

OPERATING INSTRUCTIONS

48U7653DB

COLOUR TELEVISION WITH REMOTE CONTROL

Contents
Safety Information
Markings on the Product
Environmental Information
Features
Accessories Included
Standby Notifications
TV Control Buttons & Operation
Inserting the Batteries into the Remote5 Connect Power
Antenna Connection
Notification
Specification
Remote Control
Connections
Switching On/Off
First Time Installation
Media Playback via USB Input
Recording a Programme
Timeshift Recording10
Instant Recording10
Watching Recorded Programmes10
Recording Configuration10
Media Browser Menu11
CEC and CEC RC Passthrough 11
E-Manual 11
TV Menu Contents12
General TV Operation
Using the Channel List 16
Configuring Parental Settings16
Electronic Programme Guide (EPG)16
Teletext Services17
Software Upgrade17
Troubleshooting & Tips18
PC Input Typical Display Modes 19
AV and HDMI Signal Compatibility19
Supported DVI Resolutions20
3D Mode21
Connectivity
Wireless Connectivity
Connectivity Troubleshooting25
Using Audio Video Sharing Network Service26
Audio Video Sharing26
Nero MediaHome Installation26
Internet Portal27
Internet Browser27
Smart Center
Important Instruction

Safety Information CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN 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

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 gualified personnel before operating it any further.
- · Do not expose the TV to direct sunlight, open flames or place it near intense heat sources such as electric heaters.
- · Listening in excessive volumes from earphones and headphones may cause hearing loss.

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

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

Markings on the Product

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



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

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



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



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



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



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

WARNING

Do not ingest the battery, Chemical Burn Hazard

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

Keep new and used batteries away from children.

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

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

WARNING

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

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

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

Environmental Information

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

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

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

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

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

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

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

Features

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

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

Accessories Included

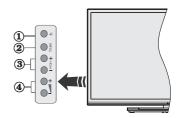
- Remote Control
- Batteries: 2 x AAA
- Instruction Book
- Quick Start Guide
- Side AV Connection Cable
- Mini Scart Adapter Cable

Standby Notifications

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

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

TV Control Buttons & Operation



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

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

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

Operation with the Remote Control

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

Input Selection

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

Changing Channels and Volume

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

Inserting the Batteries into the Remote

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



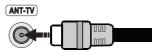
Connect Power

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

Antenna Connection

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

Rear bottom side of the TV



Notification

TRADEMARK ACKNOWLEDGMENT

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

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



YouTube and the YouTube logo are trademarks of Google Inc.

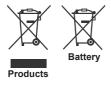
Information for Users on Disposal of Old Equipment and Batteries

[European Union only]

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

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

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



Specification

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

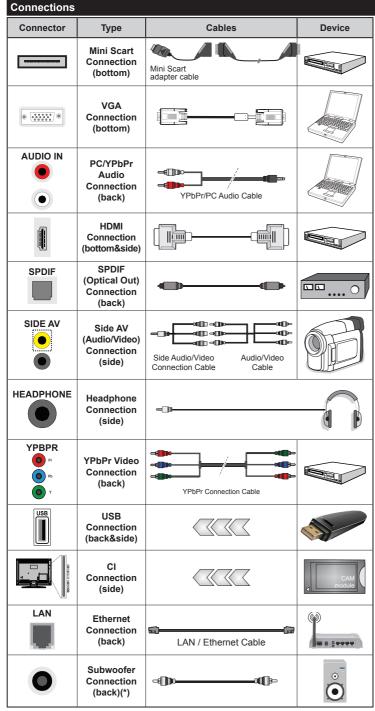


(*) MY BUTTON 1 & MY BUTTON 2:

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

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

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



NOTE: When connecting a device via the YPbPr or Side AV input, you must use the connection cables to enable connection. See the illustrations on the left side. | To enable PC/YPbPr audio, you will need to use the Back Audio inputs with a YPbPr/PC audio cable for audio connection. | If an external device is connected via the SCART socket, the TV will automatically switch to AV mode.| When receiving DTV channels (Mpeq4 H.264) or while in Media Browser mode, output will not be available via the scart socket. | When using the wall mounting kit (available from third party in the market, if not supplied), we recommend that you plug all your cables into the back of the TV before mounting on the wall. Insert or remove the CI module only when the TV is SWITCHED OFF. You should refer to the module instruction manual for details of the settings. | The USB input on the back of the TV(USB 2.0) supports devices up to 500mA. Connecting devices that have current value above 500mA may damage your TV. For the USB inputs on the side of the TV(USB 3.0) this limit value is 1A. | By connecting an HDMI cable to your TV, you have to use only a shielded HDMI cable to guarantee a sufficient immunity against parasitic frequency radiation. And make sure to use a High-Speed HDMI cable that can transmit high definition signals, such as 4K contents. for trouble-free transmission

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

(*) For external subwoofer connection

Switching On/Off

To Switch the TV On

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

To switch on the TV from standby mode either:

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

The TV will then switch on.

To Switch the TV Off

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

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

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

First Time Installation

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

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

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

About Selecting Broadcast Type

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

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

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

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

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

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

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

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

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

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

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

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

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

Media Playback via USB Input

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

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

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

Wait a little while before each plugging and unplugging as the player may still be reading files. Failure to do so may cause physical damage to the USB player and the USB device itself. Do not pull out your drive while playing a file. You can use USB hubs with your TV's USB inputs. External power supplied USB hubs are recommended in such a case.

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

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

Recording a Programme

IMPORTANT: When using a new USB hard disk drive, it is recommended that you first format the disk using your TV's **Format Disk** option in the **Media Browser>Settings>Recording Settings** menu.

To record a programme, you should first connect a USB disk to your TV while the TV is switched off. You should then switch on the TV to enable the recording feature.

To use recording your USB drive should have 2 GB free space and be USB 2.0 compatible. For the USB inputs on the side of the TV, USB 3.0 compatible devices can be used too. If the USB drive is not compatible an error message will be displayed.

To record long duration programmes such as movies, it is recommended to use USB Hard disk drives (HDD's).

Recorded programmes are saved into the connected USB disk. If desired, you can store/copy recordings onto a computer; however, these files will not be available to be played on a computer. You can play the recordings only via your TV.

Lip Sync delay may occur during the timeshifting. Radio record is supported. The TV can record programmes up to ten hours.

Recorded programmes are split into 4GB partitions. If the writing speed of the connected USB disk is not sufficient, the recording may fail and the timeshifting feature may not be available.

It is recommended to use USB hard disk drives for recording HD programmes.

Do not plug out the USB/HDD during a recording. This may harm the connected USB/HDD.

If the AC cord is unplugged while there is an active USB-recording timer setting, it will be cancelled.

Multipartition support is available. A maximum of two different partitions are supported. The first partition of the USB disk is used for PVR ready features. It also must be formatted as the primary partition to be used for the PVR ready features.

Some stream packets may not be recorded because of signal problems, as a result sometimes videos may freeze during playback.

Record, Play, Pause, Display (for PlayListDialog) keys can not be used when teletext is on. If a recording starts from timer when teletext is on, teletext is automatically turned off. Also teletext usage is disabled when there is an ongoing playback. While recording a programme on the background you can use menu options, switch to another source or use **Media Browser** functions, such as viewing pictures, playing video and music files, and even play back the ongoing recording.

Timeshift Recording

Press **Pause** button while watching a broadcast to activate timeshifting mode. In timeshifting mode, the programme is paused and simultaneously recorded to the connected USB disk.

Press **Play** button again to resume the paused programme from where you stopped. Press the **Stop** button to stop timeshift recording and return to the live broadcast.

Timeshift cannot be used while in radio mode.

You cannot use the timeshift fast reverse feature before advancing the playback with the fast forward option.

Instant Recording

Press **Record** button to start recording an event instantly while watching a programme. You can press **Record** button on the remote control again to record the next event on the EPG. In this case, an OSD will be displayed, indicating the programmed events for recording. Press **Stop** button to cancel instant recording.

You can not switch broadcasts during the recording mode. While recording a programme or during the timeshifting, a warning message appears on the screen if your USB device speed is not sufficient.

Watching Recorded Programmes

Select **Recordings** from the **Media Browser** menu. Select a recorded item from the list (if previously recorded). Press the **OK** button to view the **Play Options**. Select an option then press **OK** button.

Note: Viewing main menu and menu items will not be available during the playback.

Press the **Stop** button to stop a playback and return to the **Recordings**.

Slow Forward

If you press **Pause** button while watching recorded programmes, the slow forward feature will be available. You can use **Rapid advance** button to slow forward. Pressing **Rapid advance** button consecutively will change slow forwarding speed.

Recording Configuration

Select the **Recording Settings** item in the **Media Browser>Settings** menu to configure the recording settings.

Format Disk: You can use the Format Disk feature for formatting the connected USB disk. Your PIN is required to use the Format Disk feature.

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.

IMPORTANT: Formatting your USB drive will erase ALL the data on it and it's file system will be converted to FAT32. In most cases operation errors will be fixed after a format but you will lose ALL your data.

If "USB disk writing speed too slow to record" message is displayed on the screen while starting a recording, try restarting the recording. If you still get the same error, it is possible that your USB disk does not meet the speed requirements. Try connecting another USB disk.

Media Browser Menu

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

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

Custom Boot Up Logo

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

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

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

CEC and CEC RC Passthrough

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

The CEC option in the System>Options>More menu should be set as Enabled at first. Press the Source

button and select the HDMI input of the connected CEC device from the **Sources List** menu. When new CEC source device is connected, it will be listed in source menu with its own name instead of the connected HDMI ports name(such as DVD Player, Recorder 1 etc.).

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

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

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

Note: ARC is supported only via the HDMI3 input.

System Audio Control

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

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

E-Manual

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

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

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

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

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

TV Menu Contents System - Picture Menu Contents **3D Settings** Press to view 3D settings. You can change the picture mode to suit your preference or requirements. Picture mode 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. For setting the Energy Saving to Custom, Minimum, Medium, Maximum, Auto, **Energy Saving** Screen Off or Off. Note: Available options may differ depending on the selected Mode. This setting controls the backlight level. The backlight function will be inactive if the Backlight Energy Saving is set to an option other then Custom. Advanced Settings **Dynamic Contrast** You can change the dynamic contrast ratio to desired value. If the signal is weak and the picture is noisy, use the Noise Reduction setting to reduce Noise Reduction the amount of noise. Sets the desired colour temperature value. Cool, Normal, Warm and Custom options are Colour Temp available. If the **Colour Temp** option is set as **Custom**, this setting will be available. Increase the White Point 'warmth' or 'coolness' of the picture by pressing Left or Right buttons. Picture Zoom Sets the desired image size format. Films are recorded at a different number of frames per second to normal television programmes. Film Mode 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. While watching from a HDMI source, this feature will be visible. You can use this feature to HDMI Full Range enhance blackness in the picture. PC Position Appears only when the input source is set to VGA/PC. Autoposition Automatically optimizes the display. Press OK to optimize. H Position This item shifts the image horizontally to the right hand side or left hand side of the screen. V Position This item shifts the image vertically towards the top or bottom of the screen. Dot Clock adjustments correct the interference that appear as vertical banding in dot Dot Clock intensive presentations like spreadsheets or paragraphs or text in smaller fonts. Depending on the input source(computer etc.) you may see a hazy or noisy picture on the Phase 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.

System - Sound Men	u 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 socket will be set to which could damage your hearing.			
Dynamic Bass	Enables or disables the Dynamic Bass.		
Surround sound	Surround sound mode can be changed as On or Off .		
Digital Out	Sets digital out audio type.		

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

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

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

General TV Operation

Using the Channel List

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

Managing the Favourite Lists

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

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

Configuring Parental Settings

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

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

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

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

Set PIN: Defines a new PIN number.

Default CICAM PIN: This option will appear as greyed out if no CI module is inserted into the CI slot of the TV. You can change the default PIN of the CI CAM using this option. **Note:** Default PIN can be set to **0000** or **1234**. If you have defined the PIN(is requested depending on the country selection) during the **First Time Installation** use the PIN that you have defined.

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

Electronic Programme Guide (EPG)

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

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

Timeline Schedule

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

Filter (Blue button): Views filtering options.

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

Options (OK button): Displays event options.

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

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

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

Rec./Stop (Record button): The TV will start to record the selected programme. You can press again to stop the recording.

IMPORTANT: Connect a USB disk to your TV while the TV is switched off. You should then switch on the TV to enable the recording feature.

Note: Switching to a different broadcast is not available during a recording.

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.

Rec./Stop (Record button): The TV will start to record the selected programme. You can press again to stop the recording.

IMPORTANT: Connect a USB disk to your TV while the TV is switched off. You should then switch on the TV to enable the recording feature.

Note: Switching to a different broadcast is not available during a recording.

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.

Rec./Stop (Record button): The TV will start to record the selected programme. You can press again to stop the recording.

IMPORTANT: Connect a USB disk to your TV while the TV is switched off. You should then switch on the TV to enable the recording feature.

Note: Switching to a different broadcast is not available during a recording.

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.

Record / Delete Rec. Timer: Select the **Record** option and press the **OK** button. If the programme is going to be broadcasted at a future time, it will be added to **Timers** list to be recorded. If the selected programme is being broadcasted at the moment, recording will start immediately.

To cancel an already set recording, highlight that programme and press the **OK** button and select the option **Delete Rec. Timer**. The recording will be cancelled.

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 recording or timer on the current channel.

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

Teletext Services

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

Digital Teletext

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

BBC Connected Red Button (CRB)

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

Software Upgrade

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

Software upgrade search via user interface

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

If a new upgrade is found, it starts to download the upgrade. After the download is completed confirm the question asking about rebooting the TV by pressing the **OK** to continue with the reboot operation.

3 AM search and upgrade mode

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

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

Troubleshooting & Tips

Tv will not turn on

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

Poor picture

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

No picture

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

No sound

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

Remote control - no operation

• The batteries may be exhausted. Replace the batteries.

Input sources - can not be selected

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

Recording unavailable

To record a programme, you should first connect a USB disk to your TV while the TV is switched off. You should then switch on the TV to enable recording feature. If you cannot record, try switching off the TV and then re-inserting the USB device.

USB is too slow

If a "**USB disk writing speed too slow to record**" message is displayed on the screen while starting a recording, try restarting the recording. If you still get the same error, it is possible that your USB disk does

not meet the speed requirements. Try connecting another USB disk.

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 S	ignals	Available	
	PAL	0		
	SECAM	0		
EXT (SCART)	NTSC4.43	0		
(SCART)	NTSC3.58			
	RGB 50/60		0	
	PAL		0	
Side AV	SECAM		0	
Side Av	NTSC4.43		0	
	NTSC3.58		0	
	480i, 480p	60Hz	0	
YPbPr	576i, 576p	50Hz	0	
TPOPI	720p	50Hz,60Hz	0	
	1080i	50Hz,60Hz	0	
	480i	60Hz	0	
	480p	60Hz	0	
	576i, 576p	50Hz	0	
	720p 50Hz,60Hz		0	
	1080i	50Hz,60Hz	0	
HDMI	1080p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz	0	
	3840x2160p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz	0	
	4096x2160p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz		

(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 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						
800x600	Ø	\square				
1024x768		Ø		\square		Ø
1280x768		V				\blacksquare
1280x960		Ø				
1360x768		Ø				
1366x768		V				
1280x1024		Ø				Ø
1400x1050		Ø				
1600x900		Ø				

3D Mode

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

Cautions for 3D viewing

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

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

Photosensitive Seizure Warning

 If you or a member of your family has a history of epilepsy or seizure, please consult with your doctor before watching 3D TV. It is possible that some viewers may experience a seizure or epilepsy when exposed to certain conditions, including flashing lights or images in TV or video games.

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

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

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

Operating the 3D Mode

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

Notes:

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

Using the 3D Glasses

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

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

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

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

Cleaning and maintenance of the 3D glasses

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

Viewing 3D images

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

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

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

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

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

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

Watching 3D images in 2D format

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

Watching 2D images in 3D format

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

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

Switching left and right images

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

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

3D Settings

3D Mode

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

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

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

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

Off: 3D function is turned off.

2D Only

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

Virtual 3D

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

Left/Right Swap

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

3D Depth Sense (depending on model)

This setting enables the control of 3D depth.

3D Viewing Information

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

Viewing Distance

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

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
4090m@24 ED				-
1080p@24 FP	Not Supported	Not Supported	Not Supported	Not Supported
720p@50 FP	Not Supported	Not Supported	Not Supported	Not Supported
720p@60 FP	Not Supported	Not Supported	Not Supported	Not Supported
1080p FC	Not Supported	SBS, TB	SBS, TB	SBS, TB
720p FC	Not Supported	SBS, TB	SBS, TB	SBS, TB
1080i FC	Not Supported	SBS, TB	SBS, TB	SBS, TB
OTHER	Not Supported	SBS, TB	SBS, TB	Not Supported

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

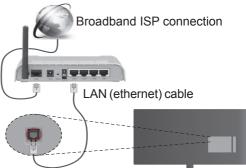
- SBS: Side By Side
- TB: Top Bottom
- MBP: Media Browser Picture
- MBV: Media Browser Video
- DTV: Digital TV Source
- ATV: Analog TV Source
- FC: Frame Compatible
- FP: Frame Packed

Connectivity

Wired Connectivity

To Connect to a Wired Network

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

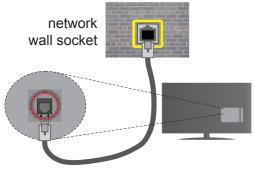


LAN input on the rear side of the TV

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

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

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



LAN input on the rear side of the TV

Configuring Wired Device Settings

Network Type

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

Internet Speed Test

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

Advanced Settings

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

Wireless Connectivity

To Connect to a Wireless Network

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

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

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



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

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

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

Configuring Wireless Device Settings

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

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

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

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

Wait until the IP address is shown on the screen.

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

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

Other Information

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

Connecting to your mobile device via WiFi

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

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

Connectivity Troubleshooting

Wireless Network Not Available

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

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

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

Connection is Slow

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

Distruption during playback or slow reactions

You could try the following in such a case:

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

Internet Connection Not Available / Audio Video Sharing Not Working

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

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

Invalid Domain

Ensure that you have already logged on to your PC with an authorized username/password and also ensure that your domain is active, prior to sharing - 25 -

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

Using Audio Video Sharing Network Service

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

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

1. Nero Media Home Installation

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

2. Connect to a Wired or Wireless Network

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

3. Play Shared Files via Media Browser

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

Audio Video Sharing

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

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

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

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

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

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

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

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

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

Nero MediaHome Installation

To install Nero MediaHome, please proceed as follows:

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

 Enter the link below completely in the adressbar of your web browser.

http://www.nero.com/mediahome-tv

- Click the Download button on the opening page. The installation file will be downloaded onto your PC.
- 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.
- Click the Next button. The License Conditions (EULA) screen will be displayed. Please read the license agreement carefully and select the appropriate check box if you agree to the terms of the agreement. Installation is not possible without this agreement.
- 7. Click the **Next** button. On the next screen you can set your installation preferences.
- 8. Click the **Install** button. The installation begins and finishes automatically. A progress bar will indicate the state of the installation process.
- **9.** Click the **Finish** button. The installation is completed. You will be directed to the web site of the nero software.
- 10. A shortcut is now placed on your desktop.

Congratulations! You successfully installed Nero MediaHome on your PC.

Run Nero MediaHome by double clicking on the shortcut icon.

Internet Portal

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

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

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

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

Press the Exit button to quit the Internet portal mode.

PIP Window (depending on portal service)

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

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

Notes:

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

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

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

iPlayer Application

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

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

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

Playing a Programme via iPlayer

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

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

Use the Stop button to stop the playback.

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

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

Searching a Programme

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

Internet Browser

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

(*) The appearance of the internet browser logo may change

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

To navigate the web browser, use the directional buttons on the remote or a connected mouse. To see the browser options bar, move the cursor to the top of the page or press the **Back/Return** button. **History**, **Tabs** and **Bookmarks** options and the browser bar which contains previous/next buttons, the refresh button, the adress/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** - **III** 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**. O 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.

Smart Center

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

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

Getting Started

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

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

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

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

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

Mobile Device screen

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

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

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

TV: You can watch content through the TV tab. In this mode you can navigate through the channel list

retrieved from your TV and click on thumbnails to view the detail pages.

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

EPG: You can view the broadcast schedules of selected channel lists through this tab. You can also navigate through channels by pressing on the selected channel on the EPG grid. Please note that updating / refreshing the EPG information may take a while depending on your network and web service quality.

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

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

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

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

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

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

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

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

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

Version No: Displays the current version of the application.

Detail Page

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

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

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

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

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

Media Share Page

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

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

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

Portal Launcher

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

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

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

Voice Recognation

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

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

Keyboard Page

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

Requirements

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

Notes:

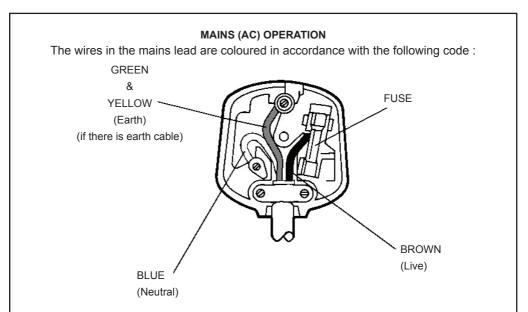
For Android devices, Normal(mdpi), Large(hdpi) and Extra Large(xhdpi) screen sizes are supported. Devices with 3" or smaller screen sizes are not supported.

For iOS devices, all screen sizes are supported.

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

Important Instruction

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



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.

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

If you want to view advanced functions of your TV, you can do so by visiting

http://tveu.compal-toshiba.com/

