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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

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: This device is intended to be used by persons (including children) who are capable / experienced of operating such a device unsupervised, unless they have been given supervision or instruction concerning the use of the device by a person responsible for their safety.

- · 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 gualified 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.
- · Excessive sound pressure from earphones or headphones can cause hearing loss.

ABOVE ALL - NEVER let anyone, especially children, push or hit the screen, push anything into holes, slots or any other openings in the case

| A Caution | Serious injury or death risk |
|------------------------|------------------------------------|
| Risk of electric shock | Dangerous voltage risk |
| A 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.





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

CLASS 1 LASER PRODUCT **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 acnhoring 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)

Optional

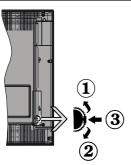
The Word 'Optional' is used in these instructions to mean a feature or function is only available on some models.

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.

Accessories Included

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

TV Control Switch & Operation



- 1. Up direction
- 2. Down direction
- 3. Volume / Programme / Source selection and Standby switch

The Control button allows you to control the Volume / Programme (in TV or RADIO mode) / Source and Standby functions of the TV.

To change volume: Increase the volume by pushing the button up. Decrease the volume by pushing the button down.

To change channel: Press the middle of the button in while in TV or RADIO mode. Scroll through the stored channels by pushing the button up or down.

To change source: Press the middle of the button in twice(for the second time in total), the source list will appear on the screen. Scroll through the available sources by pushing the button up or down.

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

To turn on the TV: Press the middle of the button in, the TV will turn on.

Note: If you turn the TV off, this cycle starts again beginning with the volume setting.

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 (in **TV** or **RADIO** mode) and adjust the volume by using the **Programme +/**and **Volume +/-** 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.

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).

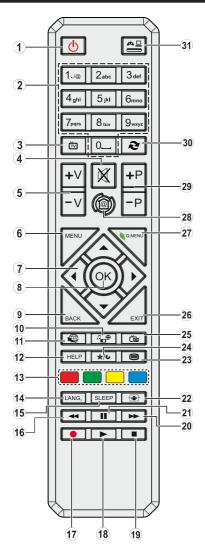
To switch on the TV from standby mode either:

- Press the **Standby** button, **Programme** +/- or a numeric button on the remote control.
- Press the middle of the side function switch on the TV in and hold it down for a few seconds.

To Switch the TV Off

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

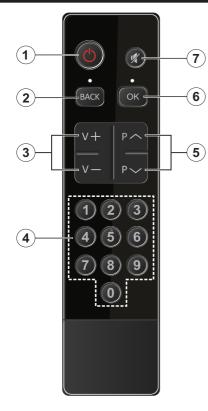
To power down the TV completely, unplug the power cord from the mains socket.



(*) 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.

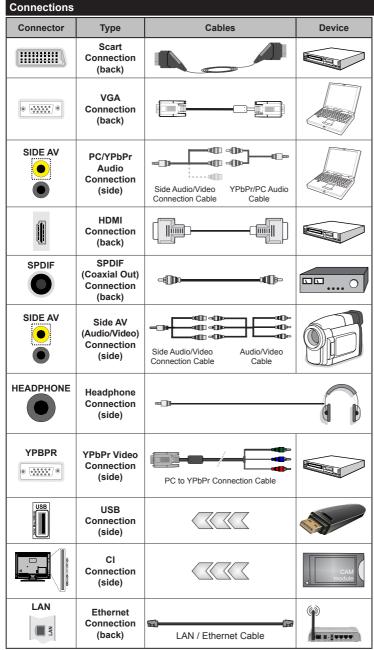
- 1. Standby: Switches On / Off the TV
- 2. Numeric buttons: Switches the channel (in TV or RADIO mode), enters a number or a letter in the text box on the screen
- 3. TV: Switches to TV Source, opens the main Hotel TV opening screen
- 4. Mute: Completely turns off the volume of the TV
- 5. Volume +/-
- 6. Menu / No function (optional)
- 7. Directional buttons: Helps navigate menus, content etc.
- 8. OK: Confirms user selections, holds the page (in TXT mode), views channel list (in TV or RADIO mode)
- Back/Return: Returns to previous screen, previous menu, opens index page (in TXT mode), opens the main Hotel TV opening screen
- 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:** Sets the menu language (while the Hotel TV menu is being displayed)
- **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, opens the main Hotel TV opening screen
- 27. Quick Menu / No function (optional)
- 28. Home: Opens the main Hotel TV opening screen
- 29. Programme +/- (in TV or RADIO mode)
- **30. Swap:** Quickly cycles between previous and current channels or sources
- **31. Source:** Shows all available broadcast and content sources



- 1. Standby: Switches On / Off the TV
- 2. Back/Return: Returns to previous screen, previous menu, opens index page (in TXT mode), opens the main Hotel TV opening screen
- 3. Volume +/-
- Numeric buttons: Switches the channel (in TV or RADIO mode), enters a number or a letter in the text box on the screen.
- 5. Programme +/- (in TV or RADIO mode)
- 6. OK: Confirms user selections, holds the page (in TXT mode), views channel list (in TV or RADIO mode)
- 7. Mute: Completely turns off the volume of the TV

Inserting the Batteries into the Remote

- Remove the back cover to reveal the battery compartment.
- 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.



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. | You can use YPbPr to VGA cable to enable YPbPr signal via VGA input. You cannot use VGA and YPbPr at the same time. | To enable PC/ YPbPr audio, you will need to use the SIDE AV socket with a YPbPr/PC audio cable for audio connection, using the Side AV connection cable's RED and WHITE ends. | If an external device is connected via the SCART socket, the TV will automatically switch to AV mode. | 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/Each USB input of your TV supports devices up to 500mA. Connecting devices that have current value above 500mA may damage your TV. | 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.

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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 and Radio channels, providing useful information on current issues such as News, Weather forecast etc., hospitality services, accessing internet services and using the TV as a wireless display through a simply interface.

TV channels and the other provided contents are delivered over the Antenna and Internet (via Ethernet) 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 (TV settings menus can be accessible depending on the TV model and its features). In case of need only the authorised service personel should be able to access these menus. The menus are accessable by pressing a specified combination of the bottons on the remote.



Essentially the TV should be in Hotel TV mode. If you don't see the main opening screen, like shown on the template below, press the **TV** button on the remote. If you still don't see the main opening screen, please contact the service department of the Hotel.

How To Use The Hotel TV Interface

Press the **Home** button on the remote to display main Hotel TV menu. The Hotel TV menu consists of the following options.



TV

To watch the TV channels, highlight **TV** using directional buttons on the remote control and press the **OK** button. The first channel on the active channel list will be displayed together with the channel list on the left side of the screen. Select the desired channel from the list using the directional buttons and press **OK**. Press the **Blue** button in order to filter the channel list according to the genre. You can also use **Programme +/-** or **Numeric** buttons to switch to another channel.

Notes: Some channels on the channel list may be offered as pay-as-you-watch TV channels (pay channels).

INFO

Under this menu you can find informations on various issues under the titles such as **News**, **Exchange Rates**, **World Clocks**, **Weather Forecast** etc. You can also enter your comments about the Hotel and the service under the **SURVEY** title. Highlight **INFO** and press the **OK** button to access the info screen.

SERVICES

Under the **SERVICES** menu you can find available services provided by the Hotel such as **Room Service**, **Wake Up Service** and informations on hotel activities and billing data under the related titles.

RADIO

To listen to the Radio channels, highlight **RADIO** using directional buttons on the remote control and press the **OK** button. The channel list will be displayed on the left side of the screen and the first channel on the list will be activated. Select the desired channel from the list using the directional buttons and press **OK**. Press the **Blue** button in order to filter the channel list according to the genre. You can also use **Programme +/-** or **Numeric** buttons to switch to another channel.

WIRELESS DISPLAY (availability depends on TV model)

Wireless Display is a standard for streaming video and sound content. This feature provides the ability to use your TV as wireless display device.

Using with mobile devices

There are different standards which enable sharing of screens including graphical, video and audio content between your mobile device and TV.

Highlight **WIRELESS DISPLAY** using directional buttons on the remote control and press the **OK** button. Or press the **Source** button on the remote and switch to **Wireless Display** source. A screen appears stating that the TV is ready for connection.

Open the sharing application on your mobile device. These applications are named differently for each brand, please refer to the instruction manual of your mobile device for detailed information.

Scan for devices. After you select your TV and connect, the screen of your device will be displayed on your TV.

Note: This feature can be used only if the mobile device supports this feature. If you experience problems with the connection check if the operating system version you use supports this feature. There may be incompatibility problems with the operating system versions which are released after the production of this TV. Scanning and connecting processes differ according to the programme you use.

SMART TV (availability depends on TV model)

Highlight **SMART TV** and press the **OK** button on the remote to access available online services. You can find various popular applications including most commonly used on-line services such as YouTube etc. and an internet browser on this section.

You will see a list of the available applications and services on the screen. Use the directional buttons on your remote to select the desired one. You may view the desired content by pressing the **OK** button after selecting. Press **Back/Return** button and/or follow the on-screen instructions to return back to the previous screen.

Notes: The TV should be connected to a modem/router with internet access via an Ethernet cable, otherwise **SMART TV** option will not be available. Possible application dependent problems may be caused by the content service provider. SMART TV content may be changed at any time without prior notice. Third party internet services may change, be discontinued or restricted at any time.

Press the Home or Back/Return button on the remote to return back to main opening screen.

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

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.

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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.

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. Unless **FollowMeTV** (if available) is active, the selected application will be displayed on your TV screen.

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

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.

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.

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.

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 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** $(\underline{\mathbb{A}})$ 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.

Internet Browser (optional)

The browser is one of the applications in **SMART TV** menu that provides access to internet. Select **SMART TV** on the main menu and press the **OK** button. Then select browser and press the **OK** button to launch the browser.

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 Up direction button on the remote. **History, Tabs** and **Bookmarks** options and the browser bar which contains previous/next buttons, the refresh button, the address/search bar, the **Speed Dial** and the **Vewd** 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 Up direction button. The browser bar will appear. Highlight the **Speed Dial** - button and press

the OK button. Then select Add to Speed Dial option and press the OK button. Fill in the blanks for Name and Address, highlight OK and press the OK button to add. Whilst you are on the site you wish to add to the Speed Dial list, highlight the Vewd 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 **Vewd** menu options to manage the browser. Highlight the **Vewd** button on the options bar 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.

Note: All sites on the internet might not be supported. According to the site; content problems may occur. In some circumstances video contents might not be able to be played.

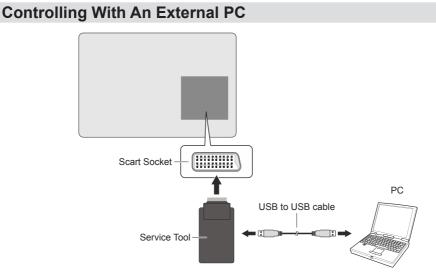
Using YouTube (optional)

YouTube is one of the applications in **SMART TV** menu, allows you to view YouTube content. Select **SMART TV** on the main menu and press the **OK** button. Then select YouTube and press the **OK** button to access YouTube.

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.



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/.

| Category: | | |
|---|--|------------------|
| E Session | Basic options for your Pu | TTY session |
| - Logging - Terminal - Keyboard | Specify the destination you want to Host Name (or IP address) | Port |
| - Bell - Features | Connection type: | 1986 |
| - Appearance - Behaviour - Translation - Selection | Load, save or delete a stored sessi Saved Sessions | on |
| Selection Colours Connection Data Proxy Telnet Rlogin SSH | Default Settings | Load |
| | | Delete |
| Serial | Close window on exit: Always Never On | ly on clean exit |

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;

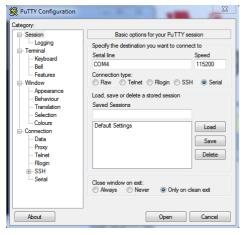


Volume level can be changed by using "VOLUME" command. After sending this command, you can verify the changes from the TV.

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.

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 ($0 \le n \le 100$) | #*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. SETEQUSERFREQ 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 |
| SETEQUSERFREQ | Set equalizer user freq. value for any band. | "string n (120Hz, 500Hz, 1.5KHz, 5KHz, 10KHz) integer n -13 < n < 13 Example: SETEQUSERFREQ 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 | "Inrease 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" |
| GETEQUSERFREQ | 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 | <pre>"#*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 volume limit is set to #*Start headphone volume limit is set to #*Upper volume limit is set to #*Upper volume limit is set to #*Wakeup time volume is set to #*Volume is set to #*Headphone balance is set to #*Headphone balance is set to #*Headphone treble is set to #*All equalizer bands are set to #*Headphone balance is set to #*Headphone treble is set to #*Headphone treble is set to #*Audio description relative volume is set to #*Audio description relative volume is set to #*Sound Loudness is set to #*Sound mode igital is set to #*Sound subwoofer is set to #*Sound set is #*Sound set is #*DIF out is #*DIF is #*Bass gain is set to or #*Dynamic bass is "</pre> |

| BROWSER COMMANDS | | | |
|-------------------|---|---|----------------------|
| Command | Description | Parameter | Return |
| OPENURL | Starts the given URL and returns web page load status directly. | string-integer n <load url='n' /></load | #*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=YPbPr, 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, 23 = Finnish, 24 = Swedish, 25 = Turkish, 26 = Czech, 27 = Ukranian, 28 = Bulgarian, 39 = 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) " | |
| 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 writen 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></network- |
| GETNETWORKTYPE | get network type (eg. GETNETWORKTYPE) | no parameter | #*the network type is <network- type></network- |
| SETSUBNETMASK | set subnet mask (subnet mask value should be of format nnn.nnn.nnn) (eg. SETSUBNETMASK 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) (eg. SETDEFAULTGATEWAY 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 | Inrease 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 desent thange. Missing parameter warning #TV will be turned on a parameter value will ve set for volume level STV Sets TV Volume, parameter value will ve set for volume level #Volume set level= GTZ Change Time Zone Integer (volume level) #Volume set level= GTZ Get Time Zone no parameter #Timezone is STL Set TV Language sting-int (faces look at above/values) #Language changed to UPF Update Profile Files sting-int (faces look at above/values) #Language changed to SCURL Get Channel List URL no parameter #Channel ListUft = SCURL Set Channel List URL fring-int (new url of channel List Url stup successes = Update software no parameter #Channel List Url stup stup successes = STWA Send wake up alarm no parameter #Channel List Url stup stup successes = WAA Send wake up alarm no parameter #Channel List Url stup stup successes = SWA Send wake up alarm no parameter #WakeupAlarm stopped I!! | | | | |
|--|----------|--|--|-----------------------------------|
| STVparameter value will ve set for volume levelinteger (volume level)#Volume set level=CTZChange Time Zoneinteger (gmt value)#Timezone setup SUCCEEDEDGTZGet Time Zoneno parameter#Timezone isSTLSet TV Languagestring-int (please look at abbreviations of languages)#Language changed toUPFUpdate Profile Filesstring-int (please look at abbreviations of languages)#Profile Files Updated from defined path success =GTCURLGet Channel List URLno parameter#channelListUrl =SCURLSet Channel List URLno parameter#channelList Url setup SUCCESSEDFSUUpdate softwareno parameter#Channel List updated !!!UCLUpdate channel listno parameter#Webe Software Update search STARTED !!!SWASend wake up alarmno parameter#WakeupAlarm is setSTWAStop wake up alarmno parameter#WakeupAlarm is set !!!WDPSend Messagenone#Emergency Alarm is stopped !!!UNPSend Message"string-int (nessage text - 0) [message content should be" "WoOTCASTER_DISABLED in SUCCESS !!!#Message Sent in SUCCESS !!!DBOOTCDisable Bootcasternone#Emergency Alarm is stopped !!!TNSend Messagenone#Emergen SI !!!STF1Set FirstTimeInstallation (Return TV Main Pagenone#String-string string string get sing look at abbreviations) - txt languageSDFT1Set Default FirstTimeInstallation Return T | TON a | active standby state, parameter value will be set for volume value. f TON is called without a parameter, the volume doesn't change: Missing | integer (volume value) | #TV will be turned on |
| 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 (rauto": clefault profile files Update for update or | STV p | parameter value will ve | integer (volume level) | #Volume set level= |
| 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 defined path success = #Profile Files Updated from defined path success = GTCURL Get Channel List URL no parameter #channel List UI = SCURL Set Channel List URL no parameter #Channel List UI = SU Update software no parameter #Web Software Update search STARTED !!! UCL Update channel list no parameter #Web Software Update search STARTED !!! WA Send wake up alarm no parameter #Web Software Update search STARTED !!! STWA Send wake up alarm no parameter #WakeupAlarm is set !!! SEA Send emergency alarm no parameter #WakeupAlarm is set !!! MUP Send Message "intrig-int (message content should be "word1+ word2+word3]" #Emergency Alarm is stopped !!! Mus Send Message? int (key id (900<= id<=904)) | ста | Change Time Zone | integer (gmt value) | #Timezone setup SUCCEEDED |
| STL Set IV Language abbreviations of languages) #Language changed to UPF Update Profile Files string-int ("auto": default path will be used for update or defined path success = #Profile Files Updated from defined path success = GTCURL Get Channel List URL no parameter #Channel List UI = SCURL Set Channel List URL no parameter #Channel List UI = FSU Update software no parameter #Web Software Update search string -int (new url of channel WAX Send wake up alarm no parameter #Channel List updated !!! SWA Send wake up alarm no parameter #Web Software Update search stranker is set STWA Stop wake up alarm no parameter #WakeupAlarm is set SEA Send emergency alarm no parameter #Web Software updates search string-string (alarm url - emergency message) (message content should be 'word1+ word2+word3')" #Emergency Alarm is stopped !!! UNP Send Message? "string-int (message text - 0) (message content should be 'word1+ word2+word3')" #Message Sent in SUCCESS !!! DBOOTC Disable Bootcaster none #BOOTCASTER_ENABLED in SUCCESS !!! DBOOTC Disable Bootcaster none #Sy | GTZ | Get Time Zone | no parameter | #Timezone is |
| UPFUpdate Profile Filespath will be used for update or URL string for path of profile files)#Profile Files Updated from defined path success =GTCURLGet Channel List URLno parameter#channelListUrl =SCURLSet Channel List URLstring-int (new url of channel list)#Channel List Url setup SUCCESSEDFSUUpdate softwareno parameter#Web Software Update search STARTED IIIUCLUpdate channel listno parameter#WekeupAlarm is setSWASend wake up alarmstring-string (alarm url - alarm time (nh:mm))#WakeupAlarm is setSTWAStop wake up alarmno parameter#WekeupAlarm is setSEASend emergency alarmno parameter#WekeupAlarm is set !!!WNPSend Message"string-int (message text - 0) (message content should be "word1+ word2+word3")#Emergency Alarm is set !!!UNPSend Message"string-int (message text - 0) (message content should be "word1+ word2+word3")#Message Sent in SUCCESS !!!TNSend Message/Trigger notificationint (key id (900<= id<=904))#Message Sent in SUCCESS !!!DBOOTCDisable Bootcasternone#BOOTCASTER_DISABLED in SUCCESS !!!RTVPReturn TV Main Page Return TV Main Page Set FirstTimeInstallation (Returned default FTI set is set to breviations) - txt language; | STL | Set TV Language | | #Language changed to |
| SCURLSet Channel List URLstring -int (new url of channel list)#Channel List Url setup SUCCESSEDFSUUpdate softwareno parameter#Web Software Update search STARTED !!!UCLUpdate channel listno parameter#Thannel List updated !!!SWASend wake up alarmstring - string (alarm url - alarm time (hh:mm))#WakeupAlarm is setSTWAStop wake up alarmno parameter#WakeupAlarm stopped !!!SEASend emergency alarmno parameter#WakeupAlarm stopped !!!SEASend emergency alarmstring-string (alarm url - emergency message) [message content should be 'word1+ word2+word3"]#Emergency Alarm is set !!!UNPSend Message"string-int (message text - 0) [message content should be "word1+ word2+word3"]#Message Sent in SUCCESS !!!DBOOTCDisable Bootcasternone#BOOTCASTER_DISABLED in SUCCESS !!!String-string [Estom Language (look at abbreviations) - txt language)]#StartUp url isSFTISet FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.)none#System will be reinitialised !!! | UPF | Jpdate Profile Files | path will be used for update or URL string for path of profile | |
| SCURLSet Channel List URLlistSUCCESSEDFSUUpdate softwareno parameter#Web Software Update search STARTED !!!UCLUpdate channel listno parameter#Channel List updated !!!SWASend wake up alarmstring-string (alarm url - alarm time (hh:mm))#WakeupAlarm is setSTWAStop wake up alarmno parameter#WakeupAlarm stopped !!!SEASend emergency alarmno parameter#Emergency Alarm is set !!!SEAStop emergency alarmnone#Emergency Alarm is stopped !!!Our Disable Bootcasternone#Emergency Alarm is stopped !!!DBOOTCDisable Bootcasternone#Message Sent in SUCCESS !!!RTVPReturn TV Main Pagenone#BOOTCASTER_DISABLED in SUCCESS !!!RTVPReturn TV Main Pagenone#StartUp url isSFTISet FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.)string-string | GTCURL | Get Channel List URL | no parameter | #channelListUrl = |
| PSUUpdate Softwareno parameterSTARTED !!!UCLUpdate channel listno parameter#"Channel List updated !!!SWASend wake up alarmstring- string (alarm url - alarm time (hh:mm))#WakeupAlarm is setSTWAStop wake up alarmno parameter#WakeupAlarm stopped !!!SEASend emergency alarmnone#Emergency Message) [message content should be "word1+ word2+word3"]*#Emergency Alarm is set !!!UNPSend Message"string-int (message text - 0) [message content should be "word1+ word2+word3"]*#Message Sent in SUCCESS !!!TNSend Message/Trigger notificationint (key id (900<= id<=904))#Message Sent in SUCCESS !!!DBOOTCDisable Bootcasternone#BOOTCASTER_DISABLED in SUCCESS !!!RTVPReturn TV Main Pagenone#Refresh Done in SUCCESS !!!RTVPReturn TV Main Pagenone#Refresh Done in SUCCESS !!!SFTISet FirstTimeInstallation Return default Fri system language (look at abbreviations) - txt language; lystem reinitialised !!!#System will be reinitialised !!!SDFTISet Default FirstTimeInstallation (Returned default FTI settings. It is used to breset SFTI effect.)mone#System will be reinitialised !!! | SCURL | Set Channel List URL | 5 (| |
| SWASend wake up alarmstring- string (alarm url - alarm time (hh:mm))#WakeupAlarm is setSTWAStop wake up alarmno parameter#WakeupAlarm stopped !!!SEASend emergency alarmno parameter#WakeupAlarm is set !!!SEASend emergency alarmstring-string (alarm url - emergency message) [message content should be "word1+ word2+word3"]#Emergency Alarm is set !!!UNPSend Message"string-int (message text - 0) [message content should be "word1+ word2+word3"]#Message Sent in SUCCESS !!!TNSend Message/Trigger notificationint (key id (900<= id<=904))#Message Sent in SUCCESS !!!DBOOTCDisable Bootcasternone#BOOTCASTER_DISABLED in SUCCESS !!!EBOOTCEnable Bootcasternone#BOOTCASTER_ENABLED in SUCCESS !!!RTVPReturn TV Main Pagenone#Refresh Done in SUCCESS !!!GTSURLGet TV Portal URLnone#StartUp url isSFTISet FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.)none#System will be reinitialised !!! | FSU | Jpdate software | no parameter | |
| SWASend wake up alarmalarm time (h:mm))#WakeupAlarm is setSTWAStop wake up alarmno parameter#WakeupAlarm stopped !!!SEASend emergency alarmstring-string (alarm url - emergency message) (message content should be "word1+ word2+word3"]#Emergency Alarm is set !!!STEAStop emergency alarmnone#Emergency Alarm is stopped !!!UNPSend Message"string-int (message content should be "word1+ word2+word3"]#Message Sent in SUCCESS !!!TNSend Message/Trigger notificationint (key id (900<= id<=904))#Message Sent in SUCCESS !!!DBOOTCDisable Bootcasternone#BOOTCASTER_DISABLED in SUCCESS !!!RTVPReturn TV Main Page GTSURLnone#Refresh Done in SUCCESS !!!SFTISet Default FirstTimeInstallationstring-string [system language (look at abbreviations) - bxt language text (look at txt languages)]#System will be reinitialised !!!SDFTISet Default FirstTimeInstallationnone#System will be reinitialised !!! | UCL | Jpdate channel list | no parameter | #"Channel List updated !!! |
| SEASend emergency alarmstring-string (alarm url - emergency message) [message content should be]#Emergency Alarm is set !!!STEAStop emergency alarmnone#Emergency Alarm is stopped !!!UNPSend Message"string-int (message text - 0) [message content should be]#Message Sent in SUCCESS !!!TNSend Message/Trigger notificationint (key id (900<= id<=904))#Message Sent in SUCCESS !!!DBOOTCDisable Bootcasternone#BOOTCASTER_DISABLED in SUCCESS !!!EBOOTCEnable Bootcasternone#BOOTCASTER_ENABLED in SUCCESS !!!RTVPReturn TV Main Pagenone#Refresh Done in SUCCESS !!!GTSURLGet TV Portal URLnone#StartUp url isSFTISet FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.)string-string [system language(look at abbreviations) - txt languages)]#System will be reinitialised !!! | SWA | Send wake up alarm | | #WakeupAlarm is set |
| SEASend emergency alarmemergency message) [message content should be "word1+ word2+word3"]#Emergency Alarm is set !!!STEAStop emergency alarmnone#Emergency Alarm is stopped !!!UNPSend Message"string-int (message text - 0) [message content should be "word1+ word2+word3"]"#Message Sent in SUCCESS !!!TNSend Message/Trigger notificationint (key id (900<= id<=904)) | STWA | Stop wake up alarm | no parameter | #WakeupAlarm stopped !!! |
| UNPSend Message"string-int (message text - 0) [message content should be "word1+ word2+word3"]"#Message Sent in SUCCESS !!!TNSend Message/Trigger notificationint (key id (900<= id<=904)) | SEA S | Send emergency alarm | emergency message) [message content should be | #Emergency Alarm is set !!! |
| UNPSend Message[message content should be "word1+ word2+word3"]"#Message Sent in SUCCESS !!!TNSend Message/Trigger notificationint (key id (900<= id<=904)) | STEA S | Stop emergency alarm | none | #Emergency Alarm is stopped !!! |
| INnotificationIII (key ld (900k= (dk=904)))#Message selit III SUCCESS !!!DBOOTCDisable Bootcasternone#BOOTCASTER_DISABLED in SUCCESS !!!EBOOTCEnable Bootcasternone#BOOTCASTER_ENABLED in SUCCESS !!!RTVPReturn TV Main Pagenone#Refresh Done in SUCCESS !!!GTSURLGet TV Portal URLnone#StartUp url isSFTISet FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.)string-string (look at txt languages))#System will be reinitialised !!! | UNP | Send Message | [message content should be | #Message Sent in SUCCESS !!! |
| DBOOTCDisable BootcasterNoneSUCCESS !!!EBOOTCEnable Bootcasternone#BOOTCASTER_ENABLED in SUCCESS !!!RTVPReturn TV Main Pagenone#Refresh Done in SUCCESS !!!GTSURLGet TV Portal URLnone#StartUp url isSFTISet FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.)sting-string (look at txt languages)]#System vill be reinitialised !!! | | | int (key id (900<= id<=904)) | #Message Sent in SUCCESS !!! |
| Enable Booltastel Itolie 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 languages)] #System reinitialised !!! SDFTI Set Default FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.) none #System will be reinitialised !!! | DBOOTC | Disable Bootcaster | none | |
| GTSURL Get TV Portal URL none #StartUp url is SFTI Set FirstTimeInstallation string-string [system language (look at abbreviations) - txt language] #System reinitialised !!! SDFTI Set Default FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.) none #System will be reinitialised !!! | EBOOTC | Enable Bootcaster | none | |
| 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 !!! | RTVP F | Return TV Main Page | none | #Refresh Done in SUCCESS !!! |
| SFTI Set FirstTimeInstallation [system language (look at abbreviations) - txt language text (look at txt language)] #System reinitialised !!! SDFTI Set Default FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.) none #System will be reinitialised !!! | GTSURL | Get TV Portal URL | none | #StartUp url is |
| SDFTI FirstTimeInstallation (Returned default FTI settings. It is used to reset SFTI effect.) none #System will be reinitialised !!! | SFTI | Set FirstTimeInstallation | [system language (look at abbreviations) - txt language | #System reinitialised !!! |
| | F | FirstTimeInstallation | 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 accroding 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 Settings

Press OK to see available Volume Settings menu options.

Volume Limit

Set the maximum value of the volume.

Volume Limit (Headphone)

Set the maximum value of the headphone volume.

Startup Volume Enable

Set as **On** to enable the use of startup volume values which are set in **Startup Volume Value** and **Startup Volume Value** (**Headphone**) menu items. If this option is set as **Off**, these menu items will be unavailable to be set.

Startup Volume Value

Set the startup volume value of the volume.

Startup Volume Value (Headphone)

Set the startup volume value of the headphone 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.

Note: If one of the Startup Volume Enable and the Fixed Volume Enable options is set as On, the other one will be unavailable to be set.

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**'. Invisable 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.

Sources

Enable or disable the functionality of the **Source** button on the remote. When this feature is enabled, **Source** button will become functional and you will be able to change the TV's source.

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.

Multiple RC Support (up to 4)

You can choose one of the predefined remotes or set as '**Off**'. You can set the RCU type from 'RCU program menu'. The shortcut of this menu is **RETURN-1-2-3-4**.

Note: For any MHEG supporting services you should press the **INFO-RETURN-1-2-3-4** buttons buttons consecutively. The multiple RC support is works on RC5 type of remote controllers.

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 (Nertwork Information Table) data will be updated automatically.

EPG Enabled/Disable

If you enable this option the EPG menu will be accessable 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.

TV ID

Using this option you can identify the TV. In this way, available TV features can be adjusted according to the room in which the TV is placed.

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 Vide | Supported Video File Formats for USB Mode | | | | |
|--|--|--|--|--|--|
| Extension | Video Codec | SPEC (Resolution) & Bit Rate | | | |
| .dat, vob | MPEG1/2 | | | | |
| .mpg, .mpeg | MPEG1/2, MPEG4 | 1080P@30fps - 40 Mbps | | | |
| .ts, .trp, .tp | MPEG1/2, H.264, AVS, MVC | H.264: 1080Px2@30fps - 62.5 Mbps, 1080P@60fps - 62.5 Mbps MVC: 1080P@30fps - 62.5 Mbps Other: 1080P@30fps - 40Mbps | | | |
| .mp4, .mov, .3gpp, .3gp | MPEG1/2, MPEG4, H.263, H.264, Motion JPEG | | | | |
| .avi | MPEG1/2, MPEG4, Sorenson H.263, H.263, H.264, WMV3, Motion JPEG | H.264: 1080Px2@30fps - 62.5 Mbps, 1080P@60fps - 62.5 Mbps Motion JPEG: 640x480@30fps - 10 Mbps Other: 1080P@30fps - 40 Mbps | | | |
| .mkv | MPEG1/2, MPEG4, H.263, H.264, WMV3, Motion JPEG | | | | |
| .asf | Sorenson H.263, H.264, WMV3, Motion JPEG | | | | |
| .flv | WMV3 | 1080P@30fps - 40 Mbps | | | |
| .swf | RV30/RV40 | 1080P@30fps - 40 Mbps | | | |
| .wmv | H.264, WMV3, VC1 | H.264: 1080Px2@30fps - 62.5 Mbps, 1080P@60fps - 62.5 Mbps Other: 1080P@30fps - 40 Mbps | | | |
| .mp4, .mov, .3gpp, .3gp, MPEG transport stream, .ts,.trp, .tp, .mkv | HEVC/H.265 | 1080P@60fps - 50Mbps | | | |

Supported Picture File Formats for USB Mode

| Image | Photo | Resolution (width x height) | Remark |
|-------|---------------|-----------------------------|---|
| JPEG | Base-line | 15360x8640 | |
| JPEG | Progressive | 1024x768 | |
| PNG | non-interlace | 9600x6400 | The limitation of max resolution depends on DRAM size |
| PNG | interlace | 1200x800 | 5120 |
| BMP | | 9600x6400 | |

Supported Audio File Formats for USB Mode

| Extension | Audio Codec | Bit Rate | Sample rate |
|-----------------|-------------------------|---------------------------------------|-----------------------|
| | MPEG1/2 Layer1 | 32Kbps ~ 448Kbps | Í |
| .mp3, | MPEG1/2 Layer2 | 8Kbps ~ 384Kbps | 16KHz ~ 48KHz |
| | MPEG1/2 Layer3 | 8Kbps ~ 320Kbps | |
| | MPEG1/2 Layer1 | 32Kbps ~ 448Kbps | |
| | MPEG1/2 Layer2 | 8Kbps ~ 384Kbps | 16KHz ~ 48KHz |
| | MPEG1/2 Layer3 | 8Kbps ~ 320Kbps | |
| | AC3 | 32Kbps ~ 640Kbps | 32KHz, 44.1KHz, 48KHz |
| | AAC, HEAAC | | 8KHz ~ 48KHz |
| | WMA | 128bps ~ 320Kbps | 8KHz ~ 48KHz |
| .avi | WMA 10 Pro M0 | < 192kbps | 48KHz |
| | WMA 10 Pro M1 | < 384kbps | 48KHz |
| | WMA 10 Pro M2 | < 768kbps | 96KHz |
| | LPCM | 64Kbps ~ 1.5Mbps | 8KHz ~ 48KHz |
| | IMA-ADPCM, MS- ADPCM | 384Kbps | 8KHz ~ 48KHz |
| | G711 A/mu-law | 64Kbps ~ 128Kbps | 8KHz |
| | MPEG1/2 Layer1 | 32Kbps ~ 448Kbps | |
| | MPEG1/2 Layer2 | 8Kbps ~ 384Kbps | |
| | MPEG1/2 Layer3 | 8Kbps ~ 320Kbps | |
| .asf | WMA | 128bps ~ 320Kbps | 8KHz ~ 48KHz |
| | WMA 10 Pro M0 | < 192kbps | 48KHz |
| | WMA 10 Pro M1 | < 384kbps | 48KHz |
| | WMA 10 Pro M2 | < 768kbps | 96KHz |
| | MPEG1/2 Layer1 | 32Kbps ~ 448Kbps | |
| | MPEG1/2 Layer2 | 8Kbps ~ 384Kbps | |
| | MPEG1/2 Layer3 | 8Kbps ~ 320Kbps | |
| | AC3 | 32Kbps ~ 640Kbps | 32KHz, 44.1KHz, 48KHz |
| | AAC, HEAAC | | 8KHz ~ 48KHz |
| | WMA | 128bps ~ 320Kbps | 8KHz ~ 48KHz |
| | WMA 10 Pro M0 | < 192kbps | 48KHz |
| .mkv, .mka | WMA 10 Pro M1 | < 384kbps | 48KHz |
| | WMA 10 Pro M2 | < 768kbps | 96KHz |
| | VORBIS | · · · · · · · · · · · · · · · · · · · | Up to 48KHz |
| | LPCM | 64Kbps ~ 1.5Mbps | 8KHz ~ 48KHz |
| | IMA-ADPCM, MS-ADPCM | 384Kbps | 8KHz ~ 48KHz |
| | G711 A/mu-law | 64Kbps ~ 128Kbps | 8KHz |
| | FLAC | < 1.6Mbps | 8KHz ~ 96KHz |
| | MPEG1/2 Layer1 | 32Kbps ~ 448Kbps | |
| .ts, .trp, .tp, | MPEG1/2 Layer2 | 8Kbps ~ 384Kbps | |
| | MPEG1/2 Layer3 | 8Kbps ~ 320Kbps | |
| .dat, .vob, | AC3 | 32Kbps ~ 640Kbps | 32KHz, 44.1KHz, 48KHz |
| .mpg, .mpeg | EAC3 | 32Kbps ~ 6Mbps | 32KHz, 44.1KHz, 48KHz |
| | AAC, HEAAC | | 8KHz ~ 48KHz |
| | LPCM | 64Kbps ~ 1.5Mbps | 8KHz ~ 48KHz |

| Extension | Audio Codec | Bit Rate | Sample rate |
|-----------------|------------------------|------------------|---------------------------------------|
| | MPEG1/2 Layer1 | 32Kbps ~ 448Kbps | |
| | MPEG1/2 Layer2 | 8Kbps ~ 384Kbps | 16KHz ~ 48KHz |
| | MPEG1/2 Layer3 | 8Kbps ~ 320Kbps | |
| .wav | LPCM | 64Kbps ~ 1.5Mbps | 8KHz ~ 48KHz |
| | IMA-ADPCM, MS-ADPCM | 384Kbps | 8KHz ~ 48KHz |
| | G711 A/mu-law | 64Kbps ~ 128Kbps | 8KHz |
| | MPEG1/2 Layer3 | 8Kbps ~ 320Kbps | 16KHz ~ 48KHz |
| | AC3 | 32Kbps ~ 640Kbps | 32KHz, 44.1KHz, 48KHz |
| | EAC3 | 32Kbps ~ 6Mbps | 32KHz, 44.1KHz, 48KHz |
| .3gpp, .3gp, | AAC, HEAAC | | 8KHz ~ 48KHz |
| .mp4, .mov, | VORBIS | | Up to 48KHz |
| .m4a | LPCM | 64Kbps ~ 1.5Mbps | 8KHz ~ 48KHz |
| | IMA-ADPCM, MS-ADPCM | 384Kbps | 8KHz ~ 48KHz |
| | G711 A/mu-law | 64Kbps ~ 128Kbps | 8KHz |
| fly | MPEG1/2 Layer3 | 8Kbps ~ 320Kbps | 16KHz ~ 48KHz |
| | AAC, HEAAC | | 8KHz ~ 48KHz |
| | AC3 32Kbps ~ 640Kbps | | 32KHz, 44.1KHz, 48KHz |
| .ac3 | AAC, HEAAC | | 8KHz ~ 48KHz |
| .swf | MPEG1/2 Layer3 | 8Kbps ~ 320Kbps | 16KHz ~ 48KHz |
| .ec3 | EAC3 | 32Kbps ~ 6Mbps | 32KHz, 44.1KHz, 48KHz |
| | AAC, HEAAC | | 8KHz ~ 48KHz |
| .rm, .rmvb, .ra | LBR (cook) | 6Kbps ~ 128Kbps | 8KHz, 11.025KHz, 22.05KHz, 44.1KHz |
| | WMA | 128bps ~ 320Kbps | 8KHz ~ 48KHz |
| | WMA 10 Pro M0 | < 192kbps | 48KHz |
| .wma, .wmv | WMA 10 Pro M1 | < 384kbps | 48KHz |
| | WMA 10 Pro M2 | < 768kbps | 96KHz |
| .webm | VORBIS | | Up to 48KHz |

Supported Subtitle File Formats for USB Mode

| Internal Subtitles | | | |
|---------------------|-----------|--|--|
| Extension | Container | Subtitle Code | |
| dat, mpg, mpeg, vob | MPG, MPEG | DVD Subtitle | |
| ts, trp, tp | TS | DVB Subtitle | |
| mp4 | MP4 | DVD Subtitle UTF-8 Plain Text | |
| mkv | MKV | ASS SSA UTF-8 Plain Text VobSub DVD Subtitle | |

| External Subtitles | | | | |
|--------------------|--|--------------------------|--|--|
| Extension | Subtitle Parser | Remark | | |
| .srt | Subrip | ĺ | | |
| .ssa/ .ass | SubStation Alpha | | | |
| .smi | SAMI | | | |
| .sub | SubViewer MicroDVD DVDSusbtitleSystem Subldx (VobSub) | SubViewer 1.0 & 2.0 Only | | |
| .txt | TMPlayer | | | |

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 |
|-----------|------|------|------|------|------|------|
| 640x400 | | | | V | | |
| 640x480 | | Ø | Ø | | Ø | Ø |
| 800x600 | Ø | V | | V | R | Ø |
| 832x624 | | | | | | Ø |
| 1024x768 | | Ø | Ø | Ń | Ø | Ø |
| 1152x864 | | V | | V | | Ø |
| 1152x870 | | | | | | Ø |
| 1280x768 | | V | | | | Ø |
| 1360x768 | | V | | | | |
| 1280x960 | | V | | | | Ø |
| 1280x1024 | | Ø | | | | Ø |
| 1400x1050 | | V | | | | Ø |
| 1440x900 | | V | | | | Ø |
| 1600x1200 | | V | | | | |
| 1680x1050 | | Ø | | | | |
| 1920x1080 | | V | | | | |
| 1920x1200 | | V | | | | |

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 | 640x400 | 70Hz |
| 3 | 640x480 | 60Hz |
| 4 | 640x480 | 66Hz |
| 5 | 640x480 | 72Hz |
| 6 | 640x480 | 75Hz |
| 7 | 640x480 | 85Hz |
| 8 | 800x600 | 56Hz |
| 9 | 800x600 | 60Hz |
| 10 | 800x600 | 70Hz |
| 11 | 800x600 | 72Hz |
| 12 | 800x600 | 75Hz |
| 13 | 800x600 | 85Hz |
| 14 | 832x624 | 75Hz |
| 15 | 1024x768 | 60Hz |
| 16 | 1024x768 | 66Hz |
| 17 | 1024x768 | 70Hz |
| 18 | 1024x768 | 72Hz |
| 19 | 1024x768 | 75Hz |
| 20 | 1024x768 | 85Hz |
| 21 | 1152x864 | 60Hz |
| 22 | 1152x864 | 70Hz |

| 23 | 1152x864 | 75Hz |
|----|-----------|------|
| 24 | 1152x864 | 85Hz |
| 25 | 1152x870 | 75Hz |
| 26 | 1280x768 | 60Hz |
| 27 | 1360x768 | 60Hz |
| 28 | 1280x768 | 75Hz |
| 29 | 1280x768 | 85Hz |
| 30 | 1280x960 | 60Hz |
| 31 | 1280x960 | 75Hz |
| 32 | 1280x960 | 85Hz |
| 33 | 1280x1024 | 60Hz |
| 34 | 1280x1024 | 75Hz |
| 35 | 1280x1024 | 85Hz |
| 36 | 1400x1050 | 60Hz |
| 37 | 1400x1050 | 75Hz |
| 38 | 1400x1050 | 85Hz |
| 39 | 1440x900 | 60Hz |
| 40 | 1440x900 | 75Hz |
| 41 | 1600x1200 | 60Hz |
| 42 | 1680x1050 | 60Hz |
| 43 | 1920x1080 | 60Hz |
| 44 | 1920x1200 | 60Hz |

AV and HDMI Signal Compatibility

| Source | Supporte | d Signals | Available |
|----------------|------------|--|-----------|
| | P/ | PAL | |
| EVT | NTSC | 04.43 | 0 |
| EXT (SCART) | NTSC | 03.58 | 0 |
| (JUANT) | RGB | 50/60 | 0 |
| | SEC | MAC | 0 |
| | P/ | AL. | 0 |
| Side AV | NTSC | 24.43 | 0 |
| | NTSC | 03.58 | 0 |
| | SEC | MAC | 0 |
| | 480i, 480p | 60Hz | 0 |
| YPbPr | 576i, 576p | 50Hz | 0 |
| ТЕЛЕТ | 720p | 50Hz,60Hz | 0 |
| | 1080i | 50Hz,60Hz | 0 |
| | 480i | 60Hz | 0 |
| | 480p | 60Hz | 0 |
| | 576i, 576p | 50Hz | 0 |
| | 720p | 50Hz,60Hz | 0 |
| HDMI | 1080i | 50Hz,60Hz | 0 |
| | 1080p | 24Hz, 25Hz, 30Hz, 50Hz, 60Hz | ο |

(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.

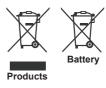
Information for Users on Disposal of Old Equipment and Batteries

[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.



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