



TECHNICAL DOCUMENT

LG WebOS 2 Setup Guide

This document is designed to act as a setup guide for LG WebOS 2 players.

LG WebOS 2 Setup Guide

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Installation

Plug the screen in and power on.

A keyboard can be plugged into the screen to assist with setup.

If this is an out of the box setup, start at **Step 1**. Otherwise, go to **Step 2**.

Setup

1. Using the remote, select your **Language**, **Continent**, **Country** and, if applicable, **Time Zone**.
2. Press **OK**.
3. Enter **8080** and press **OK** on the remote.
4. A server menu will now appear. Change the **Application Launch Mode** to **Remote** and the **Fully Qualified Domain Name** to **On**.
5. Now enter your CMS URL into the URL text box using the following format:


```
http://cms*****.domain.com/soc
```

or

```
http://<IPaddress>/soc
```

Note: Ensure that you append `\/soc` to the end of the URL.

6. Now press the **Back** button in the top right of that menu and reboot the player.
7. The player will now connect to the CMS and install the **Install Code** page. This may take a few minutes and the player may reboot.


The install code can be found by navigating to the **Manage Players** page of the CMS and selecting the **Settings**  icon in the left-hand panel. Here you will be able to manage multiple configurations. Each configuration on this page will have its own unique install code.











Downloading Content


1. Type in the install code using the LG remote or a keyboard.
2. The factory-shipped install code is **DEFAULT0** (this is the default configuration).
3. Press **Enter** on the keyboard or **OK** on the remote.
4. You should see the **Player Installation Progress** screen.
5. Once the player has installed, it will automatically reboot.
6. If the channel has been published, the player will download content and switch to playback mode.

Note: If the channel has not been published, it will show you the channel ID and wait for it to be published on the CMS.

Installing Configurations

1. On the CMS, click on the **Manage Players**  icon or navigate to **Home > Manage Players**.
2. Select the relevant player from the list.
3. Click on the **Actions** tab.



Player Info	PLI	Actions	Action History	Alarms
Get Screen Shot				
Get Support Snap Shot				
Display On Screen Diagnostics				
Preview Channel				
Reboot Player		Last Rebooted: 03:21 PM 08/30/2019		
Update Player Software		Last Updated: 03:14 PM 08/30/2019		
Update Firmware				
Reinstall Player		<input type="text" value="Default configuration"/>	 	Last Install: 03:07 PM 08/30/2019

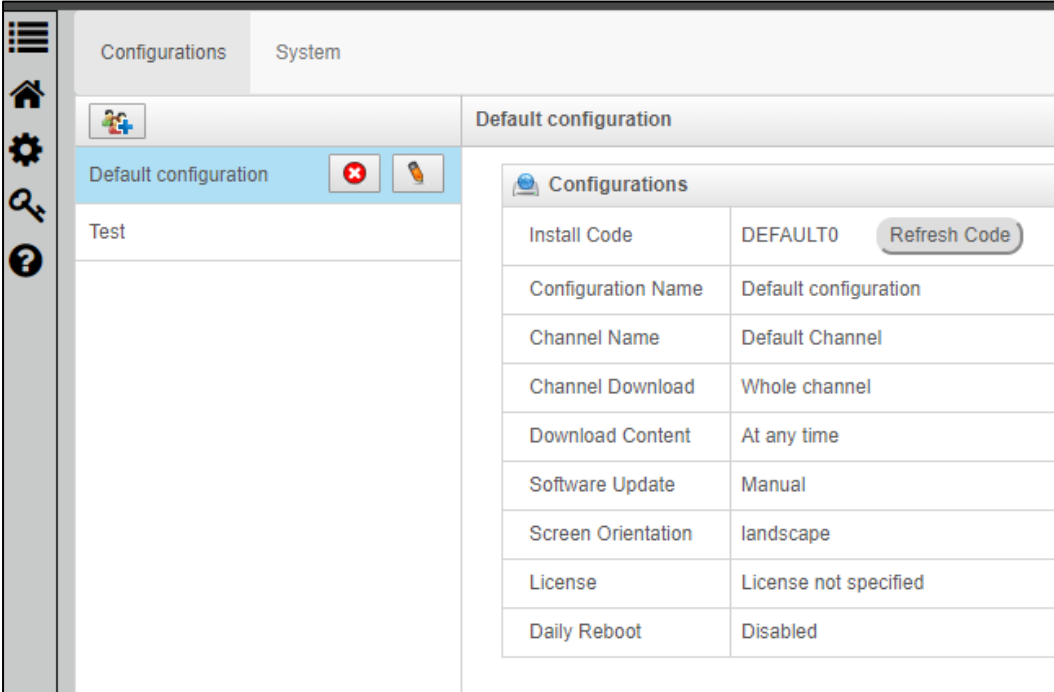
4. Click on the **plug**  icon.
5. Select the preferred configuration from the drop-down menu.

Note: During initial setup, when a SoC player displays the install code page, you can use the reinstall feature on the CMS to install the player. This allows for a remote install rather than typing an install code into each player.

6. Click the tick button and the new configuration will install.

Creating Configurations


1. Click the **Manage Players**  icon in the top right-hand corner of the CMS. You can also reach this page by navigating to **Home > Manage Players**.
2. Click the **Settings**  icon on the left-hand side.



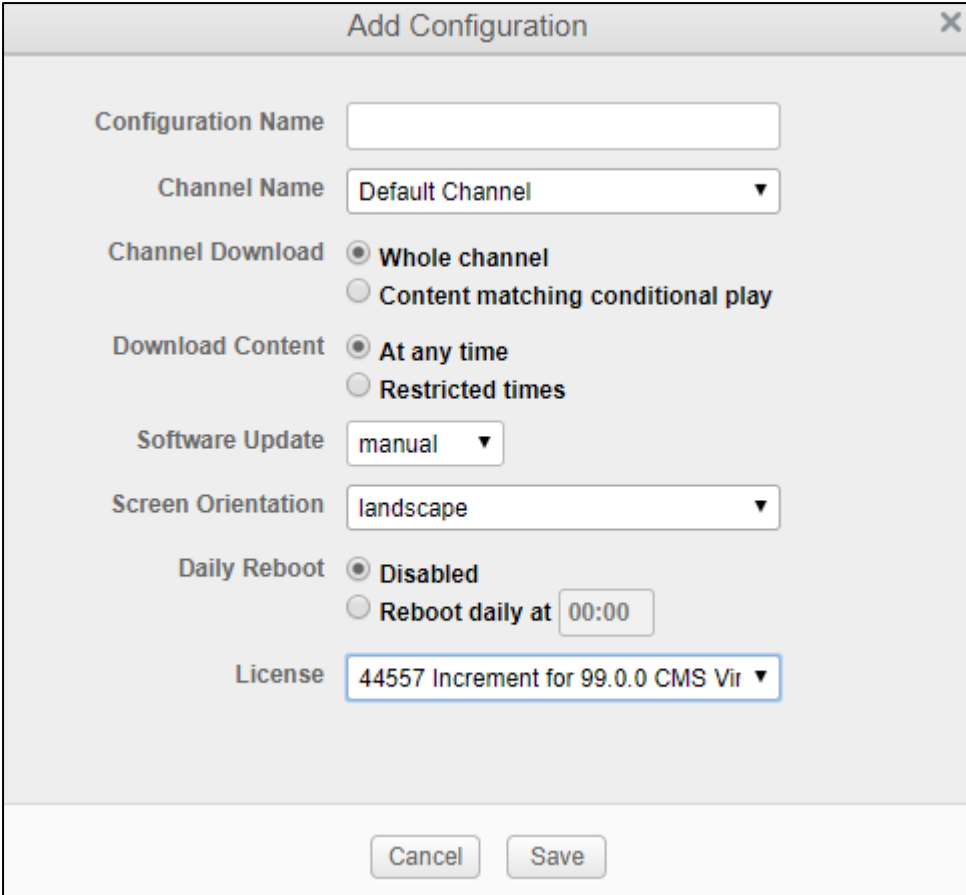
The screenshot shows the CMS interface with the 'Configurations' tab selected. On the left, there is a sidebar with icons for home, settings, search, and help. The main content area is divided into two sections. The top section, titled 'Default configuration', contains a table with the following data:

Install Code	DEFAULT0	<button>Refresh Code</button>
Configuration Name	Default configuration	
Channel Name	Default Channel	
Channel Download	Whole channel	
Download Content	At any time	
Software Update	Manual	
Screen Orientation	landscape	
License	License not specified	
Daily Reboot	Disabled	

Below the table, there is a list of configurations with 'Default configuration' selected and 'Test' listed below it. The 'Add Configuration' button is visible in the top left of the configuration list area.

3. Click the **Add Configuration**  button.
4. Type the name of the configuration and select the appropriate channel, screen orientation and license you want your configuration to be associated with from the drop-down menus. If you wish to restrict the channel download to specific times, click **Restricted Times** and enter the appropriate values.

This feature allows you to add and edit configurations. Therefore, you can install screens with pre-set orientations and channels.





The screenshot shows a dialog box titled "Add Configuration" with a close button (X) in the top right corner. The dialog contains the following fields and options:


- Configuration Name:** An empty text input field.
- Channel Name:** A dropdown menu currently showing "Default Channel".
- Channel Download:** Two radio button options: "Whole channel" (selected) and "Content matching conditional play".
- Download Content:** Two radio button options: "At any time" (selected) and "Restricted times".
- Software Update:** A dropdown menu currently showing "manual".
- Screen Orientation:** A dropdown menu currently showing "landscape".
- Daily Reboot:** Two radio button options: "Disabled" (selected) and "Reboot daily at" followed by a text input field containing "00:00".
- License:** A dropdown menu currently showing "44557 Increment for 99.0.0 CMS Vir".

At the bottom of the dialog, there are two buttons: "Cancel" and "Save".

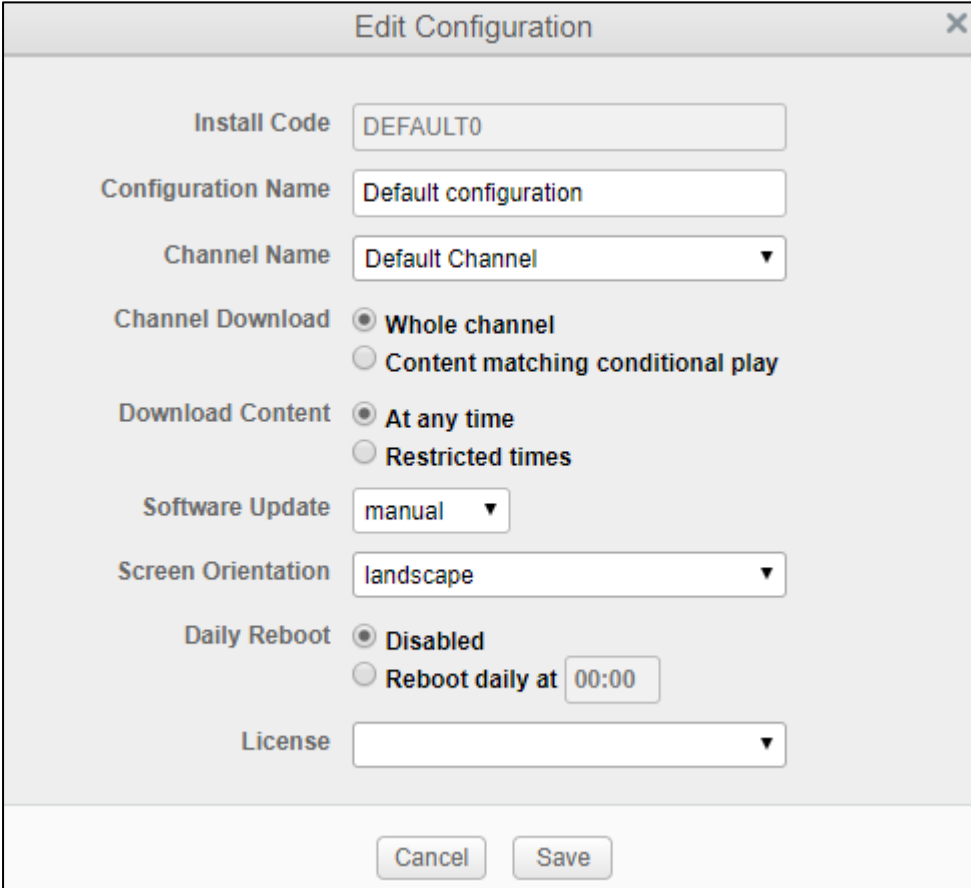
Editing or Deleting Configurations

1. Click the **Manage Players**  icon in the top right-hand corner of the CMS or navigate to **Home > Manage Players**.
2. Click the **Settings**  icon on the left-hand side.
3. Select a configuration in the list. It will highlight blue and two icons will appear to the right.

4. To edit:

4.1. Click the **Edit**  icon and a pop-up will appear showing you the installation code.

4.2. You can rename the configuration, select a different channel, set channel download options, change the screen orientation or associated license and other options.



Edit Configuration

Install Code: DEFAULT0

Configuration Name: Default configuration

Channel Name: Default Channel

Channel Download: Whole channel Content matching conditional play

Download Content: At any time Restricted times

Software Update: manual

Screen Orientation: landscape

Daily Reboot: Disabled Reboot daily at 00:00

License: [Empty dropdown]

Buttons: Cancel, Save

5. To delete:

5.1. Click the **Delete**  icon.

5.2. This will open a pop-up asking if you are sure. Select **Yes**.

How to Change the Time Zone

1. Click the **Settings** button on the LG remote.
2. The colored circle menu will appear on the right-hand side of the screen. Scroll down using the down arrow on the remote.
3. Select the **Advanced** menu by pressing **OK**.
4. Scroll down to the **General** button and press the right arrow to select **Menu**.
5. Scroll down to **Time and Date** and press **OK** on your remote.



Note: Make sure the device has connectivity to the internet to avoid drift.


6. Choose if you would like to set the time automatically based on your local time zone (when this is selected, a tick will display next to **Set Automatically**). You can change the time zone by scrolling down and selecting the desired time zone from the drop-down menu.
7. If you would prefer to set the time zone manually, press **OK** on **Set Automatically**. Scroll down with the remote to change the **Time**, **Date** and **Daylight Saving Time**.
8. Click **OK** after each selection and scroll to the next option.

Portrait Mode

Configuration Based


ONELAN recommends pre-rotating content before adding it to the CMS. If this is not possible, orientation can be set through display and configuration.

1. Click the **Manage Players**  icon in the top right-hand corner of the CMS or navigate to **Home > Manage Players**.
2. Click the **Settings**  icon on the left-hand side.
3. Select your configuration from the list.

4. Click on the **Edit**  button and change the orientation of the screen through the drop-down menu in the pop-up box.
5. Click **Save**.

Note: The display orientation takes precedence over the configuration orientation.

Display Based

1. Click the **Manage Players**  icon in the top right-hand corner of the CMS or navigate to **Home > Manage Players**.
2. Select your player from the list.
3. On the **Player Info** tab, click on the **Edit** button on the right-hand side.
4. The player information will become editable.

Player Name	<input type="text" value="LG 511NTJJ6L988"/>
Description	<input type="text"/>
Channel	<input type="text" value="Default Channel"/>
Channel Download	<input checked="" type="radio"/> Whole channel <input type="radio"/> Content matching conditional play
Download Content	<input checked="" type="radio"/> At any time <input type="radio"/> Restricted times
Screen Resolution	<input type="text" value="1920x1080"/>
Orientation	<input type="text" value="landscape top at top"/>
Daily Reboot	<input checked="" type="radio"/> Disabled <input type="radio"/> Reboot daily at <input type="text" value="00:00"/>

5. Select the desired orientation from the drop-down menu.
6. Click **Apply**.

Note: The display orientation takes precedence over the configuration orientation.

Hardware Based

1. Press the **Settings** button on the remote for approximately 8 seconds until the bubble appears.
2. Enter **0000** and press **OK** on the remote.
3. Select **Signage Setup** from the menu.
4. Set the **Content Rotation** to the desired value (either 90 or 270).
5. Scroll to turn the **OSD Portrait Mode** to **Off**.

Note: Steps must be completed in this order as the OSD mode changes are based on the content rotation.

Gapless Playback

Configuration

Gapless playback is constrained on LG WebOS players and content must meet the following specifications to play in gapless mode:

- The playlist must consist of all videos. Adding any other playlist item will cause it to not run gapless. Therefore, any images must be converted to videos.
- Each video must play until finished.

- All videos must have:
 - The same aspect ratio.
 - The same video encoding.
 - The same audio encoding.
 - MP4 format.


Note: Folders with videos are supported subject to these constraints.

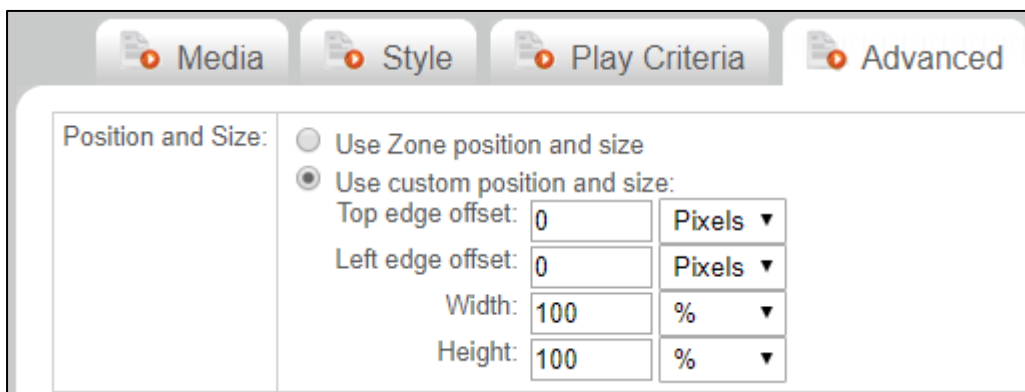
[Supported formats](#) provides details of supported codecs.

Full Screen Video

Full screen video is most easily accomplished by creating a layout with a single full screen video zone. However, you can also use custom position and size following the steps below. This is useful for when your layout is multi-zoned, and you want a single item playing full screen and for each other item playing only in that zone.

Custom Position and Size

1. In the relevant playlist, select the item you wish to go full screen.
2. Click on the item's **Edit**  button.
3. Click on the **Advanced** tab.



4. Select **Use custom position and size**.
5. Set the **Left** and **Top edge offsets** to **0 Pixels**.
6. Set the **Height** and **Width** to **100%**.
7. Click **Save Changes**.

How to Check your Software Version

1. On your remote, press **Home**.
2. A menu will appear along the bottom screen.
3. Press **OK** on the remote to select the **Information** option in the menu.
4. You will be able to see your software version and Micom version.

How to Perform a Factory Reset

1. Hold down the **Settings** button on your remote until the gray box appears.
2. Enter **0000** and press **OK**.
3. Select the **Signage Setup** menu.
4. Press the right arrow on the remote and scroll down to the bottom.
5. Select **Factory Reset** and press **OK**.
6. A pop-up will appear asking you to confirm the factory reset. Press the right arrow to highlight **Confirm** and then press **OK**.
7. This will reset the display to LG factory settings. These will now need reconfiguring.

Note: All settings will be lost, including the server configuration of your SoC player.

Supported Formats

This section lists all the streaming protocols and media file formats supported on LG WebOS Signage 2.0

Video

File Extension	Codec		Emulator Support
.asf, .wmv	Video	VC-1 Advanced Profile (WMVA excluded), VC-1 Simple and Main profiles	✓
	Audio	WMA Standard (WMA v1/WMA Speech excluded), WMA Professional	✓
.divx, .avi	Video	DivX3.11, DivX4, DivX5, DivX6, XVID (except 3 warp-point GMC), H.264/AVC, Motion Jpeg, MPEG-4	✓
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3), Dolby Digital, Dolby Digital Plus, LPCM, ADPCM, DTS	Partly. LPCM not supported
.mp4, .mv4, .mov	Video	H.264/AVC, MPEG-4	✓
	Audio	AAC, MPEG-4	✓
.3gp, .3g2	Video	H.264/AVC, MPEG-4	✓
	Audio	AAC, AMR-NB, AMR-WB	✓
.mkv	Video	MPEG-2, MPEG-4, H.264/AVC, VP8	✓
	Audio	Dolby Digital, PCM, DTS, MPEG-1 Layer I, II, MPEG-1, Layer III (MP3), Vorbis, AAC	✓
.ts, .trp, .tp, .mts	Video	H.264/AVC, MPEG-2	✓
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3), Dolby Digital, Dolby Digital Plus, AAC, PCM	✓

.mpg, .mpeg, .dat	Video	MPEG-1, MPEG-2	✓
	Audio	MPEG-1 Layer I, II, MPEG-1 Layer III (MP3)	✓
.vob	Video	MPEG-1, MPEG-2	✓
	Audio	Dolby Digital, MPEG-1 Layer I, LL, DVD-LPCM	Partly. LPCM not supported

Image

File Extension	File Format	Emulator Support
.jpeg, .jpg, .jpe	JPEG	✓
.png	PNG	✓
.bmp	BMP	✓

Flash

- Flash is not supported
- On WebOS Signage 2.0, FLV and F4V files are playable only by using the <video> element.

Flash Player	Version	Flash Player v11.1
	Action Script	Actionscript v2.0, Actionscript v3.0
Graphic	Resolution	1920 x 1020 (FHD)
	Runtime-load Image Type	PNG, JPEG
Sound	Format	AAC, MP3
	Sample Rate	16 KHz, 32 KHz, 44.1 KHz
Flash Video	HW Codec	H.264 (with AAC audio only)
	Recommended Video Resolution	Up to FHD (1080p)
	Recommended Audio Sample Rate	44.1 KHz
Streaming Protocol		HTTP(s) RTMP/RTMP-e

Known Limitations

- **NTB level gapless playback:** this is a known limitation with LG Web OS players. The gapless playback will not be to the same level as the NTB and requires the configuration detailed in this document to be met. If the player cannot play one of the videos, then the player will fall back to playing the videos non-gapless.
- **Movies/images:** use media of a similar size to the zone as otherwise scaling may cause loss of quality.
- **GIFs:** avoid using multiple animated GIFs as these can cause playback issues.
- **Portrait Video Content:** WebOS 2 has a delay of 2 seconds before it will correctly set the portrait video content. To avoid this delay, play pre-rotated content in landscape mode.
- **Volume:** if you set the volume of an item with sound (that is, a video, HTML item or soundtrack) to 0% or mute a schedule on the CMS managing the SoC screen, sound will still play on that SoC screen.
- **Video opacity:** is not supported.
- SoC players do not yet support the **Show part of Movie** option for the **Movie Size** property.
- **Letterbox** mode is the only supported rendering mode for videos within gapless playback.
- LG cannot play audio and video soundtracks at the same time. Users must set volume to 0 on other items as appropriate.
- **External storage:** Kingston Datatraveler USBs are not recommended for use with external storage as this may lead to connectivity issues.