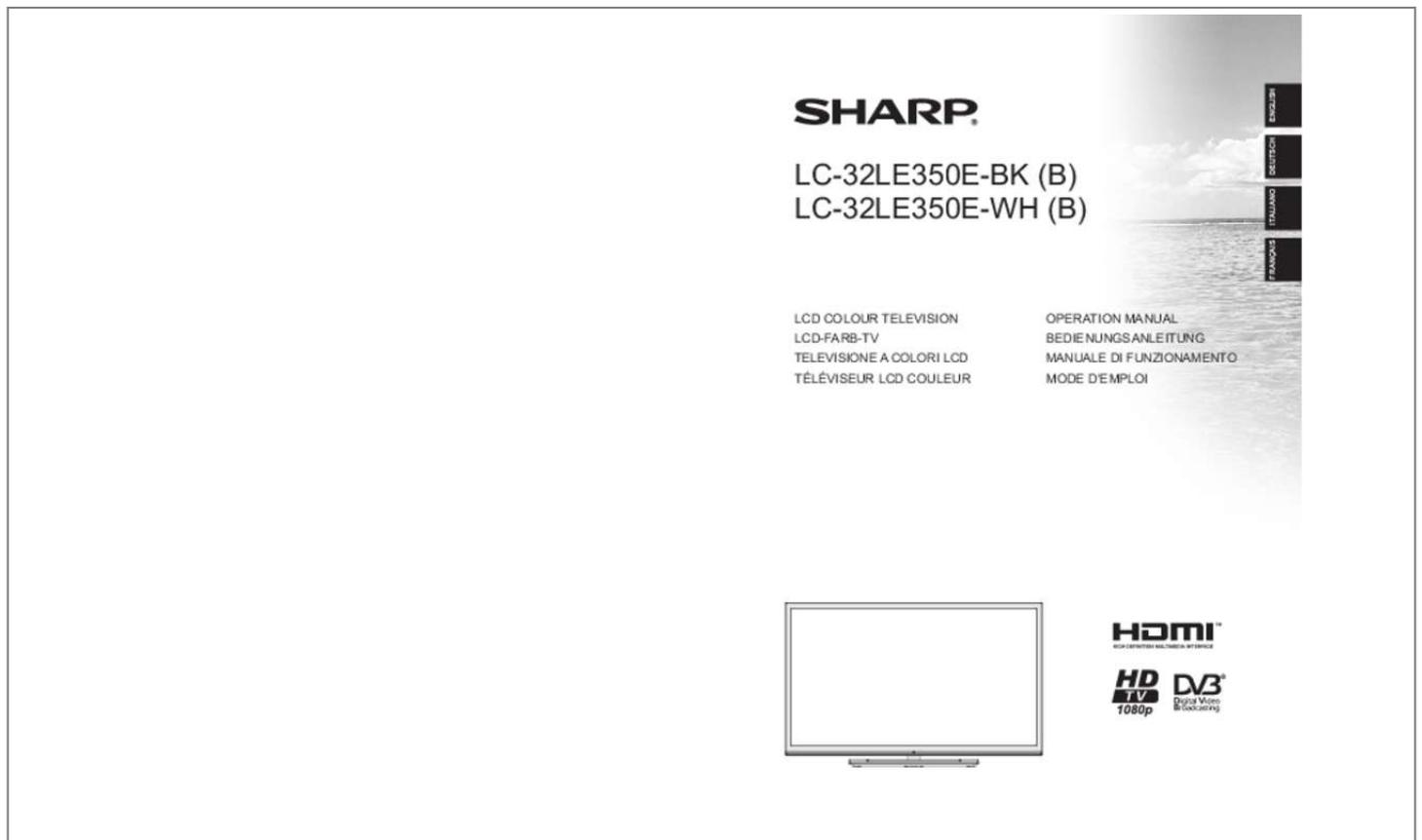# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for SHARP LC32LE350EBK/EWH. You'll find the answers to all your questions on the SHARP LC32LE350EBK/EWH in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual SHARP LC32LE350EBK/EWH
User guide SHARP LC32LE350EBK/EWH
Operating instructions SHARP LC32LE350EBK/EWH
Instructions for use SHARP LC32LE350EBK/EWH
Instruction manual SHARP LC32LE350EBK/EWH

SHARP.

LC-32LE350E-BK (B)
LC-32LE350E-WH (B)

ENGLISH
DEUTSCH
ITALIANO
FRANÇAIS

LCD COLOUR TELEVISION
LCD-FARB-TV
TELEVISIONE A COLORI LCD
TÉLÉVISEUR LCD COULEUR

OPERATION MANUAL
BEDIENUNGSANLEITUNG
MANUALE DI FUNZIONAMENTO
MODE D'EMPLOI

HDMI™

HD TV 1080p   DV3 Digital Video Broadcasting

You're reading an excerpt. Click here to read official SHARP LC32LE350EBK/EWH user guide
http://yourpdfguides.com/dref/5431997

Manual abstract:

A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 1 19.06.2013 12:28:07

SPECIAL NOTE FOR USERS IN THE U.K. The mains lead of this product is fitted with a non-rewireable (moulded) plug incorporating a 5A fuse. Should or and of the same rating the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked as above, which is also indicated on the pin face of the plug, must be used. Always refit the fuse cover after replacing the fuse. Never use the plug without the fuse cover fitted.

In the unlikely event of the socket outlet in your home not being compatible with the plug supplied, cut off the mains plug and fit an appropriate type. DANGER: The fuse from the cut-off plug should be removed and the cut-off plug destroyed immediately and disposed of in a safe manner. Under no circumstances should the cut-off plug be inserted elsewhere into a 5A socket outlet, as a serious electric shock may occur. To fit an appropriate plug to the mains lead, follow the instructions below: IMPORTANT: The wires in the mains lead are coloured in accordance with the following code: Blue: Neutral Brown: Live As the colours of the wires in the mains lead of this product may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows: • The wire which is coloured blue must be connected to the plug terminal which is marked N or coloured black. • The wire which is coloured brown must be connected to the plug terminal which is marked L or coloured red. Ensure that neither the brown nor the blue wire is connected to the earth terminal in your three pin plug. Before replacing the plug cover make sure that: • If the new fitted plug contains a fuse, its value is the same as that removed from the cut-off plug. • The cord grip is clamped over the sheath of the mains lead, and not simply over the lead wires. IF YOU HAVE ANY DOUBT, CONSULT A QUALIFIED ELECTRICIAN. English - 2 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB. indd 2 19.06.2013 12:28:07

Features • Remote controlled colour LCD TV. • Fully integrated digital/cable TV (DVB-T/C) • HDMI inputs are for connecting a device that has a HDMI socket. • USB input.

• OSD menu system. • Scart socket for external devices (such as DVD Players, PVR, video games, etc.) • Stereo sound system. • Teletext. • Headphone connection.

• Automatic programming system. • Manual tuning. • Automatic power down after up to six hours. • Sleep timer. • Child lock. • Automatic sound mute when no transmission. • NTSC playback. • AVL (Automatic Volume Limiting). • PLL (Frequency Search). • PC input.

• Plug&Play for Windows 98, ME, 2000, XP, Vista, Windows 7. • Game Mode (Optional). • Ethernet (LAN) for Internet connectivity and service. • 802.11n WIFI Support (Optional). • DLNA. • HBBTV. • • • • The illustrations and the OSD in this operation manual are for explanation purposes and may vary slightly from the actual operations. • The examples used throughout this manual are based on the LC-32LE350E-BK (B) / LC-32LE350E-WH (B) model. • Dear SHARP customer Thank you for your purchase of the SHARP LCD colour TV product.

To ensure safety and many years of trouble-free operation of your product, please read Important safety precautions carefully before using this product. Introduction Please read the corresponding instructions of this handbook prior to the first usage of the device, even when the usage of electronic devices is familiar to you. Please take notice of the chapter SAFETY PRECAUTIONS. Carefully keep the handbook as future reference. When selling the device or giving it away, provide these direction for use.

Thank you for choosing this product. This manual will guide you for the proper operation of your TV. Before operating the TV, please read this manual thoroughly. Please do keep this manual in a safe place for future references. This device is intended to receive and display TV programs.

The different connection options make an additional expansion of the reception and display sources possible (receiver, DVD player, DVD recorder, VCR, PC etc.). This device is only suitable for the operation in dry interiors. This appliance is intended solely for private domestic use and may not be used for industrial and commercial purposes. We exclude liability in principle, if the device is not used as intended, or unauthorized modifications have been made. To

Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners. • Use a soft damp cloth to gently wipe the panel when it is dirty. To protect the panel, do not use a chemical cloth to clean it. Chemicals may cause damage or cracks in the cabinet of the TV. • Water and moisture—Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement. • Do not place vases or any other water-filled containers on this product. The water may spill onto the product causing fire or electric shock. • Stand—Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product.

Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer. • When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.

• Ventilation—The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed. • The LCD panel used in this product is made of glass.

Therefore, it can break when the product is dropped or impact applied. If the LCD panel is broken, be careful not to be injured by broken glass. &ba humid and damp place (avoid the bathroom, the sink in the kitchen, and near the washing machine). Do not expose this device to rain or water, as this may be dangerous and do not place objects filled with liquids, such as flower vases, on top. Avoid from dripping or splashing. If any solid object or liquid falls into the cabinet, unplug the TV and have it checked by qualified personnel before operating it any further. Cleaning Before cleaning, unplug the TV set from the wall outlet. Do not use liquid or aerosol cleaners. Use soft and dry cloth. Ventilation The slots and openings on the TV set are intended for ventilation and to ensure reliable operation.

To prevent overheating, these openings must not be blocked or covered in anyway. Disconnecting the Device The mains plug is used to disconnect the TV set from the mains and therefore it must remain readily operable. Heat and Flames The set should not be placed near to open flames and sources of intense heat such as an electric heater. Ensure that no open flame sources, such as lighted candles, are placed on top of the TV. Batteries should not be exposed to excessive heat such as sunshine, fire or the like. Headphone Volume Excessive sound pressure from earphones and headphones can cause hearing loss. Installation To prevent injury, this device must be securely attached to the wall in accordance with the installation instructions when mounted to the wall (if the option is available). English - 5 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 5 19.06.

2013 12:28:08 LCD Screen The LCD panel is a very high technology product with about a million thin film transistors, giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed blue, green or red point. Please note that this does not affect the performance of your product. Warning! Do not leave your TV in standby or operating mode when you leave your house. • "HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

" • The "HD TV 1080P" Logo is a trademark of DIGITALEUROPE. • The DVB logo is the registered trademark of the Digital Video Broadcasting—DVB—project. Connection to a Television Distribution System (Cable TV etc.) from Tuner Device 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 cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11).

Note:The HDMI connection between PC and TV may cause radio interference in which case it is recommended to use VGA(DSUB-15) connection. Electrical device not in the hands of children Never let children use any electrical device unsupervised. Children cannot always recognise possible dangers. Batteries / accumulators can be life threatening when swallowed. Store batteries out of the reach of small children. In case of swallowing a battery medical aid has to be sought immediately. Also keep the packaging foils away from children as there is danger of suffocation. The Standby Off/On button doesn´t separate this device completely from mains. Moreover the device consumes power in the standby operation. In order to separate the device completely from mains, the mains plug has to be pulled from the mains socket.

Because of that the device should be set up in a way, that an unobstructed access to mains socket is guaranteed, so that in case of emergency the mains plug can be pulled immediately. To exclude the danger of fire, the power cord should principally be separated from the mains socket prior to a longer period of non-usage, i.e. during vacations. English - 6 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 6 19.06.2013 12:28:09 Environmental Information This television is designed to consume less energy to save environment. You not only help to save the environment but also you can save money by reducing electricity bills thanks to the energy efficiency feauture of this TV. To reduce energy consumption, you should take the following steps: You can use Power Save Mode setting, located in the Picture Settings menu.

If you set Power Save Mode as Eco, the TV will switch to energy-saving mode and luminance level of TV set will be decreased to optimum level. Note that some picture settings will be unavailable to be changed when the TV is in Power Save Mode.

Package Contents LED TV If Picture Off is selected, "Screen will be off in 15 seconds." message will be displayed on the screen. Select PROCEED and press OK to continue.

The screen will be off in 15 seconds. If you disable Power Save Mode, Picture mode will be automatically set to Dynamic. When the TV is not in use, please switch off or disconnect the TV from the mains plug. This will also reduce energy consumption. Disconnect power when going away for longer time.

It is highly recommended to activate Power Save Mode setting to reduce your annual power consumption. And also it is recommended to disconnect the TV from the mains plug to save energy more when you do not use. Please helps us to save environment by following these steps. Repair Information Please refer all servicing to qualified personnel. Only qualified personnel must repair the TV. Please contact your local dealer, where you have purchased this TV for further information. Batteries: 2 X AAA Instruction Book Remote Control Quick Guide Nero media home CD 1 X Video & Audio Connection Cable Note: You should check the accessories after purchasing. Make sure that each accessory is included. As the manufacturer's specification supports communication on cable lengths shall be smaller than 3m. English - 7 -

A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.

indd 7 19.06.2013 12:28:09 Viewing the TV Standby Notifications 1) If the TV does not receive any input signal (e.g. from an aerial or HDMI source) for 5 minutes, the TV will go into standby. When you next switch-on, the following message will be displayed: "Standby Cause No Signal" Press OK to continue. 2) If the TV has been left on and not been operated for a while, the TV will go into standby. When you next switch-on, the following message will be displayed. "Standby Cause No Operation" Press OK to continue. Inserting the Batteries into the Remote Lift the cover on the back of the remote upward gently. Install two AAA batteries. Make sure to match the + and - ends of the batteries in the battery compartment (observe the correct polarity) Replace the cover. TV Control button & Operation TV/AV P/CH + + Connect Power IMPORTANT: The TV set is designed to operate on 220-240V AC, 50 Hz socket. After unpacking, allow the TV set to reach the ambient room temperature before you connect the set to the mains. Plug the power cable to the mains socket outlet. Antenna/Cable Connection Connect the "aerial" or "cable TV" plug to AERIAL INPUT (ANT) socket located on the back of the TV. Aerial or Cable 1. Standby button 2. TV/AV button 3. Programme Up/Down buttons 4.

Volume Up/Down buttons VGA SPDIF , switch is used for turning the TV on or off. English - 8 -

A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 8 HDMI2 HDMI3 19.06.2013 12:28:10 Notification Manufactured under license from Dolby Laboratories. TRADEMARK ACKNOWLEDGMENT "Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Specification TV Broadcasting Receiving Channels Number of Preset Channels PAL B/G D/K K VHF (BAND I/III) - UHF (BAND U) - HYPERBAND 10000 On Screen Display 75 Ohm (unbalanced) 220-240V AC, 50Hz. German+Nicam Stereo "DLNA, the DLNA Logo and DLNA CERTIFIED are trademarks, service marks, or certification marks of the Digital Living Network Alliance." Channel Indicator RF Aerial Input Operating Voltage Audio "HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC." Operation temperature and operation humidity: Audio Output Power (WRMS.

) (10% THD) Power Consumption 5ºC up to 45ºC, 85% humidity max 2x6 65W 8,9 205 x 743 x 493 67 x 743 x 451 "YouTube and the YouTube logo are trademarks of Google Inc." Information for Users on Disposal of Old Equipment and Batteries [European Union only] These symbols indicate that equipment with these symbols should not be disposed of as general household waste. If you want to dispose of the product or battery, please consider the collection systems or facilities for appropriate recycling. Notice: The sign Pb below the symbol for batteries indicates that this battery contains lead. Weight TV Dimensions DxLxH (with foot) TV Dimensions DxLxH (without foot) Battery Products English - 9 -

A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 9 19.06.2013 12:28:11 Viewing remote control 1. 2. 3.

4. 5. 6. 7. 8.

9. Standby / On Channel list Volume up-down Menu on/off OK / Confirm Return / Back Internet Portal My button 1 / YouTube (*) My button 2 (**) 10. Coloured buttons (Red, Green, Yellow, Blue) 11. Mono-Stereo Dual I-II / Current language 12. Fast rewind (in media browser mode) 13. Pause (in media browser mode) / Timeshift recording 14. Programme recording 15. Play (in media browser mode) 16. Stop (in media browser mode) 17. Fast forward (in media browser mode) 18. Subtitle on-off / Subtitle (in media browser mode) 19. Image size 20. Teletext - Mix 21. Media Browser 22. Electronic programme guide 23.

Exit 24. Navigation buttons 25. Quick menu On-Off 26. Info / Reveal (in TXT mode) 27. Programme up/down 28. Mute 29. Previous programme / Now (in EPG mode) 30. Numeric buttons 31. AV / Source NOTE: The Remote Control range is approximately 7m / 23ft. Using My button 1 (*) This button's main function is to run YouTube link.

However, if you want to change this function, you can press MY BUTTON 1 for five seconds when on a desired source, channel or link, until the "MY BUTTON IS SET" message is displayed on the screen. This confirms that the selected MY BUTTON is now associated with the selected function. Note that if you perform first time installation, MY BUTTON 1 will return to its default function. Using My Button 2 (**) Press MY BUTTON 2 for five seconds when on a desired source, channel or link, until the "MY BUTTON IS SET" message is displayed on the screen. This confirms that the selected MY BUTTON is now associated with the selected function.

Teletext Press " " button to enter. Activates video text mode when pressed once (if available in your broadcast). Press again to view analogue teletext page. Press again to place the teletext screen over the programme (mix). Pressing again will quit the teletext mode.

Digital Teletext (for UK only) Press " " button to view digital teletext information. Operate it with the coloured buttons, cursor buttons and the OK button. The operation method may differ depending on the contents of the digital teletext. Follow the instructions displayed on the digital teletext screen. When the " " button is pressed again, the TV returns to television broadcast. English - 10 -

A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 10 19.06.2013 12:28:11 Viewing the Connections Connector Type Scart Connection (back) VGA Connection (back) Cables Device SIDE AV PC/YPbPr Audio Connection (side) HDMI Connection (back) SPDIF Connection (back) Side Audio/Video Connection Cable (Supplied) PC Audio Cable (Not supplied) SIDE AV Side AV (Audio/Video) Connection (side) AV Connection Cable (supplied) HEADPHONE Headphone Connection (side) YPbPr Video Connection PC to YPbPr (back) USB Connection (side) CI Connection (side) PC to YPbPr Connection Cable (Not supplied) NOTE: When connecting a device via the YPbPr or Side AV input, you must use a connection cables to enable connection.

See the illustrations above.

| To enable PC audio, you will need to use the SIDE AV CONNECTION cable's WHITE & RED inputs. | If an external device is connected via the SCART socket, the TV will automatically switch to AV mode.| When receiving DTV channels (Mpeg4 H.264) or while in Media Browser mode, output will not be available via the scart socket. | When using the wall mounting kit (optional), 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. English - 11 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 11 19.06.

2013 12:28:12 Switching On/Off To Switch the TV On Connect the power cord to the 220-240V AC 50 Hz. Switch the " " button on the back side of the TV to position "|" so the TV will switch to standby mode. To switch on the TV from standby mode either: • Press the " " button, P+ / P- or a numeric button on the remote control. • Press the " " or P/CH+/- button on the TV. The TV will then switch on.

Note: If you switch on your TV via P+ / P- buttons on the remote control or P/CH+/- on the TV set, the programme that you were watching last will be reselected. (*) LCN is the Logical Channel Number system that organizes available broadcasts in accordance with a recognizable channel sequence (if available). Cable Installation If you select CABLE option and press OK button on the remote control. To continue, please select YES and press OK. To cancel operation, select NO and press OK.

You can select frequency ranges from this screen. Enter the frequency range manually by using the numeric button. Note: Searching duration will change depending on the selected search step. Media Playback via USB Input You can connect a 2.5" and 3.5" inch (hdd with external power supply) external hard disk drives or USB memory stick to your TV by using the USB inputs of the TV. To Switch the TV to Standby To switch the TV to low power stand by press the " " button on the remote control or on the TV. Note: When the TV is switched to standby mode, standby LED can blink to indicate that features such as Standby Search, Over Air Download or Timer is active. To Switch the TV Off Switch the " " button on the back side of the TV to position 2 as illustrated, , to isolate the TV from the mains, the LED will go out. First Time Installation When turned on for the first time, the language selection screen is displayed.

Select the desired language and press OK. The First Time Installation (FTI) screen will be displayed next. Set your preferences using the navigation buttons and when finished, press OK to continue. You can activate Store mode option to be available in "Other settings" menu and your TV's features will be illustrated on the top of the screen. a confirmation screen will be displayed. Select YES to proceed. If Home Mode is selected, Store mode will not be available after the First Time Installation. Press OK button to continue. IMPORTANT! Back up your files before making any connections to the TV. Manufacturer will not be responsible for any file damage or data loss.

Certain types of USB devices (e.g. MP3 Players) or USB hard disk drives/memory sticks may not be compatible with this TV. The TV supports FAT32 and NTFS disk formatting but recording will not be available with NTFS formatted disks. While formatting a USB hard disk that has 1TB (Tera Byte) or more fi le capacity, you can experience problems with the formatting process.

Do not repeatedly quickly plug and unplug the drive. This may cause physical damage to the USB player and USB device itself. Do not pull out USB module while playing a file. Recording a Programme IMPORTANT: When using a new USB hard disk drive, it is recommended that you first format the disk using your TV's "Format Disk" option. Note : To record a programme, you should first connect a USB disk to your TV while the TV is switched off.

You should then switch on the TV to enable the recording feature. To use the recording function, you need to connect a USB disk or an external hard disk drive to the TV and the connected USB disk should have at least 1 GB capacity and should have 2.0 speed compatibility. If the connected USB device does not support 2.0 speed, an error message will be displayed. Note: Recorded programmes are saved into the connected USB disk. If desired, you can store/copy recordings onto a computer; however, these files will not be available to be played on a computer. You can play the recordings only via your TV. Note: Lip Sync delay may occur during the timeshifting. Radio record is supported.

The TV can record programmes up to ten hours. Aerial Installation If you select AERIAL option from the Search Type screen, the television will search for digital terrestrial TV broadcasts. NOTE: You can press MENU button to cancel. After all the available stations are stored, the Channel List will be displayed on the screen. If you like how the channels are sorted according to the LCN (*), please select "Yes" and than press OK. Press MENU button to quit channel list and watch TV. English - 12 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 12 19.06.2013 12:28:15 Recorded programmes are split into 4GB partitions.

If the writing speed of the connected USB disk is not sufficient, the recording may fail and the timeshifting feature may not be available. It is recommended to use USB hard disk drives for recording HD programmes. Do not plug out the USB/HDD during a recording. This may harm the connected USB/HDD. Multipartition support is available.

The maximum of two different partitions are supported. The first partition of the USB disk is used for PVR ready features. It also must be formatted as the primary partition to be used for the PVR ready features. Some stream packets may not be recorded because of signal problems, so sometimes video may freezes during playback. Record, Play, Pause, Display (for PlayListDialog) keys can not be used when teletext is ON.

If a recording starts from timer when teletext is ON, teletext is automatically turned off. Also teletext usage is disabled when there is an ongoing recording or playback. Timeshift Recording Press (PAUSE) button while watching a broadcast to activate timeshifting mode.In timeshifting mode, the programme is paused and simultaneously recorded (PLAY) button to the connected USB disk. Press again to resume the paused programme from where you stopped. Press the STOP button to stop timeshift recording and return to the live broadcast. Note: Timeshift cannot be used while in radio mode. Note : You cannot use the timeshift fast reverse feature before advancing the playback with the fast forward option. Press the (STOP) button to stop a playback and return to the Recordings Library.

Slow Forward If you press (PAUSE) button while watching recorded programmes, the slow forward feature will be available.

You can use button to slow forward. Pressing button consecutively will change slow forwarding speed. Recording Configuration Select the Recording Configuration item in the Settings menu to configure the recording settings. Format Disk: You can use Format Disk feature for formatting the connected USB disk. Your pin is required to use the Format Disk feature (default pin is 0000). IMPORTANT: Note that ALL the data stored on the USB disk will be lost and the disk format will be converted to FAT32 if you activate this feature. If your USB disk malfunctions, you can try formatting the USB disk. In most cases formatting the USB disk will restore normal operation; however, ALL the data stored on the USB disk will be lost in such a case. Note: If "USB is too slow" message is displayed on the screen while starting a recording, try restarting the recording. If you still get the same error, it is possible that your USB disk does not meet the speed requirements.

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

You can set your Media Browser preferences by using the Settings Menu. Loop/Shuffle Mode Operation Start playback with activate Start playback with OK and activate Start playback with OK/ activate and and TV plays next file and loop the list. the same file will be played in a loop (repeat). the file will be played in a shuffle. Instant Recording Press (RECORD) button to start recording an event instantly while watching a programme.

You can press (RECORD) button on the remote control again to record the next event on the EPG. In this case, an OSD will be displayed, indicating the (STOP) programmed events for recording. Press button to cancel instant recording. Note: You can not switch broadcasts or view the Media Browser during the recording mode. While recording a programme or during the timeshifting, a warning message appears on the screen if your USB device speed is not suffcent. Quick Menu Quick Settings menu allows you to access some options quickly. This menu includes Power Save Mode, Picture Mode, Equalizer Settings, Favourites and Sleep Timer options. Press Q.MENU button on the remote control to view quick menu. See the following chapters for the details of the listed features.

Watching Recorded Programmes Select the Recordings Library from the Media Browser menu. Select a recorded item from the list (if previously recorded). Press the OK button to view the Play Options. Select an option then press OK button. Note: Viewing main menu and menu items will not be available during the playback. English - 13 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 13 19.06.2013 12:28:15 TV Menu Features and Functions Picture Menu Contents Mode Contrast Brightness Sharpness Colour Power Save Mode Backlight (Optional) Noise Reduction Dyanmic Contrast Colour Temp Picture Zoom HDMI True Black Film Mode Skin Tone Colour Shift RGB Gain Reset Autoposition (in PC mode) H Position (in PC mode) V Position (in PC mode) Dot Clock (in PC mode) Phase (in PC mode) You can change the picture mode to suit your preference or requirements. Picture mode can be set to one of these options: Cinema,Game,Sport,Dynamic and Natural.

Sets the lightness and darkness values of the screen. Sets the brightness value for the screen. Sets the sharpness value for the objects displayed on the screen. Sets the colour value, adjusting the colors. To set the Power Save Mode as Eco, Picture Off and Disabled.

(When the Mode is Dynamic, Power Save mode is automatically set as disabled.) This setting controls the backlight level. The backlight function will be inactive if the Power Save Mode is set to Eco. The backlight cannot be activated in VGA, Media Browser mode or while the picture mode is set to Game. If the broadcast signal is weak and the picture is noisy, use the Noise Reduction setting to reduce the amount of noise.

Advanced Settings You can change the Dynamic Contrast ratio to desired value. Sets the desired colour tone. Sets the desired picture size from picture zoom menu. Note: Auto (Only available in Scart mode with SCART PIN8 high voltage/low voltage switching) While watching from HDMI source, this feature will be visible in the Picture Settings menu. You can use this feature to enhance blackness in the picture. Films are recorded at a different number of frames per second to normal television programmes. Turn this feature on when you are watching films to see the fast motion scenes clearly. Skin tone can be changed between -5 and 5. Adjust the desired colour tone. You can configure the colour temperature values using the RGB Gain feature.

Resets the picture settings to factory default settings.(Except Game Mode) Automatically optimizes the display. Press OK to optimize. This item shifts the image horizontally to the right hand side or left hand side of the screen. This item shifts the image vertically towards the top or bottom of the screen. Dot Clock adjustments correct the interference that appear as vertical banding in dot intensive presentations like spreadsheets or paragraphs or text in smaller fonts. Depending on the resolution and scan frequency that you input to the TV set, you may see a hazy or noisy picture on the screen. In such a case you can use this item to get a clear picture by trial and error method. While in VGA (PC) mode, some items in Picture menu will be unavailable. Instead, VGA mode settings will be added to the Picture Settings while in PC mode.

English - 14 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 14 19.06.2013 12:28:15 Sound Menu Contents Volume Equalizer Balance Headphone Sound Mode AVL (Automatic Volume Limiting) Headphone/Lineout Dynamic Bass Surround Sound Digital Out Conditional Access Language Adjusts the volume level. Selects the equalizer mode.

Custom settings can be made only when in user mode. This setting is used for emphasizing left or right speaker balance. Sets headphone volume. You can select a sound mode. (If the selected channel supports).

Function sets the sound to obtain fixed output level between programmes. When you connect an external amplifier to your TV using the headphone jack, you can select this option as Lineout. @@Enables or disables the Dynamic Bass. Surround sound mode can be changed as On or Off. Sets digital out audio type. Controls conditional access modules when available. @@Current settings can be changed only if the broadcaster supports. Enter correct password to change parental settings. @@You can also set new pin number. @@In this case the control panel button will not work.

Sets sleep timer to turn off the TV after a certain time. Sets timers for selected programmes. @@Enables or disables selected source options. Displays network settings. Changes timeout duration for menu screens. @@This feature is activated/deactivated by selecting ON/OFF. @@To ensure that your TV always has the most up to date firmware. @@Default value is DVB subtitle. Available only in Norway. Enables any special feature sent from the broadcaster. @@@@@@@@@@Channel list will be updated and changed after this process. If you are displaying the TV in a store, you can activate this mode. @@@@@@See instructions of your sharing software for more information. This setting configures the power up mode preference. @@Digital Aerial: Searches and stores aerial DVB stations.

Digital Cable: Searches and stores cable DVB stations. Analogue: Searches and stores analogue stations. @@@@Searches for the linked channels in the broadcast system. You can use this setting for fine tuning analogue channels. This feature is not available if no analogue channels are stored. @@@@@@You can edit this channel list, set favourites or set active stations to be listed by using the Channel List options. Configuring Parental Settings To prohibit viewing of certain programmes, channels and menus can be locked by using the parental control system. Record / Delete Record Timer After you have selected a programme in the EPG menu, press the OK button. Select the Record option and press the OK button. After this operation, a recording will be scheduled for the selected programme. To cancel an already set recording, highlight that programme and press the OK button and select the option Delete Rec. Timer. The recording will be cancelled. Set Timer / Delete Timer After you have selected a programme in the EPG menu, press the OK button. Select the Set Timer on Event option and press the OK button.

You can set a timer for future programmes. To cancel an already set timer, highlight that programme and press the OK button. Then select "Delete Timer" option. The timer will be cancelled. Note: It is not possible to record two channels at the same time. To display parental lock menu options, the PIN number should be entered. The factory default PIN number is 0000. After coding the correct PIN number, parental settings menu will be displayed. Menu Lock: Menu lock setting enables or disables the menu access. Maturity Lock: When set, this option gets the maturity information from the broadcast and if this maturity level is disabled, disables access to the broadcast.

Child Lock: When Child Lock is set, the TV can only be controlled by the remote control. In this case the control panel buttons will not work. Set PIN: Defines a new PIN number. Note: If the Country option is set to France, you can use 4725 as the default code. Your TV is capable of finding and updating automatically via the Aerial/Cable signal or over the Internet.

Software Upgrade Your TV is capable of finding and updating automatically via the Aerial signal or over the Internet. Electronic Programme Guide (EPG) Some, but not all channels send information about the current and next programmes. Press the " button to view the EPG menu. Up/Down/Left/Right: Navigate EPG. OK: Displays programme options.

INFO: Displays, in detailed, information on the programme selected. GREEN: Switches to List Schedule EPG. YELLOW: Switches to Timeline Schedule EPG. BLUE: Displays filtering options. (RECORD): The TV will start to record the selected progamme. You can press again to stop the recording. IMPORTANT: Connect a USB disk to your TV while the TV is switched off. You should then switch on the TV to enable the recording feature. Note: Switching to a different broadcast or source is not available during a recording. Software upgrade search via user interface Simply navigate on your main menu.

Choose Settings and select Other Settings menu. In Other Settings menu navigate on to the Software for Upgrade item and press OK button to check for a new software upgrade. Note : Internet connection is needed. If an internet connection is not available, try to upgrade via broadcast. If a new upgrade is found, it starts to download the upgrade. Press OK to continue with the reboot operation. " Background search and upgrade mode • While TV is connected to Internet, in background it searches for critical software upgrades. If a critical software upgrade is found it downloads the upgrade silently. When download completes with success a message is displayed for reboot operation to activate new software. Press OK to continue with the reboot operation.

Programme Options In EPG menu, press the OK button to enter the Event Options menu. Select Channel In EPG menu, using this option, you can switch to the selected channel. 3 AM search and upgrade mode While the TV is connected to an aerial signal. If Automatic scanning in the Upgrade Options menu is enabled, the TV wakes up at 03:00 and searches broadcast channels for new software upgrades. If new software is found and downloaded successfully, the next time the TV powers up , it will have the new software version.

English - 17 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 17 19.06.2013 12:28:15 Note: If the TV fails to come on after the upgrade unplug the TV for 2 minutes and plug in again. Input sources - can not be selected • If you cannot select an input source, it is possible that no device is connected.

if not • Check the AV cables and connections if you have tried to connect a device. Manual Software Update Ensure that the ethernet cable is connected to your TV. If the ethernet cable is connected to the TV, ensure that the TV is receiving. Check that the Good is present in the following menu path: Menu -> Settings -> Network Settings -> Configuration Status -> Connected Go to Settings tab from the main menu and select Other Settings. Highlight Software Upgrade and press OK. Select Scan for Upgrade and press OK button. An OSD screen including the progress bar will be visible under the Software upgrade" title. A warning screen will be displayed on the screen, stating that the TV will be rebooted. Press OK button to finalize upgrade process and reboot TV. Troubleshooting & Tips Recording unavailable To record a programme, you should first connect a USB disk to your TV while the TV is switched off.

You should then switch on the TV to enable recording feature. If you cannot record, try switching off the TV and then re-inserting the USB device. USB is too slow If a "USB is too slow" message is displayed on the screen while starting a recording, try restarting the recording. If you still get the same error, it is possible that your USB disk does not meet the speed requirements. Try connecting another USB disk. Internet Connection Not Available / DLNA Mode Not Operating If the MAC address (a unique identifier number) of your PC or modem has been permanently registered, it is possible that your TV might not connect to the internet.

In such a case, the MAC address is authenticated each time when you connect to the internet. This is a precaution against unauthorized access. Since your TV has its own MAC address, your internet service provider cannot validate the MAC address of your TV. For this reason, your TV cannot connect to the internet.

Contact your internet service provider and request information on how to connect a different device, such as your TV, to the internet. It is also possible that the connection may not be available due to a firewall problem. If you think this causes your problem, contact your internet service provider. A firewall might be the reason of a connectivity and discovery problem while using the TV in DLNA mode or while browsing via DLNA. Tv will not turn on Make sure the power cord is plugged in securely to wall outlet.

The batteries in the remote control may be exhausted. Press the Power button on the TV. Poor picture • Have you selected the correct TV system? • Low signal level can cause picture distortion.Please check antenna access. • Check if you have entered the correct channel frequency if you have done manual tuning.

• The picture quality may degrade when two devices are connected to the TV at the same time. In such a case, disconnect one of the devices. No picture • No Picture means that your TV is not receiving a transmission. Have you selected the correct button on the remote control? Try once more. Also make sure the correct input source has been selected. • Is the antenna connected properly? • Is the antenna cable damaged? • Are suitable plugs used to connect the antenna? • If you are in doubt, consult your dealer. Invalid Domain Ensure that you have already logged on to your PC with an authorized username/password and also ensure that your domain is active, prior to sharing any files in your DLNA server program on your PC. If the domain is invalid, this might cause problems while browsing files in DLNA mode. No sound • Has the TV been set to mute? To cancel mute, press the " " button, or increase the volume level. • Sound is coming from only one speaker.

Is the balance set to one extreme? See Sound Menu section. Remote control - does not operate • The batteries may be exhausted. Replace the bateries. English - 18 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 18 19.06.2013 12:28:16 Connectivity Functions Connecting to a Wireless Network IMPORTANT: "AN-WUD350" USB dongle (sold separately) is required to use wireless network feature. • To make your modem' s SSID visible, you should change your SSID settings via modem's software. The TV cannot connect to the networks with hidden SSID. For connecting to a wireless LAN network, you should perform the following steps: 1.

Connect broadband ISP connection ethernet cable to the ETHERNET INPUT of your modem. 2. Ensure that Nero Media Home software is installed to your PC (for DLNA function). 3. Afterwards, you should connect wireless adaptor to one of the USB inputs of the TV.

4. To configure wireless settings please refer Network Settings section in the following sections. Connecting to a Wired Network • Connect broadband ISP connection ethernet cable to the ETHERNET INPUT of your modem. • Ensure that Nero Media Home software is installed to your PC.(for DLNA function). See Appendix A • Connect your PC to the one of your modem's LAN connectors (e.g. LAN 1) by using a proper LAN cable. • Use another LAN output of your modem (e.g. LAN 2) to enable the connection to your TV. Broadband ISP Connection • To access and play shared files, you must Select Media Browser. Press Menu button and select Media Browser. Press OK to continue. Select the desired file type and press OK.

You must always use the Media Browser screen to access and play shared network files. • PC/HDD/Media Player or any other devices that are DLNA 1.5 compatible should be used with wired connection for higher playback quality. To configure wired settings please refer Network Settings section in Settings menu. • You might be able to connect your TV to your LAN network depending on your network's configuration. In such a case, use an ethernet cable to connect your TV directly to the network wall outlet. Wireless Lan Adaptor USB Inputs (Side of the TV) • A Wireless-N router (IEEE 802.11a/b/g/n) with simultaneous 2.4 and 5 GHz bands designed to increase bandwidth. Optimized for smoother and faster HD video streaming, file transfers, and wireless gaming.

• Use LAN connection for quicker file sharing between other devices like computers. • The frequency and channel differ depending on the area. • The transmission speed differs depending on the distance and number of obstructions between the transmission products, the configuration of these products, the radio wave conditions, the line traffic, and the products that you use. The transmission may also be cut off or get disconnected depending on the radio wave conditions DECT phones, or any other WiFi 11b appliances. The standard values of the transmission speed are the theoretical maximum English - 19 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.

indd 19 19.06.2013 12:28:16 values for the wireless standards. They are not the actual speeds of data transmission. • The location where the transmission is most effective differs depending on the usage environment.

• Wireless LAN adaptor should be connected directly to the TV's USB port. USB hubs are not supported. • Wireless LAN adaptor supports 802.11 a,b,g & n type modems. It is highly recommended that you should use IEEE 802.11n communication protocol in order to avoid any possible problems while watching videos. • Use the other usb input, if you experience problems with audio/video performance. • You must change your modem's SSID when there are any other modems around with the same SSID. To enable Wi-Fi feature, profiles should be configured properly. Please plug in the Wi-Fi dongle (sold separately) to one of the USB ports.

Press YELLOW button to scan wireless network. Afterwards, available network list will be displayed. Please select your desired network from the list. If the selected network is protected with a password, please enter the correct key by using the virtual keyboard. You can use this keyboard via navigation buttons and OK button on the remote control. Wait until the IP the address is shown on the screen. This means that the connection is now established. To disconnect from a wireless network, you should highlight Configuration Status and press OK. You can navigate between menu tabs by pressing left/ right buttons. The help bar on the bottom of the dialog shows features that you may use.

Press BLUE button to check your internet connection speed. You can check the signal strenght by using the network settings menu for the wireless device mode.

Configuring Network Settings Your TV's Network Settings include Wired and Wireless Connection options. However, if your TV does not have USB Wi-Fi dongle (sold separately), you should use Wired Connection type. If you try to connect via Wireless Connection when your TV does not have a USB Wi-Fi dongle, a warning screen will appear and the TV will not get an IP address.

Try connecting the LAN cable after this and then the TV will be able to get an IP address. Information Configuration Status: Displays wi-fi status as connected or not connected. IP Address: Displays the current IP address. Network Name: Connected networks' name will be displayed. Press GREEN button to switch to advanced mode and then press OK button to edit settings.

Configuring Wired Device Settings If you are connecting the TV via ETHERNET INPUT, select Network Type as Wired Device to configure. Network Type Network type can be selected as Wired or Wireless device, in accordance with the active connection to the TV set. Select this as Wired if you have connected to the TV a LAN cable. Select as Wireless if you connect via the wireless USB dongle (sold separately). Delete Saved Wifi Profiles Saved profiles will be deleted if you press red button while wireless device selection osd is on the screen. Configuration Status This section displays the status of the connection. Select Connected if you want to activate connection. Select as Not Connected to end an active connection. Connecting to your Cell Phone via WiFi (Optional) •If your cell phone has WiFi feature, you can connect your cell phone to your TV by using WiFi connection via a router, in order to play content from your phone. For this, your cell phone must have an appropriate sharing software.

•Connect to your router following the steps stated above in the Wireless Connection section. •Afterwards, engage your cell phone with the router and then activate sharing software on your cell phone. Then, select files that you would like to share with your TV. •If the connection is established correctly, you should now access the shared files of your cell phone via the Media Browser of your TV. •Enter Media Browser menu and playback device selection OSD will be displayed. Select your cell phone's ident and press OK to continue. Note: This feature may not be supported by some cell phones. IP Address If an active connection is available, the IP address will be displayed on this section. If you want to configure IP address preferences, press GREEN button and switch to the advanced mode. Configuring Wired Network Settings in Advanced Mode While in Advanced Mode, press RED button to edit settings.

When finished, press OK to save, Press RETURN/BACK to cancel. IMPORTANT: "AN-WUD350" USB dongle is required to use wireless network feature. Wi-Fi feature can be used for a wireless network connection. If you have the AN-WUD350 Wifi Dongle (sold separately), select Network Type as Wireless Device to start connection process. English - 20 -

A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.

indd 20 19.06.2013 12:28:16 Connectivity Troubleshooting Wireless Network Not Available Ensure that the firewalls of your network allows the TV wireless connection. "AN-WUD350" usb wifi dongle(sold separately) should be plugged properly (if available). If the wireless network does not function properly, try using the wired network in your home.

Refer to the Wired Connection section for more information on the process. Check the modem (router) first. If the router does not have a problem, check the internet connection of your modem.Try searching for wireless networks again, using the Network Settings menu screen. If sharing configurations are set properly, the following OSD message will be displayed after selecting the desired media type. Select OK to display the selected network or USB memory content. If you want to refresh the device list, press GREEN button. You can press MENU to exit. Connection is Slow See the instruction book of your wireless modem to get information on the internal service area, connection speed, signal quality and other settings. You need to have a high speed connection for your modem.

If available networks are found, they will be listed on this screen. Select media server or network that you want to connect by using " " or " " buttons and press OK button. If you select media type as Video and choose a device from the selection menu, a new menu screen will appear on the screen. Select Videos from this screen to list all the available video files from the selected network. To play other media types from this screen, you must go back to main Media Browser screen and select media type as desired and then perform the network selection again. Refer to Media Browser USB Playback section for further information on file playback. Subtitle files do not work if you watch video from network through DLNA. You can connect only one television with DLNA to same network. If a problem occurs with DLNA network, please switch on/off your television. Trick mode and jump are not supported with DLNA function. CAUTION: Distruption during playback or slow reactions You could try the following in such a case: Keep at least three meters distance from microwave ovens, mobile telephones, bluetooth devices or any other Wi-Fi compatible devices. Try changing the active channel on the WLAN router. Using DLNA Network Service DLNA (Digital Living Network Alliance) is a standard that eases viewing process of digital electronics and makes them more convenient to use on a home network. For further information, visit www.dlna.

org. DLNA standard allows you to view and play photos, music and videos stored in the DLNA media server connected to your home network. Step 1: Nero Media Home DLNA function cannot be used if the server program is not install to your PC. Please prepare your PC with the provided Nero Media Home programme. For more information about the installation, please refer to Nero Media Home Installation section There may be some PC's which may not be able to utilize the DLNA function due to administrator and security settings.

(such as business PC's). For best home network streaming with this set, the supplied Nero software should be installed. Step 2: Connect to a Wired or Wireless Network See the chapter Network Settings for detailed configuration information. Internet Portal You can access PORTAL mode using your TV. To do this, an active internet connection is required. Follow the steps on Connecting to a Wired/Wireless(optional) Network section to connect your TV to internet. After the connection is established, you can select or view portal options. Note: Broadband internet connection is required for high quality viewing. Ensure that the internet connection is made properly. You must set the Country and Language data correctly in the First Time Installation for the proper operation of internet portal.

Step 3: Play Shared Files via Media Browser Select Media Browser by using Left or Right button from the main menu and press OK button. Media browser will be then displayed. DLNA support is available only with Media Browser folder mode. To enable folder mode, go to Settings tab in the main media browser screen and press OK. In the settings options, highlight View Style and change to Folder using Left or Right button. Please select desired media type and press OK. English - 21 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 21 19.06.2013 12:28:16 Press " " button on your remote control and portal application options will be displayed.

Application options will be displayed as the template below. Available applications' contents may change depending on the application content provider. 5. Please read the license agreement carefully and select the appropriate check box if you agree to the terms of the agreement. Installation is not possible without this agreement.

6. Click the Next button. • The Select Installation Type screen is displayed. It is possible to choose between Typical, meaning standard installation, or Custom installation. User defined installation allows you to determine languages to be installed and to choose the installation path.

7. Use Typical installation and click the Next button. • The Prerequisites screen is displayed. The Nero MediaHome installation wizard checks the availability of required third-party software on your PC. If applications are missing they are listed and must be installed before continuing installation. 8. Click the Install button. • As soon as all prerequisites are installed, the Install button will change to a Next button. 9. Click the Next button.

• The Ready to Start Installation Process screen is displayed, installation begins and finishes automatically. A progress bar informs you of the progress of the installation process. 10. Installation finishes. The Help us to Enhance Nero Software screen is displayed. In order to offer a better service, Nero is collecting anonymous data to determine which features are used and what problems, if any, occur. 11. If you would like to help by participating in the anonymous collection of usage data, select the check box and click the Next button. • The final screen of the installation wizard is displayed. 12. Click the Exit button. 13. A shortcut called Nero MediaHome 4 is now placed on your desktop Congratulations! You successfully installed Nero MediaHome 4 on your PC. 14. Run Nero MediaHome by pressing shortcut icon.

• Click ADD icon from LOCAL FOLDERS to add the folder you want to share with the network. Select the folder that you want to share and click START SERVER. 15. You can display all media types from the library. Click Refresh icon to refresh.

Click STOP SERVER icon to stop server. Select a link or application using the Left and Right or Up or Down buttons and press OK to activate. • Use Up/Down and Left/Right buttons to navigate between the items on Portal screen. • Press OK button to confirm your selection. • Press BACK to go to the previous screen. • Press EXIT to quit internet portal mode. Note: Possible application dependent problems may be caused by the content service provider. Appendix A: Nero MediaHome Installation To install Nero MediaHome, please proceed as follows: Note: To use DLNA function, this software should be installed to your PC. 1. Insert the Nero Media Home installation disc in your optical disc drive.

• The Nero Multi Installer screen with a button to start the installation process will open automatically. • If below window is not displayed automatically, double-click on the file SetupX located on the Nero MediaHome installation disc. 2. Click on the button labeled Nero MediaHome Essentials to start the installation process. • The Nero MediaHome installation wizard is displayed. • If necessary change installation language from the language selection menu before continuing. 3. Click the Next button. • The integrated serial is displayed. • Please do not change displayed serial. 4. Click the Next button. • The License Conditions (EULA) screen is displayed. English - 22 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 22 19.06.2013 12:28:16 Appendix B: HBBTV System HbbTV (Hybrid Broadcast Broadband TV) is a new industry standard that seamlessly combines TV services delivered via broadcast with services delivered via broadband and also enables access to Internet only services for consumers using connected TVs and set-top boxes. Services delivered through HbbTV include traditional broadcast TV channels, catch-up services, video-on-demand, EPG, interactive advertising, personalisation, voting, games, social networking and other multimedia applications. HbbTV applications are available on channels where they are signalled by the broadcaster (currently various channels on Astra broadcast HbbTV applications). The broadcaster marks one application as "autostart" and this one is started by the platform automatically.

The autostart applications are generally launched with a small red button icon to notify the user that there is an HbbTV application on that channel Press the red button to open the application page. After the page is displayed you can go back to the initial red button icon state by pressing the red button again. You can toggle between the red button icon mode and full UI mode of the application via pressing red button. It should be noted that the red button switching capability is provided by the application and some application may behave differently. If you swicthes to another channel while an HbbTv application is active (either in red button icon mode or full UI mode), the following scenarios can occur. • The application can continue running • The application can be terminated. • The application can be terminated and another autostart red button application can be launched. HbbTv allows the applications to be retrieved both from broadband or broadcast. The broadcaster may enable both ways or one of them. If the platfrom does not have an operational broadband connection, the platform can still launch applications transmitted on broadcast.

@@An example of this is shown below. @@@@@@When an HbbTv applications is launched, the control of some keys are owned by the application. For example, numeric channel selection may not work on a teletect application where the numbers indicate teletext pages. HbbTv requires AV streaming capability for the platform. There are numerous applications providing VOD (video on demand) and catch-up TV services. The user can use play, pause, stop, forward, and rewind keys on the remote control to interact with the AV content. English - 23 - A01_[GB]_MB95S_4847UK_DVBT_C_32205LED(BMS)_DLNA_HBBTV_MMH_ROCKER_GOLD22_50248716_basic IB.indd 23 19.06.2013 12:28:17 PC Input Typical Display Modes The following table is an illustration of some of the typical video display modes.