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Safety Information

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

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. If the TV set is not disconnected electrically from the mains, the device will still draw power for all situations even if the TV is in standby mode or switched off.

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.

- Use this TV set at an altitude of less than 2000 meters above the sea level, in dry locations and in regions with moderate or tropical climates.
- The TV set is intended for household and similar general use but may also be used in public places.
- For ventilation purposes, leave at least 5cm of free space around the TV.
- The ventilation should not be impeded by covering or blocking the ventilation openings with items, such as newspapers, table-cloths, curtains, etc.
- 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 expose the TV to dripping or splashing of liquids and do not place objects filled with liquids, such as vases, cups, etc. on or over the TV (e.g., on shelves above the unit).
- Do not expose the TV to direct sunlight or do not place open flames such as lit candles on the top of or near the TV.

- Do not place any heat sources such as electric heaters, radiators, etc. near the TV set.
- Do not place the TV on the floor and inclined surfaces.
- To avoid danger of suffocation, keep plastic bags out of the reach of the babies, children and domestic animals.
- Carefully attach the stand to the TV. If the stand is provided with screws, tighten the screws firmly to prevent the TV from tilting. Do not over-tighten the screws and mount the stand rubbers properly.
- Do not dispose of the batteries in fire or with hazardous or flammable materials.

Warning: Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

 Caution	Serious injury or death risk
 Risk of electric shock	Dangerous voltage risk
 Maintenance	Important maintenance component

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
This product or the accessories supplied with the 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 or inclined 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 tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the television set to a suitable support.
- Not standing the television set on cloth or other materials placed between the television and supporting furniture.
- 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.

WALL MOUNTING WARNINGS

- Read the instructions before mounting your TV on the wall.
- The wall mount kit is optional. You can obtain from your local dealer, if not supplied with your TV.
- Do not install the TV on a ceiling or on an inclined wall.
- Use the specified wall mounting screws and other accessories.
- Tighten the wall mounting screws firmly to prevent the TV from fall. Do not over-tighten the screws.

WARNING

Apparatus connected to the protective earthing of the building installation through the MAINS connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)

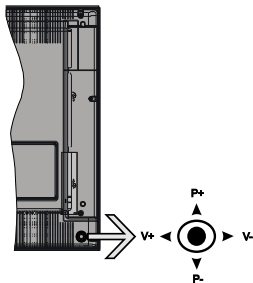
Optional

The Word 'Optional' is used in these instructions to mean a feature or function is only available on some models.

Accessories Included

- Remote Control
- Batteries: 2 x AAA
- Instruction Book
- Side AV Connection Cable
- YPbPr Connection Cable

TV Control & Operation



The joystick allows you to control the Volume / Programme (while watching TV channels) / Source and Standby-On functions of the TV.

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

To change volume: Increase the volume by pushing the joystick right. Decrease the volume by pushing the joystick left.

To change channel: Scroll through the stored channels by pushing the joystick up or down.

To change source: Press the centre of the joystick in, the sources list will appear on the screen. Scroll through the available sources by pushing the joystick up or down.

To turn the TV off: Press the centre of the joystick in and hold it down for a few seconds, the TV will turn into standby mode.

To turn on the TV: Press the centre of the joystick in, the TV will turn on.

Note: Main menu OSD cannot be displayed via control button.

Operation with the Remote Control

Input Selection

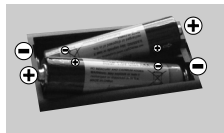
Once you have connected external systems to your TV, you can switch to different input sources. Press the **Source** button on your remote control consecutively to select the different sources.

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 screw that secure the battery compartment cover on the back side of the remote control.
- Remove the cover.
- Insert two size AAA batteries. Note the correct polarity (+ or -). Do not mix old and new batteries. Replace only with same or equivalent type.
- Place the cover back on.
- Screw the cover back on.



Angle of the remote control unit

Use the remote control unit by pointing it towards the remote control sensor.

Objects between the remote control unit and sensor may prevent proper operation.

Cautions regarding the remote control unit

- Do not expose the remote control unit to shock. In addition, do not expose the remote control unit to liquids, and do not place in an area with high humidity.
- Do not install or place the remote control unit under direct sunlight. The heat may cause deformation of the unit.
- The remote control unit may not work properly if the remote control sensor of the TV is under direct sunlight or strong lighting. In such cases, change the angle of the lighting or the TV, or operate the remote control unit closer to the remote control sensor.

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.

To Switch the TV On

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

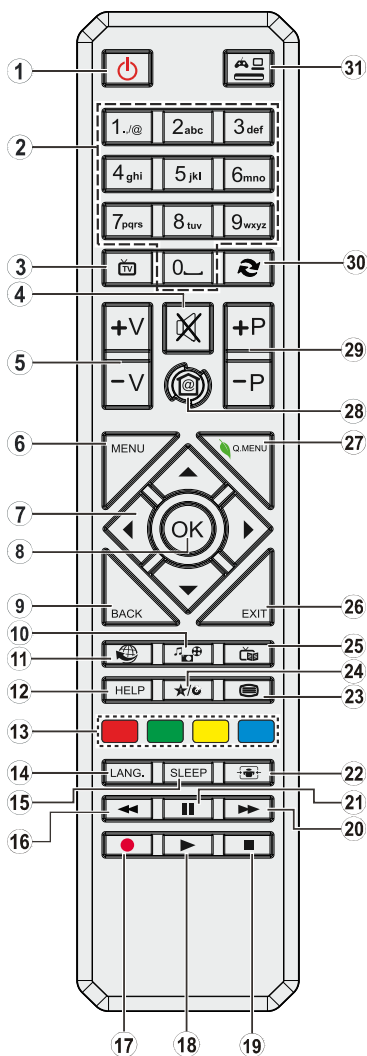
To switch on the TV from standby mode either:

- Press the **Standby** button, **Programme +/-** or a numeric button on the remote control.
- Press the centre of the joystick on the TV in or push it up/down until the TV comes on from standby.

To Switch the TV Off

Press the **Standby** button on the remote control or press the centre of the joystick on the TV in and hold it down for a few seconds, the TV will switch into standby mode.

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









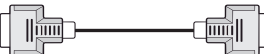

































1. **Standby:** Switches On / Off the TV
2. **Numeric buttons:** Switches the channel, enters a number or a letter in the text box on the screen.
3. **TV:** Displays channel list / Switches among broadcast types / Switches to TV Source
4. **Mute:** Completely turns off the volume of the TV
5. **Volume +/-**
6. **No function**
7. **Directional buttons:** Helps navigate menus, content etc. and displays the subpages in TXT mode when pressed Right or Left
8. **OK:** Confirms user selections, holds the page (in TXT mode), views channel list (DTV mode)
9. **Back/Return:** Returns to previous screen, opens index page (in TXT mode)
10. **Media browser:** Opens the media browsing screen
11. **No function**
12. **Help:** Opens a help screen where the button functions of the remote control are displayed
13. **Coloured Buttons:** Follow the on-screen instructions for coloured button functions
14. **Language:** Switches between sound modes (analogue TV), displays and changes audio/subtitle language (digital TV, where available)
15. **Sleep:** Sets sleep timer for the TV to shut down automatically after a defined period of time.
16. **Rapid reverse:** Moves frames backwards in media such as movies
17. **No function**
18. **Play:** Starts to play selected media
19. **Stop:** Stops the media being played
20. **Rapid advance:** Moves frames forward in media such as movies
21. **Pause:** Pauses the media being played
22. **Screen:** Changes the aspect ratio of the screen
23. **Text:** Displays teletext (where available), press again to superimpose the teletext over a normal broadcast picture (mix)
24. **My button (*)**
25. **EPG (Electronic programme guide):** Displays the electronic programme guide
26. **Exit:** Closes and exits from displayed menus or returns to previous screen
27. **No function**
28. **No function**
29. **Programme +/-**
30. **Swap:** Quickly cycles between previous and current channels or sources
31. **Source:** Shows all available broadcast and content sources


(*) MY BUTTON:

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

Connections

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

 **NOTE:** When connecting a device via the YPbPr or Back AV input, you must use the connection cables to enable connection. See the illustrations on the left side. | To enable PC/YPbPr audio, you will need to use the Back Audio inputs with a YPbPr/PC audio cable for audio connection. | If an external device is connected via the SCART socket, the TV will automatically switch to AV mode. | When receiving DTV channels (Mpeg4 H.264, H.265) 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 2.0 inputs on the back side and on the left side of the TV support devices up to 500mA. Connecting devices that have current value above 500mA may damage your TV. If available, for the optional USB 3.0 input on the left side of the TV, which will be positioned above the other USB input, this limit value is 1A. | By connecting an HDMI cable to your TV, you have to use only a shielded (high grade) HDMI cable with ferrites to guarantee a sufficient immunity and emission 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.

USING THE HOTEL TV

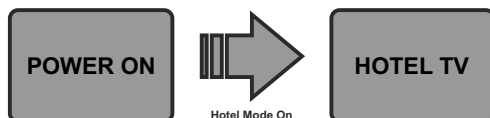
About Hotel TV

This TV is intended to be used in hospitality facilities like hotels for demonstrating TV channels and accessing internet.

TV channels are delivered using the internet protocol over the LAN connection. The content is configured and managed in PC environment via a specialized software.

Actually it is not possible to enter or display the TV setting menus, as this may harm the pre-loaded software on the TV. In case of need only the authorised service personel should be able to access these menus. The menus are accessible by pressing a specified combination of the bottons on the remote.

The TV will switch on with the TV source and the first channel on the active channel list will be displayed. You can open the channel list by pressing the **OK** button and select the desired channel from the list using the directional buttons. You can also use **Programme +/-** or **Numeric** buttons to switch to another channel. Live TV channels(analogue, digital) and IPTV channels will be listed on the same channel list.



Essentially the TV should be in Hotel TV mode and you should be able to watch channels. If you can't watch the channels, please contact the service department of the Hotel.

ADDITIONAL FEATURES

HBBTV System (optional)

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

HbbTV applications are available on channels where they are signalled by the broadcaster. The applications are generally launched with a small red button icon to notify the user that there is an HbbTV application on that channel. The user then should press the red button to open the application page. To close the application press the red button again. It should be noted that the operation and control of the applications may differ depending on the application.

Using Audio Video Sharing Network Service (optional)

The Audio Video Sharing standard allows you to view and play photos, music and videos stored in a compliant media server connected to the same network with your TV.

Press **Media Browser** button on the remote, **Media Browser** menu screen will be displayed. Select the desired media type and press the **OK** button. On the next screen available media servers will be listed. Select the one you want to connect and press the **OK** button. You can browse the contents in the media server and play/display the desired media on your TV.

Note: Trick mode and jump are not supported with the Audio Video Sharing function.

Smart Center (optional)

Smart Center is a mobile application running on iOS and Android platforms. With your handheld device, you can easily stream your favourite live shows and programmes from your TV. Also; you can 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.*

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

Start the smart center application. 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.

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 (optional)

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.*

Settings

Configure the application to your liking.

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.*

FollowMe TV Feature (if available)

Tap on the **FOLLOW ME TV** widget located at the bottom left of the screen of your mobile device to change the layout for **FollowMe TV** feature.

Tap the play icon to start streaming of the content from the TV to your mobile device. Available if your device is in your routers operation range.

Mirror Mode: This mode of FollowMe TV feature is enabled by default and allows streaming the content from any other selected TV sources and Media Browser.

Notes:

Note that only digital(DVB-T/C/S) SD channels are supported.

Multilanguage audio support and subtitle on/off features are not functional.

The streaming performance may change depending on the quality of your connection.

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.

Smart Remote Feature

You can use your mobile device as a remote control for your TV once it has connected to the TV. To use smart remote's full features tap on the **Up-arrow** on the bottom left side of the screen.

Voice Recognition

You can tap on the **Microphone** widget and manage your application, giving voice commands such as "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. Mobile Device based on Android or iOS platform (Android OS 4.0 or higher; IOS 6 or higher version)
2. Smart Center app.(to be found on online application stores based on Android and iOS platforms)
3. USB storage device in FAT32 format (required for PVR feature, if available)

Notes:

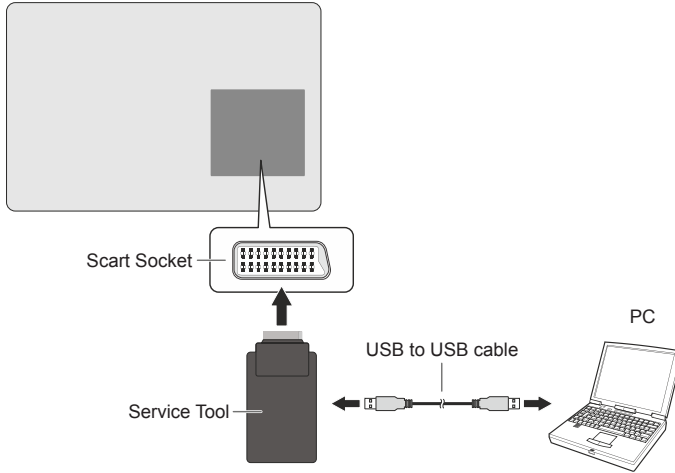
- For Android devices, Normal(mdpi), Large(hdpi) and Extra Large(xhdpi) screen sizes are supported. Devices with 3" or smaller screen sizes are not supported.
- For iOS devices, all screen sizes are supported.
- User interface of the Smart Center application is subject to change according to version installed on your device.
- The TV and the handheld device should be connected to the same network wirelessly. The TV's IP number should be provided in order to be able to connect to it. If you don't know the IP adress of your TV, please contact the service department of the Hotel.

Smart Remote (optional)

You can install a compatible Smart Remote application onto your handheld device in order to control your TV. Follow the instructions provided with the application to connect and learn more about using the application.

Note: The TV and the handheld device should be connected to the same network wirelessly. The TV's IP number should be provided in order to be able to connect to it. If you don't know the IP adress of your TV, please contact the service department of the Hotel.

Controlling With An External PC



You can control the product from an external PC via RS-232 (COM port) or LAN (Ethernet port) on the PC. For instance, system source can be changed by RS-232 from remote computer. When a command is sent from the PC to the product, the product operates according to the received command and sends a response message to the PC.

Equipment/Tools:

- RS-232 (female) to RS-232(male) cable or LAN cable (connected via router)
- USB to RS-232(male) cable
- Notebook or PC which has USB or LAN port
- Installed program on remote PC to send commands:

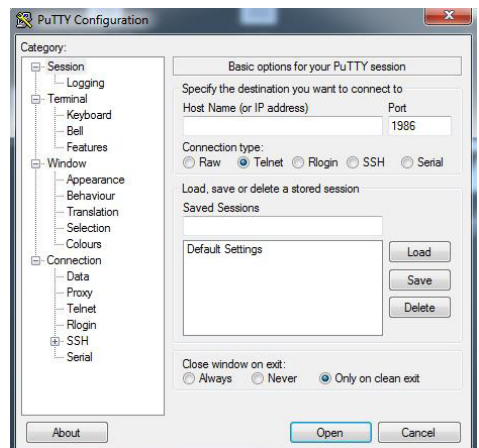
In general, the RS-232 commands are sent for operating the implemented functions via serial port and utility. A suitable utility can be used such as described below.

Connecting to the TV (LAN port)

Download and install the PuTTY software from the following link first: <http://www.putty.org/>.

Run the software and enter the TV's IP address in the field **Host Name**. Enter "**1986**" as a default value in the field **Port**. Then select "**Telnet**" as **Connection type** and click the **Open** button.

Note: Refer to the **Connectivity** section of this manual for information on connecting the TV to a network and displaying the IP address of the TV.



Use the commands in the **RS232/LAN Command Table**. For example, if “GETVOLUME” command is entered, current volume level should be displayed on the putty window as shown in the pictures below.



Another example;

Volume level can be changed by using “VOLUME” command. After sending this command, you can verify the changes from the TV.



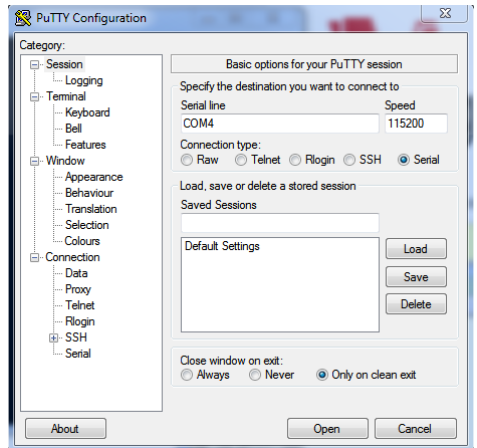
The last example ;

When “GETSOURCE” command is entered, current source should be displayed on the putty window as shown in the picture below.



Connecting to the TV (RS232 port)

Run the software and select **Serial** as **Connection Type**. Enter the TV’s serial port in the field **Serial Line** (in the following example it is COM4) and “**115200**” in the field **Speed**. Then click the **Open** button.



() Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.*

RS232/LAN Command Table

AUDIO COMMANDS

Command	Description	Parameter	Return
GETVOLUME	Volume level information.	no parameter	##*volume level is ...
HEADPHONEVOLUME	"Set headphone volume level."	integer n (0 ≤ n ≤ 100)	##*set headphone volume to n
GETHEADPHONEVOLUME	"Headphone volume level information."	no parameter	##*headphone volume is ...
GETMUTE	Get mute value on/off.	no parameter	"##*MUTE OFF or ##*MUTE ON"
SETMUTE	Set mute value on/off.	no parameter	"##*MUTE OFF or ##*MUTE ON"
SETSOUNDMODE	"Set sound mode. SETEQUUSERFREQ 100Hz 10"	"integer n (0 = mono, 1 = stereo, 2 = dual I, 3 = dual II, 4 = mono left, 5 = mono right)"	"##*setSoundMode() set to n or ##*Invalid sound mode entered"
SETBALANCE	Set balance value.	integer n (-50 < n < 50)	"##*set balance level to n or ##*invalid balance level entered"
GETBALANCE	Get balance value.	no parameter	##*balance level is ...
SETAVL	Set AVL state.	integer n (0 = off, 1 = on)	##*set avl state to n
GETAVL	Get AVL state.	no parameter	##*avl state is ...
SETDYNAMICBASS	Set dynamic bass state.	integer n (0 = off, 1 = on)	##*set dynamic bass state to n
SETEQUUSERFREQ	Set equalizer user freq. value for any band.	"string n (120Hz, 500Hz, 1.5KHz, 5KHz, 10KHz) integer n -13 < n < 13 Example: SETEQUUSERFREQ 120Hz 10"	"##*setEQUserFreq() set to n or ##*Incorrect sound system parameter entered or ##*Incorrect equalizer mode. It should be USER mode"
GETDIGITALOUT	Get digital out.	no parameter	##*digital out is pcm or ##*digital out is compressed
SETEQMODE	Set equalizer mode.	string n (Music, Movie, Speech, Flat, Classic, User)	"##*setEQMode() set to n or ##*Incorrect equalizer parameter entered"
SETDIGITALOUT	Set digital out.	string n (compressed, pcm)	##*setDigitalOut() set to n OR ##*Incorrect digital out mode parameter entered
VOLUMEUP	"Increase Volume Level by 1 step (Until max volume) "	no parameter	"##*volume LEVEL is increased to ... or ##*You can NOT increase volume LEVEL further. Confirmed Max Volume Level is ..."
VOLUMEDOWN	Decrease Volume Level by 1 step	no parameter	"##*volume LEVEL is decreased to .. or ##*You can NOT decrease volume LEVEL further. Current Volume level is ... "

SETHEADPHONEOUTPUT	Set headphone output	string n (headphone,lineout)	"#*set headphone output to n or #*Invalid Parameter"
GETHEADPHONEOUTPUT	Get headphone output	no parameter	#*LINEOUT or #*HEADPHONE
GETDYNAMICBASS	Get dynamic bass state.	no parameter	#*the dynamic bass state is ... (0 = off, 1= on)
GETBASSGAIN	Get bass gain	no parameter	"#*the bass gain level is n Note: Above n is -6 <= n <= 6"
GETEQUUSERFREQ	Get equalizer user freq. value of specified band	string n (120Hz, 500Hz, 1.5KHz, 5KHz, 10Khz)	"#*the equalizer value for the band is n or #*Incorrect sound system parameter entered Note: Above n is -13 < n < 13"
GETEQMODE	Get equalizer mode	no parameter	"#*the equalizer mode is n Note: Above n is one of Music, Movie, Speech, Flat, Classic, User"
SOUNDRESET	Reset sound settings	no parameter	"#*Fixed Volume is set to ... #*Fixed volume availability is set to ... #*Headphone volume control availability is set to ... #*Start volume availability is set to ... #*Start volume limit is set to ... #*Start headphone volume limit is set to ... #*Lower volume limit is set to ... #*Upper volume limit is set to ... #*Headphone volume limit is set to ... #*Wakeup time volume is set to ... #*All equalizer bands are set to ... #*Volume is set to ... #*Headphone volume is set to ... #*Headphone balance is set to ... #*Headphone bass is set to ... #*Headphone treble is set to ... #*Digital audio out is set to ... #*Audio output description path is set to ... #*Audio description is ... #*Audio description relative volume is set to ... #*Audio description language is set to ... #*Sound Loudness is set to ... #*Sound mode digital is set to ... #*Sound mode is set to ... #*Sound subwoofer is set to ... #*SPDIF out is ... #*DTS is ... #*Bass gain is set to .. or #*Dynamic bass is ... "

BROWSER COMMANDS

Command	Description	Parameter	Return
OPENURL	Starts the given URL and returns web page load status directly.	string-integer n <load url='n' />	#*status= ... url=n
GETURL	Gets URL of the current page if the portal is active.	no parameter	#*URL : ...
GETUSERAGENT	Gets portal user agent.	no parameter	#*Current UA : ...
GETCURSORPOSITION	Gets cursor position in the browser.	no parameter	#*X: ... Y: ...
SETCURSORPOSITION	Sets cursor position in the browser.	string-integer a,b	#*X: a Y: b
SETSETTINGSURL	Sets the settings URL	string	#*Setting URL is set
GETSETTINGSURL	Gets the settings URL	no parameter	#*Setting URL is ...
SETSTARTURL	Sets the start URL	string	#*Start URL is set
GETSTARTURL	Gets the start URL	no parameter	#*Start URL is ...

GENERAL TV COMMANDS

Command	Description	Parameter	Return
SETRC	Enables/disables remote control commands.	string-integer n (n = ON, n = OFF)	set remote state On or set remote state OFF
SETSOURCE	Set source as enable/disable.	"string n, integer b (n = SCART1, n = SCART2, n = FAV, n = SVHS, n = HDMI1, n = HDMI2, n = HDMI3, n = HDMI4, n = YPBPR, n = VGA, n = SCART1S, n = SCART2S) (b = 1(enable), b = 0(disable))"	"#*Selected source n #*Enable/Disable state : b"
GETSOURCE	Gets source.	no parameter	#*source is ...
GETCOUNTRY	Get country in channels state.	no parameter	#*COUNTRY IS : ...
GETSWVERSION	Returns the software version of tv.	no parameter	#*V...
KEY	Send key to Eclipse.	string-integer n (n = 0, n = 1,, n = up,, n = menu,ext.)	n key send to Eclipse
RESET	Reset the device.	no parameter	Reset process was successfully accomplished. You need to establish the connection again.

STANDBY	"Switch box to Standby mode. (Attention: Television cannot be opened with standby command. You should open it with remote control. If you use STANDBY command, you will need to establish the connection again. Tv state :HARD-STANDBY)"	no parameter	"#*enterLowPowerMode() returns successfully. or #*enterLowPowerMode() returns unsuccessfully! or #*enterStandbyMode() returns successfully. or #*enterStandbyMode() returns unsuccessfully! "
MENUTIMEOUT	Set menu time out mode.	integer n (n = 0 , n = 15, n = 30, n = 60)	"#*set menu timeout mode to OFF or #*set menu timeout mode to 60 or #*Invalid menu timeout mode "
GETMODELNO	Get model no.	no parameter	#*Model no: ...
GETSERIALNO	Get serial no.	no parameter	#*Serial no: ...
GETLED	Get led on/off state.	no parameter	"#*LED is on #*LED is off"
GETRC	Get remote control commands enabled status	no parameter	"#*remote control commands are on #*remote control commands are off"
USBOPERATIONS	Perform USB Operations	no parameter	You may observe prints Bank 0, Bank 1 etc. Be sure or observe debug print outs: "MFC ISP: done" will be writen... This may take over 10 minutes.
GETMENUTIMEOUT	Get menu time out mode	no parameter	"#*menu timeout mode is OFF #*menu timeout mode is n #*can not get menu timeout mode Note: Above n is one of (15, 30, 60)"
GETTVLIFETIME	Prints TV life time in minutes.	no parameter	#*Monitor Life Time: n
SETPOWERONDELAY	Set poweron delay level	integer n (0<=n<=20, delay is calculated as 100ms*n)	"#*Poweron delay set to ... Ms #*NACK"
GETPOWERONDELAY	Get poweron delay level	no parameter	#*The power on delay is ... ms
SIGNAGERESET	Set all items in the signage settings menu to their default values.	no parameter	#*All signage settings set to default values
SELECTSOURCE	Select source. (0=TV, other source indexes(some of them are not enabled))	integer n (5=FAV, 7=HDMI1, 8=HDMI2, 11=YpPr, 12=Vga, 18=DVI , 19=DP , 20=OPS)	" #*select TV source or #*select External source ..."
KEY standby	Switch box to Standby mode. (For quick standby)	no parameter	standby key send to Eclipse

TIME	Display the current date and time.	no parameter	Time = ...
GETSTANDBY	Get standby on/off.	no parameter	"#*standby off or #*standby on"
STARTFTI	Start First Time Installation.	no parameter	#*FTI was initialising.
CHANGELNG	Change active language.	"integer-integer x y x = language type (0 = System Language, 1 = Event Language, 2 = Primary Audio Language, 3 = Secondary Audio Language, 4 = Primary Subtitle Language, 5 = Secondary Subtitle Language, 6 = Primary Teletext Language, 7 = Secondary Teletext Language) y = language (0 = Danish, 1 = German, 2 = Estonian, 3 = English, 4 = Spanish, 5 = Greek, 6 = French, 7 = Gaelic, 8 = Croatian, 9 = Italian, 10 = Latvian, 11 = Lithuanian, 12 = Hungarian, 13 = Dutch, 14 = Norwegian, 15 = Polish, 16 = Portuguese, 17 = Russian, 18 = Romanian, 19 = Albanian, 20 = Slovenian, 21 = Slovak, 22 = Serbian, 23 = Finnish, 24 = Swedish, 25 = Turkish, 26 = Czech, 27 = Ukranian, 28 = Bulgarian, 29 = Arabic, 30 = Persian, 31 = Hebrew , 32 = Belarussian, 33 = Macedonian, 34 = Montenegrin, 35 = Kazakh, 36 = Thai) Example: CHANGELNG 0 25 (To set system language to Turkish) "	"#*Active language was changed or #*Incorrect item parameter entered"
SETCOUNTRY	Set country in no channels state.	string-integer n(TURKEY, GERMANY, ...)	"#* setCountry() set to n or #*Country should be set only in the FTI mode (no channels state)"
SETQUICKSTANDBY	SETQUICKSTANDBY n, where n is one of (off, on).	string-integer n (n = ON, n = OFF)	"#*Set Quick Standby on or #*Set Quick Standby off or #*Quick Standby is not enabled"
GETQUICKSTANDBY	Returns Quick Standby state n (on or off)	no parameter	#*Quick Stanby is n
USBOPERATIONS	Perform USB Operations	no parameter	You may observe prints Bank 0, Bank 1 etc. Be sure or observe debug print outs: "MFC ISP: done" will be written... This may take over 10 minutes.

NETWORK COMMANDS

Command	Description	Parameter	Return
set_IP_address	Set static IP address of eth0 network interface.	str-int n Example: set_IP_address 192.168.0.15	"#*IP address setting Succesfull #*IP address setting NOK"
get_IP_address	Get IP address of eth0 network interface. Usage: get_IP_address	no parameter	#*IPAddr: ...
SETNETWORKTYPE	set network type (eg. SETNETWORKTYPE value) (value should be 'wired', 'wireless' or 'disabled' as string)	string n ('wired', 'wireless' or 'disabled')	#*Network type is set to: <network-type>
GETNETWORKTYPE	get network type (eg. GETNETWORKTYPE)	no parameter	#*the network type is <network-type>
SETSUBNETMASK	set subnet mask (subnet mask value should be of format nnn.nnn.nnn.nnn) (eg. SETSUBNETMASK nnn.nnn.nnn.nnn)	string "nnn.nnn.nnn.nnn"	"#*set subnet mask: nnn.nnn.nnn.nnn #*setting subnet mask is failed"
GETSUBNETMASK	get subnet mask (eg. GETSUBNETMASK)	no parameter	#*the subnet mask is nnn.nnn.nnn.nnn
SETDEFAULTGATEWAY	set default gateway (default gateway value should be of format nnn.nnn.nnn.nnn) (eg. SETDEFAULTGATEWAY nnn.nnn.nnn.nnn)	string "nnn.nnn.nnn.nnn"	"#*set default gateway: nnn.nnn.nnn.nnn #*setting default gateway is failed"
GETDEFAULTGATEWAY	get default gateway (eg. GETDEFAULTGATEWAY)	no parameter	#*the default gateway is nnn.nnn.nnn.nnn
GETDNS1	get DNS server 1 (eg. GETDNS1)	no parameter	#*DNS server 1 is nnn.nnn.nnn.nnn
GETDNS2	get DNS server 2 (eg. GETDNS2)	no parameter	#*DNS server 1 is nnn.nnn.nnn.nnn
INTERNETSPEED	start internet speed test	no parameter	" Speed test is started. Prints ""No internet connection found"" message if fails."

PICTURE COMMANDS

Command	Description	Parameter	Return
COLOURTEMP	Set colour temperature.	str-int n (n = normal, warm, cool)	#*setColourTemp() set to n
GETPICTUREMODE	Get picture mode.	no parameter	#*Picture Mode is ... for current source
PICTUREMODE	Select picture mode.	int n (1 = dynamic, 2 = natural, 3 = cinema, 4 = game)	"#*setPictureMode() set to n #*Incorrect picture mode paramater entered"
GETCONTRAST	Get picture contrast value.	no parameter	#*THE CONTRAST VALUE : ...
SETCONTRAST	Set picture contrast value.	int n (0 ≤ n ≤ 100)	"#*Picture contrast value is set to n #*Same value is set. Do nothing. #*Incorrect value must between defined ranges 0-100"
GETBRIGHTNESS	Get picture brightness value.	no parameter	#*THE BRIGHTNESS VALUE : ...

SETBRIGHTNESS	Set picture brightness value.	int n (0 ≤ n ≤ 100)	"#*Picture brightness value is set to n #*Same value is set. Do nothing. #*Incorrect value must between defined ranges 0-100"
GETSHARPNESS	Get picture sharpness value.	no parameter	#*THE SHARPNESS VALUE : ...
SETSHARPNESS	Set picture sharpness value.	int n (0 ≤ n ≤ 100)	"#*Picture brightness value is set to n #*Same value is set. Do nothing. #*Incorrect value must between defined ranges 0-100"
GETCOLOUR	Get picture colour value.	no parameter	#*THE COLOUR VALUE : ...
SETCOLOUR	Set picture colour value.	int n (0 ≤ n ≤ 100)	"#*Picture colour value is set to n #*Same value is set. Do nothing. #*Incorrect value must between defined ranges 0-100"
SETSKINTONE	Set picture skin tone value.	int n (-5 ≤ n ≤ 5)	"#*Picture skin tone value is set to n #*Same value is set. Do nothing. #*Incorrect value must between defined ranges -5-5"
PICTUREZOOM	Set picture zoom mode.	str-int n (n = auto, 16:9, subtitle, 14:9, 14:9zoom, 4:3, full(only for HD channels), panaromic, cinema)	"#*setPictureZoomMode() set to n #*Incorrect picture zoom mode parameter entered"
SETWB	Set white balance value.	str-int type, value (type = redgain, greengain, bluegain, redoffset, greenoffset, blueoffset) (0 ≤ value ≤250)	"#*White Balance is set to value Invalid value for White Balance (0-255) Invalid type for White Balance"
GETWB	Get white balance value.	str-int type (type = redgain, greengain, bluegain, redoffset, greenoffset, blueoffset)	#* type ...
CONTRASTUP	Increase Contrast Level by 1 step	no parameter	Picture contrast value is set to ...
CONTRASTDOWN	Decrease Contrast Level by 1 step	no parameter	Picture contrast value is set to ...
GETENERGYSAVING	Get energy saving mode. (if enabled from profile)	no parameter	#*The energy saving mode is ...
GETPOWERSAVE	Get power save mode	no parameter	"#*Powersavemode is ON #*Powersavemode is OFF"
GETCOLOURTEMP	Get colour temperature.	no parameter	#*Colour temp is ...
GETHUE	Get picture hue value.	no parameter	#*Hue level is ...
GETSKINTONE	Get picture skin tone value.	no parameter	#*Picture skin tone is ...
GETPATTERN	Get selected pattern of the TV screen	no parameter	The pattern is ...

ADMIN PANEL COMMANDS

Command	Description	Parameter	Return
TOF	Turn OFF TV	no parameter	#TV will be sent to Active Standby state
RST	Restart	no parameter	#Monitor will be restarted

TON	Turn On TV, if tv is in active standby state, parameter value will be set for volume value. If TON is called without a parameter, the volume doesn't change: Missing parameter warning	integer (volume value)	#TV will be turned on
STV	Sets TV Volume, parameter value will be set for volume level	integer (volume level)	#Volume set level= ...
CTZ	Change Time Zone	integer (gmt value)	#Timezone setup SUCCEEDED
GTZ	Get Time Zone	no parameter	#Timezone is ...
STL	Set TV Language	string-int (please look at abbreviations of languages)	#Language changed to ...
UPF	Update Profile Files	string-int ("auto" : default path will be used for update or URL string for path of profile files)	#Profile Files Updated from defined path success =...
GTCURL	Get Channel List URL	no parameter	#channelListUrl =...
SCURL	Set Channel List URL	string -int (new url of channel list)	#Channel List Url setup SUCCEEDED
FSU	Update software	no parameter	#Web Software Update search STARTED !!!
UCL	Update channel list	no parameter	#"Channel List updated !!!
SWA	Send wake up alarm	string- string (alarm url - alarm time (hh:mm))	#WakeupAlarm is set
STWA	Stop wake up alarm	no parameter	#WakeupAlarm stopped !!!
SEA	Send emergency alarm	string-string (alarm url - emergency message) [message content should be "word1+ word2+word3 ..."]	#Emergency Alarm is set !!!
STEA	Stop emergency alarm	none	#Emergency Alarm is stopped !!!
UNP	Send Message	"string-int (message text - 0) [message content should be ""word1+ word2+word3 ..."]"	#Message Sent in SUCCESS !!!
TN	Send Message/Trigger notification	int (key id (900<= id<=904))	#Message Sent in SUCCESS !!!
DBOOTC	Disable Bootcaster	none	#BOOTCASTER_DISABLED in SUCCESS !!!
EBOOTC	Enable Bootcaster	none	#BOOTCASTER_ENABLED in SUCCESS !!!
RTVP	Return TV Main Page	none	#Refresh Done in SUCCESS !!!
GTSURL	Get TV Portal URL	none	#Startup url is
SFTI	Set FirstTimeInstallation	string-string [system language (look at abbreviations) - txt language text (look at txt languages)]	#System reinitialised !!!
SDFTI	Set Default FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.)	none	#System will be reinitialised !!!
SHM	Set Hotel Mode	int (1-enabled/ 2- disabled)	#Hotel Mode is enabled/disabled

UNTP	Update Date and Time	none	#Internet connection successful file_size=2048 #Date and Time is being updated from NTP Client or #No Internet Connection! Date and Time cannot be updated
SNTP	Set NTP Server IP	string-int ("auto" / ntp server path - 0)	#Auto : forced_ntpserver file deleted - SUCCESS !! or #Forced_ntpserver written - SUCCESS !!
WAU	SW Auto Upgrade	int (1-enabled/ 2- disabled)	#Auto Software Update Availability - ENABLED !!
SRC	Set Remote Control Code	int (2/3/4)	#Remote Control system Code set to ...
GTNTP	Get NTP Server IP	none	#"NTP server url is ...
SMA	Set mac address	string-int (ex: eth0- 00:09:df:86:34:25)	#SetMacAdress Succesfull
SSIP	Set static IP address	string-int (ex: 192.168.0.15)	#IP address setting Succesfull
ATOF	Auto TV Off Mode	int (0 <= mode <=8)	#set auto tv off mode to ...
STVCH	Set TV Channel	int (index of channel)	#CURRENT PROGRAME IS SETTED ...

** Please note that some of these commands may not be supported by your TV model*

HOTEL MODE

The hotel mode is a special mode which restricts some operations of TV. This allows the customer to use the TV in special places such as hotels, prisons or hospitals. These restrictions are basically given below.

- The user cannot increase the volume above a specified limit. And can set fixed volume value.
- The user can enable headphone direct volume control.
- The user cannot reach some menus.
- The user cannot use the buttons on the TV.
- The user can limit the start-up source position.
- Last status can/cannot be used.
- Teletext can be disabled or enabled.
- NVRAM data (like service list and user preferences, etc.) can be copied to or from a USB device.
- Pin8 can/cannot be used.

To enter hotel menu, press **MENU/M-7-9-3-5** buttons consecutively.

HOTEL MENU ITEMS

Hotel Mode

Set as '**On**' to activate hotel mode. In hotel mode, channel list and install menu are blocked.

Pin 8

Set as '**On**' to enable picture mode changes according to Pin8 data.

Last Status

Set as '**On**' to enable the TV to reopen with the closing status.

Panel Lock

Set as '**On**' to prohibit the use of the buttons on the TV.

RCU Inhibit

Set as '**On**' to inhibit the use of the remote. To turn this option off, repeat the steps to open hotel menu. Remote control will function in Stand-By mode independently from the setting of this option. If this option is set as '**Limited**' only the Volume Up/Down, Programme Up/Down, Numeric Buttons and the Standby button on the remote will be functional.

Startup Position

You can specify the opening settings of the TV. Choose the channel and/or source to be opened when the TV is switched on next time. The available options are as the following:

Auto: The TV will open with the last channel(if TV was the last source) or last source.

TV: The TV will open with the channel that is specified in "**Startup Channel**" menu item.

Other: The TV will open with the specified source (EXT1, EXT1-S (S-VIDEO), SIDE AV, HDMI1 etc.).

Startup Channel

You can specify a channel to be displayed when the TV is turned on next time (if '**Startup Position**' is set as '**TV**').

Volume Limit

Set the maximum value of the volume.

Fixed Volume Enable

Set as '**On**' to enable the use of fixed volume value which is set in "**Fixed Volume Value**" menu item.

Fixed Volume Value

Set the value of the volume to be fixed.

Headphone Direct Volume

Set as '**Enabled**' to control the headphone volume through remote control. When this feature is enabled, volume control buttons will not change the TV's main sound. You can change the sound of the TV from the '**Sound**' menu.

OSD Disable

The default value is set as '**Disable Setup Menus**' for hotel mode. You can block all menus by setting this item as '**Disable All Menus**'. Invisible Setup Menus are:

Main menu: Install and Retune, Channel list

Settings menu: Parental, Sources, Satellite Settings, Network Settings, Other settings

Teletext

You can enable or prohibit the teletext services(or MHEG if available) by setting this item as '**On**' or '**Off**'.

Copy To USB (USB cloning)

You can copy the NVRAM data (service list, preferences, etc.) and the welcome image as "hotel_wel.png" to a USB device using this option. Press **OK** to copy those files from TV to USB.

Copy From USB (USB cloning)

You can copy the NVRAM data (service list, preferences, etc.) and the welcome image from a USB device using this option. Press **OK**, select the directory named as "clone_x" and press **OK** again to copy NVRAM data files from USB to TV. The welcome image should be named as "hotel_wel.png" and copied into the root directory of the USB device. After selecting the **Copy From USB** option and pressing the **OK** button highlight the folder which name appears as "." and then press **OK** in order to copy the welcome image from USB to TV.

Note: USB device, which will be used for USB cloning functions, must be FAT32 formatted.

Wakeup Time Channel

Set the channel, whose time information is to be used for wakeup timer. If this option is set as "0", time information of the channel which is being watched will be used.

Note: If hotel mode is active, 'Add wake up timer' function will be available in 'Settings/Timers' menu. After the new timer is saved, the TV will wake up automatically on desired time.

Wakeup Time Volume

Set the wakeup volume value of the TV. This value can't be set as greater than the value in '**Volume Limit**' menu item.

USB Option

Set as '**Off**' to disable the USB ports on the TV. You can also set this option as **5V** to provide 5 volts power over USB. In this case it will still not be available to browse the USB content via Media Browser feature of the TV.

Fixed Pic. Mode

Set as '**On**' to disable picture setting menus.

Digital Tuner

Set as '**Off**' to disable digital channels. When a digital channel is opened from the channel list, "no signal" message will be displayed and digital channels will not be listed when manual or auto searches are performed.

Welcome Screen

Set as '**On**' and TV will show a Welcome Screen. The Welcome Screen is an image with resolution of 960 x 540 pixel and png file format. Welcome Screen image can be changed as described in "**Copy From USB**" section.

NIT Update

If this option is enabled NIT (Network Information Table) data will be updated automatically.

EPG Enabled/Disable

If you enable this option the EPG menu will be accessible while the TV is in Hotel mode.

Front Panel Clock(optional)

If you enable this option the LED Clock on the front panel of the TV (if available) will be functional. Otherwise it will be kept off.

Clear Cache

If set as '**Every Standby**' the browser cache data will be deleted every time the TV is switched into standby mode. To delete the cache data at the moment, press the **OK** button on the remote while this option is highlighted. Set as '**Off**' to disable this feature.

Reset to Default Values

Highlight this option and press the **OK** button on the remote to return the TV to default settings.

Supported Video File Formats for USB Mode

Video Codec	Resolution	Bit Rate	Container
MPEG1/2	1080Px2@30fps, 1080P@60fps	40Mbps	MPEG program stream (.DAT, .VOB, .MPG, .MPEG), MPEG transport stream (.ts, .trp, .tp), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv), ASF (.asf)
MPEG4			MPEG program stream (.MPG, .MPEG), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv), ASF (.asf)
XviD			MP4 (.mp4, .mov), AVI (.avi), MKV (.mkv), ASF (.asf)
Sorenson H.263			FLV (.flv), AVI (.avi), SWF(.swf)
H.263			MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv)
H.264	3840x2160@30fps, 1080P@60fps	135Mbps	FLV (.flv), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp), ASF (.asf), AVI (.avi), MKV (.mkv)
Motion JPEG	720P@30fps	10Mbps	AVI (.avi), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), MKV (.mkv), ASF (.asf)
VP8	1080P@30fps	20Mbps	MKV (.mkv), WebM (.webm)
HEVC/H.265	4K2K@60fps	100Mbps	MP4 (.mp4, .mov), MKV (.mkv), MPEG transport stream (.ts, .trp, .tp)
	1080P@60fps	50Mbps	MP4 (.mp4, .mov), MKV (.mkv), MPEG transport stream (.ts, .trp, .tp), 3GPP (.3gpp, .3gp)
VP9	4K2K@30fps	100Mbps	MKV (.mkv), WebM (.webm)

Supported Picture File Formats for USB Mode

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

Supported Audio File Formats for USB Mode

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

Supported DVI Resolutions

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

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

PC Input Typical Display Modes

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

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

AV and HDMI Signal Compatibility

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

(X: Not Available, O: Available)

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

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.

