

# TeleAdapt Roomcast TA-2400

## Installation and Configuration Guide

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# Contents

Products Covered By This Guide  
Important Safety Instructions  
Approval Information  
What Is Included In The Box  
Preparation For Installation  
Installation  
Setup Wizard and Cloning  
Admin Mode  
Common Configurations  
Bluetooth Audio and Guest HDMI Passthrough  
Pairing Roomcast Remotes  
Troubleshooting  
Warranty  
Legal  
Contact Detail

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Revision	Date	Changes
1.0	10th November 2016	Initial issue
1.1	31st May 21017	Updated Approval Information. Changed RoomCast to Roomcast.
1.2	13th July 2017	Additional Approval Information
1.3	28th December 2017	Dial pairing instructions updated
2.0	9th May 2018	Setup wizard, cloning, wireless client and IPTV added. Additional configuration, feature and troubleshooting information.
2.1	29th May 2018	Static passcodes added.
3.0	20th March 2019	Updates for release 6 including removal of static passwords.
3.1	15th May 2019	Change scheduled restart to daily restart

## Products Covered By This Guide

This guide covers the TeleAdapt Roomcast, TA-2400. Roomcast brings video and audio streaming to hotel guest rooms and is based on Google Chromecast technology.



TA-2400 - Roomcast

## Important Safety Instructions

Read these instructions carefully before attempting any installation. Follow all instructions and heed all warnings. These instructions should be kept for future reference.
This equipment must be installed in strict accordance with these instructions.
This equipment is designed for indoor use only.
Only use with attachments and accessories as specified by the manufacturer.
The mains plug used to disconnect this equipment from its power source must be readily accessible at all times.
Ensure the power cord is uncoiled before installation.
Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the equipment.
Clean only with a dry cloth.
Refer all servicing to qualified service personnel. Servicing is required when the equipment has been damaged in any way, for example if the power supply plug or cord is damaged, liquid has been spilled or objects have fallen into the equipment, the equipment has been exposed to rain or moisture, does not operate normally or has been dropped or damaged.
Unplug this equipment during lightning storms or when unused for long periods of time.
Do <b>NOT</b> install or use this equipment near water.
Do <b>NOT</b> expose this apparatus to rain or moisture.
Do <b>NOT</b> expose to dripping or splashing. No objects filled with liquid such as vases shall be placed on the equipment.
Do <b>NOT</b> install near any heat sources such as radiators, convection heaters or other apparatus such as amplifiers that produce heat.

# Approval Information

## EMC Directive 2014/30/EU

- EN 55022:2010+AC:2011
- EN 55024:2010
- EN 55032:2012+AC:2013
- EN 61000-3-2:2014; EN 61000-3-3:2013
- IEC 61000-4-2 ed2.0 (2008-12); IEC 61000-4-3 ed3.2 Consol. with am1&2 (2010-04) IEC 61000-4-4 ed3.0 (2012-04); IEC 61000-4-5 ed3.0 (2014-05); IEC 61000-4-6 ed4.0 (2013-10) IEC 61000-4-8 ed2.0 (2009-09); IEC 61000-4-11 ed2.0 (2004-03)

## RE Directive 2014/53/EU

- ETSI EN 301 489-1 V2.2.0 Draft (2017-03)
- ETSI EN 301 489-17 V3.2.0 Draft (2017-03)
- ETSI EN 300 328 (V2.1.1: 2016)

## FCC

- FCC CFR 47 SUBPARTS 15B, 15C

## Safety

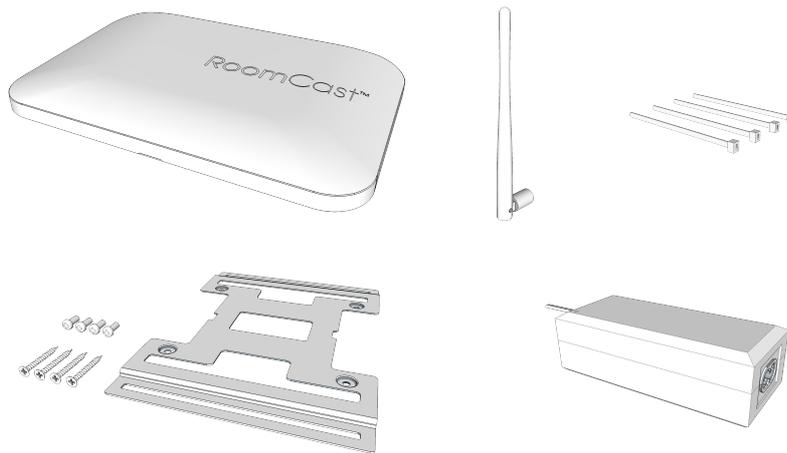
- UL 60950-1 and CSA C22.2 No. 60950-1-07
- EN 60950

## Energy Efficiency

- Level VI

## What Is Included In The Box

Quantity	Item
1	Roomcast main unit
1	Antenna
1	Wall/under-desk bracket
4	M4 x 5mm screws
4	25mm wood screws
1	PSU
4	Cable ties
1	Velcro adhesive strip
1	Installation guide



Depending upon the version of Roomcast ordered there may also be a push-button remote included in the box. A push-button remote is recommended for installation, these can be supplied separately if required.

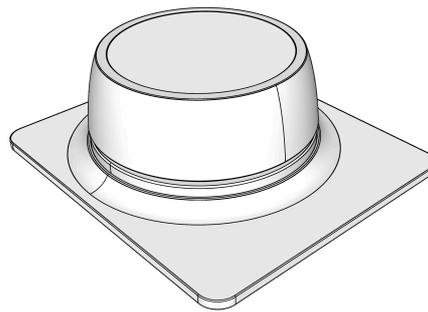


In addition you will also need :

- an IEC C7 mains cable for your country,
- an HDMI cable,
- an Ethernet cable.

For an improved guest experience there is also an optional Roomcast Dial which can be placed in the room :

- Roomcast Dial (TA-2402).

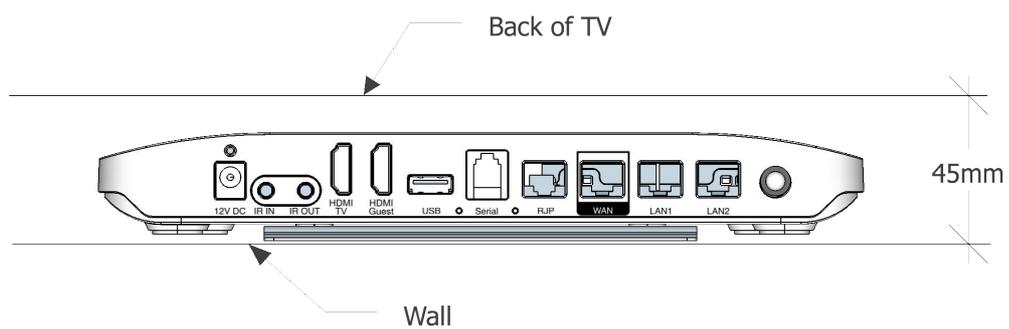
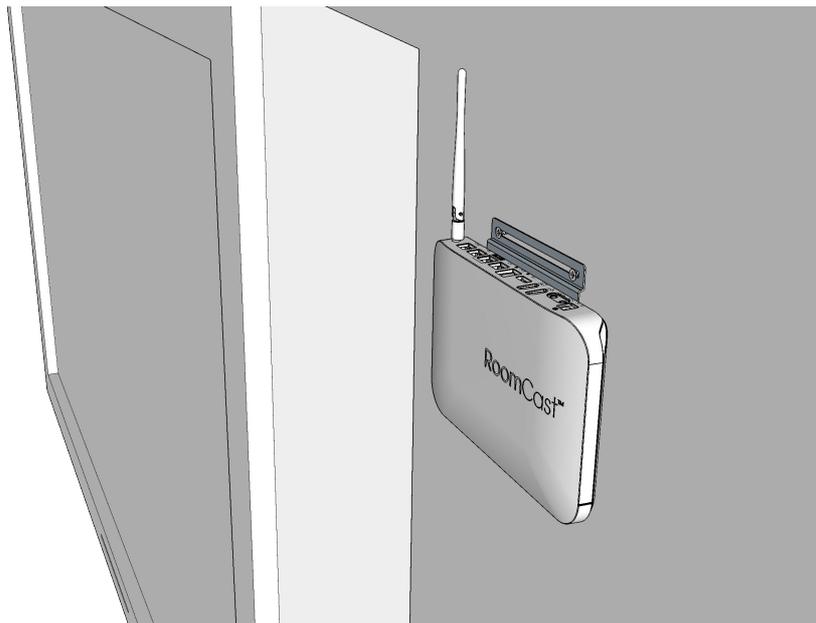


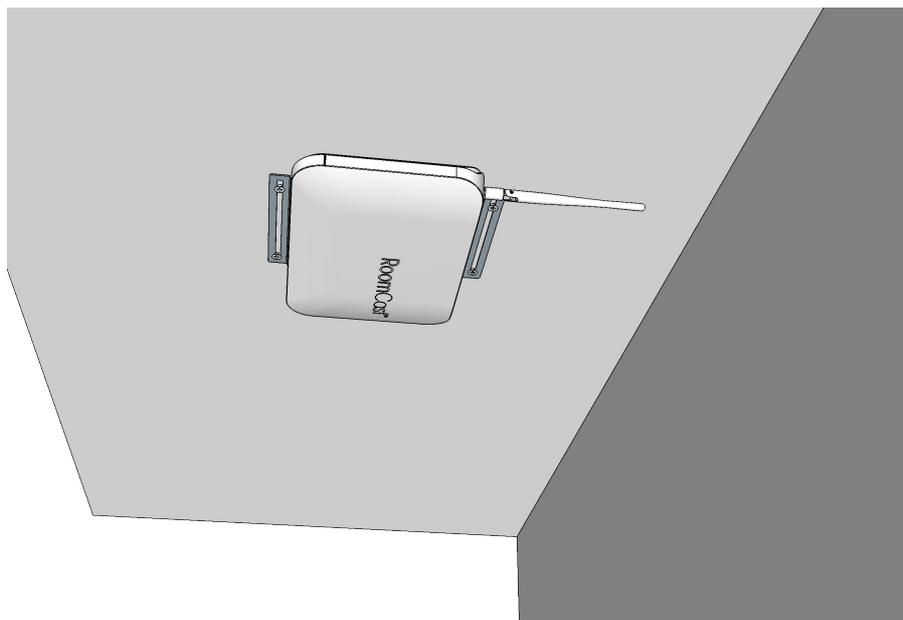
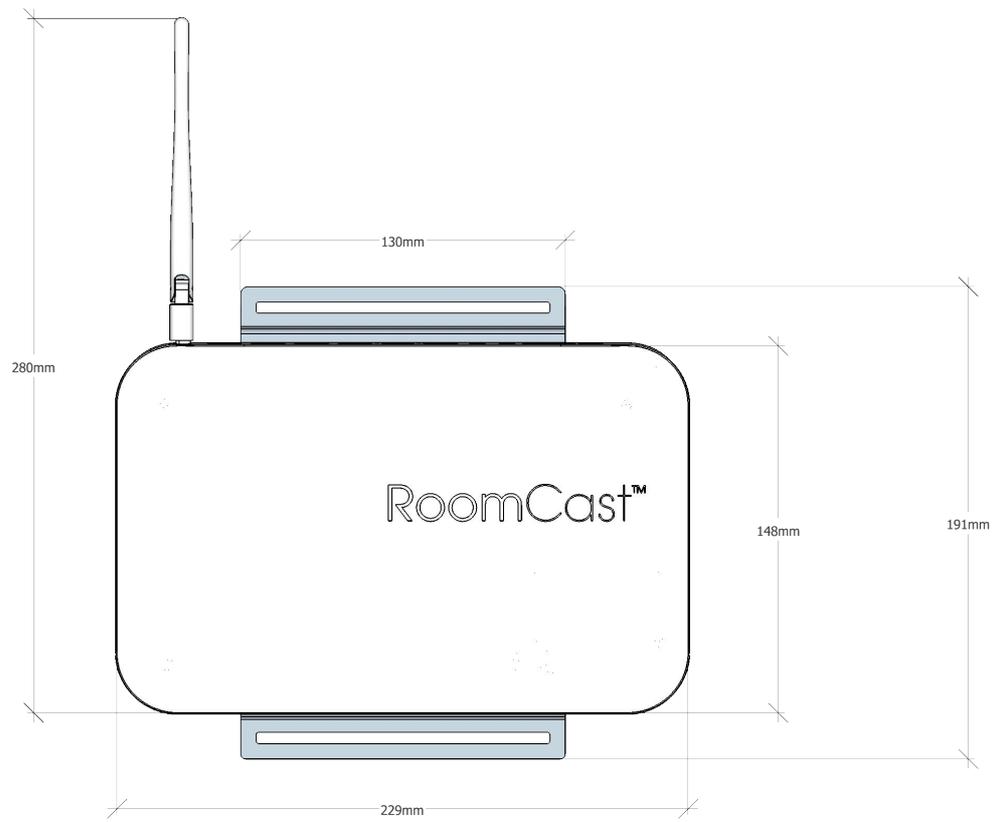
## Preparation For Installation

### Location

Roomcast can be installed in a range of locations. Typically it would be installed either behind the TV or under a desk.

If installing behind the TV ensure there is at least 45mm (1.75") clearance between the wall and the rear of the TV.





## Services

Roomcast requires :

- a mains outlet,
- an HDMI input on the TV,
- an Ethernet connection with Internet access<sup>1</sup>.

If you want to utilise the guest HDMI passthrough feature then you will also need :

- an additional HDMI cable connected to a guest accessible HDMI socket.

## Tools

You will need :

- a crosshead screwdriver to attach the bracket to the Roomcast and to attach the bracket to the wall or under the desk,
- cutters to trim the cable ties.

Additional tools may be required if you need to drill holes in the wall/desk or if you need to remove the TV from the wall.

## Remote

The supplied push-button remote should be pre-paired with the Roomcast. If for any reason this is not the case or if you have a dial remote then see separate pairing instructions in the Additional Information section of this guide.

## MAC addresses and installation log

Each Roomcast has 3 MAC addresses:

- MAC - Android
- USBMAC - Chromecast
- LYQMAC - Router

During installation we recommend that for each room the serial number and LYQMAC of each device is recorded along with the room number it is installed in and the date it was installed.

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<sup>1</sup> Other connectivity options may be available, please contact TeleAdapt for further information.

## Default settings

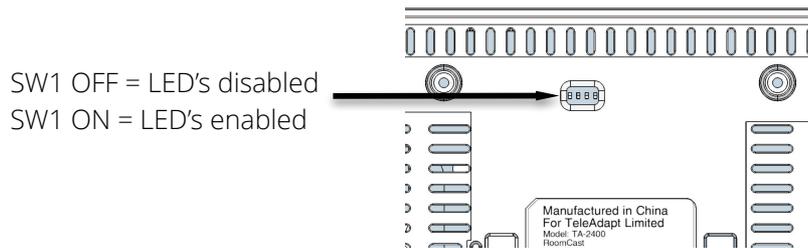
The default settings for Roomcast are as shown below. These should be reviewed and changes made as appropriate.

Setting	Default
Time Zone	New York
Operating Mode	In-Room PAN
WAN IP Assign	Dynamic
Auto Software Update	Enabled
<i>Auto Update Time</i>	<i>2:00</i>
Room No.	0000
Room No. Length	4
Room Prefix	Room
Idle Timeout	2 Mins
Checkout Time	12:00
CEC Addressing	Playback
Scheduled Restart	Disabled
Remote Usage	Disabled
Language Selection	Disabled
<i>Default Language</i>	<i>English</i>
Match BT to Room Number	Enabled
Match CC to Room Number	Enabled
WiFi QR Code	Disabled
CC Stream Termination	Disabled

# Installation

Before starting the installation make sure you have read and understood the “Important Safety instructions”.

## Step 1



Set the DIP switches. Only SW1 is read by Roomcast.

## Step 2

Attach the bracket to the main unit with the 4 M3 screws.

## Step 3

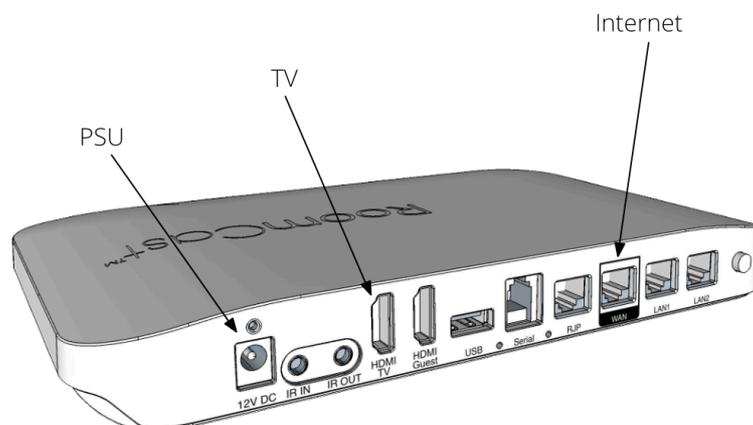
Carefully mount bracket and main unit on wall or under the desk using the wood screws provided. You only need 2 screws to hang the wall mount, however for under-desk use all 4 screws.

## Step 4

Locate the power supply using the Velcro adhesive strip.

## Step 5

Attach Internet (WAN), TV (HDMI TV) and PSU (12V DC) to the Roomcast.



**Step 6**

If guest HDMI passthrough is required attach the additional cable from the guest accessible HDMI outlet to the HDMI Guest port of Roomcast.

**Step 7**

Tidy up and secure cables with the supplied cable ties.

**Step 8**

Attach the antenna to the main unit and adjust.

**Step 9**

Apply mains power to the PSU.

## Setup Wizard and Cloning

The Roomcast Setup Wizard is designed to minimise the time taken to install Roomcast. The Setup Wizard runs only once, on initial startup.

You will be prompted for a system ID. If you have not been given a system ID then use the default which is "999998". If you have been given a system ID then you should also have a PIN code, you will need to enter both system ID and PIN to proceed.

The Setup Wizard steps through the key configuration parameters for Roomcast. In a typical installation many of these parameters will be constant across multiple units, these parameters can be pre-defined in a clone file called "RC\_Configuration.json" which is placed on a USB drive that the setup wizard reads. Setup Wizard only prompts for parameters not specified in the "RC\_Configuration.json" file.

Before the Setup Wizard applies any changes it will show a summary configuration and ask for confirmation. The settings are then applied and Roomcast will display the initial Guest UI.

### Clone file - RC\_Configuration.json

To simplify generation of the RC\_Configuration.json clone file, use a web browser and enter the URL <http://rc.teleadapt.com/custom/config>. Set the default values you require using the web form, any parameters you leave unspecified will be omitted from the generated file and the Setup Wizard will prompt you for missing settings when it runs. Use of RC\_Configuration.json is not mandatory, however it is recommended to use it to set parameters that are constant across a large number of rooms.

If for any reason you need to manually edit the RC\_Configuration.json file then you must use a plain text editor like UltraEdit, BBEdit or Atom. Using a rich text editor or word processing software will corrupt the file.

The name/value pairs used in RC\_Configuration.json are also case sensitive and only certain well defined values are allowed. For this reason the web tool is recommended.

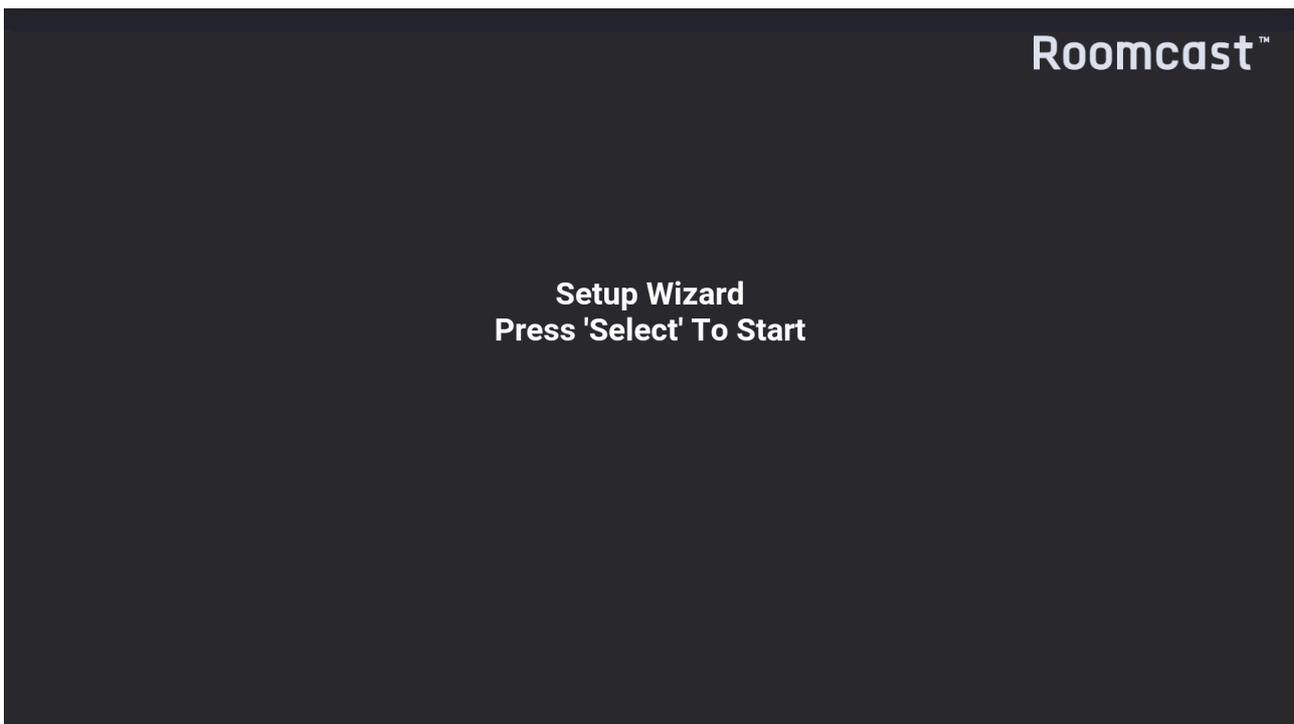
An example RC\_Configuration.json file is shown below:

```
{
  "time_zone": "Amsterdam",
  "scheduledRestart": "Disabled",
  "remoteUsage": "Enabled",
  "languageSelection": "Enabled",
  "defaultLanguage": "English",
  "WiFiQRCode": "Disabled",
  "BTMatchSSID": "Enabled",
  "CCMatchSSID": "Enabled",
  "CCStreamTermination": "Disabled",
  "topology": "in_room_pan",
  "wan_ip_assign": "dynamic",
  "auto_update": "enabled",
  "room_prefix": "Room",
  "idle_timeout": "3mins",
  "checkout_time": "12:00",
  "method": "HDMI-CEC",
  "auto_update_time": "02:00"
}
```

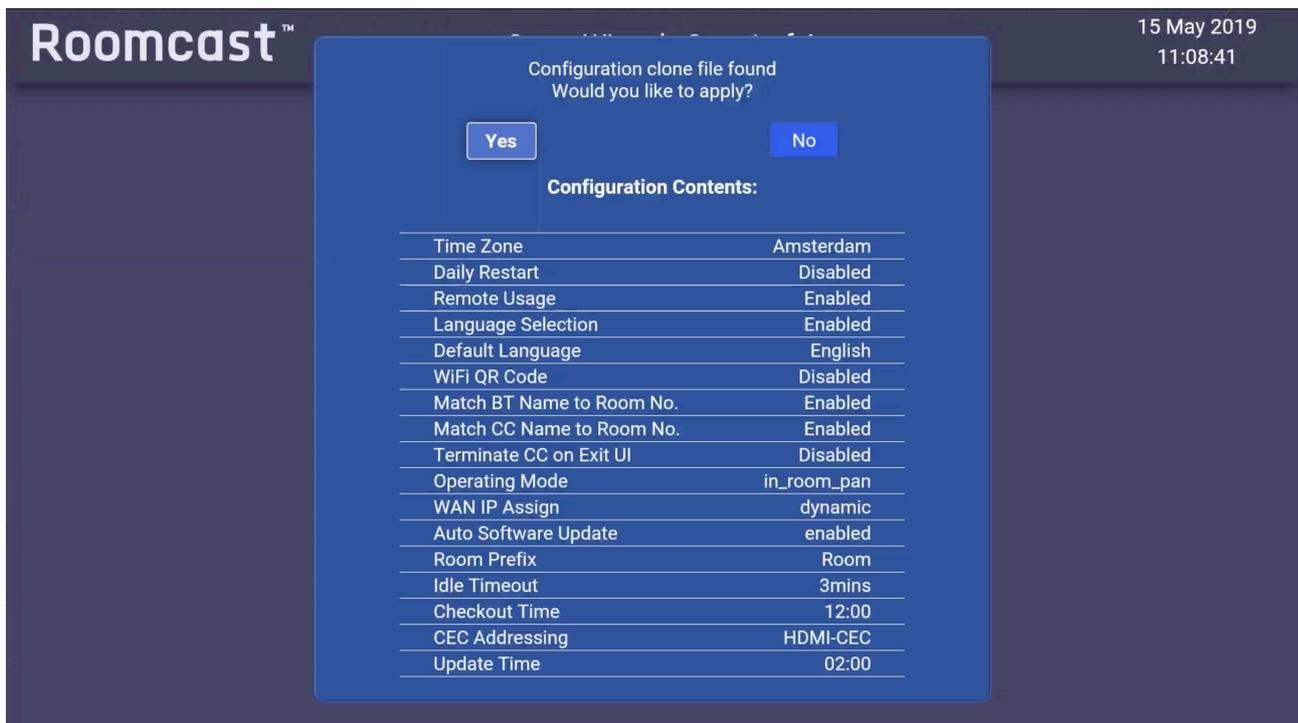
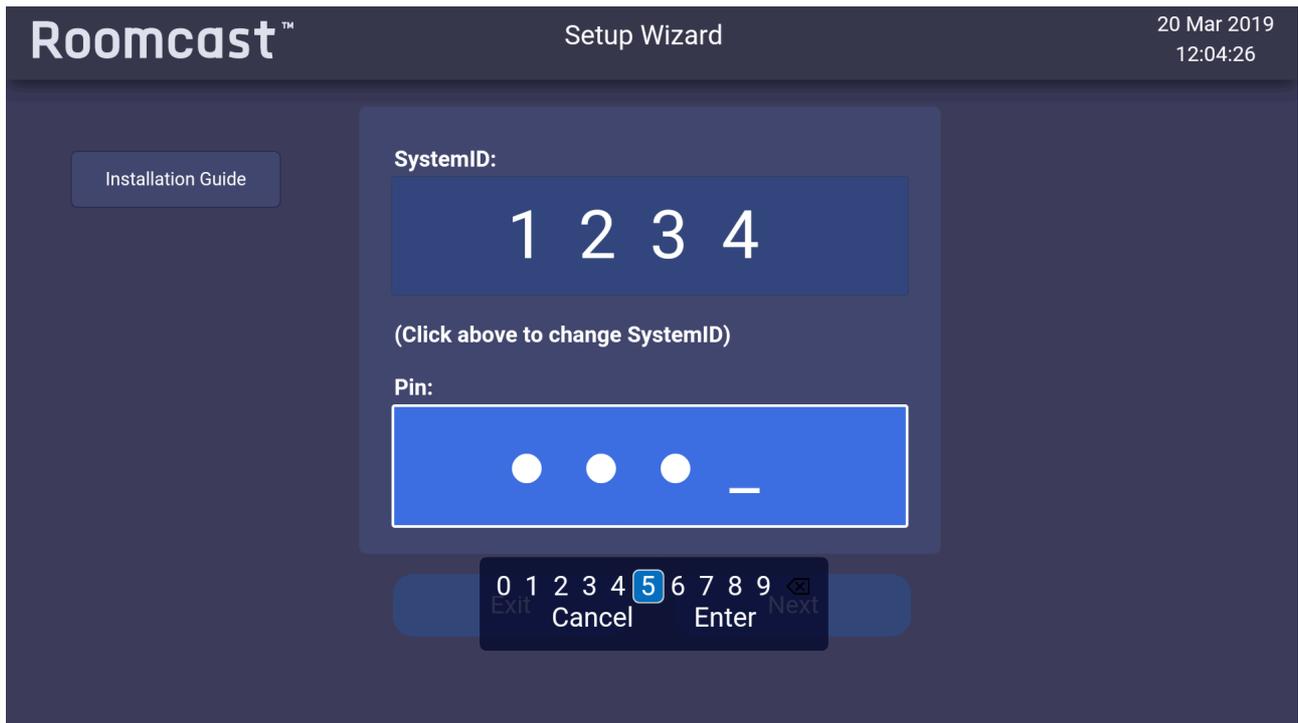
Contact TeleAdapt for further information.

## Running the setup wizard

1. If you plan to use an RC\_Configuration.json clone file then you will need a USB drive with a folder named "Roomcast" in the root directory. It is recommended to use a separate USB drive to the one used to install the UI update file to avoid being prompted to apply the UI update twice.
  - a. Copy the previously generated RC\_Configuration.json file to the 'Roomcast' folder on the USB drive, there should be no other files in this folder.
  - b. Ensure Roomcast is powered off and insert the USB drive in the USB socket on the rear of RoomCast.
2. Power on Roomcast and after a while you see the setup wizard start screen, press "Select" on the Roomcast remote to start the setup wizard.

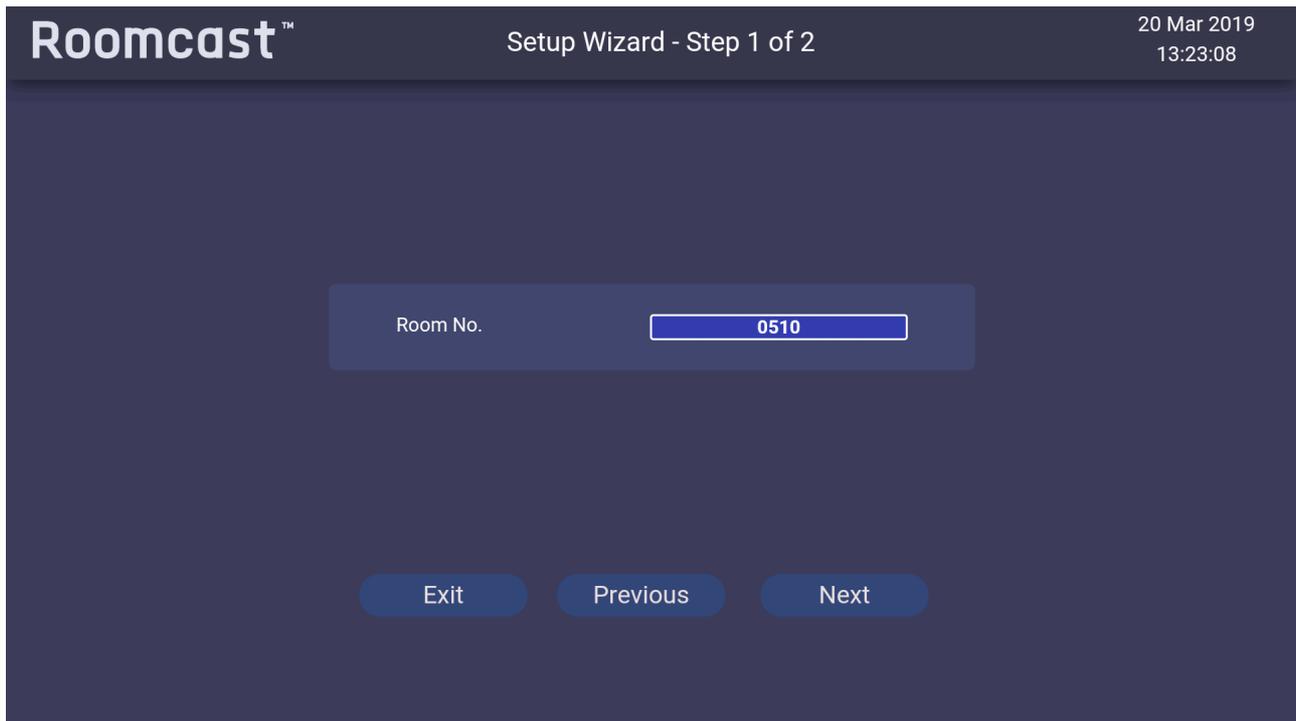


3. Once you press 'Select' on the Roomcast remote you will be asked for a system ID. If you are not assigned a unique system ID then the default of 999998 should be used.
4. If you have been assigned a unique system ID then you should also have been given a PIN code. Enter the unique system ID and PIN code.



5. If a valid configuration file is found on a USB drive, then the default settings will be displayed. Select "Yes" to continue if these settings are correct.

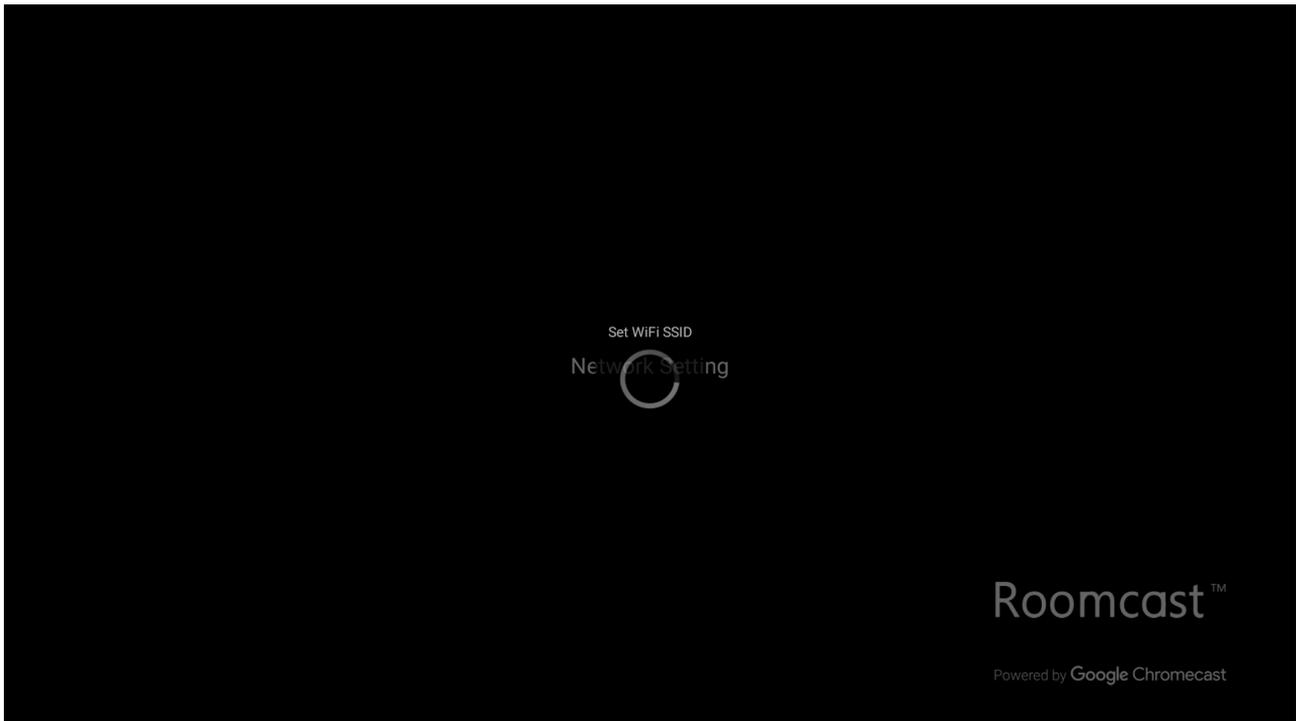
6. The Setup Wizard will now request you set any parameters it does not already have values for.



7. On completion you will again be shown a summary configuration.



8. If the configuration is correct select "Apply Changes", you will be asked to confirm application of the configuration. Select "Yes" to proceed.
9. The settings will be applied. If you have made any network settings changes you will see a screen saying "Network Setting" - this process can take a minute or so.



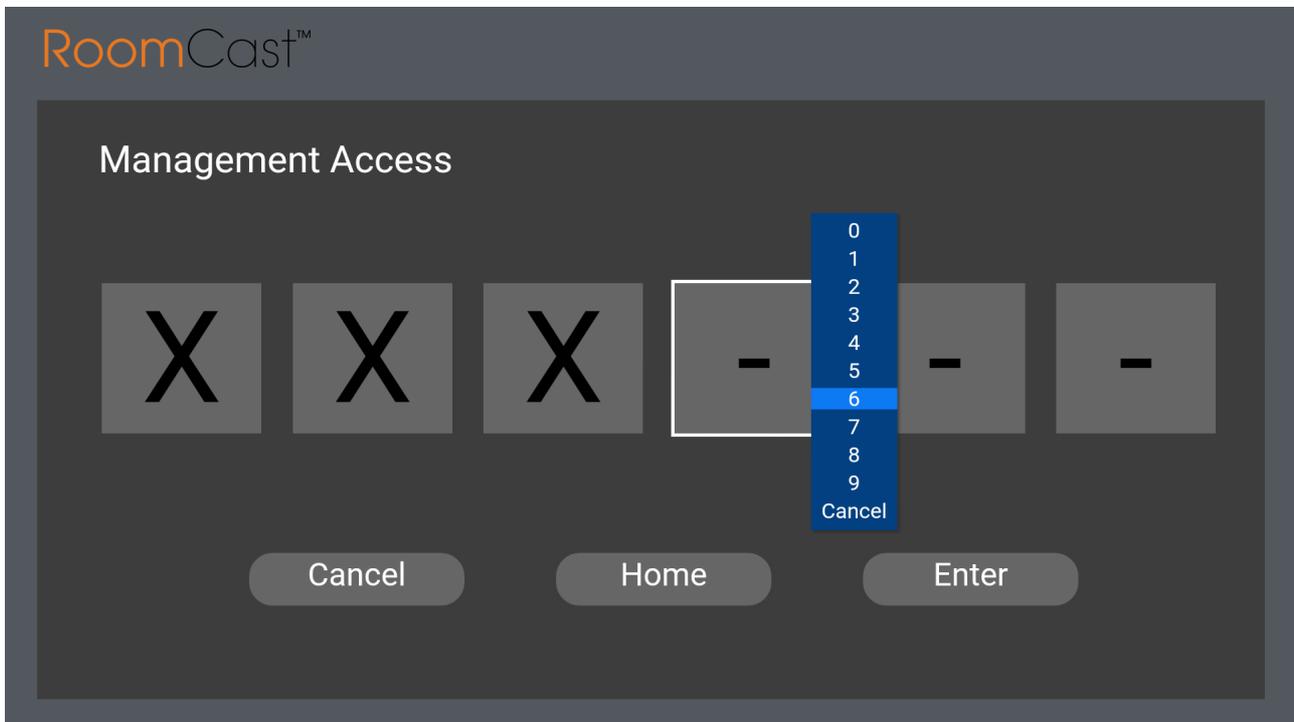
10. Remove the USB drive if used.

### Forcing the setup wizard to run

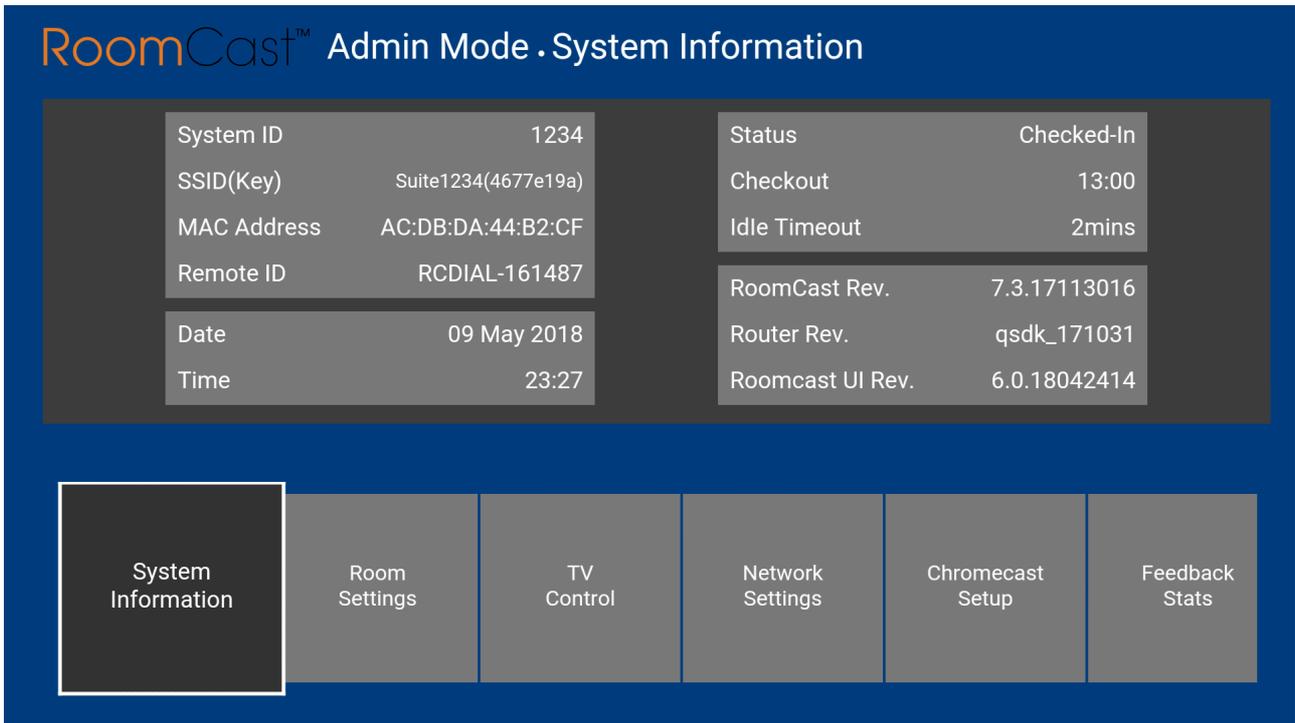
If for any reason you need to re-run the Setup Wizard it will be necessary to reset the Setup Wizard has-run flag. To do this go to the feedback screens and select "Whatever". Now press the down arrow key on the Roomcast remote 10 times. You will see a message that the Setup Wizard is reset. Re-power the Roomcast and the Setup Wizard will be run.

## Admin Mode

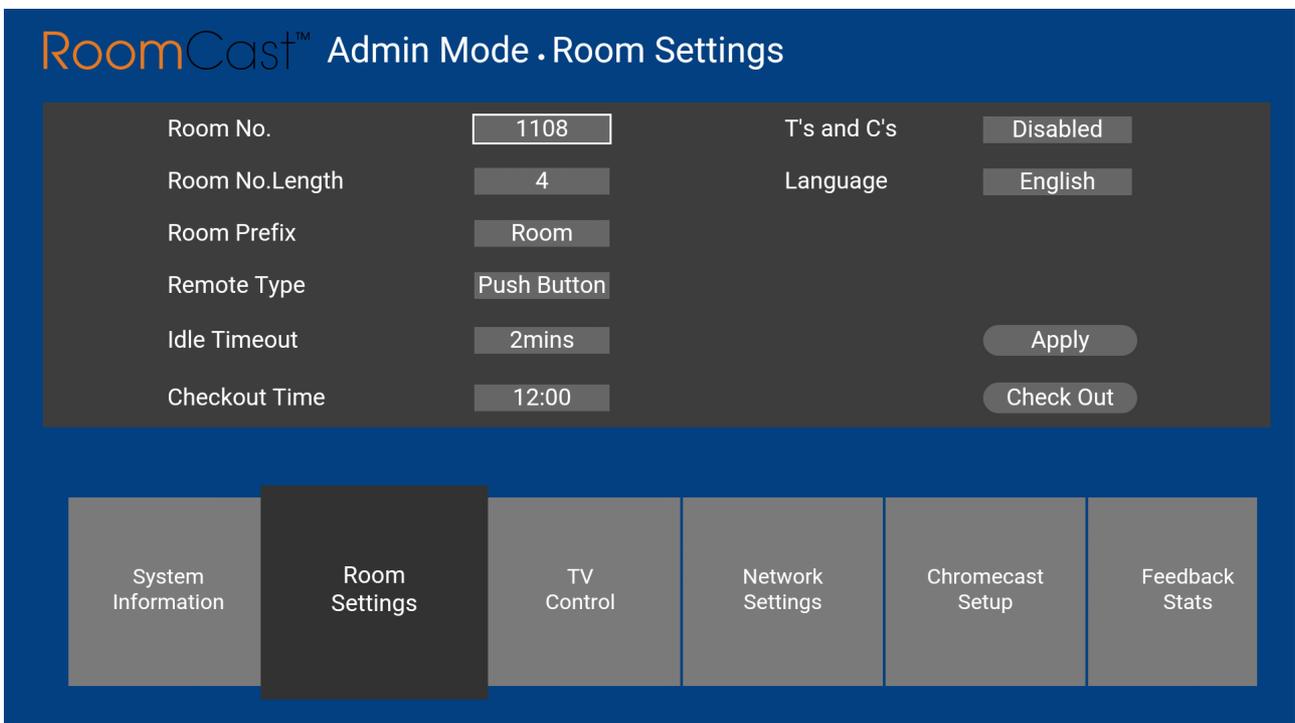
If you are unable to use the Setup Wizard or for other configuration tasks then use Admin mode. To access Admin mode go About/Feedback and select feedback level "Struggled" twice within 20 seconds. You will be presented with a screen requesting a PIN code. The default PIN code for Admin access is 843646.



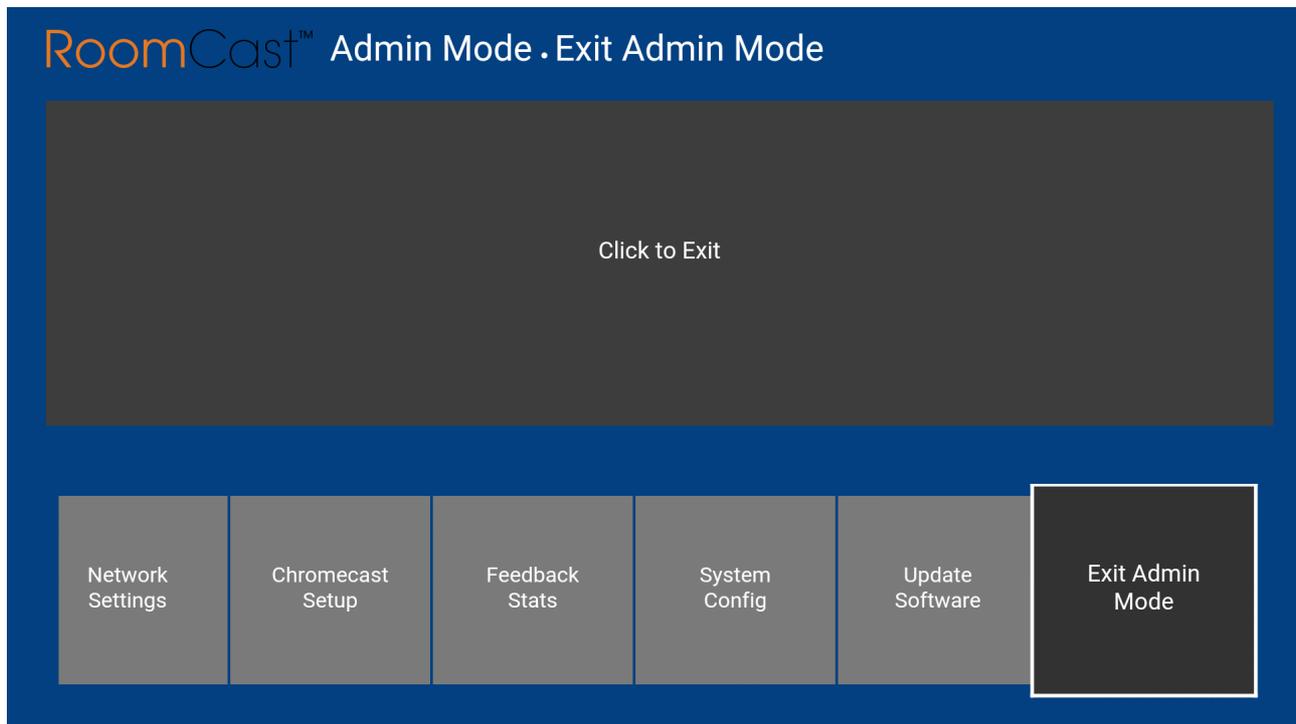
When the PIN is entered correctly you should see a screen similar to that shown below.



Under Room Settings configure the room number plus any other settings you need to change and then click 'Apply'.



Scroll to "Exit Admin Mode" and click to exit.



Roomcast is now ready to use.

## Common Configurations

Roomcast is a very flexible solution, and there are many options for integration with your hotel network. The following configurations are the most common and should require little or no change to the existing network infrastructure. Do not hesitate to contact TeleAdapt for more information on these configurations or if you require a configuration that is not shown here.

### Wired Connection - In-room PAN

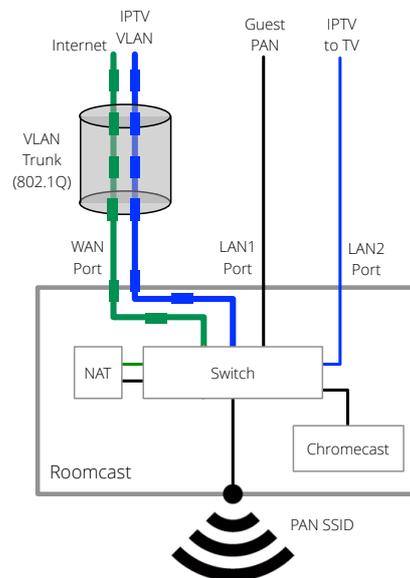
A wired connection is the preferred connection method for Roomcast as it ensures all guest video streaming utilises the wired connection. By keeping high bandwidth video streaming away from the wireless infrastructure your guests will enjoy the best possible streaming and Internet experience.

This is the default configuration for Roomcast and is referred to as *In-room PAN<sup>2</sup>* in the *Network Settings* section of the *Admin Mode* screens.

Connect a wired Internet to the rear Ethernet port labelled WAN. The Internet connection must have clear access to [google.com](http://google.com). It may be necessary to whitelist the MAC address of Roomcast, in this case please use the MAC address labels as LYQMAC on the base of the Roomcast.

### Wired Connection with IPTV Passthrough - In-room PAN plus IPTV

In some cases a dedicated wired connection may not be available. However if IPTV is deployed then Roomcast supports a mode which allows the wired IPTV connection to be shared with Roomcast. This can be configured by selecting *In-room PAN plus IPTV* in the *Network Settings* section of the *Admin Mode* screens.



In this configuration the wired Internet and the IPTV stream are presented to Roomcast rear WAN port on an 802.1q VLAN trunk. Roomcast separates these two streams then routes the wired Internet to the

<sup>2</sup> PAN stands for Personal Area Network. When a guest activates Roomcast a wireless Personal Area Network is created. This ensures the guest has secure and personal access only to the Roomcast in their room.

Roomcast generated PAN and routes the IPTV stream to the LAN2 port on the rear of Roomcast. LAN2 is in turn connected to the TV IPTV port.

Configure the assigned VLAN IDs in the *Network Settings* section of the *Admin Mode* screens.

### **Wireless Connection - Wireless Client**

If a wired internet connection is not available<sup>3</sup>, then it is possible to connect Roomcast wirelessly. To configure select *Wireless Client* in the *Network Settings* section of the *Admin Mode* screens.

To use this mode a dedicated SSID secured with WPA or WPA2 is recommended, this SSID can be hidden if required. When *Wireless Client* is selected additional settings for *SSID*, *Passkey* and *Security* will be presented in the *Network Settings* section of the *Admin Mode* screens.

Roomcast will connect wirelessly to the published SSID and simultaneously create a wireless PAN when Roomcast is activated by the guest.

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<sup>3</sup> Due to the bandwidth used by video streaming, especially in a dense environment like a hotel, a wired connection, if available, should always be used in preference to a wireless connection.

# Bluetooth Audio Streaming and Guest HDMI Passthrough

In addition to the video streaming functions, Roomcast also supports audio streaming using Bluetooth and guest HDMI passthrough.

## Bluetooth Audio Streaming

When the guest activates Bluetooth audio streaming by selecting the *Music* button, then Roomcast makes itself temporarily visible as a Bluetooth audio receiver. The guest simply pairs their mobile device with Roomcast and is then able to play their own audio via Bluetooth through the TV speakers.

## Guest HDMI Passthrough

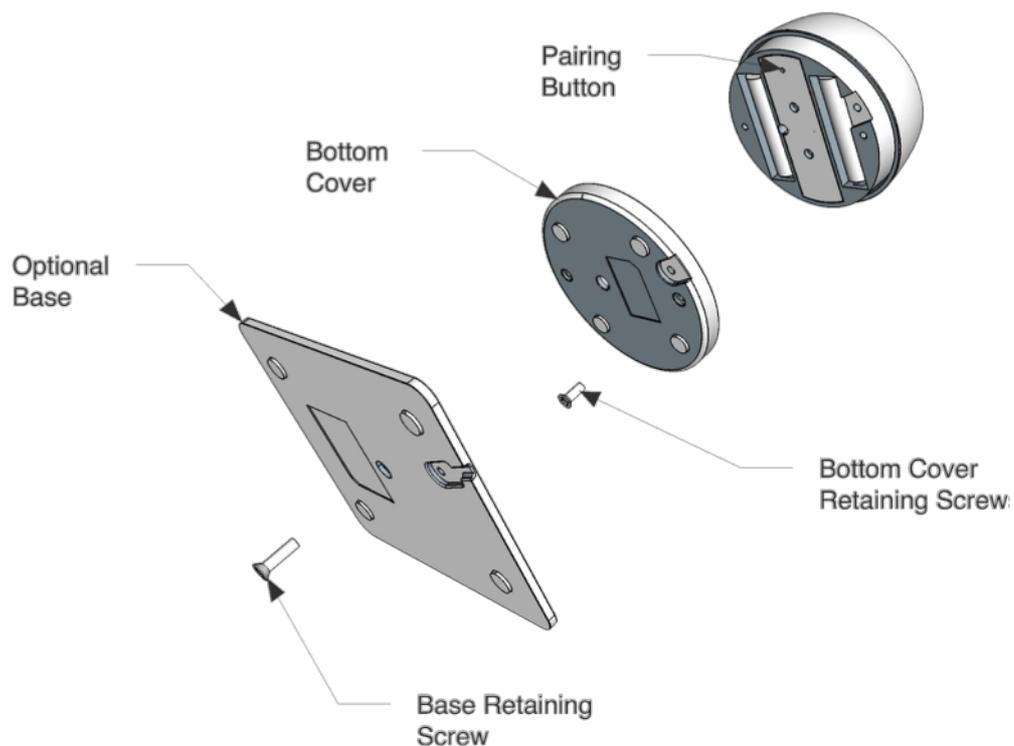
Guest HDMI passthrough allows a guest device (smart phone, tablet, laptop or any other HDMI source device) to use the TV as a display. To use this feature Roomcast must be connected to a guest accessible HDMI socket as described in the Installation section of this guide. When a guest connects an HDMI source device to the guest accessible HDMI socket, Roomcast will automatically switch the TV to the required input and display the content on TV. When the HDMI device is disconnected, Roomcast will switch back to normal TV programming.

To ensure the best guest experience guest HDMI passthrough is compatible with 4K TVs.

## Pairing Roomcast Remotes

### Pairing - Dial

1. Make sure the Roomcast is powered on.
2. If the dial is attached to a base, then remove the base retaining screw to detach the base.
3. The pairing button can be reached with a paperclip inserted in the small pinhole in the base of the Dial.
4. Hold the Dial within 30cm of the Roomcast main unit and depress the pairing button, the LED ring will flash then stay on when paired.
5. Release the pairing button. The Dial will now be paired with the Roomcast main unit.
6. Re-attach the base if required.



### Pairing - Push Button Remote

1. Make sure the Roomcast is powered on.
2. Hold the remote within 30cm of the Roomcast main unit and depress Select and  buttons simultaneously for 5 seconds, the LED should blink rapidly.
3. Release both buttons and the LED should stay on briefly.
4. Check the remote is working correctly.

## Troubleshooting

- Issue:** Chromecast is showing a blue screen that says *Set me up* or *Reconnect me*.
- Check:** Follow the on-screen instructions and connect to the Roomcast wireless network with a smart phone, tablet or laptop. Check if you can access [google.com](http://google.com).
- Next Steps:** If you can access [google.com](http://google.com) then wait a few minutes and check Chromecast again, it should show a background image.  
If you cannot access [google.com](http://google.com) then check with your IT contact that the Ethernet outlet Roomcast is connected to is fully functional and has no restrictions, that all cables you are using are working and that the Roomcast MAC address (LYQMAC for wired connections) is whitelisted if required.
- 
- Issue:** Using the Roomcast remote (push-button or dial) does not cause the navigation focus to move.
- Check:** Press the SELECT key (or depress the dial) once and then try the navigation again.
- Next Steps:** If the navigation is now working then contact TeleAdapt about integration with your particular TV make/model.  
If the navigation is still not working then follow the Roomcast remote pairing instructions given in this guide.
- 
- Issue:** When TV is selected in the Roomcast UI, the TV either continues to show the Roomcast UI or does not display the regular TV channels.
- Check:** Ensure CEC is enabled on the TV. Different TV brands may refer to this by different names, for example Samsung call it AnyNet+, LG call it SimpLink and Philips call it EasyLink.
- Next Steps:** If CEC is enabled then contact TeleAdapt about integration with your particular TV make/model.

## Warranty

Please see TeleAdapt "Sales Terms & Conditions" which are available at <http://www.teleadapt.com/teleadapt/sales-terms-conditions.html>

## Legal

Google Chromecast, Google Chrome and Android are trademarks of Google Inc. Roomcast is a trademark of TeleAdapt Ltd. All other trademarks are acknowledged as the property of their respective owners.

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