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OPERATING INSTRUCTIONS



48U7653DB

COLOUR TELEVISION WITH REMOTE CONTROL

Contents

Safety Information	3
Markings on the Product.....	3
Environmental Information.....	4
Features	4
Accessories Included.....	5
Standby Notifications.....	5
TV Control Buttons & Operation.....	5
Inserting the Batteries into the Remote	5
Connect Power	6
Antenna Connection.....	6
Notification.....	6
Specification	6
Remote Control	7
Connections.....	8
Switching On/Off.....	9
First Time Installation.....	9
Media Playback via USB Input.....	9
Media Browser Menu.....	10
CEC and CEC RC Passthrough.....	10
E-Manual	10
TV Menu Contents.....	11
General TV Operation	15
Using the Channel List	15
Configuring Parental Settings.....	15
Electronic Programme Guide (EPG)	15
Teletext Services	16
Software Upgrade.....	16
Troubleshooting & Tips.....	16
PC Input Typical Display Modes.....	17
AV and HDMI Signal Compatibility	17
Supported Video File Formats for USB Mode	18
Supported Picture File Formats for USB Mode	18
Supported Audio File Formats for USB Mode	19
Supported DVI Resolutions	20
3D Mode.....	21
Connectivity.....	23
Wireless Connectivity	24
Connectivity Troubleshooting	25
Using Audio Video Sharing Network Service.....	26
Audio Video Sharing.....	26
Nero MediaHome Installation	26
Internet Portal.....	27
Internet Browser	27
HBBTV System.....	28
Smart Center	29
Important Instruction.....	31

Safety Information

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

Don't operate your TV in extreme ambient conditions as this may cause damage to your TV.



In extreme weather (storms, lightning) and long inactivity periods (going on holiday) disconnect the TV set from the mains. The mains plug is used to disconnect TV set from the mains and therefore it must remain readily operable.




This sign is present wherever there is very important information on operation and maintenance of the appliance in the literature accompanying it.

Note: Follow the on screen instructions for operating the related features.








IMPORTANT - Please read these instructions fully before installing or operating

WARNING: Never let people (including children) with reduced physical, sensory or mental capabilities or lack of experience and / or knowledge use electrical devices unsupervised.

- For ventilation purposes, leave a free space of at least 10 cm all around the set.
- **Do not** block ventilation holes.
- **Do not** place the TV on sloping or unstable surfaces, the TV may tip over.
- Use this device in moderate climates.
- The power cord plug should be easily accessible. **Do not** place the TV, furniture, etc. on the power cord. A damaged power cord/plug can cause fire or give you an electric shock. Handle the power cord by the plug, **do not** unplug the TV by pulling the power cord. Never touch the power cord/plug with wet hands as this could cause a short circuit or electric shock. Never make a knot in the power cord or tie it with other cords. When damaged it must be replaced, this should only be done by qualified personnel.
- **Do not** use this TV in a humid or damp environment. Do not expose the TV to liquids. In case the cabinet contacts any liquids unplug the TV immediately and have it checked by qualified personnel before operating it any further.
- **Do not** expose the TV to direct sunlight, open flames or place it near intense heat sources such as electric heaters. 
- Listening in excessive volumes from earphones and headphones may cause hearing loss.

- Ensure that no open flame sources, such as lit candles, are placed on top of the TV.
- To prevent injuries, this TV must be securely attached to a wall by carefully following the instructions (if the option is available).
- Occasionally, a few non-active pixels may appear on the screen as a fixed blue, green or red point. Please note that this does not affect the performance of your product. Take care not to scratch the screen with fingernails or other hard objects.
- Before cleaning, unplug the TV from the wall socket. Only use a soft, dry cloth while cleaning.

 Warning	Serious injury or death risk
 Risk of electric shock	Dangerous voltage risk
 Caution	Injury or property damage risk
 Important	Operating the system correctly
 Notice	Additional notes marked

Markings on the Product

The following symbols are used **on the product** as a marker for restrictions and precautions and safety instructions. Each explanation shall be considered where the product bears related marking only. Note such information for security reasons.



Class II Equipment: This appliance is designed in such a way that it does not require a safety connection to electrical earth.



Class II Equipment With Functional Earthing: This appliance is designed in such a way that it does not require a safety connection to electrical earth, the earth connection is used for functional purposes.



Protective Earth Connection: The marked terminal is intended for connection of the protective earthing conductor associated with the supply wiring.



Hazardous Live Terminal: The marked terminal(s) is/are hazardous live under normal operating conditions.



Caution, See Operating Instructions: The marked area(s) contain(s) user replaceable coin or button cell batteries.



Class 1 Laser Product: This product contains Class 1 laser source that is safe under reasonably foreseeable conditions of operation.

WARNING

Do not ingest the battery, Chemical Burn Hazard

(The accessories supplied with or) This product may contain a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.

Keep new and used batteries away from children.

If the battery compartment does not close securely, stop using the product and keep it away from children.

If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

WARNING

Never place a television set in an unstable location. A television set may fall, causing serious personal injury or death. Many injuries, particularly to children, can be avoided by taking simple precautions such as;

- Using cabinets or stands recommended by the manufacturer of the television set.
- Only using furniture that can safely support the television set.
- Ensuring the television set is not overhanging the edge of the supporting furniture.
- Not placing the television set on all furniture (for example, cupboards or bookcases) without anchoring both the furniture and the television set to a suitable support.
- Educating children about the dangers of climbing on furniture to reach the television set or its controls.

If your existing television set is being retained and relocated, the same considerations as above should be applied.

Environmental Information

This television is designed to be environment friendly. To reduce energy consumption, you can follow these steps:

If you set the **Energy Saving** to **Minimum, Medium, Maximum** or **Auto** the TV will reduce the energy consumption accordingly. If you like to set the **Backlight** to a fixed value set as **Custom** and adjust the **Backlight** (located under the **Energy Saving** setting) manually using Left or Right buttons on the remote. Set as **Off** to turn this setting off.

Note: Available Energy Saving options may differ depending on the selected Mode in the System>Picture menu.

The **Energy Saving** settings can be found in the **System>Picture** menu. Note that some picture settings will be unavailable to be changed.

If pressed Right button while **Auto** option is selected or Left button while **Custom** option is selected, "**Screen will be off in 15 seconds.**" message will be displayed on the screen. Select **Proceed** and press **OK** to turn the screen off immediately. If you don't press any button, the screen will be off in 15 seconds. Press any button on the remote or on the TV to turn the screen on again.

Note: Screen Off option is not available if the Mode is set to Game.

When the TV is not in use, please switch off or disconnect the TV from the mains plug. This will also reduce energy consumption.

Features

- TV supports Ultra HD (Ultra High Definition - also known as 4K) which provides resolution of 3840 x 2160 (4K:2K). It equals 4 times the resolution of Full HD TV by doubling the pixel count of the Full HD TV both horizontally and vertically. Ultra HD contents are supported from HDMI, USB inputs and over DVB-T2 and DVB-S2 broadcasts.
- **3D Viewing:** This product supports the viewing of 3D content from devices such as a High Definition Satellite Receiver or Blu-ray Player via HDMI, PC, YPBBR, USB inputs or via an available broadcast. 3D content provided from the portal applications/services are also supported
- Remote controlled colour TV
- Fully integrated digital terrestrial/cableTV (DVB-T-T2/C)
- HDMI inputs to connect other devices with HDMI sockets
- USB input
- OSD menu system
- Scart socket for external devices (such as DVD Players, PVR, video games, etc.)
- Stereo sound system
- Teletext

- Headphone connection
- Automatic programming system
- Manual tuning
- Automatic power down after up to eight hours.
- Sleep timer
- Child lock
- Automatic sound mute when no transmission.
- NTSC playback
- AVL (Automatic Volume Limiting)
- PLL (Frequency Search)
- PC input
- Game Mode (Optional)
- Picture off function
- Ethernet (LAN) for Internet connectivity and service
- 802.11n built in WIFI Support
- Audio Video Sharing
- HbbTV

Accessories Included

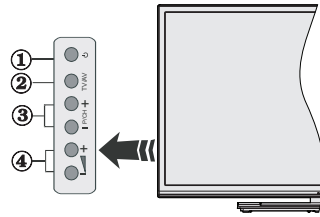
- Remote Control
- Batteries: 2 x AAA
- Instruction Book
- Quick Start Guide
- Side AV Connection Cable
- Mini Scart Adapter Cable

Standby Notifications

If the TV does not receive any input signal (e.g. from an aerial or HDMI source) for 5 minutes, it will go into standby. When you next switch-on, the following message will be displayed: **“TV switched to stand-by mode automatically because there was no signal for a long time.”** Press **OK** to continue.

If the TV is on and it isn't being operated for a while it will go into standby. When you next switch-on, the following message will be displayed. **“TV switched to stand-by mode automatically because no operation was made for a long time.”** Press **OK** to continue.

TV Control Buttons & Operation



1. Standby/On button
2. Source button
3. Programme +/- buttons
4. Volume +/- buttons

Press the Volume +/- buttons simultaneously to view main menu and use Programme +/- buttons to navigate and Volume +/- buttons to change value.

Note: The position of the control buttons may differ depending on the model.

Operation with the Remote Control

Press the **Menu** button on your remote control to display main menu screen. Use the directional buttons to select a menu tab and press **OK** to enter. Use the directional buttons again to select or set an item. Press **Return/Back** or **Menu** button to quit a menu screen.

Input Selection

Once you have connected external systems to your TV, you can switch to different input sources. Press the **Source** button on your remote control consecutively to select the different sources.

Changing Channels and Volume

You can change the channel and adjust the volume by using the **Volume +/-** and **Programme +/-** buttons on the remote.

Inserting the Batteries into the Remote

Remove the back cover to reveal the battery compartment. Insert two size **AAA** batteries. Make sure the (+) and (-) signs match (observe correct polarity). Do not mix old and new batteries. Replace only with same or equivalent type. Place the cover back on.



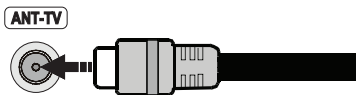
Connect Power

IMPORTANT: The TV set is designed to operate on **220-240V AC, 50 Hz** socket. After unpacking, allow the TV set to reach the ambient room temperature before you connect the set to the mains. Plug the power cable to the mains socket outlet.

Antenna Connection

Connect the aerial or cable TV plug to the AERIAL INPUT (ANT-TV) socket located on the rear bottom side of the TV.

Rear bottom side of the TV



Notification

TRADEMARK ACKNOWLEDGMENT

The terms HDMI and High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.



Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.



YouTube and the YouTube logo are trademarks of Google Inc.

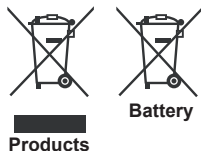
Information for Users on Disposal of Old Equipment and Batteries

[European Union only]

Equipment bearing these symbols should not be disposed as general household waste.

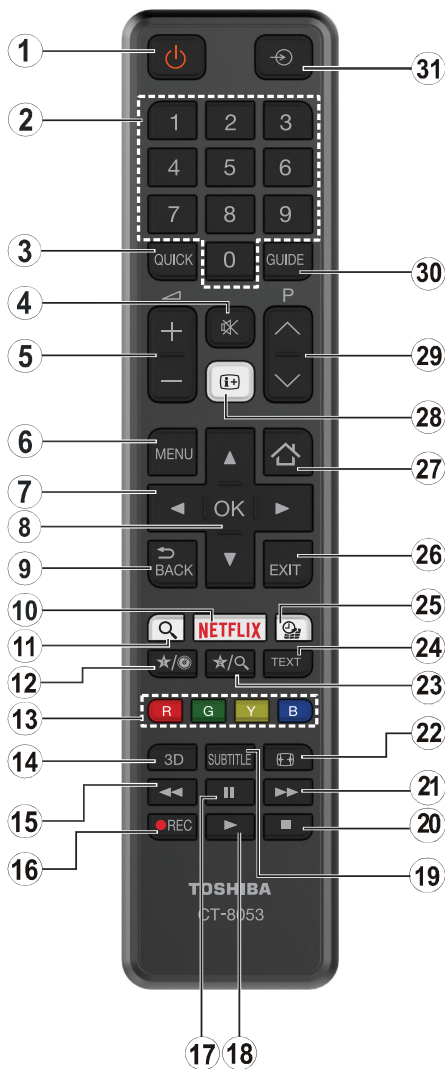
You should look for appropriate recycling facilities and systems for the disposal of these products.

Notice: The sign Pb below the symbol for batteries indicates that this battery contains lead.



Specification

TV Broadcasting	PAL BG/I/DK/LL' SECAM BG/DK
Receiving Channels	VHF (BAND I/III) - UHF (BAND U) - HYPERBAND
Digital Reception	Fully integrated digital terrestrial-cable TV (DVB-T-C) (DVB-T2 compliant)
Number of Preset Channels	1.000
Channel Indicator	On Screen Display
RF Aerial Input	75 Ohm (unbalanced)
Operating Voltage	220-240V AC, 50Hz.
Audio	German+Nicam Stereo
Audio Output Power (WRMS.) (10% THD)	2 x 10 W
Power Consumption (W)	125 W
Weight (Kg)	14,5 Kg
TV Dimensions DxLxH (with foot) (mm)	217 x 1080 x 678
TV Dimensions DxLxH (without foot) (mm)	53/71 x 1080 x 636
Display	16/9 48"
Operation temperature and operation humidity	0°C up to 40°C, 85% humidity max





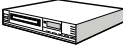









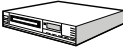





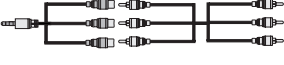








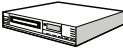


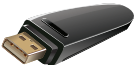
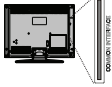








1. **Standby:** Switches On / Off the TV
2. **Numeric buttons:** Switches the channel, enters a number or a letter in the text box on the screen.
3. **Quick Menu:** Displays a list of menus for quick access
4. **Mute:** Completely turns off the volume of the TV
5. **Volume +/-**
6. **Menu:** Displays TV menu
7. **Directional buttons:** Helps navigate menus, content etc. and displays the subpages in TXT mode when pressed Right or Left
8. **OK:** Confirms user selections, holds the page (in TXT mode), views channel list (DTV mode)
9. **Back/Return:** Returns to previous screen, opens index page (in TXT mode)
10. **Netflix:** Launches the Netflix application, if this feature is supported by your TV
11. No function
12. **My button 1 (*)**
13. **Coloured Buttons:** Follow the on-screen instructions for coloured button functions
14. **3D button:** Displays 3D setting options
15. **Rapid reverse:** Moves frames backwards in media such as movies
16. No function
17. **Pause:** Pauses the media being played
18. **Play:** Starts to play selected media
19. **Subtitles:** Turns subtitles on and off (where available)
20. **Stop:** Stops the media being played
21. **Rapid advance:** Moves frames forward in media such as movies
22. **Screen:** Changes the aspect ratio of the screen
23. **My button 2 (*)**
24. **Text:** Displays teletext (where available), press again to superimpose the teletext over a normal broadcast picture (mix)
25. **Media browser:** Opens the media browsing screen
26. **Exit:** Closes and exits from displayed menus or returns to previous screen
27. **Internet:** Opens the portal page, where you can reach many web based applications
28. **Info:** Displays information about on-screen content, shows hidden information (reveal - in TXT mode)
29. **Programme +/-**
30. **EPG (Electronic programme guide):** Displays the electronic programme guide
31. **Source:** Shows all available broadcast and content sources


(*) MY BUTTON 1 & MY BUTTON 2:

These buttons may have default functions depending on the model. However you can set a special function to these buttons by pressing on them for five seconds when on a desired source or channel. A confirmation message will be displayed on the screen. Now the selected MY BUTTON is associated with the selected function.

Note that if you perform **First Time Installation**, MY BUTTON 1&2 will return to their default function.

Connections

Connector	Type	Cables	Device
	Mini Scart Connection (bottom)	 Mini Scart adapter cable	
	VGA Connection (bottom)		
AUDIO IN  	PC/YPbPr Audio Connection (back)	 YPbPr/PC Audio Cable	
	HDMI Connection (bottom&side)		
	SPDIF (Optical Out) Connection (back)		
SIDE AV  	Side AV (Audio/Video) Connection (side)	 Side Audio/Video Connection Cable Audio/Video Cable	
HEADPHONE 	Headphone Connection (side)		
YPBPR  Pr  Pb  Y	YPbPr Video Connection (back)	 YPbPr Connection Cable	
	USB Connection (back&side)		
	CI Connection (side)		
LAN 	Ethernet Connection (back)	 LAN / Ethernet Cable	
	Subwoofer Connection (back)(*)		

 **NOTE:** When connecting a device via the YPbPr or Side AV input, you must use the connection cables to enable connection. See the illustrations on the left side. | To enable PC/YPbPr audio, you will need to use the Back Audio inputs with a YPbPr/PC audio cable for audio connection. | If an external device is connected via the SCART socket, the TV will automatically switch to AV mode. | When receiving DTV channels (Mpeg4 H.264) or while in Media Browser mode, output will not be available via the scart socket. | When using the wall mounting kit (available from third party in the market, if not supplied), we recommend that you plug all your cables into the back of the TV before mounting on the wall. | Insert or remove the CI module only when the TV is SWITCHED OFF. You should refer to the module instruction manual for details of the settings. | The USB input on the back of the TV(USB 2.0) supports devices up to 500mA. Connecting devices that have current value above 500mA may damage your TV. For the USB inputs on the side of the TV(USB 3.0) this limit value is 1A. | By connecting an HDMI cable to your TV, you have to use only a shielded HDMI cable to guarantee a sufficient immunity against parasitic frequency radiation. And make sure to use a High-Speed HDMI cable that can transmit high definition signals, such as 4K contents, for trouble-free transmission.



If you want to connect a device to the TV, make sure that both the TV and the device are turned off before making any connection. After the connection is done, you can turn on the units and use them.

(*) For external subwoofer connection

Switching On/Off

To Switch the TV On

Connect the power cord to a power source such as a wall socket (220-240V AC, 50 Hz).

To switch on the TV from standby mode either:

- Press the **Standby** button, **Programme +/-** or a numeric button on the remote control.
- Press the **Standby** button or **Programme +/-** on the TV.

The TV will then switch on.

To Switch the TV Off

Press the **Standby** button on the remote control or press the **Standby** button on the TV, then the TV switches into standby mode.

To power down the TV completely, unplug the power cord from the mains socket.

Note: When the TV is switched into standby mode, the standby LED can blink to indicate that features such as Standby Search, Over Air Download or Timer is active. The LED can also blink when you switch on the TV from standby mode.

First Time Installation

When turned on for the first time, the language selection screen is displayed. Select the desired language and press **OK**.

On the next screen, set your preferences using the directional buttons.

Note: Depending on the Country selection you may be asked to set and confirm a PIN at this point. The selected PIN cannot be 0000. You have to enter it if you are asked to enter a PIN for any menu operation later.

About Selecting Broadcast Type

Aerial: If **Aerial** broadcast search option is turned on, the TV will search for digital terrestrial broadcasts after other initial settings are completed.

Cable: If **Cable** broadcast search option is turned on, the TV will search for digital cable broadcasts after other initial settings are completed. According to your other preferences a confirmation message may be displayed before starting to search. Select **YES** and press **OK** to proceed. To cancel operation, select **NO** and press **OK**. You can select **Network** or set values such as **Frequency**, **Network ID** and **Search Step**. When finished, press **OK** button.

Note: Searching duration will change depending on the selected Search Step.

Analogue: If **Analogue** broadcast search option is turned on, the TV will search for analogue broadcasts after other initial settings are completed.

Additionally you can set a broadcast type as your favourite one. Priority will be given to the selected broadcast type during the search process and the

channels of it will be listed on the top of the **Channel List**. When finished, press **OK** to continue.

You can activate **Store Mode** option at this point. This option will configure your TV's settings for store environment and depending on the TV model being used, the supported features of it may be displayed on the top of the screen as an info banner. This option is intended only for store use. It is recommended to select **Home Mode** for home use. This option will be available in **System>Options>More** menu and can be turned off/on later.

Press **OK** button on the remote control to continue and the **Network/Internet Settings** menu will be displayed. Please refer to **Connectivity** section to configure a wired or a wireless connection. After the settings are completed press **OK** button to continue. To skip to the next step without doing anything press the **Rapid advance** button on the remote.

After the initial settings are completed TV will start to search for available broadcasts of the selected broadcast types.

After all the available stations are stored, scan results will be displayed. Press **OK** to continue. The **Edit Channel List** menu will be displayed next. You can edit the channel list according to your preferences or press the **Menu** button to quit and watch TV.

While the search continues a message may appear, asking whether you want to sort channels according to the LCN(*). Select **Yes** and press **OK** to confirm.

(LCN is the Logical Channel Number system that organizes available broadcasts in accordance with a recognizable channel number sequence (if available).*

Note: Do not turn off the TV while initializing first time installation. Note that, some options may not be available depending on the country selection.

Media Playback via USB Input

You can connect 2.5" and 3.5" inch (hdd with external power supply) external hard disk drives or USB memory stick to your TV by using the USB inputs of the TV.

IMPORTANT! Back up the files on your storage devices before connecting them to the TV. Manufacturer will not be responsible for any file damage or data loss. Certain types of USB devices (e.g. MP3 Players) or USB hard disk drives/memory sticks may not be compatible with this TV. The TV supports FAT32 and NTFS disk formatting.

While formatting USB hard drives which have more than 1TB (Tera Byte) storage space you may experience some problems in the formatting process.

Wait a little while before each plugging and unplugging as the player may still be reading files. Failure to do so may cause physical damage to the USB player and the USB device itself. Do not pull out your drive while playing a file.






You can use USB hubs with your TV's USB inputs. External power supplied USB hubs are recommended in such a case.

It is recommended to use the TV's USB input(s) directly, if you are going to connect a USB hard disk.

Note: When viewing image files the **Media Browser** menu can only display 1000 image files stored on the connected USB device.

Media Browser Menu

You can play photo, music and movie files stored on a USB disk by connecting it to your TV. Connect a USB disk to one of the USB inputs located on the side of the TV. Pressing the **Menu** button while in the **Media Browser** mode will access the **Picture**, **Sound** and **Settings** menu options. Pressing the **Menu** button again will exit from this screen. You can set your **Media Browser** preferences by using the **Settings** menu.

Loop/Shuffle Mode Operation	
Start playback with the Play button and activate 	All files in the list will be continuously played in original order
Start playback with the OK button and activate 	The same file will be played continuously (repeat)
Start playback with the Play button and activate 	All files in the list will be played once in random order
Start playback with the Play button and activate  	All files in the list will be continuously played in the same random order.

Custom Boot Up Logo

You can personalize your TV and see your favorite image or photo on the screen each time your TV boots up. To do this, copy your favorite image files into a USB disk and open them from the **Media Browser** menu. When you have chosen the desired image, highlight it and press **OK** to view it in full screen. Press **OK** again to choose the image as custom logo. A confirmation message will be displayed. Select **Yes** and press **OK** again. If the image is suitable(*) you will see it on the screen during the TV's next boot up.

Note: If you perform a First Time Installation the TV will return to using the default logo, if any.

(*) Images must have an aspect ratio between 4:3 to 16:9 and they must be in .jpeg, .jpg or .jpe file formats. The image cannot be set as boot logo, which's resolution doesn't appear on the info banner.

CEC and CEC RC Passthrough

This function allows to control the CEC-enabled devices, that are connected through HDMI ports by using the remote control of the TV.

The **CEC** option in the **System>Options>More** menu should be set as **Enabled** at first. Press the **Source** button and select the HDMI input of the connected CEC device from the **Sources List** menu. When new CEC source device is connected, it will be listed in source menu with its own name instead of the

connected HDMI ports name(such as DVD Player, Recorder 1 etc.).

The TV remote is automatically able to perform the main functions after the connected HDMI source has been selected.

To terminate this operation and control the TV via the remote again, press **Quick Menu** button on the remote, highlight the **CEC RC Passthrough** and set as **Off** by pressing Left or Right button. This feature can also be enabled or disabled under the **System>Options>More** menu.

The TV supports also ARC(Audio Return Channel) feature. When ARC is active, TV does not mute its other audio outputs automatically. So you need to decrease TV volume to zero manually, if you want to hear audio from connected audio device only (same as other optical or co-axial digital audio outputs). If you want to change connected device's volume level, you should select that device from the source list. In that case volume control keys are directed to connected audio device.

Note: ARC is supported only via the HDMI3 input.

System Audio Control

Allows an Audio Amplifier/Receiver to be used with the TV. The volume can be controlled using the remote control of the TV. To activate this feature set the **Speakers** option in the **System>Options>More** menu as **Amplifier**. The TV speakers will be muted and the sound of the watched source will be provided from the connected sound system.

Note: The audio device should support System Audio Control feature and **CEC** option should be set as **Enabled**.

E-Manual

You can find instructions for your TV's features in the E-Manual.

To use E-Manual, press to the **Info** button while main menu is displayed on the screen or press **Quick Menu** button, select **Information Booklet** and press **OK**.

By using the directional buttons select a desired category. Every category includes different topics. Select a topic and press **OK** to read instructions.

To close the E-Manual screen press the **Exit** or **Menu** button.

Note: The contents of the E-Manual may vary according to the model.

TV Menu Contents

System - Picture Menu Contents

3D Settings	Press to view 3D settings.
Mode	You can change the picture mode to suit your preference or requirements. Picture mode can be set to one of these options: Cinema , Game , Sports , Dynamic and Natural .
Contrast	Adjusts the light and dark values on the screen.
Brightness	Adjusts the brightness values on the screen.
Sharpness	Sets the sharpness value for the objects displayed on the screen.
Colour	Sets the colour value, adjusting the colours.
Energy Saving	For setting the Energy Saving to Custom , Minimum , Medium , Maximum , Auto , Screen Off or Off . Note: Available options may differ depending on the selected Mode .
Backlight	This setting controls the backlight level. The backlight function will be inactive if the Energy Saving is set to an option other than Custom .
Advanced Settings	
Dynamic Contrast	You can change the dynamic contrast ratio to desired value.
Noise Reduction	If the signal is weak and the picture is noisy, use the Noise Reduction setting to reduce the amount of noise.
Colour Temp	Sets the desired colour temperature value. Cool , Normal , Warm and Custom options are available.
White Point	If the Colour Temp option is set as Custom , this setting will be available. Increase the 'warmth' or 'coolness' of the picture by pressing Left or Right buttons.
Picture Zoom	Sets the desired image size format.
Film Mode	Films are recorded at a different number of frames per second to normal television programmes. Turn this feature on when you are watching films to see the fast motion scenes clearly.
Skin Tone	Skin tone can be changed between -5 and 5.
Colour Shift	Adjust the desired colour tone.
HDMI Full Range	While watching from a HDMI source, this feature will be visible. You can use this feature to enhance blackness in the picture.
PC Position	Appears only when the input source is set to VGA/PC.
Autoposition	Automatically optimizes the display. Press OK to optimize.
H Position	This item shifts the image horizontally to the right hand side or left hand side of the screen.
V Position	This item shifts the image vertically towards the top or bottom of the screen.
Dot Clock	Dot Clock adjustments correct the interference that appear as vertical banding in dot intensive presentations like spreadsheets or paragraphs or text in smaller fonts.
Phase	Depending on the input source(computer etc.) you may see a hazy or noisy picture on the screen. You can use phase to get a clearer picture by trial and error.
Reset	Resets the picture settings to factory default settings (except Game mode).
<i>While in VGA (PC) mode, some items in Picture menu will be unavailable. Instead, VGA mode settings will be added to the Picture Settings while in PC mode.</i>	

System - Sound Menu Contents

Volume	Adjusts the volume level.
Equalizer	Selects the equalizer mode. Custom settings can be made only when in User mode.
Balance	Adjusts whether the sound comes from the left or right speaker.
Headphone	Sets headphone volume. Please ensure before using headphones that the headphone volume is set to a low level, to prevent damage to your hearing.
Sound Mode	You can select a sound mode (If the viewed channel supports).
AVL (Automatic Volume Limiting)	Sets the sound to obtain fixed output level between programmes.
Headphone/Lineout	When you connect an external amplifier to your TV using the headphone jack, you can select this option as Lineout . If you have connected headphones to the TV, set this option as Headphone . Please ensure before using headphones that this menu item is set to Headphone . If it is set to Lineout , the output from the headphone socket will be set to maximum which could damage your hearing.
Dynamic Bass	Enables or disables the Dynamic Bass.
Surround sound	Surround sound mode can be changed as On or Off .
Digital Out	Sets digital out audio type.

System - Options Menu Contents	
Conditional Access	Controls conditional access modules when available.
Language	You may set a different language depending on the broadcaster and the country.
Parental	Enter correct password to change parental settings. You can easily adjust Menu Lock, Maturity Lock, Child Lock or Guidance in this menu. You can also set a new PIN or change the Default CICAM PIN using the related options. <i>Note: Some menu options may not be available depending on the country selection in the First Time Installation. Default PIN can be set to 0000 or 1234. If you have defined the PIN(is requested depending on the country selection) during the First Time Installation use the PIN that you have defined.</i>
Timers	Sets sleep timer to turn off the TV after a certain time. Sets timers for selected programmes.
Date/Time	Sets date and time.
Sources	Enables or disables selected source options. There are Regular, Enhanced and Disabled options available for HDMI sources. Regular and Enhanced options are affecting the colour settings of the selected HDMI source. To be able to watch 4K images from an HDMI source related source setting should be set as Enhanced if the connected device is HDMI 2.0 compatible. Set as Regular if the connected device is HDMI 1.4 compatible. Set accordingly or disable the related HDMI source by setting as Disabled .
Network/Internet Settings	Displays network/internet settings.
Accessibility	Displays accessibility options of the TV.
Hard of Hearing	Enables any special feature sent from the broadcaster.
Audio Description	A narration track will be played for the blind or visually impaired audience. Press OK to see all available Audio Description menu options. This feature is available only if the broadcaster supports it.
Netflix	If this feature is supported by your TV, you can view your ESN(*) number and deactivate Netflix. <i>(*) ESN number is a unique ID number for Netflix, created especially to identify your TV.</i>
More	Displays other setting options of the TV.
Menu Timeout	Changes timeout duration for menu screens.
HBBTV	You can enable or disable this feature by setting it as ON or OFF from other settings menu.
Software Upgrade	Ensures that your TV has the latest firmware. Press OK to see the menu options.
Application Version	Displays current software version.
Subtitle Mode	This option is used to select which subtitle mode will be on the screen (DVB subtitle / Teletext subtitle) if both is available. Default value is DVB subtitle. This feature is available only for the country option of Norway.
Auto TV OFF	Sets the desired time for the TV to automatically go into standby mode when not being operated.
Store Mode	Select this mode for store display purposes. Whilst Store Mode is enabled, some items in the TV menu may not be available.
Audio Video Sharing	Audio Video Sharing feature allows you to share files stored on your smartphone or tablet pc. If you have a compatible smartphone or tablet pc and the appropriate software is installed, you can share/play photos on your TV. See instructions of your sharing software for more information. Audio Video Sharing mode will not be available with internet portal feature.

Power Up Mode	This setting configures the power up mode preference. Last State and Standby options are available.
Virtual Remote	Enable or disable the virtual remote feature.
CEC	With this setting you can enable and disable CEC functionality completely. Press Left or Right button to enable or disable the feature.
CEC Auto Power On	This function allows the connected HDMI-CEC compatible device to turn on the TV and switch to its input source automatically. Press Left or Right button to enable or disable the feature.
Speakers	To hear the TV audio from the connected compatible audio device set as Amplifier . You can use the remote control of the TV to control the volume of the audio device.

Installation Menu Contents

Automatic channel scan (Retune)	Displays automatic tuning options. Digital Aerial: Searches and stores aerial DVB stations. Digital Cable: Searches and stores cable DVB stations. Analogue: Searches and stores analogue stations.
Manual channel scan	This feature can be used for direct broadcast entry.
Network channel scan	Searches for the linked channels in the broadcast system. Digital Aerial: Searches for aerial network channels. Digital Cable: Searches for cable network channels.
Analogue fine tune	You can use this setting for fine tuning analogue channels. This feature is not available if no analogue channels are stored.
Installation Settings	Displays installation settings menu. Standby Search (Optional): Your TV will search for new or missing channels while in standby. Any new found broadcasts will be shown.
Clear Service List	Use this setting to clear channels stored. This setting is visible only when the Country option is set to Denmark, Sweden, Norway or Finland.
Select Active Network	This setting allows you to select only the broadcasts within the selected network to be listed in the channel list. This feature is available only for the country option of Norway.
First time installation	Deletes all stored channels and settings, resets TV to factory settings.

General TV Operation

Using the Channel List

The TV sorts all stored stations in the **Channel List**. You can edit this channel list, set favourites or set active stations to be listed by using the **Channel List** options. Press the **OK/TV** button to open the **Channel List**. You can filter the listed channels by pressing the **Blue** button or open the **Edit Channel List** menu by pressing the **Green** button in order to make advanced changes in the current list.

Managing the Favourite Lists

You can create four different lists of your favourite channels. Enter the **Channel List** in the main menu or press the **Green** button while the **Channel List** is displayed on the screen in order to open the **Edit Channel List** menu. Select the desired channel on the list. You can make multiple choices by pressing the **Yellow** button. Then press the **OK** button to open the **Channel Edit Options** menu and select **Add/Remove Favourites** option. Press the **OK** button again. Set the desired list option to **On**. The selected channel/s will be added to the list. In order to remove a channel or channels from a favourite list follow the same steps and set the desired list option to **Off**.

You can use the **Filter** function in the **Edit Channel List** menu to filter the channels in the **Channel list** permanently according to your preferences. Using this **Filter** option, you can set one of your four favourite lists to be displayed everytime the **Channel list** is opened. The filtering function in the **Channel list** menu will only filter the currently displayed **Channel list** in order to find a channel and tune in to it. This changes will not remain the next time the **Channel list** is opened.

Configuring Parental Settings

The **Parental Settings** menu options can be used to prohibit users from viewing of certain programmes, channels and using of menus. These settings are located in the **System>Options>Parental** menu.

To display parental lock menu options, a PIN number should be entered. After coding the correct PIN number, **Parental Settings** menu will be displayed.

Menu Lock: This setting enables or disables access to all menus or installation menus of the TV.

Guidance: This setting enables or disables access some of the MHEG applications. Disabled applications can be released by entering the right PIN.

Set PIN: Defines a new PIN number.

Default CICAM PIN: This option will appear as greyed out if no CI module is inserted into the CI slot of the TV. You can change the default PIN of the CI CAM using this option.

Note: Default PIN can be set to **0000** or **1234**. If you have defined the PIN(is requested depending on the country selection) during the **First Time Installation** use the PIN that you have defined.

Some options may not be available depending on the country selection in the **First Time Installation**.

Electronic Programme Guide (EPG)

Some channels send information about their broadcast schedules. Press the **Epg** button to view the **Programme Guide** menu.

There are 3 different types of schedule layouts available, **Timeline Schedule**, **List Schedule** and **Now/Next Schedule**. To switch between them follow the instructions on the bottom of the screen.

Timeline Schedule

Zoom (Yellow button): Press the **Yellow** button to see events in a wider time interval.

Filter (Blue button): Views filtering options.

Select Genre (Subtitles button): Displays **Select Genre** menu. Using this feature, you can search the programme guide database in accordance with the genre. Info available in the programme guide will be searched and results matching your criteria will be highlighted.

Options (OK button): Displays event options.

Event Details (Info button): Displays detailed information about selected programmes.

Next/Prev Day (Programme +/- buttons): Displays the programmes of previous or next day.

Search (Text button): Displays **Guide Search** menu.

Now (Swap button): Displays current event of the highlighted channel. *(this button is not present on the remote CT-8053)*

List Schedule(*)

() In this layout option, only the events of the highlighted channel will be listed.*

Prev. Time Slice (Red button): Displays the programmes of previous time slice.

Next/Prev Day (Programme +/- buttons): Displays the programmes of previous or next day.

Event Details (Info button): Displays detailed information about selected programmes.

Filter (Text button): Views filtering options.

Next Time Slice (Green button): Displays the programmes of next time slice.

Options (OK button): Displays event options.

Now/Next Schedule

Navigate (Directional buttons): Press the **Directional buttons** to navigate through the channels and programmes.

Options (OK button): Displays event options.

Event Details (Info button): Displays detailed information about selected programmes.

Filter (Blue button): Views filtering options.

Programme Options

Use the directional buttons to highlight a programme and press **OK** button to display **Event Options** menu. The following options are available.

Select Channel: Using this option, you can switch to the selected channel.

Set Timer on Event / Delete Timer on Event: After you have selected a programme in the EPG menu, press the **OK** button. Select **Set Timer on Event** option and press the **OK** button. You can set a timer for future programmes. To cancel an already set timer, highlight that programme and press the **OK** button. Then select **Delete Timer on Event** option. The timer will be cancelled.

Notes: You cannot switch to any other channel while there is an active timer on the current channel.

It is not possible to set timer for two or more individual events at the same time interval.

Teletext Services

Press the **Text** button to enter. Press again to activate mix mode, which allows you to see the teletext page and the TV broadcast at the same time. Press once more to exit. If available, sections in the teletext pages will become colour-coded and can be selected by pressing the coloured buttons. Follow the instructions displayed on the screen.

Digital Teletext

Press the **Text** button to view digital teletext information. Operate it with the coloured buttons, cursor buttons and the **OK** button. The operation method may differ depending on the contents of the digital teletext. Follow the instructions displayed on the digital teletext screen. When the **Text** button is pressed again, the TV returns to television broadcast.

BBC Connected Red Button (CRB)

While watching BBC channels, press the **Red** button to access digital TV services provided by the BBC. Under the tab '**Featured**' highlight **Connected Red Button** and press **OK** to start the service. On the opening page you can access to BBC's main services such as BBC iPlayer, BBC News, BBC Sport and many others. There are also links to the home pages of the related applications available. Use the navigation buttons on the TV's remote control to move through the application. Press **Exit** button to close and exit.

Software Upgrade

Your TV is capable of finding and updating the firmware automatically via the broadcast signal or via Internet.

Software upgrade search via user interface

On the main menu select **System>Options** and then **More**. Navigate to **Software upgrade** and press the **OK** button. In **Upgrade options** menu select **Scan for upgrade** and press **OK** button to check for a new software upgrade.

If a new upgrade is found, it starts to download the upgrade. After the download is completed

confirm the question asking about rebooting the TV by pressing the **OK** to continue with the reboot operation.

3 AM search and upgrade mode

Your TV will search for new upgrades at 3:00 o'clock if **Automatic scanning** option in the **Upgrade options** menu is set to **Enabled** and if the TV is connected to an aerial signal or to Internet. If a new software is found and downloaded successfully, it will be installed at the next power on.

Note: Do not unplug the power cord while led is blinking during the reboot process. If the TV fails to come on after the upgrade, unplug, wait for two minutes then plug it back in.

Troubleshooting & Tips

Tv will not turn on

Make sure the power cord is plugged in securely to wall outlet. Check if batteries are exhausted. Press the Power button on the TV.

Poor picture

- Check if you have selected the correct TV system.
- Low signal level can cause picture distortion. Please check antenna access.
- Check if you have entered the correct channel frequency if you have done manual tuning.
- The picture quality may degrade when two devices are connected to the TV at the same time. In such a case, disconnect one of the devices.

No picture

- This means your TV is not receiving any transmission. Make sure the correct source has been selected.
- Is the antenna connected properly?
- Is the antenna cable damaged?
- Are suitable plugs used to connect the antenna?
- If you are in doubt, consult your dealer.

No sound

- Check if the TV is muted. Press the **Mute** button or increase the volume to check.
- Sound may be coming from only one speaker. Check the balance settings from **Sound** menu.

Remote control - no operation

- The batteries may be exhausted. Replace the batteries.

Input sources - can not be selected

- If you cannot select an input source, it is possible that no device is connected. If not;
- Check the AV cables and connections if you are trying to switch to the input source dedicated to the connected device.

PC Input Typical Display Modes

The following table is an illustration of some of the typical video display modes. Your TV may not support all resolutions.

Index	Resolution	Frequency
1	640x350	85Hz
2	640x480	60Hz
3	640x480	72Hz
4	640x480	75Hz
5	800x600	56Hz
6	800x600	60Hz
7	800x600	72Hz
8	800x600	75Hz
9	1024x768	60Hz
10	1024x768	70Hz
11	1024x768	75Hz
12	1024x768	85Hz
13	1152x864	75Hz
14	1280x768	60Hz
15	1280x768	75Hz
16	1280x960	60Hz
17	1280x960	75Hz
18	1280x1024	60Hz
19	1280x1024	75Hz
20	1360x768	60Hz
21	1366x768	60Hz
22	1400x1050	59Hz
23	1400x1050	60Hz
24	1400x1050	75Hz
25	1440x900	60Hz
26	1440x900	75Hz
27	1600x1200	60Hz
28	1680x1050	59Hz
29	1680x1050	60Hz
30	1920x1080	60Hz

AV and HDMI Signal Compatibility

Source	Supported Signals	Available	
EXT (SCART)	PAL	O	
	SECAM	O	
	NTSC4.43	O	
	NTSC3.58		
	RGB 50/60	O	
Side AV	PAL	O	
	SECAM	O	
	NTSC4.43	O	
	NTSC3.58	O	
YPbPr	480i, 480p	60Hz	O
	576i, 576p	50Hz	O
	720p	50Hz,60Hz	O
	1080i	50Hz,60Hz	O
HDMI	480i	60Hz	O
	480p	60Hz	O
	576i, 576p	50Hz	O
	720p	50Hz,60Hz	O
	1080i	50Hz,60Hz	O
	1080p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz	O
	3840x2160p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz	O
	4096x2160p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz	O

(X: Not Available, O: Available)

In some cases a signal on the TV may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc.). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

Supported Video File Formats for USB Mode

Video Codec	Resolution	Bit Rate	Container
MPEG1/2	1080Px2@30fps, 1080P@60fps	40Mbps	MPEG program stream (.DAT, .VOB, .MPG, .MPEG), MPEG transport stream (.ts, .trp, .tp), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv), ASF (.asf)
MPEG4			MPEG program stream (.MPG, .MPEG), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv), ASF (.asf)
XviD			MP4 (.mp4, .mov), AVI (.avi), MKV (.mkv), ASF (.asf)
Sorenson H.263			FLV (.flv), AVI (.avi), SWF(.swf)
H.263			MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv)
H.264	3840x2160@30fps, 1080P@60fps	135Mbps	FLV (.flv), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp), ASF (.asf), AVI (.avi), MKV (.mkv)
Motion JPEG	720P@30fps	10Mbps	AVI (.avi), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), MKV (.mkv), ASF (.asf)
VP8	1080P@30fps	20Mbps	MKV (.mkv), WebM (.webm)
HEVC	4K2K@60fps	160Mbps	MP4 (.mp4, .mov), MKV (.mkv), MPEG transport stream (.ts, .trp, .tp)
VP9	4K2K@30fps	100Mbps	MKV (.mkv), WebM (.webm)

Supported Picture File Formats for USB Mode

Image	Photo	Resolution (width x height)	Remark
JPEG	Base-line	15360x8640	The limit for max resolution depends on DRAM size
	Progressive	1024x768	
PNG	non-interlace	9600x6400	
	interlace	1200x800	
BMP		9600x6400	

Supported Audio File Formats for USB Mode

Audio Codec	Sample rate	Bit Rate	
MPEG1/2 Layer1	16KHz ~ 48KHz	32Kbps ~ 448Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), Matroska (.mkv, .mka), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), WAV (.wav)
MPEG1/2 Layer2	16KHz ~ 48KHz	8Kbps ~ 384Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), Matroska (.mkv, .mka), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), WAV (.wav)
MPEG1/2 Layer3	16KHz ~ 48KHz	8Kbps ~ 320Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), Matroska (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), WAV (.wav), SWF (.swf)
AC3	32KHz, 44.1KHz, 48KHz	32Kbps ~ 640Kbps	AC3 (.ac3), AVI (.avi), Matroska (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG)
EAC3	32KHz, 44.1KHz, 48KHz	32Kbps ~ 6 Mbps	EAC3 (.ec3), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG)
AAC, HEAAC	8KHz ~ 48KHz		AAC (.aac), AVI (.avi), Matroska (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), RM (.ra)
WMA	8KHz ~ 48KHz	128bps ~ 320Kbps	
WMA 10 Pro M0	48KHz	< 192kbps	ASF (.wma, .asf), AVI (.avi), Matroska (.mkv, .mka)
WMA 10 Pro M1	48KHz	< 384kbps	
WMA 10 Pro M2	96KHz	< 768kbps	
G711 A/mu-law	8KHz	64Kbps ~ 128Kbps	WAV (.wav), AVI (.avi), Matroska (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a)
LBR (cook)	8KHz, 11.025KHz, 22.05KHz, 44.1KHz	6Kbps ~ 128Kbps	RM (.ra)
FLAC	8KHz~96KHz	< 1.6Mbps	Matroska (.mkv, .mka)

Supported DVI Resolutions

When connecting devices to your TV's connectors by using DVI converter cable(DVI to HDMI cable - not supplied), you can refer to the following resolution information.

	56Hz	60Hz	66Hz	70Hz	72Hz	75Hz
640x480		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
800x600	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
1024x768		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
1280x768		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
1280x960		<input checked="" type="checkbox"/>				
1360x768		<input checked="" type="checkbox"/>				
1366x768		<input checked="" type="checkbox"/>				
1280x1024		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
1400x1050		<input checked="" type="checkbox"/>				
1600x900		<input checked="" type="checkbox"/>				

3D Mode

To view 3D contents or programmes in 3D mode you should wear the active 3D shutter glasses that supports Bluetooth™ wireless technology. Note that this TV's 3D feature works only with its specific 3D glasses.

⚠ Cautions for 3D viewing

For your safety; Read these safety precautions carefully before using the 3D function.

- Pregnant women, seniors, people with heart problems or people who experience frequent drowsiness, as well as people who can get easily nauseous should refrain from watching 3D.
- Prevent children under the age of 5 from watching 3D. It may affect their vision development.
- When watching 3D images, monitor your children, including teenagers because they may be more sensitive to the effects of watching 3D. If they experience similar discomforts mentioned below, have them stop watching in 3D immediately.
- You may experience discomfort, headaches or dizziness while watching 3D images. If you experience such symptoms, you should remove 3D glasses and stop watching 3D mode.
- Do not watch in 3D mode for long periods of time. Allow yourself occasional rests. During viewing, if you experience any discomforts such as eye-strain, headache or nausea; take off the 3D glasses and stop watching in 3D mode. Consult a doctor if the discomforts persist.
- Do not use the 3D glasses for any other purposes. Use 3D Glasses for watching 3D video only. Do not use them as sunglasses or reading glasses.
- When watching in 3D be aware of your surroundings. Do not move around while watching in 3D and wearing the glasses as your vision is modified and you may run into objects, trip or fall which may result in injuries.
- Some content in 3D may cause the viewer to perform sudden reflex movements such as ducking or dodging; therefore it is important to not place any fragile objects near the television.
- When using the 3D glasses the distance between the user and screen can be misjudged. Be careful not to strike the TV screen.
- Some viewers may feel disoriented after watching 3D. Therefore, after you watch 3D, take a moment to regain awareness of your surrounding before moving.

Photosensitive Seizure Warning

- If you or a member of your family has a history of epilepsy or seizure, please consult with your doctor before watching 3D TV. It is possible that some viewers may experience a seizure or epilepsy when

exposed to certain conditions, including flashing lights or images in TV or video games.

- Sometimes certain symptoms can occur in unspecified conditions even if you do not have any previous history. In such a case, if you experience any of the following symptoms, immediately stop watching the 3D TV and consult a doctor: altered vision, visual or facial instability, such as eye or muscle twitching, dizziness or light-headedness, visual transition or unconscious action, convulsion, loss of conscience, confusion or disorientation, loss of directional sense, cramps, or nausea.

You can reduce the risk of photosensitization seizure by taking the following actions:

- While watching the 3D TV, do take frequent breaks.
- If you suffer from any eyesight problems (short / far-sighted, astigmatism, eyesight differences in left and right), ensure to correct your vision before using the 3D glasses.
- Do not watch the TV too closely and try always keep the television at eye level. Do not watch the 3D TV when you are tired or sick. Avoid watching the 3D TV for a long period of time.

Operating the 3D Mode

Press the **MENU** button on the remote and select the **System>Picture** icon. Press **OK** button to view **Picture Settings** menu. Use Up or Down buttons to select **3D Settings** and press **OK** to view. For quick access to **3D Settings** menu just press the **3D** button on the remote (if available).

Notes:

- You should select suitable **3D Mode** before viewing. If appropriate mode is not selected, 3D image can not be correctly displayed.
- The 3D picture may not be visible or become distorted when watching under intense light conditions.
- If you experience screen flickering when watching 3D images in poor light conditions, you should turn the lamp off or dim the light.
- Bluetooth™ and Wireless LAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth™ and Wireless LAN devices simultaneously, you may occasionally experience a less than optimal network performance. Use the 3D glasses where there is no interference from other Bluetooth™ or Wireless LAN devices.

Using the 3D Glasses

Refer to the manual of the 3D glasses before use for detailed information and instructions on usage.

Before using you should pair the glasses with your TV. Press the power button on the glasses to turn it

on. You can enjoy viewing 3D images now by wearing the 3D glasses. Turn off the glasses after using it.

The 3D eyewear may not operate correctly out of the viewing range. Use the 3D glasses within the viewing range. The range may be shortened depending on the obstacles between the TV and the 3D glasses, or the surrounding environment.

Cleaning and maintenance of the 3D glasses

- Do not apply spray cleaners directly onto the surface of the 3D glasses. This may result in discoloration and cracks and may cause the screen display to peel off.
- Make sure the cleaning cloth is soft and does not contain any foreign material or dust. Using a dirty cloth will damage your 3D glasses.
- Do not drop or bend the 3D glasses.

Viewing 3D images

Incoming video signals can either be in 2D or 3D format. A 2D signal can be viewed in either 2D or 3D, and 3D can be viewed in either 2D or 3D. If the **3D Mode** option in the **3D Settings** menu is set to **Auto**, the TV can detect the 3D signal and change to 3D mode automatically. Otherwise you can change the viewing mode from the **3D Settings** menu manually. Press the **3D** button on the remote (if available) for quick access to the **3D Settings** menu.

The format of the 3D signal can be either **Side By Side (SBS)** or **Top Bottom (TB)**. You may have to choose the correct format using the **3D Mode** option if the TV can not detect it automatically.

Moreover, when viewing in 2D, you can change 2D images to 3D images by enabling the **Virtual 3D** option in the **3D Settings** menu.

3D format	Description
Side By Side (SBS)	Images for the left and right eyes are positioned side-by-side.
Top Bottom (TB)	Images for the left and right eyes are positioned at the top and bottom of the screen.

Changing 3D format from the Option Menu (depending on the model)

Press the **Quick Menu** button on the remote (if available) to open the **Option Menu**. Select **3D Mode** option and set as you want.

Watching 3D images in 2D format

First off all the TV should be in 3D mode. Press the **3D** button on the remote (if available) to open **3D Settings** menu quickly. Select **2D Only** option in the **3D Settings** menu using the Up or Down buttons. Press Left or Right buttons to set 2D mode as **Left**, **Right** or **Off**.

Watching 2D images in 3D format

Press the **3D** button on the remote (if available) to open **3D Settings** menu quickly. Select **Virtual 3D**

option in the **3D Settings** menu using the Up or Down buttons. Press Left or Right buttons to set.

Switching left and right images

The left and right eye shutter timing of the glasses can be swapped. If 3D images look blurred, switch the left and right sides of the 3D image.

Press the **3D** button on the remote (if available) to open **3D Settings** menu quickly. Select **Left/Right Swap** option using the Up or Down buttons. Press Left or Right buttons to set as **Left/Right** or **Right/Left**.

3D Settings

3D Mode

You can customize the 3D mode settings to provide the best viewing experience. Select one of the following modes to experience 3D image viewing:

Auto: Automatically switches to 3D mode if 3D information is detected from a digital broadcast or a HDMI source.

Side by Side: Displays 3D content which is originally in a form of side by side.

Top bottom: Displays 3D content which is originally in a form of top and bottom.

Off: 3D function is turned off.

2D Only

If content is 3D but you want to watch it in 2D, you can switch to **2D Only** mode. There are 2 options (**LEFT** and **RIGHT**) to select which side of the content you want to watch in 2D.

Virtual 3D

Conversion from 2D to 3D. You can enable or disable this feature by setting as **On** or **Off**. Or depending on model, you can set the level of depth of field to various settings or turn it off.

Left/Right Swap

You can use this setting to shift the phase of the 3D left/right broadcast.

3D Depth Sense (depending on model)

This setting enables the control of 3D depth.

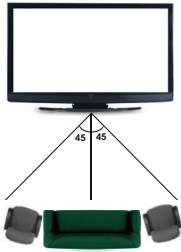
3D Viewing Information

Refer to the size/distance guidelines below to experience 3D in the best possible way.

Viewing Distance

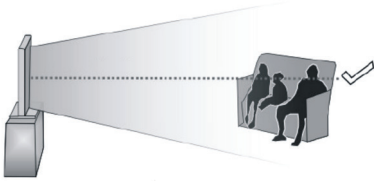
Size (inch)	23	26	32	37	39	40	42	46	47	48	50	55	65
Viewing distance (m)	1,30	1,50	1,90	2,20	2,30	2,40	2,50	2,75	2,80	2,85	3,00	3,25	3,65

Horizontal Viewing Angle



Vertical Viewing Angle

It is strongly recommended that the eye level of the viewer should be same height as the center of the TV. In case that is not possible, tilt the TV accordingly in its stand or wall mount. The picture may not be visible or may look dark if you do not stay within the viewing angle.



Supported 3D Content Resolutions

	HDMI	MBV	MBP	DTV
1080p@24 FP	Supported	Not Supported	Not Supported	Not Supported
720p@50 FP	Supported	Not Supported	Not Supported	Not Supported
720p@60 FP	Supported	Not Supported	Not Supported	Not Supported
1080p FC	SBS, TB	SBS, TB	SBS, TB	SBS, TB
720p FC	SBS, TB	SBS, TB	SBS, TB	SBS, TB
1080i FC	SBS, TB	SBS, TB	SBS, TB	SBS, TB
OTHER	SBS, TB	SBS, TB	C1	SBS, TB

	ATV	PORTAL	YOUTUBE	OTHER
1080p@24 FP	Not Supported	Not Supported	Not Supported	Not Supported
720p@50 FP	Not Supported	Not Supported	Not Supported	Not Supported
720p@60 FP	Not Supported	Not Supported	Not Supported	Not Supported
1080p FC	Not Supported	SBS, TB	SBS, TB	SBS, TB
720p FC	Not Supported	SBS, TB	SBS, TB	SBS, TB
1080i FC	Not Supported	SBS, TB	SBS, TB	SBS, TB
OTHER	Not Supported	SBS, TB	SBS, TB	Not Supported

C1: If the image height exactly divisible by 2 and the image width exactly divisible by 16 and image width is wider or equal than panel width, C1 is supported.

SBS: Side By Side

TB: Top Bottom

MBP: Media Browser Picture

MBV: Media Browser Video

DTV: Digital TV Source

ATV: Analog TV Source

FC: Frame Compatible

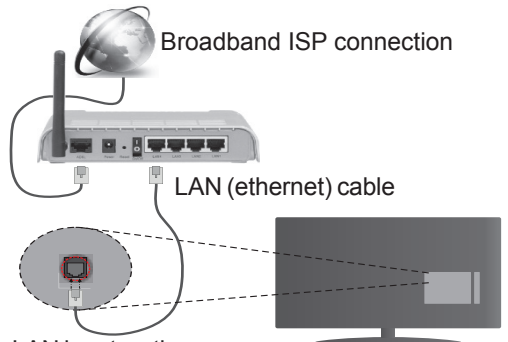
FP: Frame Packed

Connectivity

Wired Connectivity

To Connect to a Wired Network

- You must have a modem/router connected to an active broadband connection.
- Ensure that Nero Media Home software is installed to your PC (for Audio Video Sharing function). See "**Nero Media Home Installation**" section.
- Connect your PC to your modem/router. This can be a wired or wireless connection.
- Connect your TV to your modem/router via an ethernet cable. There is a LAN port at the rear (back) of your TV.

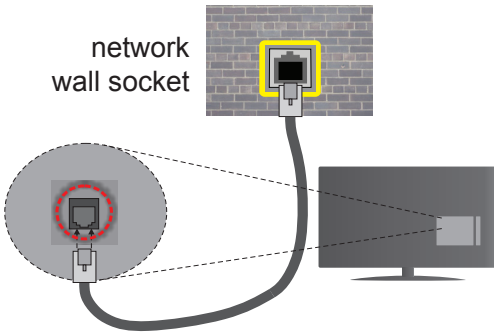


LAN input on the rear side of the TV

- To access and play shared files, you must select the **Media Browser**. Press the **Menu** button and select **Media Browser**. Press **OK** to continue. Select the desired file type and press **OK**. You must always use the **Media Browser** screen to access and play shared network files.
- PC/HDD/Media Player or any other devices that are compatible should be used with a wired connection for higher playback quality.

To configure wired settings please refer to the **Network/Internet Settings** section in the **System>Options Menu**.

- You might be able to connect your TV to your LAN depending on your network's configuration. In such a case, use an ethernet cable to connect your TV directly to the network wall outlet.



LAN input on the rear side of the TV

Configuring Wired Device Settings

Network Type

The **Network Type** can be selected as **Wired Device**, **Wireless Device** or **Disabled**, in accordance with the active connection to the TV set. Select this as **Wired Device** if you are connecting via an ethernet.

Internet Speed Test

Highlight **Internet Speed Test** and press the **OK** button. TV will check the internet connection bandwidth and display the result when complete.

Advanced Settings

Highlight **Advanced Settings** and press the **OK** button. On the next screen you can change the IP and DNS settings of the TV. Highlight the desired one and press Left or Right button to change the setting from **Automatic** to **Manual**. Now you can enter the **Manual IP** and / or **Manual DNS** values. Select the related item in the drop down menu and enter the new values using the numeric buttons of the remote. Press the **OK** button to save settings when complete.

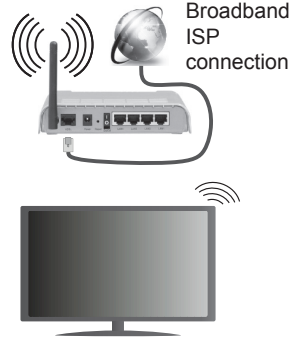
Wireless Connectivity

To Connect to a Wireless Network

The TV cannot connect to the networks with a hidden SSID. To make your modem's SSID visible, you should change your SSID settings via the modem's software.

To Connect to a wireless LAN, you should perform the following steps:

1. Ensure that Nero Media Home software is installed to your PC (for Audio Video Sharing function).
2. To configure your wireless settings please refer to the **Network/Internet Settings** section in the **System>Options Menu**.



A Wireless-N router (IEEE 802.11a/b/g/n) with simultaneous 2.4 and 5 GHz bands is designed to increase bandwidth. These are optimized for smoother and faster HD video streaming, file transfers and wireless gaming.

- Use a LAN connection for quicker file sharing between other devices like computers.
- The frequency and channel differ depending on the area.
- The transmission speed differs depending on the distance and number of obstructions between the transmission products, the configuration of these products, the radio wave conditions, the line traffic and the products that you use. The transmission may also be cut off or may get disconnected depending on the radio wave conditions, DECT phones or any other WiFi 11b appliances. The standard values of the transmission speed are the theoretical maximum values for the wireless standards. They are not the actual speeds of data transmission.
- The location where the transmission is most effective differs depending on the usage environment.
- The Wireless feature of the TV supports 802.11 a,b,g & n type modems. It is highly recommended that you should use the IEEE 802.11n communication protocol in order to avoid any possible problems while watching videos.

- You must change your modem's SSID when there are any other modems around with the same SSID. You can encounter connection problems otherwise. Use a wired connection if you experience problems with a wireless connection.

Configuring Wireless Device Settings

Open the **Network/Internet Settings** menu and select **Network Type** as **Wireless Device** to start connection process.

The TV will scan the wireless networks automatically. A list of available networks will be displayed. Please select your desired network from the list.

Note: If the modem supports N mode, you should set N mode settings.

If the selected network is protected with a password, please enter the correct key by using the virtual keyboard. You can use this keyboard via the directional buttons and the **OK** button on the remote control.

Wait until the IP address is shown on the screen.

This means that the connection is now established. To disconnect from a wireless network, highlight **Network Type** and press Left or Right buttons to set as **Disabled**.


Highlight **Internet Speed Test** and press the **OK** button to check your internet connection speed. Highlight **Advanced Settings** and press the **OK** button to open the advanced setting menu. Use directional and numeric buttons to set. Press the **OK** button to save settings when complete.

Other Information

The status of the connection will be displayed as **Connected** or **Not Connected** and the current IP address, if a connection is established.

Connecting to your mobile device via WiFi

- If your mobile device has WiFi feature, you can connect it to your TV via a router, in order to access the content in your device. For this, your mobile device must have an appropriate sharing software.
- Connect to your router following the steps stated above in the **Wireless Connectivity** section.
- Afterwards, engage your mobile device with the router and then activate the sharing software on your mobile device. Then, select files that you want to share with your TV.
- If the connection is established correctly, you will be able to access the shared files from your mobile device via the **Media Browser** of your TV.
- Enter the **Media Browser** menu and the playback device selection OSD will be displayed. Select your mobile device and press the **OK** button to continue.
- If available, you can download a virtual remote controller application from the server of your mobile device application provider.

 *Note: This feature may not be supported on all mobile devices.*

Connectivity Troubleshooting

Wireless Network Not Available

- Ensure that any firewalls of your network allow the TV wireless connection.
- Try searching for wireless networks again, using the **Network/Internet Settings** menu screen.

If the wireless network does not function properly, try using the wired network in your home. Refer to the **Wired Connectivity** section for more information on the process.

If the TV does not function using the wired connection, check the modem (router). If the router does not have a problem, check the internet connection of your modem.

Connection is Slow

See the instruction book of your wireless modem to get information on the internal service area, connection speed, signal quality and other settings. You need to have a high speed connection for your modem.

Distruption during playback or slow reactions

You could try the following in such a case:

Keep at least three meters distance from microwave ovens, mobile telephones, bluetooth devices or any other Wi-Fi compatible devices. Try changing the active channel on the WLAN router.

Internet Connection Not Available / Audio Video Sharing Not Working

If the MAC address (a unique identifier number) of your PC or modem has been permanently registered, it is possible that your TV might not connect to the internet. In such a case, the MAC address is authenticated each time when you connect to the internet. This is a precaution against unauthorized access. Since your TV has its own MAC address, your internet service provider cannot validate the MAC address of your TV. For this reason, your TV cannot connect to the internet. Contact your internet service provider and request information on how to connect a different device, such as your TV, to the internet.

It is also possible that the connection may not be available due to a firewall problem. If you think this causes your problem, contact your internet service provider. A firewall might be the reason of a connectivity and discovery problem while using the TV in Audio Video Sharing mode or while browsing via Audio Video Sharing feature.

Invalid Domain

Ensure that you have already logged on to your PC with an authorized username/password and also ensure that your domain is active, prior to sharing

any files in your media server program on your PC. If the domain is invalid, this might cause problems while browsing files in Audio Video Sharing mode.

Using Audio Video Sharing Network Service

Audio Video Sharing feature uses a standard that eases the viewing process of digital electronics and makes them more convenient to use on a home network.

This standard allows you to view and play photos, music and videos stored in the media server connected to your home network.

1. Nero Media Home Installation

The Audio Video Sharing feature cannot be used if the server programme is not installed onto your PC. Please prepare your PC with the Nero Media Home programme. For more information about the installation, please refer to the “**Nero Media Home Installation**” section.

2. Connect to a Wired or Wireless Network

See the **Wired/Wireless Connectivity** chapters for detailed configuration information.

3. Play Shared Files via Media Browser

Select **Media Browser** by using the **directional** buttons from the main menu and press **OK**. The media browser will then be displayed.

Audio Video Sharing

Audio Video Sharing support is only available in the **Media Browser Folder** mode. To enable folder mode, go to the **Settings** tab in the main media browser screen and press **OK**. Highlight **View Style** and set to **Folder** using the **Left** or **Right** buttons. Select the desired media type and press **OK**.

If sharing configurations are set properly, **Device Selection** screen will be displayed after selecting the desired media type. If available networks are found, they will be listed on this screen. Select media server or network that you want to connect to using the Up or Down buttons and press **OK**. If you want to refresh the device list, press the **Green** button. You can press **Menu** to exit.

If you select the media type as **Videos** and choose a device from the selection menu. Then select the folder with video files in it on the next screen and all the available video files will be listed.

To play other media types from this screen, you must go back to main **Media Browser** screen and select the media type as desired and then perform the network selection again. Refer to the **Media Browser** menu section for further information on file playback.

Subtitle files do not work if you watch videos from your network through Audio Video Sharing feature.

You can connect only one television to the same network. If a problem occurs with the network, please switch your television off at the wall socket and back

on again. Trick mode and jump are not supported with the Audio Video Sharing feature.

Note: There may be some PC's which may not be able to utilize the Audio Video Sharing feature due to administrator and security settings (such as business PC's).

For best home network streaming with this TV, the Nero software should be installed.

Nero MediaHome Installation

To install Nero MediaHome, please proceed as follows:

Note: To use Audio Video Sharing feature, this software should be installed to your PC.

1. Enter the link below completely in the address-bar of your web browser.
<http://www.nero.com/mediahome-tv>
2. Click the **Download** button on the opening page. The installation file will be downloaded onto your PC.
3. After the download is completed, double click on the installation file to start the installation. The installation wizard will guide you through the installation process.
4. The prerequisites screen will be displayed first. The installation wizard checks the availability of required third-party software on your PC. If applications are missing they are listed and must be installed before continuing installation.
5. Click the **Install** button. The integrated serial will be displayed. Please do not change the displayed serial.
6. Click the **Next** button. The License Conditions (EULA) screen will be displayed. Please read the license agreement carefully and select the appropriate check box if you agree to the terms of the agreement. Installation is not possible without this agreement.
7. Click the **Next** button. On the next screen you can set your installation preferences.
8. Click the **Install** button. The installation begins and finishes automatically. A progress bar will indicate the state of the installation process.
9. Click the **Finish** button. The installation is completed. You will be directed to the web site of the nero software.
10. A shortcut is now placed on your desktop.

Congratulations! You successfully installed Nero MediaHome on your PC.

Run Nero MediaHome by double clicking on the shortcut icon.

Internet Portal

HINT: A broadband internet connection is required for high quality viewing. You must set the country option accordingly in the **First Time Installation** for proper operation of the internet portal.

Portal feature adds your TV a feature that allows you to connect a server on the Internet and view the content provided by this server over your Internet connection. Portal feature allows you to view the music, video, clip or web content with defined short-cuts. Whether you can view this content without interruption depends on the connection speed provided by your internet service provider.

Press the **Internet** button on your remote control to open internet portal page. You will see icons of the available applications and services on the portal screen. Use the directional buttons on your remote to select the desired one. You may view the desired content by pressing **OK** after selecting. Press **Back/Return** button to return back to the previous screen.

Moreover, you can access some features using the short-cut feature defined for the coloured or numeric buttons of your remote.

Press the **Exit** button to quit the Internet portal mode.

PIP Window (depending on portal service)

Current source content will be displayed in the PIP window, if you switch to portal mode while on any active source.

If you switch to portal mode while watching TV channels, current programme will be displayed in the PIP window. You can change channels using **Programme +/-** buttons.

Notes:

Possible application dependent problems may be caused by the content service provider.

Portal service content and the interface may be changed at any time without prior notice.

Third party internet services may change, be discontinued or restricted at any time.

iPlayer Application

You can access BBC iPlayer using your TV. Select BBC iPlayer application among the portal options.

Press the **OK** button on your remote control to start the BBC iPlayer application.

Note: Broadband internet connection (minimum 2mbps) is required for high quality viewing.

Playing a Programme via iPlayer

Select a programme and press **OK** button. The programme playback will begin.

You can press the **Pause** button to pause playback. Press the **Play** button to resume the playback.

Use the **Stop** button to stop the playback.

Press the **Exit** button to exit iPlayer. Press the **Return /Back** button for going back to the previous screen.

Note: "Episode is unavailable" message may be displayed on the screen if a problem occurs during the playback.

Searching a Programme

Highlight the **Search** tab using the navigation buttons and press the **OK** button. Use the virtual keyboard to type the letters. Select letters and press the **OK** button. When finished, highlight **Search** option and press the **OK** button.



Internet Browser


To use the internet browser, enter the portal first. Then launch the **Internet** application on the portal.

(* The appearance of the internet browser logo may change

In the initial screen of the browser, the thumbnails of the predefined (if any) links to web sites available will be displayed as **Speed Dial** options along with the **Edit Speed Dial** and the **Add to Speed Dial** options.

To navigate the web browser, use the directional buttons on the remote or a connected mouse. To see the browser options bar, move the cursor to the top of the page or press the **Back/Return** button. **History**, **Tags** and **Bookmarks** options and the browser bar which contains previous/next buttons, the refresh button, the address/search bar, the **Speed Dial** and the **Opera** buttons are available.

To add a desired website to the **Speed Dial** list for quick access, move the cursor to the top of the page or press the **Back/Return** button. The browser bar will appear. Highlight the **Speed Dial** -  button and press the **OK** button. Then select **Add to Speed Dial** option and press the **OK** button. Fill in the blanks for **Name** and **Address**, highlight **OK** and press the **OK** button to add. Whilst you are on the site you wish to add to the **Speed Dial** list, highlight the **Opera** -  button and press the **OK** button. Then highlight **Add to Speed Dial** option in the submenu and press the **OK** button again. **Name** and **Address** will be filled automatically according to the site you are visiting. Highlight **OK** and press the **OK** button to add.

You can also use the **Opera** menu options to manage the browser. Highlight the **Opera** -  button and press the **OK** button to see available page specific and general options.

There are various ways to search or visit websites using the web browser.

Enter the address of a website(URL) into the search/address bar and highlight the **Submit** button on the virtual keyboard and press the **OK** button to visit the site.

Enter keyword/s into the search/address bar and highlight the **Submit** button on the virtual keyboard and press the **OK** button to start a search for the related websites.

Highlight a Speed Dial thumbnail and press the **OK** button to visit the related website.

Your TV is compatible with USB mice. Plug your mouse or wireless mouse adaptor into the USB input of your TV for easier and quicker navigation.

Some web pages include flash content. These are not supported by the browser.

Your TV does not support any download processes from the internet via the browser.

HbbTV System

HbbTV (Hybrid Broadcast Broadband TV) is a new industry standard that seamlessly combines TV services delivered via broadcast with services delivered via broadband and also enables access to Internet only services for consumers using connected TVs and set-top boxes. Services delivered through HbbTV include traditional broadcast TV channels, catch-up services, video-on-demand, EPG, interactive advertising, personalisation, voting, games, social networking and other multimedia applications.

HbbTV applications are available on channels where they are signalled by the broadcaster (currently various channels on Astra broadcast HbbTV applications). The broadcaster marks one application as "autostart" and this one is started by the platform automatically. The autostart applications are generally launched with a small red button icon to notify the user that there is an HbbTV application on that channel. Press the red button to open the application page. After the page is displayed you can go back to the initial red button icon state by pressing the red button again. You can toggle between the red button icon mode and full UI mode of the application via pressing red button. It should be noted that the red button switching capability is provided by the application and some application may behave differently.

If you switch to another channel while an HbbTV application is active (either in red button icon mode or full UI mode), the following scenarios can occur.

- The application can continue running.
- The application can be terminated.
- The application can be terminated and another autostart red button application can be launched.

HbbTV allows the applications to be retrieved both from broadband or broadcast. The broadcaster may enable both ways or one of them. If the platform does not have an operational broadband connection, the platform can still launch applications transmitted on broadcast.

The autostart red button applications generally provide links to other applications. An example of this is shown below. The user then can switch to other applications by using the links provided. The

applications should provide a way to terminate themselves, usually **Exit** button is used for this.



Figure a: Start bar application



Figure b: EPG application, broadcast video is shown on the left bottom, can be terminated by pressing 0.

HbbTV applications use keys on the remote control to interact with the user. When an HbbTV application is launched, the control of some keys are owned by the application. For example, numeric channel selection may not work on a teletext application where the numbers indicate teletext pages.

HbbTV requires AV streaming capability for the platform. There are numerous applications providing VOD (video on demand) and catch-up TV services. The user can use play, pause, stop, forward, and rewind keys on the remote control to interact with the AV content.

Note: You can enable or disable this feature from the **More** menu in **System>Options** menu.

Smart Center

Smart Center is a mobile application running on iOS and Android platforms. With your tablet or phone, you can easily stream your favourite live shows and programmes from your smart TV. Also; you can launch your portal applications, use your tablet as a remote control for your TV and share media files.

Note: Being able to use all functions of this application depends on the features of your TV.

Getting Started

To use Smart Center features, connections have to be done properly. To get connected to your network wirelessly, plug in the Wi-Fi dongle to one of the USB ports if your TV doesn't have internal wifi feature. To be able to use internet based features, your modem/router must be connected to the internet.

IMPORTANT: Make sure the TV and mobile device are connected to the same network.

For media sharing feature **Audio Video Sharing** option should be enabled(if available). Press the **Menu** button on the remote, select **System>Options>More** menu and press **OK**. Highlight **Audio Video Sharing** and change as **Enabled**. Your TV is ready to connect to your mobile device now.

Install the **Smart Center** application onto your mobile device.

Start the smart center application. If all connections are configured properly, you will see your TV's name on your mobile device. If your TV's name doesn't appear on the list, wait a while and tap on the **Refresh** widget. Select your TV from the list.

Mobile Device screen

On the main screen you can find tabs to access various features.

The application retrieves actual channel list from TV first when it starts.

MY CHANNELS: The programmes of first four channels from the channel list retrieved from the TV are shown. You can change the listed channels. Press on the channel thumbnail and hold. A list of channels will be displayed and you can choose your desired channel to be replaced.

TV: You can watch content through the TV tab. In this mode you can navigate through the channel list retrieved from your TV and click on thumbnails to view the detail pages.

RECORDINGS: You can view your active recordings(if available) and reminders through this tab. To delete any item, simply press on the delete icon found on each row.

EPG: You can view the broadcast schedules of selected channel lists through this tab. You can also navigate through channels by pressing on the selected channel on the EPG grid. Please note that updating

/ refreshing the EPG information may take a while depending on your network and web service quality.

Note: Internet connection is required for WEB based EPG informations.

PORTAL: This tab displays the Portal applications in scrollable view.

Note: Internet connection is required. This tab is enabled if a portal page is in use.

SETTINGS: Configure the application to your liking. You can change;

Auto-lock (Only in IOS): The screen of the device automatically turns off after a certain amount of time. Default is off, which means the screen will always stay on.

Auto-connection to TV: When enabled, your mobile device will automatically connect to last connected TV and skips the TV search screen.

Change TV (Only in IOS): Shows the currently connected TV. You can press on this setting to go to the "TV search" screen and change to a different TV.

Edit custom channel list: You can edit your custom channel list using this setting.

Choose channel list source: You can choose the channel list source to be used in the application. The options are "TV List" and "Custom List". Additionally you can activate "Remember my choice" option to set the selected channel list source as a constant choice. In this case if the selected source is available it will be used in the application.

Version No: Displays the current version of the application.

Detail Page

To open detail page tap on a programme. On the detail page screen you can get detailed information of the programmes you select. There are "Details", "Cast&Crew" and "Videos" tabs to find on this page.

DETAILS: This tab provides summary and information about the selected programme. Also there are links to facebook and twitter pages of the programme selected.

CAST&CREW: Shows all the people contributed to the current programme.

VIDEOS: Provides videos on Youtube related to the selected programme.

Note: For some functions an internet connection may be required.


Media Share Page

To access the **Media Share** widget tap on the **Up-arrow** on the bottom left side of the screen.

If the Media Share widget is pressed, a screen is displayed where you can select the media file type to share with your TV.

Note: Not all image file formats are supported. This function will not work if Audio Video Sharing feature is not supported.


Portal Launcher

To access the **Portal Launcher**  widget tap on the **Up-arrow** on the bottom left side of the screen.

You can access the portal page by tapping on the **Portal Launcher** widget.


Note: Internet connection is required. This function will not work if a portal page is not in use.

Voice Recognition

You can tap on the **Microphone**  widget and manage your application, giving voice commands such as “Portal!”, “Volume Up/Down!”, “Programme Up/Down!”.

Note: This feature is only for android based devices available.

Keyboard Page

The keyboard page can be opened in two ways; by pressing the **Keyboard**  widget on the application screen or automatically by receiving a command from the TV.

Requirements

1. Smart TV
2. Network connection
3. Mobile Device based on Android or iOS platform (Android OS 4.0 or higher; IOS 6 or higher version)
4. Smart Center app.(to be found on online application stores based on Android and iOS platforms)
5. Router modem
6. USB storage device in FAT32 format (required for PVR feature, if available)

Notes:

For Android devices, Normal(mdpi), Large(hdpi) and Extra Large(xhdpi) screen sizes are supported. Devices with 3” or smaller screen sizes are not supported.

For iOS devices, all screen sizes are supported.

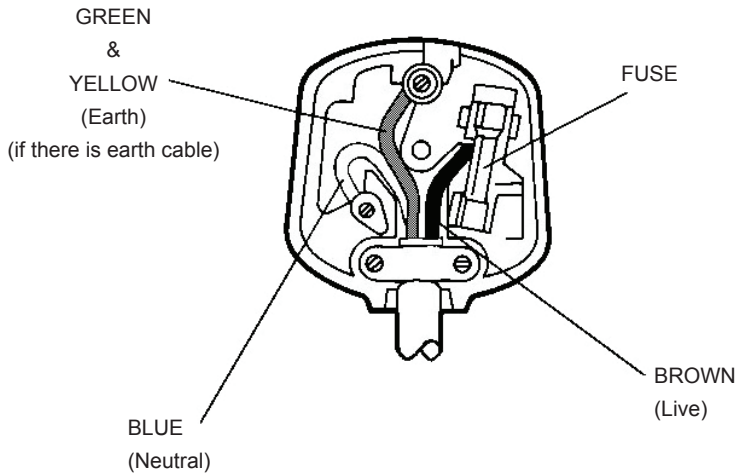
User interface of the Smart Center application is subject to change according to version installed on your device.

Important Instruction

For your own safety read following instruction carefully before attempting to connect this unit to the mains supply.

MAINS (AC) OPERATION

The wires in the mains lead are coloured in accordance with the following code :



IMPORTANT

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green and yellow must be connected to the terminal which is marked with the letter E, or by the earth symbol, or coloured green or green and yellow.

The wire which is coloured blue or black must be connected to the terminal which is marked with the letter N or coloured Black.

The wire which is coloured brown or red must be connected to the terminal which is marked with the letter L or coloured Red.

For continued protection against risk of fire, replace only with same type and rating of fuse (ASTA approved 5A 250VAC fuse).

CAUTION

TO PREVENT ELECTRIC SHOCK DISCONNECT FROM THE MAINS BEFORE REMOVING COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

SAFETY PRECAUTION

THIS EQUIPMENT MUST BE DISCONNECTED FROM THE MAINS WHEN NOT IN USE. DO NOT ALLOW THIS UNIT TO BE EXPOSED TO RAIN OR MOISTURE.

A	Product Fiche		
B	Commercial Brand: TOSHIBA		
C	Product No.	10099296	
D	Model No.	48U7653DB	
E	Energy efficiency class	A	
F	Visible screen size (diagonal, approx.) (inch/cm)	48 inches	121 cm
G	On mode average power consumption (Watt)	87 W	
H	Annual energy consumption (kWh/annum)	127 kWh	
I	Standby power consumption (Watt)	0,50 W	
J	Off mode power consumption (Watt)	NA	
K	Display resolution (px)	3840x2160	

	A	B	C	D	E	F
English	Product Fiche	Commercial Brand	Product No.	Model No.	Energy efficiency class	Visible screen size (diagonal, approx.) (inch/cm)
Deutsch	Produkt-Datenblatt	Markenzeichen	Produkt-Nr.	Modell-Nr.	Energieeffizienzklasse	Sichtbare Bildschirmgröße (diagonal, ca.) (Zoll /cm)
عربي	فأيس المنتج	أعلامة التجارية: أأونكن	أرقم المنتج	أرقم الموديل	أفئة فعالية الطاقة	أأحجم الشاشة المرئية (أقطري) (أونصة/سم)
Български	Справочен лист с техническите данни	Търговска марка	Продукт №	Модел №	Клас на енергийна ефективност	Видим размер на екрана (диагонал, прибл.) (инча /см)
čestina	Informační list	Značka výrobce	Číslo produktu	Model č.	Energetická třída	Viditelná velikost obrazovky (uhlopříčka, přibliž.) (palců /cm)
Dansk	Produktoplysningsskema	Varemærke	Produktnr.	Model nr.	Energieeffektivitetsklasse	Synlig skærmerstørrelse (diagonal, ca.) (HK/cm)
Suomi	Tuote fiche	Kaupallinen merkki	Tuote nro.	Malli nro.	Virran tehokkuusluokka	Näkyvän kuvaruudun koko (diagonaalinen, n.) (tuuma/cm)
Français	Fiche du produit	Marque commerciale	Produit N°	Modèle N°	Classe d'efficacité énergétique	Taille d'écran visible (diagonale, approx.) (pouces/cm)
Hrvatski	SAŽETAK PROIZVODA	Trgovačka marka	Br. proizvoda	Br. modela	Klasa energetske učinkovitosti	Vidljiva veličina ekrana (dijagonalna, približno) (inča/cm)
Nederlands	Productfiche	Commercieel merk.	Productnr.	Modelnr.	Energie efficiënte klasse	Zichtbare schermgrootte (diagonaal, ca.) (inches/cm)
Español	Ficha del Producto	Marca Comercial	Nº de Producto	Nº de Modelo	Clasificación Energética	Tamaño de pantalla visible (diagonal, approx.) (pulgadas/cm)
Svenska	Produktspecifikation	Varumärke	Produktnr.	Modellnr.	Energi klass	Synlig skärmstorlek (diagonal, ungefärlig) (tum/cm)
Italiano	Scheda prodotto	Marchio commerciale	Numero prodotto	Numero modello	Classe di efficienza energetica	Dimensioni visibili dello schermo (diagonale, circa) (pollici/cm)
Polski	KARTA PRODUKTU	Marka produktu	Nr produktu	Nr modelu	Klasa efektywności energetycznej	Widoczny obraz ekranu (przekątna, około) (cali/cm)
Magyar	Terméksímetető adatlap	Kereskedelmi márka	Termékszám	Modellszám	Energiatahatósági osztály	Látható képtartomány (diagonális, kb.) (inches/cm)
Norsk	Produktinformasjon	Kommersiell merkevar	Produkt nr.	Modell nr.	Energieeffektivitet klasse	Synlig skjermstørrelse (diagonal, ca.) (tommer/cm)
Português	Ficha do produto	Marca Comercial	Produto N°	Modelo N°	Classificação eficiência energética	Tamanho ecrã visível (diagonal, approx.) (polegadas/cm)
Română	Fișă produs	Marcă comercială	Nr. Produs	Nr. Model	Clasa de eficiență energetică	Dimensiunea ecranului vizibil (diagonală, aprox.) (inch/cm)
Русский	Справочный листок технических данных изделия	Торговая марка	Номер изделия	Номер модели	Класс энергопотребления	Видимый размер экрана (по диагонали, Окколо) (дюймов/см)
беларуская	Справочный листок технических данных изделия	Торговая марка	Номер изделия	Номер модели	Класс энергопотребления	Видимый размер экрана (по диагонали, Окколо) (дюймов/см)
македонски	Технички податоци	Комерцијална марка	Производ бр.	Модел бр.	Класа на енергетска ефикасност	Гопемнина на видлив екран (дјагонална, окопу) (инчи/см)
український	Технічні дані	Комерційна марка	Артикул	Модель	Клас енергоспоживання	Видимий розмір екрана (діагональ, Приблизно) (дюймів/см)
Srpski	Tehničke odlike	Komercijalna marka	Proizvod br.	Model br.	Klasa energetske efikasnosti	Veličina vidljivog ekrana (dijagonala, tokom) (inča/cm)
Slovenčina	Informačný list	Značka výrobcu	Číslo produktu	Model č.	Energetická trieda	Viditeľná veľkosť obrazovky (uhlopriečka, zhruba) (palcov/cm)
Slovenščina	Opis izdelka	Komercialna znamka	Št. Izdelka	Št. Modela	Razred energetske učinkovitosti	Uhidna velikost zaslon (diagonala, pribli.) (palcev/cm)
Ελληνικ	Δελτίο προϊόντος	Εμπορικό σήμα	Αρ. Προϊόντος	Αρ. Μοντέλου	Κατηγορία ενεργειακής απόδοσης	Ορατό μέγεθος οθόνης (διαγώνιος, περί.) (ίντσες/σμ)
Bosanski	Tehnički podaci	Komercijalna marka	Produkt br.	Model br.	Klasa energetske efikasnosti	Vidljiva veličina ekrana (diagonala, približno.) (inča/cm)
עברית	פרטים טכניים	מסחרי	מס' מוצר	מס' מודל	מס' יעילות אנרגטית	גודל המסך הנראה (אלכסון, בקירוב) (אינץ' /סמ)
Türkçe	Ürün fişi	Ticari Marka	Ürün No.	Model No.	Enerji verimliliği sınıfı	Görülen ekran boyutu (çapraz, yaklaşık.) (inç/cm)
Shqip	Të dhënat e produktit	Marka tregtare	Nr. i produktit.	Nr. i modelit.	Klasa e eficientë së energjisë	Madhesia e ekranit të dukshëm (diagonal, afërsisht) (inç/cm)
Lietuvių	Gaminio etiketė	Gamintojas	Gaminio Nr.	Modelio Nr.	Energetinio efektyvumo klasė	Matomas ekrano dydis (ištrizantė, approx.) (colų/cm)
Latviešu	Produkta apraksts	Marka	Produkta nr.	Modeļa nr.	Energoefektivitātes klase	Vaadatava ekrāna sūrus (diagonāl, collas/cm)
Eesti	TOOTEKIRJELDUS	Tootja firma	Toote nr.	Mudeli nr.	Energiaklass	Vaadatava ekrani suurus (diagonaal, umbes) (toll/cm)
فارسی	مشخصات محصول	مأرك تجاری	شأمر محصول	شأمر مدل	أأمره كازأى الأرزى	الأأارة صفأه فأيس مأشأه (أأسنسى، أأرأبأ) (أأنچ) (أأنتى مآر)

	G	H	I	J	K
English	On mode average power consumption (Watt)	Annual energy consumption (kWh/annum)	Standby power consumption (Watt)	Off mode power consumption (Watt)	Display resolution (px)
Deutsch	Durchschnittlicher Stromverbrauch im eingeschalteten Zustand (Watt)	Jährlicher Energieverbrauch (kWh/Jahr)	Standby-Stromverbrauch (Watt)	Stromverbrauch im ausgeschalteten Zustand (Watt)	Display-Auflösung (px)
عربي	متوسط استهلاك الطاقة عند التشغيل (واط)	الاستهلاك السنوي للطاقة (كيلوواط ساعة)	استهلاك الطاقة في وضع الاستعداد (واط)	استهلاك الطاقة في وضع الإيقاف (واط)	وضوح الشاشة (بكسل)
Български	Средна консумация на електроенергия във включено състояние (Watt)	Годишна консумация на електроенергия (kWh/Годишна)	Консумация на електроенергия в режим на готовност (Watt)	Консумация на електроенергия в изключено състояние (Watt)	Разделителна способност на дисплея (пиксела)
čeština	Průměrná spotřeba elektrické energie v zapnutém režimu (Wattů)	Roční spotřeba energie (kWh/Roční)	Spotřeba elektrické energie v pohotovostním režimu (Wattů)	Spotřeba elektrické energie ve vypnutém režimu (Wattů)	Rozlišení displeje (px)
Dansk	Gennemsnitligt strømforbrug i tændt tilstand (Watt)	Årligt energiforbrug (kWh/Årligt)	Strømforbrug (standby)(Watt)	Strømforbrug i slukket tilstand (Watt)	Skærmopløsning (px)
Suomi	Päälii-lilan keskimääräinen virrankulutus (Wattia)	Vuositainen sähkökulutus (kWh/Vuositainen)	Vakiovirran kulutus (Wattia)	Pois-liilan virrankulutus (Wattia)	Näytön erotelukyky (piksela)
Français	Consommation énergétique moyenne en mode "marche" (Watt)	Consommation énergétique annuelle (kWh/annuel)	Consommation d'énergie en veille (Watt)	Consommation d'énergie en mode "arrêt" (Watt)	Résolution de l'écran (px)
Hrvatski	Prosječna potrošnja el. energije kada je proizvod uključen (Watta)	Godišnja potrošnja el. Energije (kWh/Godišnja)	Potrošnja el. energije u modu pripravnosti (Watta)	Potrošnja el. energije kada je proizvod isključen (Watta)	Rezolucija zaslona (piksela)
Nederlands	Aan-modus gemiddeld stroomverbruik (Watt)	Jaarlijks energieverbruik(kWh/Jaarlijks)	Stand-by stroomverbruik (Watt)	Uit-modus stroomverbruik (Watt)	Schermeresolutie (px)
Español	Consumo eléctrico medio, en funcionamiento (Vatio)	Consumo eléctrico anual (kWh/anual)	Consumo en modo en espera (Vatio)	Consumo eléctrico modo apagado (Vatio)	Resolución de pantalla (px)
Svenska	Strömkonsumtion i PÅ-läge (Watt)	Energikonsumtion per år (kWh/Årlig)	Strömkonsumtion i viloläge (Watt)	Strömkonsumtion i AV-läge (Watt)	Skärmupplösning (pixlar)
Italiano	Consumo di corrente media da accesa (Watt)	Consumo annuale di energia (kWh/annuo)	Consumo di corrente in modalità standby (Watt)	Consumo di corrente da spenta (Watt)	Risoluzione del display (px)
Polski	Średnie zużycie energii w trybie włączonym (Watów)	Roczne zużycie energii (kWh/Roczne)	Średnie zużycie energii w trybie oczekiwania (Watów)	Zużycie energii w trybie wyłączonym (Watów)	Rozdzielczość obrazu (pikseli)
Magyar	Energiafogyasztás bekapcsolva hagyott üzemmódban (Watt)	Éves energiafogyasztás (kWh/Éves)	Energiafogyasztás standby üzemmódban (Watt)	Energiafogyasztás kikapcsolt üzemmódban (Watt)	Képponyófelbontás (px)
Norsk	Årsmiddel gjennomsnittlig strømforbruk (Watt)	Årlig strømforbruk (kWh/Årlig)	Hvilemodus strømforbruk (Watt)	Av-modus strømforbruk (Watt)	Skjermoppløsning (piksel)
Português	Consumo energia em modo médio (Watt)	Consumo anual energia (kWh/anual)	Consumo energia em stand-by (Watt)	Consumo energia em modo alimentação (Watt)	Resolução do visor (pixel)
Română	Consum electric mediu în modul pornit (Watt)	Consum anual de energie (kWh/anual)	Consum electric în stare de repaus (Watt)	Consum electric în modul oprit (Watt)	Rezoluția ecranului (pixeli)
Русский	Средний расход энергии в режиме включения (ватт)	Ежегодный расход энергии (кВтЧ/Годовое)	Расход энергии в режиме ожидания (ватт)	Расход энергии в режиме выключения (ватт)	Разрешение экрана (пикселей)
беларуская	Средні расход энергіі в рэжыме ўключэння (ват)	Ежгадны расход энергіі (кВтЧ/гадавое)	Расход энергіі в рэжыме ачаквання (ват)	Расход энергіі в рэжыме выключэння (ват)	Разрэшэнне экрану (пікселяў)
македонски	Просечна потрошувачка кога е вклучен	Годишна потрошувачка на енергија (kWh/Годишна)	Потрошувачка во мирување (вати)	Потрошувачка кога е исклучен (вати)	Резолуција на екран (пиксели)
український	Середня споживана потужність у робочому режимі (Вт)	Середньорічна споживана потужність (кВтЧ/Річне)	Споживана потужність у режимі очікування (Вт)	Споживана потужність у вимкненому стані (Вт)	Роздільна здатність екрана (пиксели)
Srpski	Prosječna potrošnja kada je uključen (Vati)	Godišnja potrošnja energije (kWh/Godišnja)	Potrošnja tokom mirovanja (Vati)	Potrošnja kada je isključen (Vati)	Rezolucija displeja (piks.)
Slovenčina	Priemerná spotreba elektrickej energie v zapnutom režime (Wattov)	Ročná spotreba energie (kWh/Ročná)	Spotreba elektrickej energie v pohotovostnom režime (Wattov)	Spotreba elektrickej energie vo vypnutom režime (Wattov)	Rozlíšenie displeja (pixl.)
Slovenščina	Poraba električne energije v povprečnem načinu (Wattov)	Letna poraba energije (kWh/Letna)	Poraba energije v stanju pripravljenosti (Wattov)	Poraba energije načinu izlopa (Wattov)	Resolucija zaslona (piks.)
Ελληνικ	Μέση κατανάλωση ενέργειας λειτουργίας (Watt)	Ετήσια κατανάλωση ενέργειας (kWh/Ετήσια)	Κατανάλωση ενέργειας στην αναμονή (Watt)	Κατανάλωση ενέργειας σε απενεργοποίηση (Watt)	Ανάλυση οθόνης (Πίξελ)
Bosanski	Prosječna potrošnja kada je uključen (Watt)	Godišnja potrošnja energije (kWh/Godišnja)	Potrošnja tokom mirovanja (Watt)	Potrošnja kada je isključen (Watt)	Rezolucija ekrana (piks.)
עברית	ממוצע חשמל ממוצע במצב מנועל (ואט)	צריכת חשמל שנתי/קילואוואט שעות	צריכת חשמל במצב המתנה (ואט)	צריכת חשמל ממוצע במצב כבוי (ואט)	רזולוציית המונитор (פיקסל)
Türkçe	Açık moddaki ortalama güç tüketimi (Watt)	Yıllık enerji tüketimi (kWh/yıllık)	Bekleme durumunda enerji tüketimi (Watt)	Kapalı moddaki güç tüketimi (Watt)	Ekran çözünürlüğü (piks.)
Shqip	Konsumi mesatar i energjisë si i ndezur (Watt)	Konsumi vjetor i energjisë (kWh/vjetor)	Konsumi i energjisë si në gatishmëri (Watt)	Konsumi i energjisë si i fikur (Watt)	Rezolucioni i ekranit (piks.)
Lietuvių	Vidutinės energijos sąnaudos įjungus (Vatai)	Metinės energijos sąnaudos (kWh/Metinės)	Energijos sąnaudos budėjimo režimu (Vatai)	Energijos sąnaudos išjungus (Vatai)	Ekranu skiriamoji geba (pikselių)
Latviešu	Enerģijas patēriņš aktīvā režīmā (Vati)	Gada enerģijas patēriņš (kWh/gada)	Enerģijas patēriņš gaidīšanas režīmā (Vati)	Enerģijas patēriņš izslēgtā stāvoklī (Vati)	Displeja rezolūcija (piksetiem)
Eesti	Keskmine energiakuulu töörežiimis (Vatti)	Aastane energiakuulu (kWh/aastane)	Energiakuulu ooterežiimis (Vatti)	Energiakuulu väljalülitatud olekus (Vatti)	Ekraani resolutsioon (piksiti)
فارسی	میان متوسط مصرف برق در حالت عمل (وات)	میان انرژی مصرفی در سال (کیلووات ساعت/ایر سال)	مصرف برق حالت آماده به کار (وات)	میان مصرف برق در حالت غیرعملی (وات)	وضوح نمایش (پیکسل)



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