

Panasonic[®]

OPERATING INSTRUCTIONS



TX-55CR430B

COLOUR TELEVISION WITH REMOTE CONTROL

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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

Maintenance

First, remove the mains plug from the mains socket.

Display panel, Cabinet, Pedestal

Regular care:

Gently wipe the surface of the display panel, cabinet, or pedestal by using a soft cloth to remove dirt or fingerprints.

For stubborn dirt:

1. First clean the dust from the surface.
2. Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water).
3. Wring out the cloth firmly. (Please note, do not let liquid enter the TV inside as it may lead to product failure.)
4. Carefully wipe moisten and wipe away the stubborn dirt.
5. Finally, wipe away all the moisture.

Caution

Do not use a hard cloth or rub the surface too hard, otherwise this may cause scratches on the surface.

- Take care not to subject the surfaces to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling of the paint.
- The surface of the display panel is specially treated and may be easily damaged. Take care not to tap or scratch the surface with your fingernail or other hard objects.
- Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

Mains plug

Wipe the mains plug with a dry cloth at regular intervals.

Moisture and dust may cause fire or electrical shock.

Assembling / Removing the pedestal

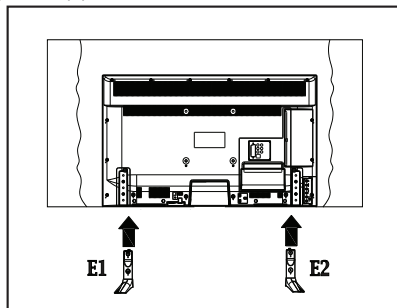
Preparations

Take out the pedestal(s) and the TV from the packing case and put the TV onto a work table with the screen panel down on the clean and soft cloth (blanket, etc.)

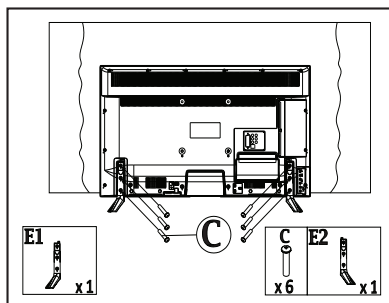
- Use a flat and firm table bigger than the TV.
- Do not hold the screen panel part.
- Make sure not to scratch or break the TV.

Assembling the pedestal

1. Place the stand(s) on the stand mounting pattern(s) on the rear side of the TV.



2. Insert the screws (M4 x 12) provided and tighten them gently until the stand is properly fitted.



Removing the pedestal from the TV

Be sure to remove the pedestal in the following way when using the wall-hanging bracket or repacking the TV.

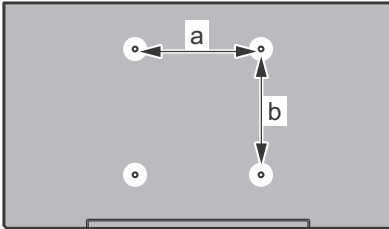
- Put the TV onto a work table with the screen panel down on the clean and soft cloth. Leave the stand(s) protruding over the edge of the surface.
- Unscrew the screws that fixing the stand(s).
- Remove the stand(s).

When using the wall-hanging bracket

Please contact your local Panasonic dealer to purchase the recommended wall-hanging bracket.

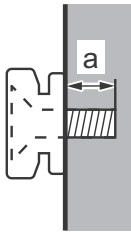
Holes for wall-hanging bracket installation;

Rear of the TV



a (mm)	400
b (mm)	400

View from the side



Depth of screw (a)	min. (mm)	4
	max. (mm)	6
Diameter	M6	

Note: The screws for fixing the TV onto the wall-hanging bracket are not supplied with the TV.

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 **Picture** menu.

The **Energy Saving** settings can be found in the **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/cable (DVB-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
- Media Sharing

Accessories Included

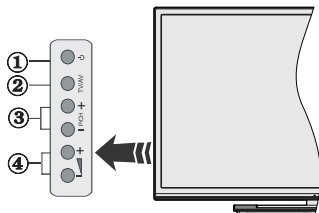
- Remote Control
- Batteries: 2 x AAA
- Instruction Book
- Quick Start Guide
- Detachable stand
- Stand mounting screws (M4 x 12)

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.



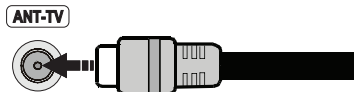
Connect Power

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

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



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Disposal of Old Equipment and Batteries



Only for European Union and countries with recycling systems

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and batteries, please take them to applicable collection points in accordance with your national legislation.

By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment.

For more information about collection and recycling, please contact your local municipality.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

Note for the battery symbol (bottom symbol):



This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.



Authorized Representative:
Panasonic Testing Centre
Panasonic Marketing Europe GmbH
Winsbergring 15, 22525 Hamburg, Germany

Web Site: <http://www.panasonic.com>

Sales and Support Information

Customer Communication Centre

- For customers within the UK: **0344 844 3899**
- For customers within Ireland: **01289 8333**
- Monday - Friday 9:00am - 5:00pm, (Excluding public holidays).
- For further support on your product, please visit our website: **www.panasonic.co.uk**

Direct Sales at Panasonic UK

- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Communications Centre Monday - Friday 9:00am - 5:00pm, (Excluding public holidays).
- Or go on line through our Internet Accessory ordering application at **www.pas-europe.com**.
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK.
- It couldn't be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products. Take a browse on our website for further details.

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	A2 Stereo+Nicam Stereo
Headphone	3.5 mm mini stereo jack
Audio Output Power (WRMS.) (10% THD)	2 x 12,5 W
Power Consumption (W)	200 W
Weight (Kg)	20 Kg
TV Dimensions DxLxH (with foot) (mm)	243 x 1232 x 768
TV Dimensions DxLxH (without foot) (mm)	99/106 x 1232 x 713
Display	16/9 55"
Operation temperature and operation humidity	0°C up to 40°C, 85% humidity max

Notice for DVB / Data broadcasting / IPTV functions

- This TV is designed to meet the standards (as of August, 2013) of DVB-T / T2 (MPEG2 and MPEG4-AVC(H.264)) digital terrestrial services and DVB-C (MPEG2 and MPEG4-AVC(H.264)) digital cable services.

Consult your local dealer for availability of DVB-T / T2 services in your area.

Consult your cable service provider for availability of DVB-C services with this TV.

- This TV may not work correctly with the signal which does not meet the standards of DVB-T / T2 or DVB-C.
- Not all the features are available depending on the country, area, broadcaster, service provider and network environment.
- Not all CI modules work properly with this TV. Consult your service provider about the available CI module.
- This TV may not work correctly with CI module that is not approved by the service provider.
- Additional fees may be charged depending on the service provider.
- The compatibility with future services is not guaranteed.
- Check the latest information on the available services at the following website.
<http://panasonic.net/viera/support>

Wireless LAN Specifications

Frequency Range

USA: 2.400 ~ 2.483GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz, 5.725 ~ 5.85GHz

Europe: 2.400 ~ 2.483GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz

Japan: 2.400 ~ 2.497GHz, 5.15 ~ 5.35GHz, 5.47 ~ 5.725GHz

China: 2.400 ~ 2.483GHz, 5.725 ~ 5.85GHz

Standard

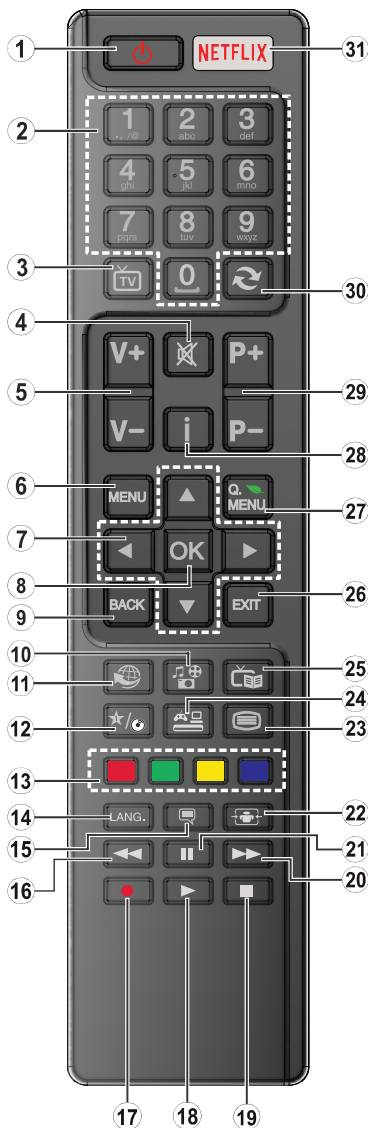
IEEE 802.11.a/b/g/n

Host Interface

USB 2.0

Security

WEP 64/128, WPA, WPA2, TKIP, AES, WAPI





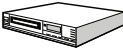













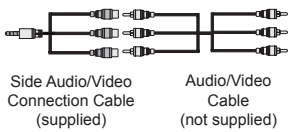





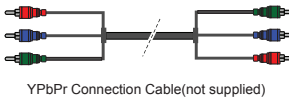



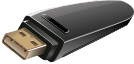









1. **Standby:** Switches On / Off the TV
2. **Numeric buttons:** Switches the channel, enters a number or a letter in the text box on the screen.
3. **TV:** Displays channel list / Switches to TV Source
4. **Mute:** Completely turns off the volume of the TV
5. **Volume +/-**
6. **Menu:** Displays TV 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. **Media player:** Opens the media player screen
11. **Internet:** Opens the portal page, where you can reach many web based applications
12. **My button (*)**
13. **Coloured Buttons:** Follow the on-screen instructions for coloured button functions
14. **Language:** Switches between sound modes (analogue TV), displays and changes audio/subtitle language (digital TV, where available)
15. **Subtitles:** Turns subtitles on and off (where available)
16. **Rapid reverse:** Moves frames backwards in media such as movies
17. No function
18. **Play:** Starts to play selected media
19. **Stop:** Stops the media being played
20. **Rapid advance:** Moves frames forward in media such as movies
21. **Pause:** Pauses the media being played
22. **Screen:** Changes the aspect ratio of the screen
23. **Text:** Displays teletext (where available), press again to superimpose the teletext over a normal broadcast picture (mix)
24. **Source:** Shows all available broadcast and content sources
25. **EPG (Electronic programme guide):** Displays the electronic programme guide
26. **Exit:** Closes and exits from displayed menus or returns to previous screen
27. **Quick Menu:** Displays a list of menus for quick access
28. **Info:** Displays information about on-screen content, shows hidden information (reveal - in TXT mode)
29. **Programme +/-**
30. **Swap:** Quickly cycles between previous and current channels or sources
31. **Netflix:** Launches the Netflix application, if this feature is supported by your TV


(*) MY BUTTON:

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

Note that if you perform **First Time Installation**, MY BUTTON will return to its default function.

Connections

Connector	Type	Cables	Device
	Mini Scart Connection (bottom)	 Mini Scart adapter cable (supplied)	
	VGA Connection (bottom)		
AUDIO IN 	PC/YPbPr Audio Connection (back)	 YPbPr/PC Audio Cable (not supplied)	
	HDMI Connection (bottom&side)		
SPDIF 	SPDIF (Optical Out) Connection (back)		
SIDE AV 	Side AV (Audio/Video) Connection (side)	 Side Audio/Video Connection Cable (supplied) Audio/Video Cable (not supplied)	
HEADPHONE 	Headphone Connection (side)		
YPBPR 	YPbPr Video Connection (back)	 YPbPr Connection Cable(not supplied)	
USB 	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. For Side AV input you should use the supplied cable. 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 (not supplied) 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 Player 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. This option is intended only for store use. It is recommended to select **Home Mode** for home use. This option will be available in **Setup>More** menu and can be turned off/on later.

Press **OK** button on the remote control to continue and the **Network 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 Player** 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 Player** mode will access the **Picture**, **Sound** and **Setup** menu options. Pressing the **Menu** button again will exit from this screen. You can set your **Media Player** preferences by using the **Setup** 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.

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 **Setup>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 **Setup>More** menu.

The TV supports also ARC (Audio Return Channel) feature. This feature is an audio link meant to replace other cables between the TV and the audio system (A/V receiver or speaker system).

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 **Setup>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**.

TV Menu Contents

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, Picture 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 . The backlight cannot be activated if the picture mode is set to Game .
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.
Movie Sense	Press left/right buttons to set Movie Sense to Low, Medium, High or Off . While Movie Sense is active, it will optimize the TV's video settings for motional images to acquire a better quality and readability. When Movie Sense option is set to Low, Medium or High , Movie Sense demo option will be available. If one of these options is selected and if you press OK button, then the demo mode starts. While demo mode is active, the screen will be divided into two sections, one displaying the movie sense activity, the other displaying the normal settings for TV screen.
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	
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).

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.

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.

Setup 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 (may not be available depending on the country selection in the First Time Installation) and Child Lock in this menu. You can also set a new PIN or change the default CICAM PIN using the related options. <i>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.</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 a 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 Settings	Displays network 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 an 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.
Blue Background	Activates or deactivates the blue background system when the signal is weak or absent.
Software Upgrade	Ensures that your TV has the latest firmware.
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.

Install and Retune 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 **Setup>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.

Maturity Lock: If this option is set, TV gets the maturity information from the broadcast and if this maturity level is disabled, disables access to the broadcast.

*Note: If the country option in the **First Time Installation** is set as **France, Italy or Austria**, **Maturity Lock**'s value will be set to 18 as default.*

Child Lock: If this option is set to **ON**, the TV can only be controlled by the remote control. In this case the control buttons on the TV will not work.

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.

The open browser application in the portal, may become disabled due to changes made in the parental settings. This can be done in 3 different ways according to the country selection made in the first time installation.

If the selected country is England; turning child lock on will disable open browser.

If the selected country is France; adjusting the maturity lock for users aged 15 and younger will disable open browser.

If another country is selected except the two above; turning any of the maturity lock settings on will disable open browser.

*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.

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 **Setup** and press the **OK** button. **Settings menu will be displayed.** Then select **More** and press the **OK** button. 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)
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), WMV (.wmv), AVI (.avi), MKV (.mkv)
MVC	1080P@30fps	80Mbps	MPEG transport stream (.ts, .trp, .tp)
AVS	1080Px2@30fps, 1080P@60fps	40Mbps	
AVS+	1080P@60fps	50Mbps	
WMV3	1080Px2@30fps, 1080P@60fps	40Mbps	ASF (.asf), AVI (.avi), MKV (.mkv), WMV (.wmv)
VC1			MPEG program stream (.MPG, .MPEG), MPEG transport stream (.ts, .trp, .tp), ASF (.asf), WMV (.wmv), 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)
RV30/RV40	1080Px2@30fps, 1080P@60fps	40Mbps	RM (.rm, .rmvb)
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	
MPO	Base-line	15360x8640	
	Progressive	1024x768	

Supported Audio File Formats for USB Mode

Audio Codec	Sample rate	Bit Rate	Bit Rate
MPEG1/2 Layer1	16KHz ~ 48KHz	32Kbps ~ 448Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), DivX (.divx), 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), DivX (.divx), 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), DivX (.divx), 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), DivX (.divx), 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), DivX (.divx), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), RM (.rm, .rmvb, .ra)
WMA	8KHz ~ 48KHz	128bps ~ 320Kbps	ASF (.wma, .wmv, .asf), AVI (.avi), Matroska (.mkv, .mka)
WMA 10 Pro M0	48KHz	< 192kbps	
WMA 10 Pro M1	48KHz	< 384kbps	
WMA 10 Pro M2	96KHz	< 768kbps	
VORBIS	Up to 48KHz		Matroska (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a)
LPCM	8KHz ~ 48KHz	64Kbps ~ 1.5Mbps	WAV (.wav), 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)
IMA-ADPCM, MS-ADPCM	8KHz ~ 48KHz	384Kbps	WAV (.wav), AVI (.avi), Matroska (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a)
G711 A/mu-law	8KHz	64Kbps ~ 128Kbps	
LBR (cook)	8KHz, 11.025KHz, 22.05KHz, 44.1KHz	6Kbps ~ 128Kbps	RM (.rm, .rmvb, .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. Use Panasonic active 3D Glasses for the best 3D experience.

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 **Picture** icon. Press **OK** button to view **Picture Settings** menu. Use Up or Down buttons to select **3D Settings** and press **OK** to view.

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 glasses 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. 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

Press the **Quick Menu** button on the remote 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. 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

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.

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.

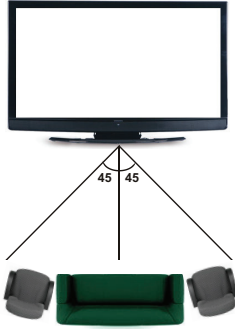
3D Viewing Information

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

Viewing Distance

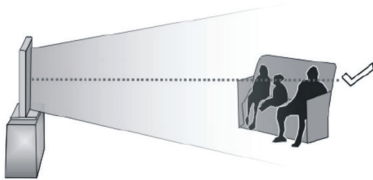
Size (inch)	23	26	32	37	39	40	42	46	47	48	50	55	65
Viewing distance (m)	1.30	1.50	1.90	2.20	2.30	2.40	2.50	2.75	2.80	2.85	3.00	3.25	3.85

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

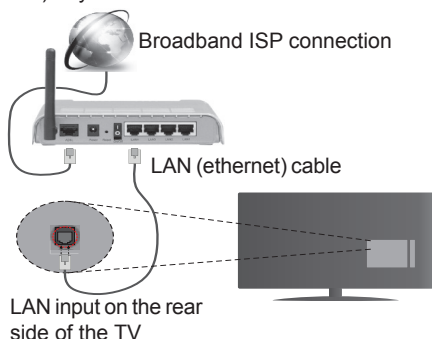
FP: Frame Packed

Connectivity

Wired Connectivity

To Connect to a Wired Network

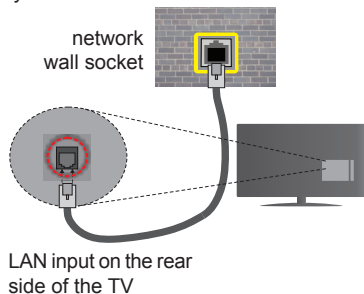
- You must have a modem/router connected to an active broadband connection.
- Ensure that Nero Media Home software is installed to your PC (for media sharing function). See "**Nero Media Home Installation**" section.
- Connect your PC to your modem/router. This can be a wired or wireless connection.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



- To access and play shared files, you must select the **Media Player**. Press the **Menu** button and select **Media Player**. Press **OK** to continue. Select the desired file type and press **OK**. You must always use the **Media Player** 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 Settings section in the Setup 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.



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

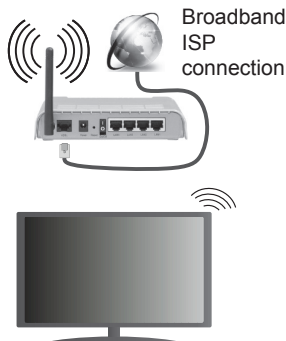
Highlight **Advanced** and press the **OK** button. On the next screen you can change the IP and DNS settings of the TV. Highlight the desired one and press **Left** or **Right** button to change the setting from **Automatic** to **Manual**. Now you can enter the **Manual IP** and / or **Manual DNS** 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.

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 media sharing function).
2. To configure your wireless settings please refer to the **Network Settings** section in this manual.



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 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

Displays Wi-Fi status as **Connected** or **Not Connected** and the current IP address.

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 Player** of your TV.
- Enter the **Media Player** 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 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 / Media 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 media sharing mode or while browsing via media 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 media sharing mode.

Using Media Sharing Network Service

Media 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 media 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 chapter **Network Settings** for detailed configuration information.

3. Play Shared Files via Media Player

Select **Media Player** by using the **Left** or **Right** buttons from the main menu and press **OK**. The media browser will then be displayed.

Media Sharing

Media sharing support is only available in the **Media Player Folder** mode. To enable folder mode, go to the **Setup** 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 Player** screen and select the media type as desired and then perform the network selection again. Refer to the **Media Player** menu section for further information on file playback.

Subtitle files do not work if you watch videos from your network through media 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 media sharing feature.

Note: There may be some PC's which may not be able to utilize the media 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 media 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.

Ensure that the TV is connected to a Wired/Wireless(if available) network with internet connection. After the connection is established, you can view portal options.

Press **Internet** button on your remote control to open internet portal page. The portal application options will be displayed.

Use the directional and coloured buttons to navigate through the items on the Portal screen. Press the **OK** button to confirm your selection and launch the application or go to related link. Press the **Return/Back** button to go to the previous screen.

Press the numeric button 1 on the remote to open the configuration menu. Press the **Back/Return** button to turn back to the main portal page.

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

PIP Window

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.



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**, **Tabs** 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.

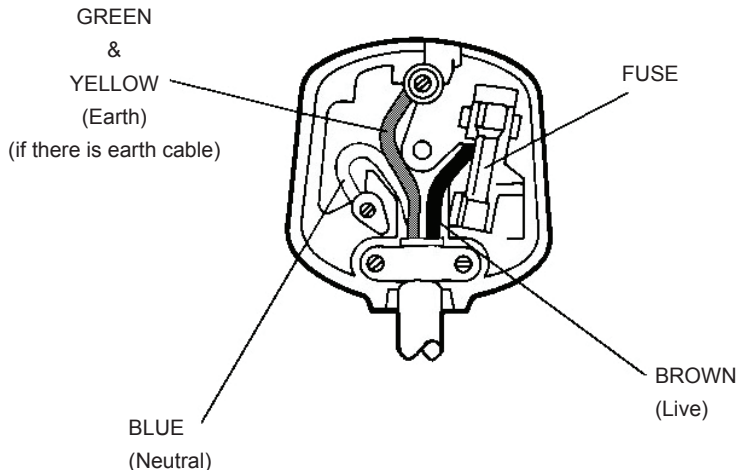
Your TV does not support any download processes from the internet via the browser.

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 Supplier	Panasonic Corporation
C Model ID	TX-55CR430B
D Energy efficiency class	A
E Visible screen size (diagonal)	139 cm / 55 inches
F On mode average power consumption	112 W
G Annual energy consumption *1	163 kWh
H Standby power consumption *2	<0,5 W
I Off mode power consumption	NA
J Screen resolution	3840 x 2160

K *1: Energy consumption XYZ kWh per year, based on the power consumption of the television operating 4 hours per day for 365 days.

The actual energy consumption will depend on how the television is used.

L *2: when the TV is turned off with the remote control and no function is active.

M For the information of rated power consumption, refer to the label on the TV back cover.

Deutsch	A Produktdatenblatt B Lieferanten C Sichtbare Bildschirmdiagonalen D Leistungsaufnahme im Ein-Zustand E Energieverbrauch XYZ kWh/Jahr, auf der Grundlage eines täglich viertägigen Betriebs, des Fernsehgerätes an 365 Tagen. Der tatsächliche Energieverbrauch hängt von der Art der Nutzung des Fernsehgerätes ab. F Wenn der Fernseher mit der Fernbedienung ausgeschaltet wird und keine Funktion aktiviert ist G Weitere Informationen zur Nennleistungsaufnahme siehe Aufkleber auf der hinteren Abdeckung des Fernsehers.	G Jährlicher Energieverbrauch H Leistungsaufnahme im Bereitschafts-Zustand I Leistungsaufnahme im Aus-Zustand J Bildschirmauflösung K Energieverbrauch XYZ kWh/Jahr, auf der Grundlage eines täglich viertägigen Betriebs, des Fernsehgerätes an 365 Tagen. Der tatsächliche Energieverbrauch hängt von der Art der Nutzung des Fernsehgerätes ab. L Wenn der Fernseher mit der Fernbedienung ausgeschaltet wird und keine Funktion aktiviert ist M Weitere Informationen zur Nennleistungsaufnahme siehe Aufkleber auf der hinteren Abdeckung des Fernsehers.
Nederlands	A Productkaart B Leverancier C Zichtbare scherm-diagonaal D Elektricitetsverbruik in de gebruiktoestand E Energieverbruik XYZ kWh per jaar, gebaseerd op het elektriciteitsverbruik van de televisie waarmee deze goedurende 365 dagen 4 uur per dag aanstaat. Het feitelijk energieverbruik is afhankelijk van de manier waarop de televisie wordt gebruikt. F Als de tv is uitgeschakeld met de afstandsbediening en er geen functies actief zijn G Raadpleeg het etiket aan de achterkant van de tv voor informatie over het nominale elektriciteitsverbruik.	G Jaarlijks energieverbruik H Elektriciteitsverbruik in de slaapstand I Elektriciteitsverbruik in de uitstand J Schermresolutie K Energieverbruik XYZ kWh per jaar, gebaseerd op het elektriciteitsverbruik van de televisie waarmee deze goedurende 365 dagen 4 uur per dag aanstaat. Het feitelijk energieverbruik is afhankelijk van de manier waarop de televisie wordt gebruikt. L Wanneer de tv is uitgeschakeld met de afstandsbediening en er geen functies actief zijn M Raadpleeg het etiket aan de achterkant van de tv voor informatie over het nominale elektriciteitsverbruik.
Italiano	A Scheda prodotto B Fornitore C Diagonale dello schermo visibile D Consumo di energia in modo spento E Consumo di energia in modo acceso F Consumo di energia XYZ kWh/anno, calcolato sulla base del consumo di un televisore in funzione per 4 ore al giorno per 365 giorni. Il consumo effettivo di energia dipende dall'utilizzo reale del televisore. G Quando il televisore viene spento con il telecomando e non sono attive funzioni H Per le informazioni sul consumo di energia nominale, fare riferimento all'etichetta sul coperchio posteriore del televisore.	G Consumo annuo di energia H Consumo di energia in modo stand-by I Consumo di energia in modo spento J Risoluzione dello schermo K Consumo di energia XYZ kWh/anno, calcolato sulla base del consumo di un televisore in funzione per 4 ore al giorno per 365 giorni. Il consumo effettivo di energia dipende dall'utilizzo reale del televisore. L Quando il televisore viene spento con il telecomando e non sono attive funzioni M Per le informazioni sul consumo di energia nominale, fare riferimento all'etichetta sul coperchio posteriore del televisore.
Français	A Fiche produit B Fournisseur C Diagonale d'écran visible D Consommation d'énergie en mode marche E Consommation d'énergie de "XYZ" kWh par an, sur la base de la consommation électrique d'un téléviseur fonctionnant quatre heures par jour pendant trois cent soixante-cinq jours. La consommation réelle dépend des conditions d'utilisation du téléviseur. F Lorsque le téléviseur est éteint à l'aide de la télécommande et qu'aucune fonction n'est active. G La consommation nominale est indiquée sur l'étiquette apposée sur la partie arrière du téléviseur.	G Consommation d'énergie annuelle H Consommation électrique en mode veille I Consommation électrique en mode arrêt J Résolution de l'écran K Consommation d'énergie de "XYZ" kWh par an, sur la base de la consommation électrique d'un téléviseur fonctionnant quatre heures par jour pendant trois cent soixante-cinq jours. La consommation réelle dépend des conditions d'utilisation du téléviseur. L Lorsque le téléviseur est éteint à l'aide de la télécommande et qu'aucune fonction n'est active. M La consommation nominale est indiquée sur l'étiquette apposée sur la partie arrière du téléviseur.
Lietuvių k.	A Gaminio kortelė B Tieklejas C Matoma ekrano įstrižainė D Energijos sunaudojimas įjungus gaminį E Energijos sunaudojimas per metus nurodomas atsižvelgus į tai, kiek energijos sunaudojama televizoriui veikiant 4 valandas per dieną 365 dienas iš eilės. Faktinį energijos sunaudojimą lemia tai, kiek laiko bus naudojamas televizorius. F Įjungus televizorių nuotoliniu valdymu įrenginiu, kai neveikia įjunkia funkcija G Informacija apie vardinį energijos suvartojimą, žr. etiketėlę ant televizoriaus galinio gaubto. H Fikha de produto I Fornecedor J Diagonale do ecrã K Consumo de energia de XYZ kWh por ano, baseado no consumo, do televisor a funcionar 4 horas por dia durante 365 dias. O consumo de energia real dependerá do modo como o televisor é utilizado. L Quando o televisor é desligado com o telecomando e quando não está activada qualquer função M Para obter informações sobre o consumo de potência nominal, consulte a etiqueta na tampa traseira do televisor.	G Metinis energijos sunaudojimas H Energijos sunaudojimas budėjimo režimu I Energijos sunaudojimas įjungus gaminį J Ekrano skiriamoji geba K Energijos sunaudojimas per metus nurodomas atsižvelgus į tai, kiek energijos sunaudojama televizoriui veikiant 4 valandas per dieną 365 dienas iš eilės. Faktinį energijos sunaudojimą lemia tai, kiek laiko bus naudojamas televizorius. L Įjungus televizorių nuotoliniu valdymu įrenginiu, kai neveikia įjunkia funkcija M Informacija apie vardinį energijos suvartojimą, žr. etiketėlę ant televizoriaus galinio gaubto. H Fikha de produto I Fornecedor J Diagonale do ecrã K Consumo de energia de XYZ kWh por ano, baseado no consumo, do televisor a funcionar 4 horas por dia durante 365 dias. O consumo de energia real dependerá do modo como o televisor é utilizado. L Quando o televisor é desligado com o telecomando e quando não está activada qualquer função M Para obter informações sobre o consumo de potência nominal, consulte a etiqueta na tampa traseira do televisor.
Português	A Ficha de produto B Fornecedor C Diagonale de eficiência energética D Consumo de potência, em termos de potência, em estado de desactivação E Consumo de energia de XYZ kWh por ano, baseado no consumo, em termos de potência, do televisor a funcionar 4 horas por dia durante 365 dias. O consumo de energia real dependerá do modo como o televisor é utilizado. L Quando o televisor é desligado com o telecomando e quando não está activada qualquer função M Para obter informações sobre o consumo de potência nominal, consulte a etiqueta na tampa traseira do televisor.	G Consumo de energia anual H Consumo, em termos de potência, em estado de desactivação I Consumo de energia de XYZ kWh por ano, baseado no consumo, em termos de potência, do televisor a funcionar 4 horas por dia durante 365 dias. O consumo de energia real dependerá do modo como o televisor é utilizado. L Quando o televisor é desligado com o telecomando e quando não está activada qualquer função M Para obter informações sobre o consumo de potência nominal, consulte a etiqueta na tampa traseira do televisor.

Español	A Ficha de producto B Proveedor C Diagonal visible de la pantalla D Consumo de electricidad en modo apagado E Consumo de energía: XYZ kWh al año, suponiendo cuatro horas de funcionamiento diario durante 365 días. El consumo efectivo dependerá de las condiciones reales de uso de la televisión. F Cuando el TV se apaga con el mando a distancia y no existe ninguna función activa G Para información sobre el consumo de potencia nominal consulte la etiqueta en la cubierta trasera del televisor. H Información sobre el consumo de potencia nominal I Clase de eficiencia energética J Resolución de la pantalla K Consumo de energía: XYZ kWh al año, suponiendo cuatro horas de funcionamiento diario durante 365 días. El consumo efectivo dependerá de las condiciones reales de uso de la televisión. L Cuando el TV se apaga con el mando a distancia y no existe ninguna función activa M Para información sobre el consumo de potencia nominal consulte la etiqueta en la cubierta trasera del televisor.	G Consumo de energía anual H Consumo de electricidad en espera I Consumo de electricidad en modo apagado J Resolución de la pantalla K Consumo de energía: XYZ kWh al año, suponiendo cuatro horas de funcionamiento diario durante 365 días. El consumo efectivo dependerá de las condiciones reales de uso de la televisión. L Cuando el TV se apaga con el mando a distancia y no existe ninguna función activa M Para información sobre el consumo de potencia nominal consulte la etiqueta en la cubierta trasera del televisor.
Svenska	A Informationsblad B Leverantör C Synlig skärm-diagonal D Effektförbrukning i friläge E Effektförbrukning i påläge F Effektförbrukning i påläge G Informationsblad H Modellbeteckning I Energieffektivitetsklass J Synlig skärm-diagonal K Skärmupplösning L När TV:n är avslagen via fjärrkontrollen och ingen funktion är aktiv M För information om nominell effektförbrukning, se etiketten på TV:s baksida.	G Arligt energiförbrukning H Effektförbrukning i standbyläge I Effektförbrukning i friläge J Skärmupplösning K Skärmupplösning L När TV:n är avslagen via fjärrkontrollen och ingen funktion är aktiv M För information om nominell effektförbrukning, se etiketten på TV:s baksida.
Norsk	A Produktinfo B Leverandør C Synlig skjerm-diagonal D Strømførbruk i på-modus E Strømførbruk i på-modus F Strømførbruk i på-modus G Strømførbruk i på-modus H Strømførbruk i på-modus I Strømførbruk i på-modus J Strømførbruk i på-modus K Strømførbruk i på-modus L Når TV-en er skrudd av med fjernkontrollen og ingen funksjon er aktiv M For informasjon om nominell effekt, se etiketten på TV-bakdekselet.	G Arligt energiförbrukning H Strømførbruk i standby-modus I Strømførbruk i off-modus J Strømførbruk i off-modus K Strømførbruk i off-modus L Når TV-en er skrudd av med fjernkontrollen og ingen funksjon er aktiv M For informasjon om nominell effekt, se etiketten på TV-bakdekselet.
Suomi	A Tuoteseloste B Tavarantimittaja C Näkyvästi olevan kuvapinnan lävistäjä D Tehonkulutus päällä-tilassa E Tehonkulutus päällä-tykytetynä-tilassa F Tehonkulutus päällä-tykytetynä-tilassa G Tehonkulutus päällä-tykytetynä-tilassa H Tehonkulutus päällä-tykytetynä-tilassa I Tehonkulutus päällä-tykytetynä-tilassa J Tehonkulutus päällä-tykytetynä-tilassa K Tehonkulutus päällä-tykytetynä-tilassa L Kun TV on sammutettu kauko-ohjauksella ja mikään toiminto ei ole käytössä M Tietoja nimellisestä virrankulutuksesta on kyltissä televisioon takakannessa.	G Vuotuinen energiankulutus H Valmiustilan energiankulutus I Tehonkulutus pois päältä-tilassa J Tehonkulutus pois päältä-tilassa K Tehonkulutus pois päältä-tilassa L Kun TV on sammutettu kauko-ohjauksella ja mikään toiminto ei ole käytössä M Tietoja nimellisestä virrankulutuksesta on kyltissä televisioon takakannessa.
Magyar	A Termékinformáció B Beszállító C Látható képfelület nagysága D Bekapcsolt üzemi módombeli energiagyorsítás E Bekapcsolt üzemi módombeli energiagyorsítás F Bekapcsolt üzemi módombeli energiagyorsítás G Bekapcsolt üzemi módombeli energiagyorsítás H Bekapcsolt üzemi módombeli energiagyorsítás I Bekapcsolt üzemi módombeli energiagyorsítás J Bekapcsolt üzemi módombeli energiagyorsítás K Bekapcsolt üzemi módombeli energiagyorsítás L Amikor a TV-t a távirányítótól kikapcsolják ki, és nincs aktiv funkció M További információért a névelges energiagyorsítással kapcsolatban olvassa a TV hátulő burkolatán található címkét.	G Éves energiagyorsítás H Készenléti üzemi módombeli energiagyorsítás I Kikapcsolt üzemi módombeli energiagyorsítás J Kikapcsolt üzemi módombeli energiagyorsítás K Kikapcsolt üzemi módombeli energiagyorsítás L Amikor a TV-t a távirányítótól kikapcsolják ki, és nincs aktiv funkció M További információért a névelges energiagyorsítással kapcsolatban olvassa a TV hátulő burkolatán található címkét.
Cesky	A Informační list výrobku B Dodavatel C Viditelná úhlopříčka obrazovky D Spotřeba elektrické účinnosti E Spotřeba elektrické účinnosti F Spotřeba elektrické účinnosti G Spotřeba elektrické účinnosti H Spotřeba elektrické účinnosti I Spotřeba elektrické účinnosti J Spotřeba elektrické účinnosti K Spotřeba elektrické účinnosti L Když je televizor vypnutý dálkovým ovladačem a není aktivní žádná funkce M Informace o jmenovitém příkonu najdete na štítku na zadním krytu televizoru.	G Roční spotřeba elektrické energie H Spotřeba elektrické energie v pohotovostním režimu I Spotřeba elektrické energie ve vypnutém stavu J Spotřeba elektrické energie v zapnutém stavu K Spotřeba elektrické energie XYZ kWh za rok vzhledem ke spotřebě elektrické energie televizoru při průměrné době používání 365 dní. Skutečná spotřeba elektrické energie závisí na způsobu použití televizoru a přijímače. L Když je televizor vypnutý dálkovým ovladačem a není aktivní žádná funkce M Informace o jmenovitém příkonu najdete na štítku na zadním krytu televizoru.

Dansk	A Datablad B Leverandør C Syvling skærm D Energeffektivitetsklasse E Effektforbrug F Effektforbrug G Effektforbrug H Lænd tilstand I Skærmopløsning J Særligt energiforbrug K Energiforbrug L 365 dages timer M fjernsynet er slukket med fjernbetjeningen og vil bære på, hvordan fjernsynet bruges. N For oplysninger om nominelt strømforbrug henvises til mærkaten på fjernsynets bagbeholdning.	G Avligt energiforbrug H Effektforbrug I Effektforbrug J Effektforbrug K Skærmopløsning L Særligt energiforbrug M Energiforbrug N 365 dages timer O fjernsynet er slukket med fjernbetjeningen og vil bære på, hvordan fjernsynet bruges.
Bългарски	A Продуктов фиш B Доставчик C Видим диагонален екран D Консумация на енергия в режим „включен“ E Консумация на енергия в режим „изключен“ F Консумация на енергия в режим „включен“ G Консумация на енергия в режим „включен“ H Консумация на енергия в режим „включен“ I Консумация на енергия в режим „включен“ J Консумация на енергия в режим „включен“ K Консумация на енергия в режим „включен“ L Консумация на енергия в режим „включен“ M Консумация на енергия в режим „включен“	G Подходяща консумация на енергия H Консумация на енергия в режим „в готовност“ I Консумация на енергия в режим „изключен“ J Консумация на енергия в режим „включен“ K Консумация на енергия в режим „включен“ L Консумация на енергия в режим „включен“ M Консумация на енергия в режим „включен“
Română	A Fișa produsului B Furnizor C Clasa de eficiență energetică D Diagonala vizibilă a ecranului E Puterea consumată în modul activ F Puterea consumată în modul standby G Puterea consumată în modul standby H Puterea consumată în modul standby I Puterea consumată în modul standby J Puterea consumată în modul standby K Rezoluție ecran L Rezoluție ecran M Rezoluție ecran	G Consumul anual de energie H Puterea consumată în modul standby I Puterea consumată în modul standby J Puterea consumată în modul standby K Puterea consumată în modul standby L Puterea consumată în modul standby M Puterea consumată în modul standby
Latviešu valodā	A Produkta speciālā zīme B Piegādātājs C Energoefektivitātes klase D Ekraņa redzamās daļas izmērs E Ekraņa režīma elektroenerģijas patēriņš F Ekraņa režīma elektroenerģijas patēriņš G Aktīva režīma elektroenerģijas patēriņš H Aktīva režīma elektroenerģijas patēriņš I Aktīva režīma elektroenerģijas patēriņš J Aktīva režīma elektroenerģijas patēriņš K Aktīva režīma elektroenerģijas patēriņš L Aktīva režīma elektroenerģijas patēriņš M Aktīva režīma elektroenerģijas patēriņš	G Produkta speciālā zīme H Energoefektivitātes klase I Ekraņa redzamās daļas izmērs J Ekraņa režīma elektroenerģijas patēriņš K Ekraņa režīma elektroenerģijas patēriņš L Ekraņa režīma elektroenerģijas patēriņš M Ekraņa režīma elektroenerģijas patēriņš
Polski	A Karta produktu B Dostawca C Klasa efektywności energetycznej D Przekątna widzialnego ekranu E Zużycie energii w trybie włączenia F Zużycie energii w trybie włączenia G Zużycie energii XYZ kWh/rok na podstawie zużycia energii przez telewizor działający 4 godziny dziennie przez 365 dni. Rzeczywiste zużycie energii zależy od sposobu użytkowania telewizora. H Wyłączenie telewizora za pomocą pilota i brak aktywnych funkcji. I Wyłączenie telewizora za pomocą pilota i brak aktywnych funkcji. J Wyłączenie telewizora za pomocą pilota i brak aktywnych funkcji. K Wyłączenie telewizora za pomocą pilota i brak aktywnych funkcji. L Wyłączenie telewizora za pomocą pilota i brak aktywnych funkcji. M Wyłączenie telewizora za pomocą pilota i brak aktywnych funkcji.	G Rozczne zużycie energii H Zużycie energii w trybie czuwania I Zużycie energii w trybie włączenia J Zużycie energii w trybie włączenia K Rozdzielczość ekranu L Rozdzielczość ekranu M Rozdzielczość ekranu
Srpski	A Lista sa podacima za proizvođača B Dobavljač C Klasa energetske efikasnosti D Vidljiva veličina ekrana (dijagonalna) E Prosječna potrošnja u režimu uključeno napajanja F Prosječna potrošnja u režimu uključeno napajanja G Prosječna potrošnja u režimu uključeno napajanja H Prosječna potrošnja u režimu uključeno napajanja I Prosječna potrošnja u režimu uključeno napajanja J Prosječna potrošnja u režimu uključeno napajanja K Prosječna potrošnja u režimu uključeno napajanja L Prosječna potrošnja u režimu uključeno napajanja M Prosječna potrošnja u režimu uključeno napajanja	G Godišnji potrošnja struje H Potrošnja struje u stanju pripravnosti I Potrošnja u režimu isključenog napajanja J Potrošnja u režimu isključenog napajanja K Potrošnja u režimu isključenog napajanja L Potrošnja u režimu isključenog napajanja M Potrošnja u režimu isključenog napajanja

Ελληνικά	A Δετίο προϊόντος B Προμηθευτής C Κατάσταση οθόνης D Κατάσταση οθόνης E Κατάσταση οθόνης F Κατάσταση οθόνης G Κατάσταση οθόνης H Κατάσταση οθόνης I Κατάσταση οθόνης J Κατάσταση οθόνης K Κατάσταση οθόνης L Κατάσταση οθόνης M Κατάσταση οθόνης	G Ανανηριστικό μοντέλου H Κατάσταση οθόνης I Κατάσταση οθόνης J Κατάσταση οθόνης K Κατάσταση οθόνης L Κατάσταση οθόνης M Κατάσταση οθόνης
Türkçe	A Ürün fişi B Tedarikçi C Görülebilir ekran köşegeni D Ekran çözünürlüğü E Açık moda güç tüketimi F 365 gün boyunca günde 4 saat çalıştırıldığında ve aktif fonksiyon yokken enerji tüketimi G Enerji tüketimi H Enerji tüketimi I Enerji tüketimi J Enerji tüketimi K Enerji tüketimi L Enerji tüketimi M Enerji tüketimi	G Ürün fişi H Tedarikçi I Görülebilir ekran köşegeni J Ekran çözünürlüğü K Açık moda güç tüketimi L 365 gün boyunca günde 4 saat çalıştırıldığında ve aktif fonksiyon yokken enerji tüketimi M Enerji tüketimi
Hrvatski	A Podatakovi list proizvođača B Dobavljač C Dijagonala vidljivog zaslona D Urošak energije pri uključenoosti E Urošak energije pri uključenoosti F Urošak energije pri uključenoosti G Urošak energije pri uključenoosti H Urošak energije pri uključenoosti I Urošak energije pri uključenoosti J Urošak energije pri uključenoosti K Urošak energije pri uključenoosti L Urošak energije pri uključenoosti M Urošak energije pri uključenoosti	G Godišnji utrošak energije H Utrošak energije u pripravnosti I Utrošak energije pri isključenoosti J Utrošak energije pri isključenoosti K Utrošak energije pri isključenoosti L Utrošak energije pri isključenoosti M Utrošak energije pri isključenoosti
Slovensky	A Opis výrobku B Dodávateľ C Uholpiečka viditeľnej časti obrazovky D Uholpiečka viditeľnej časti obrazovky E Spotreba elektrickej energie v režime vypnutia F Spotreba elektrickej energie v režime vypnutia G Spotreba elektrickej energie v režime vypnutia H Spotreba elektrickej energie v režime vypnutia I Spotreba elektrickej energie v režime vypnutia J Spotreba elektrickej energie v režime vypnutia K Spotreba elektrickej energie v režime vypnutia L Spotreba elektrickej energie v režime vypnutia M Spotreba elektrickej energie v režime vypnutia	G Ročná spotreba elektrickej energie H Spotreba elektrickej energie v pohotovostnom režime I Spotreba elektrickej energie v režime vypnutia J Spotreba elektrickej energie v režime vypnutia K Spotreba elektrickej energie v režime vypnutia L Spotreba elektrickej energie v režime vypnutia M Spotreba elektrickej energie v režime vypnutia
Festi	A Toote kirjeldus B Tarnija C Ooteseisundi elektritarbimine D Ooteseisundi elektritarbimine E Ooteseisundi elektritarbimine F Ooteseisundi elektritarbimine G Ooteseisundi elektritarbimine H Ooteseisundi elektritarbimine I Ooteseisundi elektritarbimine J Ooteseisundi elektritarbimine K Ooteseisundi elektritarbimine L Ooteseisundi elektritarbimine M Ooteseisundi elektritarbimine	G Aastane energiatarbimine H Ooteseisundi elektritarbimine I Ooteseisundi elektritarbimine J Ooteseisundi elektritarbimine K Ooteseisundi elektritarbimine L Ooteseisundi elektritarbimine M Ooteseisundi elektritarbimine



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