LG
Life's Good

INSTALLATION MANUAL
LED TV*

Please read this manual carefully before operating your set and retain it for future reference.

UW76**
UW96**
LV75**
UV34**

www.lg.com

ENGLISH

TABLE OF CONTENTS

LOCATION AND FUNCTION OF CONTROLS

Parts and Button

Basic functions

<A type>

⏻ ↟	Power On (Press) Power Off (Press and hold)[1]
‹ ›	Volume Control
⌄ ⌃	Programmes Control

1   All running apps will close, and any recording in progress will stop.

<B type>

⏻	Power On (Press) Power Off [1] (Press and Hold) Menu Control (Press [2]) Menu Selection (Press and Hold [3])

1   If the Menu button is on the screen, pressing and holding the button will let you exit the Menu.
2   You can access and adjust the menu by pressing the button when TV is on.
3   You can use the function when you access menu control.
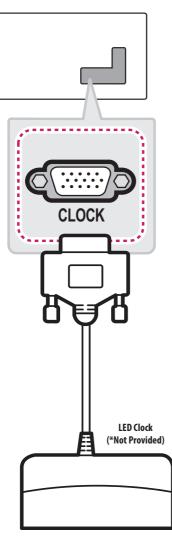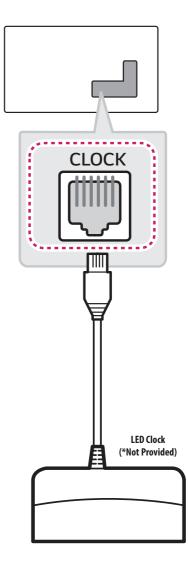
LED Clock Connection

(Except for UV34**)
• Image shown may differ from your TV.

This TV can be connected to a LED Clock via the **CLOCK** port.

CLOCK

CLOCK

**LED Clock
(*Not Provided)**

**LED Clock
(*Not Provided)**

EZMANAGER

- Image shown may differ from your TV.

INTRODUCTION

(Except for UV34**)
The Pro:Centric Platform enables you to simply install, manage and use guest-centric solutions. The default Domain "procentric.local" and IP Server Address are needed to be registered in DNS TV will contact the IP Server using the default Domain "procentric.local" via IP on server search page. If TV doesn't contact the Server, TV will search the pre-defined channel earlier than all channels. (Only DVB-C)
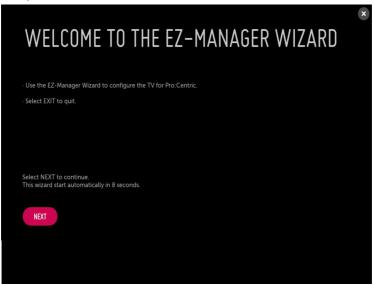
The frequencies of pre-defined channels are below.
Germany: '51000, 858000, 778000, 698000, 618000, 538000, 458000, 378000, 298000, 218000, 138000 khz'.
Philippines 6Mhz: '57000, 651000, 591000, 531000, 471000, 411000, 351000, 291000, 231000, 171000, 111000 khz'.
Other Country: '50000, 842000, 762000, 682000, 602000, 522000, 442000, 362000, 282000, 202000, 122000 khz'.

EZ-MANAGER WIZARD

(Except for UV34**)

WELCOME TO THE EZ-MANAGER WIZARD

· Use the EZ-Manager Wizard to configure the TV for Pro:Centric.

· Select EXIT to quit.

Select NEXT to continue.
This wizard start automatically in 8 seconds.

NEXT

- – If you are using Pro:Centric, this setup wizard till help you easily set up the TV. Select '**NEXT**' to continue.
- – Otherwise, if you will not be installing a Pro:Centric Server, select '**EXIT**' to quit.

LANGUAGE & COUNTRY SELECTION

(Except for Iran)

- – Please select the **Language** and **Country**. Some countries need to select the **Time Zone**.

(Only Iran)

- – Please select the **Language**.

(Only UV34**)

– Please select the **Language** and **Country**. Some countries need to select the **Time Zone**.

Automatically for Setup

(Except for UV34**)
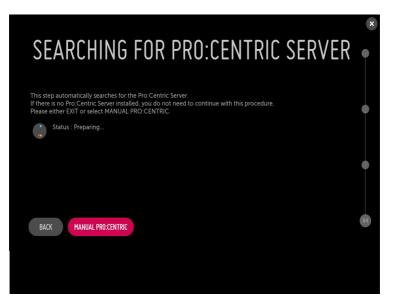
1   From the TV Configuration Options screen, you can choose how to proceed with the configuration of this TV. Whether you will configure the TV for Pro:Centric operation via the wizard or use a USB memory device to configure the TV, you may first wish to set the Room Number on the TV.

-    If you intend to set Room Number as part of the TV configuration, use the Room Number option to assign the Room # for this TV before you continue with additional configuration.
-    In the Label field, use the Left/Right arrow keys to specify a North, South, East, or West designation for this TV.
-    In the Room Number field, you can use the number keys on the Installer Remote to direct enter a room number or use the virtual keyboard on the TV screen.
-    To continue, move and select '**NEXT**'.

2   This step automatically searches for the Pro:Centric Server. If was found the Pro:Centric data channel, select the '**NEXT**'.

SEARCHING FOR PRO:CENTRIC SERVER

This step automatically searches for the Pro:Centric Server.
If there is no Pro:Centric Server installed, you do not need to continue with this procedure.
Please either EXIT or select MANUAL PRO:CENTRIC.

Status : Preparing...

BACK   MANUAL PRO:CENTRIC

04

PRO:CENTRIC SERVER WAS FOUND

It may take 5 seconds.

The Pro:Centric data channel was found!! (IP: 10.196.18.74:80, Mode: HTML)
The Download window will open in 5 seconds. You may wait or select NEXT.
Otherwise, if you exit, the Pro:Centric Server settings can be retained and used during the next download when you select SAVE & EXIT in the Exit Window.

Status : The Pro:Centric data channel is found!!
         (IP : 10.196.18.74:80, Mode : HTML)

BACK   NEXT

04

3   Downloading the Pro:Centric application files takes few minutes.

ROCESSING THE PRO:CENTRIC CONFIGUR

Downloading the maintenance files takes several minutes.
Please wait...

97%

Retrieving files from IP 10.196.18.74:80

Application files   HTML app downloaded
Maintenance files   No data

Warning - Do not remove AC power or the signal cables during these steps.

4   After the installation is completed, the following screen will be displayed.

Z-MANAGER CONFIGURATION COMPLETE

The TV will turn off in 9 second(s).
Installed Components

Pro:Centric Application   HTML app downloaded
Maintenance files   No data

REBOOT   TURN OFF

Manually for Setup

(Except for UV34**)

1   Select a Label and/or enter the Room Number using the numeric keypad on the remotes or using the virtual keyboard on the TV screen. To continue, move and select '**NEXT**'.

2   Please select the '**MANUAL PRO:CENTRIC**'.

3   Configure the appropriate Pro:Centric settings in the TV.

4   Downloading the Pro:Centric application files takes few minutes.

5   After the installation is completed, the following screen will be displayed.

USB LG Smart Install Utility

(Except for UV34**)
1   Select the '**USB CONFIGURATION**' → '**TV MANAGER**'.

- – If you have USB Memory for "LG_DTV" or "lg_dtv" folder, this step shows the USB file list for downloading the items.
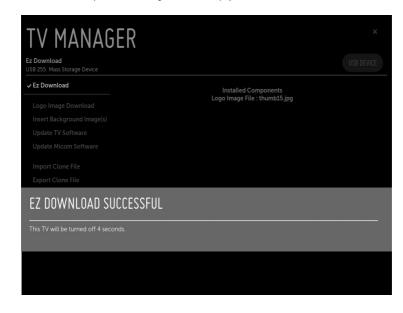
2   Downloading the Pro:Centric application files takes few minutes.

TV MANAGER   ✕

Ez Download   USB DEVICE
USB 255: Mass Storage Device

✓ Ez Download   WARNING! Please do not disconnect the USB memory device and do not unplug power!
                           After the update is complete, the TV will be turned off automatically.

  Logo Image Download   Logo Image Download   27%
  Insert Background Image(s) thumb15.jpg
  Update TV Software
  Update Micom Software

  Import Clone File
  Export Clone File

  Diagnostics

3   After the installation is completed, the following screen will be displayed.

TV MANAGER   ✕

Ez Download   USB DEVICE
USB 255: Mass Storage Device

✓ Ez Download   Installed Components
                                  Logo Image File : thumb15.jpg
  Logo Image Download
  Insert Background Image(s)
  Update TV Software
  Update Micom Software

  Import Clone File
  Export Clone File

EZ DOWNLOAD SUCCESSFUL

This TV will be turned off 4 seconds.

INSTALLATION MENU
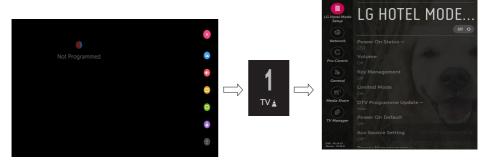
- Image shown may differ from your TV.

INTRODUCTION

The abundant functions for Hotel TV linked with software installation can be projected on OSD as 'Installation Menu'.
The wide range of hotel features can be performed simply on additional window to enhance the LG hotel TV's easy installation and convenient operation for Hotelier and System Integrators.

1   Press the Setting button for more than 5 seconds using the user remote control, programme information will appear at top left on the screen.
2   Enter a four digit password and press '**OK'** button.
    −   The TV is set with the initial password "1-1-0-5".
3   Use the ∨ ∧ button to select the desired menu.

LG HOTEL MODE

1   Use the ∨ ∧ button to select the **LG HOTEL MODE SETUP**.
2   Use the '**OK**' button and then ∨ ∧ button to select Hotel Mode Operation.
    –   When 'Hotel Mode Operation' is set to On (Work), all functions of Hotel Mode apply.

Hotel Mode Operation

    –   Decide to work all functions of 'Hotel Mode Operation' or not by setting 'Hotel Mode Operation' as On(Work) or No(Do Not Work)
    –   When 'Hotel Mode Operation' is set to On(Work), all functions of Hotel Mode apply.
    –   When 'Hotel Mode Operation' is set to No(Do Not Work), all functions of Hotel Mode Do Not apply.
    –   When it is set to 'On', 'Key Lock' item of the User menu is disabled and the OSD is displayed same to the Local Key Operation setting of the Hotel mode.
    –   When it is set to 'On', all items reserved at the Schedule list are deleted and the reservation function is not supported.(applied for the model offering the reservation function)
    –   The TV triggered by the external device (ex: SIMPLINK, TVLink-Tuner, etc.) operates separately from the Hotel mode.
    –   When it is set to 'On', User Menu → General → 'Reset to Initial Settings and Demo Mode' are disabled.
    –   When 'Hotel Mode Operation' is set to On(Work), all skipped programs are not tuned by number keys.
    –   When 'Hotel Mode Operation' is set to On(Work), Detailed Information about the programme is not available in the EPG.

Power On Status

    –   Decide to select working status of TV Set when turn on main power.
    –   You can set with PWR, STD, LST.
    –   PWR always make TV set On status when turn on main power .
    –   STD make Stand-by status when turn on main power.
    –   LST make TVSet work like previous power status. As same concept as Power Backup mode; If main power were turned off in Power On status, TVSet would work in On status. If main power were turned off in Stand-by status, TVSet would work in Stand-by status.
    –   If there Block All is both IR Operation and Local Key Operation from Key Management, In order to provide the Option that must be able to turn on the TV in the TV turned off situation, change the value of the PWR. (Reference the Key Management)

Volume

- Decide to apply volume policy of 'Start Volume', 'Maximum Volume' and 'Minimum Volume' as On(Work) or No(Do Not Work).
- $(0 \leq Min \leq Start \leq Max \leq 100)$

Start Volume

- This entry sets the start volume level when is power on.
  - The level is specified as a number between minimum volume to maximum value. $(Min \leq Start \leq Max)$
  - The default setting is 'Off' (disabled).
  - When enabled, if the value is lower then the minimum specified in the minimum volume entry, the minimum volume entry must be used.
  - When enabled, if the value is larger then the maximum specified in the maximum volume entry, the maximum volume value must be used.
  - Access to a volume in 'On Timer' must be fixed to start volume when 'Hotel Mode Operation' (Yes) and 'Start Volume' (Off, 0 ~ 100) were set simultaneously.

Maximum Volume

- This entry sets the maximum volume level the set. The level is specified as a number between 'Minimum Volume' to 100. $(Min \leq Max \leq 100)$.
  - If the command volume up to higher than maximum volume' is received, that should be ignored.
  - The default value is 100.

Minimum Volume

- This entry sets the minimum volume level the set will produce.
  - The level is specified as a number between 0 to 'Maximum Volume'. $(0 \leq Min \leq Max)$
  - If the command volume down to lower than minimum volume is received, that should be ignored.
  - The default value is 0.

Key Management

- Manage key usability of Local(Front) Key and Remote Control. When selected to 'On', following 'IR Operation' and 'Local Key Operation' will be worked by below.

IR Operation

- Decide whether work the LG remote control or not.
  - When 'IR Operation' is set to 'Normal', all remote keys are available.
  - 'Use PWR Only' makes block all remote keys except power key.
  - When 'IR Operation' is set to 'Block All', all normal remote keys don't work.

Local Key Operation

- Decide to operate 'Local/Front Key' working behavior by setting 'Local Key Operation' as 'Normal', 'Use PWR Only' and 'Block All'.
  - When 'Local Key Operation' is set to 'Normal', all local keys are available.
  - 'Use PWR Only' makes block all local keys except power key.
  - When 'Local Key Operation' is set to 'Block All', all local keys don't work.

Limited Mode

- – Configure TV function's limitation. When selected to 'Yes', following sub-menus will be worked by below.

Setup Menu

- – Decide to enter 'Setup' Menu as 'Yes'(Enter possible) or 'No'(Enter impossible)

Programme Change

- Decide to change channel or not by setting 'Program Change' as 'Yes'(Change Possible) or 'No'(Change Impossible) when present source is TV.
  - – When 'Programme Change' is set to No (Change Impossible)
    - » Program Key, Numeral Key, List Key, Q.View Key don't work and entering 'Channel Menu' in the Main Menu OSD is impossible.
    - » 'Programme' item in 'On Time' menu will be fixed.
    - » Entering 'Setup Menu' in the 'Main Menu' OSD is impossible regardless of 'Setup Menu' item.
  - – When 'Program Change' is set to Yes(Change Possible), 'Program Key', 'Numeric Key', 'List Key', 'Q.View' Key does work and entering 'Channel Menu' in the Main Menu OSD is possible.

Menu Display

- Function to decide whether work with menu (including relevant menus too) of control key (Yes – Enter possible) or not (No – Enter Impossible).
  - – Although select No(Enter impossible), the action that press a Menu button for 5 seconds to enter 'Installation Menu' is available.
  - – When select Yes(Enter possible), Menu works.

OSD Display

- Decide to display OSD or not by setting 'OSD Display' as Yes(Display) or No(Do not Display).
  - – When 'OSD Display' is set to 'No'(Do not Display), all OSD is not displayed except some exception.
  - – Although select 'No' (Do not Display), the action that press a Menu button for 5 seconds to enter 'Installation Menu' and entering service menu are available. (In-Start, Power-Only, Adjust, Installation Menu…)

System Provider Mode

- 'System Provider Mode' allows access to the menu system from the front panel or remote control but access is controlled as follows:
  - – When value is 'Yes', Accessible Items on the menu system, others are not permissible.
    - » Input select screens
    - » Sleep timer
    - » Aspect Ratio
    - » Subtitles
    - » Programmes (Except for Programme Tuning & Settings and Programme Manager)
    - » 'Safety' / 'Photo&Video/Music' / 'Network' / 'Support' / 'Bluetooth' Menu
  - – 'Q.menu', which is related to 'Setup' Menu, is not accessible.
  - – If the channel map is empty, 'Auto-tuning' guide dialog should be blocked by pressing 'List', 'Fav', 'CH+', 'CH-' keys.

DTV Programme Update

- – It is a mode to set whether to update dtv Programme automatically or not.
- – When DTV Programme Update is set to 'Auto', the function to update TV's programme map according to dtv programme's stream information.
- – DTV Programme Update is set to 'Manual', the function to keep TV's programme map even though dtv programme's information is changed.

Power On Default

- – Set the channel to display and Volume Level, etc. when turn on power in AC Power On or Stand-by status.
- – Set to Yes(Work) or No(Do Not Work).
- – When 'Power On Default' is set to No, it is not applied to the subordinate Input, Programme, A/V Setting, Aspect Ratio menu.
- – When Power On Default is set to Yes, it can set by entering the subordinate menu.

Input

- – Set whether it is turned on by the set input source or by the last stored input source.

Programme

- – Select start channel number if Input source's value is TV.

A/V Setting

- – If 'A/V Setting' is changed from 'Off' to 'On', A/V parameters that are set before entering 'Installation Menu' are applied whenever turn on power.

Aspect Ratio

- – The aspect ratio determines the default aspect ratio that the set returns to on power up.

Aux Source Setting

- – Set to Yes(Work) or No(Do Not Work).
- – The Auxiliary (Input) Source Setting feature will enable or disable for each external input.
- – User cannot disable the current input's 'Aux Source Setting'.

Power Management

- • The Power Management feature will turn off the television receiver if no input control command is received from either the Local or IR Key within a selected hours.
  - – Activity on either of these inputs shall reset the 'Power Management' timer and prevent interruption of TV viewing.
  - – This entry can be set to a value which is corresponding to the desired hours (1Hour to 7Hours).
  - – Default value is 'Off(disabled)'.

Radio Video Blank

- – Set to Yes(Work) or No(Do Not Work).
- – Programme that is set to 'Radio Programme' and only has Sound should decide whether to set 'Video Blank' or not.
- – When 'Radio Video Blank' is set to Yes(Work), 'Video Blank' works only in case of Radio Programme.
- – Although set to Yes(Work), if there are Video signal, 'Video Blank' wouldn't work. In consideration of case that display background screen and broadcast only with Radio, 'Video Blank 'works only when there is no Video signal.
- – When set to No(Do Not Work), 'Video Blank' do not work although it is the Radio Programme.
- – This operates only in the Analog TV Mode.

Factory Reset

- – Change all settings to their default values.

NETWORK

1   Use the ∨ ∧ button to select the **NETWORK**.

MAC Address

– Displays the MAC address (not customizable).

Network Setting

One-click network connection

– Connects easily to a wired/wireless network.
– Network Connection to connect to an available network automatically. Follow the prompts on the TV.

To connect to a network through Set Expert

– For use in special circumstances such as in offices (in cases where a static IP is used).
1   Select a network connection, either Wired or Wireless.
2   When connecting via Wired, Configures the IP settings of the TV set. You can set the IP address, subnet mask, gateway and DNS server.
3   When connecting via Wi-Fi, use the one of the following network connection methods.

AP List	Connects to the network selected from the AP List.
Enter the SSID	Connects to the wireless AP typed in.
WPS-PBC	Connects easily when the button of a wireless AP supporting PBC is pressed.
WPS-PIN	Connects easily when the PIN of the wireless AP that you wish to connect to is entered in to the AP website.
Advanced Wi-Fi Settings	After connects Wi-Fi, you can set the IP address, subnet mask, gateway and DNS server.

ENGLISH

IP Stream Control

(Depending on model / except for UV34**)

Audio PTS Offset

– Controlling output stream timing of audio.
– You can set the '-500~500' (Change step is -10 or +10)

Video PTS Offset

– Controlling output stream timing of video.
– You can set the '-500~500' (Change step is -10 or +10)

IGMP

– You can set IGMP version. (2 or 3)

Wake On LAN

• Sets the Wake On LAN function to Enable or Disable.
    – The Wake On LAN feature enables the TV to receive software updates and/or be powered ON upon receipt of Wake Up Frame packets and/or Magic Packet data via the wired LAN. To facilitate use of this feature, note that the appropriate wired connection must be made.

PRO:CENTRIC

(Except for UV34**)

1   Use the ∨ ∧ button to select the **PRO:CENTRIC**.

Mode

- – Sets whether or not enable Pro:Centric and the service method .
- – You can set to Off, Configuration Only, Flash(Except for Iran), GEM or HTML using the ∨ ∧ button . The default value is Off; when it is set to Off, all the sub items are disabled. (Except for WORF, Room Number Setting)

WORF

- – Press the '**OK**' button in 'WORF Setting' item to go to the 'WORF' menu.
- – When WORF is set to 'On', Hour and Minute items are enabled and then the WORF function is enabled.
- – When WORF is set to 'Off', 'Hour' and 'Minute' items are disabled and then the WORF function is disabled.

Media Type

- – Sets the Meium type to RF or IP.
  The default value is RF.

RF

- • Data Channel Freq(KHz)
  - – Sets the RF frequency at which the Pro:Centric data is received.
- • Data Channel Type
  - – Sets the RF modulation type to DVB-T or DVB-C.
    The default value is DVB-C.

IP

- P:C IP Setting
    - Server Address is set to IP Address

(IP a)	Sets the first number in the IPv4 address.
(IP b)	Sets the second number in the IPv4 address.
(IP c)	Sets the third number in the IPv4 address.
(IP d)	Sets the fourth number in the IPv4 address.
(Port Number)	Sets the actual port number where the Pro:Centric server is running.

    - Server Address is set to Domain Name

(Domain Name)	Sets the domain name where the Pro:Centric server is running.
(Port Number)	Sets the actual port or number where the Pro:Centric server is running.

    - The default value of IP a/b/c/d is 0 and the range is between 0 and 255. The default value of Port is 0 and the range is between 0 and 65535.

Receive Data

    - Sets Enable or Disable. When it is set to Disable, all the sub items are disable.

Native EPG

- Disable
- Enable
    - You can use the TV Guide Application in Pro:Centric.

Room Number Setting

    - Press the '**OK**' button in Room Number Setting item to go to the 'Change a room number' menu.
    - You can set or change Label and Room Number using the Room Number Setting.

GENERAL

Configuration Setup

Select RCU

– It is a mode to set whether to use Select RCU or not. When 'Select RCU' is set to 'Enable', You can adjust 'Number of RCU' menu.
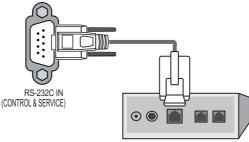
Number of RCU

– It is a mode to set Number of RCU.
Number of RCU value range 1~9. (When 'Select RCU' is set to 'Enable')
Number of RCU value range 0. (When 'Select RCU' is set to 'Disable')

* RCU(Remote Control Unit) : It is special RCU that operates only setted number of RCU in TV.

RS232 DC Power Outlet
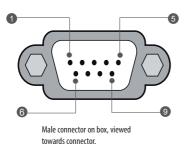
(Except for UV34**)

- – It is a mode to decide whether to output DC or not for power supply to IB Box in Installation Menu. We offer a output terminal in one Pin of RS232C Jack for the use of communication.
- – 5 V DC Power Outlet and 12 V DC Power Outlet must operate mutually exclusively. That is, only one of the two sides must be turned on.

- ► You can select 'OFF', '5 V' or '12 V' by pressing < > button.
  - • When select '5 V' the 5 V is forwarded through the port. when select '12 V' the 12 V is forwarded through the port.

RS-232C IN
(CONTROL & SERVICE)

Interface box

- • Type of Connector: D-Sub 9-Pin Male

Male connector on box, viewed towards connector.

No.	Signal	Signal requirements
1	VCC	
2	RX RS232	Standard RS232 specification
3	TX RS232	Standard RS232 specification
4	IR from TV	
5	GND	Power ground
6, 8	Not connected	
7	2 A	+5VDC 10%, max 100mV ripple
9	1.5 A	+12VDC 10%, max 100mV ripple

One Channel Map

- – If 'One Channel Map' is 'Yes', the TV will operate as below.
  - • A. When the TV is auto-scanning, it searches both air and cable channels.
  - • B. User can assign a channel number him/herself by manual scan.
  - • C. In 'Programme Edit' window, all channels are shown in a single list regardless of input source.
  - • D. Automatically scanned channels may not have the user-desired channel numbers.
- – If user change the 'Yes/No' value, an pop-up window will be displayed to warn that all channel information will be deleted. The Default value is 'Yes'.

DTV Programme Update

- – It is a mode to set whether to update DTV programme automatically or not.
  When DTV Programme Update is set to 'Auto', the function to update TV's programme map according to dtv programme's stream information.
  DTV Programme Update is set to 'Manual', the function to keep TV's programme map even though DTV programme's information is changed.

On Timer Operation

– It is a mode to select 'On Timer Operation' working one time or repeatedly.
'ONE' : 'On Time' in the user menu operates only one time when the 'On Time' menu is set to 'ON'.
'Repeat' : 'On Time' operates repeatedly when the 'On Time' menu is set to 'ON'.

Radio Name Display

– Instead of "Audio Only", the name of a radio channel is displayed on the screen when a radio broadcast is playing.
– Set to Yes(Work) or No(Do Not Work).
– If the setting is "Yes", the name of a radio channel is displayed for the radio channel.
– If the setting is "No", the text "Audio Only" is displayed for the radio channel.

USB Auto Playback

(Depending on model)
– When 'USB Auto Playback' is set to 'Movie', TV finds and plays the USB's movie files located at the root(top) directory Movies if USB is plugged in.
– When 'USB Auto Playback' is set to 'Photo', TV finds and plays the USB's photo files located at the root(top) directory Photos if USB is plugged in.
– If it reaches the last file, it starts the first file again.

Teletext

(Depending on model)
– 'Teletext' function can be operated only in Australia.
– If Teletext is set to On, the teletext mode stays enabled even when the channel signal disappears on the teletext screen.
– If Teletext is set to Auto, the teletext mode is disabled when the channel signal disappears on the teletext screen.

15Min Auto Off

– When '15Min Auto Off' is set to 'Enable', TV will turn off if there is no signal in 15Min.

DVB-C

(Depending on model)
– DVB-T/C programmes (channels) are searchable and selectable like following if DVB-C is "Enable".

Auto Sensing

– If 'Auto Sensing' is set to 'On', the input is automatically switched when the input signal that you set to "ON" is received.
– If 'Auto Sensing' is set to 'Disable', the input is not switched when the input signal is received.

*   SIMPLINK and Auto Sensing cannot work simultaneously. If SIMPLINK is set to On, Auto Sensing is automatically set to Disable.
*   If the signal is removed while Auto Sensing (automatic input switch) is enabled, the input returns to the previous setting.
If the several input are connected by enabling Auto Sensing and the automatic input returns to the previous setting.
If the several inputs are connected by enabling Auto Sensing and the automatic input switch is performed several times, the input returns to the previous setting only for the last input and does not repeat the operation for the rest.

InStant On

(Depending on model)

– Set to 'Instant On Mute Mode' or 'Instant On Reboot mode' to enable the Instant ON feature. The Instant ON feature allows the TV to turn ON when AC power is applied, but with video and audio muted (Muted ON). The TV retains its ON status while appearing to be OFF. Pressing the POWER button toggles Off/On the video and audio mutes, so that the TV appears to turn ON instantly.

* If this item is set to Instant On Mute Mode, the TV will not reboot to check for and download updates at turn OFF. TV seems to be turned off to user(panel is off), but both micom and chipset are on.
* If this item is set to Instant On Reboot mode, the TV will reboot to check for and download updates from the Pro:Centric server at every turn OFF.

Insert Image

– Set to Yes(Work) or No(Do Not Work).
– It is a mode to decide whether to display background image when using Bluetooth Sound Sync app or watching Radio channel.
– You can download the background image at TV Manager app.

No Signal Image

(Depending on model)

– Set to On or Off.
– It is a mode to decide whtether to use no signal image when there is no signal.

DPM

(Only UV34** model)
– You can configure the DPM (Display Power Management) function.
– If this option is not set to Off, the TV set enters the DPM mode when there is no input signal.
– If you set this option to Off, the DPM function is disabled.

Sustain Aspect Ratio

(Only UV34** model)
– Sustain Aspect Ratio sets the power mode of the HDMI Switching IC, which detects HDMI external input signals in the TV Standby state after DPM Power Off turns off the TV.
– If Sustain Aspect Ratio is set to ON, the HDMI Switching IC is supplied with power even in Standby state after DPM turns off the TV.
– If Sustain Aspect Ratio is set to OFF, the HDMI Switching IC maintains low power mode in Standby state after DPM turns off the TV.

External Speaker

(Depending on model)

Volume Control

– Selects the volume control method of an external speaker.
You can select 'Off', 'Int Variable', 'Fixed.','Ext Variable' by < > pressing button.
Ext Variable uses the External Vol Up/Down Control Line to change the volume up to 1 Watts.
Int variable is linked to the main volume OSD and change the volume 0 - 1 Watts.
Fixed produces a fixed output. The default is Off.

Output

– This item is enabled when Volume Control is set to Fixed. You can choose one of 7 steps.(0.01/0.03/0.05/0.1/0.2/0.5/1 Watts). The Default is 1 Watt.

Set ID Setup

Set ID Lock

– Set the 'Set ID' item in 'GENERAL' Menu whether to activate or not.
– Set to Yes(Work) or No(Do Not Work).

Set ID

– Set the 'Set ID' of TV Set with 1~99.

Power Saving

Static Saving

– It is the item for setting the level to reduce the backlight control from the items for saving the consuming power, which is increased or decreased by 10 steps from 0 to 100. 100   makes the consuming power set to the same one from the TV. 0 reduces the consuming power to the minimum. The default value is 100.

* The value displayed at the OSD is not changed and only the actual setting value is converted to percentage based on the static saving value to set.

* 0 ~ 30: HIGH, 40 ~ 60 : MID , 70 ~ 90 : LOW , 100 : OFF

Keyless Off Hours

– Automatically TV will be turned off if there is no key input for the preset time period.

* Set the 'OFF', '1~99'.

HCEC Setup

CEC Mode

- You will have 3 modes to choose [Default], [HCEC] and [TVLink-CEC]. (Depending on model)
- If [Default] is selected, you can use SIMPLINK which is provided in LG TV. Also you can enable and disable SIMPLINK through SIMPLINK MENU.
- If [HCEC] is selected, you can use TVLink-HCEC Protocol. For more detailed information, please refer to TVLink-HCEC Protocol document)
- If [TVLink-CEC] is selected, TV will not directly work for key input except for power key. And volume related keys will work just in case of Follower volume control mode. (for more detailed information regarding the scenario of volume control, please refer to "TVLink-CEC protocol" document)

IR Decoding

- When 'IR Decoding' is set to 'Yes', the TV decodes and changes it into a CEC Message and sends it to Command via the HDMI CEC Line. The default value is No.

Device ID

- Sets the ID of a device(Logical Address) connected to the CEC Line. You can choose between 'All' and 'E'.
- The default value is 'All'.

StandBy

- Set the sending and receiving scenario of OpStandBy(0x0c) command.
- Ths detailed scenario is described on the table below.

	Send	Receive
Send Only	0	X
Receive Only	X	0
All	0	0
Off	X	X

Forced Initialize

- This setting will be enabled When CEC mode is set as 'TVLink-CEC'
- If 'Enable" is selected, TV will change its input source to HDMI1 by any HDMI-CEC simulation from a device.

HTNG Hotel Mode

- If you use following functions via TVLink-HCEC, HTNG Hotel mode will be set as "Yes" automatically. (*Power On Default, Start Volume, Maximum Volume, Minimum Volume, or Start Volume)
- Even if 'Hotel Mode Operation' is set as No, above settings are still effective.

Clock Setup

Clock Display

(Except for UV34**)

- – You can select 'YES' or 'NO' by pressing ∨ ∧ button.
- – After selecting 'YES', you can see the LED Clock TV.

Dimming Standby

(Except for UV34**)

- – Standby Dimming value Range : 0~15 (Only UW76**, UW95**)
- – Standby Dimming value Range : 1~2 (Only LV75**)

Dimming PowerOn

(Except for UV34**)

- – PowerOn Dimming value Range: 0~99 (Only UW76**, UW95**)
- – PowerOn Dimming value Range: 1~5 (Only LV75**)

Clock Source

- – You can select 'Off', 'Pro:Centric', 'TV', 'NTP', 'Admin' by pressing ∨ ∧ button.
- – NTP : Clock is synchronized using Network Time Protocol. It's only enabled when network cable is connected.
- – Admin : It's automatically set to Admin when clock is updated by commercial protocols like TVLink-HCEC, TVLink-Interactive, or HCAP API.

- • **Input (Depending on model)**
  - – You can select 'Input' according to 'Clock Source'.
  - – You can select 'RF' or 'IP' when Clock Source is 'Pro:Centric'.
  - – You can select TV source when Clock Source is 'TV'.
  - – Input is set to 'None', 'HCAP', 'Protocol', 'HTNG' automatically when Clock Source is 'Admin'.

- • **Program/Frequency (Depending on model)**
  - – Sets the Frequency to get the time information when Clock Source is 'Pro:Centric'.
  - – You can select Program when Clock Source is 'TV'

- • **Timezone(City) /Timezone(Custom) /Timezone(Offset) (Depending on model)**
  - – In the case when there is difference between the time information received from the Teletext and the time of the current area, it can be set up to correct this. The initial value is 0, and it can be changed in the range of -12Hrs ~ +14Hrs. (Timezone(Offset) range is -12Hrs ~ +12Hrs)

Password Change

– To ensure more security, Password can be changed by installers' own design.

1   Use the ∨ ∧ button to select the **CHANGE** and then press the **OK** button.
2   Enter four digit password.
3   Input the password again for confirmation.

PreLoaded App

1   If you want to use a particular app, you can choose from the menu. you can setting each apps activation.
2   You can check or uncheck by pressing '**OK'** button.

Lock Mode

– If 'Lock Mode' is 'Yes', the following features will be unavailable.

*   USB Enable(Exclude S/W update)
*   Factory Reset

Crestron

(Only UV34** model)
– This function enables synchronization with applications provided by Crestron.
– Server: This menu sets the server's IP address for the network connection with the server (equipment provided by Crestron).
– Port: This menu sets the port for the network connection with the server. The default port number is 41794.
– IP ID: This menu sets a unique ID for synchronizing with the application.

MEDIA SHARE

► You can setting Whether to use for "SmartShare"

SmartShare

– Smart Share enables DLNA function. If this value is enabled, TV act as Digital Media Player (DMP) and display Digital Media Service(DMS) contents through Smart Share app.

Screen Share

– Screen Share enables WiFi p2p functions such as Miracast and WiDi. If this value is enabled, Screen Share app is displayed at launcher bar and User can connect to TV by user's Miracast enabled mobile phone or WiDi enabled laptop

Media Renderer

– Media Renderer enables the TV to act as a Media Renderer device to receive content from DLNA Certifi ed devices on the same network.

Bluetooth Sound Sync

- Bluetooth Sound Sync enables Bluetooth sound from the mobile device of player. If this value is enabled, phone can pair to TV and user can hear the sound of player through the TV.
- Supported device : Mobile device based on Android (higher than v4.4 Kitkat) / iOS
  » support the lower than v4.4 (Kitkat) on the LG mobile device based on Android
- Supported version : Higher than Bluetooth 3.0

Alljoyn

(Depending on model)
- Alljoyn enables Alljoyn service so it can connect the devices through the local ntework in the room. (Only same IP or PLC Not Bluetooth.)

DIAL

(Depending on model)
- With this DIAL service, you can launch the target app at Smart Home Launcher bar without select the target app by remote controller. The target app should be already selected at Installer Menu > General > Preloaded App.

TV Name

- When other media device(ex: smart phone, desktop, laptop) searching TV, this string was displayed.

SoftAP

- If you want to use SoftAp menu on **MEDIA SHARE** menu, you must select 'Yes' in this item.
  A SoftAP is a function of TV which is used like Access Point.

Use Default

- If you want to use default password(this password was generated randomly), you must select 'yes' in this item.

Security Key

- When guests want to use TV's SoftAP function, they need this password. If you want to change this default password, you need to Change 'Use Default Setting' value into 'NO'.

Wi-Fi Signal Strength

- You can control wireless signal strength on SoftAP mode. This is controlled by 5 step. If you select 'Not Used', wireless signal strength will be set to Max value.

Wi-Fi Channel

- You can control wireless channel on SoftAP mode. This is controlled from 1 to 11 channel. If you select 'Auto', wireless channel of SoftAP will be set to random channel.

TV MANAGER

USB Download Menu

*   **USB Cloning** : An Installer can quickly set up and clone multiple TV sets at a property. These cloned TVs will all have the same Master TV Setup: Public Display Mode Installation Menu settings, User A/V settings and the Channel Map. This newer procedure significantly decreases the installation time that would be necessary if the standard RS-232C method were used instead.

1   Overview USB Cloning Procedure
    : Commercial TVs have the capability to support cloning internal TV data and programme information with an external clone device called "USB Cloning", in order to copy TV data accurately and quickly. The clone internal functions use slightly different internal processes for the two types of commercial TVs. However, the UI of cloning feature remains the same in both. Regarding the demands over the current cloning feature for quicker cloning, better portability and etc, we would like to announce the cloning process via USB port, named as USB Cloning. USB cloning process is divided into 2 main processes. One is writing the previously saved TV data into the TV, and one another is reading of current TV data into USB memory card. To avoid any confusion due to the words, it is clearly specified as "Import Clone File" and "Export Clone File" in the whole process.

2   Data To Be Cloned
    : The data cloned are the same data cloned by previous USB Cloning. Details are explained in the following:
    – TV data includes :
       • A. Installer Menu settings
       • B. Main menu settings (Audio, Picture etc)
    – Analog / Digital Channel information includes:
       • A. Channel numbers
       • B. Channel label
       • C. Channel attributes including channel type, skipping status and etc.

3   Input Source
    : The user needs a USB memory card with FAT formatted to make successive cloning via USB port. A USB memory card size more than 128 Mega Bytes and less than 4 Giga Bytes is recommended.

ⓘ NOTE

- Currently, support the preceding USB file system for FAT file format only. Other file formats including NTFS is not currently supported. Microsoft Windows officially supports FAT for the USB memory card.
- Only a USB storage device is recognizable.
- If the USB storage device is connected through a USB hub, the device is not recognizable.

ENGLISH
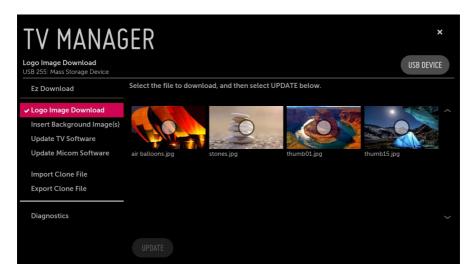
Ez Download

- Ez Download is a function that enables users to download the desired items all at once, such as EPK (software update file), TLL, Logo Image, Background Images, Micom.

  * Splash images and EPK files should be copied into the folder named LG_DTV on the USB.

- TLL files should be copied to the root folder of the USB.
- If you press 'EZ Download' menu, EZ Download is launched.
- Supported file type have to be shown and "None" checked when the is existed in USB. And only one item should be checked on each file format when the page is opened.
- If .DZM file exist file will be selected previously download file.

⊘ **NOTE**

- If the DZM file is still in the USB after the download is complete:
  An Ez Download pop-up window will appear and list the file types, such as TLL,Logo Image,Background Images,EPK or Micom with the previously downloaded lists checked automatically.
- If the global TLL and model TLL files exist in the same USB root directory, then only the global TLL will be shown.
- If the global TLL has been deleted, then the model TLL will be shown.

Logo Image Download
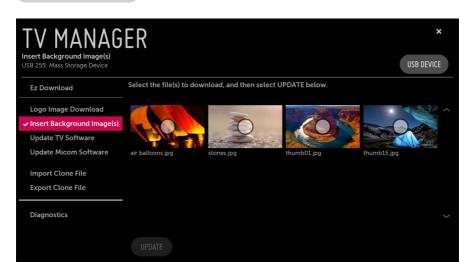
- – If there are more than two USB Memory Device, It is possible to select the USB.
- – The download sequence is Logo Image Download -> Select Image -> UPDATE.

ⓘ NOTE

- • Splash Image update function supports only JEPG,BMP format file of less than 8 MB filesize.
- • We recommend you that splash image resolution match the TV`s panel resolution.
- • Max resolution of splash image : Full HD ⟶ 1920 x 1080, HD ⟶ 1360 x 768.
- • Min resolution of splash image : Full HD ⟶ 64 x 64, HD ⟶ 64 x 64.
- • TV keep splash image until you change a new splash image.
- • The target file is located in LG_DTV folder.

Insert Background Image(s)

- – This feature downloads Insert Background Image(s) from USB.
- – Images should be copied to LG_DTV of the USB.
- – The download sequence is Insert Background Image(s) -> Select Images -> UPDATE.

! NOTE

- • Maximum number of images that you can update at once are 12.
- • If you updates the images, original images will be removed.
- • Insert Background Image update function supports only JEPG,BMP format file of less than 10 MB filesize.
- • Max resolution of splash image : Full HD → 1920 x 1080, HD → 1360 x 768.
- • Min resolution of splash image : Full HD → 64 x 64, HD → 64 x 64.
- • If you want to use inserted image in Bluetooth Sound Sync app and Live TV's Radio Programme, please change the value of 'Insert Image' property to enable ('Insert Image' in Installation > General > Configuration Setup).

Update TV Software

TV MANAGER   ✕

Update TV Software
USB 255: Mass Storage Device   USB DEVICE

Ez Download

Logo Image Download
Insert Background Image(s)
✓ Update TV Software
Update Micom Software

Import Clone File
Export Clone File

Diagnostics

Select the file to download, and then select UPDATE below.

Current TV SW Version : 02.10.13

No TV software files on selected USB device.

UPDATE

- This feature update MICOM of TV through the txt file in USB. The target file is located in \LG_DTV folder
- If there are more than two USB memory Device, It is possible to select the USB.
- The download sequence is Update Micom Software -> Select file(Micom) -> UPDATE.

Update Micom Software

TV MANAGER

✕

Update Micom Software
USB 255: Mass Storage Device

USB DEVICE

Ez Download

Logo Image Download
Insert Background Image(s)
Update TV Software
✓ Update Micom Software

Import Clone File
Export Clone File

Diagnostics

Select the file to download, and then select UPDATE below.

Current Micom SW Version : V1.16.0

○ Micom_LX761H-ZA_V1.27_20150627.hex ∧

∨

UPDATE

- This feature update MICOM of TV through the hex file in USB. The target file is located in \LG_DTV folder
- If there are more than two USB memory Device, It is possible to select the USB.
- The download sequence is Update Micom Software -> Select file(Micom) -> UPDATE.

Import Clone File

TV MANAGER   ✕

Import Clone File   USB DEVICE
USB 255: Mass Storage Device

Ez Download   Select the file to download, and then select UPDATE below.

Logo Image Download   ⊙ 32sm5b-md00001.TLL   ⌃
Insert Background Image(s)   ⊙ 49SM5B00001.TLL
Update TV Software   ⊙ WEBOS2_1.TLL
Update Micom Software   ⊙ WEBOS2_2.TLL
                               ⊙ WEBOS2_3.TLL
✓ Import Clone File   ⊙ WEBOS300003.TLL
Export Clone File

Diagnostics   ⌄

                        UPDATE

  – Once the internal TV data and its channel map information is written to the USB memory card, the user can start "Import
    Clone File" process with the data file generated and stored in USB memory card. As previously warned in "Export Clone
    File" process, the user should not turn TV off nor unplug the USB memory card. Detailed steps for "Import Clone File" are
    illustrated below. The following images might be slightly different than the OSD image.

ENGLISH

Export Clone File

TV MANAGER

×

Export Clone File
USB 255: Mass Storage Device

USB DEVICE

Ez Download

Select the filename, and then select EXPORT below.

Logo Image Download

∧

Insert Background Image(s)

WEBOS3_1.TLL

Update TV Software

∨

Update Micom Software

Import Clone File

✔ Export Clone File

Diagnostics

EXPORT

– "Export Clone File" must be done first before "Import Clone File" process, as it generate the file to be used in "Export Clone File". While writing is in process, the user must not turn TV off nor unplug the USB memory card. The steps in "Export Clone File" are explained below. The following images might be slightly different than the OSD image.

IR CODES

• This feature is not available for all models.

Code (Hexa)	Function	Note
08	⏻ **(POWER)**	Remote control Button (Power On/Off)
95	**ENERGY SAVING**	Remote control Button
AF	○**LIVE ZOOM**	Remote control Button
0B	**INPUT**	Remote control Button
F0	**TV/RAD** ▥/▤	Remote control Button
10-19	**Number buttons 0~9**	Remote control Button
53	**LIST**	Remote control Button
1A	**Q.VIEW**	Remote control Button
02	＋◿	Remote control Button
03	◿―	Remote control Button
7C	**SMART**	Remote control Button
09	**MUTE** ⌀	Remote control Button
00	︿**P / PAGE**❙	Remote control Button
B5	**APP**	Remote control Button
01	**P**﹀/**PAGE**❙	Remote control Button
AB	**GUIDE**	Remote control Button
0C	**PORTAL**	Remote control Button
AA	**INFO** ⓘ	Remote control Button
40	∧	Remote control Button
07	<	Remote control Button
41	∨	Remote control Button
06	>	Remote control Button
44	**OK** ⊙	Remote control Button
43	**SETTINGS**	Remote control Button
28	↰	Remote control Button
5B	**EXIT**	Remote control Button
72	**Red** ⬚	Remote control Button
71	**Green** ⬚	Remote control Button
63	**Yellow** ⬚	Remote control Button
61	**Blue** ⬚	Remote control Button
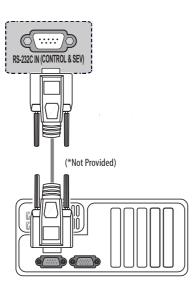
Code (Hexa)	Function	Note
20	▤**TEXT**	Remote control Button
21	**T.OPT**	Remote control Button
39	**SUBTITLE**	Remote control Button
B1	■	Remote control Button
B0	▶	Remote control Button
BA	❚❚	Remote control Button
8F	◀◀	Remote control Button
8E	▶▶	Remote control Button
DC	**3D/**✳	Remote control Button
9F	**DATA/**✳	Remote control Button
91	**AD/**✳	Remote control Button
E8	**ALARM/**✳	Remote control Button

EXTERNAL CONTROL DEVICE SETUP

RS-232C Setup

• Image shown may differ from your TV.
Connect the RS-232C (serial port) input jack to an external control device (such as a computer or an A/V control system) to control the product's functions externally.

Connect the serial port of the control device to the RS-232C jack on the product back panel.

• RS-232C connection cables are not supplied with the product.

(*Not Provided)
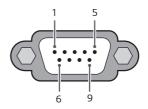
Phone jack Type

(Depending on model)

• You need to purchase the phone-jack to RS-232C cable required for the connection between the PC and the TV, which is specified in the manual.

  * For other models, connect to the USB port.

  * The connection interface may differ from your TV.

(PC)   3 1   4 2   RS-232C IN (CONTROL & SERVICE)   (TV)

Type of Connector : D-Sub 9-Pin Male

No.	Pin name
1	3.5 V
2	RXD (Receive data)
3	TXD (Transmit data)
4	IR OUT from TV
5	GND
6	No Connection
7	No Connection (5 V available in some models)
8	No Connection
9	No Connection (12 V available in some models)

RS-232C Configurations

7-Wire Configurations (Standard RS-232C cable)		

	PC		TV	
RXD	2	3	TXD
TXD	3	2	RXD
GND	5	5	GND
DTR	4	6	DSR
DSR	6	4	DTR
RTS	7	8	CTS
CTS	8	7	RTS

D-Sub 9   D-Sub 9

3-Wire Configurations (Not standard)		

	PC		TV	
RXD	2	3	TXD
TXD	3	2	RXD
GND	5	5	GND
DTR	4	6	DTR
DSR	6	4	DSR
RTS	7	7	RTS
CTS	8	8	CTS

D-Sub 9   D-Sub 9

Communication Parameters

- Baud rate: 9600 bps (UART)
- Data length: 8 bits
- Parity : None
- Stop bit: 1 bit
- Communication code: ASCII code
- Use a crossed (reverse) cable.

IR OUT Using Guide

Suitable / Not Recommend remote-controller data format

Item	Formats
Suitable data format	NEC, RC5, Toshiba
Not recommend data format	Continuous data format (short burst/gap signal)

IR Receiver specifications

Carrier frequency	38 KHz
Peak Wavelength	940 nm
Minimum burst length	16 cycles (420 μs)
Minimum gap time is required of	21 cycles (550 μs)
Data word length	Max. 100 ms
Minimum gap time in the data stream is needed of	30 ms

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
High Level Out Pulse Width	T_{WH}	Burst Wave = 600 μs Period = 1.2 ms	400	-	800	μs
Low Level Out Pulse Width	T_{WL}		400	-	800	μs

⚠ **CAUTION**

• If not use the remote-controller with data formats recommended, IR output signals will be suppressed automatically by IR receiver.
• In this case, LG does not guarantee IR working function.
• To make sure of this matter, here are two methods as below.
  – Use the remote-controller with suitable data formats.
  – Use the IR dongle receiver of the set-top box.

Command Reference List

(Depending on model)

	COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power	k	a	00 to 01
02. Aspect Ratio	k	c	(See p. 50)
03. Screen Mute	k	d	(See p. 51)
04. Volume Mute	k	e	00 to 01
05. Volume Control	k	f	00 to 64
06. Contrast	k	g	00 to 64
07. Brightness	k	h	00 to 64
08. Colour	k	i	00 to 64
09. Tint	k	j	00 to 64
10. Sharpness	k	k	00 to 32
11. OSD Select	k	l	00 to 01
12. Remote Control Lock Mode	k	m	00 to 01
13. Balance	k	t	00 to 64
14. Colour Temperature	x	u	00 to 64
15. Energy Saving	j	q	(See p. 53)
16. Auto Configuration	j	u	01
17. Equalize	j	v	(See p. 53)
18. Tune Command	m	a	(See p. 54)
19. Programme Add/Skip	m	b	00 to 01
20. Key	m	c	(See p. 54)
21. Control Back Light	m	g	00 to 64
22. Input select	x	b	(See p. 55)

- During USB operations such as DivX or EMF, all commands except Power(ka) and Key(mc) are not executed and treated as NG.

ENGLISH

Transmission / Receiving Protocol

(Depending on Model)

Transmission

[Command1][Command2][ ][Set ID][ ][Data][Cr]

[Command 1] : First command to control the TV. (j, k, m or x)

[Command 2] : Second command to control the TV.

[Set ID] : You can adjust the set ID to choose desired monitor ID number in option menu. Adjustment range is 1 to 99. When selecting Set ID '0', every connected set is controlled. Set ID is indicated as decimal (1 to 99) on menu and as Hexa decimal (0 x 0 to 0 x 63) on transmission/receiving protocol.

[Data] : To transmit command data. Transmit 'FF' data to read status of command.

[Cr] : Carriage Return

ASCII code '0 x 0D'

[ ] : ASCII code 'space (0 x 20)'

OK Acknowledgement

[Command2][ ][Set ID][ ][OK][Data][x]

* The set transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[Command2][ ][Set ID][ ][NG][Data][x]

* The set transmits ACK (acknowledgement) based on this format when receiving abnormal data from non-viable functions or communication errors.
Data 00 : Illegal Code

01.   Power (Command: k a)

▶ To control Power On/Off of the set.

Transmission
[k][a][ ][Set ID][ ][Data][Cr]

Data 00 : Power Off   01 : Power On

Ack
[a][ ][Set ID][ ][OK/NG][Data][x]

▶ To Show TV is Power On/Off.

Transmission
[k][a][ ][Set ID][ ][FF][Cr]

Ack
[a][ ][Set ID][ ][OK/NG][Data][x]

* Similarly, if other functions transmit '0 x FF' data based on this format, Acknowledgement data feed back presents status about each function.

* OK Ack., Error Ack. and other message may display on the screen when TV is power On.

02.   Aspect Ratio (Command: k c)
        (Main Picture Size)

▶ To adjust the screen format. (Main picture format) You can also adjust the screen format using the Aspect Ratio in the Q.MENU. or PICTURE menu.

Transmission
[k][c][ ][Set ID][ ][Data][Cr]

Data 01 : Normal screen (4:3)   06 : Original (Just Scan Off)
              (Just Scan Off)   09 : Just Scan
        02 : Wide screen (16:9)
              (Just Scan Off)

Ack
[c][ ][Set ID][ ][OK/NG][Data][x]

* Using the PC input, you select either 16:9 or 4:3 screen aspect ratio.

03.   Screen Mute (Command: k d)

► To select screen mute on/off.

Transmission

[k][d][ ][Set ID][ ][Data][Cr]

Data 00 : Screen mute off (Picture on)

Video mute off

01 : Screen mute on (Picture off)

10 : Video mute on

Ack

[d][ ][Set ID][ ][OK/NG][Data][x]

* In case of video mute on only, TV will display On Screen Display(OSD). But, in case of Screen mute on, TV will not display OSD.

04.   Volume Mute (Command: k e)

► To control volume mute on/off.
You can also adjust mute using the MUTE button on remote control.

Transmission

[k][e][ ][Set ID][ ][Data][Cr]

Data 00 : Volume mute on (Volume off)

01 : Volume mute off (Volume on)

Ack

[e][ ][Set ID][ ][OK/NG][Data][x]

05.   Volume Control (Command: k f)

► To adjust volume.
► You can also adjust volume with the volume buttons on remote control.

Transmission

[k][f][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64

* Refer to "Real data mapping".

Ack

[f][ ][Set ID][ ][OK/NG][Data][x]

06.   Contrast (Command: k g)

► To adjust screen contrast.
You can also adjust contrast in the PICTURE menu.

Transmission

[k][g][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64

* Refer to "Real data mapping".

Ack

[g][ ][Set ID][ ][OK/NG][Data][x]

07.   Brightness (Command: k h)

► To adjust screen brightness.
You can also adjust brightness in the PICTURE menu.

Transmission

[k][h][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64

* Refer to "Real data mapping".

Ack

[h][ ][Set ID][ ][OK/NG][Data][x]

08.   Colour (Command: k i)

► To adjust the screen Colour.
You can also adjust colour in the PICTURE menu.

Transmission

[k][i][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64

* Refer to "Real data mapping".

Ack

[i][ ][Set ID][ ][OK/NG][Data][x]

09.   Tint (Command: k j)

▶ To adjust the screen tint.
You can also adjust tint in the PICTURE menu.

Transmission

[k][j][ ][Set ID][ ][Data][Cr]

Data Red : 00 to Green : 64

* Refer to "Real data mapping".

Ack

[j][ ][Set ID][ ][OK/NG][Data][x]

10.   Sharpness (Command: k k)

▶ To adjust the screen sharpness.
You can also adjust sharpness in the PICTURE menu.

Transmission

[k][k][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 32

* Refer to "Real data mapping".

Ack

[k][ ][Set ID][ ][OK/NG][Data][x]

11.   OSD Select (Command: k l)

▶ To select OSD (On Screen Display) on/off when controlling remotely.

Transmission

[k][l][ ][Set ID][ ][Data][Cr]

Data 00 : OSD off   01 : OSD on

Ack

[l][ ][Set ID][ ][OK/NG][Data][x]

12.   Remote Control Lock Mode (Command: k m)

▶ To lock the front panel controls on the monitor and remote control.

Transmission

[k][m][ ][Set ID][ ][Data][Cr]

Data 00 : Lock off   01 : Lock on

Ack

[m][ ][Set ID][ ][OK/NG][Data][x]

* If you are not using the remote control, use this mode. When main power is on/off, external control lock is released.
* In the standby mode, if key lock is on, TV will not turn on by power on key of IR & Local Key.

13.   Balance (Command: k t)

▶ To adjust balance.
You can also adjust balance in the AUDIO menu.

Transmission

[k][t][ ][Set ID][ ][Data][Cr]

Data L : 00 to R : 64

* Refer to "Real data mapping".

Ack

[t][ ][Set ID][ ][OK/NG][Data][x]

14.   Colour Temperature (Command: x u)

▶ To adjust colour temperature. You can also adjust Colour Temperature in the PICTURE menu.

Transmission

[x][u][ ][Set ID][ ][Data][Cr]

Data Warm: 00 to Cool:64

* Refer to "Real data mapping".

Ack

[u][ ][Set ID][ ][OK/NG][Data][x]

15.   Energy Saving (Command: j q)

► To reduce the power consumption of the TV. You can also adjust Energy Saving in PICTURE menu.

Transmission

[j][q][ ][Set ID][ ][Data][Cr]

Power Saving Function				Level				Description
7	6	5	4	3	2	1	0	
0	0	0	0 Low Power	0	0	0	0	Off
0	0	0	0 Low Power	0	0	0	1	Minimum
0	0	0	0 Low Power	0	0	1	0	Medium
0	0	0	0 Low Power	0	0	1	1	Maximum
0	0	0	0 Low Power	0	1	0	1	Screen Off
0	0	0	0 Low Power	0	1	0	0	Auto

► 'Auto' is available in TV that supports 'Intelligent Sensor'.

Ack

[q][ ][Set ID][ ][OK/NG][Data][x]

16.   Auto Configuration (Command: j u) (Only RGB support model)

► To adjust picture position and minimize image shaking automatically. It works only in RGB (PC) mode.

Transmission

[j][u][ ][Set ID][ ][Data][Cr]

Data 01 : To set

Ack
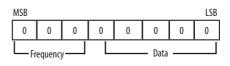
[u][ ][Set ID][ ][OK/NG][Data][x]

17.   Equalize (Command : j v)

► To adjust equalize.

Transmission

[j][v][ ][Set ID][ ][Data][Cr]

MSB   LSB

0	0	0	0	0	0	0	0

└─ Frequency ─┘   └──── Data ────┘

7	6	5	Frequency	4	3	2	1	0	Step
0	0	0	1st Band	0	0	0	0	0	0(decimal)
0	0	1	2nd Band	0	0	0	0	1	1(decimal)
0	1	0	3rd Band	...	...	...	...	...	...
0	1	1	4th Band	1	0	0	1	1	19(decimal)
1	0	0	5th Band	1	0	1	0	0	20(decimal)

Ack

[v][ ][Set ID][ ][OK/NG][Data][x]

ENGLISH

18.   Tune Command (Command: m a)

► Select channel to following physical number.

Transmission

[m][a][ ][Set ID][ ][Data 00][ ][Data 01][ ][Data 02][Cr]

Data 00 : High channel data

Data 01 : Low channel data

ex. No. 47 -> 00 2F (2FH)

No. 394 -> 01 8A (18AH),

DTV No. 0 -> Don't care

Data 02 : [Antenna]

0 x 00 : Analogue Main

0 x 10 : DTV Main

0 x 20 : Radio

[Cable]

0 x 80 : Analogue Main

0 x 90 : DTV Main

0 x A0 : Radio

[Satellite]

0 x 40 : DTV Main

0 x 50 : Radio Main

Channel data range

Min : 00 Max : 270F (0 to 9999)

Ack

[a][ ][Set ID][ ][OK/NG][Data][x]

19.   Programme Add/Skip (Command: m b)

► To set skip status for the current Programme.

Transmission

[m][b][ ][Set ID][ ][Data][Cr]

Data 00 : Skip   01 : Add

Ack

[b][ ][Set ID][ ][OK/NG][Data][x]

20.   Key (Command: m c)

► To send IR remote key code.

Transmission

[m][c][ ][Set ID][ ][Data][Cr]

Data   IR CODES

Ack

[c][ ][Set ID][ ][OK/NG][Data][x]

21.   Control Back Light (Command: m g)

► To control the backlight.

Transmission

[m][g][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64

Ack

[g][ ][Set ID][ ][OK/NG][Data][x]

22. Input select (Command: x b)
     (Main Picture Input)

► To select input source for main picture.

Transmission

[x][b][ ][Set ID][ ][Data][Cr]

Data   Structure

MSB   LSB

0	0	0	0	0	0	0	0

└─ External Input ─┘   └─ Input Number ─┘

External Input				Data
0	0	0	0	DTV
0	0	0	1	Analogue
0	0	1	0	AV
0	1	0	0	Component
0	1	1	0	RGB
0	1	1	1	HDMI
1	0	0	0	
1	0	0	1	
1	0	1	0	

Input Number				Data
0	0	0	0	Input1
0	0	0	1	Input2
0	0	1	0	Input3
0	0	1	1	Input4

Ack

[b][ ][Set ID][ ][OK/NG][Data][x]

* **Real data mapping**

00 :	Step 0
⋮	
A :	Step 10 (Set ID 10)
⋮	
F :	Step 15 (Set ID 15)
10 :	Step 16 (Set ID 16)
⋮	
64 :	Step 100
⋮	
6E :	Step 110
⋮	
73 :	Step 115
74 :	Step 116
⋮	
CF :	Step 199
⋮	
FE :	Step 254
FF :	Step 255