages. You can play movies and much more, all from your TV screen.

Child lock

This feature allows you to block children's access to inappropriate programs.

Closed caption decoder

Built-in closed caption decoder displays text for closed caption supported programs.

• MTS / SAP tuner

Audio can be selected from the remote control.

Auto standby

If there is no input signal and no operation for 15 minutes, the unit will go into standby mode automatically

· Sleep timer

You can set the unit to go into standby mode after a specific amount of time

Choices for on-screen language

Select your on-screen language: English, Spanish or French.

· Stereo sound function

PLL frequency synthesized tuning

Provides free and easy channel selection and lets you tune directly to any channel using the number and decimal point " $\,$ " keys on the remote control.

Various adjustments for picture and sound

Customizes picture quality suitable for your room and sets your sound preference

• EasyLink via HDMI link

EasyLink allows your other HDMI link devices to be controlled by the HDMI cable connected to your TV.

• HDMI input

HDMI-DVI input

If your video device has a DVI output jack, use an HDMI-DVI conversion cable to connect the

• PC input

AV input

Audio and video input from an external device.

USB terminal

The picture, music and video files stored on a USB memory stick can be played back on this unit.

• Digital audio output

· Headphone audio output

Supplied accessories

User manual Quick start guide







Remote control

Caution sheet

TV base and Screws



Screws packed with this unit.

Model	Quantity	Size
50PFL5601	4	M4 x 0.787"(20mm)



Note(s)

- If you lose the screws, please purchase the above-mentioned Phillips head screws at your local
- If you need to replace these accessories, please refer to the part name or No. with the illustrations and call our toll free customer support line found on the cover of this User manual.

When using a universal remote control to operate this unit.

- Make sure the component code on your universal remote control is set to our brand. Refer to the instruction book accompanying your remote control for more details.
- We do not guarantee 100% interoperability with all universal remote controls.

Symbols used in this User manual

The following is the description for the symbols used in this User manual. Description refers to:

Digital TV operation

Cable / NTSC (Analog) TV operation

· If neither symbol appears, the operation is applicable to both.

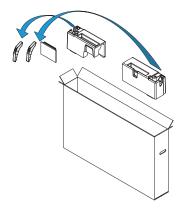
Unpacking

It is recommended that two or more people remove the TV set from the box. Be careful not to injure your fingers and keep children away during assembly.

1 Open the top flaps of the box.



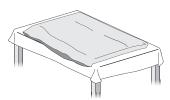
2 Remove all accessories.



Prepare a table and cover the top of it with a table cloth, blanket or such to avoid damage to the TV set. Support both sides of the TV set and, move it onto the table.

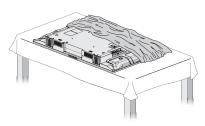


4 Carefully lay the TV set, with the screen side down, on the table.

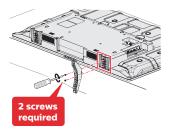


Installing the stands

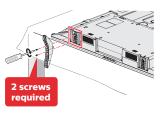
1 Remove the tape on the bottom of the TV set and the plastic bag.



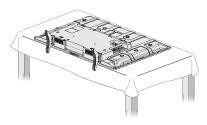
2 Fasten the matching stand to the TV with 2 screws (included). While fastening the screws, hold the stand to prevent it from falling. Also, make sure to attach the stand parallel to the bottom of the TV set, as shown in the enlarged illustration.



3 Fasten the other stand to the TV with 2 screws (included). While fastening the screws, hold the stand to prevent it from falling.



4 Both stands should now be securely fastened.

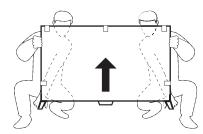




- · A wide open space is recommended for assembly.
- A Phillips-head screwdriver is required to fasten the stands to the TV set.
- When attaching the stand, ensure that all screws are tightly fastened. If the stand is not properly
 attached, it could cause the unit to fall, resulting in injuries as well as damage to the unit.
- To remove the stand from this unit, unscrew the Phillips-head screws by reversing the procedure. Be careful not to drop the stand when you remove it.

Lifting the TV set

Carefully lift the TV set as shown in the illustration and place it onto a stable, level surface.



Removing cardboard

Remove the cardboard attached to the screen. You are now ready to set $% \left\{ x_{i},x_{j}\right\} =0$ up and enjoy your Philips TV.



Installing the remote control batteries



- Slide the battery cover off the back of the remote control.
- Insert two batteries (AAA, 1.5V). Be sure the + and ends of the batteries line up with the markings inside the case.
- Slide the cover back into position.



• Remove the batteries if not using the remote control for an extended period of time.

Remote control



1) (POWER)

Turns the TV on from standby or off to standby.

(2) VUDU

Access directly to VUDU.

(3) EasyLink buttons

◄◄/▶► : Searches backward or forward through the disc.

► II : Starts, pauses or resumes playback.

Stops the disc playback.

Note(s)

 Pause may not work properly on some devices even if they are EasyLink (HDMI CEC) compliant.

(4) YouTube

Access directly to YouTube.

5) SAP

Selects audio mode (MONO / STEREO / SAP) / audio language.

(6) **♠** (Home)

Displays the main menu.

(7) **(1)** INFO

Displays information about the current program.

8) OK

Press to decide the command of setting when the $\operatorname{\mathsf{Home}}$ menu is displayed.

Moves the cursor, selects the on-screen menu items.

10 ☐ OPTIONS

Displays a list of menu items applicable to the highlighted object or screen.

11) + SOURCE

Selects connected devices

(12) CH + / -

Selects a channel.

(13) COLOR buttons

Works as direct access to user specified net apps.

(14) 0 - 9 (NUMBER buttons)

Used to enter a channel / program number.

• (DOT) : Use with 0-9 to select digital channels.

For example, to enter 2.1, press



PREV.CH: Returns to the previously viewed channel.

15 **• €** (MUTE)

Turns the sound on and off.

(16) VOL+/-

Adjusts the volume.

(17) **≤** BACK

Returns to the previous menu operation.

(18) ED FORMAT

Adjusts the picture size on the TV screen.

(19) CC

Selects closed caption settings (Off, On, CC w/ mute).

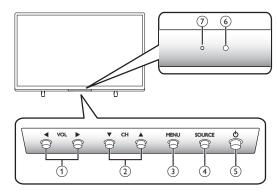
20 NETTV

Access to Net TV menu directly.

(21) NETFLIX

Access directly to Netflix.

Control panel



VOL ◀/▶

Adjusts the volume. In the menu screen, moves the cursor left (◀) / right (►)

VOL ◀ : Volume down : Volume up **VOL**▶

(2) CH ▲ / ▼

Selects a channel. In the menu screen, moves the cursor up (**△**) / down (**▼**)

(3) MENU

Opens the main on-screen menu:

(4) SOURCE Selects connected devices.

(5) (b) (POWER)

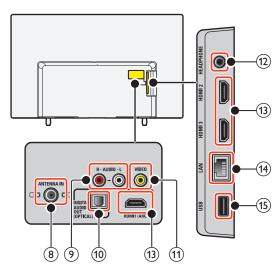
Turns the TV on or switches the TV into standby mode.

Remote control sensor

Receives IR signal from remote control.

Power on / Standby indicator (On: no light, Standby: lights in red)

Terminals



(8) 75 ohm cable / Antenna connection

Signal input from an antenna or cable / satellite set-top boxes.

(9) Analog audio (L/R) input jacks

Connect analog audio signals from;

- HDMI-DVI / Analog audio (L/R) jacks signal
- -Composite video / Analog audio (L/R) jacks signal
- PC connection / Analog audio (L/R) jacks signal with stereo mini 3. 5mm plug audio cable on PC

(10) Digital audio output jack

Digital audio (S/PDIF) output to home theaters and other digital audio systems

(11) Composite video (VIDEO) input jack

Connect composite analog video signal.

(12) Headphone audio output jack Headphone 3.5mm stereo jack for personal listening.

(13) HDMI input jack(s)

Digital audio and video input from high definition digital devices such as DVD / Blu-ray disc players, cable / satellite set-top boxes, PC's,

* For HDMI 1 only

In addition to normal HDMI and HDMI-DVI functionality, it outputs TV audio to an HDMI-ARC-compliant device, such as a home theater system.

(14) Ethernet port

For internet connection using an Ethernet cable with an RJ-45 connector

(15) USB terminal

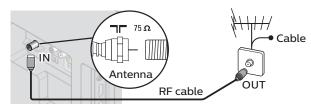
Data input from USB memory stick only. Do not connect any device to this terminal such as digital camera, keyboard, mouse, étc.

Connecting Antenna or Cable / Satellite / IPTV set-top box

Be sure your antenna or another device is connected properly before plugging in the AC power cord.

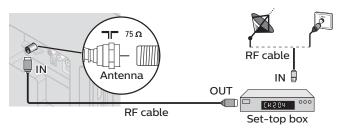
If connecting to an antenna through an RF cable

Any DTV programs that are broadcast in your area can be received for free through an antenna connection.



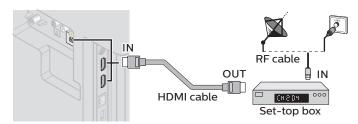
If connecting Cable / Satellite / IPTV set-top box using an RF cable

If the TV is connected to a cable or set-top box via a coaxial connection, set the TV to channel 3/4 or the channel specified by the service



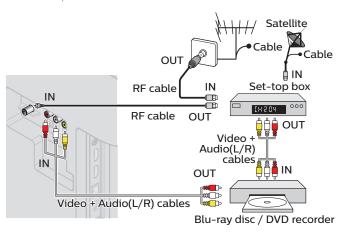
If connecting Cable / Satellite / IPTV set-top box using an HDMI cable

If the TV is connected to a cable / satellite set-top box via an HDMI cable, make sure you select the correct source by using • SOURCE.



Connecting a Cable / Satellite / IPTV set-top box, Bluray disc / DVD recorder via composite connectors and analog audio

Do not place your recorder too close to the screen because some recorders can be susceptible to harmful interference from the TV.





- If you have any question about the DTV's antenna, visit www.antennaweb.org for further information
- Depending on your antenna system, you may need different types of combiners (mixers) or separators (splitters) for HDTV signal. The minimum RF bandpass on these devices is 2,000MHz
- For your safety and to avoid damage to this unit, please unplug the RF coaxial cable from the antenna input jack before moving the unit.
- · If you did use an antenna to receive analog TV, it should also work for DTV reception. Outdoor or attic antennas will be more effective than a set-top box or inside antenna.
- To turn on your reception source easily between antenna and cable, install an antenna
- If you are not receiving a signal from your cable service, contact the cable provider

Plugging in the AC power cord

Make sure that the AC power cord must be plugged to an AC outlet after all the necessary connections are made.



Caution(s)

- Connect the analog audio signal cables from the external device to the analog audio L/R input jacks
- If you have an amplifier, connect the HDMI cable to the HDMI input via your amplifier.



Note(s)

Each time you plug in the AC power cord, no operations will be performed for several seconds.

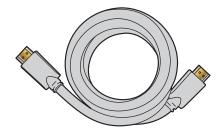
No supplied cables are used with these connections:

Before you connect the AC power cord:

Be sure other devices are connected properly before plugging in the AC power cord.

Selecting your connection quality

HDMI - Highest quality



Supports high-definition digital signals and gives highest picture and sound quality. Video and audio signals are combined in one cable. You must use HDMI for full high-definition video and to enable EasyLink(HDMI CEC).



- Philips HDMI supports HDCP (High-bandwidth Digital Contents Protection). HDCP is a form of digital rights management that protects high-definition content in Blu-ray discs or DVDs.
- The HDMI-ARC connector on the TV features HDMI-ARC functionality. This allows output of TV audio to an HDMI-ARC-compliant device.

Composite - Basic quality

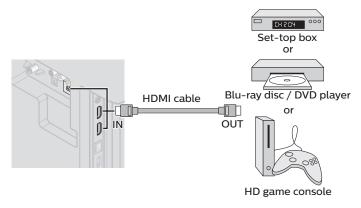


For analog connections. Composite video / Audio analog cable usually combine a yellow video cable with red / white audio (L/R) cables.

Connecting your devices

HDMI digital connection

HDMI connection offers the highest picture quality. HDMI (High-Definition Multimedia Interface) transports high-definition digital video and multi-channel digital audio through a single cable.

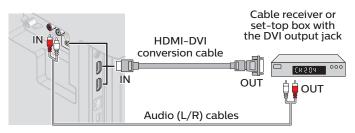




- If there are issues with picture/color and/or sound when connecting an external device using the HDMI port, please try switching the **HDMI mode**. (Refer to **HDMI mode** \rightarrow **p. 32**)
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI
- Use an HDMI cable with the HDMI logo (a certified HDMI cable). High speed HDMI cable is recommended for the better compatibility
- The unit accepts 480i / 480p / 720p / 1080i, 1080p, 2160p 24/30/60Hz of video signals, 32kHz / 44.1kHz and 48kHz of audio signals.
- · This unit accepts LPCM, AC-3, DD+ audio signal.
- This unit accepts only signals in compliance with EIA861.

HDMI-DVI connection

This unit can be connected to your device that has a DVI terminal. Use an HDMI-DVI conversion cable for this connection and it requires audio cable for analog audio signal as well.



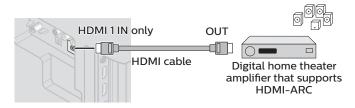


Note(s)

- Some HDMI cables and devices may not be compatible with the TV due to different HDMI
- ${\mbox{\ }}$ Use an HDMI cable with the HDMI logo (a certified HDMI cable). High speed HDMI cable is recommended for the better compatibility
- The unit accepts 480i, 480p, 720p, 1080i, 1080p and 2160p video signals
- HDMI-DVI connection requires separate audio connections as well and the audio signals are output as analog (L/R) audio.
- DVI does not display 480i image which is not in compliance with EIA/CEA-861/861B.

HDMI-ARC connection

HDMI-ARC allows you to use EasyLink to output TV audio directly to a connected audio device, without the need for an additional digital audio cable.



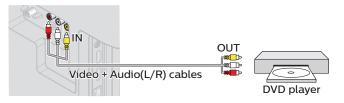


- The HDMI 1 connector is HDMI Audio Return Channel (ARC) compliant. Use it to output digital audio to an HDMI home theater system.
- Be sure that the device is HDMI CEC and ARC compliant and that the TV is connected to the device using an HDMI cable attached to HDMI-ARC connectors.

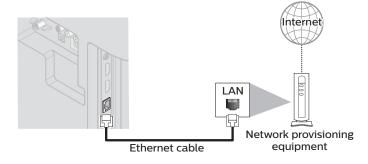
Composite analog video connection

Composite analog video connection offers standard picture quality for video devices connected to the unit.

If you connect to the unit's composite video (VIDEO) input jack, connect audio cables to the audio (L/R) input jacks. When the audio is monaural, then only connect to the audio L input jack.



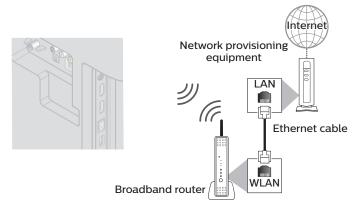
Connecting the TV to the internet using an Ethernet cable





- Please purchase shielded Ethernet cables at your local store and use them when you connect to network equipment
- After connecting an Ethernet cable, set up necessary network settings. Connect to network ⇒ p. 38
- Do not insert any cable other than an Ethernet cable to the Ethernet port to avoid damaging the unit.
- If your telecommunications equipment (modem, etc.) does not have broadband router functions, connect a broadband router.
- If your telecommunications equipment (modem, etc.) has broadband router functions but there
 is no vacant port, then add a hub.
- For a broadband router, use a router which supports 10BASE-T / 100BASE-TX.
- Do not connect your PC directly to the Ethernet port of this unit.

Connecting the TV to the internet using a wireless LAN





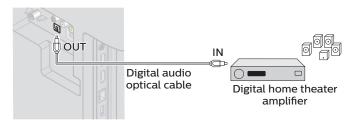
Note(s)

- After you make the wireless connection, set up the necessary network settings. Connect to network --> p. 38
- Use a wireless LAN Access Point (AP) (e.g. broadband wireless router) which supports IEEE 802.11 a/b/g/n/ac. (n is recommended for stable operation of the wireless network)
- · This unit does not support Ad-hoc mode.
- Other radio devices or obstacles may cause interference to the wireless network connection

Digital audio output connection

If you connect this unit to an external digital audio device, you can enjoy multi-channel audio like 5.1ch digital broadcasting sound.

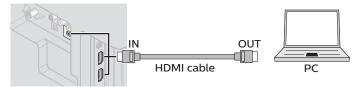
Use a digital audio optical cable to connect the unit to external digital audio devices.



PC connection

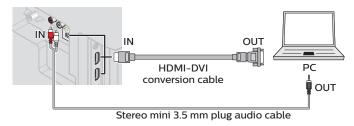
HDMI connection

This unit can be connected to your PC that has an HDMI terminal. Use an HDMI cable for this digital connection.



HDMI-DVI connection

This unit can be connected to your PC that has a DVI terminal. Use an HDMI-DVI conversion cable for this video digital connection and it requires stereo mini 3.5mm plug audio cable for analog audio signal as well



The following PC-input video signals can be displayed:

Format	Resolution	Refresh rate		
VGA	640 x 480			
SVGA	800 x 600			
XGA	1,024 x 768	60Hz		
WXGA	1,280 x 768			
WAGA	1,360 x 768			
FHD	1,920 x 1,080			
UHD	3,840 x 2,160	24/30/60Hz		
OLID	4,096 x 2,160			

Other formats or non-standard signals will not be displayed correctly.



- \bullet Please purchase a HDMI-DVI conversion cable that has a ferrite core
- The following operations may reduce noise.
- Attach a ferrite core to the AC power cord of your PC.
- Unplug the AC power cord and use the built-in battery of your portable / laptop PC $\,$
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.
- Use an HDMI cable with the HDMI logo (a certified HDMI cable). High speed HDMI cable is recommended for the better compatibility.
- The unit accepts 480i, 480p, 720p, 1080i, 1080p and 2160p video signals only when using the HDMI connection and HDMI-DVI connection.
- HDMI-DVI connection requires separate audio connections as well and the audio signals are output as analog (L/R) audio.
- DVI does not display 480i image which is not in compliance with EIA/CEA-861/861B.

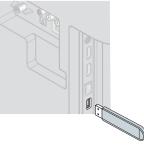
USB memory stick

This unit offers easy playback of picture, music and video files.

Insert the USB memory stick into the USB terminal shown below.

For a complete list of file formats and specifications supported, refer to







- · The unit recognizes only a USB memory stick.
- Do not use a USB hub or an extension cable to connect an external hard disk drive to the unit. (Not supported.)
- · Always insert a USB memory stick directly to this unit.
- A USB memory stick is not supplied with this unit.
- ${\mbox{\ensuremath{\bullet}}}$ We do not guarantee that all USB memory sticks can be supported by this unit.
- Be sure to keep a backup copy of the original files on your USB device before you play them back on this unit. We have no responsibilities for damage or loss of your USB stored data.
- To protect your USB memory stick files from being erased place the write protect sliding tab in the protect position (if available).
- When you are ready to remove a USB memory stick, set the unit to go into standby mode to avoid any damage to your data and the unit.
- A USB memory stick that requires its own driver or the device with a special system such as fingerwint recognition are not supported.
- This unit is not allowed to use the USB memory stick which requires an external power supply (500mA or more).

English

These operations are accessible by remote control. Some may also be accessible by the main unit's control panel

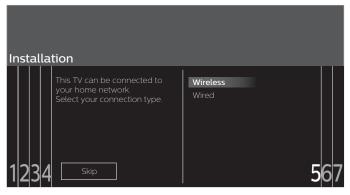
Initial setup

This section will guide you through the unit's Initial setting which includes selecting a language for your on-screen menu, country, location and Autoprogram, which automatically scans and memorizes viewable channels. You can also set the network connection in this setting.

Before you begin:

Make sure the unit is connected to an antenna or cable.

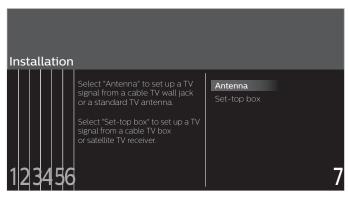
- 1 After making all the necessary connections, press ${\color{dkgray}\Phi}$ to turn on the unit
 - · It may take a few moments to turn on the unit for the first time.
 - · Initial setup menu appears automatically after the unit is turned on.
- 2 Use ▲▼ to select the on-screen language, Voice guide, country, TV placement and location in the middle of the TV screen, then press OK.
 - You must set Home in location setting. Otherwise, Picture and Sound settings you adjusted will not be memorized after the unit goes into standby mode.
- 3 Use **◄►** to select **Skip** or **Next** on network setup screen.
- 4 Use ▲ ▼ to select Wireless or Wired, then press OK.



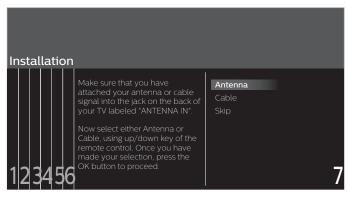
If you have a wireless router, select Wireless to connect to the internet.
If you connect with an Ethernet cable, select Wired to connect to the internet.

- If you have a router with easy connect function, select Wireless and use to select Easy Connect, then press OK.
- When you select On in the selection screen for Software update notification, A message will appear later if there is the latest software on the network server.

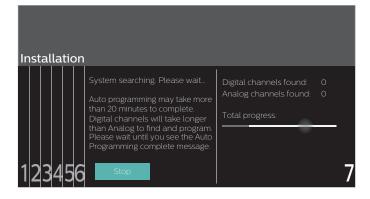
- 5 Use ▲▼ to select the signal type.
 - If the TV is connected to a cable or satellite set-top box, select the 2nd one and skip to step 7.



6 Use ▲ ▼ to select Antenna for TV channels or Cable for CATV channels, then press OK.



- When Antenna is selected, the TV detects antenna signals. It searches for DTV and analog TV channels available in your area.
- When Cable is selected, the TV detects signals supplied by cable.
 It searches for DTV, analog TV and cable channels available in your area.
- · Auto programming will begin.



7 Use $\blacktriangle \blacktriangledown$ to select your preferred picture setting, then press **OK**.



8 Use $\blacktriangle\,\blacktriangledown$ to select your preferred sound setting, then press $o\kappa$



After Picture and sound setup is completed, a message will appear if there is the latest software on the network server.



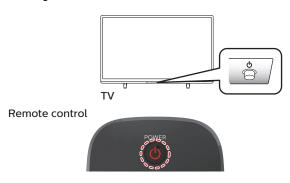
- ${}^{\bullet}$ If you are not receiving a signal from your cable service, contact the cable provider.
- If you press **b** during Autoprogram, this setup of TV channels will be cancelled.
- The initial Autoprogram function can be executed for either **Antenna** or **Cable** only once. When you change the connection (Antenna / Cable), select **Search for channels** again. **p. 35**

After an initial setup is completed...

- · If you want to scan the channels automatically again. Search for channels → p. 35
- · If you want to change to another language. Language → p. 31
- · If you want to change the country setting. Country → p. 48
- If you want to change the location setting. Location → p. 32
- · If you want to change the network setting. Connect to network → p. 38
- · If you want to restore the picture and sound setting. Picture and sound setup → p. 28

3 Use your TV

Switching on your TV and putting it in standby mode



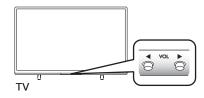
To turn the TV on from standby or off to standby

· Press **(**) on the TV or the remote control.



 Energy consumption contributes to air and water pollution. When the AC power cord is plugged in, your TV consumes energy with a very low standby power consumption.

Adjusting volume



Remote control



To decrease or increase volume

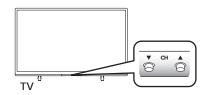
· Press **VOL** ◀/▶ on the TV or press **VOL** +/ – on the remote control.

VOL ◀ (-): Volume down VOL ▶ (+): Volume up

To mute or unmute sound

- · Press on the remote control to mute the sound.
- · Press 🚓 again or VOL + / to recover the original sound.

Switching channels



Remote control



To select channels by using $CH \blacktriangle / \blacktriangledown$ or CH + / -

To select channels by using the NUMBER buttons

Digital TV operation

- For digital channels, press a number followed by a dot "•" and the corresponding sub channel number.
 - When selecting digital channel 11.1
 Be sure to press before entering the subchannel number.



Cable / NTSC (Analog) TV operation

– When selecting cable or analog channel 11



Press PREV.CH to return to the previously viewed channel.



- \bullet To select the non-memorized channels, use the NUMBER buttons.
- Channel not available or No signal will appear on the TV screen after the subchannel broadcast is over.
- Audio only message will appear on the TV screen, when you receive only sound signal.

Watching channels from an external device

Switching each input mode can easily switch with the remote control between TV and external devices when they are connected to the unit.

1 Turn on the set-top box or the connected device.



1 Press • SOURCE and use • to select the set-top box or the connected device and wait a few seconds till the picture appears.



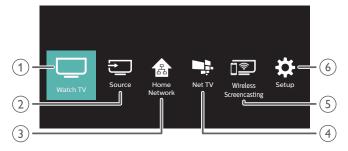
(2) Use the remote control of the set-top box or the connected device to select channels.

Access the Home menu

1 Press 🛖



Guide to Home menu



- (1) Watch TV
- : Switches back to the TV source if another source is selected.
- (2) Source
- : To select connected devices.
- (3) Home Network
- : Accesses Home network menus.
- (4) Net TV
- : Accesses Net TV menus.
- Wireless Screencasting: Accesses Wireless Screencasting menus.
- (6) Setup
- : Accesses menus that allow you to change picture, sound and other TV

settings.

Lock or unlock your device from the Home menu

This section describes how to lock or unlock specified device.

- Press SOURCE on the remote control.
- Use **◄** to select a device to lock or unlock
- Press GOPTIONS on the remote control.
- 4 Use ▲ ▼ to select Lock or Unlock, then press OK.
 - If device lock is unlocked, **Lock** will be displayed. If device lock is locked, **Unlock** will be displayed at the top right of the device icons.
- Enter your PIN. Change PIN p. 37

Changing device type

You can change device icons displayed in the source list.

- Press SOURCE on the remote control.
- Use **◄▶** to select the desired device.
- Press **red** button on the remote control.
- 4 Use ▲ ▼ to select the desired type, then press OK.

To reset the type

· Press POPTIONS on the remote control at step 3, then select Original icon

Scan connections

You can rescan TV connections and update the source list.

Before you begin:

You must set On in Master EasyLink. p. 33

- Press SOURCE on the remote control.
- Use **◄** to move the cursor to any device.
- Press OPTIONS on the remote control.
- Use $\blacktriangle \blacktriangledown$ to select **Scan connections**, then press **OK**.

English

Create a list of favorite channels

You can create lists of your preferred TV channels so that you can find those channels easily.

- Press **OK** while viewing a TV program.
- Use $\triangle \nabla \blacktriangleleft \triangleright$ to select the desired channel, then press **yellow** button.
- 3 Use ▲ ▼ to select the desired favorite list (Favorites 1 - Favorites 4), then press **OK** to add or remove on the list of favorite channels.

 - $\cdot \square$ indicates that the channel is removed.
 - The channel will be marked with � icon.

Display the list of favorite channels

- 1 Press **OK** while viewing a TV program.
- 2 Use ▲▼◀► to select Favorites.

To change the favorite list

- Press **blue** button.
- Use $\blacktriangle \nabla$ to select the desired favorite list (Favorites 1 Favorites 4).

To remove a channel from the favorite list

- Select the desired channel, then press yellow button.
- Use **◄▶** to select **Yes**, then press **OK**.

Changing Picture format

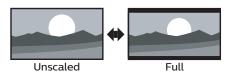
Display modes can be selected when your TV receives a 16:9 or 4:3 video signal.

Three types of display modes can be selected for a PC input signal.

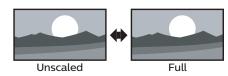
Press FORMAT repeatedly to switch the TV aspect ratio.



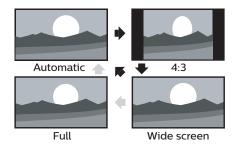
For 16:9 video signal (4096 x 2160p)



For 16:9 video signal (3840 x 2160p)

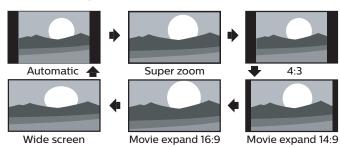


For 16:9 video signal (not 2160p)



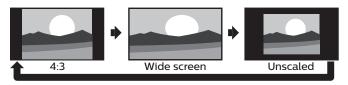
Automatic	Other than DTV and HDMI connected devices, enlarges the picture to best fit the screen. DTV and HDMI connected devices display the picture at it original size. The subtitles may remain visible.		
4:3	Displays a 16:9 picture at a 4:3 size; the picture is shortened horizontally. Sidebars appear on both edges of the screen.		
Wide screen	Displays a 16:9 picture that is stretched horizontally and vertically.		
Unscaled	Displays a 16:9 picture at its original size.		
Full	Displays a scaled 16.9 picture. Bars appear on both the upper and lower portions of the screen depending on the type of video signal.		

For 4:3 video signal



Other than DTV and HDMI connected device enlarges the picture to best fit the screen. Automatic DTV and HDMI connected devices display to picture at its original size. The subtitles may revisible.			
Super zoom	Displays a 4:3 picture at a 16:9 size; the picture is stretched horizontally and vertically and its left and right edges are enlarged. This crops out som of the top and bottom of the picture.		
4:3	Displays a 4:3 picture at its original size. Sidebars appear on both edges of the screen.		
Movie expand 14:9	Displays a 4:3 picture at a 14:9 size; the picture is stretched horizontally and vertically. This crops out some of the top and bottom of the picture. Sidebars appear on both edges of the screen.		
Movie expand 16:9	Displays a 4:3 picture at a 16:9 size; the picture is stretched horizontally and vertically. This crops out some of the top and bottom of the picture.		
Wide screen	Displays a picture that is stretched out of proportion to fill the screen.		

For PC input signal



- This unit can also be connected to your PC that has a DVI terminal.
 Use an HDMI-DVI conversion cable for this video connection and it
 requires stereo mini 3.5mm plug audio cable for analog audio signal as
 well.
- Refer to 16:9 video signal on this page if the PC has HDMI output.

4:3	Displays a proportionately stretched picture. Sidebars appear on both edges of the screen.	
	Displays a picture that is stretched out of proportion to fill the screen.	
Unscaled	Displays a picture in its original size.	

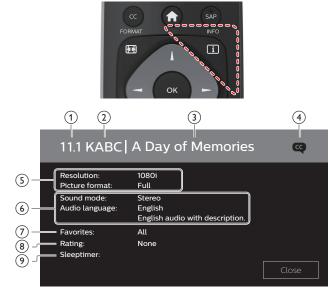
If the signal source has side or top-bottom bars inserted into the picture, the Picture format function will not eliminate them.

TV screen information

You can display the currently selected channel or other information such as the aspect ratio on the TV screen.

In the digital mode, the detailed broadcasting information for the current off-the-air channel such as program title and program guides are displayed.

1 Press INFO



(1) Channel number / Input mode

Switching channels - p. 19

Watching channels from an external device p. 20

- (2) Broadcast station
- (3) Program title (for DTV only)
- (4) CC (not available if Closed caption is set to Off)

Caption settings p. 34

5 Program's image aspect ratio

Changing Picture format → p. 21

(6) Audio language (DTV) / Audio mode (Analog TV)

Sound → p. 30

(7) Favorites

Create a list of favorite channels - p. 21

(8) Child lock rating

Child lock → p. 36

9 Remaining time on sleep timer

Sleeptimer → p. 31

2 Press in INFO to hide the information.



Note(s)

- While the program guide is displayed, the closed caption function is interrupted.
- \bullet The information display will automatically disappear in 5 seconds.

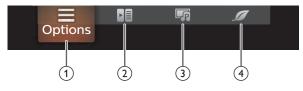
Using options menu

You can access to some TV settings directly by using GOPTIONS

Press 🗗 OPTIONS to display options menu, then press OK.



2 Use ▲▼◀▶ to select a desired setting, then press **OK**.



(1) Options

Following settings can be configured.

Voice guide toggle	To set Voice guide on or off. Voice guide toggle → p. 33		
Closed captions	To choose the Closed captions display setting. Closed captions p. 34		
Digital audio language	To Select the language according to your preference. (It differs depending on the program.) Digital audio language p. 37		
Mono/Stereo	To Select an audio format. Mono/Stereo → p. 37		

If you have our brand products such as Blu-ray disc player or DVD recorder that are compatible with EasyLink functions, connect them to this unit via an HDMI cable so you can simply operate various items from this unit's remote control.

Before you begin:

select a device connected to an HDMI connection. - p. 20

You must set **On** in **Master EasyLink**.

p. 33
Otherwise, LINK does not work even if you connected our brand devices to this unit.

- Press GOPTIONS to display options menu.
- 2 Use **◄** ► to select **Controls** then press **OK**.
- Use $\triangle \nabla$ to select the desired item, then press **OK**.

Device-menu	Controls the menu of your connected EasyLink device.
Device-contents	Controls the top menu of your DVD or Blu-ray discs.
Device-favorite	Controls the pop-up menu of your Blu-ray discs.



Note(s)

- Some of EasyLink functions may not be available depending on your EasyLink devices or
- $\hbox{\bf \cdot} \ \ \text{You must connect this unit to our brand EasyLink devices and be sure its EasyLink (HDMI CEC)}\\$ setting is also set to On.
- We do not guarantee 100% interoperability with other brands of HDMI link compliant devices.

(3) Picture and sound

Following settings can be configured

Following Settings can be configured.		
Auto picture	To set predefined picture mode. Picture → p. 28	
Auto sound	To set predefined sound mode. Sound → p. 30	
Headphone volume	To adjust headphone volume. Sound → p. 30	
TV speakers	To Select the audio output from the unit's speakers or not. Sound → p. 30	
Picture format	To switch the TV aspect ratio. Changing Picture format → p. 21	
Setup	To display setup menu.	

(4) ECO settings

Following settings can be configured.

	You can turn off the unit automatically when there is no operation for specified time. In spite of this setting, the unit goes into standby mode automatically if there is no signal input and no user operation for 15 minutes.
Switch off timer	Press ▲ repeatedly to change the amount of time (increases the time by 30 minutes up to 240 minutes).
	Each press of ▼ will decrease the time by 30 minutes.
	To cancel the timer, press $\overline{\mathbf{V}}$ repeatedly until " 0 " is displayed.

USB

Your TV is fitted with a USB connection that enables you to view photos, listen to music or watch video files stored on a USB memory stick.

- 1 Press ★ SOURCE and use ★ to select USB, then press OK.
- 2 Use ▲▼◀▶ to select the desired file, then press **OK**.



· These recorded files must meet specifications shown below:

Picture (JPEG / Progressive JPEG)					
JPEG Upper limit 4000x4000 pixels					
Progressive JPEG	Upper limit	1024x768 pixels			

Music (MP3 / WAV / AAC)				
MP3	Sampling frequency	16 kHz - 48 kHz		
IVIES	Constant bit rate	8 kbps - 320 kbps		
WAV	Sampling frequency	8 kHz - 48 kHz		
	Constant bit rate	64 kbps - 1.5 Mbps		
AAC	Sampling frequency	8 kHz - 48 kHz		
AAC	Constant bit rate	-		

Video (MPEG / VOB / AVI / MP4)						
Maximum video	H.264, H.265/HEVC: 3840x2160@30fps, MPEG: 1920x1080@60fps					
Extension	.avi	.mpg, .mpeg	.ts, .trp, .tp	.vob	.mp4	.mkv
Video codec Audio codec	MPEG1, MPEG2, MPEG4, H.264	MPEG1, MPEG2, MPEG4	MPEG1, MPEG2, H.264, H.265/ HEVC	MPEG1, MPEG2	MPEG1, MPEG2, MPEG4, H.264, H.265/ HEVC	MPEG1, MPEG2, MPEG4, H.264, H.265/ HEVC
Dolby Digital	YES	YES	YES	YES	YES	YES
MPEG1/2 audio layer1/2/3	YES	YES	YES	YES	NO	YES
LPCM	YES	YES	YES	YES	YES	YES
AAC-LC	YES	YES	YES	YES	YES	YES



- This unit accepts USB memory stick only. Other storage devices such as external HDD by USB bus power will not work.
- Do not use an extension cord and/or USB hub to connect devices to this unit. Always directly insert the USB flash memory stick to this unit directly.
- We cannot be held responsible if your USB memory stick is not supported, nor will we accept any liability for damage or loss of stored data.
- The USB memory stick is not supplied with this TV.
- · A maximum of 1,023 folders or files can be recognized.
- ullet A file name exceeding 256 characters or contains a dot character is not supported on this TV.
- A USB memory stick that required its own driver or the device with a special system such as fingerprint recognition are not supported.
- Be sure to keep a backup copy of the original files on your USB device before you play them back on this unit. We have no responsibilities for damage or loss of your USB stored data.
- To avoid damaging the USB memory stick and the unit always turn off the unit before you remove the USB memory stick.
- This unit is not allowed to use the USB memory stick which requires external power supply (500 mA or more).
- This unit does not support MTP (Media Transfer Protocol) or the file other than FAT16 and FAT32 file system. If the file is not supported, an error message appears.
- When the unit does not recognize the USB memory stick, try reconnecting it.
- · Playing the files recorded with high bit rates, the images can be interrupted in some occasions.
- · This unit does not support external subtitles.
- This unit cannot play back a file which goes over the limit of file restriction limit.

Viewing photos

- 1 Use **◄►** to select **Photo**, then press **OK**.
- 2 Use ◀▶ to select the desired item, then press OK.
- 3 Press **OK** or ►**II** to start a slide show of the files.
 - Press **OK** or **▶ ||** to pause the slide show.
 - The **II** icon appears.

 - Press

 BACK or

 to stop the slide show.
 - Press $\begin{tabular}{l} \begin{tabular}{l} \be$

Voice guide	Off	Sets Voice guide to off.	
toggle *1	On	Sets Voice guide to on.	
	Off	Sets repeat playback to off.	
Repeat *2	One	Sets repeat playback for a selected image file.	
Repeat 2	All	Sets repeat playback for all image files in the current folder.	
	Short	Switches to the next image in 5 seconds.	
Slide time *2	Medium	Switches to the next image in 10 seconds.	
	Long	Switches to the next image in 15 seconds.	
	None	No effect when switching images.	
	Dissolve	Overlaps the next image on the current image.	
	Wipe right	Pushes the current image out from left.	
	Wipe left	Pushes the current image out from right.	
Transitions *2	Wipe up	Pushes the current image out from bottom.	
	Wipe down	Pushes the current image out from top.	
	Box in	The next image comes to the center from the outside.	
	Box out	The next image goes to the outside from the center.	
Auto picture *2	Selects the picture mode according to your preference. (Standard, Natural, Vivid, Sports, Movie, Game, Energy saving and Internet video)		
0			
	0	Displays an image in its original direction.	
Rotate *>	90	Displays an image in its original direction. Rotates an image 90 degrees clockwise.	
Rotate *3			
Rotate *3	90	Rotates an image 90 degrees clockwise.	
Rotate *3	90	Rotates an image 90 degrees clockwise. Rotates an image 180 degrees clockwise.	
Rotate *3 Zoom *3	90 180 270	Rotates an image 90 degrees clockwise. Rotates an image 180 degrees clockwise. Rotates an image 270 degrees clockwise.	

- *1 Voice guide toggle is available in slide show and pause mode.
- *2 You can set **Repeat**, **Slide time**, **Transitions** and **Auto picture** when images are in slide show.
- *3 You can set **Rotate** and **Zoom** when slide show is in pause mode.

Playing music

- 1 Use ◀► to select Music, then press OK.
- 2 Use **◄►** to select the desired item, then press **OK**.
- 3 Press **oK** or ►**II** to play the selected files.

 - Press ▶▶ to fast-forward search.
 - Press **◄** to fast-backward search.
 - Press **t**o stop playback.
 - Press $\begin{tabular}{l} \begin{tabular}{l} \be$

Voice guide	Off	Sets Voice guide to off.
toggle *	On	Sets Voice guide to on.
	Off	Sets repeat playback to off.
Repeat	One	Sets repeat playback for a selected music file.
	All	Sets repeat playback for all music files in the current folder.
	Off	Sets shuffle playback to Off.
Shuffle	On	Sets shuffle playback for all music files in the current folder.
	Off	The sound will not be output from the unit's speakers.
TV Speakers	On	The sound will be output from the unit's speakers.
T Spaniels	Speakers EasyLink	You can control audio output from your connected EasyLink compliant devices with VOL + / – by using this unit's remote control.
Auto sound	Selects the sound mode according to your preference. (Standard, Vivid, Sports, Movie, Music and News)	

^{*} Voice guide toggle is available in slide show and pause mode.

English

Playing movies

- 1 Use **◄►** to select **Movie**, then press **OK**.
- 2 Use $\blacktriangleleft \blacktriangleright$ to select the desired item, then press \mbox{OK}_{\cdot}
- 3 Press **oK** or ►**II** to play the selected files.
 - · Press **OK** or **▶ ||** to pause, then press **OK** or **▶ ||** again to resume.
 - Press >> to fast-forward search.
 - Press $\blacktriangleleft \blacktriangleleft$ to fast-backward search.
 - Press \blacksquare to stop playback.

Press $\blacktriangleright II$ to resume from the point at which playback was stopped. Press OK to play from the beginning of the file.

• Press \boxdot OPTIONS to display the optional menu, then use \blacktriangle \blacktriangledown to select the desired item.

Voice guide	Off	Sets Voice guide to off.	
toggle *	On	Sets Voice guide to on.	
	Off	Sets repeat playback to off.	
Repeat	One	Sets repeat playback for a selected video file.	
	All	Sets repeat playback for all video files in the current folder.	
	Off	The sound will not be output from the unit's speakers.	
TV speakers	On	The sound will be output from the unit's speakers.	
TV Speakers	Speakers EasyLink	You can control audio output from your connected EasyLink compliant devices with VOL +/ – by using this unit's remote control.	
Auto picture	Selects the picture mode according to your preference. (Standard, Natural, Vivid, Sports, Movie, Game, Energy saving and Internet video)		
Auto sound	Selects the sound mode according to your preference. (Standard, Vivid, Sports, Movie, Music and News)		

^{*} Voice guide toggle is available in slide show and pause mode.



- \bullet The resume information will be kept even when the unit is Turned off.
- If you play another file while the previously viewed file is being resumed, the resume information
 of the previously viewed file will be deleted.
- $\bullet \ \ \text{The file or the folder in resume stop mode will be highlighted in gray on \textbf{List} or \textbf{Thumbnails}.}$

4 Getting more from your TV

This section describes the overview of the **Setup** menu displayed when you press \spadesuit and use \blacktriangleleft to Select **Setup**.

The **Setup** menu consists of the function setting items below.

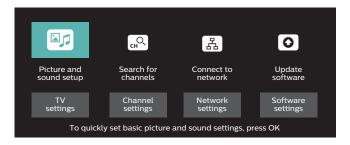
1 Press 👚 to display the Home menu.

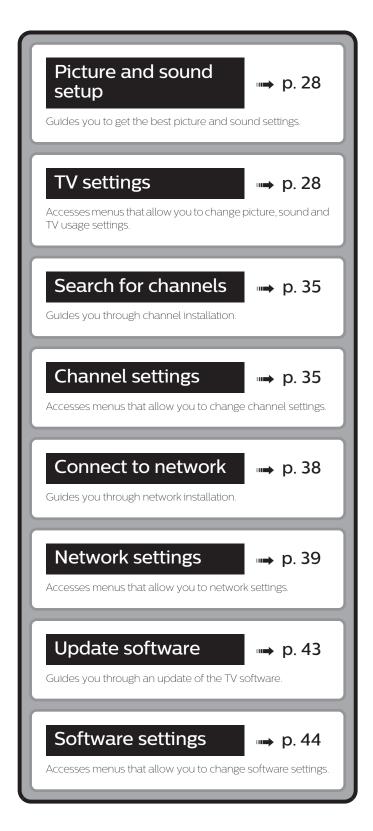


2 Use **◄►** to select **Setup**, then press **OK**.



3 Use $\Delta V \blacktriangleleft \triangleright$ to select the desired menu and an item, then press **OK**.





Picture and sound setup

Before you begin:

You must set **Home** in **Location**. **p. 32**

Otherwise, personalized picture and sound settings will not be memorized after the unit goes into standby mode.

- Press ♠ and use ◀▶ to select **Setup** then press **OK**.
- 2 Use ▲▼◀▶ to select Picture and sound setup, then press OK.
- 3 Follow steps 7 to 8 in Initial setup \Rightarrow p. 18

TV settings

Picture

Before you begin:

You must set **Home** in **Location**. **p. 32**

Otherwise, personalized picture and sound settings will not be memorized after the unit goes into standby mode.

- Press **↑** and use **♦** to select **Setup** then press **OK**.
- 2 Use $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$ to select **TV settings**, then press **OK**.
- Use $\blacktriangle \blacktriangledown$ to select **Picture**, then press **OK**.

Picture Sound Features Installation Accessibility	Auto picture Backlight Contrast Brightness Color Tint Sharpness Pixel Plus Ultra HD Advanced settings Picture format Mode selection Horizontal position Vertical position	
---	---	--

4 Use ▲▼◀▶ to select the item you want to adjust, then press **OK**. The following picture settings can be configured. Depending on the format of the picture source, some picture settings are not available.

	To set your TV to a predefined picture setting.		
	Personal	The customized settings you defined using the Picture menu.	
	Standard	For normal TV viewing.	
	Natural	Ideal picture mode for viewing high quality content without any picture enhancements.	
Auto picturo	Vivid	Enhanced picture contrast and sharpness for viewing in a well-lit room.	
Auto picture	Sports	Brilliant picture settings for high action.	
	Movie	Deep picture settings for a cinematic experience.	
	Game	Optimized for PCs and game consoles.	
	Energy saving	Eco TV settings for low power consumption.	
	Internet video	Optimized for low bit-rate internet video.	

When you adjust the following settings, Personal picture will be set automatically.

autornatically.			
	Cursor ▼	Cursor ▲	
Backlight	To reduce power consumption and brightness	To increase power consumption and brightness	
Contrast	To decrease contrast	To increase contrast	
Brightness	To decrease brightness	To increase brightness	
Color	To decrease color intensity	To increase color intensity	
Tint	To add green	To add red	
Sharpness	To soften	To sharpen	
Pixel Plus Ultra HD	Enters sub-menus to adjust the following settings: (Dynamic contrast, Color enhancement, Black stretch, Perfect Motion Rate, 4K UHD Upscaling, Macro Dimming, Noise reduction and MPEG artifact reduction)		
Advanced settings	Enters sub-menus to adjust the following settings: (Color alignment, Custom color management, Gamma, Blue stretch and Film mode)		
	Automatic		
	Super zoom	Changing Picture format → p. 21	
	4:3		
Picture format	Movie expand 14:9		
r ictare romac	Movie expand 16:9		
	Wide screen		
	Full		
	Unscaled		
Mode selection	PC	To turn off image enhancement features which makes the TV to act purely as a monitor	
Mode Selection	HDTV	To enable image enhancement features to improve picture quality	
	Cursor ▼	Cursor ▲	
Horizontal position	To move PC screen left	To move PC screen right	
Vertical position	To move PC screen down	To move PC screen up	

You may adjust picture quality and enhancement settings using Pixel Plus Ultra HD and Advanced settings sub menus.

Auto picture	Dynamic contrast	Off
Backlight	Color enhancement	Minimum
Contrast	Black stretch	Medium
Brightness	Perfect Motion Rate	Maximum
Color	4K UHD Upscaling	
Tint	Macro Dimming	
Sharpness	Noise reduction	
Pixel Plus Ultra HD	MPEG artifact reduction	
Advanced settings		
Picture format		
Mode selection		
Horizontal position		
Vertical position		

Dynamic contrast	To select the desired setting, then press OK (Off, Minimum, Medium and Maximum)		
Color	Off	To set color enhancement to off	
enhancement	On	To make colors more vivid and bright	
Black stretch	To select the desired setting, then press OK (Off , Minimum , Medium and Maximum)		
Perfect Motion Rate	To select the desired setting, then press OK (Off , Minimum , Medium and Maximum)		
4K UHD Upscaling	To select the desired setting, then press OK (Off , Minimum , Medium and Maximum)		
Macro Dimming	To select the desired setting, then press OK (Off, Minimum, Medium and Maximum)		
Noise reduction	To select the desired setting, then press OK (Off , Minimum , Medium and Maximum)		
MPEG artifact reduction	To select the desired setting, then press OK (Off, Minimum, Medium and Maximum)		

Auto picture	Color alignment	Mode
Backlight	Custom color management	Red gain
Contrast	Gamma	Green gain
Brightness	Blue stretch	Blue gain
Color	Film mode	Red offset
Tint		Green offset
Sharpness		Blue offset
Pixel Plus Ultra HD		
Advanced settings		
Picture format		
Mode selection		
Horizontal position		
Vertical position		

	Mode	To set the color temperature to Personal , Cool , Normal and Warm . When you adjust the following settings, Personal will be set automatically.		
		Cursor ▼	Cursor ▲	
	Red gain	To decrease red contrast	To increase red contrast	
Color alignment	Green gain	To decrease green contrast	To increase green contrast	
dugiirien	Blue gain	To decrease blue contrast	To increase blue contrast	
	Red offset	To decrease red brightness	To increase red brightness	
	Green offset	To decrease green brightness	To increase green brightness	
	Blue offset	To decrease blue brightness	To increase blue brightness	
	To select the desired setting, then press OK (Red , Yellow , Green , Cyan , Blue and Magenta)			
		Cursor ▼	Cursor ▲	
Custom color	Tint	Cursor ▼ To rotate only selected color tint in clockwise direction	Cursor ▲ To rotate only selected color tint in counterclockwise direction	
Custom color management	Tint Saturation	To rotate only selected color tint in	To rotate only selected color tint in counterclockwise	
		To rotate only selected color tint in clockwise direction To decrease color with only selected	To rotate only selected color tint in counterclockwise direction To increase color with only selected	
	Saturation Brightness To select the	To rotate only selected color tint in clockwise direction To decrease color with only selected color To decrease brightness with only selected color desired setting, then poon, Dark Room, Norr	To rotate only selected color tint in counterclockwise direction To increase color with only selected color To increase brightness with only selected color	
management	Saturation Brightness To select the (Very Dark Ro Very Bright R	To rotate only selected color tint in clockwise direction To decrease color with only selected color To decrease brightness with only selected color desired setting, then poon, Dark Room, Norr	To rotate only selected color tint in counterclockwise direction To increase color with only selected color To increase brightness with only selected color oress OK mal, Bright Room and oress OK	
management	Saturation Brightness To select the (Very Dark Ro Very Bright R	To rotate only selected color tint in clockwise direction To decrease color with only selected color To decrease brightness with only selected color desired setting, then poom, Dark Room, Norroom) desired setting, then poom, Dark Room, Norroom)	To rotate only selected color tint in counterclockwise direction To increase color with only selected color To increase brightness with only selected color oress OK mal, Bright Room and oress OK mum)	



- Mode selection is available only if
- The external input modes are selected HDMI 1, HDMI 2 or HDMI 3.
- $-\!$ The connected HDMI device is outputting a video signal.

Sound

Before you begin:

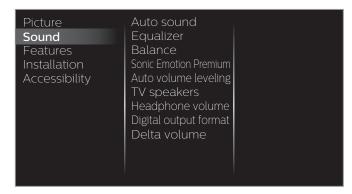
You must set **Home** in **Location**. **p. 32**

Otherwise, personalized picture and sound settings will not be memorized after the unit goes into standby mode.

1 Press ★ and use ★ to select Setup then press OK.

2 Use ▲▼◀► to select TV settings, then press OK.

3 Use $\Delta \nabla$ to select **Sound**, then press **OK**.



4 Use ▲▼◀▶ to select the item you want to adjust, then press **OK**. The following sound settings can be configured. Depending on the format of the broadcasting, some sound settings are not available.

of the broadcasting, some sound settings are not available.				
	To set your TV to a predefined sound setting. When you adjust the following settings (Equalizer, Sonic Emotion Premium and Auto volume leveling Personal sound will be set automatically.			
	Personal The customized settings you defined using the Sound me			
	Standard	For normal TV viewing.		
Auto sound	Vivid	Enhanced sound.		
	Sports	Clear sound for high action.		
	Movie	Powerful sound settings for a cinematic experience.		
	Music	Optimized for music playback.		
	News Set the anchor's voice at a comfortable volume.			

Adjust the tonal quality for each frequency.

	Cursor ▲	Cursor ▼
Equalizer	Equalizer To adjust each level of tonal quality	
	Press S BACK to go bac	ck to the previous menu.

Adjust the speakers to suit your listening preference.

Balance	Cursor ▲	Cursor ▼
Batarice	To adjust the balance of t	he right and left speakers

This selects sound modes for more spatial or surround sound reproduction.

	Sonic	Off	To set Sonic Emotion to off	
	Emotion	On	To set Sonic Emotion to on	
	Dialog	Off	To set Dialog Enhancement to off	
Sonic Emotion	Enhancement	On	To set Dialog Enhancement to on	
Premium		Off	To set Bass Enhancement to off	
	Enhancement	On	To set Bass Enhancement to on	
	Absolute 3D	Absolute 3D O	Off	To set Absolute 3D Sound to off
	Sound	On	To set Absolute 3D Sound to on	

This function keeps a constant Loudness differential between the TV commercials and the programs.

Auto volume	Off	To remove the Auto volume leveling
leveling	On	To reduce volume differences between the TV commercials and the programs

You can select the audio output from the unit's speakers or not. If your amplifier is HDMI link function compatible and connected by an HDMI cable to this unit, some sound operations such as volume up can be changed by using this unit's remote control. Make sure **Master EasyLink** is set to **On**. \implies **p. 33**

TV speakers	Off	No output sound from the unit's speakers
	On	To output sound from the unit's speakers
Spoaners	Speakers	To control audio output from your connected EasyLink compliant devices with VOL+/ – by using this unit's remote control.

Adjust headphone volume

Headphone	Cursor ▲	Cursor ▼
volume	To decrease or increase	volume

You can set the digital audio output format from SPDIF/ARC.

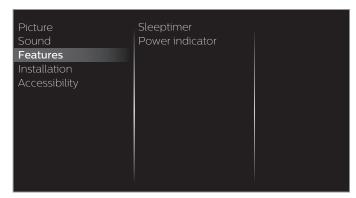
	'	,
	PCM	To output PCM format
Digital output format		To output audio in its native format as Bitstream to connected audio receiver

If a channel or input device is too loud or too soft, navigate to that channel or input device.

	Cursor ▲ Cursor ▼		
	Provides the ability to set a custom volume level for the current channel or input source.		
	If the source volume is too loud, set a negative value (-1 to -12)		
	If the source volume is too soft, set a positive value (+1 to +12)		

Features

- 1 Press ♠ and use ◀► to select Setup then press OK.
- Use ▲▼◀▶ to select TV settings, then press OK.
- 3 Use ▲▼ to select Features, then press OK.



4 Adjust the following items.

Sleeptimer

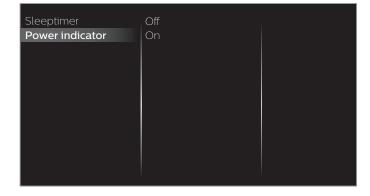
Sleep timer can set the unit to go into standby mode after an incremental period of time.

- Use $\blacktriangle \blacktriangledown$ to select **Sleeptimer**, then press **OK**.
- 2 Use **\(\rightarrow\)** repeatedly to change the amount of time (increases the time by 5 minutes up to 180 minutes).
 - Each press of ▼ will decrease the time by 5 minutes.
 - Press INFO once to call up the display for checking the remaining
 - To cancel the sleep timer, press ▲ ▼ repeatedly until "O" is displayed.

Power indicator

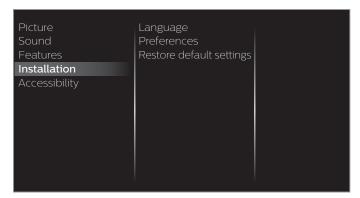
To set power indicator on or off.

Use $\blacktriangle \nabla$ to select **Power indicator**, then press **OK**.



Installation

- Press ♠ and use ◀▶ to select **Setup** then press **OK**.
- Use ▲▼◀▶ to select TV settings, then press OK.
- 3 Use ▲▼ to select **Installation**, then press **OK**.

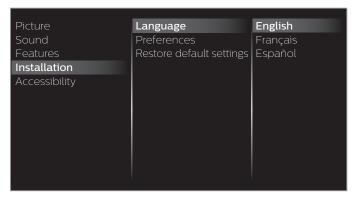


4 Adjust the following items.

Language

You can set the language for the on-screen display.

1 Use $\blacktriangle \blacktriangledown$ to select Language, then press **OK**.



2 Use ▲▼ to select English, Español or Français, then press OK.



Preferences

You can set the unit to reduce the power consumption or adjust the backlight brightness in Location setting.

EasyLink allows you to operate your connected EasyLink device.

Setting your location to home

Choosing Home gives you full flexibility to change predefined settings for picture and sound.

- Use ▲ ▼ to select Preferences, then press OK.
- Use $\blacktriangle \nabla$ to select **Location**, then press **OK**

Language	Location	Retail
Preferences	EasyLink	Home
Restore default settings	HDMI mode	
	TV placement	
	Retail Demo	

3 Use ▲ ▼ to select Home, then press OK.

Retail	The unit will be set up with predefined settings for retail displays. In this setting, you can set the backlight brighter.
	The unit is set to maximize the energy efficiency for home setting and it can be adjusted through a choice of picture and sound quality selections according to your preference.



You must set **Home** in the menu. Otherwise, personalized picture and sound settings will not be memorized after the unit goes into standby mode

HDMI mode

If there are issues with picture/color and/or sound when connecting an external device using the HDMI port, please try switching the HDMI mode following the instructions below.

- Press **n** and use **t** to select **Setup**, then press **OK**.
- Use ▲▼◀▶ to select TV settings, then press OK.
- Use $\blacktriangle \nabla$ to select **Installation**, then press **OK**.
- Use ▲ ▼ to select **Preferences**, then press **OK**.
- Use ▲▼ to select HDMI mode, then press OK.
- Use ▲ ▼ to select HDMI1, HDMI2 or HDMI3, then press OK.
- Use ▲ ▼ to select **Normal** or **Legacy (Compatibility)** depending on the output capabilities of the external device, then press OK
 - When switching the HDMI configuration (Legacy ⇔ Normal), the screen will black out for a moment, then come back on.



- The HDMI connector with HDMI mode set to Legacy (Compatibility) supports up to UHD 30P, while The HDMI connector with HDMI mode set to Normal supports up to UHD 60P.
- Switching the HDMI mode between Normal and Legacy (Compatibility) may cause loss of HDMI CEC functionality in certain cases.

TV placement

To apply the best settings for your TV, select wall mount or stand mount.

- Use $\blacktriangle \blacktriangledown$ to select **Preferences**, then press **OK**.
- Use ▲ ▼ to select TV placement, then press OK
- Use $\blacktriangle \blacktriangledown$ to select **Wall mounted** or **On a TV stand**, then press **OK**.

Retail Demo

When you set Location to Retail, E-sticker (Electronic Sticker) is displayed. E-sticker can be turned off using procedure below.

- Use ▲ ▼ to select **Preferences**, then press **OK**.
- Use ▲ ▼ to select **Retail Demo**, then press **OK**.
- Use ▲ ▼ to select Off, then press OK

Use Philips EasyLink

Your TV supports Philips EasyLink, which enables one-touch play and one-touch standby between EasyLink-compliant devices. Compliant devices must be connected via an HDMI connector.

One-touch play

When you connect your TV to devices that support one-touch play, you can control your TV and the devices with one remote control. For example, when you press > (Play) on your DVD remote control, your TV automatically switches to the correct channel to show the DVD content.

One-touch standby

When you connect your TV to devices that support standby, you can use your TV remote control to put your TV and all connected HDMI devices in standby mode. You can perform one-touch standby using the remote control from any of the connected HDMI devices.

System audio control

When you connect your TV to HDMI CEC compliant devices, your TV can switch automatically to play audio from the connected device. To use one-touch audio, you must map the audio input from the connected device to your TV. You can use the remote control from the connected device to adjust the volume.

Remote control (RC) key forwarding

RC key forwarding allows you to control EasyLink-compliant devices using your TV remote control.

HDMI-ARC (Audio Return Channel) (HDMI 1 only)

HDMI-ARC allows you to use Philips EasyLink to output TV audio directly to a connected audio device, without the need for an additional digital audio cable. Be sure that the device is HDMI CEC and ARC compliant, and that the TV is connected to the device using an HDMI cable attached to both HDMI-ARC connectors.



- Philips does not guarantee 100% interoperability with all HDMI CFC devices
- The EasyLink-compliant device must be switched on and selected as the source.

EasyLink (HDMI CEC)

This function allows you to operate the linked functions between our brand devices with a EasyLink feature and this unit connecting through an HDMI cable. You must connect this unit to our brand EasyLink devices and be sure its EasyLink (HDMI CEC) setting is also set to on.

- 1 Use ▲ ▼ to select **Preferences**, then press **OK**.
- 2 Use ▲▼ to select EasyLink, then press OK.
- 3 Use $\Delta V \blacktriangleleft \triangleright$ to select the item you want to adjust, then press **OK**.

Location	Master EasyLink	Off
EasyLink	Auto TV On	On
HDMI mode	RC key forwarding	
TV placement	HDMI-ARC	
Retail Demo		

Set the **Master EasyLink** to **On** or **Off**. The following additional settings will be grayed out when you set them to **Off**.

	Off	Disables all EasyLink.
Master EasyLink		Selects if you have connected an external device that is compatible with the EasyLink function.

This unit will turn on when the power on signal is sent from your connected EasyLink device.

Auto TV On	Off	This unit stays in Standby mode even if you turn on your connected EasyLink device.
Auto IV OII	On	This unit turns on automatically when you turn on your connected EasyLink device.

You can operate some functions such as disc playback or call up the menu of the connected devices, by using this unit's remote control.

	Off	Disable RC key forwarding.
RC key forwarding	On	PLAY, PAUSE ► II / STOP II / FWD ► ► / REV ◄ ✓ / VOL + / − / II / (MUTE) / ☐ OPTIONS / A V ◄ ► / OK / ⇒ BACK / the NUMBER buttons can be used to control your connected EasyLink devices by this unit's remote control.



 Pause may not work properly on some devices even if they are EasyLink (HDMI CEC) compliant

HDMI-ARC allows you to use Philips EasyLink to output TV audio directly to a connected audio device, without the need for an additional digital audio cable.

	Off	Disable HDMI-ARC.
HDMI-ARC (HDMI 1 only)	On	You can output TV audio through the HDMI cable solely, provided both the TV and device are HDMI-ARC compliant.

Return your settings to default values

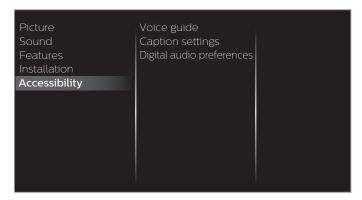
You can return settings to their default values.

- 1 Use ▲▼ to select **Restore default settings**, then press **OK**.
- 2 Use ▲ ▼ to select Reset AV settings or Reset all settings, then press OK.

	Return picture and sound settings to their default values. The channel installation settings are not affected.
Reset all settings	Return all the settings to their default values.

Accessibility

- 1 Press ♠ and use ◀► to select Setup then press OK.
- 2 Use ▲▼◀► to select TV settings, then press OK.
- 3 Use ▲▼ to select Accessibility, then press OK.



4 Adjust the following items.

Voice guide

Lets you configure voice guide and its settings

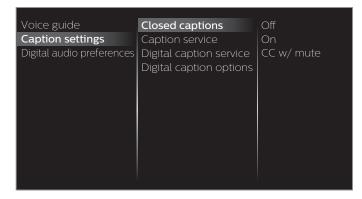
1 Use ▲ ▼ to select Voice guide, then press OK.

- Ose - V to select Voice galde , then press ON .			
Voice guide toggle	Off	To set Voice guide off	
voice guide toggte	On	To set Voice guide on	
	Fast		
Speed	Normal	Set voice guide speed based on your preference	
	Slow	your preference	
	High		
Pitch	Normal	Set voice guide pitch based on vour preference	
	Low	your preference	
_	Verbose	Set voice guide explanation	
Verbosity	Succinct	verbosity based on your preference	
	Loud		
Volume level	Normal	Set voice guide volume based on your preference	
	Soft) sour preference	

Caption settings

Closed captions displays the audio portion of the program as superimposed text over the video.

1 Use ▲▼ to select Caption settings, then press OK.



	Off	Closed caption is not displayed.	
Closed captions	On	Closed caption is always displaye	
	CC w/ mute	Closed caption is displayed when the sound is off.	

Digital TV operation

In addition to the basic closed caption, DTV has its own closed caption called digital caption service. Use this menu to change the settings for digital caption service.

Digital caption service	CS-1 to CS-6	Select one of these before changing any other item in Caption settings menu. Choose CS-1 under normal conditions.
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You can choose the size, font, color, background and other characteristics of the caption text.

Digital caption	Reset to default	You can reset the status of digital caption options.
	You can change closed captioning font style, size, color and transparency. (Font style, Font size, Font color and Font opacity)	
options	transparency	ge background color and of the displayed caption. color and Background opacity)
	You can change edge color and type of the displayed caption text. (Edge color and Edge type)	

Picture display



Background

(Background color and Background opacity)

 Review your setting choice made above by looking in the upper left corner of the displayed setting box (not all selections show the differences selected).

Cable / NTSC (Analog) TV operation

Caption service	CC-1 and T-1	The primary closed captions and text services. The closed captions or text is displayed in the same language as the program's dialog (up to 4 lines of script on the TV screen).
	CC-3 and T-3	Serve as the preferred data channels. The closed captions or text is often a secondary language.
		Rarely available and broadcasters use them only in special conditions, such as when CC-1 and CC-3 or T-1 and T-3 are not available.

· There are 3 display modes according to programs:

Paint-on	Displays characters on the TV screen immediately.	
	Once characters are stored in memory, they are displayed all at once.	
Roll-up	Displays the characters continuously by scrolling (max. 4 lines).	



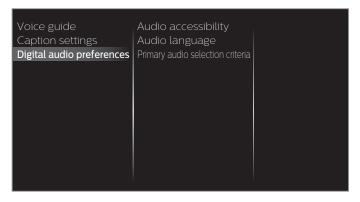
• Digital caption service that you can switch differs depending on the broadcast description.

- Closed captioning service may not be controlled by this unit's menu options if you are watching
 television through an external cable or satellite set-top box. In which case you will need to use
 the menu options on the external set-top box to control closed captioning.
- · The captions do not always use correct spelling and grammar
- Not all TV programs and product commercials include closed caption information. Refer to your
 area TV program listings for the TV channels and times of closed caption shows. The captioned
 programs are usually noted in the TV listings with service marks such as CC.
- Not all captioning services are used by a TV channel during the transmission of a closed caption program.
- · Closed caption will NOT be displayed when you are using an HDMI connection.
- To show the closed caption on your TV screen, broadcast signal must contain the closed caption data
- Not all TV programs and commercials have the closed caption or all types of the closed caption.
- Caption's and text may not exactly match the TV voice.
- Changing channels may delay the closed caption for a few seconds.
- Adjusting or muting the volume may delay the closed caption for a few seconds.
- Abbreviations, symbols and other grammatical shortcuts may be used in order to keep pace with the on-screen action. This is not a malfunction.
- \bullet The caption or text characters will not be displayed while the Main menu or functions display is shown.
- If a black box appears on the TV screen, this means that the closed caption is set to the text mode. To clear the box, select CC-1, CC-2, CC-3 or CC-4.
- If the unit receives poor quality television signals, the captions may contain errors or there might be no captions at all. Some possible causes of poor quality signals are:
- Automobile ignition noise
- Electric motor noise
- Weak signal reception
- Multiplex signal reception (ghosts or screen flutter)
- Data dropout and pixelation (for DTV only)
- The unit retains the closed caption setting if the power fails.
- When the unit receives special effects playback signal (e.g. search, slow and still) from a VCR's video output channel (ch3 or ch4), the unit may not display the correct caption or text.
- The EUT setting that satisfies § 79.102 (e) is as follows:
 - Font: Mono-font
 - Character size: Large

Digital audio preferences

You can set the interpretive broadcasting by an audio explanation.

1 Use ▲ ▼ to select **Digital audio preferences**, then press **OK**.



Audio accessibility To prioritize VI-Visually Impaired streami Hearing Impaired streaming: The setting handicapped users (Main audio, Visuall Impaired or Hearing Impaired).	
Audio language	To set your preferred language in the audio streaming (English , Spanish or French).
Primary audio selection criteria	To set TV priority based on either of the above settings: (Audio accessibility or Audio language).

Search for channels

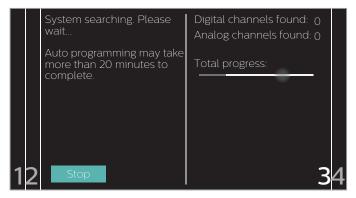
Be sure the RF cable is correctly connected to this unit and you are registered with your cable TV provider when you install cable channels.

- 1 Press ♠ and use ◀▶ to select Setup, then press OK.
- 2 Use $\blacktriangle \lor \blacktriangleleft \blacktriangleright$ to select **Search for channels**, then press **OK**.
- 3 Use **▼** to select **Start**, then press **OK**.

Install channels

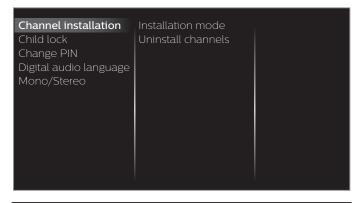
You can search and store all channels. If you move the unit to a different area after the initial setting, it is recommended to perform Autoprogramming.

- 4 Use ▲ ▼ to select Antenna or Cable, then press OK.
- 5 Press **OK** on **Start**.
 - When the scanning and memorizing of available channels is completed, the lowest memorized channel will be displayed.
- 6 Follow the on-screen instructions to complete the installation.



Channel settings

- 1 Press ♠ and use ◀► to select Setup, then press OK.
- 2 Use ▲▼◀► to select Channel settings, then press OK.
- 3 Adjust the following items.



Channel installation

Be sure the RF cable is correctly connected to this unit and you are registered with your cable TV provider when you install cable channels.

Installation mode

- 1 Use $\blacktriangle \blacktriangledown$ to select **Channel installation**, then press **OK**.
- 2 Use ▲ ▼ to select Installation mode, then press OK.
- 3 Use $\blacktriangle \blacktriangledown$ to select **Antenna** or **Cable**, then press **OK**.
 - When Antenna is selected, the TV detects antenna signals. It searches for DTV and analog TV channels available in your area.
 - When Cable is selected, the TV detects signals supplied by cable. It searches for DTV, analog TV and cable channels available in your area.

Uninstall channels

The channels selected here can be skipped when selecting the channels using $\mathbf{CH}+ \mathbf{/} -$

Those channels can still be selected with the NUMBER buttons.

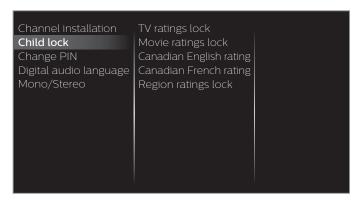
- 1 Use $\blacktriangle \blacktriangledown$ to select **Channel installation**, then press **OK**.
- 2 Use $\blacktriangle \blacktriangledown$ to select Uninstall channels, then press OK.
- 3 Use $\Delta \nabla$ to select the channel you want to remove, then press **OK**.
 - The removed channels are not displayed on the list of favorite channels.
 - To reactivate a removed channel, use $\blacktriangle\, lacktriangledown$ then press ${\sf OK}$.

English

Child lock

You can prevent your children from watching certain programs or certain channels by locking the TV controls and by using ratings.

Use ▲ ▼ to select Child lock, then press OK.



- Use **the NUMBER buttons** to enter the 4-digit numbers for your PIN code
 - · When you have not set up your PIN code, enter 0, 0, 0, 0.
 - · When the PIN code is correct, Child lock menu is displayed. See the following description for setting each item.

Channel installation Child lock Change PIN Digital audio language Mono/Stereo	TV ratings lock Movie ratings lock Canadian English rating Canadian French rating Region ratings lock	☐ All ☑ None ☐ TV-Y ☐ TV-Y7 ☐ TV-G ☐ TV-PG ☐ TV-14 ☐ TV-MA



- When you select the higher rating and set it to $\ensuremath{m oldsymbol{\boxtimes}}$ the lower ratings will be blocked automatically
- To remove all blocks place a check in the **All** box and then remove that check to remove all
- Region ratings lock will be available when the unit receives a digital broadcast using the new rating system
- To block any inappropriate programs, set your limits in TV ratings lock, Movie ratings lock and Region ratings lock
- · For the United States, the unit may download the region ratings lock table, if required.
- The Canadian rating systems on this unit are based on CEA-766-A and CRTC policy

Setting TV and movie ratings

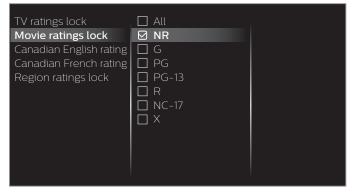
Movie ratings lock is the rating system created by MPAA. TV ratings lock has controlled access to individual programs based on their age ratings and content rating.

- Use $\blacktriangle \blacktriangledown$ to select **TV ratings lock** or **Movie ratings lock**, then press
- Use $\blacktriangle \blacktriangledown$ to select the desired rating, then press **OK** repeatedly to switch between block and view.
 - • indicates that the rating is locked (Blocked).
 - ☐ indicates that the sub rating is locked (Blocked).
 - ☐ indicates that the rating is not locked (Viewable).

V ratings lock

TV ratings lock	□ All	
TV ratings lock Movie ratings lock Canadian English rating Canadian French rating Region ratings lock	☐ All ✓ None ☐ TV-Y ☐ TV-Y7 ☐ TV-G ☐ TV-PG ☐ TV-14 ☐ TV-MA	

Movie ratings lock

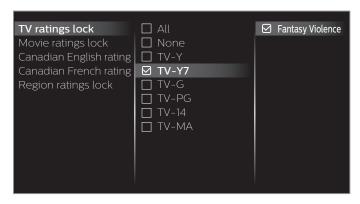


US movie ratings	US TV ratings	Description
All		All ratings locked including no rating
NR	None	No rating
_	TV-Y	Appropriate for all children
_	TV-Y7	Appropriate for all children 7 and older
G	TV-G	General audience
PG	TV-PG	Parental guidance suggested
PG-13	_	Unsuitable for children under 13
_	TV-14	Unsuitable for children under 14
R	_	Restricted under 17 requires accompanying parent or adult guardian
NC-17	_	No one under 17 admitted
Х	TV-MA	Mature audience only

To set the sub ratings (displayed in the right column)

For TV ratings lock, you can further set the sub ratings to block specific elements of programming. To set the sub ratings, follow the step below.

Use $\triangle \nabla \blacktriangleleft \triangleright$ to select the desired rating, then press **OK** repeatedly to switch between \square and \square .



US TV ratings	Sub rating	
TV-Y7	Fantasy Violence	
TV-PG	Violence	
TV-14	Sex Language Dialog	
TV-MA	Violence Sex Language	



- Blocked sub rating's will appear beside the main rating category in TV ratings lock menu.
- You cannot block a sub rating if the main rating is set to \square .

Canadian English or Canadian French ratings

You can select the rating for Canadian English or Canadian French broadcasting.

- 3 Use ▲ ▼ to select Canadian English rating or Canadian French rating, then press OK.
- 4 Use ▲ ▼ to select the desired rating, then press OK repeatedly to switch between block and view.
 - ☑ indicates that the rating is locked (Blocked).
 - Indicates that the rating is not locked (Viewable).

Canadian English rating	Canadian French rating	Description	
,	All	Locked all ratings	
	E	Exempt program	
С	_	For all children	
C8+	_	For all children 8 and older	
G		General audience	
_	8 ans+	Unsuitable for ages under 8	
PG	_	Parental guidance suggested	
_	13 ans+	Unsuitable for ages under 13	
14+	-	Unsuitable for ages under 14	
_	16 ans+	Unsuitable for ages under 16	
18+	18 ans+	Adult audience only	



The V-Chip can block non rated programs as per "CEA-608-E sec. L3". If the option to block NR, None or E programs are used in Movie ratings lock, TV ratings lock, Canadian English rating or Canadian French rating accordingly "unusual results may occur and the unit may not receive emergency bulletins or other types of programming": / Emergency bulletins (Such as EAS messages, weather warnings and others) / Locally originated programming / News / Political / Public service announcements / Religious / Sports / Weather.

Change PIN

Although the default PIN code (0000) is supplied with the unit, you can set your own PIN code.

- 1 Use $\triangle \nabla$ to select **Change PIN**, then press **OK**.
- 2 Press the NUMBER buttons to enter the current 4-digit PIN code.
- 3 Press the NUMBER buttons to enter the new 4-digit PIN code
 - · Enter PIN code again to confirm.



- Make sure new PIN code and confirm PIN code must be exactly the same. If they are different, the space is cleared for reentering.
- If you have forgotten your PIN code, enter 0711 to reset the PIN code

Digital audio language

You can select the audio language while your TV is receiving the digital broadcasting.

1 Use $\blacktriangle \blacktriangledown$ to select **Digital audio language**, then press **OK**.

Digital audio	To select the language according to your preference. (It differs depending on the program.)
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Mono/Stereo

Cable / NTSC (Analog) TV operation

You can select an audio format while your TV is receiving the analog broadcasting.

- 1 Use ▲ ▼ to select Mono/Stereo, then press OK.
- 2 Use ▲ ▼ to select Mono, Stereo or SAP (Second Audio Program), then press OK.

Connect to network

Setup network connection settings in order to use Net TV or network upgrade functions.

 The meanings of abbreviations are defined as below. : Wireless LAN access point **SSID** : Wireless network name The key entry screen will appear when you select SSID, WEP / others or proxy address. **Network settings** • Enter the key of the selected wireless network using $\mathbf{\Lambda} \mathbf{V} \mathbf{\Phi}$, then press **OK**. Clear : Clear the entered number or word. All clear : Clear all the entered numbers or words. : Switch to the small letter mode. abc ABC : Switch to the capital letter mode. 123+/; : Switch to the numeral and symbol mode. Cancel : Shows the cancellation display. OK : Set the entered number or word.

- 1 Press **↑** and use **▼** to select **Setup**, then press **OK**.
- 2 Use ▲▼◀▶ to select Connect to network, then press OK.



3 Adjust the following items.

Wireless setting

Select to use a wireless LAN to connect to the internet by a wireless connection

- 1 Use ▲▼ to select Wireless, then press OK.
- 2 Use **◄►** to select the desired setting, then press **OK**, and follow the on-screen instructions.

Easy Connect	Select this setting if your router has an easy connect button. Start scanning for wireless networks on the TV after pressing the easy connect button on your router. If connection test fails, refer to the router's manual for more details.	
Scan	Search for wireless networks automatically and select the wireless network name (SSID) from the list.	
Manual entry	Set up the connection to the wireless LAN Access Point (AP) (e.g. wireless router) manually by entering the wireless network name (SSID).	

^{*} Easy Connect cannot be used when the security protocol is set to WEP. Change the Access Point's security mode from WEP to others (recommended).

Wired setting

Select to use an Ethernet cable to connect to the internet by a wired connection. Please purchase shielded Ethernet cables at your local store and use it when you connect to network equipment.

- 1 Use ▲▼ to select Wired, then press OK.
 - · Connection test will start automatically. p. 41

Network settings

- 1 Press \spadesuit and use $\blacktriangleleft \triangleright$ to select **Setup**, then press **OK**.
- 2 Use ▲▼◀► to select Network settings, then press OK.
- **3** Adjust the following items.

Manual network settings

1 Use $\blacktriangle \blacktriangledown$ to select Manual network settings, then press **OK**.

Manual network settings	Network selection	
Connection test	Wireless network setting	
Setting status	IP configuration	
Home network	Proxy configuration	
Wake-on-LAN(DIAL)		
Net TV		
Samba interactive TV settings		
Reset network settings		

Network selection

Use ▲▼ to select Network selection, then press OK.
Use ▲▼ to select the desired setting, then press OK.

If you connect to an Ethernet cable, select Wir to connect to the internet.	
If you have a router with easy connect function, select Wireless to connect to the internet.	

Wireless network setting

This menu is displayed only when you set **Wireless** in **Network selection**. In order to use a wireless network, you must set up a connection to the AP (e.g. wireless router).

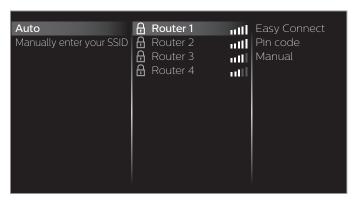
2 Use ▲▼ to select Wireless network setting, then press OK.

Auto

Search for wireless networks automatically and select the SSID from the list.

3 Use ▲▼ to select Auto, then press OK.

The list of wireless networks will be displayed. Use $\blacktriangle \nabla$ to select the appropriate the SSID, then press **OK**.



- If you select the SSID with n, WEP•2 / others Key entry screen will appear. Enter the WEP•2 / others key of the selected wireless network using ↑▼◆▶, then press OK.
- If you select the SSID has an easy connect, the easy connect setting screen will appear. Use ▲ ▼ ◆ ▶ to select a setting, then press OK

Easy Connect	Select this setting if your router has an easy connect button. Start scanning for wireless networks on the TV after pressing the easy connect button on your router. If connection test fails, try Easy Connect again. If it fails then refer to the router's manual for more details.	
Pin code Connect button. Enter the 8-digit PIN code on your TV in the Router settings menu via before Connect is selected.		
Manual	If your wireless network with authentication setting (WEP•2, others), WEP•2 / others Key entry screen will appear. Enter the WEP•2 / others key of the selected wireless network using ▲ ▼ ◀▶, then press OK .	

- *1 Easy Connect cannot be used when the security protocol is set to WEP. Change the Access Point's security mode from WEP to others (recommended).
- *2 WEP is not recommended to be used due to its major security flaws. Change the security protocol on the wireless router to others (recommended) mode.

Confirmation message will appear. Select **OK** to complete the settings.



- For a wireless network with authentication setting, key icon appears to the right hand of the SSID.
- Signal icon shows the strength of the signal.
- WEP-2 / others key appears as asterisks on the confirmation screen.
- The wireless LAN supports following specifications.
- Wireless standards: IEEE 802.11 a/b/g/n/ac
- Frequency spectrum: 2.4GHz / 5GHz
- Security protocol: WEP*2 / others

Manually enter your SSID

Set up the connection to the AP (e.g. wireless router) manually by entering the SSID.

- Use ▲▼ to select Manually enter your SSID, then press OK.
 AP (e.g. wireless router) SSID entry screen will appear.
 Enter the SSID using ▲▼ ◆▶, then press OK.
- 4 Use ▲▼ to select the authentication setting of the selected wireless network.
 - For a wireless network with authentication setting, select the authentication setting, according to the security type of the wireless network.

Auto	XXXXXXXXXXXXX	None
Manually enter your SSID		WEP
		Others

None	Set the authentication setting to None .
WEP	Set the authentication setting to WEP* .
Others	Set the authentication setting to Others .

- · For a wireless network without authentication setting, select None.
- If you select WEP* or Others, WEP* / others Key entry screen will appear.
 Enter the WEP* / others key of the selected wireless network using
 T
 then press OK.
- · Confirmation message will appear. Select Yes to complete the settings.
- * WEP is not recommended to be used due to its major security flaws. Change the security protocol on the wireless router to others (recommended) mode.

IP configuration

In following cases, select **IP configuration** to set each setting as necessary.

- When connection test failed with the setting of **Connection test**.
- When instructed by your Internet service provider to make specific settings in accordance with your network environment.
- 2 Use ▲▼ to select IP configuration, then press OK
- 3 Use $\blacktriangle \blacktriangledown$ to select a setting, then press **OK**.

Network selection	IP setting mode	Auto
Wireless network setting	IP address	Manual
IP configuration	Subnet mask	
Proxy configuration	Default gateway DNS setting mode Primary DNS Secondary DNS MAC address	

IP setting mode	Auto	Sets the IP setting automatically.	
	Manual	Sets the IP setting manually.	
IP address *1, 3		A set of numbers which are assigned to devices participating in a computer network.	
Subnet mask *1, 3		A mask which is used to determine what subnet an IP address belongs to.	
Default gateway *1, 3		IP address of the network device (such as router) which provides internet access.	
DNS setting	Auto	Sets the DNS setting automatically.	
mode	Manual	Sets the DNS setting manually.	
Primary DNS *2,3		A server which handles the name and IP address over the internet.	
Secondary DNS *2, 3		A server which handles the name and IP address over the internet.	
MAC address		An address which recognizes the devices connecting to the network. It is also called hardware address.	

- *1 Items can be selected only when IP setting mode is set to Manual.
- *2 Items can be selected only when **DNS setting mode** is set to **Manual**.
- *3 Use ▲ ▼ or the NUMBER buttons to input numbers. When you use ▲ ▼ to input numbers, then press OK or input the triple digits by using the NUMBER buttons, the cursor moves to the next entry field. When you use ▲ ▼ to input numbers, then press OK or input the triple digits by using the NUMBER buttons at the rightmost entry field, numbers will be stored and go back to the previous menu.



Note(s)

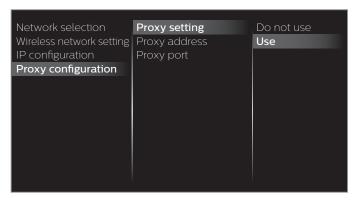
- The range of input numbers is between 0 and 255.
- If you enter a number larger than 255, the number will automatically be 255.
- The manually entered number will be saved even if you change the setting to **Auto**.
- If you want to enter 1 or 2 digit number in one cell, press ${\bf OK}$ to move on to the next cell.
- If the entered IP address or the default gateway or primary DNS number is same as the default setting, IP address setting will be set to Auto. (The manually entered number will be saved).
- When IP address setting is set to Manual, the setting of DNS setting will automatically be Manual and when IP address setting is set to Auto, you can set either Auto or Manual for DNS setting.

English

Proxy configuration

2 Use $\blacktriangle \blacktriangledown$ to select **Proxy configuration**, then press **OK**.

3 Use $\Delta \nabla$ to select a setting, then press **OK**.



- · Do not use is selected for default settings.
- If you need to change the proxy setting as instructed by your internet service provider to set the designated proxy address and port, select Use.

Proxy setting	Do not use	Does not use the proxy server.		
Proxy setting	Use	Uses the proxy server.		
Proxy address *		Selects the number or word by using A V IP , then press OK .		
Proxy port *		Use ▲ ▼ or the NUMBER buttons to input numbers.		

* Items can be selected only when Proxy setting is set to Use.



- The range of input numbers for the port number is between 0 and 65535. (If you enter a number larger than 65535, it will be regarded as 65535.)
- For proxy port, the selected ports may be blocked and not be able to use depending on your network environment.
- If the proxy address is entered with blank only, proxy server setting will be set to **Do not use**.

Connection test

Perform the following steps to test your internet connection after you have connected an Ethernet cable or entered network settings such as IP address, DNS settings, etc. manually.

- 1 Use $\blacktriangle \blacktriangledown$ to select **Connection test**, then press **OK**.
 - Connection test will start automatically and the test result for home network and internet will appear right after the connection test finishes.
 - · "Testing..." is displayed while the connection test is in progress.

Home network	Internet	Description	
Pass	Pass	Connection test is successfully completed.	
Fail	-	Connection test for home network failed. Check the connection settings.	
Pass	Fail	Connection test for internet failed. Check the connection settings.	

- If the connection test for internet passes, speed test will start automatically.
- 2 Press OK to go to the list on network status confirmation screen.



- If the connection test for both home network and internet pass, you are ready to use Net TV or network upgrade functions using the internet without making any additional settings.
- If the connection test fails, check if the Ethernet cable is connected to this TV properly or if you have entered all the required details for the wireless LAN connection properly.

Setting status

You can check the status of network settings.

- 1 Use ▲▼ to select Setting status, then press OK.
 - · Network setting list will be displayed.
 - · MAC address of this unit will be displayed in the list.

English

Home network

You can turn your TV into a Digital Media Renderer (DMR), which can play video, music and photo files stored on certified home media servers connected to your home network.

- Use ▲ ▼ to select Home network, then press OK.
- Use $\triangle \nabla \blacktriangleleft \triangleright$ to select the item you want to adjust, then press **OK**.

	Off	Disable DMR.
Renderer		Enable this unit to play files using DMC.
Renderer name	Change the display name of this TV to other devices on the home network.	

Wake-on-LAN(DIAL)

You can turn your TV on when you use remote control via IP.

- Use $\blacktriangle \blacktriangledown$ to select Wake-on-LAN(DIAL), then press OK.
- 2 Use ▲ ▼ to select On or Off, then press OK.

Off	To set Wake-on-LAN(DIAL) to off.
On	To set Wake-on-LAN(DIAL) to on.

Net TV

Displays the deactivation settings for Net TV, Netflix ESN and Netflix software version.

Netflix deactivation

Displays the deactivation setting for Netflix

- Use ▲ ▼ to select Net TV, then press OK.
- Use $\blacktriangle \nabla$ to select **Net TV deactivation**, then press **OK**.
- 3 Use ▲ ▼ to select **Netflix**, then press **OK**.
- Use **◄▶** to select the desired option, then press **OK**.

Yes	Deactivate the connection to Netflix.	
No	Activate the connection to Netflix.	

VUDU deactivation

Displays the deactivation setting for VUDU

- Use ▲ ▼ to select Net TV, then press OK.
- 2 Use $\blacktriangle \blacktriangledown$ to select **Net TV deactivation**, then press **OK**.
- 3 Use ▲ ▼ to select VUDU, then press OK.
- Use **◄►** to select the desired option, then press **OK**.

Yes	Deactivate the connection to VUDU.	
No	Activate the connection to VUDU.	

YouTube deactivation

Displays the deactivation setting for YouTube.

- Use $\blacktriangle \blacktriangledown$ to select **Net TV**, then press **OK**.
- Use ▲ ▼ to select **Net TV deactivation**, then press **OK**.
- Use ▲ ▼ to select YouTube, then press OK.
- Use **◄▶** to select the desired option, then press **OK**.

Yes	Deactivate the connection to YouTube.	
No	Activate the connection to YouTube.	

Netflix ESN

Displays the ESN information.

- Use ▲ ▼ to select **Net TV**, then press **OK**.
- Use ▲▼ to select **Netflix ESN**, then press **OK**.
 - · Displays the ESN (Electronic Serial Number) to get any services from Netflix.

Netflix software version

Displays the Netflix version

- Use ▲ ▼ to select **Net TV**, then press **OK**.
- 2 Use ▲ ▼ to select Netflix software version, then press OK.

Samba interactive TV settings

Displays the setting for Samba TV.

To learn more about Samba TV, please visit https://www.samba.tv/

- Use ▲ ▼ to select Samba interactive TV settings, then press OK.
- Use ▲▼◀▶ to select the desired option, then press **OK**.



• Samba interactive TV settings item is displayed only when the country setting is USA.

Reset network settings

You can reset the status of network settings.

- Use ▲ ▼ to select Reset network settings, then press OK.
- Use **◄▶** to select the desired option, then press **OK**.

Update software

Philips continuously tries to improve its products and we strongly recommend that you upgrade the TV software when upgrades are available.

New software can be downloaded from our website at **www.philips.com/support** using the model number of your TV to find information.

You can update the software through these methods:

- · Update with USB memory stick
- Update from digital broadcast Update notification → p. 44

This section describes how to upgrade the software by using USB memory stick.

Preparing for the software upgrade

You require the following equipment:

- A PC with web browsing capability
- An archive utility that supports the ZIP-format (e.g. WinZip for Windows or Stufflt for Mac OS)
- An empty clean formatted USB memory stick



Note(s)

- Only FAT / DOS-formatted portable memory is supported
- Use only software upgrades that can be found on the Philips web site.



Warning

- · When the software upgrade is running, don't press any buttons.
- · Do not remove the USB memory stick during the software upgrade.
- If an error occurs during the upgrade, retry the procedure or for further assistance, please contact call center.

Downloading the software

Find information and software related to your TV and download the latest software upgrade file to your PC.

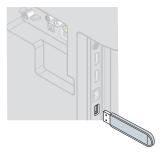
Prepare a blank USB memory stick for software update. Access **www.philips.com/support** and download the latest version software to a blank USB memory stick using a PC by following the directions described on the website.

- Use a blank USB memory stick, download the software on your PC and write the software in the root directory of the USB memory stick.
- For more details on how to download the software, please refer to the website.

USB upgrade

You can upgrade the software by using USB memory stick.

1 Connect your USB memory stick with the upgrade file to the USB terminal on the side of your TV.



- 2 Press ♠ and use ◀▶ to select Setup, then press OK.
- 3 Use $\triangle \nabla \blacktriangleleft \triangleright$ to select **Update software**, then press **OK**.
- 4 Use ▲ ▼ to select USB, then press OK.
- 5 Use ▲▼◀▶ to select the desired update file, then press OK.
- Use **▼▶** to select **Yes**, then press **OK**.
 - Read the on-screen instructions and confirm that you want to continue with the installation.



- 7 When the software upgrade is completed, press ϕ to set the unit into standby mode, then remove the USB memory stick.
- 8 Unplug the AC power cord for a few seconds from AC outlet and plug it again.
- 9 Press & again to turn the unit on.
 - · The TV starts up with the new software.
 - For further assistance, please contact call center.

Network updates

You can update the software by connecting the unit to the internet.

- Press \uparrow and use \triangleleft to select **Setup**, then press **OK**.
- Use ▲▼◀▶ to select Update software, then press OK.
- Use ▲ ▼ to select **Network**, then press **OK**.
- 4 Use **◄►** to select **Yes**, then press **OK**.
 - · This unit will then start checking for the latest FirmWare (software) version
- 5 Confirmation message will appear.
 - Use **◄** ► to select **Yes**, then press **OK**.
 - The unit will start downloading the latest FirmWare (software) version.
 - · The unit will start updating the FirmWare (software) version.
 - · It may take a while to complete the updating.
- 6 When the software update is complete, press ϕ to make sure the unit goes to standby mode.
- Unplug the AC power cord for a few seconds from AC outlet and plug it again.
- Press \odot again to turn the unit on.
 - · The TV starts up with the new software. For further assistance, please contact call center.



 \bullet In order to update software via the Internet, you must connect the unit to the Internet and set

Connect to network p. 38 Network settings - p. 39

- Please do not unplug the AC power cord or Ethernet cable while executing the Network
- All settings will remain the same even if you update the software version.
- $\bullet \ \, \text{The version of net service will also be updated if newer version of net service is available when}$ updating the firmware.
- When you start up the TV or a net service after executing the software update, a message may appear on the screen prompting for software update again. In this case, please select **Update** to start USB update or network update. For further assistance, please contact call center

Software settings

Software

- Press ★ and use ★ to select **Setup**, then press **OK**.
- Use ▲▼◀▶ to select Software settings, then press OK.
- Use $\blacktriangle \nabla$ to select **Software**, then press **OK**.

Checking your current software version number

- Use $\blacktriangle \blacktriangledown$ to select **Software information**, then press **OK**.
 - The version and a description of the current software is displayed.

Update notification

You can download the latest software through the air and update this unit automatically while the unit is in standby mode.

- Use $\blacktriangle \blacktriangledown$ to select **Update notification**, then press **OK**.
- Use $\triangle \nabla$ to select the desired option, then press **OK**.

Off	Disable auto-update for latest software.	
ı On	A message will appear if there is the latest software on the network server.	

License

Displays the licenses of open source software used in this unit.

- Use ▲ ▼ to select **License**, then press **OK**.
 - · Licenses of open source software used in this unit are displayed.

Digital rights management

This product contains technology subject to certain intellectual property rights of Microsoft. Use or distribution of this technology outside of this product is prohibited without the appropriate license(s) from Microsoft.

- Use ▲ ▼ to select **Digital rights management**, then press **OK**.
 - · Digital rights management is displayed

Wireless Screencasting

You can wirelessly cast or mirror the screen of your Smartphone, Tablet or PC to the TV directly using Wireless Screencasting.

Using Wireless Screencasting

- 1 Press ★ and use ★► to select Wireless Screencasting, then press OK.
 - · Wireless Screencasting mode screen appears.



- 2 Activate Wireless Screencasting feature on your device.
 - For the operation of your device, please check the instruction manual of the device.
 - · Select Your TV name on your device if needed.
 - If PIN code is required on your device, please enter the 8-digit code appearing in the left-hand side of the TV screen.
- 3 Once connected, the screen of your device will appear on your TV screen.
 - Press in INFO to display your device name at the bottom of TV screen.

Using Wireless Screencasting device list

In Wireless Screencasting device list, you can find the connected devices.

- Press OPTIONS on remote when Wireless Screencasting mode is on the TV screen.
 - · Only the connected device names are listed.
 - It will be sorted from newest connection to oldest connection. A maximum of 64 connections can be recognized.
 - If you would like to delete a listed connection, press ▲ ▼ to select
 the device name, then press OK first. Once the confirmation
 message appears, please use ◀ ► to select Yes, then press OK.



 FUNAI CORPORATION, Inc. does not warrant Wireless Screencasting compatibility with all source devices such as smartphones, tablets, laptops, etc. due to large variability in hardware, firmware, drivers, software and implementation of wireless casting applications on these source devices. Although FUNAI CORPORATION, Inc. will strive to enhance compatibility and performance across a range of source devices, FUNAI CORPORATION, Inc. does not warrant compatibility with specific source devices.

View photos, play music and watch videos using home network

On your TV you can play video, music and photo files stored on home network certified home media servers connected to your home network. In order to use this feature, you must connect this unit to the internet.

It is recommended that files to be played back in this unit are recorded under the following specifications:

Picture (JPEG / Progressive JPEG)		
JPEG	Upper limit	4000x4000 pixels
Progressive JPEG	Upper limit	1024x768 pixels

Music (MP3 / WAV / AAC)				
MP3	Sampling frequency	16 kHz - 48 kHz		
	Constant bit rate	8 kbps - 320 kbps		
WAV	Sampling frequency	8 kHz - 48 kHz		
	Constant bit rate	64 kbps - 1.5 Mbps		
AAC	Sampling frequency	8 kHz - 48 kHz		
AAC	Constant bit rate	-		

Video (MPEG / VOB / AVI / MP4)						
Maximum video	H.264, H.265/HEVC: 3840x2160@30fps, MPEG: 1920x1080@60fps					
Extension	.avi	.mpg, .mpeg	.ts, .trp, .tp	.vob	.mp4	.mkv
Video codec Audio codec	MPEG1, MPEG2, MPEG4, H.264	MPEG1, MPEG2, MPEG4	MPEG1, MPEG2, H.264, H.265/ HEVC	MPEG1, MPEG2	MPEG1, MPEG2, MPEG4, H.264, H.265/ HEVC	MPEG1, MPEG2, MPEG4, H.264, H.265/ HEVC
Dolby Digital	YES	YES	YES	YES	YES	YES
MPEG1/2 audio layer1/2/3	YES	YES	YES	YES	NO	YES
LPCM	YES	YES	YES	YES	YES	YES
AAC-LC	YES	YES	YES	YES	YES	YES



- A maximum of 1,023 folders or files can be recognized.
- For the home server list, maximum of 16 servers can be displayed.
- The 10th and deeper hierarchies cannot be displayed.
- Unplayable files in the home server will not be displayed in the file list.
- · For some files, playback is not available even if displayed in the file list.
- In order to play back the contents in home servers, the player and the servers must be connected to the same access point.
- $\bullet \ \ \text{Compatibility and available playback function may differ depending on the home server.} \\$
- · Video files with unsupported audio format will be skipped.
- The quality of the playback picture or audio differs depending on your network condition

Before using home network

Follow the procedure below before using home network.

1 Connect this unit to the internet.

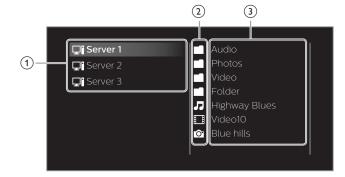
Connecting the TV to the internet using an Ethernet cable \implies p. 15 or Connecting the TV to the internet using a wireless LAN \implies p. 15

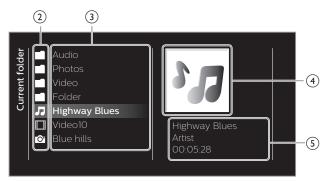
- · Broadband internet connection of 8Mbps or faster is required.
- 2 Set up the necessary network connection settings. Connect to network p. 38

Using home network

- 1 Start home network media servers in your home network.
 - For details, refer to the instruction book of the home network certified device.
- 2 Press no the remote control.
- 3 Use **▼** to select **Home Network**.
 - · This unit will start loading the home server list.
- 4 After loading, home server list will appear. Select a home server you want to access, then press **OK**.

Guide to home network





- (1) Home server list
- (2) Folder / media icon
- (3) Group (folder) / file list
- (4) Image
- (5) Current file info

View your pictures using home network

- 1 Press ▲▼ to select a file or a folder
- 2 Press **OK** or ►**II** to start a slide show of the files.
 - Press OK or ► II to pause the slide show.
 The II icon appears.

 - Press

 BACK or
 to stop the slide show.
 - Press \bigcirc **OPTIONS** to display the optional menu, then use $\triangle \bigvee$ to select the desired item.

		T		
Voice guide toggle *1	Off	Sets Voice guide to off.		
	On	Sets Voice guide to on.		
	Off	Sets repeat playback to off.		
Repeat *2	One	Sets repeat playback for a selected image file.		
nepeat 2	All	Sets repeat playback for all image files in the current folder.		
	Short	Switches to the next image in 5 seconds.		
Slide time *2	Medium	Switches to the next image in 10 seconds.		
	Long	Switches to the next image in 15 seconds.		
	None	No effect when switching images.		
	Dissolve	Overlaps the next image on the current image.		
	Wipe right	Pushes the current image out from left.		
	Wipe left	Pushes the current image out from right.		
Transitions *2	Wipe up	Pushes the current image out from bottom.		
	Wipe down	Pushes the current image out from top.		
	Box in	The next image comes to the center from the outside.		
	Box out	The next image goes to the outside from the center.		
Auto picture *2	Selects the picture mode according to your preference. (Standard, Natural, Vivid, Sports, Movie, Game, Energy saving and Internet video)			
	0	Displays an image in its original direction.		
Rotate *3	90	Rotates an image 90 degrees clockwise.		
Notate 3	180	Rotates an image 180 degrees clockwise.		
	270	Rotates an image 270 degrees clockwise.		
	1X	Displays an image in its original size.		
Zoom *3	2X	Magnifies a current image by 2 times.		
	4X	Magnifies a current image by 4 times.		

- *1 Voice guide toggle is available in slide show and pause mode.
- *2 You can set Repeat, Slide time, Transitions and Auto picture when images are in slide show.
- *3 You can set Rotate and Zoom when slide show is in pause mode.

Listen to music using home network

- 1 Press $\mathbf{A} \mathbf{V}$ to select a file or a folder
- 2 Press OK or ►II to play the selected files.
 - · Press **OK** or **▶ ||** to pause, press **OK** or **▶ ||** again to resume.
 - Press

 to skip up the next file.

 - Press

 to stop playback.
 - Press $\begin{tabular}{l} \begin{tabular}{l} \be$

Voice guide	Off	Sets Voice guide to off.
toggle *	On	Sets Voice guide to on.
Repeat	Off	Sets repeat playback to off.
	One	Sets repeat playback for a selected music file.
	All	Sets repeat playback for all music files in the current folder.
Shuffle	Off	Sets shuffle playback to Off.
	On	Sets shuffle playback for all music files in the current folder.
TV Speakers	Off	The sound will not be output from the unit's speakers.
	On	The sound will be output from the unit's speakers.
	Speakers EasyLink	You can control audio output from your connected EasyLink compliant devices with VOL +/ – by using this unit's remote control.
Auto sound	Selects the sound mode according to your preference. (Standard, Vivid, Sports, Movie, Music and News)	

^{*} Voice guide toggle is available in slide show and pause mode.

Watch videos using home network

- 1 Press $\blacktriangle \blacktriangledown$ to select a file or a folder
- 2 Press **OK** or ►**II** to play the selected files.
 - Press OK or ► II to pause, press OK or ► II again to resume.
 - Press ▶▶ to fast-forward search.

 - Press

 to stop playback.
 - Press > II to resume from the point at which playback was stopped.
 Press OK to play from the beginning of the file at which playback was stopped.
 - Press CH + to play the next file.
 - Press CH to play the current file at the beginning.
 Press CH twice within 5 seconds to play the previous file.
 - Press $\begin{tabular}{l} \begin{tabular}{l} \be$

Voice guide	Off	Sets Voice guide to off.	
toggle *	On	Sets Voice guide to on.	
Repeat	Off	Sets repeat playback to off.	
	One	Sets repeat playback for a selected video file.	
	All	Sets repeat playback for all video files in the current folder.	
TV speakers	Off	The sound will not be output from the unit's speakers.	
	On	The sound will be output from the unit's speakers.	
, v speakers	Speakers EasyLink	You can control audio output from your connected EasyLink compliant devices with VOL + / – by using this unit's remote control.	
Auto picture	Selects the picture mode according to your preference. (Standard, Natural, Vivid, Sports, Movie, Game, Energy saving and Internet video)		
Auto sound	Selects the sound mode according to your preference. (Standard , Vivid , Sports , Movie , Music and News)		

^{*} Voice guide toggle is available in slide show and pause mode.



- The resume information will be kept even when the unit is Turned off.
- If you play another file while the previously viewed file is being resumed, the resume information
 of the previously viewed file will be deleted.
- The file or the folder in resume stop mode will be highlighted in gray on List or Thumbnails.

English

Net TV

Net TV offers internet services for your TV. Use the TV remote control to browse the Net TV pages. You can play movies, listen to music and much more, all from your TV screen.

- Because Net TV is an online system, it can be modified over time to better serve its purpose.
- Some Net TV services can be added, changed or stopped after some time.
- You cannot download and save files or install plug-ins.

Before using Net TV

Follow the procedure below before using Net TV.

- 1 Connect this unit to the internet.
- 2 Set up the necessary network connection settings.

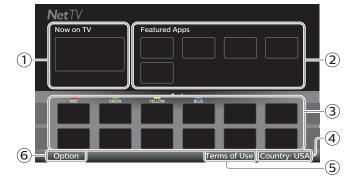
 (Refer to Connect to network → p. 38)

Using Net TV

- 1 Press **NETTV**
 - Net TV screen will appear, then use ▲ ▼◀▶ to select service icon.
 - For the first time only, Terms of Use screen will appear. After confirming the content, use ▲ ▼ to select Agree, then press OK.

Guide to Net TV menu screen

Net TV start screen



1 Now on TV

 Displays the image of the input under present tuning.

2 Featured Apps

: Displays fixed net service icons.

(3) Selected Apps

: Displays movable net service icons.

(4) Country

: Selects what country you live in.

(5) Terms of Use

: Displays a copy of net service.

6 Option

: Remove or move App.

My Apps functions

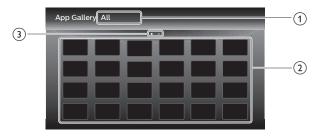
Remove App

- 1 Use ▲▼◀▶ to select the desired App, then press ☐ OPTIONS.
- 2 Use ▲▼ to select Remove App, then press OK.
 - · The selected App will be removed from My Apps list.

Move App

- 1 Use ▲▼◀► to select the desired App, then press ☐ OPTIONS.
- 2 Use ▲▼ to select Move App, then press OK.
 - · The selected App icon will be smaller
- 3 Use ▲▼◀▶ to the point you want to place, then press OK.

Guide to App Gallery



1 Category menu: List of category menu.

(2) Icon list: Displays unregistered net service icons on My

Apps list.

3) Page guide: Displays the order of pages. The current page

will be highlighted.

- 1 Press **NETTV**, then use $\triangle \nabla \blacktriangleleft \triangleright$ to select **App Gallery**.
- 2 Use ▲▼◀► to select the desired App in My Apps list, then press
 - You can also choose from Category menu. Use ▲ ▼ ◀► to select All, then use ▲ ▼ OK to select the desired category.
 - If you select Add, the selected App icon will be placed at the end of My Apps list.
 - If you select Add and move, the selected App icon will be smaller and use to the point you want to place, then press OK.

Even if you press **DACK** to cancel this function, the selected App icon will be placed at the end of **My Apps** list.

Information on network services

For detailed information on 3rd party internet services, please visit the service providers website:

Netflix : http://www.netflix.com VUDU : http://www.vudu.com

For additional help, refer to the Frequently Asked Questions FAQs at www.philips.com/support.

Select TV and enter your model number.

Pandora® operations

With this unit, you can instantly listen to personalized radio stations streamed over the internet from Pandora.

To learn more about Pandora, please visit www.pandora.com

Activating Pandora

In order to listen to internet radio streamed from Pandora via the internet, you must create a Pandora account and activate this unit.

- 1 Press **NETTV**, then use **AV I** to select **PANDORA**.
- 2 Use ▲▼ to select I am new to Pandora., then press OK.
- 3 Note the activation code and website address displayed on the TV screen.
- 4 On your PC, visit the website address noted at step 4.
- 5 Follow directions on the website to create your account.
- 6 On this unit, select Go Back and press OK to complete activation.

Adding Pandora user accounts

You can add the Pandora user account.

- 1 Press NETTV, then use ▲ ▼ ◆ ► to select PANDORA
- 2 Use ▲▼ to select I have a Pandora account.. then press OK.
- 3 Enter your e-mail address, then press **OK** while **OK** is selected.
- 4 Enter a password, then press OK while OK is selected.
- 5 Use ▲ ▼ to select Sign In, then press OK.
 - Your account is added to the user list and player screen appears on the TV screen.



- · Pandora is available only in the United States.
- You can add up to 5 accounts.

Creating a new station

By entering your favorite artists or tracks, Pandora selects music and creates a new station for you on the basis of the entered information.

- 1 On the station list screen, Use ▲ ▼ ◆ ▶ to select New Station, then press OK.
- 2 Enter a name of your favorite artist or tracks, then press OK while OK is selected.
 - · Search result will appear on the right side of the TV screen.
 - If the selection screen with the result type appears, use ▲▼ to select the desired type, then press OK.
- 3 Use ▲▼ to select the desired station, then press OK to start the playback.

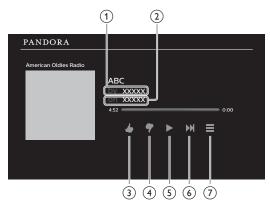
►/II	Resumes the playback / pause the playback.	
•	Resumes the playback.	
Ш	Pauses the playback.	
>>	Skips to the next track.	



On the Tool Menu, you can delete or rename the currently selected station.

Guide to the player screen

On the player screen, you can set various options to the currently playing track.



1 Artist name : Displays artist name.

Album name : Displays album name.

: Give thumbs up to the currently playing track.
 Pandora will play tracks similar to the track.
 Give thumbs down to the currently playing

track. Pandora will skip and will not play the track.

5 Useful tips

FAQ

Question	Answer		
	Check the antenna or cable connection to the main unit.		
	Check the batteries on the remote control.		
	Check if there is an obstacle between the infrared sensor window and the remote control.		
	• Test the IR signal output use IR signal check . → p. 53		
My remote control does not	If okay, then possible infrared sensor trouble.		
work. What should I do?	Aim the remote control directly at the infrared sensor window on the front of the unit.		
What should I do.	Reduce the distance to the unit.		
	• Re-insert or replace the AAA batteries with their polarities (+/-) as indicated on the remote control battery area.		
	When there is an infrared-equipped device such as PC near this unit, it may interrupt the remote control signal on this unit. Move the infrared-equipped device away from this unit, change the angle of the device's infrared sensor or turn off the infrared communication function.		
How come the initial setup appears every time I turn on this unit?	Make sure to complete the initial setup before the unit goes into standby mode.		
	Autoprogram must be completed when you set up the unit for the first time or move it to a location where previously unavailable channels are broadcast.		
	• Make sure auto programming has been completed. → p. 35		
Why can I not watch some RF	The selected channel may not be broadcasting.		
signal TV programs?	• When Auto programming is interrupted and not completed, some channels will not be received. Make sure to complete the Autoprogram. p. 35		
	• The selected channel cannot be viewed by the Child lock setting. → p. 36		
	The unit requires some kind of antenna input. An indoor antenna (Digital or VHF / UHF), an external antenna (Digital or VHF / UHF) or an RF coaxial cable from your wall cable or set-top box needs to be plugged into the unit.		
How come there is no image	• Check if the correct input mode is selected by pressing ⊕ SOURCE. → p. 20		
from the connected external devices?	Check the antenna, cable or other input connection to the unit.		
When I enter a channel number, why does it change automatically?	• Many digital channels have alternate channel numbers. The unit changes the numbers automatically to the ones signifying the broadcasting station's channel number. These basic numbers used for the previous analog broadcasts. (e.g., input digital ch# 30 automatically changes to digital ch# 8.1)		
Why are captions not displayed entirely? Or why are captions delayed behind the dialog?	 Closed captions that are delayed a few seconds behind the actual dialog are common for live broadcasts. Most captioning production companies can display a dialog to maximum of 220 words per minute. If a dialog exceeds that rate, selective editing is used to insure that the closed captions remain up-to date with the current TV screen dialog. 		
How can I set the clock?	There is no clock function on this unit.		
My PIN code no longer	• Although the default PIN code (0000) is supplied with the unit, the PIN code will be required once you set a PIN code in		
works, how can I change the child lock setting?	Child lock. → p. 36 When you forget your PIN code, enter 0711 in Change PIN to reset the PIN code. → p. 37		
When I start up the TV or a net service, a message appears on the screen prompting for software update again.	• When you start up the TV or a net service after executing the software update, a message may appear on the screen prompting for software update again. In this case, please select Update to start USB update or network update. p. 43		

Troubleshooting tips

If the unit does not perform properly when operated as instructed in this manual,

Please check the following Troubleshooting tips and all connections once before calling for service.

No power

- · Make sure the AC power cord is plugged in.
- · Make sure that the AC outlet supplies the proper voltage, plug another electrical appliance into the AC outlet to ensure that the AC outlet operates normally
- If a power failure occurs, unplug the AC power cord for 1 minute to allow the unit

Remote

Control buttons do not work.

- Do NOT press more than one button at the same time.
- · Ensure that no buttons on the remote control are depressed and move freely.

Universal remote control does not work properly.

Refer to the User manual of the universal remote control for the Philips code.

Power is on but no screen image.

- · Check whether the connection for the antenna, cable or set-top box is connected correctly
- · Check whether all the cables to the unit are connected to the correct output jack on your separate device like Blu-ray disc / DVD recorder
- Make sure that the selected input mode is connected to the working input jack.
- · Check if your computer is NOT in sleep mode when the input mode on this unit is in PC mode. Tap any key on the computer keyboard to wake it up
- Check if the correct input mode is selected by pressing
 SOURCE.

- · View other TV channels. The problem might be limited to the broadcasting

- · Adjust Contrast and Brightness in Picture settings. 🛶 p. 28
- For the best picture quality, watch "High Definition" wide screen programs. If the HD content is not available, watch "Standard Definition" programs instead.

You see pixelation on the screen.

 When the capabilities of the unit exceed the capabilities of the digital broadcasting, the signal will be increased to match the capabilities of the display on the unit. This may cause pixelation, noise or trash.

Unusual picture appears and the TV does not operate.

- · Press the power button first. If it does not solve, follow the procedure below
- ① Press the buttons on the remote control in the order shown below ▶→ ▲ → ▼ → む
- (2) Unplug the AC power cord, then wait for 1 minute, and then plug it in again.

Sound

No sound is heard when using the HDMI digital connection.

Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.

No sound, distorted sound or incorrect audio sound is heard when using the HDMI-DVI connections.

- · Make sure that the analog audio signals from the HDMI-DVI device are connected to the analog audio input L/R jacks.
- When using Composite analog video, make sure that the analog audio (L/R) connectors are mounted into the audio (L/R) input jacks.

Sound intermittent or no sound.

Check if the audio cable is connected into the unit correctly.

You switch to a different input and the volume changes.

- · This unit will memorize the volume level from the last time you adjusted it.
- · If the volume of the sound from another device is higher or lower, then the loudness will change
- Make sure Auto volume leveling is set to On. 🖚 p. 30

Picture & Sound

No sound with distorted picture occurs when using the HDMI digital connection.

· Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications

No picture or sound

- · Check if the power is on.
- · Check whether all the cables to the unit are connected to the correct output jack on your separate device like Blu-ray disc / DVD recorder.
- · View other TV channels. The problem might be limited to the broadcasting station
- · Unplug the AC power cord and wait for about 1 minute, then plug the AC power cord and turn on the unit again.
- Check whether the connection of the antenna or cable / satellite set-top box is connected correctly.
- Make sure that the selected input mode is connected to the working input jack.
- $\boldsymbol{\cdot}$ Check if your computer is NOT in sleep mode when the input mode of this unit is in PC mode. Tap any key on the keyboard to wake up your computer
- Make sure that the sound is not muted. Press 🍇 so that the volume bar and current volume level will appear on the TV screen
- Make sure that the volume is NOT set to 0 or 🍕 If so, use VOL + / to adjust to the desired volume
- Make sure that the headphone is NOT connected to the headphone audio output jack.
- · Make sure that the TV speakers is NOT set to Off.
- If there are issues with picture/color and/or sound when connecting an external device using the HDMI port, please try switching the HDMI mode. (Refer to HDMI mode 🖚 p. 32)

Adjusted Picture or Sound settings are not effective every time the unit is turned

• You must set **Home** in **Location**. \implies **p. 32** (Otherwise, the settings you adjusted will not be memorized after the unit goes into standby mode.)

You see a distorted picture or hear an unusual sound. (Analog TV - NTSC

- You may be getting NTSC (Analog) TV signal (not HDTV signal) interference from electrical appliances, automobiles, motorcycles or fluorescent lights.
- Try moving the unit to another location to see if this is the cause of the problem.

Ghosts, lines or streaks in picture.

- · Electrical interference from nearby appliances may affect picture quality
- View other TV channels. The problem might be limited to the broadcasting station or weak signal strength.

Picture poor, sound intermittent or no sound

View other TV channels. The problem might be limited to the broadcasting station or weak signal strength.

Child and rating lock

Forgotten PIN code.

· Enter "0711" to clear your password.

Screen

You switch to a different input and the screen size changes.

• This unit will memorize the viewing mode from the last time you used the particular input modes

The display image does not cover the entire screen.

- · If you are using the unit as a PC monitor, make sure that Horizontal position and Vertical position in Picture are set correctly. → p. 28
 • If you are watching TV or using the Composite video or HDMI with 480i input.
- press FORMAT repeatedly to switch to various screen modes.

Different color marks on the TV screen

 View other TV channels. The problem might be limited to the broadcasting station, missing data or pixelation due to weak signal strength.

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English

Closed captions

Closed captions are displayed as a white box. No closed captions are displayed in the closed captions-supported program.

- Interference from buildings or weather conditions may cause closed captions to be incomplete if watching analog TV signals.
- Broadcasting station may shorten the program to insert advertisements.
 The closed caption decoder cannot read the information of the shortened program.

Black box is displayed on the TV screen.

The text mode is selected for caption. Select CC-1, CC-2, CC-3 or CC-4.

Software update

A message appears on the screen prompting for software update again.

When you start up the TV or a net service after executing the software update, a
message may appear on the screen prompting for software update again. In this
case, please select **Update** to start USB update or network update.

p. 43

Network

Cannot connect to the network.

- Check if the Ethernet cable connection is properly made. Turn on the broadband router and/or modem.
- Check the network settings.
- Check if the broadband router and/or modem is correctly connected.

Sometimes video quality is poor when using the wireless LAN.

 The wireless network connection quality varies depending on the distance or obstacles (e.g. wall, basement, 2nd floor) between the TV wireless LAN adapter and the wireless router (access point), from other wireless networks, and brand and type of the wireless router (access point). When using the wireless LAN of the TV, it is suggested to place the wireless router as close as possible to the television.

Wireless LAN connection fails or wireless connection is poor.

- Check the installation location of the TV and wireless router (access point). Signal
 quality may be affected for the following reasons.
- Interference of other wireless devices, microwaves, fluorescent lights, etc., are placed nearby.
- There are floors or walls between the wireless router and TV.
- If the problems continue even after checking the above, try making a wired LAN connection.

Cannot use the wireless connection.

- Check if the wireless LAN Access Point (AP) (e.g. wireless router) is oriented properly or not placed too close between them.
- Once you have activated the wireless connection please wait 30 seconds for the connection to be established after turning on the unit, before trying to access network features such as Net TV.

Cannot use Netflix feature.

- · Check if the network connection is properly made.
- · Visit http://www.netflix.com on your PC and become a Netflix member.
- Some network services may not be available in your country.

Cannot add movies or TV episodes to the Instant Queue.

· Visit www.netflix.com on your PC

Even though the speed of the internet connection improves during playback, the picture quality of Netflix streaming movie does not improve.

• The picture quality does not change during playback. It differs depending on the speed of internet connection at the time of loading.

Cannot use VUDU feature.

- VUDU is available only in the United States and Mexico.
- · Check if the network connection is properly made.

Cannot rent or buy movies / TV episodes on VUDU.

- You need to activate the VUDU account. For detailed information, please visit the service providers website at http://www.vudu.com
- Log into your account at http://my.vudu.com and check your payment information.

The picture quality of a streaming movie (Netflix or VUDU) is poor.

Check the speed of your internet connection. You need speeds of at least 8 Mbps to this player for high quality uninterrupted playback.

Streaming movie (Netflix or VUDU) often stops or starts buffering during playback.

 Contact your internet service provider to troubleshoot your internet connection for speed and line quality. Consistent line quality and speed are very important for internet video playback.

Cannot connect to the network while my PC is connected to the network.

 Check the content of your internet service contract to see if your internet service provider prevents multiple terminals connecting at the same time.

Cannot use Easy Connect to connect to the access point.

- Connect the unit to the access point using scan or manual entry mode. If the
 access point's security mode is set to WEP*, change the setting to others
 (recommended), then try Easy connect again. (For access point configuration,
 please consult its user manual or manufacturer.)
 - * WEP is not recommended to be used due to its major security flaws. Change the security protocol on the wireless router to others (recommended) mode.

Folder or files stored on home network media server are not displayed in the file list or cannot be played back.

- Check the setting on your home media server. (Refer to the user manual of the home media server.)
- Check the network connection and settings.

Cannot use Pandora feature.

- · Check if the network connection is properly made
- · Pandora is available only in the United States
- · You must create a Pandora account and activate this unit.

Activating Pandora - p. 49

Wireless Screencasting

- Connectivity with all Wireless Screencasting compatible devices is not guaranteed.
- Devices that do not comply with Wireless Screencasting standards may have compatibility issues.



- The LCD screen is manufactured to provide many years of useful life.
 Occasionally a few non active pixels may appear as a fixed point of blue, green or red.
- This is not to be considered a defect in the LCD screen.
- Some functions are not available in specific modes, but this is not a malfunction Read the description in this manual for more details on correct operations.

For additional troubleshooting, refer to the Frequently Asked Questions or FAQs on www.philips.com/support.

English

6 Information

Glossary

Analog TV (NTSC)

Acronym that stands for National Television Systems Committee and the name of analog broadcasting standards.

Off the air analog TV signals are no longer being sent by major broadcasting stations in the USA.

ARC (Audio Return Channel) (HDMI 1 only)

HDMI-ARC allows you to use Philips EasyLink to output TV audio directly to a connected audio device, without the need for an additional digital audio cable. Be sure that the device is HDMI CEC and ARC compliant, and that the TV is connected to the device using an HDMI cable attached to both HDMI-ARC connectors.

Aspect ratio

The width of a TV screen relative to its height. Conventional TVs are 4:3 (in other words, the TV screen is almost square); widescreen models are 16:9 (the TV screen is almost twice as wide as its height).

CEC (Consumer Electronics Control)

This allows you to operate the linked functions between our brand devices with CEC feature and this unit. We do not guarantee 100% interoperability with other brands of CEC compliant devices.

Dolby Digital

The system developed by Dolby Laboratories to compress digital sound. It offers stereo sound (2ch) or multi-channel audio.

Abbreviation that stands for Advanced Television Systems Committee and the name of the digital broadcasting standards.

E-sticker is showing set features, technical information, etc on this TV set that is displayed on the TV screen mainly used by TV retailers. Previously the information was on a printed sticker that was put on the display

HDMI (High-Definition Multimedia Interface)

Interface that supports all uncompressed, digital audio / video formats including set-top box, Blu-ray / DVD recorder or digital television, over a single cable.

HDR

HDR stands for High Dynamic Range. By using additional data encoded with the source signal, HDR capable products offer greater contrast through an expansion of the range of the image's color luminance. The source, cable and display must all support HDR.

HDTV (High-Definition TV)

Ultimate digital format that produces high resolution and high picture quality.

PIN code

A stored 4-digit number that allows access to parental control features.

SAP (Secondary Audio Program)

Second-audio channel delivered separately from the Main-audio channel. This audio channel is used as an alternate in bilingual broadcasting.

SDTV (Standard Definition TV)

Standard digital format that is similar to the analog TV picture quality.

Sonic Emotion Premium

Sonic Emotion Premium fills your surroundings with the right ambience, clarifies voice, and details the sound stage, making your experience more immersive and enjoyable.

Maintenance

Cleaning

- · Clean the front panel and other exterior surfaces of the unit with a soft microfiber cloth or lens brush. Before cleaning the panel, disconnect the AC power cord
- · Never use a solvent or alcohol. Do not spray insecticide liquid near the unit. Such chemicals may cause damage and discoloration to the exposed surfaces.
- · Do not spray any liquids on the screen or other exterior surfaces of this unit. If liquids enter the unit, they could cause shorts, electric shocks or fire damage.



Servicing

Should your unit become inoperative, do not try to correct the problem yourself. There are no user serviceable parts inside. Call our toll free customer support line found on the cover of this User manual to locate an authorized service center

IR signal check

If the remote control is not working properly, you can use a digital or cell phone camera to see if it is sending out an infrared signal.



e.g.) With a digital camera:

Point the digital camera towards the remote control infrared diode at the front of the remote control. Press and hold any key on the remote control and look at the camera display. If an infrared pulsating light appears on the display, the remote control is sending out an IR signal.

Note: Some cameras may have an IR filter or dual camera cell phones may have an IR filter in one of the camera's and both will not display the IR signal.

7 Specifications

Picture	Model #		50PFL5601
Diagonal screen size / Aspect ratio 178° (V) by 178° (H)	Picture		
Diagonal screen size Aspect ratio 49.5" / 16:9	Туре		UHD (Ultra HD) (3840 x 2160 pixels 60Hz)
Viewing angles		size / Aspect ratio	49.5"/ 16:9
Sound Sound Sound Sound Mono, Stereo, Sonic Emotion Premium Sound Sound		, .	,
Mono, Stereo Mono, Stereo, Sonic Emotion Premium		analog tuner	
Power output (RMS watts) 10W x 2	<u> </u>	J	(-
Power output (RMS watts) 10W x 2	Mono / Stereo		Mono, Stereo, Sonic Emotion Premium
Equalizer Ease of use SD (4:3 source)		MS watts)	
Base of use			
Picture format			
Picture format	Luse of use	SD (4·3 source)	Automatic / Super zoom / 4·3 / Movie expand 14·9 / Movie expand 16·9 / Wide screen
DHD	Picture format	HD	
Music playback MP3, WAV, AAC Video playback MPEG1, MPEG2, H.264, MPEG4, H.265/HEVC Channel Over-the-Air DTV : VHF: 2-13 (ATSC) UHF: 14-69 (Each channel may have e.g. 2.1-2.9, 3.1-3.9, etc) Channel coverage Over-the-Air DTV : VHF: 2-13 (NTSC) UHF: 14-69 CATV (Analog NTSC) 2-13, A-W WH: W+1-W+84), A-5-A-1, 5A Tuning system Channel frequency synthesized tuning system Channel access Direct access number keyboard, Programmable scan, Channel +(up) / -(down) and PREV. CH (Previous channel) Composite video input 1 HDMI input 3 Supporting HDMI video signals : 480i/p, 720p, 1080i @60Hz, 1080p, 2160p @24/30/60Hz Supporting HDMI digital audio signals : LPCM, AC3, DD+ Supporting PC-input video signal up to 4096 x 2160 Analog audio L/R input 1 (L audio / R audio) PC input Via HDMI and HDMI-DVI + Analog audio L/R USB 1 Wireless LAN Supporting wireless standards : IEEE 802.11a/b/g/n/ac (2.4GHz/5GHz) Ethernet port 1 Digital audio output 1 Headphone output 1 Power requirements 1 20V~ +/- 10%, 60Hz +/- 0.5% Temperature			Full / Unscaled
Music playback MP3, WAV, AAC Video playback MPEG1, MPEG2, H.264, MPEG4, H.265/HEVC Channel Over-the-Air DTV : VHF: 2-13 (ATSC) UHF: 14-69 (Each channel may have e.g. 2.1-2.9, 3.1-3.9, etc) Channel coverage Over-the-Air DTV : VHF: 2-13 (NTSC) UHF: 14-69 CATV (Analog NTSC) 2-13, A-W WH: W+1-W+84), A-5-A-1, 5A Tuning system Channel frequency synthesized tuning system Channel access Direct access number keyboard, Programmable scan, Channel +(up) / -(down) and PREV. CH (Previous channel) Composite video input 1 HDMI input 3 Supporting HDMI video signals : 480i/p, 720p, 1080i @60Hz, 1080p, 2160p @24/30/60Hz Supporting HDMI digital audio signals : LPCM, AC3, DD+ Supporting PC-input video signal up to 4096 x 2160 Analog audio L/R input 1 (L audio / R audio) PC input Via HDMI and HDMI-DVI + Analog audio L/R USB 1 Wireless LAN Supporting wireless standards : IEEE 802.11a/b/g/n/ac (2.4GHz/5GHz) Ethernet port 1 Digital audio output 1 Headphone output 1 Power requirements 1 20V~ +/- 10%, 60Hz +/- 0.5% Temperature	Photo slide show	I	JPEG Progressive JPEG
Video playback MPEG1, MPEG2, H.264, MPEG4, H.265/HEVC Channel Over-the-Air DTV (ATSC) UHF: 2-13 (ATSC) UHF: 14-69 (Each channel may have e.g. 2.1-2.9, 3.1-3.9, etc) Channel coverage Over-the-Air Analog WHF: 2-13 (NTSC) UHF: 14-69 CATV (Analog NTSC) 2-13, A-W WH1-W+94 (Analog W+1-W+84), A-5-A-1, 5A Tuning system Channel frequency synthesized tuning system Channel access Direct access number keyboard, Programmable scan, Channel +(up) / -(down) and PREV. CH (Previous channel) Connectivity 3 Supporting HDMI video signals : 480i/p, 720p, 1080i @60Hz, 1080p, 2160p @24/30/60Hz Supporting HDMI video signals : LPCM, AC3, DD+ Supporting PC-input video signal up to 4096 x 2160 Analog audio L/R input 1 (L audio / R audio) PC input Via HDMI and HDMI-DVI + Analog audio L/R USB 1 Wireless LAN Supporting wireless standards : IEEE 802.11a/b/g/n/ac (2.4GHz/5GHz) Ethernet port 1 Digital audio output 1 Headphone output 1 Power requirements 1 Power requirements 120V~ +/- 10%, 60Hz +/- 0.5%			
Channel Channel coverage Over-the-Air DTV (ATSC) UHF: 14-69 (Each channel may have e.g. 2.1-2.9, 3.1-3.9, etc) CATV (Analog NTSC) 2-13, A-W (NTSC) UHF: 14-69 CATV (Analog NTSC) 2-13, A-W (NTSC) UHF: 14-69 Tuning system Channel frequency synthesized tuning system Channel access Direct access number keyboard, Programmable scan, Channel +(up) / -(down) and PREV. CH (Previous channel) Connectivity Composite video input 1 3 Supporting HDMI video signals : 480i/p, 720p, 1080i @60Hz, 1080p, 2160p @24/30/60Hz Supporting HDMI digital audio signals : LPCM, AC3, DD+ Supporting PC-input video signal up to 4096 x 2160 Analog audio L/R input 1 (L audio / R audio) PC input Via HDMI and HDMI-DVI + Analog audio L/R USB 1 Wireless LAN Supporting wireless standards : IEEE 802.1 1a/b/g/n/ac (2.4GHz/5GHz) Ethernet port 1 Digital audio output 1 Headphone output 1 Supporting Dolby Digital and Dolby Digital Plus Power requirements 120V~ +/- 10%, 60Hz +/- 0.5%			
Channel coverage			1911 E-01, 1911 E-02, 11.20-1, 1911 E-0-1, 11.20-3/11E-VC
Channel coverage Over-the-Air Analog : VHF: 2-13 (NTSC)			
Tuning system Channel frequency synthesized tuning system Channel access Direct access number keyboard, Programmable scan, Channel +(up) / -(down) and PREV. CH (Previous channel) Connectivity Composite video input 1 HDMI input 3 Supporting HDMI video signals : 480i/p, 720p, 1080i @60Hz, 1080p, 2160p @24/30/60Hz Supporting HDMI digital audio signals : LPCM, AC3, DD+ Supporting PC-input video signal up to 4096 x 2160 Analog audio L/R input 1 (L audio / R audio) PC input Via HDMI and HDMI-DVI + Analog audio L/R USB 1 Wireless LAN Supporting wireless standards : IEEE 802.1 1a/b/g/n/ac (2.4GHz/5GHz) Ethernet port 1 Digital audio output 1 Headphone output 1/8 inch (3.5mm) Power Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature	Channel coverag	e	Over-the-Air Analog : VHF: 2~13
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Analog audio L/R input PC input Via HDMI and HDMI-DVI + Analog audio L/R USB 1 Wireless LAN Supporting wireless standards : IEEE 802.1 1a/b/g/n/ac (2.4GHz/5GHz) Ethernet port 1 Digital audio output 1 Supporting Dolby Digital and Dolby Digital Plus Headphone output 1 1/8 inch (3.5mm) Power Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature	HDMI input		
PC input Via HDMI and HDMI-DVI + Analog audio L/R USB 1 Wireless LAN Supporting wireless standards : IEEE 802.1 1a/b/g/n/ac (2.4GHz/5GHz) Ethernet port 1 Digital audio output Supporting Dolby Digital and Dolby Digital Plus Headphone output 1 1/8 inch (3.5mm) Power Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature			Supporting PC-input video signal up to 4096 x 2160
PC input Via HDMI and HDMI-DVI + Analog audio L/R USB 1 Wireless LAN Supporting wireless standards : IEEE 802.1 1a/b/g/n/ac (2.4GHz/5GHz) Ethernet port 1 Digital audio output Supporting Dolby Digital and Dolby Digital Plus Headphone output 1 1/8 inch (3.5mm) Power Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature	Analog audio L/F	R input	- · · · · · · · · · · · · · · · · · · ·
USB Supporting wireless standards : IEEE 802.11a/b/g/n/ac (2.4GHz/5GHz) Ethernet port 1 Digital audio output Supporting Dolby Digital and Dolby Digital Plus Headphone output 1/8 inch (3.5mm) Power Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature		•	, ,
Wireless LAN Ethernet port Digital audio output Headphone output Power Power requirements Supporting wireless standards : IEEE 802.1 1a/b/g/n/ac (2.4GHz/5GHz) 1 Supporting Dolby Digital and Dolby Digital Plus 1 1/8 inch (3.5mm) Power Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature	-		
Ethernet port Digital audio output Supporting Dolby Digital and Dolby Digital Plus Headphone output 1 1/8 inch (3.5mm) Power Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature			Supporting wireless standards : IEEE 802.11a/b/g/n/ac (2.4GHz/5GHz)
Digital audio output 1 Supporting Dolby Digital and Dolby Digital Plus Headphone output 1 1/8 inch (3.5mm) Power Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature			1
Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature	•		
Power requirements 120V~ +/- 10%, 60Hz +/- 0.5% Temperature	Headphone output		1 1/8 inch (3.5mm)
Temperature	Power		
	Power requirements		120V~ +/- 10%, 60Hz +/- 0.5%
Operating temperature 41 °F (5 °C) to 104 °F (40 °C)	Temperature		
	Operating temperature		41 °F (5 °C) to 104 °F (40 °C)

[·] Specifications are subject to change without prior notice.

8 Warranty

LIMITED WARRANTY ONE (1) YEAR

WARRANTY COVERAGE:

This warranty obligation is limited to the terms as set forth below.

WHO IS COVERED:

This product warranty is issued to the original purchaser or the person receiving the product as a gift against defects in materials and workmanship as based on the date of original purchase ("Warranty Period") from an Authorized Dealer. The original sales receipt showing the product name and the purchase date from an authorized retailer is considered such proof.

WHAT IS COVERED:

This warranty covers new products if a defect in material or workmanship occurs and a valid claim is received within the Warranty Period. At its option, the company will either (1) repair the product at no charge, using new or refurbished replacement parts, or (2) exchange the product with a product that is new or which has been manufactured from new, or serviceable used parts and is at least functionally equivalent or most comparable to the original product in current inventory, or (3) refund the original purchase price of the product.

Replacement products or parts provided under this warranty are covered against defects in materials and workmanship from the date of the replacement or repair for ninety (90) days or for the remaining portion of the original product's warranty, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes company property. When a refund is given, your product becomes company property.

Note: Any product sold and identified as refurbished or renewed carries a ninety (90) day limited warranty.

Replacement product can only be sent if all warranty requirements are met. Failure to follow all requirements can result in delay.

WHAT IS NOT COVERED - EXCLUSIONS AND LIMITATIONS: This Limited Warranty applies only to new company manufactured products that can be identified by the trademark, trade name, or logo affixed to it. This Limited Warranty does not apply to any hardware product or any software, even if packaged or sold with the product, as manufacturers, suppliers, or publishers may provide a separate warranty for their own products packaged with the bundled product.

The company is not liable for any damage to or loss of any programs, data, or other information stored on any media contained within the product, or other additional product or part not covered by this warranty. Recovery or reinstallation of programs, data or other information is not covered under this Limited Warranty.

This warranty does not apply (a) to damage caused by accident, abuse, misuse, neglect, misapplication, or non-supplied product, (b) to damage caused by service performed by anyone other than company approved Authorized Service Location, (c) to a product or a part that has been modified without written company permission, or (d) if any serial number has been removed or defaced, or (e) product, accessories or consumables sold "AS IS" without warranty of any kind by including refurbished product sold "AS IS" by some retailers.

This Limited Warranty does not cover:

- · Shipping charges to return defective product.
- Labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna/signal source systems outside of the product.
- Product repair and/or part replacement because of improper installation or maintenance, connections to improper voltage supply, power line surge, lightning damage, retained images or screen markings resulting from viewing fixed stationary content for extended periods, product cosmetic appearance items due to normal wear and tear, unauthorized repair or other cause not within the control of the company.
- Damage or claims for products not being available for use, or for lost data or lost software.
- Damage from mishandled shipments or transit accidents when returning product.
- A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- A product used for commercial or institutional purposes (including but not limited to rental purposes).
- Product lost in shipment and no signature verification receipt can be provided.
- Failure to operate per Owner's Manual.

TO OBTAIN ASSISTANCE... Contact the Customer Care Center at: 1-866-202-5960

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